

To: Distribution
From: Betsy Kerr
Date: November 25, 1974
Subject: Multics Change Requests

Enclosed are copies of Multics Change Requests which were approved from November 1 - 15, 1974,

MULTI-CHANGE REQUEST		MCR <u>801</u> Page <u>1</u> of <u>1</u>
TITLE: <u>Install send_mail_ subroutine</u>		STATUS
AUTHOR: <u>Steve Herbst</u>		Written <u>10-1974</u>
SOURCE: (if external) e.g., "User", "Marketing"		Approved <u>11/1974</u>
		Rejected
		Postponed <u>10/8/74</u>
		Withdrawn
		Expires <u>5/19/75</u>

CLASSIFICATION	JUSTIFICATION	
<input type="checkbox"/> Incompatible Change	Marketing Requirement	Replaced by proposal MCR _____
<input checked="" type="checkbox"/> Extension	Conformance to Standard	Implemented in System _____
<input type="checkbox"/> Restriction	Increased Consistency	Objections/Comments: Awaiting MTB
<input type="checkbox"/> Performance Improvement	Simplification	
<input type="checkbox"/> Reliability Improvement	Generalization	
<input type="checkbox"/>	Bug Fix	
<input checked="" type="checkbox"/>	New Feature	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: Secure mail makes it feasible for privileged users such as SysDaemon to send mail. A mail sending subroutine is useful in this context.

SUMMARY: Install subroutine called send_mail_, described on the attached sheet. send_mail_ sends to ring 1 mailboxes and is compatible with the to-be-installed new mail command. See details in MTB 122. mail_table will not be installed yet.

MULTICS CHANGE REQUEST

TITLE: New error_table_codes for tape_ansi_10 Module
AUTHOR: Ross E. Klinger

STATUS	DATE
Written	10/21/74
Approved	11/5/74
Rejected	

SOURCE: (if external) e.g., "User", "Marketing"
MIT - PDO

Postponed	10/29/74
Withdrawn	
Expires	5/5/75

CLASSIFICATION	JUSTIFICATION	
Incompatible Change	M Marketing Requirement	Replaced by proposal MCR _____
M Extension	Conformance to Standard	Implemented in System _____ Objections/Comments: For consistency review. There were changes made on the final approved form.
Restriction	Increased Consistency	
Performance Improvement	Simplification	
Reliability Improvement	Generalization	
	Bug Fix	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: The tape_ansi_10 Module requires new error_table_codes.

SUMMARY: Install 15 new error_table_codes.

IMPLICATIONS: None

DETAILED PROPOSAL: See attached list of new codes.

system:

duplicate_file_id:
file_aborted:
insufficient_open:
invalid_block_length:
invalid_cseg:
invalid_record_desc:
incompatible_encoding_mode:
invalid_label_format:
invalid_record_length:
invalid_file_set_format:

nine_mode_parity:
no_next_volume:
not_ascii_subset:
unexpired_file:
incompatible_file_attribute:
end;

dupfid, File identifier already appears in file set
flabort, Defective file deleted from file set
insufopn, Insufficient information to open
invblk, Invalid physical block length.;
invcseg, Internal inconsistency in control segment
invrdes, Invalid variable-length record descriptor
incencmd, Invalid character encoding mode.;
invlbfmt, File set contains invalid labels.;
invrec, Invalid logical record length.;
invfsfmt, File set structure is invalid.;

par9md, Attempt to write invalid data in 9 mode
nonxtvol, Unable to continue processing on next volume
nascsub, Characters not in 63-character ASCII subset
unexpfi, Cannot overwrite an unexpired file.;
incflatt, specified attribute incompatible with file

MULTICS CHANGE REQUEST

MCR 844
Page 1 of 1 Page:

TITLE: Add error code checks to change_wdir

STATUS DATE

AUTHOR: J. C. Whitmore

Written 10/25/74

Approved 11/5/74

Rejected

SOURCE: (if external) e.g., "User," "Marketing"

Postponed

Withdrawn

Expires 5/5/75

CLASSIFICATION	JUSTIFICATION	
Incompatible Change	Marketing Requirement	Replaced by proposal MCR
Extension	Conformance to Standard	Implemented in System
Restriction	Increased Consistency	Objections/Comments
Performance Improvement	Simplification	
X Reliability Improvement	Generalization	
	Bug Fix	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: "change_wdir" assumes that errors cannot occur when it calls "hcs \$fs_search set_wdir". With the Access Isolation Mechanism, it is now possible for an error to occur. However, "change_wdir" does not check the returned error code as it should.

Summary: change "change_wdir" to test the error code returned and report error to the user.

Implications: none. Upward compatible

MULTIPLI CHANGE REQUEST

MCR 845
Page 1 of 1 Pages

TITLE: **Fix bug in mseg_index_**

STATUS	DATE
Written	10/28
Approved	11/5/74
Rejected	

AUTHOR: **Steve Herbst**

SOURCE: (if external) e.g., "User", "Marketing"

Postponed	
Withdrawn	
Expires	5/5/75

CLASSIFICATION	JUSTIFICATION	Replaced by proposal MCR _____
<input type="checkbox"/> Incompatible Change	<input type="checkbox"/> Marketing Requirement	Implemented in System _____
<input type="checkbox"/> Extension	<input type="checkbox"/> Conformance to Standard	Objections/Comments:
<input type="checkbox"/> Restriction	<input type="checkbox"/> Increased Consistency	
<input checked="" type="checkbox"/> Performance Improvement	<input type="checkbox"/> Simplification	
<input type="checkbox"/> Reliability Improvement	<input type="checkbox"/> Generalization	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Unreported Bug Fix	
<input type="checkbox"/>	<input type="checkbox"/>	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS:

When mseg_index_ is called to close a message segment, it terminates the segment and invalidates the index. This is bad if several programs are using and closing the same message segment.

