

MCR10124

Omnibus MCR to Fix Trivial Documentation Errors

Revision 1.13

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1 Problem Description

There are frequently tickets regarding documentation (manuals, errata info segments, normal info segments) that are trivial in nature. Rather than have to create an MCR for each of these, wait for it to get approved, and then fix/install, This MCR will be used as a catchall MCR for this purpose. It will be updated (revised) each time a new fix is created and this MCR number used in the approval history comment field.

1.1 Fix Bogus Index Entry in GB64

Ticket <https://multics-trac.swenson.org/ticket/17> describes a minor problem where the index in GB64 references the `new_proj` command under the 'Front-End Network Processor' heading. This clearly doesn't belong here.

The proposed fix is this:

```
cpa >doc>info>gb64.errata.info ==
```

```
Inserted in B:
```

```
B482      pg i-24; under Frong-End Network Processor (FNP), remove the entry for
```

```
B483      "new_proj 3-26".
```

```
B484
```

```
Preceding:
```

```
A482
```

```
A483      :Internal: history_comment.gi: 2020-01-31 history_comment
```

```
Comparison finished: 1 difference, 3 lines.
```

1.2 Fix Incorrect `-exclude` Control Argument Description in `test_cpu.info`

Ticket <https://multics-trac.swenson.org/ticket/135> describes a minor issue with the description of the `-exclude` control argument in the `test_cpu.info` info segment. The current info segment reads:

```
-exclude LIST, -excl LIST
    excludes tests specified in the LIST, where LIST can be either a
    valid test number or a name.
-exclude TEST_LIST, -excl TEST_LIST
    excludes the tests identified by TEST_LIST, where TEST_LIST is
    either a set of test names or numbers, from the tests that are run.
```

These should be written into one description that uses the correct syntax for lists of values. That syntax would be:

```
-exclude TEST ... TEST, -excl TEST ... TEST
```

The proposed fix is this:

```
cpa [wsp info test_cpu.info] ==
```

```
A1      03/27/85 test_cpu
```

```
Changed by B to:
```

```
B1      :Info: test_cpu: 2022-09-03 test_cpu
```

```
A23     -exclude LIST, -excl LIST
```

```
A24         excludes tests specified in the LIST, where LIST can be either a
A25         valid test number or a name.
```

```
A26     -exclude TEST_LIST, -excl TEST_LIST
```

```
A27         excludes the tests identified by TEST_LIST, where TEST_LIST is
```

```
A28         either a set of test names or numbers, from the tests that are run.
```

```
Changed by B to:
```

```
B23     -exclude TEST ... TEST, -excl TEST ... TEST
```

```
B24         excludes the specified tests from being run. TEST may be: the
B25         name of one of the tests in "List of requests for diagnostic tests"
B26         section below; or the number of the test to be excluded where
B27         test numbers are displayed by the command: test_cpu -test_names.
```

```
A333     the mc_trace command with the test_cpu command.
```

```
Changed by B to:
```

```
B332     the mc_trace command with the test_cpu command
```

```
B333
```

```
B334
```

```
B335     :hcom:
```

```
B336     /****^ HISTORY COMMENTS:
```

```
B337         1) change(2022-09-03,Swenson), approve(2022-09-03,MCR10124),
```

```
B338         audit(2022-09-03,Repair), install(2022-09-03,MR12.8-1035):
```

```
B339         Fix documentation on -exclude control argument. See ticket 135 for
B340         details.
```

```
B341                                     END HISTORY COMMENTS */
```

```
B342
```

Comparison finished: 3 differences, 25 lines.

1.3 Delete meter_fim info segment

There exists an info segment, `>doc>privileged>>meter_fim.info` for which no program exists. There is a `fim_meters` program, but it doesn't match the content of this info segment.

The proposed fix is to delete this info segment.

1.4 Fix Typo in deckfile.manager.info

Ticket <https://multics-trac.swenson.org/ticket/268> references an inconsistency in the info segment for `deckfile.manager` and the program's implementation. The `-deckfile` control argument has a short name of `-dkf`, however, the info segment says it is `-df`.

The proposed fix is to change the `-df` to `-dkf`. In addition, various space-related issues are reported by the `verify_info` tool, so those will be fixed as well.

1.5 Fix Incorrect Path to 355_macros in map355.info

Ticket <https://multics-trac.swenson.org/ticket/266> reports that the pathname to the `355_macros` macro file is incorrect in the info segment for `map355`. The correct pathname is `>ldd>mcs>info>355_macros`. The proposed fix is simply to change the pathname to be the correct one.

