

TO: Distribution  
 FROM: Peter B. Kelley  
 DATE: July 7, 1976  
 SUBJECT: Installation of MSS 28.9

The hardcore system MSS 28.9 was installed on Friday, July 2, 1976. This system includes the recompilation of all hardcore modules not compiled with current compilers. Also included is a fix for a two-CPU IOI bug which caused erroneous status information to be reported.

### I. System Change Log

#### Change MGR

#### Change

# 1628 1925 All hardcore programs not compiled with currently installed compilers were recompiled.  
 ---- Programs for which we had incorrect listings were also recompiled at this time.  
 ---- A change was made to IOI to close a timing window which returned spurious errors to Backup causing it to die.

### II. Segment Change Log

<u>Segment Name</u>	<u>Bound Segment</u>	<u>Change #</u>
absadr.alm	bound_priv_1	R 1628
access_viol.pl1	bound_system_faults	R 1628
activate_segs.pl1	bound_process_creation	R 1628
alm_check.alm	bound_sss_active_	R 1628
all_rings_util.alm	bound_sss_active_	R 1628
arc_sine.alm	bound_sss_wired_	R 1628
arc_tangent.alm	bound_sss_wired_	R 1628
audit_gate.mexp	-	R 1628
bk_retrieve.pl1	bound_reloader_	R 1628
build_template_pds.alm	bound_init_2	R 1628
bulk_store_init.alm	bound_temp_1	R 1628

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## II. Segment Change Log (continued)

<u>Segment Name</u>	<u>Bound Segment</u>	<u>Change #</u>
call_math_error_.alm	bound_sss_wired_	R 1628
check_trailer.alm	bound_process_creation	R 1628
cl_tv_.alm	bound_command_loop_	R 1628
clock_.alm	bound_sss_wired_	R 1628
command_processor_.pl1	bound_command_loop_	R 1628
condition_.alm	bound_sss_wired_	R 1628
convert_alm_attributes_.pl1	bound_sss_active_	R 1628
convert_binary_integer_.pl1	-	R 1628
convert_ipc_code_.pl1	bound_ipc_	R 1628
cp_data_.alm	bound_command_loop_	R 1628
cplx_dec_ops_.alm	bound_sss_wired_	R 1628
cpu_time_and_paging_.alm	bound_command_loop_	R 1628
cu_.alm	bound_command_loop_	R 1628
cv_dec_.pl1	bound_sss_active_	R 1628
daemon_real_init_admin_.pl1	bound_command_loop_	R 1628
datmk_util_.alm	bound_system_faults	R 1628
dec_ops_.alm	bound_sss_wired_	R 1628
decode_descriptor_.pl1	bound_command_loop_	R 1628
discard_attach.pl1	bound_iox_	R 1628
dn355_util.alm	bound_355_wired	R 1628
double_arc_tangent_.alm	bound_sss_wired_	R 1628
double_exponential_.alm	bound_sss_wired_	R 1628
double_logarithm_.alm	bound_sss_wired_	R 1628
double_square_root_.alm	bound_sss_wired_	R 1628
enter_admin_mode_.pl1	-	R 1628
error_table_.alm	-	R 1628
exponential_.alm	bound_sss_wired_	R 1628
file_.alm	bound_fsm_	R 1628
find_command_.pl1	bound_command_loop_	R 1628
formline_.alm	bound_sss_wired_	R 1628
freecore.pl1	bound_active_1	R 1628
fs_alloc.pl1	bound_system_faults	R 1628
full_cp_tv_.alm	bound_command_loop_	R 1628
full_ipc_.pl1	bound_ipc_	R 1628
gate_init.alm	bound_tty_active	R 1628
get_at_entry_.pl1	bound_command_loop_	R 1628
get_defname_.pl1	bound_file_system	R 1628
get_defptr.alm	bound_system_faults	R 1628
get_disk_meters.pl1	bound_page_control	R 1628
get_kstep.pl1	bound_system_faults	R 1628
get_proc_io.alm	bound_file_system	R 1628
get_process_usage.pl1	bound_process_creation	R 1628
get_to_cl_.pl1	bound_command_loop_	R 1628
get_tpr_.pl1	bound_error_handlers_	R 1628
nash_index.alm	bound_system_faults	R 1628
nc_ipc.pl1	bound_tty_active	R 1628
li.alm	-	R 1628
imp_cleanup.pl1	bound_imp_dim_	R 1628

