RSX-11M-PLUS
Information Directory and Master Index

Order No. AA-H426D-TC

RSX-11M-PLUS Version 3.0

digital equipment corporation · maynard, massachusetts

First Printing, December 1979
Revised, March 1982
Revised, April 1983
Revised, July 1985

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation. Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

The software described in this document is furnished under a license and may be used or copied only in accordance with the terms of such license.

No responsibility is assumed for the use or reliability of software on equipment that is not supplied by Digital Equipment Corporation or its affiliated companies.

Copyright ©1979, 1982, 1983, 1985 by Digital Equipment Corporation

All Rights Reserved.

The postpaid READER'S COMMENTS form on the last page of this document requests the user's critical evaluation to assist in preparing future documentation.

The following are trademarks of Digital Equipment Corporation:

DEC	EduSystem	UNIBUS
DEC/CMS	IAS	VAX
DEC/MMS	MASSBUS	VAXcluster
DECnet	MicroPDP-11	VMS
DECsystem-10	Micro/RSX	VT
DECSYSTEM-20	PDP	
DECUS	PDT	
DECwriter	RSTS	digital
DIBOL	RSX	

ZK-2636

This document was prepared using an in-house documentation production system. All page composition and make-up was performed by TEX, the typesetting system developed by Donald E. Knuth at Stanford University. TEX is a registered trademark of the American Mathematical Society.

HOW TO ORDER ADDITIONAL DOCUMENTATION

In Continental USA and Puerto Rico call 800-258-1710

In New Hampshire, Alaska, and Hawaii call 603-884-6660

In Canada call 613-234-7726 (Ottawa-Hull)
800-267-6146 (all other Canadian)

DIRECT MAIL ORDERS (USA & PUERTO RICO)*

Digital Equipment Corporation
P.O. Box CS2008
Nashua, New Hampshire 03061

*Any prepaid order from Puerto Rico must be placed with the local Digital subsidiary (809-754-7575)

DIRECT MAIL ORDERS (CANADA)

Digital Equipment of Canada Ltd.
940 Belfast Road
Ottawa, Ontario K1G 4C2
Attn: A&SG Business Manager

DIRECT MAIL ORDERS (INTERNATIONAL)

Digital Equipment Corporation
A&SG Business Manager
c/o Digital's local subsidiary or approved distributor

Internal orders should be placed through the Software Distribution Center (SDC), Digital Equipment Corporation, Northboro, Massachusetts 01532

Contents

Preface v

Chapter 1 Overview of the RSX–11M–PLUS Documentation Set

1.1 Getting Started 1-1
1.2 How the Manuals are Organized 1-1
1.3 Intended Reading Audiences for RSX–11M–PLUS Manuals 1-3
1.4 RSX–11M–PLUS Documentation Descriptions 1-5
1.4.1 Volume 1: Introduction 1-5
1.4.1.1 RSX–11M–PLUS Software Product Description 1-5
1.4.1.2 RSX–11M–PLUS Information Directory and Master Index 1-5
1.4.1.3 RSX–11M–PLUS Release Notes 1-5
1.4.1.4 Introduction to RSX–11M–PLUS 1-5
1.4.2 Volume 2: Operation 1-6
1.4.2.1 RSX–11M–PLUS System Generation and Installation Guide 1-6
1.4.2.2 RSX–11M/M–PLUS MCR Operations Manual 1-6
1.4.2.3 RSX–11M/M–PLUS Indirect Command Processor Manual 1-6
1.4.2.4 RSX–11M–PLUS Command Language Manual 1-6
1.4.2.5 RSX–11M/M–PLUS Batch and Queue Operations Manual 1-6
1.4.3 Volume 3: Utilities 1-6
1.4.3.1 RSX–11M/M–PLUS Utilities Manual 1-7
1.4.3.2 EDT Editor Manual 1-7
1.4.4 Volume 4: Program Development 1-7
1.4.4.1 RSX–11M/M–PLUS Guide to Program Development 1-8
1.4.4.2 PDP–11 MACRO–11 Language Reference Manual 1-8
1.4.4.3 IAS/RSX–11 System Library Routines Reference Manual 1-8
1.4.4.4 RSX–11M/M–PLUS and Micro/RSX Debugging Reference Manual 1-8
1.4.4.5 RSX–11M/M–PLUS and Micro/RSX Task Builder Manual 1-8
1.4.4.6 RSX–11M/M–PLUS and Micro/RSX Executive Reference Manual 1-9
1.4.5 Volume 5: I/O Development 1-9
1.4.5.1 RSX–11M/M–PLUS and Micro/RSX I/O Operations Reference Manual . . . 1-9
1.4.5.2 RSX–11M–PLUS Guide to Writing an I/O Driver 1-9
1.4.5.3 RSX–11M/M–PLUS I/O Drivers Reference Manual 1-9

1.4.6 Volume 6: System Management and Maintenance 1-9
1.4.6.1 RSX-11M/M-PLUS System Management Guide 1-10
1.4.6.2 RSX-11M/M-PLUS Error Logging Manual 1-10
1.4.6.3 RSX-11M/M-PLUS and Micro/RSX Crash Dump Analyzer Reference Manual 1-10
1.4.7 Volume 7: PDP-11 Record Management Services 1-11
1.4.7.1 RSX-11M/M-PLUS RMS-11: An Introduction 1-11
1.4.7.2 RSX-11M/M-PLUS RMS-11 User's Guide 1-11
1.4.7.3 RSX-11M/M-PLUS RMS-11 Utilities 1-11
1.4.7.4 RSX-11M/M-PLUS RMS-11 Macro Programmer's Guide 1-12
1.4.8 RSX-11M-PLUS Mini-Reference 1-12
1.4.9 EDT Editor Reference Card 1-12
1.4.10 PDP-11 Programming Card 1-13
1.5 RSX-11S Documentation 1-13

Chapter 2 The RSX-11M-PLUS Master Index

2.1 Introduction to the Master Index 2-1
2.1.1 Format of the Master Index 2-1
2.1.2 Manuals Included in the Master Index 2-1

Figures

1-1 Suggested Reading Sequence for RSX-11M-PLUS Manuals 1-2

Tables

1-1 RSX-11M-PLUS Documentation Set Kit Number QR500-GZ 1-3
2-1 Abbreviated Titles for Manuals in the RSX-11M-PLUS Master Index 2-1

Preface

Manual Objectives

The *RSX-11M-PLUS Information Directory and Master Index* introduces the RSX-11M-PLUS documentation set. It describes all the RSX-11M-PLUS manuals and contains a Master Index that is useful for referring to topics described in manuals in the documentation set. The descriptions of the manuals are intentionally brief; refer to the prefaces of individual manuals for additional information. Read the Information Directory before you read other manuals in the documentation set or use the system.

Intended Audience

The *RSX-11M-PLUS Information Directory and Master Index* is intended for all users of the RSX-11M-PLUS operating system. No previous knowledge of the system is required.

Structure of This Manual

The first chapter of this manual briefly describes the manuals in the documentation set. It identifies the type of users that are likely to be interested in particular manuals, and suggests a sequence for reading them. The second chapter of this manual contains a Master Index which includes index entries for all the manuals in the documentation set.

Associated Manuals

The next manual you should read in this documentation set is the *RSX-11M-PLUS Release Notes*, which will give you important information on the RSX-11M-PLUS software and documentation.

Chapter 1
Overview of the RSX–11M–PLUS Documentation Set

1.1 Getting Started

Your kit contains an RSX–11M–PLUS baseline system that is ready to run on your PDP–11 processor. You will use this baseline system to generate an RSX–11M–PLUS system, tailored to your own particular hardware and software requirements.

Before beginning system generation, you should become familiar with your RSX–11M–PLUS hardware configuration and with this documentation set, and you should thoroughly read the *RSX–11M–PLUS Release Notes* and the *RSX–11M–PLUS System Generation and Installation Guide*. You will then be prepared to choose among the options offered during system generation.

Figure 1–1 outlines a suggested sequence for reading the manuals in your documentation set. The sequence begins with introductory and more general manuals and proceeds to advanced manuals that assume a greater understanding of the system.

1.2 How the Manuals are Organized

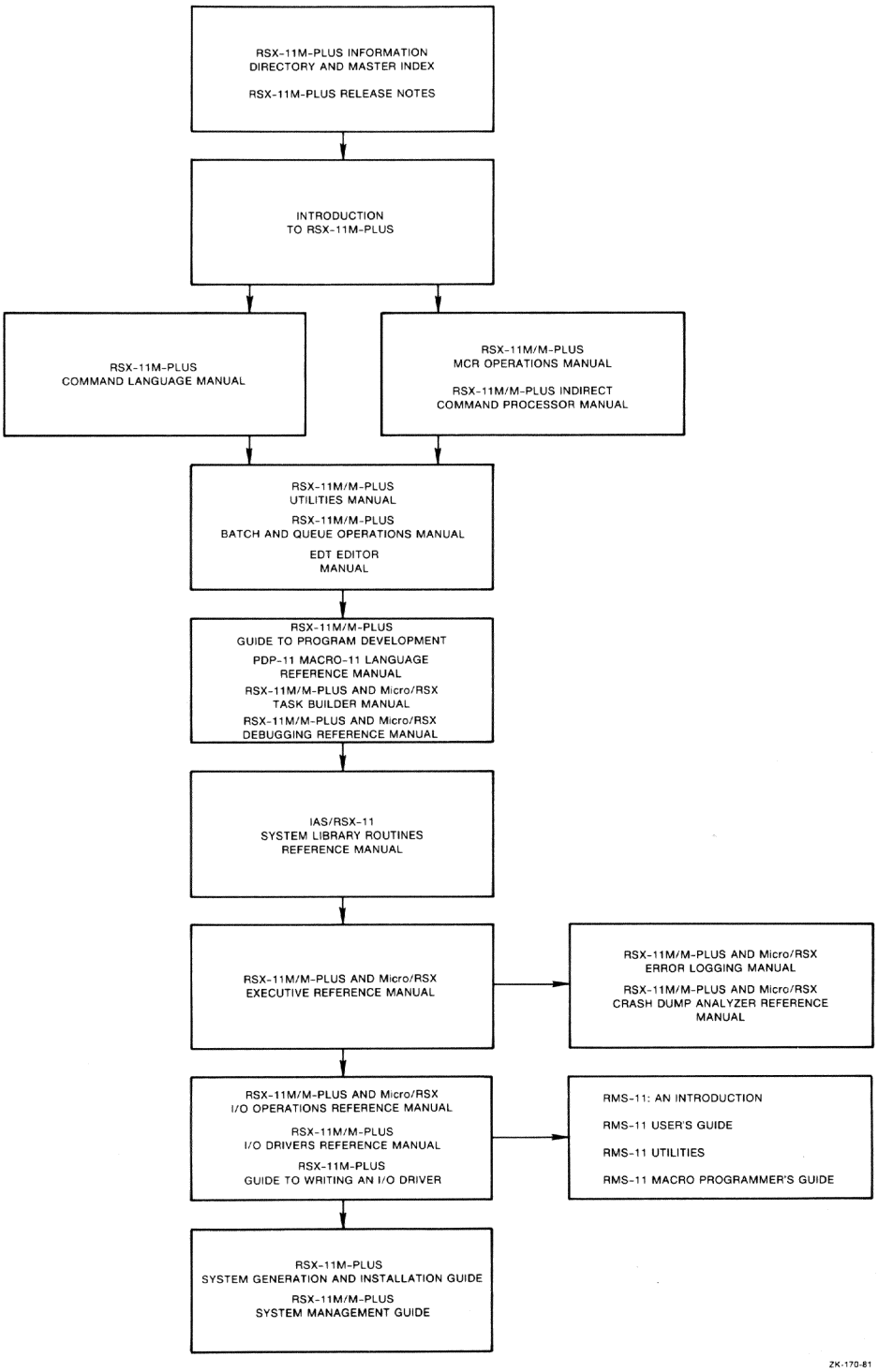
The RSX–11M–PLUS manuals are organized into seven volumes:

- Introduction
- Operation
- Utilities
- Program Development
- I/O Development
- System Management and Maintenance
- PDP–11 Record Management Services

Each volume consists of one or more three-ring binders, and each binder contains one or more manuals. Refer to Table 1–1 for a complete list of the manuals.

The *EDT Editor Reference Card* and the *PDP–11 Programming Card* are packaged separately. The *RSX–11M–PLUS Mini-Reference* is also separate, coming with its own small binder.

Figure 1–1: Suggested Reading Sequence for RSX–11M–PLUS Manuals



1.3 Intended Reading Audiences for RSX-11M-PLUS Manuals

Table 1-1 lists the intended reading audience for each document in your set. The audience is divided into the loosely defined groups listed as follows (and indicated in Table 1-1 by an X in one or more of the columns):

US The user: anyone who types at a terminal on an RSX-11M-PLUS operating system

AP The applications programmer: anyone who uses the PDP-11 MACRO-11 assembly language or a high-level language to develop programs for user applications

SP The system programmer: anyone who uses PDP-11 MACRO-11 to maintain, modify, and develop software used by the applications programmer or the user

SM The system manager: the person familiar with and responsible for overall operation of an RSX-11M-PLUS system and its associated hardware

Table 1-1: RSX-11M-PLUS Documentation Set Kit Number QR500-GZ

Title and Order Number	US	AP	SP	SM
Handy Reference Materials				
RSX-11M-PLUS Mini-Reference AV-H435D-TC	X	X	X	X
EDT Editor Reference Card AV-J756A-TC	X	X	X	X
PDP-11 Programming Card EH-S1046-78		X	X	X
Volume 1: Introduction				
RSX-11M-PLUS Software Product Description AE-H862M-TC	X	X	X	X
RSX-11M-PLUS Information Directory and Master Index AA-H426D-TC	X	X	X	X
RSX-11M-PLUS Release Notes AA-H427D-TC	X	X	X	X
Introduction to RSX-11M-PLUS AA-FD03A-TC	X	X	X	X
Volume 2: Operation				
RSX-11M-PLUS System Generation and Installation Guide AA-H431D-TC			X	X
RSX-11M/M-PLUS MCR Operations Manual AA-FD10A-TC	X	X	X	X
RSX-11M/M-PLUS Indirect Command Processor Manual AA-FD05A-TC	X	X	X	X
RSX-11M-PLUS Command Language Manual AA-FD04A-TC	X	X	X	X
RSX-11M/M-PLUS Batch and Queue Operations Manual AA-L671A-TC	X	X	X	X

Table 1–1 (Cont.): RSX–11M–PLUS Documentation Set Kit Number QR500-GZ

Title and Order Number	US	AP	SP	SM
Volume 3: Utilities				
RSX–11M/M–PLUS Utilities Manual AA–FD13A–TC	X	X	X	X
EDT Editor Manual AA–M476A–TK	X	X	X	X
Volume 4: Program Development				
RSX–11M/M–PLUS Guide to Program Development AA–L676A–TC		X	X	X
PDP–11 MACRO–11 Language Reference Manual AA–V027A–TC		X	X	X
IAS/RSX–11 System Library Routines Reference Manual AA–5580B–TC		X	X	
RSX–11M/M–PLUS and Micro/RSX Debugging Reference Manual AA–EZ50A–TC		X	X	X
RSX–11M/M–PLUS and Micro/RSX Task Builder Manual AA–AB46A–TC		X	X	X
RSX–11M/M–PLUS and Micro/RSX Executive Reference Manual AA–FR95A–TC		X	X	
Volume 5: I/O Development				
RSX–11M/M–PLUS and Micro/RSX I/O Operations Reference Manual AA–FD14A–TC		X	X	
RSX–11M–PLUS Guide to Writing an I/O Driver AA–H267B–TC		X	X	
RSX–11M/M–PLUS I/O Drivers Reference Manual AA–FD09A–TC			X	
Volume 6: System Management and Maintenance				
RSX–11M/M–PLUS System Management Guide AA–FD12A–TC			X	X
RSX–11M/M–PLUS Error Logging Manual AA–L674B–TC			X	X
RSX–11M/M–PLUS and Micro/RSX Crash Dump Analyzer Reference Manual AA–FD11A–TC			X	X
Volume 7: PDP–11 Record Management Services				
RSX–11M/M–PLUS RMS–11: An Introduction AA–L682A–TC	X	X	X	X
RSX–11M/M–PLUS RMS–11 User's Guide AA–L669A–TC		X		X

Table 1–1 (Cont.): RSX–11M–PLUS Documentation Set Kit Number QR500-GZ

Title and Order Number	US	AP	SP	SM
RSX–11M/M–PLUS RMS–11 Utilities AA–L670A–TC	X	X	X	X
RSX–11M/M–PLUS RMS–11 Macro Programmer's Guide AA–L668A–TC		X	X	

1.4 RSX–11M–PLUS Documentation Descriptions

The following sections contain brief descriptions of the volumes and the individual manuals in the RSX–11M–PLUS documentation set. For a complete description of any manual, read its preface.

1.4.1 Volume 1: Introduction

This volume includes manuals that introduce the RSX–11M–PLUS documentation set and operating system.

1.4.1.1 RSX–11M–PLUS Software Product Description

The Software Product Description (SPD) concisely describes the software features and system environment of RSX–11M–PLUS. It identifies the required and optional hardware and software along with the available training credits and additional services. It includes information on installation requirements and software product support, and gives ordering information.

1.4.1.2 RSX–11M–PLUS Information Directory and Master Index

This manual orients the reader to the RSX–11M–PLUS documentation set. It includes descriptions of the manuals, a suggested sequence for reading the manuals, the intended reading audience for each, and a Master Index to the documentation set. The Master Index is composed of all the topics in the indexes for the individual manuals, without abridgement, and identifies the manual(s) and page number(s) you need for information on a topic.

1.4.1.3 RSX–11M–PLUS Release Notes

This manual contains a summary description of new software features for this release as well as an overview of new device support. It also provides information about the operating system that is not documented in other manuals in the documentation set. Read the *RSX–11M–PLUS Release Notes* before generating and using your system.

1.4.1.4 Introduction to RSX–11M–PLUS

This tutorial manual is a simple, step-by-step introduction to the RSX–11M–PLUS operating systems for new users. In an interactive terminal session, new users can log in and practice using DIGITAL Command Language, the interactive text editor EDT, and program development facilities, on prepared demonstration files. After guiding the user through the practice session, the manual discusses some general system concepts and features. It also has a useful glossary that defines system terms in some detail.

1.4.2 Volume 2: Operation

The operation volume contains manuals that explain how to generate and install your RSX–11M–PLUS Version 3.0 system. It also documents the Monitor Console Routine (MCR), the DIGITAL Command Language (DCL), and batch and queue operations.

1.4.2.1 RSX–11M–PLUS System Generation and Installation Guide

This manual is a step-by-step guide to the system generation (SYSGEN) procedure. It includes instructions for copying the distribution kit onto the system disk and then generating an RSX–11M–PLUS system tailored to your needs. This manual also includes information on applying updates.

1.4.2.2 RSX–11M/M–PLUS MCR Operations Manual

MCR is a command line interpreter, an interface for communication between you and the RSX–11M–PLUS operating system. This manual describes MCR commands and their formats and tells you how to use MCR. File ownership and file protection are explained. An alphabetical list of MCR and Task Termination Notification program (TKTN) messages is given in an appendix.

1.4.2.3 RSX–11M/M–PLUS Indirect Command Processor Manual

The Indirect Command Processor (Indirect) allows you to process files that contain Indirect, MCR, DCL, or utility commands. These commands are executed as though they had been entered from a terminal. This manual describes the Indirect commands, symbols, and functions, and presents actual examples.

1.4.2.4 RSX–11M–PLUS Command Language Manual

The DIGITAL Command Language (DCL) is a command line interpreter, that provides direct, transparent access to most common MCR and utility functions. This manual is organized by system functions; it gives full descriptions of all DCL commands, with examples and notes on their usage. Also included is a quick reference guide to DCL commands and qualifiers.

1.4.2.5 RSX–11M/M–PLUS Batch and Queue Operations Manual

This manual explains the use of the Queue Manager (QMG) to control print and batch queue functions, and describes in detail the QMG commands that control these functions. The manual also explains the Batch Processor and describes batch commands and syntax. Error messages are explained in the appendix, and there is a glossary of terms.

1.4.3 Volume 3: Utilities

This volume contains two manuals, the *RSX–11M/M–PLUS Utilities Manual* and the *EDT Editor Manual*. The *RSX–11M/M–PLUS Utilities Manual* describes utilities that allow you to manipulate different kinds of files and their contents and to perform operations on supported media. The *EDT Editor Manual* describes the function and operation of the interactive text editor EDT.

