MULTICS INSTALLATION BULLETIN

TO: MIB DISTRIBUTION

FROM: Nancy Pitts

DATE: June 2, 1978

SUBJECT: ONLINE INSTALLATION CHANGES

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The following is a list of changes to the standard service system,
tools, network, unbundled, author maintained and installation
maintained libraries for the week beginning May 29, 1978.

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MCR # :   Explanation briefly summarizing the modification.

DATE   SEGMENT NAME   LIBRARY

            COMPONENT changes (if any)

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MCR 2551,2890, 2894, 2897, 2914, 2932, 2933, 2934, 2935, 2936,
2937, 2938, 2939, 2940, 2978, 3244, 3246: The following modules
were put together in four parts incorporating the changes to the
IO daemon. The four parts were then installed at one time.

  Part One installed changes to bound_prtdim_ (TOOLS),
bound_g115_ (TOOLS), bound_misc_commands_ (SSS), and
bound_spooler_util_ (TOOLS) to install the tools portion of the
new printer software. spool_driver_ was included in the bound
segment bound_spooler_util_ (TOOLS) and deleted as an unbound
segment (TOOLS).

  Part Two installed changes to bound_iodd_ (TOOLS),
bound_print_sheets_ (TOOLS), and bound_iodc_ (TOOLS) to add new
printer control features: page restart, slew to channel,
automatic paper size adjustment (including head/tail sheets),
new driver control parameters, sample head sheet command; and
new spool driver which provides similar features.

  Part Three installed bound_card_input_ (TOOLS),
bound_card_dims_ (TOOLS), bound_admin_tools_ (TOOLS),
bound_user_control_ (TOOLS), bound_io_commands_ (SSS), and
bound_absentee_com_ (SSS) to add new site card input and RJE
features for central site card reader, to allow blank password
for bulk data input, and to allow user to change card input
password.

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Multics Project internal working documentation. Not to be
reproduced or distributed outside the Multics Project.

Part Four installed bound_remote_io_ (TOOLS) to add the new IO
daemon driver for ibm2780 type remote terminals.

Date	Time	Description
06/02/78	0730.7	spool_driver_ deleted from TOOLS
06/02/78	0730.7	driver_status.incl.pl1 replaced in INCL
06/02/78	0730.7	ibm2780_data.incl.pl1 added to INCL
06/02/78	0730.7	iod_changes.info added to INFO
06/02/78	0730.7	card_input.info replaced in INFO
06/02/78	0730.7	card_access_control.info replaced in INFO
06/02/78	0730.7	iodd_static.incl.pl1 replaced in INCL
06/02/78	0730.7	printer_types.incl.pl1 replaced in INCL
06/02/78	0730.7	prt_conv_info.incl.alm replaced in INCL
06/02/78	0730.7	prt_conv_info.incl.pl1 replaced in INCL
06/02/78	0730.7	prt_order_info.incl.pl1 added to INCL
06/02/78	0730.7	prt_rqti.incl.pl1 added to INCL
06/02/78	0730.7	prt_sdb.incl.pl1 replaced in INCL
06/02/78	0730.7	remote_attach_data.incl.pl1 added to INCL
06/02/78	0730.7	rqti_header.incl.pl1 added to INCL
06/02/78	0730.7	spooler_changes.info added to INFO
06/02/78	0730.7	spooling_info.incl.pl1 replaced in INCL
06/02/78	0730.7	bound_prtdim_ replaced in TOOLS

```
        replaced:        prtdim
                         prtdim_attach
                         prtdim_util
                         prtdim_changemode
                         prtdim_order
                         prtdim_write
                         bound_prtdim_.bind
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| 06/02/78 | 0730.7 | bound_g115_ replaced in TOOLS |

```
replaced:        g115_
                 g115_as_
                 g115_dim_
                 g115_control_
                 g115_io_
                 g115_input_proc_
                 g115_conv_
                 g115_message_
                 g115_util_

06/02/78  0730.7    bound_misc_commands_ replaced in SSS

        added:    rje_args
                  set_epilogue_command

     replaced:    overlay
                  print_conv_
                  bound_misc_commands_.bind

06/02/78  0730.7    bound_spooler_util_ replaced in TOOLS

        added:    spool_driver_

     replaced:    spooldim_
                  spooling_dim_xtatch_
                  get_spooling_data_
                  spooling_dim_order_
                  file_monitor_
                  spooling_dim_write_
                  spool_conv_
                  print_spooling_tape
                  unspool_
                  spooling_question_handler_
                  spool_static_
                  bound_spooler_util_.bind

       deleted:   spooling_dim_changemode_

06/02/78  0730.7    bound_iodd_ replaced in TOOLS

        added:    iodd_get_cmd_
                  iodd_msg_
                  do_prt_request_
                  cv_prt_rqti
                  display_prt_rqti

     replaced:    iodd_listen_
                  iodd_command_processor_
                  io_daemon_account_
                  printer_driver_
```

```
                              output_request_
                              write_control_form_
                              iodd_quit_handler_
                              iodd_signal_handler_
                              iodd_hangup_
                              iodd_
                              bound_iodd_.bind

06/02/78   0730.7            bound_print_sheets_ replaced in TOOLS

        replaced:            head_sheet_
                             tail_sheet_
                             bound_print_sheets_.bind

06/02/78   0730.7            bound_iodc_ replaced in TOOLS

        replaced:            iod_tables_compiler
                             print_iod_tables