SUMMARY: Keep a reference count for each message segment opened and invalidate the index only when ref_count(index)=0.

MULTICS CHANGE REQUEST		MCR <u>847</u> Page <u>1</u> of <u>1</u> Pages
TITLE: Fix bug in compare		STATUS
AUTHOR: <u>Steve Herbst</u>		DATE
SOURCE: (if external) e.g., "User", "Marketing"		Written <u>10/29/74</u>
		Approved <u>11/5/74</u>
		Rejected
		Postponed
		Withdrawn
		Expires <u>5/5/75</u>

CLASSIFICATION	JUSTIFICATION	Replaced by proposal MCR _____
<input type="checkbox"/> Incompatible Change	<input type="checkbox"/> Marketing Requirement	Implemented in System _____
<input type="checkbox"/> Extension	<input type="checkbox"/> Conformance to Standard	Objections/Comments:
<input type="checkbox"/> Restriction	<input type="checkbox"/> Increased Consistency	
<input checked="" type="checkbox"/> Performance Improvement	<input type="checkbox"/> Simplification	
<input type="checkbox"/> Reliability Improvement	<input type="checkbox"/> Generalization	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Unreported Bug Fix	
<input type="checkbox"/>	<input type="checkbox"/>	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: **Bad error message**

"compare: Entry not found. path|offset is foo"

will be changed to

"compare: Entry not found. foo"

SUMMARY: **Fix message.**

MULTI-CHANGE REQUEST		MCR <u>848</u> Page <u>1</u> of <u>1</u> Pages
TITLE: Fix bug in answer command	STATUS	DATE
AUTHOR: <u>Steve Herbst</u>	Written	10/30
	Approved	11/5/74
	Rejected	
SOURCE: (if external) e.g., "User", "Marketing"	Postponed	
	Withdrawn	
	Expires	5/5/75

CLASSIFICATION	JUSTIFICATION	REASON
<input type="checkbox"/> Incompatible Change	<input type="checkbox"/> Marketing Requirement	Replaced by proposal MCR _____
<input type="checkbox"/> Extension	<input type="checkbox"/> Conformance to Standard	Implemented in System _____
<input type="checkbox"/> Restriction	<input type="checkbox"/> Increased Consistency	Objections/Comments:
<input type="checkbox"/> Performance Improvement	<input type="checkbox"/> Simplification	
<input checked="" type="checkbox"/> Reliability Improvement	<input type="checkbox"/> Generalization	
<input type="checkbox"/>	<input checked="" type="checkbox"/> Unreported Bug Fix	
<input type="checkbox"/>		

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: The command line given to answer has a maximum of 132 characters. A line longer than this writes over answer's automatic storage and causes a bad error.

SUMMARY: Fix answer command to take any length command line.

MULTIPLE CHANGE REQUEST

MCR 849
Page 1 of 1

TITLE: Add symbolic tag designations to ALM	STATES	
	Written	11/1/74
AUTHOR: B. Greenberg	Approved	11/5/74
	Rejected	
SOURCE: (if external) e.g., "User", "Marketing"	Postponed	
	Withdrawn	
	Expires	5/5/75

CLASSIFICATION	JUSTIFICATION	
	Incompatible Change	Marketing Requirement Replaced by proposal MCR _____ Implemented in System _____
x	Extension	Conformance to Standard Objections/Comments:
	Restriction	x Increased Consistency For improved consistency only.
	Performance Improvement	Simplification
	Reliability Improvement	x Generalization
		Bug Fix

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: The current (slated for installation) ALM accepts expressions of the form

tsx foo,bar

to mean tsx3 bar where
foo is booled or equated to 3. It does not, however, accept

tsx2 bar,foo

to mean tsx2 bar,3

This apparent oversight negates the entire reason for using the first form of symbolic designations, i.e., mnemonic designations for register usage, and crossreferencing of register usage.

Several large ALM coding tasks, including a new page control and a major revision to BOS, lie ahead of us. This feature DOES NOT increase the power or utility or attraction of the ALM language, but only increases its consistency and makes ALM programs more debuggable.

SUMMARY:

A two-line change to the program modevl_p11 fully implements this downward-compatible change.

IMPLICATIONS: Greater comprehensibility of ALM code, greater ease in finding register usage bugs and reassigning register usages.

Multics Change Request

TITLE: Fix bug in acl_ STATUS DATE
AUTHOR: E. Stone Written 11/4/74

-Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL
-Planned for System MR 2.0
-Fixes Bug Number(s) unreported
-Documented in MTB _____
-User/Operations-visible
Interface change? yes no
-Incompatible change? yes no
-Performance: Better Same
 Worse
-Replaces MCR _____

Category (Check One)	
<input type="checkbox"/>	Lib. Maint. Tools
<input type="checkbox"/>	Sys. Anal. Tools
<input type="checkbox"/>	Sys. Prog. Tools
<input type="checkbox"/>	355
<input type="checkbox"/>	BOS
<input type="checkbox"/>	Salvager
<input checked="" type="checkbox"/>	Ring Zero
<input type="checkbox"/>	Ring One
<input type="checkbox"/>	SysDaemon/Admin.
<input type="checkbox"/>	Runtime
<input type="checkbox"/>	User Cmmnd/Subr.

Status: A 11/12/74
Expires: 5/12/75

DOCUMENTATION CHANGES	
Document	Specify One or More
	MPM (Vol, Sect.)
	PLMS (AN #)
	MOSN (Sect.)
	MPAM (Sect.)
	MSAM (Sect.)