## II. Segment Change Log (continued)

<u>Segment Name</u>	<u>Bound Segment</u>	<u>Change #</u>
imp_data.alm	-	R 1628
imp_dcm_read.pl1	bound_imp_dim_	R 1628
imp_error.pl1	bound_imp_dim_	R 1628
imp_global_queue.pl1	bound_imp_dim_	R 1628
imp_lock.pl1	bound_imp_dim_	R 1628
imp_misc.pl1	bound_imp_dim_	R 1628
imp_order.pl1	bound_imp_dim_	R 1628
imp_read.pl1	bound_imp_dim_	R 1628
imp_service.pl1	bound_imp_dim_	R 1628
imp_status_driver.alm	bound_imp_status	R 1628
imp_tables.alm	-	R 1628
imp_wired_buffer_.pl1	bound_imp_status	R 1628
imp_write_service.pl1	bound_imp_status	R 1628
init_str_seg.pl1	bound_temp_2	R 1628
initialize_faults.pl1	bound_init_1	R 1628
initializer.pl1	-	R 1628
integer_power_integer_.alm	bound_sss_wired_	R 1628
ioa_.pl1	bound_command_loop_	R 1628
ioi_.mexp	-	R 1628
ioi_caller.alm	bound_iom_wired	R 1628
ioi_check_mpc.pl1	bound_iom_active	R 1628
ioi_connect.pl1	bound_iom_active	R 1628
ioi_interrupt.pl1	bound_iom_wired	R 1628
ioi_queue.alm	bound_iom_wired	R 1628
ioi_util.alm	bound_iom_wired	R 1628
ios_write_around_.pl1	bound_iox_	R 1628
iox_.alm	bound_iox_	R 1628
ips_.alm	bound_file_system	R 1628
kstrsch.pl1	bound_system_faults	R 1628
level.alm	bound_system_faults	R 1628
link_man.pl1	bound_system_faults	R 1628
link_trap_caller_.pl1	bound_sss_active_	R 1628
listen_.pl1	bound_command_loop_	R 1628
logarithm_.alm	bound_sss_wired_	R 1628
makeknown.pl1	bound_system_faults	R 1628
makestack.pl1	bound_file_system	R 1628
math_constants_.alm	bound_sss_wired_	R 1628
math_routines_.alm	bound_sss_wired_	R 1628
math_routines_end_.alm	bound_sss_wired_	R 1628
move_.alm	bound_sss_active_	R 1628
msf_manager_.pl1	bound_fsm_	R 1628
net_.mexp	-	R 1628
netp_.mexp	-	R 1628
nonlocal_goto_.alm	bound_sss_active_	R 1628
oc_.alm	bound_oc_	R 1628
operator_pointers_.alm	-	R 1628
outward_call_handler.pl1	bound_system_faults	R 1628
parity_check.alm	bound_error_wired	R 1628

