

TO: Distribution
FROM: Betsy
DATE: February 7, 1975
SUBJECT: Multics Change Requests

Attached are copies of the Multics Change Requests which were approved from January 1 - 15, 1975.

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Multics Change Request

TITLE: Add probe entry to operator_pointers_		STATUS	DATE
AUTHOR: S. Barr		Written	12/17/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR 2.1 -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 _____		Status	A 1/7/75
		Expires	7/7/75
		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 #)	ANL 84
<input type="checkbox"/> Ring One		MOSN (Sect.)	
<input type="checkbox"/> SysDaemon/Admin.		MPAM (Sect.)	
<input checked="" 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: The base of the stack contains a pointer to the operator_pointers_ vector. An entry for probe\$break should be added to this vector. This will allow users to call procedures containing probe breaks from command level.

PROPOSAL: Add a probe\$break link to operator_pointers_. (There are two basic pointers in the table now).

TITLE: Move history registers to PDS and return them with rest of fault data when signalling		STATUS	DATE
AUTHOR: S. Webber		Written	1/3/75
-Coded in: <input type="checkbox"/> PL/I <input checked="" type="checkbox"/> AIM <input type="checkbox"/> other- explain in DETAILED PROPOSAL -Planned for System MR -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	Category (Check One)		
	<input type="checkbox"/> Lib. Maint. Tools	DOCUMENTATION CHANGES	
	<input type="checkbox"/> Sys. Anal. Tools	Document Specify One or More	
	<input type="checkbox"/> Sys. Prog. Tools	MPM (Vol, Sect.)	
	<input type="checkbox"/> 355	PLMS (AN #) 60, 78	
	<input type="checkbox"/> BOS	MOSN (Sect.)	
	<input type="checkbox"/> Salvager	MPAM (Sect.)	
	<input checked="" type="checkbox"/> Ring Zero	MSAM (Sect.)	
	<input type="checkbox"/> Ring One	Info Segs	
	<input type="checkbox"/> SysDaemon/Admin.	Other (Name)	
<input type="checkbox"/> Runtime	None (Reason)		
<input type="checkbox"/> User Cmnd/Subr.			
Objections/Comments:			

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

SUMMARY: Change the fim to save the history registers in a wired region of the pds and later copy them into the fim frame and eventually the signaller frame if necessary.

REASONS: It is currently impossible to be guaranteed a consistent or meaningful copy of the history registers after a fault. This is because they are saved in a paged region of the PDS and hence may cause a page fault which will turn them back on before they can be consistently saved.

IMPLICATIONS: When tools are made available, users will have a powerful debugging aid at their disposal. Automatic instruction retry, if ever possible, is made a little easier.

Multics Change Request

TITLE: Fix BOS bug causing bad card reader status		STATUS	DATE
AUTHOR: not to be reported. Noel I. Morris		Written	12/20/74
-Coded in: <input type="checkbox"/> PL/I <input checked="" type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Status	A J / 7 / 75
-Planned for System MR 2.1		Expires	7 / 7 / 75
-Fixes Bug Number(s) _____		DOCUMENTATION CHANGES	
-Documented in MTB _____		Document	Specify One or More
-User/Operations-visible		MPM (Vol, Sect.)	
Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		PLMS (AN #)	
-Incompatible change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		MOSN (Sect.)	5.x
-Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same		MPAM (Sect.)	
<input type="checkbox"/> Worse		MSAM (Sect.)	
-Replaces MCR _____		Info Segs	
Objections/Comments:		Other (Name)	
		None (Reason)	

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

SUMMARY:

No error status is reported when BOS reads from the card reader. This causes problems when the reader is flaky. In addition, the hopper empty/stacker full status is used to determine when the end of deck is reached. This can cause problems with a large deck or a flaky card reader.

Proposal:

1. Modify the BOS card reader DIM to print out all error conditions. All errors will cause the card reader to stop (e.g. dual read alert) will be reported but the reader will continue. Thus, in such cases the deck will have to be reloaded.
2. Modify the BOS card reader DIM to accept only the Multics standard EOF card (5-7 punch in column 1) as a valid end of deck condition. Until this card is detected, BOS will continue to read from the card reader.

