UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

KRONOS Changes

Two important features had been slated for installation with the next new system:

1. Tim Salo's implementation of full ASCII support on the 512 printer and

2. Don Mears' implementation of an off-line BATCHIO-Decwriter console.

Because the next new system does not yet function properly, we will not be installing
a new system on the next usual installation date (78/02/23). Mods will be collected
again on Monday, 27 February.

NOS Changes

The next new version of NOS was supposed to be installed on Saturday, 18 February,
but is not yet functioning. For the benefit of those individuals who are converting
mods, I shall not collect new modifications until Monday, 27 February. The PL's will
be updated as soon as the system works properly.

The following changes will be introduced into NOS in the next couple of days.

Tom Lanzatella installed the following changes:

a. GENMSF – a mod which installs a special request processor into MAGNET.

b. LISTA – a repair to LISTLB which corrects statement label processing.

c. MAGPSR – a mod which fixes several errors in MAGNET (a Colorado University modset).

d. MSGSEC – a security enhancement to 1AJ which skips issuing the control statement
    to the CP buffer for SDM= programs.

e. MULTI - a mod to RESEX to improve multi-file operations.

f. NEWDMP - a change to 1AJ which causes an exchange package dump after a monitor call error.

g. NXTVSN - the mod which installs the NEXTVSN control statement.

h. PAKEVE - a change to RESEX which allows operators to lock users off of a removable pack.

i. POMX - the mod to RESEX which installs the PO=M and PO=X options.

j. PREMAT - a mod to liberatize CDC VSN assignment restrictions.

k. RSXERR - provides proper ERREXIT for RESEX.

l. RSXLIM - the mod which installs local file limit checking in VSN, ASSIGN and LABEL.

m. RSXROA - a mod to RESEX which improves messages when duplicate VSN are present.

n. RSXROL - the mod which allows ECS to be rolled when waiting for tapes or disks.

o. SETDEN - the mod which installs the DENSITY command.

p. UPREW - a PSR to MAGNET which was not checking properly for user processing.

Kevin Matthews installed the following changes:

a. GEN004 - the mod to MODVAL which facilitates all of our changes to MODVAL. The old mod LIMITS was added to this mod. The MODVAL K-display was substantially enhanced with a right screen K-display which displays all of the access word bits, their mnemonics and their status.

b. DEFALT - the mod to MODVAL and COMPCVI which alters the default value of certain validation limits.

c. ACCBIT - the mod which installs access word bits COPE, CTLX and CNTX.

d. CLCM - the mod which installs the C1CM access word bit.

e. CAC2 - the mod which installs the CAC2 access word bit.

f. CDSD - the mod which installs the CDSD access word bit.

g. CACC - the mod which installs the CACC access word bit.

h. CSTF - the mod which installs the CSTF access word bit.

i. FOSTER - the mod which permits the system dayfiles to YZE6009.

j. DLSTAR - a PSR to MODVAL which permits asterisks in user numbers when using OP=U.

k. MODENH - a new mod to MODVAL which installs the SETVAL command and several master user features.

l. MODKLG - a temporary mod to MODVAL which changes the name of the validation files to VALIDUM and VALINDM. This change makes it easier to run KRONOS and NOS off of the same disk devices.

m. RSBBIT – a mod to CPUMTR which allows RSB permission to any user with CSTP.

n. CIO001 – a PSR to CIO correcting a system crashing error in CIO processing of REWRITE.

o. CIO002 – a PSR to CIO correcting control word processing.

p. DEFCHN – a mod to 6DI, 6DJ, and 6DP which defines default channel assignments for the DI's, DJ's, and the DDP.

q. LASTOP – a PSR to CIO.

Don Mears installed the following changes:

a. TXGN04 – a mod to generalize terminal types.

b. TXTTWD – a mod which installs an extra word in the TELEX terminal tables.

c. TXGN01 – a mod to generalize TELEX subsystems.

d. APLUM – installs the APLUM subsystem.

e. COBSYS – installs the COBOL subsystem.

f. DRPPOT – repairs miscellaneous drop pot problems.

g. ECMD – installs E as abbreviation for ENQUIRE.

h. GAME – installs the GAME command.

i. HLPCMD – a mod to TELEX which allows parameters on the HELP command.

j. HNGPRT – a PSR repairing several hung port problems in TELEX.

k. LIBCMD – changes the TELEX LIBRARY command to LIB.

l. LOGIN – repairs several LOGIN related errors.

m. MNFSYS – installs the MNF subsystem and changes the FORTRAN and FTNTS subsystems to call MNF.

n. MONLOG – issues monitor terminate message when monitoree logs off.

o. NODROP – deletes the unused TELEX NODROP command.

p. NOTISS – installs the TELEX hooks for NOTICE/NOTIFY.

