

UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

23 September 1980

Vol. 6, No. 18

Send all comments, criticisms and contributions to the editor: T. W. Lanzatella
University Computer Center, 2520 Broadway Drive, Lauderdale, MN 55113.
The University of Minnesota is an equal opportunity educator and employer.

TABLE OF CONTENTS

NOTICE OF CHANGES TO THE SYSTEM	164
PROPOSED CHANGES TO THE SYSTEM	165
CCL VER FUNCTION - A. B. Hastings	165
SYSTEM MAINTENANCE	166
LAST WEEKS SYSTEMS GROUP MEETING - T. W. Lanzatella	166
CALLPRG AND LIBRARY TAPE NEWS - M. Riviere	166
CYBER DEADSTART DUMP ANALYSIS - J. J. Drummond	167
CYBER 720 DEADSTART DUMP ANALYSIS - B. E. Blasing	168

NOTICE OF CHANGES TO THE SYSTEM

Tom Lanzatella changed the format of the AESY and ABSY account file messages so that MID appears as the last data element of the message rather than the first. The change was made because some CDC programs which process the account file (like NORM) fail to recognize the message. We prefer to avoid changing NORM.

Kevin Matthews changed QFM so that EFNT entries are cleared with the CSTM monitor function. Kevin also changed DUMPPF for the TF=PFU option so that system sectors on the dump tape are skipped.

Bill Sackett contributed a significant enhancement to the way ECS is treated by the system for the purpose of PP-program loading. The following complete description was graciously provided by Bill.

The peripheral library directory (PLD) contains a sorted list of PPU programs in the system. Preceding this table in central memory is a list of programs which reside on alternate system devices, the alternate system residency table (ASR). If ECS/PPU LOADS are enabled, for each ECS-resident program in the PLD there is a corresponding entry in the ASR which points to the system disk entry for that program. This provides a backup should problems arise in loading the program from ECS. Disabling ECS/PPU LOADS interchanges these entries, placing the ECS entry in the ASR and the disk entry in the PLD so that when a program is referenced ECS is not accessed. Enabling ECS/PPU LOADS takes the ECS entries in the ASR and swaps them with their corresponding PLD entries. SYSEDT was modified to check the ECS/PPU LOAD flag in low core (set by ECSDECK entries) and to build the ASR and PLD correctly depending on whether ECS/PPU LOADS are enabled or disabled. DSD was modified to call 1DU

to interchange the entries for enable/disable ECS/ALL and ECS/PPU LOADS console commands. The intent of these changes is to allow ECS to be disabled more safely and rapidly than the previous procedures which required ECS to be turned off and a SYSEDIT to be run to rebuild the directories.

Jeff Drummond corrected a problem in PFP which showed up after the 16 word PFC conversion. The problem was that PFP got system sector content errors while trying to copy some indirect-access permanent files. This occurred because PFP always attempts to verify the file name in the catalog entry against the file name in the system sector. Since the system does not ensure that these two names are the same (for example, when you rename an indirect access file with CHANGE), the verify option was disabled. Jeff also corrected a problem with the N=0 option which means copy to double EOF but BLOCK/UNBLOCK was always copying only two file. Additionally, programs REBLOCK and BLOCKER are migrating to FETCH status with this system.

Paul Thompson changed decimal argument processing in SETTLE, SETASL and SETJSL so that any argument with a value greater than 77770B causes the users validated limit to be used. Previously an attempt to use an argument larger than 77770B caused a fatal error.

Andy Hastings corrected paper-saving changes to CATALOG to properly interact with the D-option and to precede all catalog reports with a Q carriage-control-character. Andy also repaired the DSDI report for when 8 lines per inch is selected. Andy also changed TAPES to prevent ILLEGAL USER CARD messages on TAPES(AUDIT) of non-existent accounts and to include the user index as part of the TAPES(AUDIT,UI=) report. And finally, Andy delivered a new version of program COPYFA.

PROPOSED CHANGES TO THE SYSTEM

CCL VER Function - by A. B. Hastings

Currently, the value returned by the CCL VER (version) function is 466, This is a value hard-wired into CCL, but it is not terribly useful. A more useful value for VER should be one that reflects the latest modifications made to the operating system. To this end, I propose that the VER function in CCL be changed to return the two-character SID (system id) set up in the CMRDECK (primarily for use by ISF). The value of the SID is stored in CMR in the SIDL word. With this change, tests such as:

```
IFE(VER.GE.$BL$,OOPS)
  NOTE.;DAYFILE SCROLLING NOW IN EFFECT.
  COPYBR(DAYFILE)
ELSE(OOPS)
  SKIPEI(DAYFILE)
  BKSP(DAYFILE)
  COPYBR(DAYFILE)
ENDIF(OOPS)
```

can be used. This change should not affect many users since few, if any, users now use the VER function.

SYSTEMS MAINTENANCE: People and Procedures

Last Weeks Systems Group Meeting - by T. W. Lanzatella

The following proposals were discussed.