Implications:

1. See comments above.
2. An MOSN must be issued to point out the necessity of using an EOF card in the BOS deck,

Multics Change Request

TITLE: Fix bug in mrdim_		STATUS	DATE
AUTHOR: B. Silver		Written	12/23/74
-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) <u>mprf</u> -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 1/7/75
		Expires	7/7/75
		DOCUMENTATION CHANGES	
Category (Check One)		Document	Specify One or More
Lib. Maint. Tools		MPM (Vol, Sect.)	
Sys. Anal. Tools		PLMS (AN #)	
Sys. Prog. Tools		MOSN (Sect.)	
355		MPAM (Sect.)	
BOS		MSAM (Sect.)	
Salvager		Info Segs	
Ring Zero		Other (Name)	
Ring One		None (Reason) Document correct, program wrong	
<input checked="" type="checkbox"/> SysDaemon/Admin.			
Runtime			
User Cmnd/Subr.			
Objections/Comments:			

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

SUMMARY: Fix bug in mrdim .pll. When a message segment is created mrdim \$mrd_attach says that "xxxx_message" was created when actually "xxxx.message" was. mrdim .pll will be changed to output the correct name.

Multics Change Request

TITLE: Truncation of head/tail sheets	STATUS	DATE
	Written	12/20/74

AUTHOR: H. J. Goldberg	Status	P 1/14/75 A 1/14/75
	Expires	7/14/75

-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 MPB _____ -User/Operations-visible Interface change? <input type="checkbox"/> yes <input 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 _____	Category (Check One)	DOCUMENTATION CHANGES	
	<input type="checkbox"/> Lib. Maint. Tools	Document	Specify One or More
	<input type="checkbox"/> Sys. Anal. Tools	MFM (Vol, Sect.)	
	<input type="checkbox"/> Sys. Prog. Tools	PLMS (AN #)	
	<input type="checkbox"/> 355	MOSN (Sect.)	
	<input type="checkbox"/> BOS	MPAM (Sect.)	
	<input type="checkbox"/> Salvager	MSAM (Sect.)	
	<input type="checkbox"/> Ring Zero	Info Segs	
	<input type="checkbox"/> Ring One	Other (Name)	
	<input checked="" type="checkbox"/> SysDaemon/Admin.	None (Reason)	

Objections/Comments:

Needs further design discussion

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

SUMMARY: Need for allowing truncation of Head and Tail sheets on dprint requests.

REASONS: If Head and Tail sheets are printed on non-standard width devices they will cause unsightly, unreadable, and useless output due to wrapping of each line's end onto the next line by the dim. Forcing the dim to chop all lines, as opposed to just head and tail sheets, might cause loss of information in the actual listing.

IMPLICATIONS: Would aid in terminal-, network-, and spooling- bound output.

DETAILED PROPOSAL: Maintain an internal static output line length of default value, changeable by call to secondary entry points to head_sheet_ and tail_sheet_.

Multics Change Request

TITLE: New control arguments for the dprint command		STATUS	DATE
AUTHOR: Jerry Stern		Written	12/23/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Status	P 1/7/75
		Expires	7/7/75
-Planned for System MR 3.0		DOCUMENTATION CHANGES	
-Fixes Bug Number(s) _____		Document	Specify One or More
-Documented in MFB 129		MPM (Vol, Sect.)	Commands
-User/Operations-visible		PLMS (AN #)	
Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no		MOSN (Sect.)	
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		MPAM (Sect.)	
-Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same		MSAM (Sect.)	
<input type="checkbox"/> Worse		Info Segs dprint_changes	
-Replaces MCR 917		Other (Name)	
Objections/Comments: Don't forget <u>pl_abs</u> , etc. for 3.0.		None (Reason)	

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

SUMMARY: Add 4 new control arguments to the dprint command which govern the insertion of top and bottom page labels on each page of printed output.

Reasons: This feature is required by Air Force Data Services Center and is generally useful at all sites.

Detailed Proposal: The new control arguments are:

- 1) -top_label xxx
-tlbl xxx specifies that xxx be used as the top page label.
- 2) -bottom_label xxx
-blbl xxx specifies that xxx be used as the bottom page label.
- 3) -label xxx
-lbl xxx specifies that xxx be used for both the top and the bottom page label.
- 4) -access_label
-albl specifies that the access class of each segment be used as the top and bottom page label for that segment.

These new control arguments are incompatible with the no-endpage option.

Multics Change Request

TITLE: Fix bug causing BOS DUMP to run off end
AUTHOR: of tape when dumping to tape
Noel I. Morris

STATUS

DATE

Written

12/20/74

Status

D 1/7/75

Expires

7/7/75

-Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL

Category (Check One)

-Planned for System MR 2.1

Lib. Maint. Tools

-Fixes Bug Number(s)

Sys. Anal. Tools

-Documented in MTB

Sys. Prog. Tools

-User/Operations-visible

355

Document

Specify One or More

Interface change? yes no

BOS

MPM (Vol, Sect.)

