

TABLE OF CONTENTS

NOTICE OF CHANGES TO THE SYSTEM . . . . . 1

SYSTEM MAINTENANCE. . . . . 3

    LAST WEEK'S SYSTEMS GROUP MEETING - T.W. Lanzatella. . . . . 3

    SYSTEM STRATEGY COMMITTEE MINUTES - T.W. Lanzatella. . . . . 3

    CALLPRG DISK FILES - M. Riviere. . . . . 5

    MISCPL - M. Riviere. . . . . 5

    A NEW WRITEUP DOCUMENT - T.W. Lanzatella . . . . . 6

    CALLPRG AND LIBRARY TAPE NEWS - M. Riviere . . . . . 6

    CYBER 74 DEADSTART DUMP ANALYSIS - K.C. Matthews . . . . . 6

    6400 DEADSTART DUMP ANALYSIS - R.A. Williams . . . . . 7

NOTICE OF CHANGES TO THE SYSTEM

Kevin Matthews repaired a problem in LDR which deactivated TCS loads of ECS resident CPU programs. The problem has been present since November, 1976. We are uncertain as yet as to the increase in efficiency derived from correcting the problem, but response time may be noticeably better.

Bob Zalusky repaired a problem in LFM processing of the ENCSF macro. If the control statement file to be entered was less than 40B words in length, then the system attempted to execute control statements past the end-of-file.

Brian Hanson contributed a new version of the Cyber loader with the following changes.

1. The MAP command can now be processed among any Cyber loader load sequence.
2. Trailing spaces are deleted from the load map (a bug list item).
3. For non-TT type output files, machine dependencies have been restored in the MAP report.
4. A file of load information is written if the RSS bit is set (useful from DIS only).

Bill Elliott supplied the following modifications.

1. EXAMINE will no longer mode-out on extremely long logical records.
2. UPMOD was enhanced to overcome a long-standing annoyance. Because UPDATE allows eight character ident names and MODIFY does not, OLDPL's with eight character ident names cannot be UPMODed into OPL's. Bill changed UPMOD to

first truncate eight character ident names and if necessary to alter characters until a unique ident name is obtained. A dayfile message is produced for each altered ident name.

3. Program FILES will no longer echo the control statement to time-sharing users. This change should benefit 10 CPS terminal users.
4. The buffers used by COPYB have been restored to their original size (4K). Previously, they had been doubled to help speed up long tape copies. Code was added to COPYB to conditionally change the buffer size. Buffers are reduced further for SKIP and TT input operations while they are increased for long tape copies. Default buffer sizes are used for disk to disk copies.

Tim Salo modified SUPIO to call LRF to read output files from the disk and write them directly to ECS via the DDP. This change should increase printing by 10-15%.

Marisa Riviere installed the proposed option in WRITEUP which allows the user to obtain index information about specific packages (see DSN 3, 7 p. 6). The form of the command is:

```
WRITEUP(INDEX=packagename1+packagename2+...).
```

Don Mears repaired a problem in the time-sharing front-end code which caused the STIMULATOR to malfunction. Don also repaired a problem with carriage return processing in LTD. If in tape mode and if input contained a C/R with no line feed, LTD would sometimes miss the next character if the terminal was running at 300 baud.

Joel Halpern contributed a modification to LDD which always ensures that user dayfiles begin with a system sector (see DSN 3, 5 p. 5).

Jeff Drummond submitted the following modifications.

1. Jeff repaired a problem with time limit processing for time-sharing users. Previously, a user validated for less than the default initial time limit (20B seconds) received MAX(TL,20B) as the initial time limit. The user now receives MIN(TL,20B).
2. TSTATUS processing of default rubout count was altered to return the actual rubout count, not its negative.
3. Program XMT was altered to correct OBF entry conditions which occasionally caused bad FNT entries.
4. Nearly every instance in the system where word zero was assumed to have the value zero was changed to use the symbol (and word) ZERL in PPCOM.
5. Program LDS was changed to reduce the initial field length of LDS initiated jobs from 60K to 20K. This change has been the subject of much criticism by DIS users and probably ought to be discussed at the next systems group meeting.

N.L. Reddy contributed new versions of the EXPORT overlays 5SD and 5FM. These routines had somehow been physically corrupted as they were carried from one system to the next. A rarely used command overturned the problem. These routines have been bad since (at least) December, 1976.