q. NUSCMD – the mod which installs the NUSERS command.

r. PASSYS – installs the PASCAL subsystem.

s. PDPMUX – the mod which installs support for a PDP-11 emulating a 6676.

t. POTPAK – a PSR to TELEX repairing manipulation of POTS.

u. RECDUP – PSR to TELEX repairing recovery of half duplex flag.

v. SNOSYS - installs the SNOBOL subsystem.

w. TLXDMD - a mod which corrects TELEX behavior after an abnormal termination.

x. TLXHDR - a mod which includes subsystem name and file name in the header of RUN and LIST commands.

y. TLXSTS - installs extended suspended mode commands.

z. TXACWD - a mod which passes additional accounting information between TELEX and 1TA.

0. TXCDLT - a mod which changes the minimum number of characters comprising a TELEX command.

1. TXDROP - a PSR to 1TA eliminating erroneous operator drop messages.

2. TXDSUB - a space saving mod to TELEX.

3. TXDUTL - the mod which changes the default time limit for TELEX users to 20B seconds.

4. TXD001 - a PSR to 1TD correcting minor driver problems.

5. TXNAME - a mod which includes terminal number in TELEX login header.

6. TXJNAM - a mod to include jobname in logoff report.

7. TXNULM - a mod to enhance the TELEX response to null line input.

8. TXSW1 - a mod to ONSW1 for TELEX during initialization.

9. TXT004 - a space saving mod to TELEX.

+. TXXCOM - a mod which extends X, as a legal prefix throughout all subsystems.

-. UNSAVE - deletes the unused UNSAVE command.

*. USERS - installs the USERS command.

/. WRITUP - installs the WRITEUP command.

(. XEDCMD - installs the XEDIT command.

). 1TDCR - a PSR to 1TD correcting character processing during CR processing.

$. 1TDMSG - a 1TD mod which informs operators when 1TD is hung.

=. TXFSCD - a 1TD speedup mod.

. 1TDOVF - a PSR to 1TD correcting overlay length checking.

Tim Salo installed the following changes:

a. GENBIO - a generalization to BATCHIO programs which generalizes equipment types and FET lengths.

b. 1CDBUF - a mod to 1CD which moves line buffers to CM.

c. ASCII - the mod which installs 595-6 print train on 3555/512 printer.

Tim Hoffmann installed the following changes:

a. SUN - installs the SUN control statement.

b. CTLCET - the mod which installs the KCL CET mnemonic and provides dynamic setting of TL and FL.

c. GEN007 - the mod which generalizes the SSTL and INWL words in low core.

Brian Hanson installed the following changes:

a. 1AJHNG - a mod to 1AJ which allows 1AJ to be dropped if MXFM is issued.

b. 1AJU14 - a mod to 1AJ which decreases to amount of time granted after time limit to 2 seconds.

c. DOCMU1 - a mod to DOCMENT which accommodated PDP-11 documentation.

d. DOCMU2 - a mod to DOCMENT which changes page footings to say University of Minnesota.

e. DOCMU3 - a PSR to DOCMENT which corrects garbage page headers if the title card lacks a title.

f. KRONO - a PSR to KRONREF.

g. LOCAL - a mod to LDC which accommodates local file loads.

h. SNAP - the mod which installs the SNAP and SNAPE macros.

Jeff Drummond contributed the following changes:

a. PWSTRS - a mod to PFILES correcting the treatment of asterisks in passwords.

b. CATAU1 - a documentation repair to CATALOG.

c. BADMSG - a PSR to PFILES correcting processing of the primary file on REPLACE.

d. PACFIX - a PSR to CPM correcting packnam processing.

e. CPMEU1 - the mod which adds deferred contents of the B-registers to the exchange package dump.

f. STAGER - a PSR to STAGE correcting sundry errors.

g. DSDB - a resubmitted version of the DSD mod which installs our local B-display.

h. DSDT - a resubmitted version of the DSD mod which installs our local T-display.

i. DSDU - a resubmitted version of the DSD mod which installs our local U-display.

j. ZERL - the mod which changes use of word 0 to word ZERL throughout the system.

Mods requiring system group discussion:

a. JCAIMP - what should we be putting into the Job Communication Area?

b. DOCMU1 - how should we accommodate PDP-11 documentation.

c. SNAP - should we get rid of SNAPE.

PROPOSED CHANGES TO THE SYSTEM

Number 9 - by J. J. Drummond

I would like to propose implementing the ACQUIRE PFM Function For NOS. Currently, when an ACQUIRE Control Statement is executed, it issues a GET PFM request and, if that fails, an ATTACH PFM request. This means that for Direct Access Files, the ACQUIRE control statements issue an extra (un-needed) call to PFM and its associated catalog search. For non-existent files, two PFM calls (GET and ATTACH) and two catalog searches are required to determine that the file does not exist. The ACQUIRE PFM Function performs a single catalog search and GETs or ATTACHs the file if it exits.