-Incompatible change? yes no

Salvager

PLMS (AN #)

-Performance: Better Same
 Worse

Ring Zero

-Replaces MCR

Ring One

MOSN (Sect.)

SysDaemon/Admin.

Runtime

MPAM (Sect.)

User Cmnd/Subr.

MSAM (Sect.)

Objections/Comments:

Info Segs

Other (Name)

None (Reason)

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

SUMMARY:

The BOS dump print package was never modified to reflect the change to tape firmware which causes EOT to be reported on every write following EOT reflector detection instead of just the first write.

Proposal:

Modify BOS to ignore multiple EOT status.

Multics Change Request

TITLE: fix bug in formline_		STATUS	DATE
AUTHOR: Larry Johnson		Written	12/16/74
-Coded in: <input type="checkbox"/> PL/I <input checked="" type="checkbox"/> AIM <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)		
	<input type="checkbox"/> Lib. Maint. Tools	DOCUMENTATION CHANGES	
	<input type="checkbox"/> Sys. Anal. Tools	Document Specify One or More	
	<input type="checkbox"/> Sys. Prog. Tools	MPM (Vol, Sect.)	
	<input type="checkbox"/> 355	PLMS (AN #)	
<input type="checkbox"/> BOS	MOSN (Sect.)		
<input type="checkbox"/> Salvager	MPAM (Sect.)		
<input type="checkbox"/> Ring Zero	MSAM (Sect.)		
<input type="checkbox"/> Ring One	Info Segs		
<input type="checkbox"/> SysDaemon/Admin.	Other (Name)		
<input type="checkbox"/> Runtime	None (Reason)		
<input checked="" type="checkbox"/> User Cmnd/Subr.			
Objections/Comments:			

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

SUMMARY: No check is made by formline_ for negative repetition or field-width arguments as in the ioa call
 call ioa_ ("^v/", -5);

REASONS: formline_ should be changed to treat all negative arguments as \emptyset .

Multics Change Request

TITLE: fix bug in print_link_info		STATUS	DATE	
AUTHOR: L. Johnson		Written	12/27/74	
-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) -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 #)	
	Salvager		MOSN (Sect.)	
	Ring Zero		MPAM (Sect.)	
	Ring One		MSAM (Sect.)	
	SysDaemon/Admin.			
Runtime				
<input checked="" type="checkbox"/> User Cmmd/Subr.				
Objections/Comments:		Info Segs		
		Other (Name)		
		None (Reason)		

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

SUMMARY: Since print_link_info does not handle the star convention, it should treat star name arguments as errors. (Currently, it tries to treat the segments involved as old format bound object segments, usually with disastrous results.)

DETAILED PROPOSAL:

- 1) Use error_table \$nostart if star convention used.
- 2) change command to use iox_ instead of ios_.

Multics Change Request

TITLE: fix bug in form_link_info_		STATUS	DATE
AUTHOR: L. Johnson		Written	12/19/74
-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) _____ -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)		
	<input type="checkbox"/> Lib. Maint. Tools	DOCUMENTATION CHANGES	
	<input type="checkbox"/> Sys. Anal. Tools	Document	Specify One or More
	<input type="checkbox"/> Sys. Prog. Tools	MPM (Vol, Sect.)	
	<input type="checkbox"/> 355	PLMS (AN #)	
<input type="checkbox"/> BOS	MOSN (Sect.)		
<input type="checkbox"/> Salvager	MPAM (Sect.)		
<input type="checkbox"/> Ring Zero	MSAM (Sect.)		
<input type="checkbox"/> Ring One			
<input type="checkbox"/> SysDaemon/Admin.			
<input type="checkbox"/> 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: form_link_info_ uses interpret_link_ to process each link. If an error code is returned from interpret_link_, form link info places an error message in the output segment and proceeds on to the next link. If the error happens on the last link the error code is also returned to the caller of form_link_info_, which is not correct.

DETAILED PROPOSAL:

1. make form_link_info_ not return an error for a bad link,
2. make the error message it inserts in the output segment more meaningful. Currently it says
 "link|nn in objname"
 with no explanation that it is in error, or why,
3. use cleanup condition instead of establish_cleanup_proc_

Multics Change Request

TITLE: Convert cumulative_page_trace and page_trace to use iox_.		STATUS	DATE
AUTHOR: J. Gintell		Written	12/29/74
-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 type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR		Status	A 1/7/75
		Expires	7/4/75
		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			
<input type="checkbox"/> Sysdaemon/Admin.			MOSN (Sect.)
<input type="checkbox"/> Runtime			MPAM (Sect.)
<input checked="" type="checkbox"/> User Cmnd/Subr.			MSAM (Sect.)
Objections/Comments:			Info Segs
			Other (Name)
			None (Reason) no change

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

SUMMARY: Convert cumulative_page_trace and page_trace to use iox_ interfaces instead of ios_.