Objections/Comments:

Info Segs
Other (Name)
None (Reason) no interface changes

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: A bug was introduced in the latest version of acl which caused the incorrect deletion of an entire ACL. This bug has the property of causing a loop if the ACL is an Initial ACL, if the directory has not been salvaged for some time and if many deletions of ACLs take place within a directory.

MULTIPLE CHANGE REQUEST

MCR 851
Page 1 of 1

TITLE: Remove extend option on iox \$open

STATUS	
Written	11/4/74
Approved	11/12/74
Rejected	
Postponed	
Withdrawn	
Expires	5/12/75

AUTHOR: M. D. MacLaren

SOURCE: (if external) e.g., "User", "Marketing"

CLASSIFICATION	JUSTIFICATION	Replaced by proposal MCR _____
<input type="checkbox"/> Incompatible Change	<input type="checkbox"/> Marketing Requirement	Implemented in System _____
<input type="checkbox"/> Extension	<input type="checkbox"/> Conformance to Standard	Objections/Comments:
<input checked="" type="checkbox"/> Restriction	<input checked="" type="checkbox"/> Increased Consistency	
<input type="checkbox"/> Performance Improvement	<input checked="" type="checkbox"/> Simplification	
<input type="checkbox"/> Reliability Improvement	<input type="checkbox"/> Generalization	
<input type="checkbox"/>	<input type="checkbox"/> Bug Fix	

Use these headings: REASONS, SUMMARY, IMPLICATIONS, DETAILED PROPOSAL (Optional)

REASONS: The current specifications for the I/O system allow file extension to be specified at attach time or at open time. The option to say extend at open time turns out to be a pointless duplication of function. Fortunately, it appears that no one yet uses this facility, so we can safely remove it.

SUMMARY: Change the MPM documentation. As existing I/O modules are worked on, have them return error_table \$no_operation if the third argument of open is "l"b.

Multics Change Request

TITLE: Upgrade peruse_text to Version 2 PL/I.		STATUS	DATE
AUTHOR: C. T. Clingen		Written	11/6/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____	Category (Check One)	Status	D 11/12/74
	<input type="checkbox"/> Lib. Maint. Tools	Expires	5/12/75
	<input type="checkbox"/> Sys. Anal. Tools	DOCUMENTATION CHANGES	
	<input type="checkbox"/> Sys. Prog. Tools	Document	Specify One or More
	<input type="checkbox"/> 355	MPM (Vol, Sect.)	
<input type="checkbox"/> BOS	PLMS (AN #)		
<input type="checkbox"/> Salvager	MOSN (Sect.)		
<input type="checkbox"/> Ring Zero	MPAM (Sect.)		
<input type="checkbox"/> Ring One	MSAM (Sect.)		
<input type="checkbox"/> SysDaemon/Admin.			
<input type="checkbox"/> Runtime			
<input checked="" type="checkbox"/> User Cmnd/Subr.			
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	No interface changes

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Make minor changes to peruse_text, make_peruse_text, build_peruse_text, string_to_label_ to convert them from version 1 to version 2 PL/I.

REASONS: Reduce system dependency on version 1 PL/I. Improve performance (bound object code size is reduced by 14%).

Multics Change Request

TITLE: Add PRU1200/1600 printer support to BOS		STATUS	DATE	
AUTHOR: <i>Noel I. Hunt</i>		Written	11/06/74	
-Coded in: <input type="checkbox"/> PL/I <input checked="" type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR 2.0 -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____	Category (Check One)	Status	A 11/12/74	
		Lib. Maint. Tools	Expires	5/12/75
		Sys. Anal. Tools	DOCUMENTATION CHANGES	
		Sys. Prog. Tools	Document	Specify One or More
	355	MPM (Vol, Sect.)		
	X BOS	PLMS (AN #)		
	Salvager	MOSN (Sect.)	8.2.1	
	Ring Zero	MPAM (Sect.)		
	Ring One	MSAM (Sect.)		
	SysDaemon/Admin.	Info Segs		
	Runtime	Other (Name) listings		
	User Cmmd/Subr.	None (Reason)		
Objections/Comments:				

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY:

Modify the BOS utility procedure "getprt" to initialize and load the train image and VFC image for the PRU1200 and PRU1600 printers. No other BOS modifications are needed.

Multics Change Request

MCR 854
Page 1 of

TITLE: Modify Multics printer DIM to use I/O		STATUS	DATE
AUTHOR: Interfacer		Written	11/06/74
Noel I. Morris		Status	D 11/12/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input checked="" type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Expires	5/12/75
-Planned for System MR 2.0		DOCUMENTATION CHANGES	
-Fixes Bug Number(s) _____		Document	Specify One or More
-Documented in MTB _____		355	
-User/Operations-visible		BOS	
Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		Salvager	MPM (Vol, Sect.)
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		Ring Zero	PLMS (AN #) 57
-Performance: <input type="checkbox"/> Better <input type="checkbox"/> Same		Ring One	MOSN (Sect.)
<input type="checkbox"/> Worse		X SysDaemon/Admin.	MPAM (Sect.)
-Replaces MCR _____		Runtime	MSAM (Sect.)
		User Cmnd/Subr.	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: A user-ring DIM for operating printers through the I/O Interfacer will be provided. A new ALM-coded printer code conversion package will also be provided. The entire package will provide the capability of running any ASCII printer modal from PRT202 through PRU1600.

