TO: Distribution

FROM: David M. Jordan

DATE: November 26, 1973

SUBJECT: System Maintenance Status, October 27 - November 23

1. Significant Events

        During this reporting period we continued our
maintenance and development tasks as expected, but
encountered no major milestones or other significant events.

A. Online System Installations

        During the period from October 26 to November 26 there
were 114 changes to the online libraries. Included among
these installations were changes to the PL/1 runtime
environment, a new bound_dir_info_, and several emergency
installations resulting from segments lost during system
crashes.

B. Other Installations

        During this reporting period Multics systems MSS 21.2,
21.3, 21.3a, 21.3b, and 21.3c and BOS system 1.29 were
installed. Included among the changes were several fixes
for the tty dim, partial installations of code for MTS-500
tapes and a second string of DSU-190 disks, and numerous
minor changes and bug fixes.

C. Crash Analysis

        During the past four weeks our rate of system failures,
while not outstanding, has been more or less acceptable. It
appears that significant progress is being made in several
areas, most notably in the repair of a bug in the DataNet
355 interface which crashed us at least 10 of the 56 times
reported below. Several new symptoms have, however, shown
up in this period, including a number of crashes which may
be due to a "modify" bit being lost in a PTW or PDME.
Hopefully these new problems can be tracked down before they
cause too much trouble.

	Oct Nov 27-2	Nov 3-9	Nov 10-16	Nov 17-23	Total
Hardware	2	2	10	3	17
Hardware Suspected	1	1	1	0	3
Software	2	5	3	8	18
Software Suspected	1	1	0	1	3
Not Yet Analyzed	1	4	2	0	7
Not Available	0	1	1	1	3
Other	1	3	1	0	5
Total	8	17	18	13	56

2. Problem Areas

We finally have something good to say about micro-reproductions - now that we no longer send hardcore, bos and salvager listings to them they don't get behind with those listings.

With the anticipated conversion to the new hardcore updater, we are in serious need of documentation of the library_map and library_info tools. As of this time, the interfaces for these commands have not been completely defined, thus making documentation a bit difficult.

We continue to have problems with library submissions involving non-standard or uninstalled languages, tools, etc. The most obvious examples of this exist in the BOS system where we have object segments compiled with two different, uninstalled versions of GCOS.

3. Task Status

During this reporting period a number of tasks were completed (the hardcore updater changes, new versions of cleanup and update_include, etc.) and are now awaiting installation. In addition, a number of MCR's were generated for extensions to update_seg and upd_doc_task_, and for a revised version of approved_routines_. We are continuing our efforts to document the hardcore and online updating systems and their usage.

4. Work Planned for the Coming Month

During the next few weeks we hope to 1) get our various new or revised procedures installed, 2) get much of the documentation for update_seg, etc. finished, 3) finish preparations for the removal of CACL's and the addition of 256K segments, and 4) keep up with our normal installation and maintenance tasks.

TASK DESCRIPTION	PERSONNEL	START	FINISH	CHANGES/STATUS
Online installations	Scherer Kelley	continuing	task	
Maintain source lists	Roach	continuing	task	
Maintain cross reference lists	Scherer (Kelley)	continuing	task	new lists generated 11/20
Maintain info file archives	Roach	continuing	task	
Maintain listings	Dratel (Kelley)	continuing	task	

TASK AREA   Maintenance (Hardcore and Hardware)

TASK DESCRIPTION	PERSONNEL	START	FINISH	CHANGES/STATUS
Crash Analysis	Rakip (Jordan)	continuing	task	
Hardcore Installations	Rakip (Jordan)	continuing	task	
Operator Interface	Jordan (Roach)	continuing	task	
Maintain Hardcore Cross References	Jordan Rakip	continuing	task	

TASK AREA   User Interface

TASK DESCRIPTION	PERSONNEL	START	FINISH	CHANGES/STATUS
Consulting	All	continuing	task	
MPRF Handling	All	continuing	task	
MMTU Handling	Spall	continuing	task	

TASK AREA Library Maintenance Programming Support

TASK DESCRIPTION	PERSONNEL	START	FINISH	CHANGES/STATUS
Maintain and improve library submission tests.	Scherer	continuing task		
convert cross references to v2,	Scherer	4/15/73		Shelved for lack of time
Upgrade all online installation tool exec coms for the 6180 and install in the libraries and document them.	Scherer	3/26/73		Modifications made for large installations and for more graceful handling of apparent errors.
Modify generate MST and check MST to recover gracefully when unable to mount a tape	Rakip	10/1/73 10/1/73	12/20/73	generate_done.
Modify the hardcore updater to cease using CACL's and to maintain a seg-system data base	Jordan	10/25/73 10/25/73	11/12/73 11/12/73	Done, awaiting installation
Upgrade update include and cleanup to eliminate MSL, etc., and to bring them up to standards	Scherer	10/22/73 10/22/73	11/2/73 11/2/73	Done, awaiting installation
Modify approved routines to reflect recent library changes	Scherer	11/20/73 11/20/73	12/15/73	MCR submitted

TASK AREA   Programming Support

TASK DESCRIPTION	PERSONNEL	START	FINISH	CHANGES/STATUS
Update development reload.ec and system test exec_coms	Jordan	continuing task		
Look into compare source_statement as replacement for cpa.				Compare pll source statements ignoring differences in comments and formatting --
Design and implement an online system for registering modules being worked on, etc.				Proposal submitted to Gintell. Hope he has man-power
Look into the possibility of maintaining a module change history log.				May be part of sign out log project