1.4.3.1 RSX-11M/M-PLUS Utilities Manual

This manual explains each utility's use, describes its commands and switches, and gives detailed command formats and syntax rules. It describes the functions and operations of the following RSX-11M/M-PLUS utility programs:

- Line Text Editor (EDI)—A line-oriented, interactive editor used to create and maintain text and source files.
- Peripheral Interchange Program (PIP)—Copies files and performs file control functions.
- File Transfer Utility Program (FLX)—A file transfer and format conversion program that transfers files among DOS-11, RT-11, and Files-11 volumes.
- Disk Volume Formatter Utility (FMT)—Formats and verifies several types of Files-11 disks.
- Bad Block Locator Utility (BAD)—Determines the number and location of bad blocks on a volume.
- Backup and Restore Utility (BRU)—Backs up files from a Files-11 volume to one or more backup volumes, and retrieves them as needed.
- Disk Save and Compress Utility Program (DSC)—Copies Files-11 disk files to tape or disk, and from DSC-created tape back to disk. (The function of the DSC utility is similar to that of the BRU utility.)
- File Structure Verification Utility (VFY)—Verifies the consistency and validity of the file structure on a Files-11 volume.
- Librarian Utility Program (LBR)—A library maintenance program that creates and modifies library files.
- File Dump Utility Program (DMP)—A file listing program that allows you to examine the contents of a single file or a volume of files.
- File Compare Utility (CMP)—Compares two text files, record by record, and lists the differences between them.
- Source Language Input Program (SLP)—A noninteractive editing program that is used to maintain and edit source files.
- Object Module Patch Utility (PAT)—Updates, or patches, relocatable binary object modules.
- Task/File Patch Program (ZAP)—A patch utility that examines and directly modifies locations in a task image file or data file.

1.4.3.2 EDT Editor Manual

This manual explains how to use the interactive text editor EDT to create and update ASCII text files. It explains the command line, keypad editing, line editing, nokeypad editing, and the redefining of keys. It also presents sample editing sessions.

1.4.4 Volume 4: Program Development

The first manual in this volume gives an overview of the program development process. The remaining manuals further explain the process by describing the MACRO-11 assembly language, I/O operations, system library routines, the On-Line Debugging Tool, the Task Builder, and the Executive.

1.4.4.1 RSX-11M/M-PLUS Guide to Program Development

This manual is a step-by-step guide to program development for the beginning MACRO-11 programmer. The manual describes the hardware and software necessary for program development and explains how to create, assemble, task build, debug, and maintain MACRO-11 programs. It also introduces the use of the Librarian Utility Program (LBR) for creating and maintaining user, macro, and object libraries. A brief description of FORTRAN program development is included to help orient the FORTRAN programmer. Examples are given for all steps in the program development process.

This guide is intended to be used together with other, more advanced manuals until you become familiar with the process; then, it can serve as a refresher.

1.4.4.2 PDP-11 MACRO-11 Language Reference Manual

This manual describes how to use the MACRO-11 Assembler to code MACRO-11 programs. It includes descriptions of MACRO-11 features, directives for conditional assembly and program sectioning, and user-defined and system macro libraries. It also documents RSX-11M-PLUS operating procedures and error messages. Before reading the *MACRO-11 Language Reference Manual*, you should be familiar with your PDP-11 processor and the related terminology, as presented in the *PDP-11 Processor Handbook*.

1.4.4.3 IAS/RSX-11 System Library Routines Reference Manual

This manual describes register handling and arithmetic routines, input and output data conversion routines, output formatting routines, and dynamic memory management and virtual memory management routines. For the more experienced programmer, a list of summary procedures is included.

1.4.4.4 RSX-11M/M-PLUS and Micro/RSX Debugging Reference Manual

This manual describes the use of the On-Line Debugging Tool (ODT) for debugging a task. Actual ODT command sequences are given, followed by explanatory text. The manual also describes procedures for debugging supervisor-mode libraries.

Before reading this manual, you should be familiar with the MACRO-11 assembly language and the Task Builder.

1.4.4.5 RSX-11M/M-PLUS and Micro/RSX Task Builder Manual

This manual describes the concepts and capabilities of the RSX-11M/M-PLUS and Micro/RSX Task Builder (TKB), the linker that produces executable task images (programs that are ready to be installed and run). It contains both programmer reference and operating information, including Task Builder allocation of virtual address space, resolution of global symbols, overlaying capability, the building of shared regions, instruction- and data-space tasks, supervisor-mode libraries, multiuser tasks, and cluster libraries.

Before reading this manual, you should be familiar with the procedures described in the *RSX-11M/M-PLUS MCR Operations Manual* or the *RSX-11M-PLUS Command Language Manual*, and the programming concepts discussed in the *RSX-11M/M-PLUS Guide to Program Development*.

1.4.4.6 RSX-11M/M-PLUS and Micro/RSX Executive Reference Manual

This manual describes the Executive services available for user tasks and the Executive (system) directives you need to obtain them. You must know how to develop user programs in MACRO-11 or in a high-level language such as FORTRAN to be able to use the Executive services.

1.4.5 Volume 5: I/O Development

This volume consists of manuals that describe the writing and the function of I/O drivers on an RSX-11M-PLUS system.

1.4.5.1 RSX-11M/M-PLUS and Micro/RSX I/O Operations Reference Manual

This manual provides reference material on RSX-11M-PLUS File Control Services (FCS). It explains how to use FCS to create, use, and delete files under program control. You should be familiar with MACRO-11 or FORTRAN program development procedures before using FCS.

The manual also describes the following:

- The Get Command Line subroutine (GCML)—Provides a device-independent interface for user programs retrieving command lines from either a terminal or a disk file.
- The Command String Interpreter (CSI)—Parses command lines containing file specifications and switches.
- The Table-Driven Parser (TPARS)—Parses command lines at two levels: a syntactical level and a semantic level. It is generated by parse tables created by the user.

Descriptions of ANSI magnetic tape support, unlabeled tape support, and the MAG SET command are included.

1.4.5.2 RSX-11M-PLUS Guide to Writing an I/O Driver

This guide is an aid in writing an I/O driver to service a peripheral device for which DIGITAL does not supply a driver. It documents changes to system data structures made to accommodate the Error Logger and alternate CLI support. Tables are included to aid you in determining the device mask word for user-written drivers, and an appendix describes the conversion of drivers from RSX-11M to RSX-11M-PLUS.

Before you read this manual, you should fully understand the operation of the device for which you require a driver. You must also be familiar with your PDP-11 processor, its peripheral devices, and the software supplied with the RSX-11M-PLUS system.

1.4.5.3 RSX-11M/M-PLUS I/O Drivers Reference Manual

This manual describes the functions of all DIGITAL-supplied I/O drivers. It provides the data needed by the experienced programmer who wants the advantages in space and time of interfacing with I/O drivers directly.

This manual describes the Files-11 Ancillary Control Processor (F11ACP) and the Magnetic Tape Ancillary Control Processor (MTAACP) and documents the queue I/O requests performed by these processors.

1.4.6 Volume 6: System Management and Maintenance

This volume consists of three manuals that describe how to operate your system correctly and effectively. The manuals describe system management programs and the RSX-11M/M-PLUS Error Logging system. They also explain how to use the Crash Dump Analyzer and how to retrieve information to determine the causes of system crashes.

1.4.6.1 RSX-11M/M-PLUS System Management Guide

This manual documents the following programs that the system manager can use to test, monitor, maintain, and customize an RSX-11M-PLUS operating system:

- Account File Maintenance Program (ACNT)—Creates and maintains accounts on multiuser protection systems.
- Console Logger (CODRV and COT)—Handles I/O to the console output device and records system messages at a terminal and/or in a log file.
- I/O Exerciser (IOX)—Detects and diagnoses I/O problems on tape and disk units.
- Bad Block Replacement Control Task (RCT)—Performs bad block handling and recovery on Mass Storage Control Protocol devices (MSCP).
- Resource Monitoring Display (RMD)—Displays information about the tasks currently active on the system and the system's available resources.
- System Shutdown Task (SHUTUP)—Shuts down the system in an orderly fashion.
- Virtual Monitor Console Routine (VMR)—A subset of MCR commands that you can use to alter a system image file.
- Shuffler (SHF)—Compresses space in system-controlled partitions when a memory allocation failure occurs.
- System Configuration Services (CON and HRC)—Reconfigure an RSX-11M-PLUS system in order to bypass faulty hardware elements and isolate the system from their effects.

The manual includes information on pool monitoring support and the PMT program; how to set up and run the Queue Manager; how to extend and alter DCL; how to write command line interpreters (CLIs); Resource Accounting; queue optimization; shadow recording; and disk data caching. The Serial Despooler and RSX-11M-PLUS system conventions are described in separate appendixes.

1.4.6.2 RSX-11M/M-PLUS Error Logging Manual

This manual explains the RSX-11M/M-PLUS Error Logging system, a combination of tasks that collect and report information about hardware-related events on an RSX-11M-PLUS system. The Error Logging system allows you to generate event reports in brief or full format, including information on the state of the system or hardware when the event occurred.

The manual includes chapters on the following:

- The Error Log Task (ERRLOG) and the Error Log Interface (ELI)—ERRLOG obtains error information from the Executive and drivers and writes the information into the error log file. ELI sends user commands to ERRLOG.
- The Report Generator (RPT)—Generates Error Log Reports from the error log file.
- The Control File Language compiler (CFL)—Updates and modifies DIGITAL-supplied control file modules, or adds error logging support for non-DIGITAL devices.

1.4.6.3 RSX-11M/M-PLUS and Micro/RSX Crash Dump Analyzer Reference Manual

This manual explains how to use the Crash Dump Analyzer (CDA) to determine the causes of system crashes. It contains operating instructions, descriptions of CDA switches and error messages, examples of CDA output listings, and an explanation of how to interpret the output listings. The manual also includes system symbolic and data structure macro definitions.

1.4.7 Volume 7: PDP-11 Record Management Services

This volume is composed of a set of manuals that describes the PDP-11 Record Management Services (RMS-11). For information on where the RMS-11 files and utilities can be found on the RSX-11M-PLUS distribution kit, see the *RSX-11M-PLUS System Generation and Installation Guide*.

1.4.7.1 RSX-11M/M-PLUS RMS-11: An Introduction

This manual introduces the major concepts of RMS-11: record formats, file organizations, and record access modes. It introduces the RMS-11 operations and utility programs, and defines the key terms necessary to understand RMS-11 capabilities and functions.

The manual is intended for all users of RMS-11, including both MACRO-11 and high-level language programmers. Nonprogramming users, programming users who are new to RSX-11M/M-PLUS, and RSX-11M/M-PLUS programmers who are new to RMS-11 should find this document especially useful.

The manual does not provide reference or usage information. You should read this manual before reading the other RMS-11 manuals.

1.4.7.2 RSX-11M/M-PLUS RMS-11 User's Guide

This manual is a guide to using RMS-11 in file and task design for application programs written in either MACRO-11 or high-level languages. It is intended for application programmers who want to achieve optimal performance either with a new application they are writing or with an existing application that no longer performs satisfactorily.

The manual first presents general design considerations to help users select the appropriate file organization for their applications. Then the details of file structure, design, and processing are discussed for each of the three RMS-11 file organizations: sequential, relative, and indexed. Finally, the manual describes techniques that can be used to optimize application program performance, regardless of file organization.

Note that only MACRO-11 programmers can use the full set of RMS-11 capabilities. Subsets of those capabilities are available to high-level language programmers. Programmers who are writing applications in high-level languages should consult their language documentation for details on RMS-11 support.

1.4.7.3 RSX-11M/M-PLUS RMS-11 Utilities

This reference manual describes the utility programs supported by RMS-11. It is intended for users such as high-level language programmers and nonprogramming users (system managers and operators, for example), who either do not require or do not have access to the full set of RMS-11 capabilities.

The RMS-11 utility programs are the following:

- RMS-11 File Design Utility (RMSDES)—An interactive utility for designing and creating sequential, relative, and indexed files.
- RMS-11 Indexed File Load Utility (RMSIFL)—Reads records from an RMS-11 file of any kind of organization and loads them into an indexed file, optimizing all indexes, both primary and alternates (if any).
- RMS-11 File Conversion Utility (RMSCNV)—Reads records from an RMS-11 file of any organization and loads them into another RMS-11 file of any organization. Note that RMSCNV, unlike RMSIFL, optimizes only the primary index when it loads an indexed file.

- RMS–11 File Display Utility (RMSDSP)—Produces a concise description of any RMS–11 file, including backup files.
- RMS–11 File Back-Up Utility (RMSBCK)—Transfers the contents of an RMS–11 file to another file, on another device, to preserve it in case the original file is lost or damaged.
- RMS–11 File Restoration Utility (RMSRST)—Restores files that were backed up by RMSBCK, so that they can be accessed by user programs.

The manual also documents RMSDEF, which has been superseded by RMSDES.

1.4.7.4 RSX–11M/M–PLUS RMS–11 Macro Programmer's Guide

This document is a reference manual describing the macros and symbols that make up the interface between a MACRO–11 program and the RMS–11 operation routines. It is intended for both MACRO–11 programmers and high-level language programmers who want to use the full set of RMS–11 capabilities in a MACRO–11 subprogram.

The manual presents such programming considerations as how to use RMS–11 macros and symbols in a MACRO–11 program, how to use the directory and file operations to process directories and files, and how to use the stream operations and record or block operations to process records or blocks. Detailed reference information is provided on each RMS–11 operation macro, the control blocks it uses, the options that can be specified in each control block field, and the values returned in control block fields. A summary of each control block, field, value, and mask is also provided.

In addition, the manual describes the RMS–11 completion codes, fatal error codes, and assembly-time messages.

1.4.8 RSX–11M–PLUS Mini-Reference

This small manual is a convenient reference for all system users. It includes sections on the Monitor Console Routine (MCR), the DIGITAL Command Language (DCL), the Task Builder (TKB), the RSX–11M/M–PLUS utilities, the On-Line Debugging Tool (ODT), the Error Logging system, the Batch Processor, the Queue Manager (QMG), the I/O error codes, the directive error codes, the Executive directive summary, the RMS–11 utilities, and the RMS–11 error codes. The manual also includes Radix–50 conversion tables and the ASCII character set.

1.4.9 EDT Editor Reference Card

This reference card describes keypad editing for the DIGITAL VT52 and VT100 video terminals. It presents common keyboard functions and gives instructions for beginning and ending an editing session. Keypad diagrams for the VT52 and VT100 terminals are included.

1.4.10 PDP–11 Programming Card

This card includes programming information on the following topics:

- PDP–11 addressing modes
- Single-operand instructions
- Double-operand instructions
- Processor register addresses
- Device register addresses
- 7-bit ASCII code
- Bootstrap loader starting addresses and device vectors

1.5 RSX–11S Documentation

The RSX–11S operating system is an optional, separately purchased product, supported by the RSX–11M–PLUS system. Included with the RSX–11S software is the RSX–11S documentation set. Some of the manuals in the documentation set describe the features and capabilities of the RSX–11S operating system, while others describe the host system.

The RSX–11S documentation set is fully described in the *RSX–11M/RSX–11S Information Directory and Master Index*. It is important that you thoroughly read the *RSX–11M/RSX–11S Release Notes* before reading the other manuals in the RSX–11S documentation set and generating your RSX–11S system.

Chapter 2
The RSX-11M-PLUS Master Index

2.1 Introduction to the Master Index

The Master Index is a comprehensive index to the entire documentation set. The indexes of the individual manuals have been compiled into the Master Index without abridgement.

The Master Index is valuable to new users who are not sure which manual contains the information they need. It is valuable to all users as an index to topics that are discussed (or might logically be discussed) in more than one manual.

2.1.1 Format of the Master Index

Each entry in the Master Index is followed by the title of the manual it is referencing. For example, the complete title *RSX-11M/M-PLUS MCR Operations Manual* is abbreviated to "MCR." The titles of all manuals are in italics. See the next section for a list of the abbreviated titles.

2.1.2 Manuals Included in the Master Index

Table 2-1 contains a list of all the manuals included in the Master Index. The Abbreviated Title column lists the shortened titles of manuals appearing in the Master Index, whereas the Complete Title column lists the full titles of manuals. Note that indexes for the *EDT Editor Manual* and the *RSX-11M-PLUS Release Notes* are not included in the Master Index.

Table 2-1: Abbreviated Titles for Manuals in the RSX-11M-PLUS Master Index

Abbreviated Title	Complete Title
Batch and Queue	*RSX-11M/M-PLUS Batch and Queue Operations Manual*
Command Language	*RSX-11M-PLUS Command Language Manual*
CDA	*RSX-11M/M-PLUS and Micro/RSX Crash Dump Analyzer Reference Manual*
Debugging	*RSX-11M/M-PLUS and Micro/RSX Debugging Reference Manual*
Error Logging	*RSX-11M/M-PLUS Error Logging Manual*
Executive	*RSX-11M/M-PLUS and Micro/RSX Executive Reference Manual*
Indirect	*RSX-11M/M-PLUS Indirect Command Processor Manual*

Table 2–1 (Cont.): Abbreviated Titles for Manuals in the RSX–11M–PLUS Master Index

Abbreviated Title	Complete Title
Introduction	*Introduction to RSX–11M–PLUS*
I/O Drivers	*RSX–11M/M–PLUS I/O Drivers Reference Manual*
I/O Operations	*RSX–11M/M–PLUS and Micro/RSX I/O Operations Reference Manual*
MACRO–11	*PDP–11 MACRO–11 Language Reference Manual*
MCR	*RSX–11M/M–PLUS MCR Operations Manual*
Program Development	*RSX–11M/M–PLUS Guide to Program Development*
RMS–11 Introduction	*RSX–11M/M–PLUS RMS–11:An Introduction*
RMS–11 User's Guide	*RSX–11M/M–PLUS RMS–11 User's Guide*
RMS–11 Utilities	*RSX–11M/M–PLUS RMS–11 Utilities*
RMS–11 Macro	*RSX–11M/M–PLUS RMS–11 Macro Programmer's Guide*
System Generation	*RSX–11M–PLUS System Generation and Installation Guide*
System Library	*IAS/RSX–11 System Library Routines Reference Manual*
System Management	*RSX–11M/M–PLUS System Management Guide*
Task Builder	*RSX–11M/M–PLUS Task Builder Manual*
Utilities	*RSX–11M/M–PLUS Utilities Manual*
Writing I/O Driver	*RSX–11M–PLUS Guide to Writing an I/O Driver*

Master Index

A

A/D channel
  read (ICDRV/ISDRV), *I/O Drivers*, 19-13
A/D conversion
  control word (UDDRV), *I/O Drivers*, 16-5
  control word processing (ICDRV/ISDRV), *I/O Drivers*, 19-15
A/D converter
  function code list, *I/O Drivers*, B-7
  UDDRV, *I/O Drivers*, 16-8
A/D input (ICDRV/ISDRV), *I/O Drivers*, 19-13
AA11-K D/A converter, *I/O Drivers*, 23-2
AAV11-A D/A converter, *I/O Drivers*, 23-2
/ABAUD keyword
  SET command (MCR), *MCR*, 3-202
  SET command (VMR), *System Management*, 10-53
Abbreviation
  commands, *Introduction*, 1-9
  DCL, *Command Language*, 1-12, 9-1
    caution, *Command Language*, 1-23
ABO
  See ABORT command
ABODF$, *CDA*, B-3, C-3 *Writing I/O Driver*, A-3
Abort
  CTRL/C (TTDRV), *I/O Drivers*, 2-68
  task
    CRDRV, *I/O Drivers*, 11-10
    DTDRV, *I/O Drivers*, 6-8
Abort
  task (cont'd.)
    LPDRV, *I/O Drivers*, 10-7
    tape driver, *I/O Drivers*, 8-16
    VT11/GRDRV, *I/O Drivers*, 21-4
  TKB
    during input, *Task Builder*, 12-5
ABORT command, *Command Language*, 7-17 to 7-20, 9-1 *Debugging*, 1-5 *Introduction*, 1-14, 5-13
  IOX, *System Management*, 4-24
  Shadow Recording, *System Management*, 18-7
ABORT command (MCR), *MCR*, 1-6, 3-3
  error messages, *MCR*, 3-4
  examples, *MCR*, 3-4
  format, *MCR*, 3-3
  keywords
    /PMD, *MCR*, 3-4
    /TERM, *MCR*, 3-4
  parameters, *MCR*, 3-4
Aborting tasks
  CTRL/C, *Command Language*, 3-20
ABORT option, *Task Builder*, 12-5
Abort Task directive, *Executive*, 5-8
ABRT$ directive, *Executive*, 5-8
Absolute
  address, *Debugging*, 2-2
  address mode, *MACRO-11*, 5-7
    assembled from relative, *MACRO-11*, 6-19
  binary output
    controlling, *MACRO-11*, 6-19
  expression, *MACRO-11*, 3-17
  location, *Debugging*, 2-5, 4-4, 9-9
  program section, *MACRO-11*, 6-42, 6-44, 6-45