Multics Change Request

TITLE: Fix bug in do command		STATUS	DATE
AUTHOR: S. Herbst		Written	12/31/74
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL		Status	A 1/7/75
-Planned for System MR _____		Expires	7/7/75
-Fixes Bug Number(s) _____		DOCUMENTATION CHANGES	
-Documented in MIB _____		355	Document Specify One or More
-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 #)
-Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same		Ring One	MOSN (Sect.)
<input type="checkbox"/> Worse		SysDaemon/Admin.	
-Replaces MCR _____		Runtime	MPAM (Sect.)
		<input checked="" type="checkbox"/> User Cmmd/Subr.	MSAM (Sect.)
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason) no interface change	

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

SUMMARY: Fix the do command to pick up all its args with cu_\$arg_ptr.

REASONS: Currently do is a procedure declared with one parameter. Calling with no arguments sometimes causes a fault or other unorthodox behavior.

Multics Change Request

TITLE: Install user_ftp command
 AUTHOR: D. Wells

STATUS	DATE
Written	1974.12.31
Status	A 1/7/75
Expires	7/2/75

-Coded in: PL/I ALM other-
 explain in DETAILED PROPOSAL
 -Planned for System MR _____
 -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)
Lib. Maint. Tools
Sys. Anal. Tools
Sys. Prog. Tools
355
BOS
Salvager
Ring Zero
Ring One
SysDaemon/Admin.
Runtime
<input checked="" type="checkbox"/> User Cmmnd/Subr.

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

Objections/Comments:

Info Segs	X
Other (Name)	NUS
None (Reason)	

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

SUMMARY: Install the command which implements the user side of the Network File Transfer Protocol. (This will also entail some changes to the installed user_telnet command.)

REASONS: This command has been much used in a private library and is being submitted to the Network library.

Multics Change Request

TITLE: Add bound_ssa_commands_ to tools.		STATUS	DATE
AUTHOR: Jerold C. Whitmore		Written	1/3/75
-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 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 1/7/75
		Expires	7/3/75
		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 checked="" type="checkbox"/> SysDaemon/Admin. <input type="checkbox"/> Runtime <input type="checkbox"/> User Cmmd/Subr.		Document	Specify One or More
Objections/Comments: Have linkage fault handler print appropriate message.		MPM (Vol, Sect.)	
		PLMS (AN #)	
		MOSN (Sect.)	
		MPAM (Sect.)	
		MSAM (Sect.)	
		Info Segs	
		Other (Name)	SSA Manual
		None (Pcacon)	

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

SUMMARY: Add the bound segment "bound_ssa_commands_" to the tools library.
 This segment contains the following commands:

reclassify_dir,
 reclassify_seg,

Multics Change Request

TITLE: Upgrade Server TELNET to new I/O System.	STATUS	DATE
AUTHOR: D. Wells	Written	12/31/74

-Coded in: <input type="checkbox"/> PL/I <input checked="" type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL	Category (Check One)	Status	A 11715
-Planned for System MR	<input type="checkbox"/> Lib. Maint. Tools	Expires	12/31/75
-Fixes Bug Number(s)	<input type="checkbox"/> Sys. Anal. Tools	DOCUMENTATION CHANGES	
-Documented in MTB	<input type="checkbox"/> Sys. Prog. Tools	Document	Specify One or More
-User/Operations-visible	<input type="checkbox"/> 355		
Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no	<input type="checkbox"/> BOS		
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no	<input type="checkbox"/> Salvager		MPM (Vol, Sect.)
-Performance: <input checked="" type="checkbox"/> Better <input type="checkbox"/> Same	<input type="checkbox"/> Ring Zero		PLMS (AN #) Network
<input type="checkbox"/> Worse	<input type="checkbox"/> Ring One		MOSN (Sect.)
-Replaces MCR	<input checked="" type="checkbox"/> SysDaemon/Admin.		MPAM (Sect.)
	<input checked="" type="checkbox"/> Runtime		MSAM (Sect.)
	<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: Add additional entry points to interface iox_ I/O system, alter Answering Service portion of Server TELNET to utilize more of the same subroutines that the user process Server does, delete subroutines that only Answering Service TELNET previously used, fix some bugs in the canonicalization function of the Server TELNET.

REASONS: The Network is currently paying a high cost for each call made to read or write from or to the Network because of the number of indirections made by the iox_ writearounds to ios_.