- 1) Brad Blasing's proposal to make the XEDIT *-parameter have a truly infinite value was approved (see DSN 6,17 p. 160).
- 2) Brad's proposal to change the way the system responds to environment problems as indicated in the SCR register was approved (see DSN 6,17 p. 160).
- 3) Kevin Matthew's proposal to change the indirect-access permanent file size limit was approved (see DSN 6,17 p. 160). An undecided issue was what limit RETAIN should use as the point where a file becomes direct-access.

Larry Liddiard recapped a presentation given by Network Systems Corporation at which an, as yet, unannounced product was described. The product would provide a convenient, if not extravagant, means of solving our local networking needs. Larry also discussed the Gandalf Private Automatic Computer Exchange. This device is useful primarily for hardwired networks and is akin to a programmable T-Bar switch. The device is inexpensive and would provide an easy way for hardwired terminals on campus to switch between a word-processing machine and Cyber service.

Larry announced two conferences and a tour to be conducted in the near future.

- a) 25 September at the Hilton, by invitation only, a conference on a recently published book on communication.
- b) 6, 7 October, the Annual Local Networking Conference. Contact Larry for registration information.
- c) 25 September 10:30-12:00, at CDC-Roseville, a tour of the graphics facility and demo of AD2000 (among others). Contact TWL, if you want to attend.

//////////

Callprg and Library Tape News - by M. Riviere

The following is a description of the modifications that will be taking place among Callprg and Library Tape products on September 28. Most of these modifications are part of the customary changes that take place at the end of each quarter.

Steve Reisman will be installing the CDC level 518 version of his products as current System packages. Part of these products are included in the Library Tape and part are installed as Callprg index packages. The products to be modified are: SYMPL, SIMPLIB, AAMLIB, BAMLIB, BIT8LIB, COBOL, CB4LIB, COBOL5, CB5LIB, COBOLTS, COPYCL, SORMRG, SRTLIB, COBERTX, FORM, FILE, IOTEXT, TXTCRM, QU, CDCS, DMS, DMSLIB, COPY8P, ESTMATE, FLBLOK, FLSTAT, IXGEN, MIPDIS, MIPGEN and SISTAT. The past versions of these products will continue being level 460.

In conjunction with Steve's changes, I will be installing a new system version of SYSLIB, with its product set related routines, excepting the loader, updated up to level 518. The 485 version of SYSLIB will be available as a Past Callprg library. Also in conjunction with Steve's update, I will be installing the 518 version of the product set installation texts as the Fetch type package TEXT518.

In addition, I will replace Future FTN and its library by the level 518 version of the compiler and I will also install the 518 version of FTN5 as a future package. Both compilers will be linking with the 518 version of COMPASS.

Jim Mundstock will be replacing M77 on the Library Tape with its future version. Jim already replaced MNF and TSF.

Andy Mickel and Rick Marcus will be toggling versions of the PASCAL compiler and its library. The Future version of PASCAL will become current, the current Past and a new Future version will be released. In addition, Andy and Rick will be installing the Fetch type, PASCAL utilities PUBLISH and WRITE, on the Cyber 720 Callprg index. WRITE is already used on the Cyber 74/172.

Yvonne Murray will be offering a new version of ARCHIVE as a Future Callprg package.

Jeff Woolsey will be deleting his entry for FMVERT and moving MPOS from tape to disk.

Bill Sackett will be converting a Future BASIC to current and offering the current BASIC as Past. The new BASIC is the level 518 version of the compiler.

The next set of Callprg index and Library Tape modifications will be taking place on October 14. Modifications for that date should be submitted before October 2 by noon.

//////////

Cyber 74/172 Deadstart Dump Analysis from Monday, 8 September through Thursday, 18 September - by J. J. Drummond

Tuesday, 9 September

Cyber 74

11:39 DD2004
CIO hung attempting to drop some tracks that were not reserved. The operators did a level three recovery.

12:29 DD2005
LHS hung attempting to drop some tracks that were not reserved. The operators did a level three recovery.

12:70 DD2006
1SU hung attempting to drop some tracks that were not reserved. The operators did a level zero recovery. All three crashes were traced to a problem in QFM where FNT entries were being cleared and the corresponding EFNT entry was not being cleaned. This problem has since been fixed.

Wednesday, 10 September Cyber 74

04:30 DD2007
A level 3 recovery was performed because the operators were unable to unload removable packs. This may have been caused by a PF activity count that was not decremented for a shared removable drive.

Saturday, 13 September Cyber 172

06:45 N.A.
Equipment 21 (DQ27) began generating numerous disk errors. The device was reloaded to the spare FMD drive. No dump was taken.

Monday, 15 September Cyber 74

23:49 DD2012
The system hung with a "CPUMTR ERROR EXIT" message at the system control point. A level zero deadstart was required to get the system going again. Analysis of the dump indicates that CPUMTR executed an illegal instruction. This appears to have been caused by a byte being zeroed in the middle of CPUMTR. This appears to have been a hardware error.

//////////

Cyber 170-720 Deadstart Dump Analysis (9/8 thru 9/21) - by B. E. Blasing

<u>Date</u>	<u>Description</u>	<u>Tape</u>
Sat. 9/13	PDP 11 front-end could not be loaded at beginning of ops. We ran the day with no 1200 baud service.	N.A.

There were no aborts or crashes for the period.