

ASG-Manager Products™ ROSCOE Interface

Version 2.5

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Germany	00.800.3354.3578	South Korea	001.800.9932.5536
Hong Kong	001.800.9932.5536	Sweden/Telia	009.800.9932.5536
Ireland	00.800.9932.5536	Switzerland	00.800.9932.5536
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Preface

This *ASG-Manager Products ROSCOE Interface* provides information about the optional ROSCOE Interface facility, selectable unit DMR-TP6, herein called ROSCOE Interface.

Allen Systems Group, Inc. (ASG) provides professional support to resolve any questions or concerns regarding the installation or use of any ASG product. Telephone technical support is available around the world, 24 hours a day, 7 days a week.

ASG welcomes your comments, as a preferred or prospective customer, on this publication or on any ASG product.

About this Publication

This publication consists of these chapters:

- Chapter 1, "Introduction," gives a very brief introduction to the facility.
- Chapter 2, "Logging On to Manager Products," tells you how to log on to Manager Products under ROSCOE.
- Chapter 3, "Commands Menu for Invoking the Monitor Routine," describes how to use the ROSCOE DMR commands to execute the ROSCOE Monitor Routine.
- Chapter 4, "Input and Output under ROSCOE," discusses Manager Products input and output under ROSCOE.
- Chapter 5, "Terminating Manager Products," details normal and abnormal termination of Manager Products.

Publication Conventions

Allen Systems Group, Inc. uses these conventions in technical publications:

Convention	Represents
ALL CAPITALS	Directory, path, file, dataset, member, database, program, command, and parameter names.
Initial Capitals on Each Word	Window, field, field group, check box, button, panel (or screen), option names, and names of keys. A plus sign (+) is inserted for key combinations (e.g., Alt+Tab).
<i>lowercase italic monospace</i>	Information that you provide according to your particular situation. For example, you would replace <i>filename</i> with the actual name of the file.
Monospace	Characters you must type exactly as they are shown. Code, JCL, file listings, or command/statement syntax. Also used for denoting brief examples in a paragraph.

1

Introduction

The ROSCOE Interface facility allows you to run Manager Products under ROSCOE in a pseudo-interactive environment. This means that ASG-ControlManager (herein ControlManager) is not fully in control of the interaction between the user and the Manager Products software, so that some of the screen responses may differ from those indicated in the *ASG-ControlManager User's Guide*.

For information on installing the ROSCOE Interface facility, please refer to the publication *ASG-Manager Products Installation in OS Environments*.

2

Logging On to Manager Products

Before you can use Manager Products under ROSCOE, you must sign on to ROSCOE. You can then execute ControlManager as a ROSCOE Monitor Routine.

To execute the ROSCOE Monitor Routine, you need to enter one of the ROSCOE DMR commands. You may include the ROSCOE DMR command in RPF (ROSCOE Programming Facility) procedures.

The ROSCOE DMR command causes any output from a Manager Products command to be stored in a work area supplied by Manager Products. The size of the work area depends on the value given to the EQUCORE variable when ControlManager was installed.

After you have invoked the ROSCOE Monitor Routine, log on to Manager Products using a standard LOGON command.

To use a dictionary, either your Logon Profile must contain the necessary DICTONARY and AUTHORITY commands, or you must enter standard DICTONARY and AUTHORITY commands.

For details of the EQUCORE variable, please refer to the *ASG-Manager Products Installation in OS Environments* manual.

For information on the LOGON command, and the DICTONARY and AUTHORITY commands, please refer to the *ASG-ControlManager User's Guide*.

3

Commands Menu for Invoking the Monitor Routine

The DMR and DMR-A Commands

If you start the ROSCOE Monitor Routine by entering DMR or DMR-A, data is input and output displayed via the terminal.

If a Manager Products command generates enough output to fill the temporary work area, the command is suspended. The output in the work area can be examined using the PF keys to scroll. No output is lost.

The DMRA and DMRC Commands

If you enter DMRA to start the ROSCOE Monitor Routine, data is input and output displayed via the terminal.

If you use the DMRC command, input is accepted via the AWS and output is displayed at the terminal.

If you use either of these commands to start the ROSCOE Monitor Routine and then enter a Manager Products command which generates enough output to fill the temporary work area, the Manager Products command is processed, but not all the output is available for you to examine. Only the last lines are stored, so the top of the output is lost if it exceeds the work space.

The DMR-B, DMRB, DMR-D and DMRD Commands

If you start the ROSCOE Monitor Routine by entering DMR-B or DMRB, input is entered via the terminal and output is directed to the AWS.

If you start the ROSCOE Monitor Routine with the DMR-D or DMRD command, input is accepted via the AWS and output is written to the AWS.

If you use any of these commands to start the ROSCOE Monitor Routine and a Manager Product command generates enough output to fill the temporary work area:

- The output held in the work area is written to the AWS,
- The work area is cleared, and
- Processing of the command continues.

If you are running ControlManager and ROSCOE indicates that the AWS is full:

- Your terminal becomes the output device, and
- This diagnostic message is issued: `DM03017W AWS OVERFLOW - OUTPUT SWITCHED TO TERMINAL`

The DMR-C Command

If you enter `DMR-C` to start the ROSCOE Monitor Routine, input is accepted via the AWS and output is displayed at the terminal.