Installation procedure:

Installation of the new software can take place in three steps:

1. The entire package can be bound into a single segment, `bound_prtdim_`. This segment can be installed as an online installation. The old printer DIM in `bound_iodd_` can be removed at this time. The old printer DCM will remain in the hardcore, but will not be used by the new software.
2. The printer DCM can be removed from the hardcore. Those portions of the new printer software (i.e. printer initialization and code conversion) which may also be used by the salvager print package and the trace package will be installed as a new segment in collection 1. This segment will be accessible in rings 0 through 5. The trace package and salvager print package will be modified at this time to take advantage of the new software.
3. Those portions of the new printer software which have been installed in the hardcore can be removed from `bound_prtdim_`.

TITLE: Modify I/O Daemon for new printer DIM		STATUS	DATE
AUTHOR: Noel I. Morris		Written	11/8/74
-Coded in: <input type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR 2.0 -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
Category (Check One) <input type="checkbox"/> Lib. Maint. Tools <input type="checkbox"/> Sys. Anal. Tools <input type="checkbox"/> Sys. Prog. Tools <input type="checkbox"/> 355 <input type="checkbox"/> BOS <input type="checkbox"/> Salvager <input type="checkbox"/> Ring Zero <input type="checkbox"/> Ring One <input checked="" type="checkbox"/> SysDaemon/Admin. <input type="checkbox"/> Runtime <input type="checkbox"/> User Cmmnd/Subr.		DOCUMENTATION CHANGES	
Objections/Comments:		Document	Specify One or More
		MPM (Vol, Sect.)	
		PLMS (AN #)	58
		MOSN (Sect.)	
		MPAM (Sect.)	
		MSAM (Sect.)	
		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Two changes are needed to the I/O Daemon to support the new printer software:

1. Since the I/O Interfacer does not set the interaction switch, a means is needed to keep the printer running on a heavily loaded system. I/O Daemon driver initialization will be modified to call `hphcs_$pxss_set_timax` if the process in which the daemon is running has `hphcs_access`. This change will be removed or modified when a new priority scheduler is implemented.
2. The write entry of the new printer DIM will sometimes return to its caller with printer I/O still in progress. Under certain conditions, the last few lines of a print request may not be output until the next request is started. (This is identical to the operation of the punch DIM.) An order call is provided in the printer DIM to "runout" the unprinted output. The I/O Daemon driver will be modified to make a "runout" order call for printed output as well as punched.

Implications:

The setting of a low `timax` in a process which is I/O bound cannot result in any significant reduction of system performance since such a process is blocked most of the time. If we assume that the printer runs at 1200 lpm (it is actually slower than that) and that conversion and queuing of a print line takes approx. 1 millisecond, the printer driver process can get no more than 2% of the machine.

Multics Change Request

TITLE: Modify nonstandard tape DIM for 1600 bpi
AUTHOR: N. I. Morris

STATUS	DATE
Written	11/8/74
Status	A 11/19/74
Expires	5/19/75

-Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL
-Planned for System MR NA
-Fixes Bug Number(s) _____
-Documented in MTB _____
-User/Operations-visible
Interface change? yes no
-Incompatible change? yes no
-Performance: Better Same
 Worse
-Replaces MCR _____

Category (Check One)	
<input type="checkbox"/>	Lib. Maint. Tools
<input type="checkbox"/>	Sys. Anal. Tools
<input type="checkbox"/>	Sys. Prog. Tools
<input type="checkbox"/>	355
<input type="checkbox"/>	BOS
<input type="checkbox"/>	Salvager
<input type="checkbox"/>	Ring Zero
<input type="checkbox"/>	Ring One
<input type="checkbox"/>	SysDaemon/Admin.
<input type="checkbox"/>	Runtime
<input checked="" type="checkbox"/>	User Cmmnd/Subr.

DOCUMENTATION CHANGES	
Document	Specify One or More
MPM (Vol, Sect.)	
PLMS (AN #)	57
MOSN (Sect.)	
MPAM (Sect.)	
MSAM (Sect.)	
Info Segs	
Other (Name)	
None (Reason)	

Objections/Comments:

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY:

It is desirable to be able to read and write nonstandard tapes at any density that the tape handlers are capable of accommodating. Four new order codes will be provided in the DIM. These are summarized below:

<u>order</u>	<u>set density to</u>
d200	200 bpi
d556	556 bpi
d800	800 bpi
d1600	1600 bpi

The default density will remain at 800 bpi. The existing order codes of "high" and "low" will continue to set the tape handler to 800 bpi and 556 bpi respectively.

TITLE: Printing of access classes by lar/ldr		STATUS	DATE
AUTHOR: Jerry Stern		Written	11/8/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> AIM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR 3.0 -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
		Document	Specify One or More
		MPM (Vol, Sect.)	Vol 3 Sect 9
		PLMS (AN #)	
		MOSN (Sect.)	
		MPAM (Sect.)	
		MSAM (Sect.)	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Change the commands list_abs_requests and list_daemon_requests to print the access class of each request when the "-long" option is specified. The access_class of requests will be printed if not equal to the current authorization of the process. If the access_class string would be null under this situation, the message "null access class" will be printed instead. Upward compatible and invisible at MIT.

Reasons: Once the Access Isolation Mechanism is available, it will be of interest to users to know the access classes of requests in the absentee and I/O queues.

Implications: For compatibility with sites not wishing to use the Access Isolation controls, the access class line will be entirely omitted when the character string associated with the access class is null. However, even in this case, there will still be a slight additional cost incurred to convert the binary access class to a character string.

