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NOTICE OF CHANGES TO THE SYSTEM

KRONOS Changes

The following changes become effective on Thursday, 27 April.

Jeff Drummond reinstalled the CPUMTR ability to determine the status of other machines connected through ECS. The code had been yanked on the last system because of problems when ECS was down. Jeff added the following changes for the installation of TRANSIT.

- 1) The SUBMIT command was altered to allow a new parameter, MI=id, where id can be MA or MC (users cannot SUBMIT jobs to the 6400 which is MB).
- 2) Program TRANSIT was added to the system. This program takes care of sending input files to other machines, of receiving input files from other machines and of delivering dayfiles to submitting machines.
- 3) Program TRN was added to the system. This PP program is a companion of TRANSIT.

Tim Salo repaired unspecified errors in SUPIO and LRF.

NOS Changes

Tom Lanzatella installed the following changes.

- 1) AUTUNL - the mod which installs the ENABLE/DISABLE AUTO UNLOAD tape capability.
- 2) ECPDIS - a mod which causes the status of most ENABLE/DISABLE functions to be displayed on the E,P-display.

- 3) PREVIEW - the mod which adds all local enhancements to the tape mounting preview display.
- 4) Nine assorted critical code modsets received from CDC as TWX code and as suggested code on the PSR460 BCC tape were installed.

Kevin Matthews installed an important feature from NOS release 4 which totally reworks the way in which mass storage is allocated in relation to file type. This feature was needed for the envisioned MMF implementation. Kevin also installed mod SLLMSD, a mod which ensures that at least one correct channel number is preset into the mass storage drivers.

Marisa Riviere contributed official versions of the packages: COMPASS, UPDATE, ITEMIZE, COPYL and CYBER LOADER. Marisa also contributed changes to CALLPRG which render it nearly functional under NOS.

Don Mears altered LTA to hang MXFN when it encounters a bad rollin file. Don also converted BIOEQ, the mod which changes BATCHIO's buffer points into equipment numbers. Additionally, Don converted the program LNK which is used to test the PDP-11 link.

Tim Salo converted ASCII, the mod which installs full ASCII print train support. Tim also altered program OVJ to allow decimal time limits on the job card. Program OVJ was also altered to write the date and time of job submission into the system sector.

Tim Hoffmann converted the mod named UNPAGE and the program named UNPAGE. The mod changes the number of lines per page to 65 and makes optional the paper wasting features of several utilities. The program is the well-known paper saving utility. Tim also provided a source version of the program DTIME for inclusion on the system (see DSN 4, 6 p. 51).

Brian Hanson converted the following mods.

- 1) MUXSET - the mod which allows PDP-11 type equipment to be specified in the CMRDECK.
- 2) SETCOM - the mod to SET which causes CMRDECK and IPRDECK entries beginning with a period (.) to be treated as comments.
- 3) SETU3 - a mod to disallow illegal STK, RTK and TTK commands.
- 4) SETU4 - the mod to SET which allows the SYSTEM = entry to be placed in the CMRDECK.
- 5) ONOFF - the mod which installs the MODVAL ON and OFF directives.

John Strait installed a mod to COMDTFN (TFNCP) which makes it work when called into a CP program as well as a PP program. This correction was reported to CDC.

Jeff Drummond installed TRANSIT as a subsystem under NOS (modset TRNNOS). Most notably, this modset removes S3FT (spare file type 3) and replaces it with IMFT (intermachine file type). Jeff also restored the PL option on the CATLIST command and converted program IDU.

PROPOSED CHANGES TO THE SYSTEM

Hung Jobs - by E. J. Mundstock

Presently when a job issues a RCL request with recall on a FET for which there is no PP request in progress, the system just sits on the request until an operator notices the condition and drops the job. This may take several hours. It seems that the system should be able to detect this condition and abort the job itself without requiring operator intervention. I propose that when the RCLP request is being processed, that if both the assigned PP count and the magnetic tape activity count are zero the job be aborted. No problems are anticipated, as if the condition occurs, the job is currently dropped by the operators, there is no way for the condition to clear without operator intervention.