There is currently a maintenance and consistency problem with regard to the Answering Service portion of the SERVER TELNET because it uses a version which is no longer used in users' processes. A number of small changes were made with respect to terminal handling in the user process Server which have not been made to the Answering Service Server, e.g., in TTY33 compatibility mode, the AS continues to send out lowercase characters as backslash followed by the same lowercase characters rather than sending backslash followed by the corresponding uppercase character. (With the AS converted to share a number of routines with the user process, the routines previously used by only the AS will be deleted.)

There are a number of bugs in canonicalization in the Network interface; not only are these not the same bugs as are in the TTYDIM, at least one of them causes a fault while running in the user's process.

NOTES: The term Server TELNET as used here is synonymous with the programs ntw_ in the user process, and net_tty_ in the AS.

The reason for the long expiration date is that this will require a number of system changes and the installation of this routine might take a few compatibility steps. (It is currently impossible to attach any user_i/o IOSIM/switch via an iox_ attach call; thus because we do not yet know the plans of the Command group for the switchover, we can't easily predict the steps necessary for actual conversion.)

Multics Change Request

TITLE: Alterations to Answering Service portion of File Transfer Server		STATUS	DATE
AUTHOR: D. Wells		Written	12/31/74
-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 checked="" type="checkbox"/> yes <input 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 _____	Category (Check One)		
	Lib. Maint. Tools		DOCUMENTATION CHANGES
	Sys. Anal. Tools		
	Sys. Prog. Tools		
355			
BOS		Document	Specify One or More
Salvager		MPM (Vol, Sect.)	
Ring Zero		PLMS (AN #)	
Ring One		MOSN (Sect.)	
<input checked="" type="checkbox"/> SysDaemon/Admin.		MPAM (Sect.)	
Runtime		MSAM (Sect.)	
User Cmmd/Subr.		Info Segs X	
Objections/Comments:		Other (Name) NUS	
		None (Reason)	

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

SUMMARY: Alter the Answering Service portion of the File Transfer Server to accept a number of commands which simply will be treated as NO-OPs; alter it to accept the form user.project to correspond to the Network restriction/convention with respect to spaces in FTP commands.

REASONS: The portion of the File Transfer Server in the AS (which serves as a trans-mogrifier between FTP syntax and that desired by the rest of the AS dialup system) currently does not accept a number of commands which it should, e.g., NOOP, BYTE 8. All of these types of commands may be treated as no-operations, i.e., they do not alter the state of the processing. Multics will not talk to a number of Network hosts in a File Transfer because these hosts assume that we should accept these commands.

The current version of the Server simply takes the rest of the line after a USER command and returns that to the dialup portion of the AS (with "login" prefixed). This causes problems because it is inconsistent with the FTP syntax which disallows extraneous spaces; thus we intend to make this portion of the Network software correspond to the other portions (which already accept the USER.PROJ convention).

Multics Change Request

TITLE: Improvements to Server TELNET (ntw_)		STATUS	DATE
AUTHOR: D. Wells		Written	1974.12.31
<input checked="" type="checkbox"/> Coded in PL/I <input type="checkbox"/> ALM <input type="checkbox"/> other- explain in DETAILED PROPOSAL <input type="checkbox"/> Planned for System MR <input type="checkbox"/> Fixes Bug Number(s) _____ <input type="checkbox"/> Documented in MTB _____ <input type="checkbox"/> User/Operations-visible Interface change? <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> 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 <input type="checkbox"/> Replaces MCR _____		Status	A 1/7/75
		Expires	7/7/75
		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 checked="" type="checkbox"/> Runtime <input checked="" type="checkbox"/> User Cmmd/Subr.		Document	Specify One or More
MPM (Vol, Sect.) PLMS (AN #) MOSN (Sect.) MPAM (Sect.) MSAM (Sect.)			
Info Segs Other (Name) HUG None (Reason)			
Objections/Comments:			

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

SUMMARY: Pass machine conditions when signalling a quit received from the Network and enable page length processing for user coming in from the Network.

Reasons: The Network user_i/o IOSIM does not currently pass any received machine conditions when it signals the "quit" condition in a user's process. (It should be noted that a quit from the Network is denoted by the "Interrupt Process" character in the input stream.) This causes problems with the LISP subsystem which needs to look at these machine conditions when it is interrupted so that it can determine what was going on. (LISP allows variables to sometimes exist only in pointer registers, thus in order not to lose these variables, it needs to examine the machine conditions to determine where these variables are and to update them into addressable memory. This is done automatically with the TTYDIM because of its mechanism for detecting "quit"s in the hardcore supervisor.)