The advantages of the ACQUIRE PFM Function includes:

1. Savings of one PFM call when ACQUIRING direct access files or non-existent files.

2. A cleaner implementation of the ACQUIRE control statement.

The disadvantages include:

1. More code added to PFM (about 50 lines).

2. The ACQUIRE Function will be unable to handle the case of a direct access file on a removable device due to the calls to RESEX, etc. In this case, it will rewrite an ATTACH PFM request in (RA+1) and drop out. This "worst case" will essentially involve two PFM requests, but it will occur for a much smaller set of files (Direct Access Files on removable devices).

Most of the code was written (and debugged) by Bob Zalusky for MECC.

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DJ 1/2 Proposal - by W. T. Sackett

MERITSS would like to run DIs with DJ addressing to take advantage of smaller TRT length and to utilize the 19th surface on the disk packs. To remain compatible with the Cyber DJ processing and removable packs the addition of a driver designated 6DM is proposed. (6DK and 6DL are not used as this is the projected CDC/MECC full tracking rollout drivers.)

SYSTEM MAINTENANCE: People and Procedures

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

1. The following proposals were accepted or rejected.

    a. Tim Hoffmann was not present hence his proposal to alter the FILEB
        macro (see DSN 4, 3 p. 22) was not discussed.

    b. Jeff Drummond's proposal to add a BR parameter to CATALOG was accepted
        (see DSN 4, 3 p. 22).

    c. Jeff Drummond's proposal to alter CATALOG to output the message FILE
        NOT FOUND when the specified file does not exist was approved (see
        DSN 4, 3 p. 22).

    d. Jeff Drummond's proposal to install the NOS RWF, RTF and ULF commands was
        rejected for lack of acceptable names (see DSN 4, 3 p. 22).

    e. Jeff Drummond's proposal to move the SUPIO R-display into the V-display
        was approved (see DSN 4, 3 p. 22).

    f. Don Mears' proposal to change all BATCHIO commands to use EST ordinals
        rather than buffer pointers was accepted (see DSN 4, 3 p. 23).

    g. Jeff Drummond's proposal to remove the PFILES parameters PL and
        substitute an LB parameter was rejected since most people felt that LB
        would eventually evolve back into PL (see DSN 4, 3 p. 23).

2. Larry Liddiard spent the remainder of the meeting discussing new business.

    a. Clive Schofield has returned from the recent VIM conference and has some
        notes if anyone is interested.

    b. Larry reported that some 1004's are being vandalized. Locks will soon
        be installed.

    c. Recent off-line tests of a 4800 Baud modem on 1004's along with double-
        sized buffers in the 1004's has demonstrated a 20% increase in print
        speed. We may install some 4800 Baud modems on the most heavily used 1004's.

    d. Due to problems with ordering new equipment, we may not be able to change
        character sets until AUGUST.

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Callprg and Library Tape News - by M. Riviere

On February 14, Andy Mickel introduced four new Fetch Callprg packages. Those
packages, ASM11, ASM68, ASMNOVA, and SIM68 are PDP-11, and Motorola 1600 NOVA
cross assemblers and simulators and they were installed on both computers. The
documentation for these products will soon be available on a Writeup called MICRO.

On February 28, the future version of FORTRAN on Callprg will be replaced with a new
one containing new versions of the UCC arithmetic routines ADEIN and ADEDUT. This
modification was requested by Bart Johnson.

Also on February 29, S. Yen will add a cluster analysis package, CLUSTER, as a Fetch type package. The documentation for CLUSTER will be available either from WRITEUP or from the UCC Library.

The next Callprg and Library Tape modifications will be taking place on March 14. Modifications for that date should be submitted no later than noon March 2.

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6400 Deadstart Dump Analysis (2/6 - 2/20) - by R. A. Williams

Date	Description	Tape
780208	1TD hung with channel 3 full. A hardware problem is suspected but the CE's have not been able to duplicate it.	N.A.
780208	While trying to extract a TELEX dump from the queue, CIO hung. This was probably a result of an improper memory change.	DDT-12
780210	Again the 6676 on channel 3 hung TELEX.	N.A.
780213	Again the channel 3 6676 hung full.	N.A.
780214	The 844 disk unit on channel 2 refused to read or write for a short period, causing bad rollin and rollout file. Coincidentally, but probably unrelated, the temperature indicator came on.	DDT-11
780218	1TA hung for unknown reasons and the dump tape was written over by mistake.	N.A.

In addition to the above problems, we have had several power failures, suffered down time when port cable reorganization took longer than estimated, and had maintenance overruns.