//////////

Cyber Loader by Default - by T. W. Lanzatella

I propose that the CYBER loader become the default loader on NOS at UCC. This is unfortunate in that CYBER loader will add about 10K to the field length required to load for all relocatable programs. However, the LINK loader is growing obsolete. The LINK loader was cast off by CDC back at Level 10 of KRONOS. Much of the CDC product set now requires the CYBER loader and more will need it in the future. The upgrade to NOS provides a convenient time to switch.

//////////

Account Dayfile Messages - by Jim Fairweather

The Account Dayfile messages for cards read and pages printed are issued in the pairs:

Time.JobName.ABUN	YZE1234
Time.JobName.UCCR, 00,	X.XXX KCDS.23
Time.JobName.SBSP, BC34,	YY/MM/DD.YZE1234
Time.JobName.uclp, 34,	0.XXX Kuns.BL

It would facilitate the tabulating of these values to an account number if the account number appeared on the message that contained the value (the UCCR and uclp messages):

Time.Jobname.UCCR, 00,	X.XXXKCDS.23	YZE1234
Time.Jobname.uclp,34,	X.XXX Kuns.BC	YZE1234

In this way the operation, its value and the account number are available all in one message.

//////////

NOS User Limits - by R. T. Franta

The control card SETVAL was a very useful addition to our operating system but still leaves one area of control unavailable to the user. By use of the SET control card the user can control his time limit and thereby have limited control of job cost. The meaning of time limit on NOS is somewhat different than it was

on KRONOS. This difference changes the users' ability to control his costs. To correct this problem I would like to make the following proposal for implementation by the systems group.

I propose that the SET control card be altered or another control card be introduced so that the user can set his:

- 1) Cards punched limit,
- 2) Control Cards limit,
- 3) Lines printed limit,
- 4) Dayfile lines limit,

to any value up to his VALIDUS limits. This would allow the user to control costs for any particular job if he wished to do so. If required, this proposal may be presented as such in the DSN. After your consideration I would expect this to happen.

//////////

Terminal Formatted Writeup Files - by M. Riviere

This is an addition or a modification to the previously accepted Writeup proposal which I presented in DSN 4, 6 p. 49 (upper/lower case Writeups) concerning the left margin prefixing terminal formatted files when the Writeup output media is not a terminal.

The left margin makes the files unsuitable for XEDIT jobs and the use of the PT=TT parameter to avoid the left margin makes Writeups that include case shift characters even less suitable for XEDIT.

I suggest either:

- 1) Replace the first character of a terminal formatted file with a blank when the output media is not a terminal.
- 2) Add a new list parameter (XL) that will leave margins and first characters of the line as they are but remove the case shift codes.
- 3) Shift all lines one character to the right.

Option 3 may be the best one but will require more computer time for Writeup listing.

Option 2 seems a little bit confusing to document.

Option 1 loses one character for each line and if the file is not originally formatted expecting this option, the list may look quite truncated.

Which option should I take?

//////////

Dumps - by T. J. Hoffmann

Due to technical difficulties, the proposed DMPI mod will not be implemented. However, I would like to implement part of that mod by explaining the cause of the exchange package at the beginning.

The output would look like:

EXCHANGE PACKAGE CAUSED BY: error message.

The error message is interpreted from RA+0. I will bring a table of the actual messages to the meeting for anyone interested in the details.

SYSTEM MAINTENANCE: People and Procedures

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

The following proposals were accepted or rejected.

- 1) Don Mears proposal for a multi-mainframe PDP-11 was accepted on the condition that the % - sign have significance to the frontend only at login time (see DSN 4, 7 p. 57).
- 2) Jeff Drummond's proposal to have the COMPASS U option be equivalent to J=NOSTEXT was accepted (see DSN 4, 7 p. 58).
- 3) Clive Schofield's discussion of the MNF/FTN/CRM interface under NOS was taken less as a proposal than as a statement of fact (see DSN 4, 7 p. 58).
- 4) Tim Salo's discussion of the ROUTE command was also taken as fact.

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Callprg and Library Tape Changes - M. Riviere

CYBER 74

On April 25 I introduced the NOS level 460 version of FTN as a Future Callprg package. The NOS level 460 libraries, FORTRAN, SYSIO and SYSLIB are also retrieved when Future, FTN is referenced.

The NOS libraries FORTRAN and SYSLIB have only their CDC section updated to level 460. The local sections of these libraries still remain identical to the current KRONOS sections.