The Network software on Multics does not currently support pagelength processing (as supplied by the TTYDIM for ARDS). Because many users' TELNET programs do not supply this feature either, these users have no mechanism to stop the output display after every page so that they can examine it. The "pl" mode of the Network ntw_ IOSIM will be enabled and a bug which caused it to sometimes fail will be fixed.

Multics Change Request

TITLE: Implement have_mail active function		STATUS	DATE	
AUTHOR: S. Herbst		Written	1/3/75	
-Coded in: <input 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 MFB _____ -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 type="checkbox"/> Same <input type="checkbox"/> Worse -Replaces MCR _____	Category (Check One)	Status	A 1/7/75	
		Lib. Maint. Tools	Expires	7/7/75
		Sys. Anal. Tools	DOCUMENTATION CHANGES	
		Sys. Prog. Tools	Document	Specify One or More
		355	MFM (Vol, Sect.) Active Functions	
	BOS	PLMS (AN #)		
	Salvager	MOSN (Sect.)		
	Ring Zero	MPAM (Sect.)		
	Ring One	MSAM (Sect.)		
	SysDaemon/Admin.	Info Segs		
	Runtime	Other (Name)		
	X User Cmmnd/Subr.	None (Reason)		
Objections/Comments:				

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

SUMMARY: Change the name of the is_mail active function (MCR 905) to have_mail. Allow have_mail to take a pathname argument telling it to look at a specific mailbox. Remove the active function code from mail and implement have_mail as a separate program.

Name: have_mail

This active function returns "true" if the user's mailbox contains mail, "false" otherwise.

Usage:

[have_mail -path-]

where path is the optional pathname of a mailbox. If path is not specified, have_mail does the following:

1. looks at the user's default ring 1 mailbox,
2. if this does not exist, looks at the user's default ring 4 mailbox,
3. if neither exists, returns "false".

Multics Change Request

TITLE: Chase links in copy_seg_

AUTHOR: S. Herbst

STATUS	DATE
Written	1/2/75
Status	A 1/3/75
Expires	7/7/75

-Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL

-Planned for System MR

-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 #)	
MOSN (Sect.)	
MPAM (Sect.)	
MSAM (Sect.)	
Info Segs	
Other (Name)	
None (Reason)	

Objections/Comments:

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

SUMMARY: Make copy_seg_ and, therefore, the copy command always chase a target link.

REASONS: Currently "copy a b" fails when the target "b" is a link to a non-existent branch and "a" is a multi-segment file. It should create a copy of the msf.

Multics Change Request

TITLE: bug fixes to tty_write		STATUS	DATE
AUTHOR: M. Grady		Written	1/3/75
-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) <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 1/7/75
		Expires	7/7/75
		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)

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

SUMMARY: 3 bugs exist in tty_write.

1. delay chars are incorrectly inserted after multiple backspace chars,
2. if in edited mode and one character is sent to tty_write and if this char is edited out, the shift state of the terminal is left in an undefined state; which messes up the next input,
3. some of the characters which are >177(8) are treated as form-feeds and not escaped as they should be.

REASONS: These bugs should be fixed.

IMPLICATIONS: None

Multics Change Request

TITLE: Provide truncate mode for printed output		STATUS	DATE
AUTHOR: Noel I. Morris		Written	75.01.09
-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 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 1/14/75
		Expires	7/14/75
		DOCUMENTATION CHANGES	
		Document	Specify One or More
		MPM (Vol, Sect.)	Subroutines SWC
		PLMS (AN #)	AN57
		MOSN (Sect.)	
		MPAM (Sect.)	
		MSAM (Sect.)	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason)	

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

SUMMARY:

Currently, most printed output device driver programs will "fold" those lines which are too long to be printed on the device. Some users may wish to have their output truncated at the end of a line rather than "folded" onto the next line. The truncated mode of output should be provided for the printer DIM, the TTY DIM, spooled output, microfiche output, remote output (Mohawk), and any other output DIMs which may be driven by the I/O Daemon.

Proposal:

The print conversion module, "prt_conv" will be modified to be able to operate in both "truncate" and "^truncate" mode. A flag bit will be provided for the purpose of conveying this mode setting to "prt_conv". All DIMs using prt_conv will be modified to accept this new mode setting. The TTY DIM and TTY code conversion will also be modified to accept and handle the new mode setting.