## II. Segment Change Log (continued)

<u>Segment Name</u>	<u>Bound Segment</u>	<u>Change #</u>
pc_abs.pl1	-	R 1628
pc_trace.alm	bound_page_control	R 1628
pl1_operators.alm	-	R 1628
power_.alm	bound_sss_wired_	R 1628
power_integer_.alm	bound_sss_wired_	R 1628
pr2_conv_.alm	bound_printer_util_	R 1628
pr3_conv_.alm	bound_printer_util_	R 1628
prds.alm	-	R 1628
pre_link_1.alm	-	R 1628
pre_link_2.alm	-	R 1628
printer_images_.alm	bound_printer_util_	R 1628
privileged_mode_init.alm	-	R 1628
proc_info.pl1	bound_file_system	R 1628
process_overseer_.pl1	bound_command_loop_	R 1628
prt_conv_.alm	bound_printer_util_	R 1628
quota_util.pl1	bound_file_system	R 1628
rcp_assign_device_.pl1	bound_rcp_	R 1628
rcp_attach_.pl1	bound_rcp_	R 1628
rcp_check_assign_.pl1	bound_rcp_	R 1628
rcp_comment_.pl1	bound_rcp_	R 1628
rcp_detach_.pl1	bound_rcp_	R 1628
rcp_find_.pl1	bound_rcp_	R 1628
rcp_force_unassign_.pl1	bound_rcp_	R 1628
rcp_initializer_.pl1	bound_rcp_	R 1628
rcp_ioi_attach_.pl1	bound_rcp_	R 1628
rcp_lock_.pl1	bound_rcp_	R 1628
rcp_match_.pl1	bound_rcp_	R 1628
rcp_message_.pl1	bound_rcp_	R 1628
rcp_pointers_.pl1	bound_rcp_	R 1628
rcp_priv_.mexp	-	R 1628
rcp_promote_.pl1	bound_rcp_	R 1628
rcp_rcse_.pl1	bound_rcp_	R 1628
rcp_ring1_init_.pl1	bound_rcp_	R 1628
rcp_set_lock_.pl1	bound_rcp_	R 1628
rcp_sys_.mexp	-	R 1628
rcp_validate_.pl1	bound_rcp_	R 1628
real_sdh.pl1	bound_command_loop_	R 1628
record_io_.alm	bound_sss_wired_	R 1628
ref_name_.pl1	bound_system_faults	R 1628
rest_of_cu_.alm	bound_command_loop_	R 1628
rest_of_datmk_.pl1	bound_system_faults	R 1628
rest_of_ioa_.pl1	bound_command_loop_	R 1628
rest_of_ipc_.alm	bound_command_loop_	R 1628
restart_fault.alm	-	R 1628
return_to_ring_0_.alm	-	R 1628
ring_alarm.pl1	bound_tc_wired	R 1628
ring_zero_cleanup.pl1	bound_sss_active_	R 1628
scs.alm	-	R 1628

## II. Segment Change Log (continued)

<u>Segment Name</u>	<u>Bound Segment</u>	<u>Change #</u>
sct_manager_.pl1	bound_sss_wired_	R 1628
set_smlc_pattern.pl1	bound_temp_1	R 1628
set_sons_lvia.pl1	bound_file_system	R 1628
slt_manager.alm	-	R 1628
special_messages_.pl1	bound_error_handlers_	R 1628
square_root_.alm	bound_sss_wired_	R 1628
sss_active_tv_.alm	bound_sss_active_	R 1628
stack_oob_handler.pl1	bound_system_faults	R 1628
standard_default_handler_.alm	bound_command_loop_	R 1628
stop_process.pl1	bound_process_creation	R 1628
syn_attach.pl1	bound_lox_	R 1628
syserr_data.alm	-	R 1628
system_free_seg.alm	-	R 1628
system_privilege_.mexp	-	R 1628
tangent_.alm	bound_sss_wired_	R 1628
tape_.alm	bound_tape_	R 1628
tape_attach_.pl1	bound_tape_	R 1628
tape_detach_.pl1	bound_tape_	R 1628
tape_dim_data_.alm	bound_tape_	R 1628
tape_labeler_.pl1	bound_tape_	R 1628
tape_read_.pl1	bound_tape_	R 1628
tape_util_.pl1	bound_tape_	R 1628
tape_write_.pl1	bound_tape_	R 1628
tc.pl1	bound_process_creation	R 1628
tc_shutdown.pl1	bound_file_system	R 1628
tdcm_.pl1	bound_tape_	R 1628
tdcm_attach_.pl1	bound_tape_	R 1628
tdcm_detach_.pl1	bound_tape_	R 1628
tdcm_message_.pl1	bound_tape_	R 1628
template_plt.alm	-	R 1628
trap_caller_caller_.pl1	bound_system_faults	R 1628
try_to_unlock_lock.pl1	bound_mseg_prim	R 1628
unsnap_service.pl1	bound_file_system	R 1628
unthread_kste.pl1	bound_system_faults	R 1628
user_init_admin_.alm	bound_command_loop_	R 1628
user_real_init_admin_.pl1	bound_command_loop_	R 1628
vclock.alm	bound_system_faults	R 1628
wire_stack.alm	bound_priv_1	R 1628
wired_fm.alm	-	R 1628
wired_haracore_data.alm	-	R 1628
wired_utility_.alm	bound_sss_wired_	R 1628
xray_communications.alm	-	R 1628

