To: Distribution

From: Dave, Grace, Pattie and Peter

Date: June 16, 1975

Subject: System Maintenance Status, May 17 - June 13

1. Significant Events

After numerous problems MSS 25.6 was finally installed.
This system included the new version of the ioi_ interface
and contained a hidden Operational problem in the printer
interface. At this point the problem has been lessened, but
not eliminated.

The System Assurance group has made a significant
change in the handling of group status information. This
report is the result of a group effort and hopefully
contains more accurate and up to date information. In
addition, the group as a whole feels better informed as all
topics reported here have been brought up and discussed by
the whole group, rather than by individuals. In the future,
we expect to shift the actual writing of the report around
to each of the members of the group and to add a
pre-distribution review which wasn't possible this time due
to the late timing of our first report meeting.

A. Online System Installations

During the past four weeks a number of significant
online installations were performed. The new PL/1, Fortran
and runtime packages were installed (several times, due to
problems with update_seg). In addition, the final set of
changes for the first version of the I/O spooler were
installed. Also installed was the new mail facility and a
new answering service for MCS compatibility. Numerous minor
changes were made for the AIM facility, and a variety of
other minor changes and fixes were installed. At this point
we are beginning to make a dent in the online installation
backlog, and have some hopes that we may be caught up in the
next month or so if planned vacations don't interfere too
much.

B. Other Installations

As reported above, MSS 25.6, containing the new ioi_, was finally installed. In addition, MSS 25.7 and 25.7a were installed. These systems contained the security fix for the problem which had allowed users to patch ring 0, an expanded network links table to allow more network users, and several other minor changes. Upcoming changes include MSS 25.8, with changes for PL/1 I/O, a new version of the syserr log processing software with changes for AIM, a further change for absentee I/O, and a new (and much faster) version of the reloader. Also to be installed soon is a new version of BOS containing many minor changes and bug fixes.

C. Crash Analysis

This month saw two unreliable weeks followed by two good weeks. During the first two weeks problems centered around Memories A and C and a problem with the addition of CPU B. At this point all of these problems appear to have been found and corrected.

	May 17-23	May 24-30	May Jun 31-6	Jun 7-13	Total
Hardware	3	5	1	2	11
Hardware Suspected	0	0	0	0	0
Software	3	0	0	0	3
Software Suspected	1	0	0	0	1
Not Yet Analyzed	0	1	0	0	1
Not Analyzable	1	1	0	0	2
Other	0	0	0	0	0
Total	8	7	1	2	18

2. Problem Areas

One of the major reasons for our recent installation backlog has been the quality (or lack thereof) of the submission forms we've been receiving. Recent submissions have contained a wide variety of errors, from incorrect pathnames to incorrect access. At this time we are keeping track of the kinds of problems we find so that John Gintell can write an MAB on the subject. If that doesn't solve the problems we are going to be forced to begin returning the forms to the submitters for correction, rather than attempting to work the problems out over the phone or though the mail and message facilities.

We ran into a serious problem with the online updating tools during the installation of the PL/1 and Fortran changes. This problem turned out to be a problem with the

CSL instruction when used to move long strings (across bound fault boundries). Peter has modified update_seg so that it now uses the MLR instruction, so this problem should be solved.

As mentioned above, the online installation backlog is beginning to come under control, and there is a possibility that we'll be caught up in the next few weeks. Hopefully the quality of submissions will improve, as this is probably the major reason for the backlog.

Recent metering runs have indicated a serious decline in system performance (about 10%) with the installation of MSS 25.7. At this time very little is known about the reason for the decline, but we expect to look into this during the next few weeks.

3. Task Status

In general, very little in the way of progress on tasks was made in the past month. With the online installation backlog, serious hardware problems, and a variety of more important things to do little or no time was available for work on tasks. Grace did get time to do a rewrite of her library_descriptor command to bring it into closer line with Multics "standard", but about a week's worth of work remains to get it debugged and checked out. In addition, Grace has begun to think about the hardcore installation process and how it can best be organized to minimize problems. This work should make the installation tools PLM section on hardcore installations both easier to write and more complete to read.

4. Work Planned for the Coming Month

Grace expects to get time to finish up the work on the library_descriptor command and on the backup error file processing project. Also, Peter will be attending a reliable software class being given at the institute for a week starting today. In addition, we all expect to continue monitoring submissions to keep track of errors.

TASK DESCRIPTION	PERSONNEL	START	FINISH	P-W	CHANGES-STATUS
Online Installations	Kelley Dratel	Continuing Task			
Maintain source lists	Roach	Continuing Task			
Maintain cross reference lists	Kelley (Dratel)	Continuing Task			
Maintain listings	Dratel	Continuing Task			Listings somewhat backlogged due to new compilers.
Crash Analysis	Ackerman-- Lewis (Jordan)	Continuing Task			
Hardcore Installations	Ackerman-- Lewis (Kelley)	Continuing Task			
Operator Interface	Jordan (All)	Continuing Task			
Maintain Hardcore Cross Reference	Jordan	Continuing Task			New lists should be generated.
Consulting	All	Continuing Task			IPC will provide consulting 9-12 every day.
MPRF Handling	All	Continuing Task			IPC handling the administration

TASK DESCRIPTION	PERSONNEL	START	FINISH	P-M	CHANGES-STATUS
Maintain and improve library submission tests	Kelley	Continuing Task			
Convert cross reference to v2		4/15/73			
Upgrade all online installation tool exec_coms for the 6180 and install in the libraries and document them.	Kelley	3/26/73			Work beginning with study of current ec's
Look into compare_source_statement as replacement for cpa					Compare pl/1 source statements ignoring differences in comments and formatting
Design and implement an online system for registering modules being worked on, etc.					
Create a system for processing backup error files to allow notification to users of errors encountered	Ackerman-- Lewis	5/1/74 5/1/74	6/15/74 2/15/75		Installed. Work now being done to make it operational.

TASK DESCRIPTION	PERSONNEL	START	FINISH	P-M	CHANGES-STATUS
Honeywell PLM - AN80: Library Maintenance Manual	Kelley				continuing
library_cleanup: to replace cleanup using the library descriptor	Kelley	11/04/74 11/04/74	11/18/74		no progress
upd_log_task_: fix bug in locking strategy	Kelley				MCR approved - production testing
object_test_: fix bug which deletes some ALM segments	Kelley				not started
recode object_test_ & upd_doc_task_ for changes to object info.	Kelley				not started
modify updating tools to use different hardware for copying segments.	Kelley				Installed