Multics Change Request

TITLE: Fix inconsistent declaration of ACL tag		STATUS	DATE	
AUTHOR: E. Stone		Written	11/8/74	
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) unreported -Documented in MTB -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR	Category (Check One)		Status	
	Lib. Maint. Tools		Expires	
	Sys. Anal. Tools		DOCUMENTATION CHANGES	
	Sys. Prog. Tools		Document Specify One or More	
355		MPM (Vol, Sect.)		
BOS		PLMS (AN #)		
X Ring Zero		MOSN (Sect.)		
Ring One		MPAM (Sect.)		
SysDaemon/Admin.		MSAM (Sect.)		
Runtime		Info Segs		
User Cmnd/Subr.		Other (Name)		
Objections/Comments:		None (Reason) no interface change		

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: The declaration for the tag field of an intermediate form of an ACL is declared char (1) aligned in some procedures and char (1) unaligned in others. The program acc_list should be changed so that this item is declared char (1) aligned to be consistent with declarations of this datum in other programs.

REASONS: This mis-declaration in the module acc_name resulted in a bug that was most difficult to identify. While this experience is in recent memory, I would like to preclude any repetition.

The problem results from the fact that when storing into this item the PL1 compiler does not pad with zeros if declared unaligned, but does assume a zero pad when comparing it.

Multics Change Request

TITLE: Delete get_entry_name and get_defname		STATUS	DATE
AUTHOR: Andrew Mason (MAC)		Written	11/11/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR _____ -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
<input type="checkbox"/> Lib. Maint. Tools			
<input type="checkbox"/> Sys. Anal. Tools			
<input type="checkbox"/> Sys. Prog. Tools			
<input type="checkbox"/> 355			
<input type="checkbox"/> BOS			
<input type="checkbox"/> Salvager			MPM (Vol, Sect.)
<input checked="" type="checkbox"/> Ring Zero			PLMS (AN #)
<input type="checkbox"/> Ring One			MOSN (Sect.)
<input type="checkbox"/> SysDaemon/Admin.			MPAM (Sect.)
<input type="checkbox"/> Runtime			MSAM (Sect.)
<input type="checkbox"/> User Cmmd/Subr.			
Objections/Comments:		Info Segs	Pending Changes
		Other (Name)	
		None (Reason)	no document mentions these entries

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Remove the entry hcs_\$get_entry_name and delete get_entry_name and get_defname from bound_file_system.

REASONS: I wish to delete the hardcore programs get_entry_name and get_defname. Both are unused and obsolete, since their functions are provided by get_entry_name and get_defname. According to cross-reference listings, no other system program refers to either of these entries; and according to metering done on hcs_, the entry hcs_\$get_entry_name is not called by users.

IMPLICATIONS: None. Removes obsolete and unused programs from hardcore.

Multics Change Request

TITLE: Cross check for salvage not preceded by a shutdown.
AUTHOR: B. Vinograd

STATUS	DATE
Written	11/11/74
Status	A 11/19/74
Expires	12/19/75

- Coded in: PL/I ALM other-explain in DETAILED PROPOSAL
- Planned for System MR next
- Fixes Bug Number(s) _____
- Documented in MPB _____
- User/Operations-visible Interface change? yes no
- Incompatible change? yes no
- Performance: Better Same Worse
- Replaces MCR _____

Category (Check One)	
<input type="checkbox"/>	Lib. Maint. Tools
<input type="checkbox"/>	Sys. Anal. Tools
<input type="checkbox"/>	Sys. Prog. Tools
<input type="checkbox"/>	355
<input checked="" type="checkbox"/>	BOS
<input type="checkbox"/>	Salvager
<input type="checkbox"/>	Ring Zero
<input type="checkbox"/>	Ring One
<input type="checkbox"/>	SysDaemon/Admin.
<input type="checkbox"/>	Runtime
<input type="checkbox"/>	User Cmmnd/Subr.

DOCUMENTATION CHANGES	
Document	Specify One or More
MPM (Vol, Sect.)	
PLMS (AN #)	
MOSN (Sect.)	5.0
MPAM (Sect.)	
MSAM (Sect.)	
Info Segs	
Other (Name)	
None (Reason)	

Objections/Comments:

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Prior to running the Salvager, a shutdown operation should be done to update the paging device and secondary storage. A change to BOS is proposed which checks that this sequence of operations has been done and if not, asks the operator if he wants to proceed.

REASONS: If the shutdown operation is not done prior to a salvage, information in core will be lost. This may cause the salvager to delete valuable portions of the hierarchy.

IMPLICATIONS: If a save of an inconsistent hierarchy is restored and then salvaged the questioning of the operator may occur when it should not.

TITLE: Fix bug in syserr_log size computation		STATUS	DATE
AUTHOR: L. Scheffler		Written	11/12/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Status	A 11/19/74
		Expires	5/19/75
-Planned for System MR		DOCUMENTATION CHANGES	
-Fixes Bug Number(s) <u>unreported</u>		Category (Check One)	Document Specify One or More
-Documented in MTB		Lib. Maint. Tools	
-User/Operations-visible		Sys. Anal. Tools	
Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		Sys. Prog. Tools	
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		355	
-Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same		BOS	
<input type="checkbox"/> Worse		Salvager	MPM (Vol, Sect.)
-Replaces MCR		X Ring Zero	PLMS (AN #)
		Ring One	MOSN (Sect.)
		SysDaemon/Admin.	MPAM (Sect.)
		Runtime	MSAM (Sect.)
		User Cmmd/Subr.	
Objections/Comments:			Info Segs
			Other (Name)
			None (Reason) internal change

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Make syserr_log_init compute the size of syserr_log from the SLT bounds field instead of the AST size.