Ver. 3	MULTICS CHANGE REQUEST	MCR 968
741022		
TITLE: fix bug in sort_seg_		STATUS DATE
		Written 12/31/74
AUTHOR: Ross E. Kilinger		Status R 1/14/75
		Expires 06/30/75
Planned for System: not applicable		
Fixes Bug Number(s): MPRF 7913		CATEGORY (check one)
Documented in MTB: not applicable		() Lib. Maint. Tools
Incompatible Change: no		() Sys. Anal. Tools
User/Operations-visible Interface Change: no		() Sys. Prog. Tools
Coded in: (<input checked="" type="checkbox"/>) PL/I () ALM () other-see below		() 355
Performance: () better (<input checked="" type="checkbox"/>) same () worse		() BOS
		() Salvager
DOCUMENTATION CHANGES (specify one or more)		() Ring Zero
MPM (vol,sect) MPAM (sect)		() Ring One
MOSN (sect) MSAM (sect)		() SysDaemon/Admin
PLMs (AN#)		() Runtime
Info Segs		(<input checked="" type="checkbox"/>) User Command/Subr
Other		
None (reason) user-transparent		
OBJECTIONS/COMMENTS:		

Headings are: SUMMARY, REASONS, IMPLICATIONS, DETAILED PROPOSAL (optional)

SUMMARY: truncate original segment if duplicate lines have been removed.

REASON: sort_seg_ resets the bit count, but does not truncate the segment to the new length. This is inconsistent and wasteful.

IMPLICATIONS: sort_seg_ will no longer be inconsistent and wasteful.

DETAILED PROPOSAL: add 1 line of code, a call to hcs_struncate_seg.

Multics Change Request

TITLE: Modify page_trace to properly interpret linkage fault information		STATUS	DATE
AUTHOR: J. Gintell		Written	1/6/75
-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) _____ -Documented in MIB _____ -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 1/14/75
		Expires	7/14/75
		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)	
			LIA

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

SUMMARY: Modify page_trace command to interpret the linkage fault information that has recently been added to the system trace.

Multics Change Request

TITLE: Changes to tty_ctl		STATUS	DATE
AUTHOR: L. Johnson, M. Grady		Written	1/8/75
-Coded in: <input type="checkbox"/> PL/I <input type="checkbox"/> ALM <input checked="" type="checkbox"/> other- explain in DETAILED PROPOSAL		Status	A 1/14/75
		Expires	7/14/75
-Planned for System MR _____		DOCUMENTATION CHANGES	
-Fixes Bug Number(s) _____		Category (Check One)	
-Documented in MRB _____		<input type="checkbox"/> Lib. Maint. Tools	
-User/Operations-visible Interface change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		<input type="checkbox"/> Sys. Anal. Tools	
-Incompatible change? <input type="checkbox"/> yes <input checked="" type="checkbox"/> no		<input type="checkbox"/> Sys. Prog. Tools	
-Performance: <input type="checkbox"/> Better <input checked="" type="checkbox"/> Same <input type="checkbox"/> Worse		355	Document Specify One or More
-Replaces MCR _____		ROS	
		Salvager	MPM (Vol, Sect.)
		<input checked="" type="checkbox"/> Ring Zero	PLMS (AN #)
		Ring One	MOSN (Sect.)
		SysDaemon/Admin.	MPAM (Sect.)
		Runtime	MSAM (Sect.)
		User Cmmnd/Subr.	
Objections/Comments:			Info Segs News Info
			Other (Name)
			None (Reason)

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

SUMMARY: Several changes to tty_ctl.ioc affecting the ASCII, model 33, and model 38 terminals.

DETAILED PROPOSAL:

1. Add control tables for the ASCII device, rather than sharing the model 37 tables. This is so that the ASCII device can ignore printer on and printer off sequences. Using the model 37 tables causes colons and semi-colons to be printed.
2. Recognize a null (a single newline) answer back as an ASCII device. This is so that when using a terminal with no answer back feature, a new-line character can be typed which will cause the 15 second answer back wait to be skipped.
3. Change the TTY33 and TTY38 control tables to ignore printer on and printer off, rather than escaping them.
4. Add 300 baud delay timings for TTY33 and TTY38 devices. This is done at the request of the NPS group so they can have better 300 baud terminal types. NPS does not recognize the ASCII device.

TITLE: Fix Zeroing of Branch Pad by Salvager

STATUS DATE

AUTHOR: A. Kobziar

Written 1/8/75

Status A 1/14/75

Expires 7/14/75

-Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL

Category (Check One)

-Planned for System MR

Lib. Maint. Tools

-Fixes Bug Number(s)

Sys. Anal. Tools

-Documented in MFB

Sys. Prog. Tools

-User/Operations-visible

355

DOCUMENTATION CHANGES
Document Specify One or More

Interface change? yes no

ROS

MPM (Vol, Sect.)

