

UNIVERSITY OF MINNESOTA COMPUTER CENTER  
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

This week's system is a record of sorts. The only change of any consequence in Paul Thompson's correction to DSP which ensures that all jobs which enter the queue have a user index.

PROPOSED CHANGES TO THE SYSTEM

Uppers and Downers - by Rick C. Marcus

At the request of several UCC staff members, I propose to put up the FULL-ASCII Pascal compiler as a FETCH product and call it PASCII. We obtained this compiler from TEKTRONIX as a gift. PASCII is the same as the current Pascal compiler with the addition of a FULL-ASCII character set ability.

However, sets are still limited to 59 elements implying that set of characters is still not implemented. There is no documentation for PASCII other than the current Pascal documentation and our group does not intend to support it.

An example of its USE:

GET,PROG.  
FETCH,PASCII.  
PASCII,PROG/G+.

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ANYCP - by Andrew Hastings

I would like to install a system modset from MECC entitled "ANYCP." This modset allows a control point number to be specified when initiating control card jobs from the console under DSD. The syntaxes are as follows:

n=name.  
n=name,field length.  
n=name(parameters)

These above DSD commands behave exactly the same as the corresponding "X.name" commands with the exception of the control point assignment.

The main reason I would like to install this modset is the Cray Station. Currently, the operators must initiate the Station with an "X.CRSTAT." command. This provides no control over what control point the Station runs at, and the Station may end up running at a control point that is usually allocated to a subsystem such as IAF or MAGNET. With this ANYCP modset installed, the operators may specify the control point at which the Cray Station is to run.

Another usage of the ANYCP feature is in systems work when testing or debugging code that is dependent on the control point number. An example of this is BEB's HANGCP feature.

#### SYSTEM MAINTENANCE

Deadstart Dump Analysis - from 10/9 to 12/6 - by B. E. Blasing

#### Cyber 730-SN916

Thur., 10/20, 10:13 DD2016  
A supposedly fixed disk drive was turned on and hung the system badly enough to require a L3 deadstart.

Wed., 10/21, 08:00 No Dump  
Many channels hung full or empty. The operators were unable to deadstart. The CE's looked at the problem for a while until it went away on its own.

Wed., 10/21, 09:30 DD2017  
Some PPU corrupted its PP resident, causing the next PPU to be loaded there (CIO) to write itself all over central memory. It is unknown who or why PP resident got corrupted. A L0 deadstart was needed.

Wed., 11/4, 08:00 No Dump  
The system would not deadstart. The CE's worked on the system until 12:30 when the problem was narrowed down to the upper bank of PPU's. We ran the rest of the day with only 10 PPU's.

Wed., 11/11, 20:52 DD2021  
A staff member fortunately found a bug in CTASK which allowed subsystem privileges; unfortunately he found it during production time. A L3 deadstart was needed to clear a hung IRO from his job.

Sat., 11/14, 08:35 No Dump  
An air-conditioning problem caused all machines to shut down.

Tue., 11/17, 17:37 DD2024  
An 844 disk broke, and required a level-0 deadstart to configure a different drive into the system.

Wed., 11/18, 23:00 No Dump  
10 feet of snow (on some powerlines, not in the machine room) caused a power fluctuation which broke an 885 disk drive and the ECS cooling equipment. More power fluctuations interfered with the reloading of that 885 onto a spare device. All three Cybers stayed down until 03:10.

Tue., 11/24, 10:37 DD2016  
IMB was noticed to be logging SCR errors. For some reason the scopes blanked when the P display was brought up. Valiant efforts to unblank the scopes (the system was running) were ended when a power-flux delivered the finishing touch.

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Cyber 172 MERITSS

Tue., 10/20, 21:14 DD1  
The infamous mode 40 error exit after an exchange jump hit again. The machine stayed broken for 10 minutes and then the problem disappeared.

Mon., 10/26, 09:50 DD2  
A bad POT was passed from IAF to its output helper ITO, who promptly hung. DWM has fixed this.

Sat., 11/14, 08:35 No Dump  
An air-conditioning problem caused all machines to shut down.

Wed., 11/18, 23:00 No Dump  
Snow problem. See Cyber 730

Mon., 11/23, 15:32 DD7  
Two words of unknown origin or destination took refuge in the track reservation table of equipment 6. A level 0 deadstart booted them out.

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Cyber 74 - SN23

Wed., 11/4, 17:30 DD2021  
BATCHIO hung with LCD doing apparently nothing. A L3 deastart was successful.

Fri., 11/13, 02:10 DD2023  
An interlocking problem with our implementation of user ECS caused a tape request (which rolls out user ECS) to hang up. Apparently this bug has been in ever since we have been running multi-mainframe; and just now decided to show up. This has been fixed.

Sat., 11/14, 08:35 No Dump  
An air-conditioning problem caused all machines to shut down.

Wed., 11/18, 12:45 DD2001  
An enterprising, tall systems programmer caused the time of day to be zeroed out in low core. A timely deadstart restored it.

Wed., 11/18, 23:00 No Dump  
Snow problem. See Cyber 730.

Sun., 12/06, 17:53 No Dump  
The on-line diagnostics indicated a CPU failure. The population count (CXi) instruction had broke. The machine was given to the CE's, who fixed the problem.