REASONS: Currently, in a non-foolproof attempt to make the system idiot-resistant, syserr_log_init computes the size of the syserr_log (stored in the syserr_log header) as the minimum of the size on the PART LOG card and the size of the AST used. This can result in a bounds fault in syserr_logger in ring 0 if the PART LOG card specifies a 256. K log (as it does now), and the header specifies a max_length not equal to an AST size. (It should be 255 to keep the log from wrapping around often. It is now 64.)

IMPLICATIONS: One less crash in the future.

DETAILED PROPOSAL:

1. Change header max_length for syserr_log to 255.
2. Change syserr_log_init to use the SLT bounds field for syserr_log in its log size computation.



TITLE: Installation of user command, trace		STATUS	DATE
AUTHOR: Susan Barr		Written	11/11/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) -- -Documented in MTB 12 -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR		Status	11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
Category (Check One) <input type="checkbox"/> Lib. Maint. Tools <input type="checkbox"/> Sys. Anal. Tools <input type="checkbox"/> Sys. Prog. Tools <input type="checkbox"/> 355 <input type="checkbox"/> BOS <input type="checkbox"/> Salvager <input type="checkbox"/> Ring Zero <input type="checkbox"/> Ring One <input type="checkbox"/> SysDaemon/Admin. <input type="checkbox"/> Runtime <input checked="" type="checkbox"/> User Cmnd/Subr.		Document	Specify One or More
Objections/Comments: trace_operators_ should be on the system tape; preferably in the same segment as pls_operators_		MPM (Vol, Sect.)	III Commands
		PLMS (AN #)	
		MOSN (Sect.)	
		MPAM (Sect.)	
		MSAM (Sect.)	
		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

Summary:

Barry Wolman's trace as described in MTB 12 should be installed in system_library_standard with a few modifications. The major change enables trace to use a set of pl1_operators_ that do tracing so that the hardcore pl1_operators_ won't have the tracing overhead.

Proposal:

Install the current trace with the following modifications:

1. The option "-stream" for stream name should be changed to "-io_switch" ("-is") to be compatible with the iox_naming conventions.
2. The options "-halt" and "-stop" are confusing and should be renamed. The function should be changed to make the options more general.
 - a. Current stop options:
 - halt requests trace to call debug before the procedure being traced has been entered (before its stack frame has been created.)
 - stop requests trace to call debug after the procedure being traced has finished, (when its stack frame is no longer available.)
 - b. Proposed stop options:
 - before requests trace to call the command processor before the procedure being traced is entered.
 - after requests trace to call the command processor after the procedure being traced is completed.

3. There should be an option to permit programmers to call a procedure (such as debug) instead of the command processor with stop requests.

```
-stop_proc refname$entry  
-stop_proc ""
```

This option changes the procedure called on all "-before" and "-after" requests. If a null string is given the command processor will be called. The default, if no stop_proc is specified, is the command processor.

4. There will be two sets of p11_operators_: the hardcore version, without tracing instructions; and trace version, with tracing. This proposal for two sets of operators will be the subject of another MCR.
 - a. If the user is not at level 1, trace prints an error message and returns. If trace changed the operators at this point the stack would be inconsistent -- the stack frames already present would use the standard p11_operators_ and later procedures would use the trace p11_operators_.
 - b. The first time trace is called it changes the p11_operators_ from the standard version to the trace version. If the user is not using the standard, operators no change is made; a message is printed; and trace assumes the p11_operators_ in use have the tracing instructions.
 - c. When the user removes tracing from all procedures, trace also restores the standard p11_operators_, (if trace had made the change originally).

TITLE: Modify grab_tape_drive to be compatible with system 24.1		STATUS	DATE
AUTHOR: Susan Barr		Written	11/11/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) unreported -Documented in MTB -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
<input type="checkbox"/> Lib. Maint. Tools			
<input type="checkbox"/> Sys. Anal. Tools			
<input checked="" type="checkbox"/> Sys. Prog. Tools			
355			
BOS			
Salvager			MPM (Vol, Sect.)
Ring Zero			PLMS (AN #)
Ring One			
SysDaemon/Admin.			MOSN (Sect.)
Runtime			MPAM (Sect.)
User Cmmnd/Subr.			MSAM (Sect.)
Info Segs			
Other (Name)			
None (Reason)			

Objections/Comments:

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: grab_tape_drive looks at a ring 0 data base to see how many tape drives are in use. It calls phcs_\$ring_0_peek which no longer exists.

PROPOSAL: The procedure should call ring_zero_peek_ to get the data base instead.

Multics Change Request

MCR 866

Page 1 of 1

TITLE: Fix bug in get_quota		STATUS	DATE
AUTHOR: S. Herbst		Written	11/12/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) <u>unreported</u> -Documented in MTB -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
<input type="checkbox"/> Lib. Maint. Tools			
<input type="checkbox"/> Sys. Anal. Tools			
<input type="checkbox"/> Sys. Prog. Tools			
<input type="checkbox"/> 355			
<input type="checkbox"/> BOS			
<input type="checkbox"/> Salvager			MPM (Vol, Sect.)
<input type="checkbox"/> Ring Zero			PLMS (AN #)
<input type="checkbox"/> Ring One			MOSN (Sect.)
<input type="checkbox"/> SysDaemon/Admin.			MPAM (Sect.)
<input type="checkbox"/> Runtime			MSAM (Sect.)
<input checked="" type="checkbox"/> User Cmnd/Subr.			
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	no interface change

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Fix get_quota to work correctly when given the starname ">***".

REASONS: After the star convention is applied to ">***", pathnames are formed by putting a ">" between the directory name and each entry name. When the directory name is ">", the result is ">>entry_name".