Also on April 25 I introduced in Callprg the set of NOS installation text (IPTTEXT, CPUPTTEXT, IOTEXT, PFMTEXT, etc.) making them to be retrievable with the single statement FETCH, NOSTEXT. I considered this set up the most suitable to avoid name conflicts with the current KRONOS installation texts.

The next Callprg and Library tape modifications for the Cyber 74 will be taking place on May 16. Modifications for that date should be requested no later than noon May 4.

CYBER 172

The initial Callprg-Library tape status for the Cyber 172 is approximately the following:

The NOS level 460 libraries, SYSLIB, SYSIO, FORTRAN and TSLIB (FTN time sharing library) are included in the Library Tape.

The time sharing version of NOS, FTN, level 460, is also included in the Library Tape.

The MNF compiler is available as a Callprg package. This arrangement is made in order to keep MNF associated with the KRONOS 439 level FORTRAN and SYSIO libraries, until it becomes compatible with the NOS level 460 libraries. A reference to MNF retrieves, besides MNF all its associated libraries.

Since there is a need of providing users that had already created MNF relocatable binaries with the associated MNF libraries, we can either introduce a Callprg index entry FETCH, MNFLIB that retrieves MNFCLIB, MSUIO and FORTRAN and SYSIO level 439, or build a large MNFCLIB with all the relocatables that MNF needs.

I see that the MNF-FTN library's incompatibility can create a source of confusion on MNF users. Keeping the NOS system libraries at level 439 can also create incompatibility with other products such as COBOL and SORT MERGE. Does any one have a better idea about this library's arrangement?

There is a NOS version of CPOPL now available on the Cyber 172. The index built from the CPOPL will become the current index. I am introducing packages in the Cyber 172 Callprg and Library Tape only upon request.

Everyone should review his products and request their inclusion in the new system after the appropriate testing.

Modifications for CPOPL can be submitted as card decks or as permanent files of modify directives.

There is not a fixed schedule for the time being for the Cyber 172 Callprg and Library Tape changes. I will be implementing the changes as they are requested.

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Cyber 74 Deadstart Dump Analysis from Friday, 7 April through Thursday, 20 April -  
by K. C. Matthews

Friday, 7 April

09:36 (DD-11) The disk drive for pack ADPDMSD started giving errors at 08:38. Since ADPDMSD was in use by a TELEX job, this caused some TELEX problems. The drive was fixed on line by 9:09, but 1TA was still confused and hung at 9:36; unfortunately a level 0 deadstart was required.

Sunday, 9 April

17:38 (DD-13) 1CJ hung, and a level 0 deadstart was required. Unfortunately, I've lost the dump.

There were no deadstarts during the following Monday - Saturday period. But there were occasional ECS problems, and the system froze occasionally because some disk drives were being tested. We think now that all of our disk drives are working fine. Track limits continued to be a problem, but a new device has been added to the system and at least one large PF user was moved to a private pack.

Monday, 17 April

18:47 (DD-15) The system hung. MTR (PP-0) was written all over low CM, from address 3000 on. Several PPU's were a mess inside. No resolution of this one seems likely.

Tuesday, 18 April

08:30 ECS failed at 08:30. The problem was fixed and we were up at 09:14.

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6400 Deadstart Dump Analysis (4/10 - 4/23) - by R. A. Williams

<u>Date</u>	<u>Description</u>	<u>Tape</u>
780401	The scopes went blank and all PP's were hung on CRD instructions. A recurring hardware problem is suspect.	See Me
780406	A power fluctuation caused a system abort.	N.A.
780413	The system hung with a disk channel reserved. No clear cause has been identified.	See Me
780415	A chair bumped the console and an exchange package was deposited at word 0. There is an ongoing investigation into these kind of problems.	DDT-2
780416	The 6400 ECS coupler was intermittently returning bad data, causing system aborts.	Fixed
780417	Not all deadstart tapes were updated to reflect the addition of a disk unit and, for many reasons, the uncorrected tape was deadstarted, causing some users to experience file problems.	N.A.
780417	The 6400 ECS coupler was returning bad data and caused several system aborts.	Fixed
780418	There were several scope blankings, monitor aborts, and file mashes in the evening for, as yet, unknown reasons. Since these problems, the old deadstart tape has been used and there has been no trouble.	DDT-4 DDT-5 DDT-6