

MULTICS  
SOFTWARE RELEASE BULLETIN  
RELEASE MR12.3

PREPARED BY:  
MULTICS SUPPORT

December 01, 1989

Worldwide  
Information  
Systems

**Bull** 

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## CONTENTS

		Page
Section 1	Introduction . . . . .	1-1
Section 2	Highlights of MR12.3 . . . . .	2-1
	Software Change Proposals . . . . .	2-1
Section 3	Contents of MR12.3 . . . . .	3-1
	Communications System Software . . . . .	3-1
	Commands . . . . .	3-1
	Languages . . . . .	3-2
	C Language . . . . .	3-2
	PL/1 . . . . .	3-2
	EMACS, Version 12.9 . . . . .	3-3
	MOWSE . . . . .	3-3
	WSTERM . . . . .	3-3
	EDITORS . . . . .	3-4
Section 4	Incompatible Changes . . . . .	4-0
	Operating System Software . . . . .	4-0
	ALM Version 6.4 . . . . .	4-0
	OPERATING SYSTEM SOFTWARE . . . . .	4-0
	Commands . . . . .	4-0
Appendix A	Commands and Subroutines . . . . .	A-1
	New Commands . . . . .	A-1
Appendix B	Multics Priced Software Products . . . . .	B-1
	Operating System Software . . . . .	B-1
	Operating System Software Extensions . . . . .	B-1
	Communications Software . . . . .	B-1
	Programming Language Software . . . . .	B-1
	Operating System Utilities and Tools . . . . .	B-2
	Data Management Software . . . . .	B-2
	Applications Software . . . . .	B-2
Appendix C	Documentation Changes . . . . .	C-1
	Current Multics Documentation Status . . . . .	C-1
	12.1 Documentation . . . . .	C-1



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## SECTION 1

### INTRODUCTION

Multics Release 12.3 (MR12.3) is a complete release and assumes the prior installation of MR12.2. That is, the library tapes are self-supporting and do not require any other information to run Multics.

This document includes descriptions of features included in Multics Release MR12.3.

A separate document, Software Installation Bulletin (SIB), is supplied with the release tapes. The SIB describes the contents of the release tapes and includes procedures for installation of MR12.3.

Additional documentation, including a list of bugs fixed in MR12.3, is provided with the release tapes, either as printable segments on the tape (in a special directory >doc>MR12.3), or as paper copy.

Following is a summary of the remaining of sections in this document.

Section 2  
summarizes important highlights

Section 3  
describes significant software changes

Section 4  
describes incompatible changes

Appendix A  
contains a partial list of new commands, active functions, and subroutines

Appendix B

contains a list of Priced Software Products. These items are available only through contractual actions with a Bull H N sales representative

Appendix C

describes the associated documentation

## SECTION 2

### HIGHLIGHTS OF MR12.3

This section contains a brief summary of the most important items in this release. Refer to Section 3 for a more detailed description.

A brief description of known bugs fixed in this release is available in the segment >doc>MR12.3>TRs\_fixed\_in\_MR12.3.

#### SOFTWARE CHANGE PROPOSALS

- There were no Software Change Proposals (SCP) submitted for release MR12.3.



## SECTION 3

### CONTENTS OF MR12.3

#### COMMUNICATIONS SYSTEM SOFTWARE

##### Commands

1. Modified the system command to use the process date\_time format rather than the concatenation of the process date and time format for all keywords starting with date\_time\_\*\*.
2. Added the capability to specify starnames as input to the dsmla command. The dsmla command will now display aliases associated with the specified name as well as the specified name itself.
3. Modified the listing of memos created with a -repeat\_when\_processed memo control\_argument. The change (in the flags description) is from per\_process to repeat\_when\_processed.
4. When copying a non-empty mailbox along with its max\_length characteristic, the copy would prematurely terminate with an error of "The requested action was not performed". This is being changed to allow the copy to continue. The consequences are that under this condition, the max\_length of the target of the copy will keep the default max\_length from when it was created, as opposed to the expected value from the source. The following commands and subroutines will be affected copy, move, copy\_dir, move\_dir, copy\_, copy\_seg\_ and copy\_dir\_.
5. Added the gate entry mail\_table\_priv\_\$delete\_alias\_case\_ins to permit case-insensitive alias deletions by the update\_mail\_table\_entry command.