1.6 Fix Typo in Comment in io_page_tables.incl.pl1

Ticket <https://multics-trac.swenson.org/ticket/264> reports that a comment in `io_page_tables.incl.pl1` references the non-existent segment `io_page_tables.pl1`. This segment should be `ioi_page_tables.pl1`.

The change is best illustrated by the `compare_ascii` output:

```
A3      /* Definition of the I/O page table segment. For details of how this is
        manipulated, see io_page_table.pl1. */
Changed by B to:
B3      /* Definition of the I/O page table segment. For details of how this is
        manipulated, see ioi_page_table.pl1. */
```

The details are described in `ioi_page_table.pl1`.

1.7 Fix Incorrect info in help_system.gi.info

Ticket <https://multics-trac.swenson.org/ticket/238> reports that the documentation in `help_system.gi.info` is incorrect regarding how to get a list of valid help responses. In a recent change to the help system and its documentation, this information was moved out of `help.info` and into the separate `help_responses.gi.info` segment.

The proposed fix is to make this change:

```
cpa [wsp info help_system.gi.info] ==

A1132      help help -scn responses
Changed by B to:
B1132      help help_responses
```

Comparison finished: 1 difference, 2 lines.

1.8 Add ar97.errata.info for eis_tester

Ticket <https://multics-trac.swenson.org/ticket/203> reports that the documentation in AR97-03 for `eis_tester` incorrectly states that if you do not specify the `-b` control argument to `eis_tester` that data the program has set up for each instruction is printed before the instruction is executed. In fact, this only is printed out if the `-lg` control argument is provided.

The fix is to add an errata for AR97 that reads:

```
ar97.errata.info 10/30/22 1809.8 pdt Sun

:Info: ar97.errata: errata.ar97: System_Diagnostic_Aids: 2022-10-30 AR97 Errata

Function: This info segment provides errata and addenda information for
the Multics manual, AR97-03 titled:

    Multics System Diagnostic Aids

pg 2-47:

    In the second paragraph of the section labeled "eis_tester
    Printout",

    CHANGE:
        If you do not specify -bf (see "Usage" above) then the data that
        eis_tester has set up for this instruction is printed before the
        instruction is executed.

    TO:
        If you specify -lg (see "Usage" above) then the data that
        eis_tester has set up for this instruction is printed before the
        instruction is executed.

:hcom:
/****^ HISTORY COMMENTS:
    1) change(2022-10-30,Swenson), approve(2022-10-30,MCR101024),
        audit(2022-10-30,None), install(2022-10-30,MR12.8-1048):
        Fixed description of eis_tester command's output when -bf and -lg are
        specified.

                                END HISTORY COMMENTS */
```

In addition, the info segment for `eis_tester` has the same issue and the same correction will be made to it.

1.9 Fix -from and -to control arguments in list_ref_names.info

Ticket <https://multics-trac.swenson.org/ticket/303> reports that the -fo control argument documentation for the list_ref_names.info segment is missing it's required argument N. It also notes that from -from and -to descriptions should make clear that the segment number, N, is treated as an octal integer.

The change is best illustrated by the compare_ascii output:

```
cpa [wsp info lrn.info] ==

A1      02/15/85 list_ref_names, lrn
Changed by B to:
B1      :Info: list_ref_names: lrn:
B2      2023-06-14 list_ref_names, lrn

A32      is assumed.
A33      -to
Changed by B to:
B33      is assumed. N is treated as an octal segment number.
B34      -to N

A36      assumed.
Changed by B to:
B37      assumed. N is treated as an octal segment number.

A45      segments that are not in ring 0.
Changed by B to:
B46      segm
B47
B48
B49      :hcom:
B50      /****^ HISTORY COMMENTS:
B51          1) change(2023-06-14,Swenson), approve(2023-06-14,MCR10124):
B52          Fix -to control argument description. Add note for -from and -to that N is
B53          octal.
B54
                                     END HISTORY COMMENTS */

Comparison finished: 4 differences, 19 lines.
```

1.10 Fix Incorrect MCR Number in History Comments for ar97.errata.info

This change simply changes the incorrect MCR101024 MCR number in ar97.errata.info to MCR10124.

```
cpa [wsp info ar97.errata.info] ==

A27      1) change(2022-10-30,Swenson), approve(2022-10-30,MCR101024),
Changed by B to:
B27      1) change(2022-10-30,Swenson), approve(2022-10-30,MCR10124),
```

Comparison finished: 1 difference, 2 lines.