Multics Change Request

TITLE: Fix bug in change_tuning_parameters		STATUS	DATE
AUTHOR: S. Herbst		Written	11/11/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> AIM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) 344 -Documented in MTB -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
		Document	Specify One or More
			MPM (Vol, Sect.)
			PLMS (AN #)
			MOSN (Sect.)
			MPAM (Sect.)
			MSAM (Sect.)
Objections/Comments:			Info Segs
			Other (Name)
			None (Reason) no interface change

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Fix change_tuning_parameters to work with the answer command.

Multics Change Request

TITLE: Fix bug in mexp		STATUS	DATE
AUTHOR: S. Webber		Written	11/11/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Category (Check One)	
		Lib. Maint. Tools	
-Planned for System MR NA		Status	H 11/19/74
-Fixes Bug Number(s) <u>unreported</u>		Expires	5/19/75
-Documented in MTB		DOCUMENTATION CHANGES	
-User/Operations-visible		Document	Specify One or More
Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		MPM (Vol, Sect.)	
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		PLMS (AN #) Tools AN51	
-Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same		MOSN (Sect.)	
<input type="checkbox"/> Worse		MPAM (Sect.)	
-Replaces MCR		MSAM (Sect.)	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: The &An feature does not currently work. The arguments substituted in are incorrect.

REASONS:

IMPLICATIONS:

DETAILED PROPOSAL: The code will be converted to full EIS as part of the fix.

Multics Change Request

TITLE: Change pll_frame_and get_entry_name_to expect new entry pointer values		STATUS	DATE	
AUTHOR: S. Webber		Written	11/11/74	
<input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____	Category (Check One)		Status A 11/19/74	
	<input type="checkbox"/> Lib. Maint. Tools	Expires 5/19/75		
	<input type="checkbox"/> Sys. Anal. Tools	DOCUMENTATION CHANGES		
	<input checked="" type="checkbox"/> Sys. Prog. Tools	Document	Specify One or More	
	355			
	BOS	MPM (Vol, Sect.)		
	Salvager	PLMS (AN #) AN79-to be written		
	Ring Zero	MOSN (Sect.)		
	Ring One	MPAM (Sect.)		
	SysDaemon/Admin.	MSAM (Sect.)		
Runtime				
<input checked="" type="checkbox"/> User Cmnd/Subr.				
Objections/Comments:		Info Segs		
		Other (Name)		
		None (Reason)		

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: As part of the new call/push/return changeover, these programs should be installed so that either the new entry pointer values or the old (standard) ones are accepted for version II PL/I.

REASONS: Part of the call/push/return change = a performance improvement.

IMPLICATIONS: These programs should be installed before the new operators are.

Multics Change Request

MCR870
Page 1 of 1

TITLE: Install new pll_operators_ for call/push/re-		STATUS	DATE
AUTHOR: S. Webber		Written	11/11/74
-Coded in: <input type="checkbox"/> PL/I <input type="checkbox"/> ALM <input checked="" type="checkbox"/> Other-		Status	A 11/19/74
-explain in DETAILED PROPOSAL		Expires	5/19/75
-Planned for System MR NA		DOCUMENTATION CHANGES	
-Fixes Bug Number(s)		Category (Check One)	
-Documented in MTB		<input type="checkbox"/> Lib. Maint. Tools	
-User/Operations-visible		<input type="checkbox"/> Sys. Anal. Tools	
Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		<input type="checkbox"/> Sys. Prog. Tools	Document Specify One or More
-Incompatible change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		<input type="checkbox"/> 355	
-Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same		<input type="checkbox"/> BOS	
<input type="checkbox"/> Worse		<input type="checkbox"/> Salvager	MPM (Vol, Sect.)
-Replaces MCR		<input checked="" type="checkbox"/> Ring Zero	PLMS (AN #) AN84 to be written
		<input type="checkbox"/> Ring One	
		<input type="checkbox"/> SysDaemon/Admin.	MOSN (Sect.)
		<input type="checkbox"/> Runtime	MPAM (Sect.)
		<input type="checkbox"/> User Cmmnd/Subr.	MSAM (Sect.)
Objections/Comments:			Info Segs
			Other (Name)
			None (Reason)

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: A new call/push/return sequence (affecting only the version II PD/I programs) is proposed. The faster sequence results from:

1. deleting the trace code in the operators for the normal user,
2. making better use of the larger number of pointer registers on the 6180,
3. changing (for version II PL/I only) the meaning of stack_frame, entry_ptr.

REASONS: Performance improvement (20% for argumentless call).

DETAILED PROPOSAL: The installation plan is as follows:

1. Install pll_frame_ and get_entry_name_ and any other necessary online programs to recognize new entry pointer values. (MCR 869)
2. Incorporate the new trace operators into pll_operators_ and install in the hardcore.
3. Install trace.

pll_operators_ will be converted from alm to mexp to allow the trace code to be conditionally assembled.

TITLE: Fix security hole in init_branches	STATUS	DATE
AUTHOR: Paul A. Green	Written	741113

-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) NA -Documented in MTB NA -User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR	Category (Check One) <input type="checkbox"/> Lib. Maint. Tools <input type="checkbox"/> Sys. Anal. Tools <input type="checkbox"/> Sys. Prog. Tools <input type="checkbox"/> 355 <input type="checkbox"/> BOS <input checked="" type="checkbox"/> Salvager <input checked="" type="checkbox"/> Ring Zero <input type="checkbox"/> Ring One <input type="checkbox"/> SysDaemon/Admin. <input type="checkbox"/> Runtime <input type="checkbox"/> User Cmmnd/Subr.	Status A Expires 5/19/74 5/17/75
	DOCUMENTATION CHANGES	
Document Specify One or More MPM (Vol, Sect.) PLMS (AN #) AN70 MOSN (Sect.) MPAM (Sect.) MSAM (Sect.)		