## III. Bound Segment Change Log

<u>Bound Segment</u>	<u>Change</u>
bound_355_wired	replaced: dn355_util
bound_active_1	replaced: freecore
bound_command_loop_	replaced: ci_tv_ ioa_ cu_ cpu_time_and_paging_ cp_data_ listen_ command_processor_ find_command_ rest_of_ioa_ decode_descriptor_ rest_of_cu_ full_cp_tv_ standard_default_handler_ real_sdh_ get_to_ci_ get_at_entry_ process_overseer_ user_init_admin_ user_real_init_admin_ daemon_real_init_admin_ rest_of_ipc_
bound_error_handlers_	replaced: special_messages_ get_tpr_
bound_error_wired	replaced: parity_check
bound_file_system	replaced: get_proc_id makestack proc_info lps_ tc_shutdown unsnap_service quota_util get_defname_ set_sons_lvid
bound_fsm_	replaced: file_ msf_manager_

## III. Bound Segment Change Log (continued)

<u>Bound Segment</u>	<u>Change</u>
bound_imp_dim_	replaced: imp_lock imp_service imp_read imp_dcm_read imp_global_queue imp_order imp_misc imp_error imp_cleanup
bound_imp_status	replaced: imp_wired_buffer_ imp_write_service imp_status_driver
bound_init_1	replaced: initialize_faults
bound_init_2	replaced: build_template_pds
bound_iom_active	replaced: ioi_connect ioi_check_mpc
bound_iom_wired	replaced: ioi_interrupt ioi_caller ioi_util ioi_queue
bound_iox_	replaced: iox_ ios_write_around_ syn_attach discard_attach
bound_ipc_	replaced: full_ipc_ convert_ipc_code_
bound_mseg_prim	replaced: try_to_unlock_lock
bound_oc_	replaced: oc_
bound_page_control	replaced: pc_trace get_disk_meters
bound_printer_util_	replaced: printer_images_ prt_conv_ pr3_conv_ pr2_conv_
bound_priv_1	replaced: absadr wire_stack

## III. Bound Segment Change Log (continued)

<u>Bound Segment</u>	<u>Change</u>
bound_process_creation	replaced: tc stop_process activate_segs check_trailer get_process_usage
bound_rcp_	replaced: rcp_rcse_ rcp_lock_ rcp_set_lock_ rcp_assign_device_ rcp_attach_ rcp_initializer_ rcp_match_ rcp_find_ rcp_check_assign_ rcp_loi_attach_ rcp_comment_ rcp_pointers_ rcp_validate_ rcp_detach_ rcp_promote_ rcp_message_ rcp_force_unassign_ rcp_ring1_init_
bound_reloader_	replaced: bk_retrieve
bound_sss_active_	replaced: aim_check_ sss_active_tv_ all_rings_util_ cv_dec_ nonlocal_goto_ move_ link_trap_caller_ ring_zero_cleanup convert_aim_attributes_
bound_sss_wired_	replaced: clock_ formline_ wired_utility_ scf_manager_ dec_ops_ colx_dec_ops_ record_io_ math_routines_ square_root_ double_square_root_



## III. Bound Segment Change Log (continued)

Bound SegmentChange

tangent\_  
 logarithm\_  
 double\_logarithm\_  
 exponential\_  
 double\_exponential\_  
 arc\_tangent\_  
 double\_arc\_tangent\_  
 arc\_sine\_  
 integer\_power\_integer\_  
 power\_integer\_  
 power\_  
 math\_constants\_  
 call\_math\_error\_  
 math\_routines\_end\_  
 condition\_

bound\_system\_faults

replaced:

fs\_alloc  
 makeknown  
 kstsrch  
 get\_kstep  
 unthread\_kste  
 ref\_name\_  
 hash\_index  
 get\_defptr  
 link\_man  
 rest\_of\_datmk\_  
 datmk\_util\_  
 trap\_caller\_caller\_  
 level  
 outward\_call\_handler  
 access\_viol  
 vclock  
 stack\_oob\_handler

bound\_tape\_

replaced:

tdcm\_  
 tape\_  
 tape\_read\_  
 tape\_write\_  
 tape\_labeler\_  
 tape\_util\_  
 tape\_attach\_  
 tdcn\_attach\_  
 tdcn\_message\_  
 tape\_detach\_  
 tdcn\_detach\_  
 tape\_dim\_data\_

## III. Bound Segment Change Log (continued)

<u>Bound Segment</u>	<u>Change</u>
bound_tc_wired	replaced: ring_alarm
bound_temp_1	replaced: set_smic_pattern bulk_store_init
bound_temp_2	replaced: init_str_seg
bound_tty_active	replaced: gate_init hc_ipc

## IV. Header Change Log

No changes were made to the header.