SYSTEM MAINTENANCE: People and Procedures

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

1. The following proposals were rejected or accepted.
  - a. Don Mears' proposal to install an abbreviated version of PFILES which processes a small class of permanent file commands was rejected until some timing studies can be performed (see DSN 3, 8 p. 3). We did decide, however, that if the program is approved, then the form of the command should be: KEYWORD(OP=function,FN=filename) where OP is the permanent file function to be performed.
  - b. Kevin Matthews' proposal to install part F from the field length study (see DSN 3, 8 p. 4) was approved. We will work closely with the User Services group during the installation.
  - c. Kevin Matthews' proposal to generalize ECS access was approved (see DSN 3, 8 p. 4).
  - d. Tom Lanzatella's proposal to delete NODROP from the system was defeated. We did, however, decide to remove DROP (see DSN 3, 8 p. 5). Brian Hanson will be installing any new code and documentation necessary to make NODROP action consistent with other functions.
2. Larry Liddiard remarked that staff use of the machine during April, 1977 was almost twice that of April, 1976.
3. Kevin Matthews spoke briefly about the envisioned disk configuration after the new disks and controllers arrive. Specifically, packs STF and SP may be combined into a DJ-2 device.
4. Larry Liddiard distributed copies of a new systems and operations organization chart. See Larry for a glimpse.
5. N.L. Reddy discussed briefly the source of EXPORT crashes. It seems that the SICL lab has been recently trying the backspace PRU command with a large PRU count. Unfortunately, EXPORT cannot handle large PRU counts.

//////////

System Strategy Committee Minutes (77/04/27) - by T.W. Lanzatella

1. Should there be a general policy on system changes?
  - a. Any general rules should be loose and allow some variance.
  - b. The magnitude of a change has a great deal to do with how any rules are enforced.
  - c. Should User Services be required to sign off on all system changes? RTF says no.

- d. NLR stated that this entire matter of general system change rules was triggered by the PDP-11 switch. Two problems were pointed out here - 1) Engineering never told anyone what was happening, 2) After the switch was made, no backup procedures were available.
- e. RTF - User Services should not have to establish software/hardware availability dates.

We all agreed that a generalized rules approach to system change policies (all systems) is not tenable. Instead, we should strive for a "common sense" among managers and better communication.

2. How shall the new TELEX front-end be tested and installed?

- a. NLR stated that the front-end is ready - all we have to do is turn it on. He also stated that if the PDP-11 fails in any manner, it will be automatically switched off.
- b. RTF - Should we wait until more 1200 baud hardware is available? No, we currently have enough hardware for three 1200 baud terminals.
- c. NLR would like an official test period with an official test group and suggested that two weeks of systems time would be satisfactory.
- d. MMS suggested two weeks of off-hours production time to make it easier on the test group and on the system staff. We all agreed that Saturday mornings would be satisfactory.
- e. When? - Since the front-end should be up permanently at the beginning of first summer session, testing should begin on 21 May and continue on 28 May, 4 June and 11 June if necessary. (14 June will be the first day of user testing.)
- f. KCM is worried about the potential system degradation with many users at 1200 baud. NLR says the effect will be an increased field length for TELEX due to the larger number of pots required.
- g. We all observed that the actual implementation of the front-end will not be a precarious operation, but what will require meticulous and careful check-out is when certain LTD/TELEX functions are moved out of the CPU/PP into the PDP-11.
- h. We currently have no way of checking the entire front-end/TELEX interface for correctness except in a piecemeal fashion. We all agreed (except NLR) that considerable time and effort be devoted to building a complete and dependable test facility to load down the front-end with nearly-real time-sharing sessions.

3. What about summer manning?

- a. KCM will be around most of the summer.
- b. B. Hanson will take over for WJE until September.
- c. NLR doesn't know yet.

d. LAL will be gone for a month

e. Leo May will be gone for 1.5 months.

4. At the next meeting, we will discuss the bug list. Next meeting - 6 May.

//////////

System Strategy Committee Minutes (77/05/06) - by T.W. Lanzatella

1. Our first item was the bug list. Several items which had been fixed were removed and several new items were assigned to individuals. E. Frankowski has requested that the bug list be included in the PTR writeup. We all agreed that this would be acceptable but that due to the sensitive nature of some bugs, the final form of the intended document should be reviewed by the system strategy committee.
2. L.A. Liddiard was invited to this meeting to discuss the systems group position related to the new time-sharing front-end. After a lengthy discussion, we agreed on the following recommended position. No further enhancements beyond the installation of the 1200 BAUD facility should be made to the time-sharing front-end until the future of time-sharing services at UCC is better understood.