-Incompatible change? yes no

Salvager

PLMS (AN #)

-Performance: Better Same
 Worse

Ring Zero

MOSN (Sect.)

-Replaces MCR

Ring One

MPAM (Sect.)

SysDaemon/Admin.

MSAM (Sect.)

Runtime

User Cmmd/Subr.

Objections/Comments:

Info Segs

Other (Name)

None (Reason) Internal Change

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

SUMMARY: Fix the zeroing of the branch pad field in salv_rebuild_directory. The current code doesn't do the job. This must be installed before the Access Isolation Hardcore System.

Multics Change Request

MCR 975
Page 1 of 2

TITLE: Restructure the IO Daemon driver software
AUTHOR: Jerold C. Whitmore

STATUS	DATE
Written	2/9/75
Status	1/14/75
Expires	7/14/75

- Coded in: PL/I ALM other-
explain in DETAILED PROPOSAL
- Planned for System MR 3.0
- Fixes Bug Number(s) _____
- Documented in MTB 144
- User/Operations-visible
Interface change? yes no
- Incompatible change? yes no
- Performance: Better Same
 Worse
- Replaces MCR _____

- Category (Check One)
- Lib. Maint. Tools
 - Sys. Anal. Tools
 - Sys. Prog. Tools
 - 355
 - BOS
 - Salvager
 - Ring Zero
 - Ring One
 - SysDaemon/Admin.
 - Runtime
 - User Cmmnd/Subr.

DOCUMENTATION CHANGES

Document	Specify One or More
MPM (Vol, Sect.)	
PLMS (AN #)	58
MOSN (Sect.)	6.4.3.2
MPAM (Sect.)	
MSAM (Sect.)	
Info Segs	
Other (Name)	
None (Reason)	

Objections/Comments:

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

SUMMARY: Combine the initialization functions of io_daemon_driver, driver_init, remote and iodd_overser into a new module iodd. This will make the operator interface and initialization algorithm for all drivers the same no matter what device is to be used.

Change io_daemon_parms as described in the MTB and design review to include several new keywords including the "Queue_group" keyword. Require that the order of the keywords be structured for simplicity of parsing and for readability.

Provide driver modules for the printer, punch and G115 (Mohawk) devices which follow the entry point conventions described in the MTB.

Change the structure of the include files for the users requests in the message segments so that the header is common for all requests. The message type variable (formally the print_punch_switch) will indicate which include file the driver should use to define the user's request. The header will be the only part of the request which may be understood by both the driver and the coordinator.

Provide a new command for the printer driver module to set the line length of head and tail sheets by truncation.

Reasons: We need the ability to add a new driver for a new device (tapes) in support of the access isolation mechanism. This restructuring will make the task easier for future drivers as well for the current requirement. The result will be the ability to add a new driver type by writing (or modifying) a driver module and specifying the new descriptive data for io_daemon_parms. Recompilation of standard system modules for the driver will be unnecessary.

Implications: This is a major change to the IO Daemon Driver software and the `io_daemon_parms` file which will be incompatible with previous versions. Installation will require a simultaneous installation of `bound_iodd`, `bound_iodc`, and `io_daemon_parms`. Previously queued requests in the message segments will be upward/downward compatible. The installation may be backed up with only the loss of the saved request list.

Multics Change Request

TITLE: Fix inconsistencies in ms commands		STATUS	DATE
AUTHOR: S. Herbst		Written	1/10/75
-Coded in: <input checked="" type="checkbox"/> PL/I <input type="checkbox"/> AIM <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 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 1/14/75
		Expires	7/14/75
		DOCUMENTATION CHANGES	
		Category (Check One)	
		Lib. Maint. Tools	
		Sys. Anal. Tools	
		Sys. Prog. Tools	
		355	Document Specify One or More
		BOS	
		Salvager	MFM (Vol, Sect.)
		Ring Zero	PLMS (AN #)
		Ring One	MOSN (Sect.)
		SysDaemon/Admin.	MPAM (Sect.)
		Runtime	MSAM (Sect.)
		<input checked="" type="checkbox"/> User Cmmd/Subr.	
Objections/Comments:		Info Segs	
		Other (Name)	
		None (Reason) doc. is correct	

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

SUMMARY: Implement the star and equal conventions in ms add name, ms_delete_name and ms_rename. Fix ms_delete to handle multiple arguments correctly.

REASONS: Three commands do not implement the star and equal conventions that should and whose documentation says they do. Also, ms_delete has a bug whereby it only processes the first argument.

NOTE: Likewise for the corresponding mailbox commands.