TO: Distribution

FROM: R. B. Rakip

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SUBJECT: Installation of MSS 21.0

The hardcore system, MSS 21.0, was installed at 10:18, on Saturday, October 13,1973. This system included all changes necessary to implement 18 bit device addresses for the capability of adding up to 17 DSU190 drives per device ID and the changes in preparation for the implementation of 256k segments. The system libraries were updated at 14:54, on Monday, October 15,1973.

I. System Change Log

Change #	Change
1154	Make salvager swap entries for larger fields for time_record_product (trp), max_length, cur_length and records used (for 256k segments).
1155	Extend device addresses to 18 bits, thereby allowing 17 DSU190 drives per device ID; put in code to check aste.dnzp for the new logins with syserr.
1156	Change hash meters to measure unsuccessful searches as well as successful ones.
1157	Allow printing of 256k segments; allow fs_move to work with segments greater than 64k.
1158	Implement gates for a fixed binary (71) time_record_product (trp) from quota; add special gate in phcs_ for setting max_length above that in sys_info$max_seg_size for purposes of testing 256k segments.
1159	Change from an sbg to an sbgl instruction in get_ptrs_ to avoid fixed overflow with 256k segments; recompile init_branches using include files which reflect new sizes of current length and maximum length.

I. System Change Log (continued)

Change #   Change

1160   Incorporate new fm.incl.pl1 and convert salv_check_ptr to
            V2PL1.

1161   Make quota conform to fixed binary (71)
            time_record_products; add entry to the procedure set which
            will set max_length without regard to sys_info$max_seg_size;
            upgrade various procedures to work for 256k segments.

1162   Change segfault and boundfault to no longer check for length
            greater than sys_info$max_seg_size; upgrade more procedures
            to work with 256k segments

1163   Allow salvager to work with 256k segments.

1164   Modify privileged_mode_ut to wire and unwire three pages
            rather than two.

II. Segment Change Log

Segment Name	Bound Segment	Change #
activate.pl1	bound_system_faults	R 1162
append.pl1	bound_file_system	R 1161
boundfault.pl1	bound_system_faults	R 1162
copy_fdump.pl1	bound_file_system	R 1161
dc_pack.pl1	bound_file_system	R 1161
delentry.pl1	bound_file_system	R 1161
fs_move.pl1	bound_file_system	R 1157
get_aste.pl1	bound_system_faults	R 1155
get_ptrs_.alm	bound_page_control	R 1159
hash.pl1	bound_system_faults	R 1156
hcs_.mexp	-	R 1158
hphcs_.mexp	-	R 1158
init_branches.pl1	bound_init_2	R 1159
initiate.pl1	bound_system_faults	R 1162
make_sdw.pl1	bound_init_1	R 1155
move_device.pl1	bound_file_system	R 1161
move_file_map.pl1	bound_system_faults	R 1155
on_line_salvager.pl1	bound_salvager	R 1163
page_fault.alm	bound_page_control	R 1156
pc.pl1	bound_page_control	R 1156
phcs_.mexp	-	R 1158
privileged_mode_ut.alm	-	R 1164
prt_300_conv.alm	bound_iom_active	R 1157
prt_conv.alm	bound_iom_active	R 1157
quota.pl1	bound_file_system	R 1161
ring_0_peek.pl1	bound_file_system	R 1161

II. Segment Change Log (continued)

Segment Name	Bound Segment	Change #
salv_check_map.pl1	bound_salvager	R 1154,1163
salv_check_ptr.pl1	-	R 1160
salv_rebuild_directory.pl1	bound_salvager	R 1154,1163
salv_truncate.pl1	bound_salvager	R 1163
salvage_entry.pl1	bound_salvager	R 1163
seg_fault.pl1	bound_system_faults	R 1162
set.pl1	bound_file_system	R 1161
star_.pl1	bound_file_system	R 1161
status_.pl1	bound_system_faults	R 1162
truncate.pl1	bound_file_system	R 1161
updateb.pl1	bound_system_faults	R 1162

Include Files

ast.incl.alm		R 1155
ast.incl.pl1		R 1155
dir_allocation_area.incl.pl1		R 1159
dir_entry.incl.pl1		R 1159
dir_header.incl.pl1		R 1159
fm.incl.pl1		R 1155
map_ent.incl.pl1		R 1154
null_addresses.incl.alm		A 1155
null_addresses.incl.pl1		A 1155

Bind Files

bound_file_system.bind		R 1161

III. Bound Segment Change Log

Bound Segment	Change
bound_file_system	Replaced append
	copy_fdump
	dc_pack
	delentry
	fs_move
	move_device
	quota
	ring_0_peek
	set
	star_
	truncate
bound_init_1	Replaced make_sdw

III. Bound Segment Change Log (continued)

Bound Segment   Change

bound_init_2   Replaced init_branches

bound_iom_active   Replaced prt_300_conv
                                                    prt_conv

bound_page_control   Replaced get_ptrs_
                                                    page_fault
                                                    pc

bound_salvager   Replaced on_line_salvager
                                                    salv_check_map
                                                    salv_rebuild_directory
                                                    salv_truncate
                                                    salvage_entry

bound_system_faults   Replaced activate
                                                    boundfault
                                                    get_aste
                                                    hash
                                                    initiate
                                                    move_file_map
                                                    seg_fault
                                                    status_
                                                    updateb

IV. Header Change Log

There are no changes to the system headers.