6.
  1. Modified the display format for `display_volume_log` to print at 79 characters per line. Also the ability to display the disk label of the volume presented in the volog is added through the `-label`, `-no_label` and `-all` control arguments.
  2. Modified display format of `display_pvolog` to print in columnized output of 79 characters per line.
  3. Changed the `set_volume_log` command to allow the setting of the number of consolidated and incremental reload groups through the `-incr_sets` and `-cons_sets` control arguments.
  4. Enhanced the purging mechanism to provide better control over reload groups.
  5. Removed the `-incr_skip_count` argument for the volume dumper commands. The new `-purge_volume_log` (`-pvl`) control argument is now used instead. Please use the `set_volume_log` command to establish the correct reload groups for your site. Please type: "help set\_volume\_log" for details.

## LANGUAGES

### C Language

- A- 1. Modified the `C_compile` command's control argument `-table` (`-tb`) so it will no longer cause the generation of a linkage editor listing, use the `-list` (`-ls`) control argument instead. The `C_compile` command now finds the default C runtime library using standard search rules.
- A- 2. Modified the C runtime system and the execution family of routines to properly set their return values. This value contains information about nonstandard operation of the child process.

### PL/1

- B- 1. Added the `-version` (default) and `-no_default` control arguments to the PL/1 Compiler.
- B- 2. Modified the PL/1 Compiler to generate warnings when an options (constant) variable occurs on the LHS of an assignment statement.

B- 3. Modified the PL/1 Compiler to allow use of the named constants as replication factors.

### EMACS, Version 12.9

C- 1. 1. Modified f (rmail-forward) to forward the current message to an address (list) that will be prompted for. A numeric argument will allow the user to enter redistribution comments via a comments buffer.

2. Modified x (rmail-toggle-seen) to toggle the seen switch on the current message. This switch is displayed to the user as the minor mode "Seen" and will be turned on immediately a message is brought into the RMAIL buffer to be displayed.

3. Modified ? (rmail-help) to display brief information about each of the RMAIL mode (additionally the reply and comment buffers) requests that are available.

4. Modified q (rmail-quit) is being modified to only question a user quitting when no rmail commands have been entered between the arrival of new mail and requesting of rmail-quit.

C- 2. Modified emacs -line\_length NN control argument so that NN will be expected to describe the useable number of columns on the screen. The value of NN used to be required to be one greater than the screen capability.

### MOWSE

D- 1. Added the control order get\_event\_channel to mowse\_io so that programs which require the use of a foreground data event channel, such as dial\_out, may request the identification of the ipc\_event channel.

## WSTERM

E- 1.

1. A new keyboard input routine will be added which will allow some EMACS-like editing capabilities on keyboard input before sending a line to the host.
2. Input going to and coming from the host will be trapped by WSTERM to allow the data to be stored to a file and/or printed as it is being displayed.
3. Lines of input will be saved in a circular buffer each time they are entered to allow them to be retrieved later.

## EDITORS

F- 1.

Modified qedx to allow whitespaces between the "q" request and the NL character.

## SECTION 4

### INCOMPATIBLE CHANGES

#### OPERATING SYSTEM SOFTWARE

##### ALM Version 6.4

- A- 1. This version of the assembler contains a new pseudo-op "error", several bug fixes, and discontinuation of the obsolete "followon" pseudo-op. It's use will now incur a B error. The "error" pseudo-op causes the fatal error flag to be set which results in the "Translation failed." message being issued at the end of the assembly. "-nsb" will now be accepted as an abbreviation for "-no\_symbols". The assembler will now prevent itself from being invoked recursively.