Objections/Comments:	Info Segs
	Other (Name)
	None (Reason)

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY:

Change init_branches to remove acl of "s *.*.*" on process_dir_dir and initializer's process directory.

REASONS:

Currently the ACL of the above-mentioned directories is set to status for everyone, for historical reasons. This glitch allows any user to create a list of the process_group_id to process_id binding for all processes on the system (since the process_id is used to create the unique name for the user's process directory, and since status permission on pdd allows both the names (and hence process_id) and ACLS (and hence, process_group_id) to be listed). Thus any user may find out who is really logged-in, even if a user has the "nolist" attribute which keeps him/her out of the whotable.

IMPLICATIONS:

Closes an information path. Does not prevent users from listing their own process directory, nor from obtaining the quota on their own process directory. It will prevent them from listing the ACL on their own process directory (which they would not be able to change, anyway).

DETAILED PROPOSAL:

Above changes have been coded and tested on the CISL development machine. While this module is open, one change will also be made at the request of MIT; the name "s1" will be added to system_library_1.

TITLE: Automatic page deletion		STATUS	DATE
AUTHOR: B. Greenberg		Written	11/14/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) _____ -Documented in MIB _____ -User/Operations-visible Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no -Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
<input type="checkbox"/> Lib. Maint. Tools			
<input type="checkbox"/> Sys. Anal. Tools			
<input type="checkbox"/> Sys. Prog. Tools			
<input type="checkbox"/> 355			
<input type="checkbox"/> BOS			
<input type="checkbox"/> Salvager		MPM (Vol, Sect.)	
<input checked="" type="checkbox"/> Ring Zero		PLMS (AN #) 71, 60	
<input type="checkbox"/> Ring One		MOSN (Sect.) 6.6	
<input type="checkbox"/> SysDaemon/Admin.		MPAM (Sect.)	
<input type="checkbox"/> Runtime		MSAM (Sect.)	
<input type="checkbox"/> User Cmmnd/Subr.			
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Implement a mechanism to automatically delete main memory pages on which parity errors are taken. This prevents repetitive errors, and the likelihood of fatal errors. Thus, it is a reliability improvement.

REASONS: The system should be adaptive to hardware problems.

IMPLICATIONS: MOSN/MOH documentation

DETAILED PROPOSAL:

Parity fault handler, after checking again for problem via abs_seg, will call new page-control primitive to delete core block.

Page control, on noticing a parity error on a page write at interrupt time, will do similarly.

TITLE: Implement DELMEM command		STATUS	DATE
AUTHOR: B. Greenberg		Written	11/14/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR NA -Fixes Bug Number(s) _____ -Documented in MTB _____ -User/Operations-visible Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input type="checkbox"/> no -Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____		Status	A 11/19/74
		Expires	5/19/75
		DOCUMENTATION CHANGES	
		Document	Specify One or More
		MPM (Vol, Sect.)	
		PLMS (AN #)	71
		MOSN (Sect.)	6.6
		MPAM (Sect.)	
		MSAM (Sect.)	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: Operations needs the ability to delete given core blocks for performance testing and maintenance. The new primitives installed for the I/O Interfacer make this fairly easy.

REASONS: Needed for dynamic reconfiguration. This would be the only way to delete a partial controller, i.e., a memory as opposed to a controller.

IMPLICATIONS: PLM, MOSN documentation

DETAILED PROPOSAL: Extend the Daemon/Admin commands:

ADDMEM port block_no number_of_blocks

DELMEM port block_no number_of_blocks

1. port is the processor port number defining the system controller being affected.
2. block_no is the block number of the first of possibly several blocks (of 1024 words) to be added or deleted.
3. number_of_blocks is the number of contiguous 1024-word blocks of memory affected

Multics Change Request

TITLE: t_and_d_gate		STATUS	DATE
AUTHOR: B. Greenberg		Written	11/14/74
-Coded in: <input type="checkbox"/> PL/I <input type="checkbox"/> AIM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR <u>NA</u> -Fixes Bug Number(s) -Documented in MIB -User/Operations-visible Interface change? <input type="checkbox"/> yes <input type="checkbox"/> no -Incompatible change? <input type="checkbox"/> yes <input type="checkbox"/> no -Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR		Status	<u>11/19/74</u>
		Expires	<u>5/19/75</u>
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
<input type="checkbox"/> Lib. Maint. Tools		MPM (Vol, Sect.)	
<input type="checkbox"/> Sys. Anal. Tools		PLMS (AN #)	<u>60</u>
<input type="checkbox"/> Sys. Prog. Tools		MOSN (Sect.)	
<input type="checkbox"/> 355		MPAM (Sect.)	
<input type="checkbox"/> BOS		MSAM (Sect.)	
<input type="checkbox"/> Salvager		Info Segs	
<input type="checkbox"/> Ring Zero		Other (Name)	
<input type="checkbox"/> Ring One		None (Reason)	
<input type="checkbox"/> SysDaemon/Admin.			
<input type="checkbox"/> Runtime			
<input type="checkbox"/> User Cmmd/Subr.			
<input checked="" type="checkbox"/>	t & d		
Objections/Comments:			

Use these headings: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (Optional)

SUMMARY: A gate is needed for test and diagnostic functions, particularly certain entries at the I/O interfacers. hphcs_ is too powerful for such functions.

PROPOSAL: Create a gate t_and_d cumulating such functions.