TO: Distribution

FROM: Grace Ackerman-Lewis

DATE: June 3, 1976

SUBJECT: Installation of MSS 28.1

The hardcore system MSS 28-1 was installed on Thursday, March 18,
1976 at 08:56. This system includes: the operators needed for
fast fortran; fixes for bugs in syserr; error_table_ changes and
additions; fixes for bugs in propagate and find_iocb; metering
for the AST locking; fixes for bugs in segment moving and 451
disks; addition of better device metering to disk DIM; fixes for
bugs in the network and improving reliability of network
corrections; and a fix for a directory renaming problem. The
system libraries were updated on Thursday, March 18, 1976 at
21:53.

I. System Change Log

Chng MCR   **Change**

1560 1699 Installed interim fix for tty DIM bug that caused
            system crashes due to faulty setting of column
            position.

1561 1608,1658,1667
            Implemented the operators for fast fortran, fix
            assorted bugs and implemented quick stream IO for
            list directed output.

1562 1682 Fixed the following bugs in syserr: 1. "=" messages
            on console printed with trailing blanks. 2.
            Incorrect locking sequence could log messages out of
            order. 3. Zero length message was diagnosed
            incorrectly.

1563 none Fixed a message in error_table_.

1564 1681 Fixed bugs in propagate and find_iocb that caused
            improper initialization of modes and control fields
            of iocb's.

I. System Change Log (continued)

Chng MCR   Change

1565 1684 Added metering of AST locking.

1567 1718 Fixed system crashing bugs involving 451 disks and
            segment moving.

1568 none Added better device metering to the disk DIM.

1569 1662 Installed fixes to area management software.

1571 1210,1487
            Improved reliability of network connections, fix two
            system crashing bugs, cause Network to use IOAM, add
            tracing facilities to NCP.

1572 1545 Fixed directory renaming problem.

II. Segment Change Log

Segment Name	Bound Segment	Change #
active_all_rings_data.alm	-	R 1572
alloc_.alm	bound_sss_wired_	R 1569
any_to_any_.alm	bound_sss_wired_	R 1561
chname.pl1	bound_file_system	R 1561
delentry.pl1	bound_file_system	R 1572
disk_control.pl1	bound_page_control	R 1568
disk_init.pl1	bound_temp_1	R 1568
dn355.pl1	-	A 1560
double_sine_.alm	bound_sss_wired_	R 1561
dstint.alm	bound_iom_wired	R 1571
error_table_.et	-	R 1563,1565
fim.mexp	-	R 1571
find_dirsegno.pl1	bound_system_faults	R 1571
find_iocb.pl1	bound_iox_	R 1564
fort_math_ops_.alm	bound_sss_wired_	A 1561
fsout_vol.pl1	bound_disk_util_wired	R 1567
get_pathname_.pl1	bound_system_faults	R 1572
imp_attach.pl1	bound_imp_dim_	R 1571
imp_get_buffer.pl1	bound_imp_dim_	R 1571
imp_init.pl1	bound_imp_dim_	R 1567
imp_input_processor.pl1	bound_imp_status	R 1567
imp_mark_host.pl1	bound_imp_status	R 1567
imp_util_wired.pl1	bound_imp_status	R 1567
imp_write.pl1	bound_imp_dim_	R 1567
init_branches.pl1	bound_init_2	R 1567