//////////

CALLPRG Disk Files - by M. Riviere

The large amount of CALLPRG files contained in the SP pack make it difficult to observe their usage frequency.

The System's statistics are not enough to detect "forgotten" files or files that are not directly callable by control cards, fetch, past or future but are retrieved only by CALLPRG when a product is composed of more than one file.

It seems to me that the best way of observing the degree of activity of the CALLPRG files is by looking at the information provided by CATLIST about how many times the files were accessed.

To make this count meaningful without needing to keep old CATLIST output for a comparative analysis, I suggest dumping and reloading the CALLPRG files on the SP pack once every quarter. This will reset the usage counter.

The file's creation date will also be reset by the dumping and reloading operation. Anyone that would like to have files skipped during dumping and reloading should arrange it with me ahead of time.

//////////

MISCPL - by M. Riviere

I already have been receiving contributions from several staff members for MISCPL, the miscellaneous products library that I announced in the March 22 DSN. MISCPL is still far from containing all that it is supposed to contain. Anyone with products to be included in MISCPL should contact me. I will eventually also be contacting people in charge of different products not included in the library to discuss their inclusion.

I will be keeping up to five back-up copies of MISCPL on magnetic tapes. All YZE accounts have read mode permission on these tapes. I will be rotating these tapes in order to always rewrite the ones containing the older versions. So far I only have one back-up copy. To locate any version of MISCPL the TAPES utility has to be used in order to select the tapes by their comment string. The comment strings are MISCPL, MISCPL1, MISCPL2, MISCPL3 and MISCPL4. MISCPL is the newer version on tape and MISCPL4 the oldest version.

To access any one of these back-up copies the following control cards have to be used:

TAPES(SELECT, FN=OPL, CS=COMMENT, UN=YZE6081)

(where comment = MISCPL, MISCPL1, MISCPL2, 3 or 4)

LABEL, OPL, PO=R.

The version of MISCPL on YZE6081 on the System pack is permitted to be used in read mode by all the YZE account numbers that have permission to access other System libraries. Anyone else who is not validated to read MISCPL and has a need for it should contact me.

//////////

A New Writeup Document - by T.W. Lanzatella

Dan LaLiberte has prepared a new writeup for staff usage which explains the procedures for installing writeup files. The writeup name is PUTUP. A copy of PUTUP will be added to the How To and Why manual at both UCC locations.

//////////

Callprg Library Tape Modifications - by M. Riviere

The Callprg Library Tape changes which will be taking place on May 17 will consist only of the introduction of a future version of KWIC (Key Word In Context) which will be installed by J. Cosgrove and H. Kurs. This future version will allow up to 400 characters per record. The current version allows only 80.

A future and current version of the utility FORM will be installed on CALLPRG by H. Kurs. Program FORM is a file management utility used to manipulate records and reorganize files in the same or different format as the original. A CDC manual describing the use of FORM is available.

The next Callprg Index and Library Tape changes will take place on May 31. Modifications should be submitted by noon on May 19. The following scheduled date for changes is between June 11 and June 14. This date will be accommodated to fit in the short spring quarter break. Modifications for that time should be requested by noon on June 2.

//////////

Cyber 74 Deadstart Dump Analysis - by K.C. Matthews

25 April 1977 - 8 May 1977

Monday, 25 April

The system was down five times, due to an EXPORT problem which has been resolved.

Tuesday, 26 April

21:51 (DD-12)

The system hung up because a tape channel was hung active. This happens frequently, and usually console commands to disconnect the channel free up the tape drive. However, our procedures in these cases are not well defined. We will attempt, with John Sell, to document the required action for these kinds of situations in the console guide.

Wednesday, 27 April

18:13 (DD-13)

The scopes blanked. The dump revealed junk in the exchange package for the CPUMTR PPU functions.

//////////

6400 Deadstart Dump Analysis - by R.A. Williams

<u>Date</u>	<u>Description</u>	<u>Tape</u>
770428	The TELEX sort queue hung as a result of an MSORT job being lost in the input queue. The problem was traced to a bad mod that had been made to the ECSXFER software.	Fixed
770503	PFM hung on a PURGE request. The 808 disk unit was found to have permanent file chaining problems for unknown reasons.	N.A.
770505 770508	Numerous (>10) system hangs have occurred as a result of the CPU setting bit 2 <sup>9</sup> on memory reads. The bit has been set in exchange packages, instructions, and memory registers loaded from core. The CE's are working on it but it is intermittent and has yet to be resolved.	DDT-1 through DDT-17