06/02/78   0730.7            bound_card_input_ replaced in TOOLS

        added:               validate_card_input_

        replaced:            read_cards_
                             cards_overseer_
                             bound_card_input_.bind

06/02/78   0730.7            bound_card_dims_ replaced in TOOLS

        added:               card_util_

        replaced:            crzcpz_dim
                             mcc_dim
                             viipunch_dim
                             raw_dim
                             bound_card_dims_.bind

06/02/78   0730.7            bound_admin_tools_ replaced in TOOLS

        replaced:            cv_persmf

06/02/78   0730.7            bound_user_control_ replaced in TOOLS

        replaced:            bound_user_control_.bind

06/02/78   0730.7            bound_io_commands_ replaced in SSS

        replaced:            copy_cards

06/02/78   0730.7            bound_absentee_com_ replaced in SSS
```

```
        replaced:       enter_abs_request

06/02/78   0730.7       bound_remote_io_ added to TOOLS

        added:          remote_driver_
                        remote_printer_
                        ibm2780_conv_
                        remote_punch_
                        remote_reader_
                        remote_teleprinter_
                        ibm2780_
                        rmcc_
                        bound_remote_io_.bind
```

Installation Instructions for New IO Daemon

On MIT, all software is online in the following directories:

source archives	>udd>m>jcw>new_iod>source
object archives	>udd>m>jcw>new_iod>object
bind files	(in each object archive as needed.)
include files	>udd>m>jcw>new_iod>source>incl
bound components	>udd>m>jcw>new_iod>bound_components

operational data   >udd>m>jcw>new_iod>doc
    spooler_changes.info
    pending_changes.info
    prt.runout (almost complete printer daemon info)
    iod_changes.info
    book.runout (new Bulk IO manual - complete)

user info files   >udd>m>jcw>new_iod>doc
    card_access_control.info   (coming from Phx)
    card_input.info   (coming from Phx)
    printer_changes.info   (coming from Phx)
      (actual installed name should be prt_vert_format.

Documentation   preliminary (old) documentation is in
    >udd>m>jcw>new_iod>doc>old
  newest documentation is in the latest update to
    MPM reference data section
    Multics Bulk I/O manual (new for MR 6.1)

Naming Convention

Source archives are named bound_xxx_.s.ud.archive for updates
to the source archive of bound_xxx_.

Source archives named bound_xxx_.s.archive are complete source
archives for bound_xxx_. (except for bound_misc_commands_.s.archive
which is an update archive with too long a name.)

Object archives are named bound_xxx_.ud.archive for updates to
the object archive of bound_xxx_.

Object archives named bound_xxx_.archive are complete object
archives for bound_xxx_. (No exceptions.)

Installation Instructions

The installation is broken into 4 steps. Each step must be completed
as a whole and each must be done in order as some programs rely
on changes in a previous step. The whole installation can be done in
one step if desired. The 4 steps are defined as follows:

STEP 1:

Install the new printer software and all programs which use it
or reference prt_conv_info.incl.(pl1 alm).

- install include files.

        for printer software

        prt_conv_info.incl.alm
        prt_conv_info.incl.pl1
        prt_order_info.incl.pl1
        printer_types.incl.pl1
        remote_attach_data.incl.pl1
        prt_sdb.incl.pl1

        for g115

        iodd_static.incl.pl1
        driver_status.incl.pl1

        for spooler

        spooling_info.incl.pl1
        spooling_sdb.incl.pl1 (delete)
        spool_conv_info.incl.pl1 (delete)
        spool_conv_info.incl.alm (delete)

Hardcore Step 1

- before making any online changes,
  make a new system tape replacing the following segments

        bound_printer_util_
        bound_util_print
        bound_temp_1

    (Note: This tape will not run the old printer dim in tools.)

Online Step 1

- before bringing up any IO daemons or user processes,
  install all tools and sss segments which use the new version
  of bound_printer_util_ on the new system tape, which are

    in tools

        bound_prtdim_
        bound_g115_
        bound_spooler_util_

    in sss

        bound_misc_commands_

- delete the single segment "spool_driver_" from tools
  (It is now in bound_spooler_util_)

- step 1 is now complete. The old printer daemon can run the new
  printer software at this point. The new spool driver will NOT work
  until the new IO Daemon is installed in STEP 2.

STEP 2:

Install the new IO Daemon driver software and related segments.

- install include files.

        prt_rqti.incl.pl1
        rqti_header.incl.pl1

        (plus include files from step 1)

- replace the following segments in tools

        bound_iodd_
        bound_iodc_
        bound_print_sheets_

- step 2 is now complete. The new IO Daemon can now be run.
  The new spool driver will also run now.

STEP 3:

Install the new card input software, RJE facility and all related
segments.

- replace the following segments

    in tools

        bound_card_input_
        bound_card_dims_
        bound_admin_tools_
        bound_user_control_   (bindfile change only)

    in sss

        bound_io_commands_
        bound_absentee_com_

- step 3 is now complete. Card input and RJE can be used from the central
  site reader, according to the new ref data section of the MPM and
  the new Multics Bulk I/O manual.

STEP 4:

Install the remote driver software which will run the IBM 2780 type
remote terminal interface.

- install include files.

        ibm2780_data.incl.pl1

        (plus include files from steps 1 & 2)

- add the following segment to tools

        bound_remote_io_

- step 4 is now complete. RJE features can now be run from 2780 type
  remote devices.