1.11 Fix hcs_.info and ipc_.info

Ticket <https://multics-trac.swenson.org/ticket/378> describes an issue with hcs_.info, where the hcs_\$get_user_access_modes_seg subroutine entry point is incorrectly documented, and misnames this entry point as a second instance of hcs_\$get_user_access_modes. It declares the entry with only 5 arguments instead of 6. The declaration of the user_id parameter is missing and also doesn't appear in the call statement.

Ticket <https://multics-trac.swenson.org/ticket/379> calls for the ipc_ entypoints, ipc_\$create_event_channel and ipc_\$run_event_calls to be documented.

The proposed change for hcs_.info is summarized below:

```
compare_ascii >doc>info>hcs_.info ==
```

```
A1910      :Entry: get_user_access_modes: 1985-03-05 hcs_$get_user_access_modes
```

```
Changed by B to:
```

```
B1910      :Entry: get_user_access_modes_seg: 1985-03-05 hcs_$get_user_access_modes_seg
```

```
A1920      declare hcs_$get_user_access_modes entry (pointer, fixed bin,
```

```
A1921          bit (36) aligned, bit (36) aligned, fixed bin (35));
```

```
A1922      call hcs_$get_user_access_modes (segment_ptr, user_id, ring, mode,
```

```
A1923          ex_mode, code);
```

```
Changed by B to:
```

```
B1920      declare hcs_$get_user_access_modes_seg entry (pointer, char(*),
```

```
B1921          fixed bin, bit (36) aligned, bit (36) aligned, fixed bin (35));
```

```
B1922      call hcs_$get_user_access_modes_seg (segment_ptr, user_id,
```

```
B1923          ring, mode, ex_mode, code);
```

```
A4504                                          END HISTORY COMMENTS */
```

```
Changed by B to:
```

```
B4504      3) change(2025-07-22,GDixon), approve(2025-07-22,MCR10124):
```

```
B4505          Replace duplicate get_user_access_modes entry point with missing
```

```
B4506          hcs_$get_user_access_modes_seg entry point.
```

```
B4507                                          END HISTORY COMMENTS */
```

Comparison finished: 3 differences, 15 lines.

The proposed change for ipc_.info is summarized below:

```
compare_ascii >doc>info>ipc_.info ==
```

```
A1          01/16/85 ipc_
```

```
A2
```

```
A3          The Multics system supports an interprocess communication facility.
```

```
A4          The basic purpose of the facility is to provide control communication
```

A5 (by means of stop and go signals) between processes.

Changed by B to:

B1 :Info: ipc_: 2025-02-07 ipc_

B2

B3 The Multics system supports an interprocess communication (IPC)

B4 facility. The basic purpose of the facility is to provide control

B5 communication (by means of stop and go signals) between processes.

A10 or more channels. For information on event channels, type "help

A11 event_channel.gi".

Changed by B to:

B10 or more channels. For information on event channels, type:

B11 help event_channel.gi

B12

B13

B14 List of status codes:

B15 The following status codes may be returned by these ipc_

B16 subroutines.

B17

B18 error_table_\$wrong_channel_ring

B19 ring access violation: event channel resides in other than current

B20 ring.

B21 error_table_\$invalid_channel

B22 incorrect event channel name: event channel not found in the current

B23 ring's Event Channel Table (ECT).

B24 error_table_\$not_a_wait_channel

B25 attempting to block waiting for an event call channel_id.

B26

B27

B28 error_table_\$event_calls_not_masked

B29 attempting to unmask event calls when event calls are already

B30 unmasked.

B31 error_table_\$event_channel_cutoff

B32 attempting to read a channel or go blocked on a group of channels

B33 all of which have been cutoff.

B34 error_table_\$event_channel_not_cutoff

B35 attempting to reconnect a channel which has not been cutoff.

B36 error_table_\$bad_arg

B37 erroneous argument was given.

