RT–11 System Internals Manual

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This manual describes the internals of the RT–11 operating system. It is most useful to system programmers, but it provides valuable background information to application programmers as well.

Revision/Update Information:	This is a new manual for programmers; it is a complete revision of the information previously located in Chapters 1 through 6 of the *RT–11 Software Support Manual*.
Operating System:	RT–11 Version 5.6

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Preface

Document Structure

This manual is divided into five chapters and two appendices:

- Chapter <REFERENCE>(SCM_CHAP\value) presents a somewhat idealized view of the operating system and introduces the various components without providing great detail.
- Chapter <REFERENCE>(rmon_chap\value) describes the functions of the Resident Monitor (RMON) that are generally common to all RT–11 systems.
- Chapter <REFERENCE>(MTT_CHAP\value) describes the multiterminal feature of RT–11. This chapter provides background information on the hardware and describes the data structures of a multiterminal system.
- Chapter <REFERENCE>(isr_chap\value) describes the ways a program (as opposed to a device handler) can transfer data between memory and a peripheral device.
- Appendix <REFERENCE>(system_app\value) describes the macro library file SYSTEM.MLB. SYSTEM.MLB contains macros that define symbolic names, values, and offsets for the data structures of the RT–11 system.
- Appendix <REFERENCE>(con_redir_app\value) describes an interface into the terminal handler that lets you simulate the console hardware under all monitors.

Audience

This manual is most useful to system programmers, but it provides valuable background information to application programmers as well.

Conventions

The following conventions are used in this manual.

Convention	Meaning

Black print	In examples, black print indicates output lines or prompting characters that the system displays. For example:
	`.BACKUP/INITIALIZE DL0:F*.FOR DU1:WRK`
	`Mount output volume in DU1:; continue? Y`

Convention	Meaning
Red print	In examples, red print indicates user input.
Braces ({ })	In command syntax examples, braces enclose options that are mutually exclusive. You can choose only one option from the group of options that appear in braces.
Brackets ([ ])	Square brackets in a format line represent optional parameters, qualifiers, or values, unless otherwise specified.
Lowercase characters	In command syntax examples, lowercase characters represent elements of a command for which you supply a value. For example: `DELETE filespec`
UPPERCASE characters	In command syntax examples, uppercase characters represent elements of a command that should be entered exactly as given.
RET	RET in examples represents the RETURN key. Unless the manual indicates otherwise, terminate all commands or command strings by pressing RET.
CTRL/*x*	CTRL/*x* indicates a control key sequence. While pressing the key labeled Ctrl, press another key. For example: CTRL/C

Associated Documents

Basic Books

- *Introduction to RT–11*
- *Guide to RT–11 Documentation*
- *PDP–11 Keypad Editor User's Guide*
- *PDP–11 Keypad Editor Reference Card*
- *RT–11 Commands Manual*
- *RT–11 Mini-Reference Manual*
- *RT–11 Master Index*
- *RT–11 System Message Manual*
- *RT–11 System Release Notes*

Installation Specific Books

- *RT–11 Automatic Installation Guide*
- *RT–11 Installation Guide*
- *RT–11 System Generation Guide*

Programmer Oriented Books

- *RT–11 IND Control Files Manual*
- *RT–11 System Utilities Manual*
- *RT–11 System Macro Library Manual*
- *RT–11 System Subroutine Library Manual*
- *RT–11 Device Handlers Manual*
- *RT–11 Volume and File Formats Manual*
- *DBG–11 Symbolic Debugger User's Guide*