ABSOLUTE argument, *MACRO-11*, 8-8
Absolute program section
See .ASECT directive
ABSPAT option, *Task Builder*, 12-6
ABS symbolic argument, *MACRO-11*, 6-19, 6-42
/AB switch
ZAP utility, *Utilities*, 15-2
Acceptance routine, *Writing I/O Driver*, 1-13
Accepting message (LRDRV), *I/O Drivers*, 14-10
Access, *RMS-11 Introduction*, 1-1 *RMS-11 User's Guide*, 1-7
See also Access mode
See also Block access
See also Random access
See also Sequential access
See also Shared access
direct
See Random access
requested
See FAC field in FAB
shared, *I/O Operations*, 2-15 *RMS-11 Introduction*, 2-4, 4-3
See also Access sharing
See also SHR field in FAB
read, *I/O Operations*, 1-13
write, *I/O Operations*, 1-12
stream, *RMS-11 Introduction*, 4-3
Access-code
grouping program section, *Task Builder*, 10-36, 11-60
Access control, *RMS-11 User's Guide*, 1-9
Access control parameter (F11ACP), *I/O Drivers*, C-6
Access declaration, *RMS-11 User's Guide*, 2-6
indexed files, *RMS-11 User's Guide*, 7-1
read/write, *RMS-11 User's Guide*, 2-6
read-only, *RMS-11 User's Guide*, 2-6
relative files, *RMS-11 User's Guide*, 4-6
sequential files, *RMS-11 User's Guide*, 3-6
/ACCESS keyword
INITVOLUME command, *MCR*, 3-100
Access mode, *RMS-11 Introduction*, 3-1, 3-11, 3-13 *RMS-11 Macro*, 4-4
See also Random access
See also Sequential access
and file organization, *RMS-11 Introduction*, 3-13
block, *RMS-11 Introduction*, 3-11, 3-12, 3-14, 4-7 *RMS-11 User's Guide*, 1-20, 3-6
See also BKT field in RAB
sequential, *RMS-11 Introduction*, 3-12
VBN, *RMS-11 Introduction*, 3-12
FIND operation
indexed files, *RMS-11 User's Guide*, 7-3
relative files, *RMS-11 User's Guide*, 4-8
sequential files, *RMS-11 User's Guide*, 3-7
GET operation
indexed files, *RMS-11 User's Guide*, 7-5
relative files, *RMS-11 User's Guide*, 4-10
sequential files, *RMS-11 User's Guide*, 3-9
key, *RMS-11 Introduction*, 3-12
PUT operation
indexed files, *RMS-11 User's Guide*, 7-6
relative files, *RMS-11 User's Guide*, 4-11
sequential files, *RMS-11 User's Guide*, 3-10
random
by key, *RMS-11 User's Guide*, 1-12
by VBN, *RMS-11 User's Guide*, 1-20
to indexed files, *RMS-11 Introduction*, 3-15
to relative files, *RMS-11 Introduction*, 3-15
to sequential files, *RMS-11 Introduction*, 3-14
record, *RMS-11 Introduction*, 3-11, 3-13, 4-5 *RMS-11 User's Guide*, 1-12
See also RAC field in RAB

Access mode
record (cont'd.)
FIND operations, *RMS-11 Introduction*, 4-6
GET operations, *RMS-11 Introduction*, 4-6
key, *RMS-11 Introduction*, 3-12
PUT operations, *RMS-11 Introduction*, 4-6
RFA, *RMS-11 Introduction*, 3-11
sequential, *RMS-11 Introduction*, 3-11
RFA, *RMS-11 Introduction*, 3-11
sequential, *RMS-11 Introduction*, 3-11
blocks, *RMS-11 User's Guide*, 1-20
records, *RMS-11 User's Guide*, 1-12
to indexed files, *RMS-11 Introduction*, 3-14
to relative files, *RMS-11 Introduction*, 3-14
to sequential files, *RMS-11 Introduction*, 3-14
switching, *RMS-11 Introduction*, 3-13
Access path
switching between, *Writing I/O Driver*, 1-11
Access sharing, *RMS-11 Introduction*, 2-4, 4-3
See also Shared access
read, *RMS-11 Introduction*, 3-5, 3-6
write, *RMS-11 Introduction*, 3-6
Access stream, *RMS-11 User's Guide*, 1-15
multiple
and shared access, *RMS-11 User's Guide*, 2-9, 2-10
indexed files, *RMS-11 User's Guide*, 7-10
relative files, *RMS-11 User's Guide*, 4-15
sequential files, *RMS-11 User's Guide*, 3-15
Access types, *MCR*, 2-3, 3-94, 3-148, 3-149, 3-213
ACCOUN symbol, *Indirect*, 2-17
Account
and UFD, *MCR*, 2-2
and UIC, *MCR*, 2-2
creating, *MCR*, 2-24
protecting, *MCR*, 3-241
Account file
on distribution kit, *System Generation*, 4-5
on pregenerated kit, *System Generation*, 5-33
Account File Maintenance Program
See ACNT
Accounting
SYSGEN question, *System Generation*, 3-27
Accounting block offsets, *Writing I/O Driver*, A-4
Accounting Startup Transaction Block, *System Management*, 17-25
Accumulation fields
See ACNDF$
ACD
See ANCILLARY CONTROL DRIVER command
$ACHCK routine, *Writing I/O Driver*, 7-7
$ACHKB routine, *Writing I/O Driver*, 7-7
ACHN$ directive, *Executive*, 5-10
ACNDF$, *CDA*, C-5 *Writing I/O Driver*, A-4 to A-9
ACNT, *Command Language*, 3-10 to 3-12, 4-2 *MCR*, 2-24, 3-240 *System Management*, 1-1, 2-1
account entry
contents, *System Management*, 2-1
deleting, *System Management*, 2-9
examining, *System Management*, 2-5
listing, *System Management*, 2-8
modifying, *System Management*, 2-7
account file
copying, *System Management*, 2-3
extending, *System Management*, 2-3
maximum number of entries, *System Management*, 2-3
RSX11.SYS, *System Management*, 2-3
sorting, *System Management*, 2-10
changing password, *System Management*, 2-1

ACNT (cont'd.)
copying account file, *System Management*, 2-3
error messages, *System Management*, 2-11
ESCAPE key, *System Management*, 2-3
invoking, *System Management*, 2-2
options, *System Management*, 2-2
Add, *System Management*, 2-3
Create, *System Management*, 2-3
Delete, *System Management*, 2-9
Examine, *System Management*, 2-5
Exit, *System Management*, 2-11
List, *System Management*, 2-8
Modify, *System Management*, 2-7
Sort, *System Management*, 2-10
password encryption, *System Management*, 2-1
protection
restoring, *System Management*, 2-3
ACP, *Command Language*, 5-4, 5-53 *MCR*, 3-70, 3-141 *System Generation*, C-5
definition, *System Generation*, 1-8
error return, *I/O Drivers*, C-14
IE.ABO, *I/O Drivers*, C-14
IE.ALC, *I/O Drivers*, C-14
IE.ALN, *I/O Drivers*, C-14
IE.BAD, *I/O Drivers*, C-14
IE.BDR, *I/O Drivers*, C-14
IE.BTP, *I/O Drivers*, C-15
IE.BVR, *I/O Drivers*, C-15
IE.BYT, *I/O Drivers*, C-15
IE.CKS, *I/O Drivers*, C-15
IE.CLO, *I/O Drivers*, C-15
IE.DFU, *I/O Drivers*, C-15
IE.DUP, *I/O Drivers*, C-15
IE.EOF, *I/O Drivers*, C-15
IE.HFU, *I/O Drivers*, C-16
IE.IFC, *I/O Drivers*, C-16
IE.IFU, *I/O Drivers*, C-16
IE.LCK, *I/O Drivers*, C-16
IE.LUN, *I/O Drivers*, C-16
IE.NOD, *I/O Drivers*, C-16
IE.NSF, *I/O Drivers*, C-16
IE.OFL, *I/O Drivers*, C-16
IE.PRI, *I/O Drivers*, C-17
IE.RER, *I/O Drivers*, C-17
IE.SNC, *I/O Drivers*, C-17
IE.SPC, *I/O Drivers*, C-17
ACP
error return (cont'd.)
IE.SQC, *I/O Drivers*, C-17
IE.WAC, *I/O Drivers*, C-17
IE.WAT, *I/O Drivers*, C-17
IE.WER, *I/O Drivers*, C-18
IE.WLK, *I/O Drivers*, C-18
Files-11, *MCR*, 3-94, 3-141, 3-146, 3-150, 3-208
for foreign files, *MCR*, 3-151
magnetic tape, *MCR*, 3-141
QIO$ function
closing a file, *I/O Drivers*, C-13
creating a file, *I/O Drivers*, C-12
deleting a file, *I/O Drivers*, C-13
extending a file, *I/O Drivers*, C-13
opening a file, *I/O Drivers*, C-13
using, *I/O Drivers*, C-12
QIO$ interface, *I/O Drivers*, C-1
specifying APR, *Task Builder*, 10-5, 11-11
specifying task, *Task Builder*, 10-5, 11-11
ACP function mask, *Writing I/O Driver*, 4-19, 4-20
/ACP keyword
MOUNT command (MCR), *MCR*, 3-145
ACS
See ALLOCATE CHECKPOINT SPACE command
ACSUB, *System Management*, 17-17
/AC switch, *Task Builder*, 10-5
ACT
See ACTIVE command
ACTDF$, *Writing I/O Driver*, A-10
ACTFIL option, *Task Builder*, 12-7
Action routine, *I/O Operations*, 7-5
calling, *I/O Operations*, 7-6
using, *I/O Operations*, 7-6
ACTION statement, *Error Logging*, 5-30
ACTIVE command, *MCR*, 1-7, 3-14
examples, *MCR*, 3-14
format, *MCR*, 3-14
keywords
/ALL, *MCR*, 3-14
/TERM, *MCR*, 3-14
Active job
definition, *Batch and Queue*, 4-1

Active Page Register
See APR
Active task, *Command Language*, 7-1 to 7-2
address of TCB, *CDA*, 3-21
AST queue, *CDA*, 3-23
attribute bits, *CDA*, 3-22
blocking bits, *CDA*, 3-21
dump, *CDA*, 3-21
AST queue, *CDA*, 3-21
Offspring Control Block, *CDA*, 3-21
receive-by-reference queue, *CDA*, 3-21
receive queue, *CDA*, 3-21
MCR, *CDA*, 3-26
name, *CDA*, 3-21
Offspring Control Block, *CDA*, 3-23
partition, *CDA*, 3-21
receive-by-reference queue, *CDA*, 3-24
receive queue, *CDA*, 3-23
state bits, *CDA*, 3-22
task image, *CDA*, 3-21
ACTIVE TASK LIST command, *MCR*, 1-7, 3-31
example, *MCR*, 3-33
format, *MCR*, 3-33
Activity report
IOX, *System Management*, 4-20, 4-42
/ACT switch, *CDA*, 2-4, 2-5
AD01 A/D converter, *I/O Drivers*, 15-1
See also AFC11/AD01
conversion number restriction, *I/O Drivers*, 15-11
AD11-K converter, *I/O Drivers*, 23-2
ADC: subroutine
read single A/D channel (LSDRV), *I/O Drivers*, 17-12
ADD & PRINT command
EDI utility, *Utilities*, 2-12, 2-28
ADD command
EDI utility, *Utilities*, 2-11, 2-27
Addition operator, *MACRO-11*, 3-2, 3-5
Add option
ACNT, *System Management*, 2-3
Address
See also RFA
absolute, *Debugging*, 2-2, 5-6
assigning, *Task Builder*, 2-1
Address (cont'd.)
assignment
DRS11, *I/O Drivers*, 19-2
DSS11, *I/O Drivers*, 19-2
ICR11, *I/O Drivers*, 19-1
ICS11, *I/O Drivers*, 19-1
concepts, *Task Builder*, 2-12, 2-14 to 2-19
constraint
DRS11, *I/O Drivers*, 19-2
DSS11, *I/O Drivers*, 19-2
convention
IAD-IA A/D converter, *I/O Drivers*, 19-4
logical, *Task Builder*, 2-13
multicast mode (XEDRV), *I/O Drivers*, 13-2
pairs Ethernet XEDRV, *I/O Drivers*, 13-3
physical, *Task Builder*, 2-12
physical mode (XEDRV), *I/O Drivers*, 13-2
record, *RMS-11 User's Guide*, 1-9
relationship (ICDRV/ISDRV), *I/O Drivers*, 19-7
relative, *Debugging*, 2-2
format, *Debugging*, 2-2
relocatable, *Debugging*, 2-2, 5-6, 9-12 *Introduction*, 5-5
calculating, *Debugging*, 2-9, 7-1
space, *Task Builder*, 2-13
logical, *Task Builder*, 2-13
physical and virtual, *Task Builder*, 2-14
translation, *Task Builder*, 2-22
virtual, *Task Builder*, 2-13
virtual and logical, *Task Builder*, 2-22
transfer, *Task Builder*, A-6
virtual, *Task Builder*, 2-12
virtual space
allocation diagram to create ODL file, *Task Builder*, 3-36
cotree and main tree, *Task Builder*, 3-40
disk-resident overlay, *Task Builder*, 3-1, 3-2, 3-3
division, *Task Builder*, 2-17
layout, *Task Builder*, 2-17
memory and overlaid task, *Task Builder*, 3-11 to 3-14
memory-resident overlay, *Task Builder*, 3-6

Address
  virtual space (cont'd.)
    overlay, *Task Builder*, 3-5, 3-6, 3-33, 3-34, 3-35
    overlay tree, *Task Builder*, 3-24
    reducing usage, *Task Builder*, 3-1
Address boundary
  See ZAP utility
Address doubleword, *Writing I/O Driver*, 7-1, 7-2
Address expression
  See Expression
Addressing
  22-bit (LADRV), *I/O Drivers*, 22-36
Address mapping, *Executive*, 3-2
Address mode, *MACRO-11*, 5-1 to 5-10
  absolute, *MACRO-11*, 5-7
  autodecrement, *MACRO-11*, 5-5
  autodecrement deferred, *MACRO-11*, 5-5
  autoincrement, *MACRO-11*, 5-3
  autoincrement deferred, *MACRO-11*, 5-4
  immediate, *MACRO-11*, 5-6, 5-7
  index, *MACRO-11*, 5-5
  index deferred, *MACRO-11*, 5-6
  register, *MACRO-11*, 5-2
  register deferred, *MACRO-11*, 5-3
  relative, *MACRO-11*, 5-8
  relative deferred, *MACRO-11*, 5-9
  summary, *MACRO-11*, B-2
Address space
  logical, *Executive*, 3-2
  virtual, *Executive*, 3-2
Address window
  creating, *Executive*, 5-43
  deleting, *Executive*, 5-69
  mapping to region, *Executive*, 5-122
  unmapping, *Executive*, 5-254
  virtual, *Executive*, 3-3
Addr parameter
  DIR$ macro, *I/O Drivers*, 1-15
ADINP: subroutine
  initiate single analog output (K-series), *I/O Drivers*, 23-8
ADJLPS: subroutine
  adjust buffer pointer (LSDRV), *I/O Drivers*, 17-13
  use in input/output (LSDRV), *I/O Drivers*, 17-36
ADS: subroutine error, *I/O Drivers*, 17-32
ADSWP: subroutine
  initiate synchronous A/D sweep (K-series), *I/O Drivers*, 23-8
  synchronous A/D sweep (LADRV), *I/O Drivers*, 22-3
ADV11-A D/A converter, *I/O Drivers*, 23-2
Advance driver feature, *Writing I/O Driver*, 1-16, 2-4
ADVANCE key (EDT), *Introduction*, 2-6
/ADV switch, *CDA*, 2-4, 2-5
Adwell parameter
  XRATE: subroutine
    K-series, *I/O Drivers*, 23-30
    LADRV, *I/O Drivers*, 22-26
A error, *MACRO-11*, 3-10, 3-13, 3-16, 5-10, 6-25, 6-26, 6-28, 6-29, 6-32, 6-33, 6-38, 6-40, 6-42, 6-44, 6-47, 6-51, 6-56, 7-12, 7-13, 7-14, 7-19
  macro definition, *MACRO-11*, 7-2
  summary, *MACRO-11*, D-1 to D-3
AFC11
  channel number, identical, *I/O Drivers*, 15-10
  sampling rate, *I/O Drivers*, 15-11
AFC11/AD01
  AIRD/AIRDW subroutine, *I/O Drivers*, 15-5
  AISQ/AISQW subroutine, *I/O Drivers*, 15-5, 15-6
  ASADLN subroutine, *I/O Drivers*, 15-5, 15-7
  ASAFLN subroutine, *I/O Drivers*, 15-5, 15-7
  assign LUN to AD01, *I/O Drivers*, 15-5
  assign LUN to AFC11, *I/O Drivers*, 15-5
  asynchronous process control, *I/O Drivers*, 15-3
  control buffer, *I/O Drivers*, 15-10
  converter programming hint, *I/O Drivers*, 15-10
  data buffer, *I/O Drivers*, 15-10
  FORTRAN interface, *I/O Drivers*, 15-3
    values, *I/O Drivers*, 15-9
  FORTRAN subroutine summary, *I/O Drivers*, 15-4
  functional capacity, *I/O Drivers*, 15-10
  gain range, *I/O Drivers*, 15-10

AFC11/AD01 (cont'd.)
I/O status block, *I/O Drivers*, 15-4
input analog data, *I/O Drivers*, 15-5, 15-7
input random analog data, *I/O Drivers*, 15-5
multi-sample mode, *I/O Drivers*, 15-10
read sequential analog input, *I/O Drivers*, 15-6
read sequential input, *I/O Drivers*, 15-5
single-sample mode, *I/O Drivers*, 15-10
standard QIO$, *I/O Drivers*, 15-2
synchronous process control, *I/O Drivers*, 15-3
AFC11 A/D converter, *I/O Drivers*, 15-1
See also AFC11/AD01
/AFF keyword
INSTALL command (MCR), *MCR*, 3-117
INSTALL command (VMR), *System Management*, 10-22
OPENREGISTER command, *MCR*, 3-165
SET command (VMR), *System Management*, 10-54
/AF switch
PRI command, *Batch and Queue*, 2-6
QUE /MOD command, *Batch and Queue*, 2-20
/AFTER qualifier
PRINT command, *Batch and Queue*, 2-6
SET QUEUE command, *Batch and Queue*, 2-20
AID field in ALL block, *RMS-11 Macro*, 2-12
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9, 5-16
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46, 5-47
offset, *RMS-11 Macro*, 6-2
AID field in ALL block (cont'd.)
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-3
AIRD/AIRDW
AFC11/AD01 converter, *I/O Drivers*, 15-5
analog input (ICDRV/ISDRV), *I/O Drivers*, 19-39
random input analog data (UDDRV), *I/O Drivers*, 16-17
AISQ/AISQW
AFC11/AD01 converter, *I/O Drivers*, 15-5, 15-6
analog input (ICDRV/ISDRV), *I/O Drivers*, 19-43
sequential channel, *I/O Drivers*, 19-42
specified channel sequence, *I/O Drivers*, 19-43
read sequential analog input channel (UDDRV), *I/O Drivers*, 16-18
$ALBLK (Allocate block), *System Library*, 8-9
$$ALER program section, *Task Builder*, 5-55
reserved name, *Task Builder*, E-2
ALERR module, *Task Builder*, 5-55
Alignment
See also ALN field in ALL block
RMSDEF utility, *RMS-11 Utilities*, A-14
ALL
See ALLOCATE command (MCR)
ALL block, *RMS-11 Introduction*, 4-8
chaining to FAB, *RMS-11 Macro*, 2-12
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-2
All devices switch
See /ADV switch
/ALL keyword
ACTIVE command, *MCR*, 3-14
ASSIGN command (MCR), *MCR*, 3-29

