

To: Distribution  
From: David M. Jordan  
Date: February 24, 1975  
Subject: System Maintenance Status, January 25 - February 21

## 1. Significant Events

Our original CPU A has returned from having cache installed. After running for several weeks as CPU C, it was determined that this processor was running reasonably well, so our non-cache processor was shipped out and CPU C was renamed CPU B. (CPU A -> CPU C -> CPU B...)

The AIM software (MSS 25.0) was installed briefly last weeks, but several problems arose and it was pulled. The problems have apparently been corrected, and we expect to try the system again in the next week.

Our printer has been acting up, giving us a variety of problems. More on this problem in the Problem Areas section.

A prototype version of the new ABSI for the IMP has been successfully tested on service. At this time ESL is getting boards made up for a production version of the ABSI.

### A. Online System Installations

During the past month, there were a total of 233 changes to the online libraries. Included among the changes were the installations of Ross Klinger's ANSI and IBM tape modules, the new trace command and the new probe command.

### B. Other Installations

During this reporting period most of the hardcore installation work has been spent preparing the thus far unsuccessful AIM system. However, we did install MSS 24.8 (which included a new IMP dim and several other minor changes), MSS 24.8a and MSS 24.8b (both including fixes for ioi). At this time, we hope to reinstall 25.0 in the next week or so.

### C. Crash Analysis

During this period the system has remained fairly stable, although a combination of hardware and software

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## Multics Task Report

problems during the past week caused a larger number of failures than we would like. At this time it appears that the software problems (two bugs in ioi) have been corrected and that the hardware problems may be under control.

	Jan 25-31	Feb 1-7	Feb 8-14	Feb 15-21	Total
Hardware	2	2	0	7	11
Hardware Suspected	0	0	0	0	0
Software	1	1	4	2	8
Software Suspected	0	0	0	0	0
Not Yet Analyzed	0	0	0	0	0
Not Analyzable	1	0	0	0	1
Other	1	0	0	4	5
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Total	5	3	4	13	25

### 2. Problem Areas

Our only major problem at this time is the printer. During the past month just about everything that could go wrong with the printer has. We have had several periods of extended down time and several periods when it wasn't clear whether the printer was up or down. At this time there appears to be no easy answer for these problems, but the io daemon spooling facility (which could be installed in the next few weeks) has at various times prevented incredible backlogs of print requests. One major concern with having a questionable printer is that we might have to run the salvager without a printer, thus losing whatever output might have been printed. There is now some hope that the salvager can be modified to put its output onto tape, thus allowing us to determine what errors have occurred, but this appears to be several months away.

### 3. Task Status

Arlene's work on library\_fetch is nearing completion. At this time she is debugging the code used for setting access and expects to have the command ready for installation by March 15.

Peter's work on library\_cleanup is now moving to the debugging stage. At this time it appears that library\_cleanup will also be ready for installation around March 15.

Grace has completed the changes to backup requested by the auditors and has returned the package to them for final auditing. It is expected that this will be installed in the next several weeks. In addition, she has completed coding on several sections of library\_descriptor and is now debugging these sections.

## Multics Task Report

Gary finally managed to get some time (well, not much, but a little) to work on the library tools. He has submitted the reduction compiler for installation and has completed the search routines required for library\_fetch and library\_cleanup. In addition, he has been working on the procedures required for eventual installation of the first group of tools (library\_map, library\_print, library\_cleanup, library\_descriptor, etc.) and is hopeful that work on the MCRs required may begin in the not too distant future.

### 4. Work Planned for the Coming Month

We expect to get the AIM hardcore changes installed in the next week or two. In addition, we expect to process a number of further changes for AIM after the hardcore change has been successfully installed.

The changes required for notification to users of errors encountered by backup are expected to be ready for installation in the next week or two.

We expect to have a number of the library tools ready for installation by March 15. With a little luck, we may get as far as actually submitting them for installation before the next month is out.

Hopefully, Pattie will be able to work during the next few weeks and get our listing books back up to date.













PROJECT Library Maintenance Tools Project AREA Installation tool enhancements

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
MIS: write Honeywell PLM - Library Maintenance Manual	Kelley				continuing
update_seg: modify documentation task to document unbundled library (MCR 735)	Kelley				Installed
update_seg: modify to set the default max length of segments to their current length; add option to set length if different from current length. (MCR 807)	Kelley	10/29/74	11/08/74		Installed
update_seg: fix bug in documentation program (MCR 819)	Kelley	10/21/74	10/25/74		Installed
cleanup: modify to use the library descriptor	Kelley	11/04/74	11/18/74		coding almost done
		11/04/74	03/15/75		

PROJECT Library Maintenance Tools Project AREA \_\_\_\_\_ library descriptor tools

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
reduction_compiler (rdc): make relative syntax functions PL/I	Dixon	01/27/75	01/29/75	.1	Submitted for installation with documentation
library_descriptor_compiler (ldc): simplify/increase flexibility-of root naming strategy to meet requirements of Multics library descriptor	Dixon	01/29/75	01/31/75	.1	Coding underway
library_descriptor_compiler (ldc): document the compiler	Dixon	12/09/74	12/20/74	.6	Done
multics_libraries_.ld: recode according to documentation using upgraded ldc	Dixon	02/03/75	02/28/75	.2	Changes documented in MTB-133
multics_library_search_1 implement search technique for library_fetch, library_cleanup, library_info	Dixon	01/27/75	02/28/75	.6	All except library_info done
lib_output_node_1 implement info entry point for use by library_info; this entry formats output for terminal	Dixon	02/05/75	02/07/75	.1	Use hooks which are now present in code
library_info (li): code, document command which replaces msl_info	Dixon	10/05/73	10/30/73	1.5	Add options, convert to iox_, document command
li/m: get and output ACLs, initial ACLs, extra status	Dixon	12/15/73	12/30/73	1.0	
li/m/lpr: add sorting options to commands	Dixon	01/01/74	01/15/74	.5	
document the above procedures and subroutines	Dixon	03/01/74	05/30/74	3	MTB on design
		03/01/74	03/30/75	5	principles published

PROJECT Library Maintenance Tools Project AREA \_\_\_\_\_ Library descriptor tools

TASK DESCRIPTION	PERSONNEL	START	FINISH	M-W	CHANGES-STATUS
lpr: gather and output statistics on library segments				1.5	
library_descriptor (lds): code, document command which lists directories searched by lpr for a given library	Ackerman-- Lewis	11/04/74 11/04/74	12/20/74 03/05/75	1 4	Coding Underway
library_fetch (lf): rewrite gis to use library descriptor	Scherer	10/21/74 10/21/74	12/30/74 03/15/75	2 2.5	Coding Underway
library_cleanup (lcn): clean up the code; use library descriptor	Kelley	11/04/74 11/04/74	12/30/74 03/15/75	1.5 2	Delayed because of online installation work
library_object_cref (loc): rewrite cross-reference to use library descriptor				2.5	
library_include_cref (lic): rewrite lcref to use library descriptor & source maps in standard obj segs				2	
library_check (lck): write program to check on consistency of libraries	Ackerman-- Lewis			3	