A18 :Entry: block: 10/22/82 ipc_\$block

Changed by B to:

B44 :Entry: block: 1982-10-22 ipc_\$block

A47 :Entry: create_ev_chn: 10/22/82 ipc_\$create_ev_chn

Changed by B to:

B73 :Entry: create_event_channel: 2025-02-07 ipc_\$create_event_channel

B74

B75

B76 Function: This entry point creates a specified type of IPC event
B77 channel.
B78
B79
B80 Syntax:
B81 declare ipc_\$create_event_channel entry (ptr, fixed bin(71),
B82 fixed bin(35));
B83 call ipc_\$create_event_channel (create_structure_ptr, channel_id,
B84 code);
B85
B86
B87 Arguments:
B88 create_structure_ptr
B89 pointer to an ipc_create_arg_structure describing requirements for
B90 the new IPC channel. (Input) For details, see the "Notes on the
B91 ipc_create_arg_structure" section below.
B92 channel_id
B93 name for the new event channel. (Output)
B94 code
B95 is a standard status code. (Output)
B96
B97
B98 Notes on the ipc_create_arg_structure:
B99 Input data for this subroutine is provided using the ipc_create_arg
B100 structure described below. A declaration for this structure and
B101 related constants is provided in the ipc_create_arg.incl.pl1 segment.
B102 Each element of the structure is described in the "List of
B103 ipc_create_arg elements" section below.
B104
B105 dcl 1 ipc_create_arg_structure
B106 aligned based (ipc_create_arg_structure_ptr),
B107 2 version char (8) unaligned,
B108 2 channel_type fixed bin,
B109 2 call_entry variable entry (ptr),
B110 2 call_data_ptr ptr,
B111 2 call_priority fixed bin (17);
B112
B113
B114 dcl ipc_create_arg_structure_ptr ptr;
B115
B116 dcl (ipc_create_arg_structure_v1 char (8) init ("ipcarg01"),
B117 FAST_EVENT_CHANNEL_TYPE fixed bin init (1),
B118 WAIT_EVENT_CHANNEL_TYPE fixed bin init (2),
B119 CALL_EVENT_CHANNEL_TYPE fixed bin init (3),
B120 ASYNC_CALL_EVENT_CHANNEL_TYPE fixed bin init (4),
B121) int static options (constant);
B122
B123
B124 List of ipc_create_arg_structure elements:
B125 The following items are elements of the ipc_create_arg_structure
B126 shown in the preceding section of this info segment. The
B127 call_entry, call_data_ptr and call_priority must be given for an

B128 event call channel; but are ignored when creating an event wait
 B129 channel.
 B130 version
 B131 gives the version number of this structure. (Input) Set it to
 B132 the constant value `ipc_create_arg_structure_v1` in the include
 B133 segment.
 B134 `channel_type`
 B135 gives the type of IPC event channel to be created. (Input) See
 B136 the "List of channel types" section below.
 B137
 B138
 B139 `call_entry`
 B140 gives the entry point to call when an event call channel receives a
 B141 wakeup. (Input)
 B142 `call_data_ptr`
 B143 gives a pointer provided by the caller to any data needed by the
 B144 `call_entry`. (Input) Set this to null if no data additional is
 B145 required.
 B146 `call_priority`
 B147 gives the priority for this event call channel relative to other
 B148 event call channels created by the calling process and ring. (Input)
 B149 If a wakeup is pending for two or more call channels, the channel
 B150 with the lowest priority number is called before other pending
 B151 channels with higher numbers.
 B152
 B153
 B154 List of channel types:
 B155 For details on the various types of event channels, type:
 B156 `help event_channel.gi`
 B157
 B158 `FAST_EVENT_CHANNEL_TYPE`
 B159 create a fast event wait channel.
 B160 `WAIT_EVENT_CHANNEL_TYPE`
 B161 create a regular event wait channel.
 B162
 B163 `CALL_EVENT_CHANNEL_TYPE`
 B164 create a regular event call channel.
 B165 `ASYNC_CALL_EVENT_CHANNEL_TYPE`
 B166 create an asynchronous event call channel.
 B167
 B168
 B169 Notes on event wait channel types:
 B170 A regular event wait channel usually receives a wakeup to notify of
 B171 each channel event (one wakeup for each datum available through the
 B172 channel). If all pending data is processed before blocking on that
 B173 wait channel, then drain all pending wakeups for that event wait
 B174 channel to indicate that all items were processed. For more details,
 B175 type: `help ipc_$drain_chn`.
 B176
 B177 A fast event wait channel performs the same functions as a regular
 B178 event wait channel, but can record receipt of only one wakeup at a
 B179 time. Therefore, a program requesting creation of a fast event wait

B180 channel should process all data associated with that channel before
 B181 blocking again on the channel. Calling ipc_\$drain_chn is not required
 B182 for a fast event wait channel.

A254 :Entry: set_call_prior: 10/22/82 ipc_\$set_call_prior
 Changed by B to:

B392 :Entry: run_event_calls: 2025-02-07 ipc_\$run_event_calls
 B393
 B394 Function: This entry point causes any pending event calls of the
 B395 specified type to run. It makes one pass through the chains of pending
 B396 events instead of scanning from the beginning of the chain after each
 B397 event is processed (like ipc_\$block). The major reason for this entry
 B398 is for use by the wkp_ IPS signal handler whose contract is to run any
 B399 pending event calls in the process.