/ALL keyword (cont'd.)
DEFINE LOGICALS command (MCR), *MCR*, 3-68
ALLOCATE CHECKPOINT SPACE command, *MCR*, 1-6, 3-11
error messages, *MCR*, 3-12
examples, *MCR*, 3-12
format, *MCR*, 3-11
keyword
/BLKS, *MCR*, 3-11
ALLOCATE command, *Command Language*, 5-11, 5-45 to 5-47, 9-2
ALLOCATE command (MCR), *MCR*, 1-8, 3-16
allocating private device, *MCR*, 2-13
error messages, *MCR*, 3-17
examples, *MCR*, 3-17
format, *MCR*, 3-16
keywords
/TERM, *MCR*, 3-16
/TYPE, *MCR*, 3-16
parameters, *MCR*, 3-16
Allocated device, *Command Language*, 5-10 to 5-11
Allocate Device Transaction Block, *System Management*, 17-27
/ALLOCATE switch
BAD utility, *Utilities*, 6-5
Allocation, *RMS-11 User's Guide*, 1-19
See also ALQ field in ALL block
See also ALQ field in FAB
indexed files, *RMS-11 User's Guide*, 6-22
DEQ, *RMS-11 User's Guide*, 6-26
initial, *RMS-11 User's Guide*, 6-22
relative files, *RMS-11 User's Guide*, 4-3
DEQ, *RMS-11 User's Guide*, 4-4
initial, *RMS-11 User's Guide*, 4-3
RMSDEF utility
data, *RMS-11 Utilities*, A-16
file, *RMS-11 Utilities*, A-14
RMSDES utility
areas, *RMS-11 Utilities*, 2-10, 2-25
RMSDSP utility
displaying, *RMS-11 Utilities*, 5-4
sequential files, *RMS-11 User's Guide*, 3-4
Allocation
sequential files (cont'd.)
initial, *RMS-11 User's Guide*, 3-4
task memory, *Task Builder*, 2-6
XAB
See ALL block
ALLOCATION attribute
RMSDES utility
area section, *RMS-11 Utilities*, 2-44
file section, *RMS-11 Utilities*, 2-31
/ALLOC keyword
USER FILE DIRECTORY command, *MCR*, 3-280
/ALL switch, *CDA*, 2-4, 2-5
ALN field in ALL block
CREATE operation, *RMS-11 Macro*, 5-17
DISPLAY operation, *RMS-11 Macro*, 5-30
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-4
$ALOCB routine, *Writing I/O Driver*, 7-8
ALPHAN symbol, *Indirect*, 2-10
ALQ0 field in ALL block
offset, *RMS-11 Macro*, 6-2
ALQ1 field in ALL block
offset, *RMS-11 Macro*, 6-2
ALQ field in ALL block
CREATE operation, *RMS-11 Macro*, 5-16, 5-21
DISPLAY operation, *RMS-11 Macro*, 5-30
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-5
ALQ field in FAB
CREATE operation, *RMS-11 Macro*, 5-16, 5-21
EXTEND operation, *RMS-11 Macro*, 5-46, 5-47
offset, *RMS-11 Macro*, 6-22

ALQ field in FAB (cont'd.)
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-25
ALSCT FORTRAN subroutine, *Task Builder*, 5-63, 5-64, 5-65
$ALSVB (Allocate small virtual block), *System Library*, 8-18
/AL switch, *Task Builder*, 10-6
ALT
See ALTER command
ALTER command (MCR), *MCR*, 1-7, 3-19
examples, *MCR*, 3-20
format, *MCR*, 3-19
keywords
/PRI, *MCR*, 3-19
/RPRI, *MCR*, 3-19
/TERM, *MCR*, 3-19
parameters, *MCR*, 3-19
ALTER command (VMR), *System Management*, 10-8
definition, *System Management*, 10-8
example, *System Management*, 10-8
format, *System Management*, 10-8
keyword
/PRI, *System Management*, 10-8
parameters, *System Management*, 10-8
Alternate CLI
SYSGEN question, *System Generation*, 3-28
Alternate index
See also Index
RMSIFL utility, *RMS-11 Utilities*, 3-11, 3-12
Alternate key, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 1-7, 1-11
RMSDEF utility
defining, *RMS-11 Utilities*, A-11
RMSIFL utility
allocating file space, *RMS-11 Utilities*, 3-13
sorting, *RMS-11 Utilities*, 3-11
Alternate key files (RMSIFL)
device allocation, *RMS-11 Utilities*, 3-7
Alternate support (ICS11), *I/O Drivers*, 19-3
Alter Priority directive, *Executive*, 5-13
Altmode line terminator (half-duplex), *I/O Drivers*, 3-25
ALTMOD symbol, *Indirect*, 2-10
ALTP$ directive, *Executive*, 5-13
ALUN$ directive, *Executive*, 5-15
example, *I/O Drivers*, 1-17
LUN assignment, *I/O Drivers*, 1-4
ALUN$ directive summary, *I/O Operations*, C-1
ALUN$ macro, *I/O Drivers*, 1-14, 1-16
$$ALVC program section, *Task Builder*, 7-10
reserved name, *Task Builder*, E-2
$$ALVD program section, *Task Builder*, 7-10
reserved name, *Task Builder*, E-2
$$ALVI program section, *Task Builder*, 7-10
reserved name, *Task Builder*, E-2
$ALVRT (Allocate virtual memory), *System Library*, 8-16
AM11-K multiple gain multiplexer, *I/O Drivers*, 23-2
AMA symbolic argument, *MACRO-11*, 6-19
American National Standards Institute
See ANSI
Analog input (ICDRV/ISDRV), *I/O Drivers*, 19-39
example, *I/O Drivers*, 19-40
sequential channel, *I/O Drivers*, 19-42
specified channel, *I/O Drivers*, 19-39, 19-43
Analog output (ICDRV/ISDRV), *I/O Drivers*, 19-15
multichannel, *I/O Drivers*, 19-44
Analysis listings, *CDA*, 1-1, 1-6, 1-8, 3-1 to 3-57
interpreting, *CDA*, 4-1
Analysis routines switch
See /ALL switch
Analysis switches, *CDA*, 2-3 to 2-8
ANALYZE/CRASH_DUMP command, *CDA*, 1-8
error messages, *CDA*, A-1
examples, *CDA*, 2-23
format, *CDA*, 2-13
input to, *CDA*, 2-14
qualifiers, *CDA*, 2-14 to 2-23
specification, *CDA*, 2-14
ANALYZE/MEDIA command, *Command Language*, 5-11, 5-19 to 5-25

ANALYZE command
ANALYZE/CRASH_DUMP, *Command Language*, 9-2 to 9-3
ANALYZE/MEDIA, *Command Language*, 9-3
/ANCILLARY_PROCESSOR qualifier, *Task Builder*, 11-11
ANCILLARY CONTROL DRIVER command, *MCR*, 1-6, 3-8
examples, *MCR*, 3-9
format, *MCR*, 3-8
functions, *MCR*, 3-8
Ancillary Control Processor
See ACP
ANSI
file name, *MCR*, 2-5
magnetic tape, *MCR*, 2-5
ANSI file name, *Command Language*, 1-15
/ANSI keyword
SET command (MCR), *MCR*, 3-203
SET command (VMR), *System Management*, 10-54
ANSI magnetic tape, *RMS-11 Macro*, 3-2, 5-20, 5-37, 5-43, 5-77, 5-88, 5-104, 5-111, 5-118
RMSBCK utility, *RMS-11 Utilities*, 6-1, 6-8
RMSDSP utility, *RMS-11 Utilities*, 5-3
ANSI tape standard, *I/O Operations*, G-1
ANSLIB.OLB (ANSI Magnetic Tape library), *Program Development*, 1-11
Answer speed (TTDRV)
determine, modem, *I/O Drivers*, 2-83
AO/AOW (ICDRV/ISDRV)
analog output
multichannel, *I/O Drivers*, 19-44
AO/AOW (UDDRV)
analog output, *I/O Drivers*, 16-19
AO/AOW routine
analog output
multichannel (ICDRV/ISDRV), *I/O Drivers*, 19-44
AOP field in ALL block
CREATE operation, *RMS-11 Macro*, 5-17, 5-18
AOP field in ALL block (cont'd.)
DISPLAY operation, *RMS-11 Macro*, 5-30
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-4
summary
XB$CTG mask, *RMS-11 Macro*, 6-6
XB$HRD mask, *RMS-11 Macro*, 6-7
AP command
EDI utility, *Program Development*, 2-17 *Utilities*, 2-12, 2-28
Apostrophe operator (')
See Operator
Append
file open, *I/O Operations*, 2-15
APPEND command, *Command Language*, 4-65 to 4-67, 9-4
/APPEND qualifier
BRU utility, *Utilities*, 7-12
/APPEND switch
DSC utility, *Utilities*, 8-9
Append switch, *Error Logging*, 2-3, 2-8
Delete subswitch, *Error Logging*, 2-3, 2-8
Application, *Introduction*, 6-2 *RMS-11 User's Guide*, 1-13
See also Designing applications
optimization, *RMS-11 User's Guide*, 2-11
Applications Processor
See also QMG
definition, *Batch and Queue*, 4-1
APR, *Task Builder*, 2-15 *Writing I/O Driver*, 1-2, 1-3
changing mapping, *Executive*, 5-130
getting information, *Executive*, 5-130
I- and D-space
allocation in multiuser task, *Task Builder*, 9-3
relocatable region
specifying, *Task Builder*, 5-7
resident common
system-owned, *Task Builder*, 12-13

APR
resident library
system-owned, *Task Builder*, 12-13
specifying for ACP, *Task Builder*, 10-5, 11-11
supervisor mode, *Task Builder*, 8-2, 8-4
/AP switch, *Error Logging*, 2-3, 2-8
PIP utility, *Utilities*, 3-14
RMSCNV utility, *RMS-11 Utilities*, 4-5, 4-7, 4-13, 4-15
AR11, *I/O Drivers*, 17-2
See also LSDRV
AR11 clock sampling rate (LSDRV), *I/O Drivers*, 17-33
Architecture
control file module, *Error Logging*, 4-1
error log control file, *Error Logging*, 4-1
Area, *RMS-11 User's Guide*, 6-10
See also ALL block
alignment
See ALN field in ALL block
allocation
See ALQ field in ALL block
bucket size
See BKZ field in ALL block
contiguity, *RMS-11 User's Guide*, 6-13
See also XB$CTG mask in AOP field
count
See NOA field in SUM block
default extension size
See DEQ field in ALL block
definition, *RMS-11 User's Guide*, 5-2
description, obtaining
See also DISPLAY operation
extending allocation
See EXTEND operation
identifier
See AID field in ALL block
location
See LOC field in ALL block
multiarea indexed files, *RMS-11 User's Guide*, 6-12
RMSDEF utility
defining, *RMS-11 Utilities*, A-13
RMSDES utility, *RMS-11 Utilities*, 2-10, 2-25
Area
RMSDES utility (cont'd.)
defining, *RMS-11 Utilities*, 2-1, 2-42
and BUCKET_SIZE attribute, *RMS-11 Utilities*, 2-32
and DATA_AREA attribute, *RMS-11 Utilities*, 2-40
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA, *RMS-11 Utilities*, 2-41
and SIZE attribute, *RMS-11 Utilities*, 2-36
by default, *RMS-11 Utilities*, 2-43
explicitly, *RMS-11 Utilities*, 2-43
defining by default, *RMS-11 Utilities*, 2-17, 2-38
CREATE command, *RMS-11 Utilities*, 2-8, 2-28
SET ALL command, *RMS-11 Utilities*, 2-14
defining explicitly, *RMS-11 Utilities*, 2-17
numbering, *RMS-11 Utilities*, 2-8, 2-28, 2-43
single-area indexed files, *RMS-11 User's Guide*, 6-11
Area information (RMSDSP)
displaying, *RMS-11 Utilities*, 5-4
Area number (RMSDEF), *RMS-11 Utilities*, A-16
A register, *Debugging*, 2-6, 5-3, 6-2, 9-10
Arg1 parameter
CALLS calling macro (LADRV), *I/O Drivers*, 22-27
CALLS macro (K-series), *I/O Drivers*, 23-31
ARGCHA routine, *Executive*, 1-12
Argument
macro call, *MACRO-11*, 7-4, 7-5
macro definition, *MACRO-11*, 7-4, 7-5, 7-6
dummy, *MACRO-11*, 7-2
passing in macro definition, *MACRO-11*, 7-7
register, *Debugging*, 2-6, 5-3
separator, *Debugging*, 2-5, 9-8
Arithmetic
calculations, *Debugging*, 7-1

Arithmetic
extended
specifying, *Task Builder*, 10-16, 11-16
operator, *Indirect*, 2-22
See also Operator
Array
area
mapped, *Task Builder*, 5-64
declaration
mapped, *Task Builder*, A-10
set for buffered sweep (K-series), *I/O Drivers*, 23-28
virtual, *Task Builder*, 12-42, 12-43
example, *Task Builder*, 12-42, 12-43
Arrow keys (EDT), *Introduction*, 2-5
Arv parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-9
IO.CTI function (ICDRV/ISDRV), *I/O Drivers*, 19-21
ASADLN (AFC11/AD01 converter), *I/O Drivers*, 15-5, 15-7
ASAFLN (AFC11/AD01 converter), *I/O Drivers*, 15-5, 15-7
ASARLN: subroutine
assign LUN to AR0: (LSDRV), *I/O Drivers*, 17-14
ASCII
character set, *MCR*, 3-153 *MACRO-11*, A-1 to A-3
command option, *MCR*, 2-6
conversion characters, *MACRO-11*, 6-25, 6-26
displaying, *Debugging*, 4-6
number conversion
ASCII to Radix-50 ($CAT5), *System Library*, 4-6
ASCII with blanks to Radix-50 ($CAT5B), *System Library*, 4-8
decimal to binary ($CDTB), *System Library*, 4-4
decimal to binary double-word (.DD2CT), *System Library*, 4-1
octal to binary ($COTB), *System Library*, 4-5
octal to binary double-word (.OD2CT), *System Library*, 4-2
operator, *Debugging*, 2-7
ASCII
operator (cont'd.)
byte mode, *Debugging*, 4-6, 9-10
word mode, *Debugging*, 4-6, 9-10
task name, *MCR*, 2-6
.ASCII directive, *MACRO-11*, 6-26 to 6-28
ASCII stream file
RMSCNV utility, *RMS-11 Utilities*, 4-3, 4-8
RMSIFL utility, *RMS-11 Utilities*, 3-1
.ASCIZ directive, *MACRO-11*, 6-28
.ASCPP routine, convert UIC to binary, *I/O Operations*, 4-8
.ASECT directive, *MACRO-11*, 3-11, 6-46
ASG option, *Task Builder*, 12-8
ASG TKB option
LUN assignment, *I/O Drivers*, 1-4
.ASK directive, *Indirect*, 2-33
.ASKN directive, *Indirect*, 2-35
.ASKS directive, *Indirect*, 2-38
ASLSLN: subroutine
assign LUN to LS0: (LSDRV), *I/O Drivers*, 17-13
.ASLUN routine, assign LUN, *I/O Operations*, 4-11, 4-16
ASN
See ASSIGN command
ASR-33, *I/O Drivers*, 2-3
ASR-33/35 Teletypewriter, *I/O Drivers*, 3-2
ASR-35, *I/O Drivers*, 2-3
Assembler
address mode summary, *MACRO-11*, B-2
character set, *MACRO-11*, 3-1, 3-2, 3-3
coding standard, *MACRO-11*, E-1 to E-16
directive, general, *MACRO-11*, 6-1, 6-2, 6-3
summary table, *MACRO-11*, 6-1, 6-2, 6-3
directive summary, *MACRO-11*, B-3 to B-8
error
See A error
error code summary, *MACRO-11*, D-1 to D-5

Assembler (cont'd.)
error message, *MACRO-11*, 8-19, 8-20, 8-21
file specification, *MACRO-11*, 8-3, 8-4, 8-5
switch, *MACRO-11*, 8-6
listing symbols, *MACRO-11*, 4-1
obsolete functions, *MACRO-11*, I-1
operating hints, *MACRO-11*, F-1
operating procedures, *MACRO-11*, 8-1
pass 1, *MACRO-11*, 1-1, 1-2
pass 2, *MACRO-11*, 1-2
position independent code, *MACRO-11*, G-1
special character summary, *MACRO-11*, B-1
statement format, *MACRO-11*, 2-1
version number, *MACRO-11*, 6-4
work file, *MACRO-11*, F-1
Assembling listings
Executive SYSGEN question, *System Generation*, 3-67
Assembly, *RMS-11 Macro*, 2-20
language, *Program Development*, 1-4 to 1-5
See also MACRO-11
listing
examining at a terminal, *Program Development*, 3-6
formatting, *Program Development*, 2-6
generating, *Program Development*, 3-4 to 3-6
page break, *Program Development*, 2-6
printing, *Program Development*, 3-8 to 3-9
spooling, *Program Development*, 3-8, 3-9
table of contents, *Program Development*, 2-6
terminal format, *Program Development*, 2-6
Assembly language interface (ICDRV/ISDRV), *I/O Drivers*, 19-8
ASSIGN/QUEUE command
DCL, *System Management*, 7-9
MCR, *System Management*, 7-9
Assign Channel directive, *Executive*, 5-10
ASSIGN command, *Command Language*, 5-16, 5-26 to 5-33, 9-4
ASSIGN/QUEUE, *Command Language*, 9-4
ASSIGN/REDIRECT, *Command Language*, 5-34 to 5-36, 9-5
ASSIGN/TASK, *Command Language*, 7-44 to 7-45, 9-5
in logical name translation, *I/O Operations*, 4-9
LUN assignment, *I/O Drivers*, 1-4
LUN redirection, *I/O Drivers*, 1-3
ASSIGN command (MCR), *MCR*, 1-6, 3-20
and logical devices, *MCR*, 2-12
and pseudo devices, *MCR*, 2-10
error messages, *MCR*, 3-30
examples, *MCR*, 3-26, 3-28, 3-29
formats, *MCR*, 3-25, 3-27, 3-29
keywords
/ALL, *MCR*, 3-29
/FINAL, *MCR*, 3-26
/GBL, *MCR*, 3-26, 3-28, 3-29
/GR, *MCR*, 3-26, 3-28, 3-29
/LOGIN, *MCR*, 3-26, 3-28
/SYSTEM, *MCR*, 3-26, 3-28
/TERM, *MCR*, 3-28, 3-29
ASSIGN command (VMR), *System Management*, 10-9
definition, *System Management*, 10-9
examples, *System Management*, 10-10
formats, *System Management*, 10-9
keywords
/GBL, *System Management*, 10-10
/SYSTEM, *System Management*, 10-10
parameters, *System Management*, 10-9
Assign LUN
to AR0: (LSDRV), *I/O Drivers*, 17-14
to LS0: (LSDRV), *I/O Drivers*, 17-13
Assign LUN directive, *Executive*, 5-15
Assignment operator
See Direct assignment operator
Assignments
See also Logical assignment
logical device, *MCR*, 2-12, 3-20

Assignments (cont'd.)
logical name, *MCR*, 3-21
global, *MCR*, 3-21, 3-64
group, *MCR*, 3-21, 3-64
local, *MCR*, 3-21, 3-64
login, *MCR*, 3-21, 3-64
task, *MCR*, 2-12
Assignment statement
See Direct assignment statement
Assign table dump, *CDA*, 3-1, 3-17
logical device names, *CDA*, 3-17
physical device names, *CDA*, 3-17
/AS switch
DMP utility, *Utilities*, 11-3
AST, *Executive*, 2-5, 2-7 *I/O Drivers*, 1-9 *MCR*, 1-3, 2-16 *Writing I/O Driver*, 1-14
blocking, *I/O Drivers*, 1-11
disabling recognition, *Executive*, 5-64
enabling recognition, *Executive*, 5-76
event flag, using, *I/O Drivers*, 1-11
interrupt routine, *I/O Drivers*, 1-11
IO.ATA function (TTDRV), *I/O Drivers*, 2-20
operation (half-duplex), *I/O Drivers*, 3-9
processing, *I/O Drivers*, 1-11
queue, *I/O Drivers*, 1-11
recognition
disable, *I/O Drivers*, 1-11
enable, *I/O Drivers*, 1-11
service
exit routine, *I/O Drivers*, 1-12
termination, *I/O Drivers*, 1-24
service routine, *Executive*, 2-8 *MCR*, 3-3
FORTRAN, *Executive*, 1-20
specifying, *Executive*, 5-207
terminating, *Executive*, 5-17
specifying
Floating Point Processor exception, *Executive*, 5-200
for CLI, *Executive*, 5-182
power recovery, *Executive*, 5-210
receive-by-reference, *Executive*, 5-231
receive data, *Executive*, 5-222
requested exit, *Executive*, 5-224
AST
unsolicited input
half-duplex, *I/O Drivers*, 3-9, 3-34
TTDRV, *I/O Drivers*, 2-12, 2-17
Ast2 parameter (TTDRV)
general, *I/O Drivers*, 2-10
IO.ATA function, *I/O Drivers*, 2-21
Asterisk (*), *MCR*, 2-7
See also Autoload indicator
See also Wildcard
cross-reference
of overlaid task, *Task Builder*, 4-12
cross-reference listing, *Task Builder*, 10-12, 11-23, 11-24
EDI utility, *Program Development*, 2-10
PIP utility, *Program Development*, 3-10
Asterisk separator (*)
See Separator
Ast parameter
device-specific (half-duplex), *I/O Drivers*, 3-7
general (TTDRV), *I/O Drivers*, 2-10
I/O completion, *I/O Drivers*, 1-36
IO.ATA function (TTDRV), *I/O Drivers*, 2-20
IO.ATT function, *I/O Drivers*, 1-27
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.DET function, *I/O Drivers*, 1-28
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
IO.HNG function (TTDRV), *I/O Drivers*, 2-35
IO.KIL, *I/O Drivers*, 1-29
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-41
IO.RST function (TTDRV), *I/O Drivers*, 2-43
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function, *I/O Drivers*, 1-31

