

MCR10159

GCOS Daemon Should Support Reader Device Parameter in Attach Command

Revision 1.1

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1 Problem Description

The GCOS Daemon supports an “attach” command. This command takes no arguments and results in the attachment of the “rdra” card reader device. This command should accept an argument – the name of the card reader device to attach – and use that card reader. If no argument is specified, it should default to “rdra”, as it does now.

Multics ticket <https://multics-trac.swenson.org/ticket/381> describes this deficiency.

2 Proposed Fix

The proposed fix is very simple: update the “attach” command processing to see if an argument is specified, and use that argument as the card reader name. If no argument is specified, it should default to the “rdra” card reader device.

The proposed fix is shown below:

```
cpa [lpn gcos_daemon.pl1] ==

A261                call ios_$attach ("card_input", gcos_daemon_stat_$card_dim,
    "rdra", "", status_stuff);
Changed by B to:
B261                /* see if a specific reader device was specified */
B262                reader_device = rtrim(ltrim(substr(request, 8,
    length(request)-7)), SPNL);;
B263                if reader_device = " " then
B264                    reader_device = DEFAULT_READER_DEVICE;
B265
B266                call ios_$attach ("card_input", gcos_daemon_stat_$card_dim,
    reader_device, "", status_stuff);
```

```
A265                                call com_err_ (code, "gcos_daemon", "Error attaching card
    reader");
```

Changed by B to:

```
B270                                call com_err_ (code, "gcos_daemon", "Error attaching card
    reader: ^a", reader_device);
```

Inserted in B:

```
B576    dcl DEFAULT_READER_DEVICE char (32) internal static options(constant)
    init("rdra"); /* default reader device */
```

```
B577    dcl reader_device char(32) aligned;
```

```
B578    dcl SPNL char(2) internal static options(constant) initial("
```

```
B579    ");
```

Preceding:

```
A571    %page;
```

Comparison finished: 3 differences, 13 lines.

3 Documentation

The operation of the GCOS daemon is described in appendix A of AN05, "Multics GCOS Environment Simulator". There is brief mention of the "attach" command. An errata for this manual is included in this MCR to reference the new parameter for the "attach" command. It contains:

:Info: an05.errata: errata.an05: GCOS_Environment_Simulator: 2025-09-08 AN05 Errata

Function: This info segment provides errata and addenda information for the Multics manual, AN05-01A titled:

Multics GCOS Environment Simulator

GCOS Daemon Attach Command:

pg A-4. under description of the "attach" command:

Change from:

```
attach
    attaches the card reader
```

To:

```
attach [READER_DEVICE]
    attaches the specified card reader. If no card reader device is
    specified, attaches the "rdra" device.
```

4 Test

Testing will including invoking the GCOS Daemon, and issuing the “attach” command with and without arguments. Testing will further ensure that the correct card reader is attached.

5 Version History

2025-09-08	1.0	Initial version of the MCR.
2025-10-01	1.0	Updated to use NL rather than LF in constant as per Multics standards.