If you then use a Manager Products command which generates enough output to fill the temporary work area, processing of the command is suspended. You may then examine the output held in the work area.

After examining the output, enter a blank line. This clears the work area, and processing of the Manager Products command continues. Further output is written into the work area.

If processing of a Manager Product command is suspended as described above, no other users can update the MP-AID or dictionary you are using until you press ENTER.

The DMR-E and DMRE Commands

If you use AWS input/output, we recommend you start the ROSCOE Monitor Routine by entering either `DMR-E` or `DMRE` so that you do not have to close the dictionary and the MP-AID between calls to Manager Products. Instead, you should:

- Enter the LOGON and DICTIONARY commands only on the first call and
- Enter the LOGOFF command only on the last call.

You must enter the LOGOFF command before the end of the ROSCOE session. This closes the MP-AID or dictionary data sets, releasing all allocated resources. We strongly recommend that when working with the ROSCOE `DMR-E` or `DMRE` command, the ASG-supplied exit routine, SMFEXIT, is installed. This frees any allocated resources if you forget to logoff, or if you are logged off automatically, for example, after the predefined idle time.

If you are using ROSCOE DMRE or DMR-E and the AWS becomes full, the ROSCOE Interface warns you by displaying a return code of 1003. You should check whether or not output has been lost.

You may use the DMRE or DMR-E command only if one of the SCB fields has been reserved for use by Manager Products for the complete period of ROSCOE execution.

If you start the ROSCOE Monitor Routine with the DMRE or DMR-E command, you cannot then issue a command to redirect input or output, as this command will be rejected.

For details of the SMFEXIT routine, please refer to the *ASG-Manager Products Installation in OS Environments* manual.

Summary of the ROSCOE DMR Commands

These are the variants of the ROSCOE DMR command for execution of the ROSCOE Monitor Routine:

DMR Command	Input Device	Output Device	Action if ASG-supplied Work Area is Full
DMR, DMR-A	Terminal	Terminal	Manager Products command is suspended. Examine output using the PFkeys to scroll.
DMRA	Terminal	Terminal	Manager Products command processes all output, regardless of work area size. Only the last lines are stored so the top of the output may be lost.
DMR-B, DMRB	Terminal	AWS	Manager Products command is processed. All output is written to the AWS.
DMR-C	AWS	Terminal	Manager Products command is suspended. You may then examine all the output.
DMRC	AWS	Terminal	Manager Products command processes all output, regardless of work area size. Only the last lines are stored so the top of the output may be lost.
DMR-D, DMRD	AWS	AWS	Manager Products command is processed. All output is written to the AWS.
DMR-E, DMRE	AWS	AWS	Manager Products command is processed. All output is written to the AWS.

4

Input and Output under ROSCOE

Methods of Input and Output under ROSCOE

The types of input and output devices you may use depend on which variant of the ROSCOE DMR command you use to execute the ROSCOE Monitor Routine. If you use AWS-input and AWS-output, we strongly recommend you use either the DMR-E or DMRE command to start the ROSCOE Monitor Routine so that you do not need to close the dictionary and MP-AID between calls to ControlManager.

The ROSCOE Interface supports 255 character AWS-input and AWS-output. If you use AWS-input and AWS-output, ControlManager:

- Reads each input line,
- Executes the command(s) in the input line, and
- Writes any output from the command(s) into the ASG-supplied work area.

If the ASG-supplied work area is full, ControlManager writes the output to the ROSCOE AWS. Output from the PRODUCE RECORD LAYOUTS command may be generated in full into the AWS.

If both the ASG-supplied work area and the ROSCOE AWS become full, all output is written to the ROSCOE AWS. Any output previously written to the AWS is overwritten.

To avoid overwriting the contents of the AWS, either:

- Increase the size of the MSP-supplied work area, or
- Store the contents of the AWS before entering a ROSCOE DMR command.

If you use a ROSCOE DMR command that supports AWS-input, you can use a library member as input to any ROSCOE DMR command. Enter the command:

```
ROSCOE-DMR member-name
```

where *member-name* is the name of the required library member.

For details of tailoring the size of the ASG-supplied work area, refer to the *ASG-Manager Products Installation in OS Environments* manual.

Inputting Manager Products Commands under ROSCOE

After you have executed the appropriate ROSCOE Monitor Routine and logged on to ControlManager, you may input Manager Products commands from the terminal.

You may input Manager Products commands in two ways:

- Using only one line on the screen to enter a command that would normally occupy up to 17 lines. You should press the ENTER key after you input each line. This will cause the following prompt to be issued: `DM030161 ENTER NEXT LINE OR TERMINATOR`.
- Using up to three separate lines on the screen to input up to three separate commands, one command for each line. With this method, separate screens are generated for each input line. To page from screen to screen, press the Enter key.

You may use ROSCOE to submit jobs to OS for batch processing. If you do, do not number the input lines as Manager Products will interpret the line numbers as part of the input.