Ast parameter (cont'd.)
IO.SMC function (TTDRV), *I/O Drivers*, 2-59
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
IO.WBT function (TTDRV), *I/O Drivers*, 2-49
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
IO.XCL function (XEDRV), *I/O Drivers*, 13-17
IO.XIN function (XEDRV), *I/O Drivers*, 13-10
IO.XOP function (XEDRV), *I/O Drivers*, 13-6
IO.XRC function (XEDRV), *I/O Drivers*, 13-14
IO.XSC function (XEDRV), *I/O Drivers*, 13-7
IO.XTL function (XEDRV), *I/O Drivers*, 13-18
IO.XTM function (XEDRV), *I/O Drivers*, 13-11
QIO$ basic syntax, *I/O Drivers*, 1-5, 1-9
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
standard function (UNIBUS switch driver), *I/O Drivers*, 24-2
AST Service Exit directive, *Executive*, 5-17
AST service routine, *I/O Operations*, 2-45, 2-46
ASTX$S directive, *Executive*, 5-17 *I/O Drivers*, 1-12
ASTX$S macro, *I/O Drivers*, 1-14, 1-24
ASUDLN: subroutine
assign LUN (UDDRV), *I/O Drivers*, 16-20
$ASUMR routine, *Writing I/O Driver*, 7-9
calling from driver, *Writing I/O Driver*, 7-4
a symbol, *Debugging*, 2-1
ASYN argument to RAB$B macro, *RMS-11 Macro*, 2-8
RSTS/E, *RMS-11 Macro*, D-4
Asynchronous multiplexer (communication driver), *I/O Drivers*, 12-1
Asynchronous I/O (XEDRV), *I/O Drivers*, 13-21
Asynchronous operation, *RMS-11 Introduction*, 4-4
See also RB$ASY mask in ROP field
RAB declaration, *RMS-11 Macro*, 2-8
waiting for
See WAIT operation
Asynchronous process control
ICDRV/ISDRV, *I/O Drivers*, 19-35
UDDRV, *I/O Drivers*, 16-15
Asynchronous System Trap
See AST
Asynchronous trap, *I/O Drivers*, 1-10, 1-11
AT., *Indirect*, 2-2
ATL
See ACTIVE TASK LIST command
/ATL switch, *CDA*, 2-4, 2-5
ATRG$ directive, *Executive*, 5-19
At sign (@), *Indirect*, 1-1, 2-1, 2-2
command, *Debugging*, 2-5, 4-4, 9-9
cross-reference
of overlaid task, *Task Builder*, 4-12
cross-reference listing, *Task Builder*, 10-12, 10-13, 11-23, 11-24
indirect file, *Task Builder*, 1-11
ODT, *Program Development*, 5-8
Attach
device, *I/O Drivers*, 1-27
PPDRV, *I/O Drivers*, 18-5
terminal (VTDRV), *I/O Drivers*, 4-4
terminal function (TTDRV), *I/O Drivers*, 2-20
unmounted channel (communication driver), *I/O Drivers*, 12-5
unmounted volume (DTDRV), *I/O Drivers*, 6-2
Attach mode, *Indirect*, 2-47
Attach Region directive, *Executive*, 5-19
Attribute, *RMS-11 Introduction*, 3-15, 4-3, 5-1 *RMS-11 User's Guide*, 1-2, 1-18 *RMS-11 Utilities*, 2-1
block spanning, *RMS-11 User's Guide*, 1-19
bucket size, *RMS-11 User's Guide*, 1-19
contiguity, *RMS-11 User's Guide*, 1-19
file allocation, *RMS-11 User's Guide*, 1-19

Attribute (cont'd.)
file organization, *RMS-11 User's Guide*, 1-18
file specification, *RMS-11 User's Guide*, 1-18
keys, *RMS-11 User's Guide*, 1-19
MRN, *RMS-11 User's Guide*, 1-19
.NAME directive
DSK, *Task Builder*, 3-28
GBL, *Task Builder*, 3-28
NODSK, *Task Builder*, 3-28
NOGBL, *Task Builder*, 3-28
placement control, *RMS-11 User's Guide*, 1-19
protection, *RMS-11 User's Guide*, 1-18
record format, *RMS-11 User's Guide*, 1-18
record-output handling, *RMS-11 User's Guide*, 1-19
record size, *RMS-11 User's Guide*, 1-18
RMSDES utility, *RMS-11 Utilities*, 2-29
clearing, *RMS-11 Utilities*, 2-6, 2-22, 2-25
individual values, *RMS-11 Utilities*, 2-26
sections, *RMS-11 Utilities*, 2-26
displaying, *RMS-11 Utilities*, 2-15, 2-26
individual values, *RMS-11 Utilities*, 2-26
sections, *RMS-11 Utilities*, 2-27
informational, *RMS-11 Utilities*, 2-1, 2-17, 2-29
resetting, *RMS-11 Utilities*, 2-21
RMS-11, *RMS-11 Utilities*, 2-1, 2-17, 2-29
setting, *RMS-11 Utilities*, 2-13
from a data file, *RMS-11 Utilities*, 2-25
from a description file, *RMS-11 Utilities*, 2-24
individual values, *RMS-11 Utilities*, 2-21
setting sections, *RMS-11 Utilities*, 2-21
RMSDSP utility, *RMS-11 Utilities*, 5-1
Attribute buffer (F11ACP)
address, *I/O Drivers*, C-5
Attribute list (F11ACP), *I/O Drivers*, C-2
Attribute size, *I/O Drivers*, C-4
Attribute type (F11ACP), *I/O Drivers*, C-3
file characteristic, *I/O Drivers*, C-3
file name, *I/O Drivers*, C-3
file owner, *I/O Drivers*, C-3
file protection, *I/O Drivers*, C-3
file type, *I/O Drivers*, C-3
placement control, *I/O Drivers*, C-4
read file header, *I/O Drivers*, C-4
record I/O area, *I/O Drivers*, C-3
revision number, *I/O Drivers*, C-4
statistics block, *I/O Drivers*, C-4
version number, *I/O Drivers*, C-4
Audit trail
See SLP utility
/AU switch
SLP utility, *Utilities*, 13-15
Autobaud detection, *MCR*, 3-202
Autobaud speed detection (TTDRV), *I/O Drivers*, 2-83
Auto-call
enabling for modem (TTDRV), *I/O Drivers*, 2-52
Autoconfigure
definition, *System Generation*, 1-8
description, *System Generation*, 3-6
device suport, *System Generation*, E-1
hardware support, *System Generation*, 3-10
overriding, *System Generation*, 3-9, 3-18
remark, *System Generation*, 3-9
restriction, *System Generation*, 3-7, 3-12
sample output, *System Generation*, 3-7
SYSGEN question, *System Generation*, 3-18
Autodecrement address mode, *MACRO-11*, 5-5
Autodecrement deferred address mode, *MACRO-11*, 5-5
Autodecrement indicator, *MACRO-11*, 3-2
Autoincrement address mode, *MACRO-11*, 5-3
Autoincrement deferred address mode, *MACRO-11*, 5-4

Autoincrement indicator, *MACRO-11*, 3-2
Autoload, *Task Builder*, 4-1
  applying indicator
    cotree root, *Task Builder*, 4-2
    .FCTR label name, *Task Builder*, 4-3
    file name, *Task Builder*, 4-2
    portions of ODL tree, *Task Builder*, 4-2
    program section name, *Task Builder*, 4-3
    segment name, *Task Builder*, 4-3
  code sequence, *Task Builder*, 4-5
    conventional task, *Task Builder*, 4-5
  data segment, *Task Builder*, 4-6
  error handling, *Task Builder*, 4-11
  indicator, *Task Builder*, 4-2
    efficiently placed, *Task Builder*, 4-6
  making program section, *Task Builder*, 4-3
  path load, *Task Builder*, 4-3, 4-4
  specifying, *Task Builder*, 4-1
  vector, *Task Builder*, 4-4, 4-5, B-15, B-16
    eliminating unnecessary, *Task Builder*, 4-6
    format
      conventional task, *Task Builder*, 4-4
      I- and D-space, *Task Builder*, 4-4, 4-5
    I- and D-space, *Task Builder*, 7-8, 7-10
Autoloadable
  file, *Task Builder*, 4-2
Autoloadable library
  internal symbol, *Task Builder*, A-27
AUTOMCALL argument, *MACRO-11*, 8-9
AUTO module, *Task Builder*, 5-54
$$AUTO program section, *Task Builder*, 5-54, 5-55
  reserved name, *Task Builder*, E-2
AUTOT module, *Task Builder*, 5-54
AVERAGE.FTN source code, *Program Development*, 7-3
/AVO keyword
  SET command (MCR), *MCR*, 3-204
/AVO keyword (cont'd.)
  SET command (VMR), *System Management*, 10-54

B

Backing up volume
  See BRU utility
  See DSC utility
Backslash (\)
  ODT, *Program Development*, 5-5
Backslash operator (\)
  See Operator
BACKSPACE key, *Command Language*, 3-14 *Introduction*, 1-6
/BACKUP_SET qualifier
  BRU utility, *Utilities*, 7-13
Backup and Restore Utility
  See BACKUP command
  See BRU utility
BACKUP command, *Command Language*, 5-90 to 5-128, 9-5 to 9-6
  backing up
    Files-11, *Command Language*, 5-90
    foreign volume, *Command Language*, 5-90
  command line, *Command Language*, 5-91
  error messages, *Command Language*, 5-103 to 5-128
  examples, *Command Language*, 5-101 to 5-103
  qualifiers, *Command Language*, 5-91
    disk processing, *Command Language*, 5-100
    display, *Command Language*, 5-99
    initialization, *Command Language*, 5-95 to 5-98
    selective backup and restore, *Command Language*, 5-93 to 5-95
    tape control, *Command Language*, 5-98 to 5-99
    verification, *Command Language*, 5-99
  restoring
    Files-11, *Command Language*, 5-90
    foreign, *Command Language*, 5-90

Backup copy, of generated system, *System Generation*, 4-3
Backup date
RMSRST utility, *RMS-11 Utilities*, 7-8, 7-10
BACKUP key (EDT), *Introduction*, 2-6
Backup switch, *Error Logging*, 2-3, 2-9
Backus-Naur Form metalanguage, *System Management*, 12-6
Bad block, *Command Language*, 5-11, 5-19 to 5-25, 5-74
bad block replacement functions, *System Management*, 5-1
descriptor file, *MCR*, 3-102
detection, *System Management*, 5-1, 5-3
handling
MSCP disks, *System Management*, 5-3
information
DSC utility, *Utilities*, 8-9
initializing, *MCR*, 3-100, 3-102
listing
IOX, *System Management*, 4-26
locating
BAD utility, *Utilities*, 6-1
FMT utility, *Utilities*, 5-1
VFY utility, *Utilities*, 9-7
notification, *System Management*, 5-1, 5-3
processing, *MCR*, 3-100
BAD utility, *Utilities*, 6-3
BRU utility, *Utilities*, 7-24
recovery techniques, *System Management*, 5-1
removing from testing
IOX, *System Management*, 4-25
replacement, *System Management*, 5-1, 5-3 to 5-4
partial, *System Management*, 5-4
revectoring, *System Management*, 5-1, 5-4
specifying
IOX, *System Management*, 4-25
Bad block file header, *I/O Operations*, E-2
Bad Block Locator Utility
See BAD utility
Bad Block Replacement Control Task, *System Management*, 1-2
See also RCT
BADBLOCKS
display command, *System Management*, 4-26
IOX command, *System Management*, 4-25
parameter command, *System Management*, 4-25
Badge Reader hint (TTDRV), *I/O Drivers*, 2-82
/BAD keyword
INITVOLUME command, *MCR*, 3-100
options, *MCR*, 3-100
AUTO, *MCR*, 3-101
MAN, *MCR*, 3-101
NOAUTO, *MCR*, 3-101
OVR, *MCR*, 3-101
/BAD qualifier
BRU utility, *Utilities*, 7-13, 7-24
options, *Utilities*, 7-25
Bad sector, track (disk driver), *I/O Drivers*, 5-12
/BAD switch
DSC utility, *Utilities*, 8-9
FMT utility, *Utilities*, 5-7
BAD utility
bad block descriptor entry, *Utilities*, 6-4
bad block processing, *Utilities*, 6-3
command line, *Utilities*, 6-1
device support, *Utilities*, 6-9
device verifying, *Utilities*, 6-3
error message, *Utilities*, 6-10
indirect command file, *Utilities*, 6-2
INI command, *Utilities*, 6-4
programming consideration, *Utilities*, 6-5
switch, *Utilities*, 6-5
stand-alone, *Utilities*, 6-8
summary, *Utilities*, 6-1
task, *Utilities*, 6-5
Baseline system
definition, *System Generation*, 1-8
description, *System Generation*, 3-12
device configuration, *System Generation*, 3-12
terminal configuration, *System Generation*, 3-13
Base priority for nonprivileged tasks, *System Management*, 13-13
/BASIC qualifier, *Task Builder*, 11-12
BASLIN symbol, *Indirect*, 2-10
/BA switch, *Error Logging*, 2-3, 2-9
DMP utility, *Utilities*, 11-3

Batch job
stopping, *Command Language*, 4-96
Batch log, *Introduction*, 4-6
Batch processing, *Command Language*, 1-21 *Introduction*, 4-1, 4-5 to 4-6 *System Management*, 7-1
Batch processor
initialization, *System Management*, 7-11
DCL command, *System Management*, 7-11
MCR command, *System Management*, 7-11
installation, *System Management*, 7-9, 7-10
SYSGEN question, *System Generation*, 3-27
Batch processor prototype task
See BPR
Batch queue, *System Management*, 7-12
assignment
DCL command, *System Management*, 7-13
MCR command, *System Management*, 7-13
Baud rate
automatic detection of, *MCR*, 3-202
list (TTDRV), *I/O Drivers*, 2-57
receive, *MCR*, 3-254
remote terminal
setting, *MCR*, 3-247
setting, *MCR*, 3-254
split, modem support (TTDRV), *I/O Drivers*, 2-83
transmit, *MCR*, 3-254
valid, *MCR*, 3-254
BC, *System Management*, 12-27
B command, *Debugging*, 2-8, 3-1, 3-2, 9-11
ODT, *Program Development*, 5-6
B condition test argument, *MACRO-11*, 6-52
BCT, *System Management*, 12-28
BDB pool, *RMS-11 Macro*, 2-8
/BD switch
RMSRST utility, *RMS-11 Utilities*, 7-8, 7-10
Beep, *Command Language*, 3-24
BEGIN command
EDI utility, *Program Development*, 2-14 *Utilities*, 2-28
.BEGIN directive, *Indirect*, 2-4, 2-40
Begin-End block, *Indirect*, 2-4
beginning, *Indirect*, 2-40
ending, *Indirect*, 2-51
processing
terminating, *Indirect*, 2-54
BEGIN-END statement, *Error Logging*, 5-36
Bell, *Command Language*, 3-24
B error, *MACRO-11*, 6-37
summary, *MACRO-11*, D-3
BEX symbolic argument, *MACRO-11*, 6-11
/BF switch
SLP utility, *Utilities*, 13-15
Bias value, *Debugging*, 2-3
Trace program, *Debugging*, 10-3
BID field in FAB
offset, *RMS-11 Macro*, 6-22
summary
FB$BID code, *RMS-11 Macro*, 6-26
BID field in RAB
offset, *RMS-11 Macro*, 6-115
summary
RB$BID code, *RMS-11 Macro*, 6-116
BINARY argument, *MACRO-11*, 8-9, 8-11
Binary conversion
binary byte to octal ($CBTMG), *System Library*, 5-9
binary date to decimal ($CDBAT), *System Library*, 5-2
binary to signed decimal ($CBDSG), *System Library*, 5-4
binary to signed octal ($CBOSG), *System Library*, 5-8
binary to unsigned decimal ($CBDMG), *System Library*, 5-3
binary to unsigned octal ($CBOMG), *System Library*, 5-7
double-precision binary to decimal ($CDDMG), *System Library*, 5-5
general purpose binary to ASCII ($CBTA), *System Library*, 5-10
Binary key
See also XB$BN2 mask in DTP field
See also XB$BN4 mask in DTP field
2-byte unsigned, *RMS-11 User's Guide*, 6-5

Binary key (cont'd.)
4-byte unsigned, *RMS-11 User's Guide*, 6-5
Binary operator, *MACRO-11*, 3-5, 3-6
See also Operator, logical
evaluation of multiple, *MACRO-11*, 3-6
precedence with unary, *MACRO-11*, 3-16
Binary output
controlling absolute, *MACRO-11*, 6-19
enabling and disabling, *MACRO-11*, 6-20
Binary output file size switch
See /MEMSIZ switch
Binary prompt (TTDRV), *I/O Drivers*, 2-12, 2-26, 2-41
Binary to ASCII conversion
UIC, *I/O Operations*, 4-8
BIN symbolic argument, *MACRO-11*, 6-11
Bit, *RMS-11 Introduction*, 2-1
Bit Clear
See BC
Bit Clear Test
See BCT
Bit density, *MCR*, 3-147
diskette, *MCR*, 3-102
magnetic tape, *MCR*, 3-102
Bit map
index file, *I/O Operations*, E-2
Bit Set
See B
Bit Set Test
See BST
BKS field in FAB
CREATE operation, *RMS-11 Macro*, 5-17
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-78
RSTS/E, *RMS-11 Macro*, D-3
summary, *RMS-11 Macro*, 6-27
BKT field in RAB, *RMS-11 Macro*, 4-6, 4-12, 4-13
FIND operation, *RMS-11 Macro*, 5-50, 5-52, 5-55
GET operation, *RMS-11 Macro*, 5-61, 5-65, 5-68
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-93, 5-96
BKT field in RAB (cont'd.)
READ operation, *RMS-11 Macro*, 5-98, 5-100
SPACE operation, *RMS-11 Macro*, 5-120
summary, *RMS-11 Macro*, 6-117
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
BKZ field in ALL block
CREATE operation, *RMS-11 Macro*, 5-17
DISPLAY operation, *RMS-11 Macro*, 5-30
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-3, D-4
summary, *RMS-11 Macro*, 6-8
Blank
ignoring in command line, *I/O Operations*, 7-8
Blank disk, *Command Language*, 5-11 to 5-13
Blank line, *MACRO-11*, 2-1
Blank media requirement, *System Generation*, 2-2
BLDLAINIT.CMD, on pregenerated kit, *System Generation*, 5-46
BLK
See BLOCK command
.BLKB directive, *MACRO-11*, 6-38
$BLKC1 routine, *Writing I/O Driver*, 7-10
$BLKC2 routine, *Writing I/O Driver*, 1-16, 7-10
$BLKCK routine, *Writing I/O Driver*, 1-15, 7-10
Blkh parameter
standard function (disk driver), *I/O Drivers*, 5-7
Blkl parameter
standard function (disk driver), *I/O Drivers*, 5-7
/BLKMOD keyword
SET command (MCR), *MCR*, 3-205
SET command (VMR), *System Management*, 10-55
/BLKS keyword
ALLOCATE CHECKPOINT SPACE command, *MCR*, 3-11
.BLKW directive, *MACRO-11*, 6-38
BLN field in ALL block
offset, *RMS-11 Macro*, 6-2