B400
 B401
 B402 Syntax:
 B403 declare ipc_\$run_event_calls (fixed bin(71), fixed bin(35));
 B404 call ipc_\$run_event_calls (channel_id, code);
 B405
 B406
 B407 Arguments:
 B408 channel_id
 B409 is the identifier of the event call channel whose pending event call
 B410 wakeups are to be processed. (Input)
 B411 code
 B412 is a standard status code. (Output)
 B413
 B414
 B415 :Entry: set_call_prior: 1982-10-22 ipc_\$set_call_prior

1.12 Fix typo in time_strings.gi.info

Ticket <https://multics-trac.swenson.org/ticket/341> describes an issue with a typo in time_strings.gi.info. There is a reference to “15 Avril” that should be “15 April”.

The proposed change for time_strings.gi.info is summarized below:

```
cpa [wsp info time_strings.gi.info] ==
```

```
A1      03/07/85 Time Strings
Changed by B to:
B1      2025-07-27 Time Strings
```

```
A15     15 Avril          (year optional)
Changed by B to:
B15     15 April          (year optional)
```

```
Comparison finished: 2 differences, 4 lines.
```

1.13 Fix Typo in AG91 Regarding Section Number for Error Codes

Ticket <https://multics-trac.swenson.org/ticket/357> describes an issue with an incorrect section number reference for error codes. Error codes are described in Section 7, not Section 8.

The proposed change for `ag91errata.info` is summarized below:

```
A1      10/31/90 AG91 (Multics Programmer's Reference Manual)
A2      Errata Information for MR12.4
Changed by B to:
B1      :Info: ag91.errata: errata.ag91: Programmer's_Ref_Manual: 2025-09-08 AG91 Errata
B2
B3      Function: This info segment provides errata and addenda information for
B4      the Multics manual, AG91-04A titled:
B5
B6      Multics Programmer's Reference Manual)
B7
B8
B9      pg 1-27: under "status code, last line":
B10
B11      Change:
B12
B13      "Status Codes" in Section 8.)
B14
B15      To:
B16
B17      "Status Codes" in Section 7.)
```

Comparison finished: 1 difference, 19 lines.

1.14 Add Missing Text to `admin_util.info`

Ticket <https://multics-trac.swenson.org/ticket/383> describes an issue with an apparent truncation of `admin_util.info`

The proposed change for `admin_util.info` is summarized below and based on the documentation for `admin_util` in GB64:

```
cpa [wsp info admin_util.info] ==

A1      04/09/86 admin_util
Changed by B to:
B1      :Info: admin_util:
B2      2025-12-07 admin_util

Inserted in B:
B177     process overseer XX from the list. The maximum number of unit weight
B178     table entries is 24
B179
B180
B181     :hcom:
```

```

B182      /****~ HISTORY COMMENTS:
B183      1) change(2025-12-07,Swenson), approve(2025-12-07,MCR10124):
B184      Add missing text to admin_util uwt documentation.
B185
B186
B187      END HISTORY COMMENTS */
At end

```

Comparison finished: 2 differences, 14 lines.

2 Version History

2022-09-03	1.0	Initial version of the MCR. Fix for ticket 17: GB64 index typo.
2022-09-05	1.1	Added Fix for ticket135: test_cpu info segment fixes.
2022-09-06	1.2	Delete meter_fim.info.
2022-10-28	1.3	Fix increment control argument short name in deckfile_manager.info.
2022-10-29	1.4	Fix incorrect path to 355_macros in map355.info.
2022-10-29	1.5	Fixed typo in comment in io_page_tables.incl.pl1.
2022-10-29	1.6	Fixed incorrect documentation in help_system.gi.info regarding getting help on help responses.
2022-10-30	1.7	Added ar97.errata.info for eis_tester.
2023-06-14	1.8	Fixed -from and -to control args in list_ref_names.info.
2023-06-14	1.9	Correct MCR number in history comments for ar97.errata.info.
2025-07-23	1.10	Fix hcs_.info doc on hcs.\$get_user_access_modes. Document new ipc_ entries.
2025-07-27	1.11	Fix typo in time_strings.gi.info.
2025-09-08	1.12	Update AG91 errata.
2025-12-07	1.13	Add missing text from admin_util.info.