#### OPERATING SYSTEM SOFTWARE

##### Commands

- B- 1. The `-incr_skip_count` argument for the volume dumper commands has been removed. The new `-purge_volume_log (-pvl)` is now used instead.



## APPENDIX A

### COMMANDS AND SUBROUTINES

This is a partial listing of new commands for MR12.3. There are no new subroutines for MR12.3. A brief description of the command functionality is included. Refer to info segments or the appropriate manuals for more information.

#### NEW COMMANDS

There are no new commands or subroutines for MR12.3.



## APPENDIX B

### MULTICS PRICED SOFTWARE PRODUCTS

PRODUCT NUMBER	TITLE
<u>OPERATING SYSTEM SOFTWARE</u>	
SGS6800	Multics Operating System EXEC (see Note 1 below)
SGS6801	GCOS (III) Timesharing Environment Facility
SGS6803	FAST/DFAST (Fast Access System for Timesharing)
SGS6804	GCOS (III) Batch Environment Facility (see Note 1)

#### OPERATING SYSTEM SOFTWARE EXTENSIONS

SGC6823	Inter Multics File Transfer Facility
SGE6800	Multics System Software Extensions (see Note 4)
SGE6802	Remote Job Entry Facility

#### COMMUNICATIONS SOFTWARE

SGC6800	Multics Communications System (Multics CS)
SGC6801	Autocall Support Option to Multics CS
SGC6802	3270 Support Option to Multics CS
SGC6803	Basic Bisync Support Option to Multics CS
SGC6804	G115 Support Option to Multics CS
SGC6805	File Transfer Facility
SGC6807	Multics HASP Facility
SGC6822	Multics Communications Support for X.25
SGC6827	Personal Computer Support Facility
SGC6828	Multics Online Workstation Environment

#### PROGRAMMING LANGUAGE SOFTWARE

SGL6801	FORTRAN Compiler and Runtime Facility
SGL6802	Basic Compiler and Runtime Facility

SGL6803	COBOL-74 Compiler and Runtime Facility
SGL6805	MRPG (Report Generator) Facility
SGL6806	APL (Version 5.02)
SGL6807	Pascal Compiler and Runtime Facility
SGL6808	C Compiler and Runtime

OPERATING SYSTEM UTILITIES AND TOOLS

SGD6806	Executive Mail System
SGD6807	Format Document Facility
SGU6800	WORDPRO Comprehensive Facility
SGU6801	SORT/MERGE Facility
SGU6803	LISTER Facility
SGU6804	SPEEDTYPE Facility
SGU6805	Dictionary Tools
SGU6807	Extended Mail Facility
SGU6820	Compose Facility
SGU6833	TED (Text Editor)
SGU6834	Emacs Text Processing Facility
SGU6835	Offline Page Printing System Support Facility

DATA MANAGEMENT SOFTWARE

SGC6824	Multics Forum Facility
SGD6800	MRDS (Multics Relational Data Store)
SGD6801	LINUS (Logical Inquiry and Update System)
SGC6826	Multics Executive Forum Facility

APPLICATIONS SOFTWARE

AGS6801	Timesharing Library (see Note 3)
AGS6802	ISTAT (Interactive Statistics) (see Note 3)
AGS6803	Graphics Facility
AGS6805	SCICONIC Mathematical Programming Package
AGS6806	SCICONIC Matrix Generator Facility
SGH6801	Simplified Computing and Filing Facility
SGH6802	TEXTO Document Management System and LOGOTEL User Interface for TEXTO
SGH6804	MegaCalc Spread Sheet Package

Notes:

1. Licensed for use without separate charge to users acquiring a central processor system from Bull H N.
2. Class II - Maintained only.
3. Class III - Unsupported.

4. Required for normal Multics operation and to support any additional separately priced software products.



## APPENDIX C

### DOCUMENTATION CHANGES

#### CURRENT MULTICS DOCUMENTATION STATUS

A complete list of manuals (including current availability status) is provided in >doc>info>manuals.info. Subsequent to this release a SiteSA may obtain an updated list of available manuals at >doc>info>manuals.info on System M.