BLN field in ALL block
summary (cont'd.)
XB$LAL code, *RMS-11 Macro*, 6-9
BLN field in DAT block
offset, *RMS-11 Macro*, 6-14
summary
XB$DTL code, *RMS-11 Macro*, 6-15
BLN field in FAB
offset, *RMS-11 Macro*, 6-22
summary
FB$BLN code, *RMS-11 Macro*, 6-28
BLN field in KEY block
offset, *RMS-11 Macro*, 6-67
summary
XB$KYL code, *RMS-11 Macro*, 6-69
BLN field in PRO block
offset, *RMS-11 Macro*, 6-108
summary
XB$PRL code, *RMS-11 Macro*, 6-109
BLN field in RAB
offset, *RMS-11 Macro*, 6-115
summary, *RMS-11 Macro*, 6-118
BLN field in SUM block
offset, *RMS-11 Macro*, 6-145
summary
XB$SML code, *RMS-11 Macro*, 6-146
Block, *RMS-11 Introduction*, 2-3
RMS-11 User's Guide, 1-16
See also Control block
access
initialization, *I/O Operations*, 2-12
READ$ macro, *I/O Operations*, 2-12
WRITE$ macro, *I/O Operations*, 2-12
allocating
VFY utility, *Utilities*, 9-8
boundary, *I/O Operations*, 2-6
buffer
initialize FDB, *I/O Operations*, 2-18
pool space, FSR, *I/O Operations*, 2-39
label, *Task Builder*, 2-8
length (CTDRV), *I/O Drivers*, 9-8
locating
See SPACE operation
Block (cont'd.)
locking, *I/O Operations*, 2-17, 2-46
enable, *I/O Operations*, 2-16
locking (F11ACP), *I/O Drivers*, C-6, C-8
logical, *I/O Operations*, 5-2 *RMS-11 Introduction*, 2-3
magnetic tape
user definable, *RMS-11 Introduction*, 2-4
reading
See READ operation
recovering lost
VFY utility, *Utilities*, 9-7
size
block I/O, *I/O Operations*, 2-12
reset, CLOSE$ macro, *I/O Operations*, 2-19
size (tape driver), *I/O Drivers*, 8-15
nolabel tape, *I/O Drivers*, 8-18
size, magnetic tape
See BLS field in FAB
spanning, *RMS-11 Introduction*, 4-2
RMS-11 User's Guide, 1-16, 1-19, 3-1
variable-length records, *RMS-11 User's Guide*, 2-16
statistics
address, *I/O Operations*, 3-12
tape
override size, *I/O Operations*, 2-18
unlocking, *I/O Operations*, 2-47
verifying
VFY utility, *Utilities*, 9-7
virtual, *I/O Operations*, 5-2 *RMS-11 Introduction*, 2-3
writing
See WRITE operation
BLOCK_SPAN attribute
RMSDES utility, *RMS-11 Utilities*, 2-37
Block access, *RMS-11 Introduction*, 3-11, 3-12, 3-14, 4-7 *RMS-11 User's Guide*, 1-20, 3-6
See also Shared access
remote, *RMS-11 User's Guide*, B-3
sequential, *RMS-11 Introduction*, 3-12
VBN, *RMS-11 Introduction*, 3-12
Block access mode
See also BKT field in RAB

Block access mode (cont'd.)
RMSCNV utility, *RMS-11 Utilities*, 4-1
Block boundary
crossing, record attribute, *I/O Operations*, 3-9
fixed-length record
PUT$ macro, *I/O Operations*, 3-29
FSR block buffer, *I/O Operations*, 3-28
RMSDEF utility, *RMS-11 Utilities*, A-9
variable-length record
PUT$ macro, *I/O Operations*, 3-29
BLOCK command, *MCR*, 1-7, 3-34
examples, *MCR*, 3-34
format, *MCR*, 3-34
keyword
/TERM, *MCR*, 3-34
parameters, *MCR*, 3-34
Block context, *RMS-11 Introduction*, 4-7 *RMS-11 Macro*, 4-12
readable block, *RMS-11 Introduction*, 4-7
writable block, *RMS-11 Introduction*, 4-7
Block-declaration macro, *RMS-11 Macro*, 2-8, 2-9
Blocked record
See FB$BLK mask in RAT field
Block I/O, *I/O Operations*, 2-10
block size, *I/O Operations*, 2-12
buffer, *I/O Operations*, 2-12
completion event flag, *I/O Operations*, 2-13
I/O status block, *I/O Operations*, 2-13
operation, *I/O Operations*, 1-7
operation, FD.RWM parameter, *I/O Operations*, 3-6
request, record attribute, *I/O Operations*, 3-9
Block mode
EDI utility, *Program Development*, 1-3
Block number switch
See /BL switch
BLOCK ON/OFF command
EDI utility, *Utilities*, 2-28
Block operation, *RMS-11 Introduction*, 4-7 *RMS-11 Macro*, 4-14
Block operation macro, *RMS-11 Macro*, 1-2
declaring, *RMS-11 Macro*, C-3
Block processing, *RMS-11 Introduction*, 4-1, 4-7 *RMS-11 Macro*, 4-11
Block size
override, *I/O Operations*, 3-10
Block stream, *RMS-11 Macro*, 4-11
BLS field in FAB
CREATE operation, *RMS-11 Macro*, 5-15
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-79
summary, *RMS-11 Macro*, 6-29
/BL switch, *CDA*, 2-10
CMP utility, *Utilities*, 12-2
DMP utility, *Utilities*, 11-4
DSC utility, *Utilities*, 8-12
FLX utility, *Utilities*, 4-6
PIP utility, *Utilities*, 3-11
RMSCNV utility, *RMS-11 Utilities*, 4-8
$BLXIO routine, *Writing I/O Driver*, 7-11
BOO
See BOOT command
Bootblock, writing, *System Generation*, 4-2
BOOT command, *MCR*, 1-6, 2-8, 3-35
error messages, *MCR*, 3-37
example, *MCR*, 3-37
format, *MCR*, 3-35
parameters, *MCR*, 3-35
/BOOT keyword
SAVE command (VMR), *System Management*, 10-47
Bootstrap
hardware definition, *System Generation*, 1-11
software definition, *System Generation*, 1-13
system, *MCR*, 3-35
mapped, *MCR*, 3-36
unmapped, *MCR*, 3-36
unsaved, *MCR*, 3-36
Bootstrap block, *I/O Operations*, E-1
^B operator, *MACRO-11*, 3-5, 6-32
/BOT keyword
SET command (VMR), *System Management*, 10-55 to 10-56
BOTTOM command
EDI utility, *Utilities*, 2-12, 2-29

BOTTOM key (EDT), *Introduction*, 2-6
BPA field in FAB, *RMS-11 Macro*, 2-7, 3-5
  CLOSE operation, *RMS-11 Macro*, 5-4
  CREATE operation, *RMS-11 Macro*, 5-13
  ENTER operation, *RMS-11 Macro*, 5-36
  ERASE operation, *RMS-11 Macro*, 5-42
  offset, *RMS-11 Macro*, 6-24
  OPEN operation, *RMS-11 Macro*, 5-74
  PARSE operation, *RMS-11 Macro*, 5-87
  REMOVE operation, *RMS-11 Macro*, 5-104
  RENAME operation, *RMS-11 Macro*, 5-110
  SEARCH operation, *RMS-11 Macro*, 5-117
  summary, *RMS-11 Macro*, 6-30
BPI
  See Bit density
BPR, *System Management*, 7-2
BPR.TSK, *System Management*, 7-10
BPS field in FAB, *RMS-11 Macro*, 2-7, 3-5
  CLOSE operation, *RMS-11 Macro*, 5-4
  CREATE operation, *RMS-11 Macro*, 5-13
  ENTER operation, *RMS-11 Macro*, 5-36
  ERASE operation, *RMS-11 Macro*, 5-42
  offset, *RMS-11 Macro*, 6-24
  OPEN operation, *RMS-11 Macro*, 5-74
  PARSE operation, *RMS-11 Macro*, 5-87
  REMOVE operation, *RMS-11 Macro*, 5-104
  RENAME operation, *RMS-11 Macro*, 5-110
  SEARCH operation, *RMS-11 Macro*, 5-117
  summary, *RMS-11 Macro*, 6-31
/BP switch
  RMSDSP utility, *RMS-11 Utilities*, 5-3, 5-4
BPT trap instruction, *Debugging*, 8-5
Branch
  instruction
    address calculation, *MACRO-11*, 5-10
  location, *Debugging*, 2-6, 9-9
  offset, *Debugging*, 4-5, 7-1
    calculating, *Debugging*, 4-5
Breakpoint, *Debugging*, 3-1, 3-3, 8-7, 9-13
  address register, *Debugging*, 2-7, 3-1, 5-4, 9-10
    clearing, *Debugging*, 3-2
  inserting with OPEN, *Debugging*, 8-7
  inserting with ZAP utility, *Debugging*, 8-8
  instruction register, *Debugging*, 2-7, 5-4, 9-10
  proceed count, *Debugging*, 3-4
    register, *Debugging*, 2-7, 5-4, 9-10
  removing, *Debugging*, 2-8, 3-2, 9-11
  setting, *Debugging*, 2-8, 3-1
    in a driver, *Writing I/O Driver*, 6-5
    XDT, *Debugging*, 9-2
  setting in a task, *Program Development*, 5-6
Breakpoint register, *Program Development*, 5-6
BREAKPOINT TO EXECUTIVE DEBUGGING TOOL command, *MCR*, 1-8, 3-38
  error message, *MCR*, 3-38
  example, *MCR*, 3-38
  format, *MCR*, 3-38
Breakthrough write
  half-duplex, *I/O Drivers*, 3-16
  multi-echo (half-duplex), *I/O Drivers*, 3-16
  privileged task (TTDRV), *I/O Drivers*, 2-17
  TTDRV, *I/O Drivers*, 2-16, 2-17, 2-48, 2-49
B register, *Debugging*, 2-7, 5-4, 9-10
Brief format report, *Error Logging*, 3-11
/BRIEF qualifier
  SHOW QUEUE command, *Batch and Queue*, 2-15
BRK command, *Debugging*, 8-7

BRK command (cont'd.)
See also BREAKPOINT TO EXECUTIVE DEBUGGING TOOL command
BRO
See BROADCAST command
BROADCAST command, *Command Language*, 3-32 to 3-35, 9-7
Introduction, 3-8
BROADCAST command (MCR), *MCR*, 1-8, 3-39
and indirect command file, *MCR*, 3-39
error messages, *MCR*, 3-42
examples, *MCR*, 3-41
formats, *MCR*, 3-39
message formats, *MCR*, 3-41
option, *MCR*, 3-40
/BRO keyword
SET command (MCR), *MCR*, 3-205
SET command (VMR), *System Management*, 10-56
/BR switch
PIP utility, *Utilities*, 3-25
QUE /LI command, *Batch and Queue*, 2-15
BRUSYS system, *System Generation*, 2-7
BRU utility, *MCR*, 3-116, 3-188
Utilities, 7-1
See also BACKUP command
bad block processing, *Utilities*, 7-24
command line, *Utilities*, 7-5
parameter, *Utilities*, 7-6
command qualifier
description, *Utilities*, 7-12
function, *Utilities*, 7-11
summary, *Utilities*, 7-8
data transfer, *Utilities*, 7-26
device information, *Utilities*, 7-1
device support, *Utilities*, 7-5
disk initialization, *Utilities*, 7-17
disk initialization values, *System Generation*, 2-11
error message, *Utilities*, 7-34
example, *Utilities*, 7-28
file creation date, *Utilities*, 7-27
file revision date, *Utilities*, 7-27
file treatment, *Utilities*, 7-26
file header, *Utilities*, 7-27
file synonym, *Utilities*, 7-27
lost file, *Utilities*, 7-27
/HEADERS qualifier, *System Generation*, 2-11
BRU utility (cont'd.)
/MAX qualifier, *System Generation*, 2-11
stand-alone, *Utilities*, 7-22
booting, *Utilities*, 7-23
CNF and, *Utilities*, 7-22
locating, *Utilities*, 7-23
system image copying, *Utilities*, 7-26
BS, *System Management*, 12-27
/BS keyword
MOUNT command (MCR), *MCR*, 3-146
/BS switch
FLX utility, *Utilities*, 4-6
PIP utility, *Utilities*, 3-15
BST, *System Management*, 12-28
Bucket, *RMS-11 Introduction*, 4-2
continuation, *RMS-11 User's Guide*, 5-5
fill number, *RMS-11 Introduction*, 4-2
populating indexed files, *RMS-11 User's Guide*, 6-27
fill number, data
See DFL field in KEY block
fill number, honoring
See RB$LOA mask in ROP field
fill number, index
See IFL field in KEY block
high-key value, *RMS-11 User's Guide*, 5-5, 5-6
I/O units, *RMS-11 User's Guide*, 1-16
index, *RMS-11 User's Guide*, 5-6
locking, *RMS-11 Introduction*, 4-3
and shared access, *RMS-11 User's Guide*, 2-7
FIND operation, *RMS-11 User's Guide*, 2-8
GET operation, *RMS-11 User's Guide*, 2-8
relative files, *RMS-11 User's Guide*, 4-1
RMSCNV utility, *RMS-11 Utilities*, 4-10
size
See BKS field in FAB
See BKZ field in ALL block
BUCKET_SIZE attribute
RMSDES utility
area section, *RMS-11 Utilities*, 2-43, 2-45

BUCKET_SIZE attribute
RMSDES utility (cont'd.)
file section, *RMS-11 Utilities*, 2-32
Bucket format
indexed files, *RMS-11 User's Guide*, 5-2
Bucket size, *RMS-11 User's Guide*, 1-19
calculation
alternate indexes, *RMS-11 User's Guide*, 6-19
primary index, *RMS-11 User's Guide*, 6-15
indexed files, *RMS-11 User's Guide*, 6-15
relative files, *RMS-11 User's Guide*, 4-2
RMSDEF utility, *RMS-11 Utilities*, A-15
Bucket splitting, *RMS-11 User's Guide*, 5-11
RRV, *RMS-11 User's Guide*, 5-12
Buf0 parameter
SETIBF: subroutine
K-series, *I/O Drivers*, 23-29
LADRV, *I/O Drivers*, 22-24
Bufadd parameter
device-specific function
receive (LRDRV), *I/O Drivers*, 14-9
Buffer
attribute, address, *I/O Drivers*, C-5
auxilliary characteristic, zero size, *I/O Drivers*, 13-21
cache, *RMS-11 User's Guide*, 4-15
circular
processing (UDDRV), *I/O Drivers*, 16-34
read counter data (ICDRV/ISDRV), *I/O Drivers*, 19-58
read interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-53
terminal input (ICDRV/ISDRV), *I/O Drivers*, 19-62
connect
receive counter data (ICDRV/ISDRV), *I/O Drivers*, 19-56
receive interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-51
Buffer
connect (cont'd.)
terminal interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-60
control (AFC11/AD01 converter), *I/O Drivers*, 15-10
data (AFC11/AD01 converter), *I/O Drivers*, 15-10
diagnostic (XEDRV), *I/O Drivers*, 13-19
disconnect from counter interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-59
disconnect from digital interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-56
display (GRDRV), *I/O Drivers*, 21-4
FSR block
locate mode, *I/O Operations*, 3-23
space allocation, *I/O Operations*, 2-20
full
escape sequence (TTDRV), *I/O Drivers*, 2-74
half-duplex, *I/O Drivers*, 3-26
I/O, *RMS-11 User's Guide*, 1-14
size, *RMS-11 User's Guide*, 2-5
intermediate (TTDRV), *I/O Drivers*, 2-80
item list 1
structure (TTDRV), *I/O Drivers*, 2-30
TTDRV, *I/O Drivers*, 2-30
item list 2
IO.EIO function (TTDRV), *I/O Drivers*, 2-32
structure (TTDRV), *I/O Drivers*, 2-32
load microcode
IO.LOD function LADRV, *I/O Drivers*, 22-29
management
call RLSBUF (LADRV), *I/O Drivers*, 22-33
device queue (LADRV), *I/O Drivers*, 22-32
input sweep (LADRV), *I/O Drivers*, 22-33
K-series, *I/O Drivers*, 23-32
LADRV, *I/O Drivers*, 22-32
LSDRV, *I/O Drivers*, 17-35

Buffer
management (cont'd.)
output sweep (LADRV), *I/O Drivers*, 22-33
overrun (LADRV), *I/O Drivers*, 22-33
task queue (LADRV), *I/O Drivers*, 22-32
maximum size (XEDRV), *I/O Drivers*, 13-21
minimum size (XEDRV), *I/O Drivers*, 13-21
multiple, *I/O Operations*, 2-19
RMS-11 User's Guide, 2-18, 3-15, 4-15
count, *I/O Operations*, 3-10
type, *I/O Operations*, 2-19
output
putting data into (LSDRV), *I/O Drivers*, 17-22
override checkpoint (half-duplex), *I/O Drivers*, 3-30
pointer, adjusting (LSDRV), *I/O Drivers*, 17-13
pool, private (TTDRV), *I/O Drivers*, 2-79
pool space, FSR, *I/O Operations*, 2-39
position, losing (half-duplex), *I/O Drivers*, 3-29
protocol/address pair (XEDRV), *I/O Drivers*, 13-8
read
destination address (XEDRV), *I/O Drivers*, 13-16
Ethernet address (XEDRV), *I/O Drivers*, 13-14
protocol type (XEDRV), *I/O Drivers*, 13-15
read character from terminal (ICDRV/ISDRV), *I/O Drivers*, 19-61
received character (TTDRV), *I/O Drivers*, 2-78
record
See RBF field in RAB
maximum size, *Task Builder*, 12-25
remove from device queue (K-series), *I/O Drivers*, 23-26
set
characteristic (XEDRV), *I/O Drivers*, 13-7
Buffer
set (cont'd.)
destination address (XEDRV), *I/O Drivers*, 13-12
multicast address (XEDRV), *I/O Drivers*, 13-9
protocol type (XEDRV), *I/O Drivers*, 13-12
size, remote line (TTDRV), *I/O Drivers*, 2-83
special user
sample of driver handling, *Writing I/O Driver*, 8-12 to 8-26
specifying number, *I/O Operations*, 2-20
task, checkpointing (TTDRV), *I/O Drivers*, 2-78
task record, *I/O Operations*, 3-23
locate mode, *I/O Operations*, 3-29
PUT$ macro, *I/O Operations*, 3-28
text, *Program Development*, 1-3
type-ahead (TTDRV), *I/O Drivers*, 2-78
user, *RMS-11 User's Guide*, 1-14
See also UBF field in RAB
variable length (half-duplex), *I/O Drivers*, 3-29
width (half-duplex), *I/O Drivers*, 3-29
Buffer boundary, locate mode, *I/O Operations*, 3-24
Buffer count
default, *I/O Operations*, 2-20
multiple, *I/O Operations*, 2-19
Buffer descriptor, task, *I/O Operations*, 3-10
Buffered I/O, *Writing I/O Driver*, 1-14
Buffer flush routine, *I/O Operations*, 4-32
Buffering
big, *I/O Operations*, 1-11
multiple
performance, *I/O Operations*, 1-10
record I/O, *I/O Operations*, 1-10
received character (half-duplex), *I/O Drivers*, 3-30
Buffer pool, *RMS-11 Macro*, 3-5

BUFFERSIZE command
IOX, *System Management*, 4-27
Buffer space
statistics
with PARAMETERLIST, *System Management*, 4-44
/BUFFERS qualifier
BRU utility, *Utilities*, 7-14
/BUF keyword
SET command (MCR), *MCR*, 3-206
SET command (VMR), *System Management*, 10-57
Buf parameter
GLUN$ macro, *I/O Drivers*, 1-21
Bufptr parameter
IO.STA function (LADRV), *I/O Drivers*, 22-30
Bufs parameter
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-5
Bugcheck facility, *CDA*, 1-5
Debugging, 9-4
error code definitions, *CDA*, D-1
BUILD command, *System Management*, 15-7
Build file
modifying
to improve performance, *Task Builder*, F-1, F-5
Building tasks, *RMS-11 User's Guide*, 1-13
See also Task builder
Bus switch, *Writing I/O Driver*, 1-16
Buzz, *Command Language*, 3-24
BYE command, *MCR*, 1-8, 3-43
error message, *MCR*, 3-44
example, *MCR*, 3-44
format, *MCR*, 3-44
keywords, *MCR*, 3-43
/BY switch
DMP utility, *Utilities*, 11-5
Byte, *RMS-11 Introduction*, 2-1
.BYTE directive, *MACRO-11*, 6-23, 6-24
Byte location
displaying, *Debugging*, 4-2, 4-3
opening, *Debugging*, 4-2, 4-3
Byte mode
changing to word mode, *Debugging*, 4-3
operator
ASCII, *Debugging*, 2-7, 9-10
octal, *Debugging*, 2-8, 4-2, 9-11

C

C.DATI (XEDRV)
destination address, *I/O Drivers*, 13-12
multicast address, *I/O Drivers*, 13-10
protocol/address buffer, *I/O Drivers*, 13-9
protocol type, *I/O Drivers*, 13-13
read
destination address, *I/O Drivers*, 13-16
Ethernet address, *I/O Drivers*, 13-15
protocol type, *I/O Drivers*, 13-15
set characteristic buffer, *I/O Drivers*, 13-8
C.DATO (XEDRV)
destination address, *I/O Drivers*, 13-12
multicast address, *I/O Drivers*, 13-10
protocol/address buffer, *I/O Drivers*, 13-9
protocol type, *I/O Drivers*, 13-13
read
Ethernet address, *I/O Drivers*, 13-15
protocol type, *I/O Drivers*, 13-15
set characteristic buffer, *I/O Drivers*, 13-8
C.STAT (XEDRV)
destination address, *I/O Drivers*, 13-12
multicast address, *I/O Drivers*, 13-10
protocol/address buffer, *I/O Drivers*, 13-9
protocol type, *I/O Drivers*, 13-13
read
destination address, *I/O Drivers*, 13-16
Ethernet address, *I/O Drivers*, 13-15
protocol type, *I/O Drivers*, 13-15
set characteristic buffer, *I/O Drivers*, 13-8