II. Segment Change Log (continued)

Segment Name	Bound Segment	Change #
init_hardcore_gates.pl1	bound_temp_2	R 1571
lock.pl1	bound_system_faults	R 1566
ncp_access_.pl1	bound_network0_	R 1571
ncp_assign_.pl1	bound_network0_	A 1566
ncp_connection_.pl1	bound_network0_	A 1566
ncp_control_.pl1	bound_network0_	A 1566
ncp_daemon_.pl1	bound_network0_	A 1566
ncp_error_.pl1	bound_network0_	A 1566
ncp_io_.pl1	bound_network0_	A 1566
ncp_lock_.pl1	bound_network0_	A 1566
ncp_main_.pl1	bound_network0_	R 1566
ncp_order_.pl1	bound_network0_	A 1566
ncp_params_.alm	bound_network0_	A 1571
ncp_ring_.pl1	bound_networkC_	D 1566
ncp_status_.pl1	bound_network0_	R 1566
ncp_tables_.alm	-	A 1571
ncp_tol_.mexp	bound_network0_	R 1571
ncp_toop_.pl1	bound_network0_	R 1566
ncp_trace_.pl1	bound_network0_	A 1566
ncp_util_.pl1	bound_network0_	R 1566
net_ring0_admin_.mexp	-	A 1571
net_ring0_sys_.mexp	-	A 1571
net_ring0_user_.mexp	-	A 1571
pathname_am.pl1	bound_system_faults	R 1572
pds.alm	-	R 1572
pl1_operators_.mexp	bound_sss_wired_	R 1561
power_integer_.alm	bound_sss_wired_	R 1561
proc_int_handler.pl1	bound_tc_wired	R 1571
propagate.pl1	bound_iox_	R 1564
put_field_.alm	bound_sss_wired_	A 1561
segment_mover.pl1	bound_system_faults	R 1567
sine_.alm	bound_sss_wired_	R 1561
sys_info.alm	-	R 1571
syserr_copy_paged.pl1	bound_error_active	R 1562
syserr_log_check.pl1	bound_error_active	R 1562
syserr_logger.pl1	bound_error_wired	R 1562
syserr_real.pl1	bound_error_wired	R 1562
tty_read.pl1	bound_tty_active	R 1560
unwind_stack_.pl1	bound_sss_active_	R 1571

Include Files

area_structures.incl.alm		R 1569
area_structures.incl.pl1		R 1569
dskdcl.incl.pl1		R 1568
ncp_connection_dcls.incl.pl1		A 1571
ncp_constants_dcls.incl.pl1		A 1571
ncp_data_dcls.incl.pl1		A 1571

II. Segment Change Log (continued)

Segment Name	Bound Segment	Change #
ncp_process_dcls.incl.pl1		A 1571
ncp_status_dcls.incl.pl1		A 1571
pathname_am.incl.pl1		R 1572
plio2_fsb.incl.alm		A 1561
plio2_ps.incl.alm		A 1561
plio2_psr.incl.alm		A 1561
static_handlers.incl.alm		R 1571
static_handlers.incl.pl1		R 1571

Bindfiles

bound_network0_.bind		R 1571
bound_sss_wired_.bind		R 1561
bound_system_faults.bind		R 1572

III. Bound Segment Change Log

Bound Segment	Change	
bound_error_wired	replaced:	syserr_logger
		syserr_real
bound_error_active	replaced:	syserr_copy_paged
		syserr_log_check
bound_tty_active	replaced:	tty_read
bound_iox_	replaced:	find_iocb
		propagate
bound_system_faults	replaced:	lock
		find_dirsegno
		pathname_am
		get_pathname_
		segment_mover
bound_disk_util_wired	replaced:	fsout_vol
bound_page_control	replaced:	disk_control
bound_temp_1	replaced:	disk_init
bound_sss_wired_	added:	put_field_
		fort_math_ops_
	replaced:	alloc_
		pl1_operators_

III. Bound Segment Change Log (continued)

Bound Segment	Change	
		any_to_any_
		sine_
		double_sine_
		power_integer_
bound_network0_	added:	ncp_io_
		ncp_params_
		ncp_lock_
		ncp_daemon_
		ncp_connection_
		ncp_order_
		ncp_assign_
		ncp_error_
		ncp_control_
		ncp_trace_
	replaced:	ncp_util_
		ncp_main_
		ncp_tbl_
		ncp_tbop_
		ncp_access_
		ncp_status_
	deleted:	ncp_ring_
bound_imp_dim_	replaced:	imp_get_buffer
		imp_write
		imp_attach
		imp_init
bound_imp_status	replaced:	imp_input_processor
		imp_util_wired
		imp_mark_host
bound_iom_wired	replaced:	dstint
bound_tc_wired	replaced:	proc_int_handler
bound_sss_active_	replaced:	unwind_stack_
bound_temp_2	replaced:	init_hardcore_gates
bound_file_system	replaced:	delentry
		chname
bound_init_2	replaced:	init_branches

IV. Header Change Log

The hardcore header was changed to: increase the length of
disk_seg by 96 words per disk subsystem; delete the segment net_;
rename the segment net_db_ to net_tables_; add the segment
net_ring0_admin_; add the name net_ring0_sys_ to netp_; add the
segment net_ring0_user_ with the additional name net_; delete
the entry ncp_tbop_, and add the entries ncp_control_,
ncp_daemon_, ncp_io_, ncp_order_, and ncp_trace_ to
bound_network0_.