Displaying Output from Manager Products Commands

When you are running Manager Products under ROSCOE, lines 1 to 24 on your screen are used to display terminal output from Manager Products commands.

The last line of output always displays the prompt: `DM030151 ENTER COMMAND`.

When Manager Products output is displayed at your terminal and further output is available for your examination, the following prompt is issued:

```
DM030141 PRESS ENTER OR PFKEY OR ENTER NEW COMMAND
```

If you:

- Press Enter, the output scrolls forward by one page
- Press a PF key or a simulated PF key, the output scrolls forward or backward by either one page or one half of a page, depending on the setting for the key
- Enter a new command, the output is cancelled and new output is produced.

For details of PF key and simulated PF key setting, see the section on specifiable variables in the *ASG-Manager Products Installation in OS Environments* manual.

Redirecting Manager Products Input and Output

If you use any ROSCOE DMR command other than DMRE or DMR-E to execute the ROSCOE Monitor Routine, you may use special interface commands to redirect Manager Products input/output.

These commands are preceded by an identifying character, shown here as @. However, this character may have been tailored at your installation.

Command	Redirects From	To
@AI;	Terminal input	AWS input
@AO;	Terminal output	AWS output
@TI;	AWS input	Terminal input
@TO;	AWS output	Terminal output

You may enter these commands at any point in a stream of Manager Products commands, whether input from a terminal or via the AWS, except in conjunction with the DMRE or DMR-E commands.

You must enter each command on a separate line, with the identifying character of the command in the first character position of the line.

5

Terminating Manager Products

Normal Termination of Manager Products

If you are entering Manager Products commands via the terminal, you can use the LOGOFF command to terminate Manager Products and return control to ROSCOE. The LOGOFF command closes all MP-AID and dictionary data sets and frees all the resources you have been using.

If you are using the ROSCOE AWS to enter Manager Products commands, you can either:

- Terminate ControlManager and return control to ROSCOE, or
- Switch input to your terminal without returning control to ROSCOE.

To terminate ControlManager and return control to ROSCOE, either:

- Include a LOGOFF command in your job stream in the AWS at the point at which you want ControlManager to terminate, or
- End the job stream in the AWS.

If you use the DMRE or DMR-E command to execute Manager Products, you must enter a LOGOFF command to close the MP-AID and dictionary data sets and release all the resources you have been using.

To switch the input to your terminal without returning control to ROSCOE, enter @TI as the last command in the AWS.

Abnormal Termination of Manager Products

If Manager Products terminate abnormally under ROSCOE, the ROSCOE Monitor Routine issues a return code from which you can determine the cause of the abnormal end.

There are three different types of code:

- A code issued from ControlManager, in the range 900 to 999. This is a Manager Products (user) abnormal end, as documented in the *ASG-Manager Products Messages* manual.
- A code issued by the ROSCOE Monitor Routine, in the range 1002 to 1006.
- A system code. If the return code is greater than 4096, you have a system abnormal end, not a user abnormal end. To calculate the abnormal-end code, subtract 4096 from the return code. For example:

If you receive a return code of	4289	
and subtract	<u>-4096</u>	
the abnormal-end code equals	193	or hexadecimal 0C1 (193 = X 0C1).

The value of the ROSCOE variable RC is set to the return code. To display the return code at your terminal, enter the ROSCOE command `WRITE RC`.

If you use RPF (ROSCOE Programming Facility) routines, you should test the return code immediately after ControlManager returns control to the ROSCOE Monitor Routine.

For details of Manager Products user abnormal ends, please refer to the *ASG-Manager Products Messages* manual.

For details of ROSCOE system abnormal end codes, please refer to the appropriate Messages and Codes manual.

For details of the variable EQUUSERX, please refer to the publication *ASG-Manager Products Installation in OS Environments*.

ROSCOE Monitor Routine Return Codes

If Manager Products terminate abnormally under ROSCOE and you obtain a return code in the range 1002 to 1006, then the code has been set by the ROSCOE Monitor Routine.

The meaning of these codes is as follows:

- | | |
|------|--|
| 1002 | Getmain, a communication area between ROSCOE and ControlManager, has been unable to obtain enough main storage. |
| 1003 | The AWS has overflowed. If the data in the AWS is used, output might be lost. 1003 is set only if you use the DMRE or DMR-E command to execute the ROSCOE Monitor Routine. Otherwise this message is issued: <code>DM03017W AWS OVERFLOW, OUTPUT SWITCHED TO TERMINAL</code> . |

- 1004 The ROSCOE Monitor Routine has terminated itself and ControlManager. If it does not detect a response from a Manager Products command within a certain time scale, it assumes the command is in a loop. Thus long-running commands which produce no response until they have completed, such as RESTORE ALL, should not be executed under ROSCOE.
- 1005 The SCB field that should have been reserved for ControlManager has not been allocated (see variable EQUUSERX in the ROSCOE Monitor Routine module DRX02).
- 1006 The SCB field that should have been allocated to ControlManager for the total period of ROSCOE execution has probably been changed by another routine (see variable EQUUSERX in the ROSCOE Monitor Routine module DRX02).

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