C.TYP (XEDRV)
multicast address, *I/O Drivers*, 13-10
protocol/address buffer, *I/O Drivers*, 13-9
protocol type, *I/O Drivers*, 13-13
read
destination address, *I/O Drivers*, 13-16
Ethernet address, *I/O Drivers*, 13-15
protocol type, *I/O Drivers*, 13-15
set characteristic buffer, *I/O Drivers*, 13-8
set destination address, *I/O Drivers*, 13-12
$C5TA (Radix-50 to ASCII), *System Library*, 5-11
Cache, *RMS-11 User's Guide*, 4-15
indexed files, *RMS-11 User's Guide*, 7-9
Cache data
See Data caching
/CACHE keyword
MOUNT command (MCR), *MCR*, 3-146
SET command (MCR), *MCR*, 3-207
Calculating file work space (RMSIFL), *RMS-11 Utilities*, 3-12
Call
operation routine, *RMS-11 Macro*, 2-13
arguments in memory, *RMS-11 Macro*, 2-14
macro argument, *RMS-11 Macro*, 2-13
CALL ABORT, *Executive*, 5-8
CALL ACHN, *Executive*, 5-10
CALL ALTPRI, *Executive*, 5-13
CALL ASNLUN, *Executive*, 5-15
CALL ATRG, *Executive*, 5-19
CALL CANALL, *Executive*, 5-60
CALL CANMT, *Executive*, 5-36
CALL CLREF, *Executive*, 5-31
CALL CNCT, *Executive*, 5-38
CALL CNCTN, *Executive*, 5-38
CALL CPCR, *Executive*, 5-41
CALL CRAW, *Executive*, 5-44
CALL CRELOG, *Executive*, 5-32
CALL CRELON, *Executive*, 5-32
CALL CRGF, *Executive*, 5-48
CALL CRRG, *Executive*, 5-50
CALL CRVT, *Executive*, 5-58
CALL DECLAR, *Executive*, 5-61
CALL DELLOG, *Executive*, 5-62
CALL DELLON, *Executive*, 5-62
CALL DISCKP, *Executive*, 5-66
CALL DSASTR, *Executive*, 5-64
CALL DTRG, *Executive*, 5-67
CALL ELAW, *Executive*, 5-69
CALL ELGF, *Executive*, 5-71
CALL ELVT, *Executive*, 5-73
CALL EMST, *Executive*, 5-75
CALL ENACKP, *Executive*, 5-77
CALL ENASTR, *Executive*, 5-76
CALL EXIT, *Executive*, 5-81
CALL EXITIF, *Executive*, 5-78
CALL EXST, *Executive*, 5-82
CALL EXTTSK, *Executive*, 5-84
CALL FEAT, *Executive*, 5-86
CALL FSSFSS, *Executive*, 5-89
CALL GETCII, *Executive*, 5-96
CALL GETDDS, *Executive*, 5-100
CALL GETLUN, *Executive*, 5-103
CALL GETMCR, *Executive*, 5-106
CALL GETPAR, *Executive*, 5-111
CALL GETREG, *Executive*, 5-113
CALL GETTIM, *Executive*, 5-117
CALL GETTSK, *Executive*, 5-119
CALL GMCX, *Executive*, 5-108
CALL GTCMCI, *Executive*, 5-92
CALL INASTR, *Executive*, 5-64
CALL macro, special purpose (K-series), *I/O Drivers*, 23-31
CALL MAP, *Executive*, 5-122
CALL MARK, *Executive*, 5-125
CALL op code, standard (K-series), *I/O Drivers*, 23-31
CALL PRSFCS, *Executive*, 5-135
CALL PRSRMS, *Executive*, 5-139
CALL PWRUP, *Executive*, 5-210
CALL QIO, *Executive*, 5-143
CALL RCST, *Executive*, 5-149
CALL RCTLOG, *Executive*, 5-159
CALL RCTLON, *Executive*, 5-159
CALL READEF, *Executive*, 5-156, 5-157, 5-158
CALL READSW, *Executive*, 5-115
CALL RECEIV, *Executive*, 5-151
CALL RECOEX, *Executive*, 5-153
CALL REQUES, *Executive*, 5-167
CALL RESUME, *Executive*, 5-176
CALL RMAF, *Executive*, 5-162
CALL RPOI, *Executive*, 5-163
CALL RREF, *Executive*, 5-170
CALL RRST, *Executive*, 5-173

CALL RUN, *Executive*, 5-177
CALLS
  calling macro example (LADRV), *I/O Drivers*, 22-28
  special calling macro (LADRV), *I/O Drivers*, 22-27
CALLS argument, *MACRO-11*, 8-11
CALL SDRC, *Executive*, 5-192
CALL SDRCN, *Executive*, 5-192
CALL SDRP, *Executive*, 5-195
CALL SEND, *Executive*, 5-187
CALL SETCLI, *Executive*, 5-185
CALL SETDDS, *Executive*, 5-189
CALL SETEF, *Executive*, 5-199
CALL SETTIM, *Executive*, 5-235
CALL SMSG, *Executive*, 5-202
CALL SNXC, *Executive*, 5-205
CALL SPAWN, *Executive*, 5-212
CALL SPAWNN, *Executive*, 5-212
CALL SREA, *Executive*, 5-224
CALL SREF, *Executive*, 5-228
CALL SREX, *Executive*, 5-224
CALL STAF, *Executive*, 5-234
CALL START, *Executive*, 5-177
CALL statement, *Error Logging*, 5-33
CALL STLOR, *Executive*, 5-238
CALL STLORS, *Executive*, 5-238
CALL STOP, *Executive*, 5-240
CALL STOPFR, *Executive*, 5-241
CALL SUSPND, *Executive*, 5-209
CALL TFEA, *Executive*, 5-248
CALL TRALOG, *Executive*, 5-250
CALL TRALON, *Executive*, 5-250
CALL ULGF, *Executive*, 5-253
CALL UNMAP, *Executive*, 5-254
CALL USTP, *Executive*, 5-256
CALL VRCD, *Executive*, 5-257
CALL VRCS, *Executive*, 5-259
CALL VRCX, *Executive*, 5-261
CALL VSDA, *Executive*, 5-263
CALL VSRC, *Executive*, 5-265
CALL VSRCN, *Executive*, 5-265
CALL WAIT, *Executive*, 5-125
CALL WAITFR, *Executive*, 5-272
CALL WFLOR, *Executive*, 5-270
CALL WFLORS, *Executive*, 5-270
CALL WFSNE, *Executive*, 5-268
CALL WTQIO, *Executive*, 5-147
CAN
  See CANCEL command
CANCEL command, *Command Language*, 7-23, 9-7
CANCEL command (MCR), *MCR*, 1-7, 3-45, 3-180
  example, *MCR*, 3-46
  format, *MCR*, 3-45
  parameters, *MCR*, 3-45
CANCEL command (VMR), *System Management*, 10-11
  definition, *System Management*, 10-11
  example, *System Management*, 10-11
  format, *System Management*, 10-11
  parameter, *System Management*, 10-11
Cancel CTRL/O (TTDRV), *I/O Drivers*, 2-12
Cancel I/O, *I/O Drivers*, 1-29
  entry point, *Writing I/O Driver*, 4-64, 4-65
  overview, *Writing I/O Driver*, 2-5
  VTDRV, *I/O Drivers*, 4-4
Cancel Mark Time Requests directive, *Executive*, 5-36
Cancel Scheduled Initiation Requests directive, *Executive*, 5-60
CAPS LOCK key, *Command Language*, 3-15
CARD_FORMAT argument, *MACRO-11*, 8-9
Card reader
  format
    sequence number as comment, *MACRO-11*, 6-19
  function code list, *I/O Drivers*, B-7
Card reader (CM/CR11)
  SYSGEN question, *System Generation*, 3-46
Card reader (CRDRV), *I/O Drivers*, 11-1
  check
    pick, *I/O Drivers*, 11-5
    read, *I/O Drivers*, 11-5
    recovery, *I/O Drivers*, 11-4
    stack, *I/O Drivers*, 11-6
  console message, *I/O Drivers*, 11-4
  control character, *I/O Drivers*, 11-8, 11-9
  format
    alphameric, *I/O Drivers*, 11-9
    binary, *I/O Drivers*, 11-9
    data, *I/O Drivers*, 11-9
  function, *I/O Drivers*, 11-8
  indicator, *I/O Drivers*, 11-5

Card reader (CRDRV) (cont'd.)
input card limitation, *I/O Drivers*, 11-9
input error, *I/O Drivers*, 11-3
programming hint, *I/O Drivers*, 11-9
ready, *I/O Drivers*, 11-4
switch, *I/O Drivers*, 11-5
power, *I/O Drivers*, 11-5
reset, *I/O Drivers*, 11-6
stop, *I/O Drivers*, 11-6
Card Reader Spooling Transaction Block, *System Management*, 17-31
CARRIAGE_CONTROL attribute
RMSDES utility, *RMS-11 Utilities*, 2-37
RMSDEF utility, *RMS-11 Utilities*, A-9
Carriage-control, *I/O Operations*, 2-6, 2-7
See also RAT field in FAB
record attribute, *I/O Operations*, 3-8
word, record attribute, *I/O Operations*, 3-9
Carriage-control device
See FB$CCL mask in DEV field
Carriage return
automatic
half-duplex, *I/O Drivers*, 3-29, 3-31
TTDRV, *I/O Drivers*, 2-76
CTRL/R (TTDRV), *I/O Drivers*, 2-70
TTDRV, *I/O Drivers*, 2-69
Carriage-return carriage control
See FB$CR mask in RAT field
CASE_MATCH argument, *MACRO-11*, 8-9
Case control, *MACRO-11*, 6-19
Case conversion (half-duplex), *I/O Drivers*, 3-15
CASE statement, *Error Logging*, 5-34
Cassette, *RMS-11 Macro*, 3-2, 5-20, 5-37, 5-43, 5-77, 5-88, 5-104, 5-111, 5-118
capacity (CTDRV), *I/O Drivers*, 9-1
function code list, *I/O Drivers*, B-7
/CA switch
RMSCNV utility, *RMS-11 Utilities*, 4-8
$CAT5 (ASCII to Radix-50), *System Library*, 4-6
$CAT5B (ASCII with blanks to Radix-50), *System Library*, 4-8
Catchall task, *Indirect*, 2-2
CBD
See Common Block Directory
See COMMON BLOCK DIRECTORY command
$CBDAT (Binary date to decimal), *System Library*, 5-2
$CBDMG (Binary to unsigned decimal), *System Library*, 5-3
$CBDSG (Binary to signed decimal), *System Library*, 5-4
CBM, *System Management*, 12-29
$CBOMG (Binary to unsigned octal), *System Library*, 5-7
$CBOSG (Binary to signed octal), *System Library*, 5-8
Cb parameter
device-specific function
tape driver, *I/O Drivers*, 8-8
VTDRV, *I/O Drivers*, 4-3
IO.STC function (VTDRV), *I/O Drivers*, 4-5
/CB switch
CMP utility, *Utilities*, 12-2
$CBTA (General purpose binary to ASCII), *System Library*, 5-10
$CBTMG (Binary byte to octal), *System Library*, 5-9
CC command
EDI utility, *Utilities*, 2-30
/CC keyword
MOUNT command (MCR), *MCR*, 3-147
CCML$ macro, *I/O Operations*, 6-12
/CC switch, *Task Builder*, 10-7
CDA, *Error Logging*, 1-1
analysis listing, *CDA*, 1-1, 1-6, 1-8, 3-1 to 3-57
command line, *CDA*, 2-1 to 2-13
binary file, *CDA*, 2-2
crash input file, *CDA*, 2-3
default, *CDA*, 2-12
format, *CDA*, 2-1
in indirect command file, *CDA*, 1-8
list file, *CDA*, 2-1
symbol file, *CDA*, 2-2
function, *CDA*, 1-1
generating, *CDA*, 1-1
input to, *CDA*, 1-1, 1-3
messages, *CDA*, A-1

CDA (cont'd.)
running, *CDA*, 1-7
as installed task, *CDA*, 1-7
as uninstalled task, *CDA*, 1-8
switches, *CDA*, 2-3 to 2-13
system requirements, *CDA*, 1-1
CD command
EDI utility, *Utilities*, 2-30
$CDDMG (Double-precision binary to decimal), *System Library*, 5-5
CDR symbolic argument, *MACRO-11*, 6-19
/CD switch
PIP utility, *Utilities*, 3-16
RMSBCK utility, *RMS-11 Utilities*, 6-8, 6-9
$CDTB (Decimal to binary), *System Library*, 4-4
CDT field in DAT block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-14
OPEN operation, *RMS-11 Macro*, 5-81
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-16
CE.ACN address protocol/pair (XEDRV), *I/O Drivers*, 13-9
CE.IUM address protocol/pair (XEDRV), *I/O Drivers*, 13-9
CE.MCE multicast error (XEDRV), *I/O Drivers*, 13-10
CE.NMA multicast error (XEDRV), *I/O Drivers*, 13-10
CE.PCN protocol usage conflict (XEDRV), *I/O Drivers*, 13-9
CE.RES error code (XEDRV), *I/O Drivers*, 13-8
CE.RTL error code (XEDRV), *I/O Drivers*, 13-8
CE.RTS error code (XEDRV), *I/O Drivers*, 13-8
Cell, *RMS-11 Introduction*, 3-5
relative files, *RMS-11 User's Guide*, 4-1
sequential files, *RMS-11 User's Guide*, 3-2
Central buffer pool, *RMS-11 Macro*, 3-5
Central Processing Unit
See CPU
CEX, *System Generation*, 5-47
CFL, *Error Logging*, 1-1, 1-3, 1-5, 5-1
CFL
declaration
conditional, *Error Logging*, 5-29, 5-30
data item, *Error Logging*, 5-26
definition, *Error Logging*, 5-3
scope, *Error Logging*, 5-26
variable, *Error Logging*, 5-26
definition, *Error Logging*, 4-2, 5-2
expression
conditionals in, *Error Logging*, 5-2
list handling, *Error Logging*, 5-39
intermediate form modules, *Error Logging*, 5-1
lexical conditionals, *Error Logging*, 5-36
signalling, *Error Logging*, 5-40
spaces and tabs in text, *Error Logging*, 5-2
statement
ACTION, *Error Logging*, 5-30
BEGIN-END, *Error Logging*, 5-36
CALL, *Error Logging*, 5-33
CASE, *Error Logging*, 5-34
CONTROL, *Error Logging*, 5-32
CRASH, *Error Logging*, 5-41
DECLARE, *Error Logging*, 5-27
DECODE, *Error Logging*, 5-32
DECREMENT, *Error Logging*, 5-31
DYNAMIC TABLE, *Error Logging*, 5-37
ENABLE, *Error Logging*, 5-40
FILE, *Error Logging*, 5-37, 5-38
FIND, *Error Logging*, 5-39
IF-THEN-ELSE, *Error Logging*, 5-34
INCREMENT, *Error Logging*, 5-31
LEAVE, *Error Logging*, 5-35
LIST, *Error Logging*, 5-39
LITERAL, *Error Logging*, 5-33
MESSAGE, *Error Logging*, 5-41
MODULE, *Error Logging*, 5-32
PACKET, *Error Logging*, 5-28
POINTER, *Error Logging*, 5-38, 5-39
PRINT FORMATTING, *Error Logging*, 5-41
PROCEDURE, *Error Logging*, 5-33, 5-34

CFL
statement (cont'd.)
PUT, *Error Logging*, 5-39
RETURN, *Error Logging*, 5-33
SEARCH, *Error Logging*, 5-40
SELECT, *Error Logging*, 5-34, 5-35
SET, *Error Logging*, 5-31
SIGNAL, *Error Logging*, 5-40, 5-41
SIGNAL STOP, *Error Logging*, 5-41
SUBPACKET, *Error Logging*, 5-29
TABLE, *Error Logging*, 5-37
WHILE/UNTIL/DO, *Error Logging*, 5-35
WRITE, *Error Logging*, 5-31
WRITE GROUP, *Error Logging*, 5-31
table structure, *Error Logging*, 5-36
user interface
command mode, *Error Logging*, 5-43
option mode, *Error Logging*, 5-43
CFL command line
DEVSM1, *Error Logging*, 4-36
CFL command mode, *Error Logging*, 5-43
CFL comments, *Error Logging*, 5-3
CFL data type
ASCII, *Error Logging*, 5-5
automatic conversion, *Error Logging*, 5-4
binary byte, *Error Logging*, 5-4
bit, *Error Logging*, 5-4, 5-7
expression, *Error Logging*, 5-4
logical, *Error Logging*, 5-4
numeric, *Error Logging*, 5-5
attribute option, *Error Logging*, 5-5
byte, *Error Logging*, 5-5
default, *Error Logging*, 5-5
longword, *Error Logging*, 5-5
quadword, *Error Logging*, 5-5
radix option, *Error Logging*, 5-5
value, *Error Logging*, 5-5
word, *Error Logging*, 5-5
numeric field, *Error Logging*, 5-7
numeric literal, *Error Logging*, 5-6
pointer, *Error Logging*, 5-7
RSXTIME, *Error Logging*, 5-7
string, *Error Logging*, 5-4
CFL data type
string (cont'd.)
numeric value, *Error Logging*, 5-4
VMSTIME, *Error Logging*, 5-7
CFL expression, *Error Logging*, 5-9
definition, *Error Logging*, 5-3
logical operators, *Error Logging*, 5-10
numeric operators, *Error Logging*, 5-13, 5-14, 5-15
relational operators, *Error Logging*, 5-11 to 5-13
string operators, *Error Logging*, 5-9
CFL file
command, *Error Logging*, 5-3
error, *Error Logging*, 5-4
input, *Error Logging*, 5-3
report, *Error Logging*, 5-3
user, *Error Logging*, 5-3
CFL function
%CND, *Error Logging*, 5-17
%CNV, *Error Logging*, 5-17, 5-18
%CNV$RSXTIME, *Error Logging*, 5-19
%CNV$STRING, *Error Logging*, 5-19
%CNV$VMSTIME, *Error Logging*, 5-19
%COD, *Error Logging*, 5-19
%COM, *Error Logging*, 5-20
%CTL, *Error Logging*, 5-21
format, *Error Logging*, 5-16
%LOK, *Error Logging*, 5-21
%PKT, *Error Logging*, 5-22
%RPT, *Error Logging*, 5-22
%STR, *Error Logging*, 5-23, 5-24
%TIM, *Error Logging*, 5-25
%USR, *Error Logging*, 5-25
CFL literals, *Error Logging*, 5-9
CFL named variable, *Error Logging*, 5-8
CONTEXT, *Error Logging*, 5-8
COUNT, *Error Logging*, 5-9
LENGTH, *Error Logging*, 5-8
POINTER, *Error Logging*, 5-8
CFL operands
literals, *Error Logging*, 5-9
variables, *Error Logging*, 5-9
CFL operator precedence, *Error Logging*, 5-15
CFL option mode, *Error Logging*, 5-43
CFL primitives, *Error Logging*, 5-1
CFL statement