#### 12.1 Documentation

There are no new or updated publications to support MR12.3. Updates to manuals are provided by errata info files found in >doc>info. Shown below are the errata, with add name, which have been created for MR12.3.

```
errata.ak50.info
  Sys_Admin_Procedures_manual.info
errata.am81.info
  Sys_Maintenance_Proc_manual.info
errata.am82.info
  Basic_manual.info
errata.at58.info
  Fortran_manual.info
errata.az49.info
  LINUS.info
errata.cj52.info
  EMACS_Ext_Writers_Guide.info
errata.gb58.info
  Common_Commands_manual.info
```

For the convenience of new user sites, a complete list of Multics manuals, is provided below. For information about how to order manuals, type "help order\_manuals," on your system.

AG90 Introduction to Programming on Multics  
AG91 Multics Programmer's Reference Manual  
AG92 Multics Commands and Active Functions  
AG93 Multics Subroutines and Input/Output Modules  
AG94 Multics PL/I Language Specification  
AK50 Multics System Administration Procedures  
AK51 Multics Project Administrator's Guide  
AK95 Multics APL User's Guide  
AL39 Multics Processor Manual  
AM81 Multics System Maintenance Procedures  
AM82 Multics BASIC  
AM83 Multics PL/I Reference Manual  
AN05 Multics GCOS Environment Simulator  
AN50 Guide to Multics Manuals  
AS40 Multics Graphics System  
AS43 Multics COBOL User's Guide  
AS44 Multics COBOL Reference Manual  
AT58 Multics FORTRAN Manual  
AT59 Multics DFAST Subsystem User's Guide  
AU25 Multics FAST Subsystem Reference Guide  
AU77 Multics Online Test and Diagnostics Reference Manual  
AW17 Multics Commands and Active Functions Quick Reference Guide  
AW32 Multics SORT/MERGE  
AW53 Multics Relational Data Store Reference Manual  
AZ49 Multics Logical Inquiry and Update System Reference Manual  
AZ98 Multics WORDPRO Reference Manual  
CC69 Multics Report Program Generator Reference Manual  
CC70 Multics FORTRAN User's Guide  
CC75 Multics Communications Administration  
CG40 Multics qedx Text Editor User's Guide  
CH23 Multics Extended Mail System User's Guide  
CH24 New User's Introduction to Multics--Part I  
CH25 New User's Introduction to Multics--Part II  
CH26 Multics Error Messages: Primer and Reference Manual  
CH27 Emacs Text Editor User's Guide  
CJ52 Multics Emacs Extension Writer's Guide  
CJ97 Multics Page Processing System Utility Manual  
CP31 Level 68 Introduction to Emacs Text Editor  
CP50 Multics Text Editor (Ted) Reference Manual  
CP51 Multics Menu Creation Facilities  
CX20 Fundamentals of Multics Executive Mail  
CX72 Executive Mail Editing Operations (Reference Card)  
CY73 Inter-Multics File Transfer Facility Reference Guide  
CY74 Multics Forum Interactive Meeting System User's Guide  
DJ18 Guide to Multics WORDPRO for New Users  
DU06 Fundamentals of Multics Forum Interactive Meeting System  
DW19 Multics MegaCalc User's Guide

DX71 Fundamentals of Multics Executive Forum  
GB58 Multics Common Commands  
GB59 DPS 6/Multics Satellite 6M Reference Manual  
GB60 Multics HASP Service and Utility Manual  
GB61 Operator's Guide to Multics  
GB62 Multics Pascal User's Guide  
GB63 Multics Report Writer Reference Manual  
GB64 Multics Administration, Maintenance, and Operations Cmds  
GB65 Multics/Personal Computer File Transmission Facilities  
GB66 Multics On-Line Work Station End User's Guide  
GL71 Multics Simplified Computing and Filing Facility  
GN08 Multics Emacs Reference Card  
HH07 Multics C Compiler User's Guide





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SRB12.3