CFL statement (cont'd.)
definition, *Error Logging*, 5-3
$CFORK, *Writing I/O Driver*, 1-17
.CHAIN directive, *Indirect*, 2-41
Changeable key, *RMS-11 Introduction*, 3-10 *RMS-11 User's Guide*, 6-9
See XB$CHG mask in FLG field
CHANGE command
EDI utility, *Program Development*, 2-16, 7-5 *Utilities*, 2-12, 2-29
EDT editor, *Introduction*, 2-5
Change mode (EDT)
See character mode
CHANGES attribute
RMSDES utility, *RMS-11 Utilities*, 2-40
Channel
assignment (ICDRV/ISDRV), *I/O Drivers*, 19-6
definition
multi-access (XEDRV), *I/O Drivers*, 13-23
ICDRV/ISDRV, *I/O Drivers*, 19-7
identical number (AFC11), *I/O Drivers*, 15-10
read A/D (ICDRV/ISDRV), *I/O Drivers*, 19-13
set information (K-series), *I/O Drivers*, 23-28
Character, *Debugging*, 2-4
control
CRDRV, *I/O Drivers*, 11-8, 11-9
half-duplex, *I/O Drivers*, 3-21, 3-26
TTDRV, *I/O Drivers*, 2-68
conversion to 16-bit value, *MACRO-11*, 6-25
delimiting, *MACRO-11*, 3-3
echo
half-duplex, *I/O Drivers*, 3-14
IO.RAL function (half-duplex), *I/O Drivers*, 3-14
generating printable, *MACRO-11*, 6-26, 6-27, 6-28
illegal, *MACRO-11*, 3-3
legal label, *MACRO-11*, 2-3
padding (tape driver), *I/O Drivers*, 8-18
pass-through, *MCR*, 3-241, 3-250
receive buffer (TTDRV), *I/O Drivers*, 2-78
separating, *MACRO-11*, 3-3
special, *MACRO-11*, 3-1, 3-2, 3-3
Character (cont'd.)
string packing, *MACRO-11*, 6-29, 6-30
translation, *MCR*, 3-8 to 3-10, 3-152
unprocessed (TTDRV), *I/O Drivers*, 2-58
unsolicited
input (half-duplex), *I/O Drivers*, 3-34
programming use (half-duplex), *I/O Drivers*, 3-11
stack operation (half-duplex), *I/O Drivers*, 3-11
wildcard, *MCR*, 2-7
Characteristic
buffer
XEDRV, *I/O Drivers*, 13-7
zero size, *I/O Drivers*, 13-21
clearing on remote (TTDRV), *I/O Drivers*, 2-83
multiple (VTDRV), *I/O Drivers*, 4-6
name
SF.GMC function (half-duplex), *I/O Drivers*, 3-11
SF.SMC function (half-duplex), *I/O Drivers*, 3-16
obtaining (tape driver), *I/O Drivers*, 8-8
physical (disk driver), *I/O Drivers*, 5-2
resetting, importance of (tape driver), *I/O Drivers*, 8-15
return (half-duplex), *I/O Drivers*, 3-11
set
Ethernet, *I/O Drivers*, 13-7
multiple (TTDRV), *I/O Drivers*, 2-59
protocol/address (XEDRV), *I/O Drivers*, 13-8
tape driver, *I/O Drivers*, 8-10
terminal (VTDRV), *I/O Drivers*, 4-7
XEDRV multicast address, *I/O Drivers*, 13-9
setting, side-effect
half-duplex, *I/O Drivers*, 3-33
TTDRV, *I/O Drivers*, 2-62
table
terminal (half-duplex), *I/O Drivers*, 3-12
VTDRV, *I/O Drivers*, 4-7

Characteristic
terminal
get multiple (TTDRV), *I/O Drivers*, 2-18, 2-51
set multiple (TTDRV), *I/O Drivers*, 2-18
terminal-dependent (half-duplex), *I/O Drivers*, 3-5
word (half-duplex), *I/O Drivers*, 3-4
Character mode (EDT), *Introduction*, 2-3 to 2-5
Character-oriented interface (communication driver), *I/O Drivers*, 12-1
Character set
ASCII, *MACRO-11*, A-1, A-2, A-3
legal, *MACRO-11*, 3-1, 3-2, 3-3
Radix-50, *MACRO-11*, A-4, A-5
Character translation
SYSGEN question, *System Generation*, 3-30
CHAR key (EDT), *Introduction*, 2-6
Checkpoint
area
task image, *Task Builder*, B-9
dynamic common regions, *System Management*, 14-2
file, *MCR*, 3-11
primary, *MCR*, 3-12
size, *MCR*, 3-12
space
allocating, *MCR*, 3-11, 3-117, 3-119, 3-182 *Task Builder*, 10-6, 10-10, 11-13 to 11-14
static common regions, *System Management*, 14-2
task, *MCR*, 2-20, 3-11, 3-31, 3-182 *System Management*, 14-2
Checkpointable task
fixing, *System Management*, 10-18
Checkpoint Common Region directive, *Executive*, 5-41
Checkpoint file header, *I/O Operations*, E-2
Checkpointing, *Introduction*, 6-6 *System Generation*, C-1 *System Management*, 10-22, 10-28
buffer override (half-duplex), *I/O Drivers*, 3-30
common, *System Management*, 10-28
during prompt (TTDRV), *I/O Drivers*, 2-14, 2-27, 2-40
Checkpointing (cont'd.)
during read (TTDRV), *I/O Drivers*, 2-27
dynamic space allocation, *System Generation*, C-6
task
half-duplex, *I/O Drivers*, 3-14
VTDRV, *I/O Drivers*, 4-5
task buffer (TTDRV), *I/O Drivers*, 2-78
terminal input
half-duplex, *I/O Drivers*, 3-32, 3-35
TTDRV, *I/O Drivers*, 2-82
/CHECKPOINT qualifier, *Task Builder*, 11-13 to 11-14
Check recovery (CRDRV), *I/O Drivers*, 11-4
Checksum
calculating
SLP utility, *Utilities*, 13-3
file content validating
PAT utility, *Utilities*, 14-6
Checksum value, *I/O Operations*, 5-4
Chna parameter
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-6
Chnd parameter
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-6
Chn parameter (ICDRV/ISDRV), *I/O Drivers*, 19-9
IO.SAO function, *I/O Drivers*, 19-16
CINT$, *Executive*, 5-21 *Writing I/O Driver*, 1-1
Circumflex (^)
cross-reference listing, *Task Builder*, 10-12, 10-13, 11-23, 11-24
global cross-reference
of an overlaid task, *Task Builder*, 4-13
Circumflex command (^), *Debugging*, 2-5, 4-2, 4-4, 9-9
CIS
See Commercial Instruction Set
$CKBFB routine, *Writing I/O Driver*, 7-12
$CKBFI routine, *Writing I/O Driver*, 7-12
$CKBFR routine, *Writing I/O Driver*, 7-12
$CKBFW routine, *Writing I/O Driver*, 7-12

Ckcsr parameter
IO.CLK function (LADRV), *I/O Drivers*, 22-29
/CKP keyword
INSTALL command (MCR), *MCR*, 3-117
INSTALL command (VMR), *System Management*, 10-22
RUN command (MCR), *MCR*, 3-182
CL:, *MCR*, 2-10, 2-11
CL: pseudo device, *Command Language*, 5-6, 5-7
CL command
EDI utility, *Utilities*, 2-29
CLEAR command, *System Management*, 15-8
RMSDES utility, *RMS-11 Utilities*, 2-6, 2-18, 2-25, 2-26
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
defining areas by default, *RMS-11 Utilities*, 2-44
in indirect command file, *RMS-11 Utilities*, 2-4
with CREATE, *RMS-11 Utilities*, 2-8, 2-28
with SAVE, *RMS-11 Utilities*, 2-27
Clear Event Flag directive, *Executive*, 5-31
Clearing attributes (RMSDES)
See Attribute, clearing
Clear OOB (TTDRV), *I/O Drivers*, 2-61
CLEF$ directive, *Executive*, 5-31
/CLE keyword SWITCH REGISTER, *MCR*, 3-274
CLI, *Command Language*, 1-1 *Introduction*, 1-4 *System Management*, 1-3, 10-23, 11-1, 11-3
See also COMMAND LINE INTERPRETER command
See also DCL
See also MCR
adding to account entry, *System Management*, 2-3
alternate
SYSGEN question, *System Generation*, 3-28
changing, *System Management*, 2-7
commands, *MCR*, 1-8
CLI (cont'd.)
continuation lines, *System Management*, 11-8
data structures, *MCR*, 3-48
DCL, *MCR*, 3-56 *Program Development*, 1-1 to 1-3
default, *MCR*, 3-79
definition, *Batch and Queue*, 4-2
disabling, *MCR*, 3-49
displaying, *System Management*, 2-5, 2-8
eliminating, *MCR*, 3-48
examples, *System Management*, 11-10, 11-15
FORTRAN, *System Management*, 11-15 to 11-19
MACRO-11, *System Management*, 11-10 to 11-14
Executive directives, *System Management*, 11-3
getting information, *Executive*, 5-96
in account entry, *System Management*, 2-1
interaction with system, *System Management*, 11-3
login, *MCR*, 3-79
MCR, *Program Development*, 1-1 to 1-3 *System Management*, 2-3, 11-2
mode, *Indirect*, 2-48
multi-CLI support, *System Management*, 2-1, 2-3, 2-7
prompting, *System Management*, 11-7, 11-8
prompts
CTRL/C, *System Management*, 11-7
task-exit, *System Management*, 11-8
prompt string, *MCR*, 3-49
receiving system message, *Executive*, 5-92
retrieving command buffer, *Executive*, 5-92
serial command processing, *System Management*, 11-8
setting up, *Executive*, 5-185
spawning, *Executive*, 4-5
specifying ASTs, *Executive*, 5-182
symbol, *Indirect*, 2-18
system messages to, *System Management*, 11-5

CLI (cont'd.)
task, *MCR*, 3-49 *System Management*, 10-23
task names, *System Management*, 11-4
writing, *System Management*, 11-2, 11-3
CLI dispatcher task, *System Management*, 12-5
/CLI keyword
HELP command, *MCR*, 3-87
INSTALL command (MCR), *MCR*, 3-117
INSTALL command (VMR), *System Management*, 10-23
SET command (MCR), *MCR*, 3-209
$CLINS routine, *Writing I/O Driver*, 7-13
CLI parser block dump, *CDA*, 3-31
/CLI switch, *CDA*, 2-4, 2-6
Indirect, *Indirect*, 2-4, 2-27
CLKDF$, *CDA*, B-4, C-12 *Writing I/O Driver*, A-11
Clock
interrupt, *MCR*, 3-180
system
SYSGEN question, *System Generation*, 3-33
Clock, compute rate and preset (K-series), *I/O Drivers*, 23-30
CLOCKA: subroutine
set clock A rate
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-7
Clock B, control (K-series), *I/O Drivers*, 23-12
CLOCKB: subroutine
control clock B
K-series, *I/O Drivers*, 23-12
LADRV, *I/O Drivers*, 22-7
Clock queue, *Command Language*, 7-13 to 7-16, 7-23, 9-36 *MCR*, 2-11
control block
offset definitions, *Writing I/O Driver*, A-11
deleting entry, *Command Language*, 7-23
displaying, *Command Language*, 7-73 *MCR*, 3-55
dump, *CDA*, 3-50
switch
See /CLQ switch
CLOCK QUEUE command, *MCR*, 1-7, 3-55
example, *MCR*, 3-55
format, *MCR*, 3-55
Clock start command (LADRV), *I/O Drivers*, 22-29
CLOG$ directive, *Executive*, 5-32
CLON$ directive, *Executive*, 5-32
Close
line (XEDRV), *I/O Drivers*, 13-17
relay (LSDRV), *I/O Drivers*, 17-4
CLOSE$ example, *I/O Operations*, 5-9
CLOSE$ macro, *I/O Operations*, 3-1
block size reset, *I/O Operations*, 2-19
file processing, *I/O Operations*, 3-20
file processing completion, *I/O Operations*, 2-8
format, file processing, *I/O Operations*, 3-20
CLOSE & DELETE command
EDI utility, *Utilities*, 2-30
CLOSE command
EDI utility, *Utilities*, 2-27, 2-29
.CLOSE directive, *Indirect*, 2-42
$CLOSE macro, *RMS-11 Macro*, 5-3
CLOSE operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-8 *RMS-11 User's Guide*, 1-18
BDB requirement, *RMS-11 Macro*, 2-8
$CLOSE macro, *RMS-11 Macro*, 5-3
I/O buffer requirement, *RMS-11 Macro*, 2-7
wildcard loop, *RMS-11 Macro*, 3-10
CLOSES command
See CLOSE SECONDARY command
CLOSE SECONDARY command
EDI utility, *Utilities*, 2-30
CLQ
See CLOCK QUEUE command
/CLQ switch, *CDA*, 2-4, 2-6
CLSTR option, *Task Builder*, 12-9, 12-10
CLUSTER_SIZE attribute
RMSDES utility, *RMS-11 Utilities*, 2-31
Cluster library, *Task Builder*, 5-44
See also Library
Cluster size
See RTV field in FAB

CM/CR11 card reader
SYSGEN question, *System Generation*, 3-46
$C macro form, *Executive*, 1-6
processing errors, *Executive*, 1-7
/CMD keyword
RUN command (MCR), *MCR*, 3-182
CMKT$ directive, *Executive*, 5-36
$CMPAL
completion routine, *Task Builder*, 8-8
$CMPCS
completion routine, *Task Builder*, 8-8, 8-12, 8-13, 8-14
CMPCS module, *Task Builder*, 8-8, 8-12, 8-13
CMPRT option, *Task Builder*, 8-4, 8-8, 12-11
supervisor mode library, *Task Builder*, 8-8
use in CSM library, *Task Builder*, 8-8
/CMP switch
DSC utility, *Utilities*, 8-14
CMP utility
command line, *Utilities*, 12-1
error message, *Utilities*, 12-6
output file format, *Utilities*, 12-4
switch, *Utilities*, 12-2
default, *Utilities*, 12-4
/CM switch, *Task Builder*, 10-8
SLP utility, *Utilities*, 13-15
CNCT$ directive, *Executive*, 5-38
%CND function, *Error Logging*, 5-17
CND symbolic argument, *MACRO-11*, 6-12
CNF, *System Generation*, 2-7
DSC64K.SYS and
See DSC utility
stand-alone BRU and
See BRU utility
switches, *System Generation*, 2-8
.CNF module, *Error Logging*, 4-1
Cn parameter (ICDRV/ISDRV), *I/O Drivers*, 19-9
IO.LTI function, *I/O Drivers*, 19-26
%CNV$RSXTIME, *Error Logging*, 5-19
%CNV$STRING, *Error Logging*, 5-19
%CNV$VMSTIME, *Error Logging*, 5-19
%CNV function, *Error Logging*, 5-17, 5-18
CO:, *Command Language*, 5-6, 5-7
MCR, 2-11, 3-188 *System Management*, 3-1
as pseudo device, *System Management*, 3-1
attaching, *System Management*, 3-3
detaching, *System Management*, 3-3
monitoring status, *System Management*, 3-6
reading from, *System Management*, 3-3
redirecting, *System Management*, 3-7
COBOL carriage control, *I/O Operations*, 2-6
COBOL command, *Introduction*, 5-10
%COD, *Error Logging*, 5-19
/CODE[:DATA_SPACE] qualifier, *Task Builder*, 11-15
/CODE[:EAE] qualifier, *Task Builder*, 11-16
/CODE[:FPP] qualifier, *Task Builder*, 11-17
/CODE[:PIC] qualifier, *Task Builder*, 11-18
use in region, *Task Builder*, 5-3 to 5-6
/CODE[:POSITION_INDEPENDENT] qualifier, *Task Builder*, 11-19
Code and mask symbol
declaring
ALL block, *RMS-11 Macro*, C-3, C-4
DAT block, *RMS-11 Macro*, C-3, C-4
FAB, *RMS-11 Macro*, C-1
KEY block, *RMS-11 Macro*, C-3, C-4
NAM block, *RMS-11 Macro*, C-2
PRO block, *RMS-11 Macro*, C-3, C-4
RAB, *RMS-11 Macro*, C-2
SUM block, *RMS-11 Macro*, C-3, C-4
XAB, *RMS-11 Macro*, C-4
value
ALL block, *RMS-11 Macro*, 6-2
DAT block, *RMS-11 Macro*, 6-14
FAB, *RMS-11 Macro*, 6-22
KEY block, *RMS-11 Macro*, 6-67

Code and mask symbol
value (cont'd.)
NAM block, *RMS-11 Macro*, 6-94
PRO block, *RMS-11 Macro*, 6-108
RAB, *RMS-11 Macro*, 6-115
SUM block, *RMS-11 Macro*, 6-145
Code sharing, *MACRO-11*, 6-45
Code symbol
See Code and mask symbol
COD field in ALL block
offset, *RMS-11 Macro*, 6-2
summary
XB$ALL code, *RMS-11 Macro*, 6-10
COD field in DAT block
offset, *RMS-11 Macro*, 6-14
summary
XB$DAT code, *RMS-11 Macro*, 6-17
COD field in KEY block
offset, *RMS-11 Macro*, 6-67
summary
XB$KEY code, *RMS-11 Macro*, 6-70
COD field in PRO block
offset, *RMS-11 Macro*, 6-108
summary
XB$PRO code, *RMS-11 Macro*, 6-110
COD field in SUM block
offset, *RMS-11 Macro*, 6-145
summary
XB$SUM code, *RMS-11 Macro*, 6-147
Coding standard, *MACRO-11*, E-1 to E-16
Coding TPARS, *I/O Operations*, 7-1
CODRV, *System Management*, 3-1
Colon (:), *Command Language*, 1-14
%COM, *Error Logging*, 5-20
Command, *Introduction*, 1-1
See also individual command entries
See also RMSDES
at sign (@), *Debugging*, 2-5, 4-4, 9-9
B, *Debugging*, 2-8, 9-11
circumflex (^), *Debugging*, 2-5, 4-2, 4-4, 9-9
command line interpreter, *MCR*, 1-8
D, *Debugging*, 2-8, 9-12
Command (cont'd.)
description
format, *MCR*, 3-1
name, *MCR*, 3-2
E, *Debugging*, 2-9, 6-2
equal sign (=), *Debugging*, 2-8, 7-2, 9-11
F, *Debugging*, 2-9, 6-4
G, *Debugging*, 2-9, 8-6, 9-12
I, *Debugging*, 2-9, 9-12
informational, *MCR*, 1-7
initialization, *MCR*, 1-6
K, *Debugging*, 2-9, 9-12
L, *Debugging*, 2-10, 6-4, 9-13
left-angle bracket (<), *Debugging*, 2-6, 9-9
Line feed, *Debugging*, 2-5, 4-3, 9-8
multiuser protection, *MCR*, 1-8
N, *Debugging*, 2-10, 6-2
O, *Debugging*, 2-10, 7-1, 9-13
P, *Debugging*, 2-10, 8-7, 9-13
privileged, *MCR*, 2-19
privilege status, *MCR*, 3-2
R, *Debugging*, 2-11, 9-13
Return, *Debugging*, 2-5, 4-2, 9-8
right-angle bracket (>), *Debugging*, 2-6, 9-9
RMSDES utility, *RMS-11 Utilities*, 2-1, 2-4
S, *Debugging*, 2-11, 9-1, 9-14
summary, *Batch and Queue*, 4-1
summary of MCR, *MCR*, 1-5 to 1-8
system maintenance, *MCR*, 1-8
task control, *MCR*, 1-7
U, *Debugging*, 2-11
underscore (_), *Debugging*, 2-5, 4-4, 9-9
V, *Debugging*, 2-11
W, *Debugging*, 2-11, 6-2
X
ODT, *Debugging*, 1-4, 2-12
XDT, *Debugging*, 9-1, 9-14
Z, *Debugging*, 2-12
Command file, *Command Language*, 6-6
close, *I/O Operations*, 6-12
comment, *Task Builder*, 1-14
indirect, *Task Builder*, 1-11, 3-30
See also Indirect command file
interaction with indirect, *Task Builder*, 1-12, 1-13
level of indirection, *Task Builder*, 1-13
option, *Task Builder*, 1-14

Command file (cont'd.)
reset scan macro, *I/O Operations*, 6-12
with ODL, *Task Builder*, 3-30
Command format
MAC task, *MACRO-11*, 8-4 to 8-7
COMMAND key (EDT), *Introduction*, 2-8, 2-16
Command Language Interpreter
See CLI
Command library, *Indirect*, 2-28
default file type, *Indirect*, 2-28
DIGITAL-supplied, *Indirect*, 2-29
Command line, *MCR*, 1-1 to 1-2
comments, *MCR*, 1-4
compressing, *MCR*, 1-2
continuing, *MCR*, 1-2, 2-4
file specifications
VMR, *System Management*, 10-5
format, *MCR*, 3-2 *Task Builder*, 1-2 *Utilities*, 1-4
VMR, *System Management*, 10-4
ignoring blanks and tabs, *I/O Operations*, 7-8
length, *Command Language*, 3-13 *MCR*, 2-4
LINK command, *Task Builder*, 1-5
form, *Task Builder*, 1-3
input file, *Task Builder*, 1-4
map file, *Task Builder*, 1-5, 1-6
symbol definition file, *Task Builder*, 1-6
multiline input, *Task Builder*, 1-7
LINK command, *Task Builder*, 1-8
TKB, *Task Builder*, 1-7
output file interpretation, *Task Builder*, 1-8
parameters, *MCR*, 1-1, 1-2
parsing, *Indirect*, 2-75 *I/O Operations*, 7-1 *MCR*, 1-2
processing, *I/O Operations*, 6-1 *MCR*, 1-5
quotation marks, *MCR*, 1-2
rejected, *System Management*, 10-94
special characters, *MCR*, 1-2
syntax
command names, *System Management*, 10-4
VMR, *System Management*, 10-4
abbreviating commands, *System Management*, 10-4
Command line
syntax (cont'd.)
command parameters, *System Management*, 10-4
comments, *System Management*, 10-5
keywords, *System Management*, 10-4
keyword values, *System Management*, 10-5
terminating, *MCR*, 1-2
terminating character, *Task Builder*, 1-7, 1-11, 1-12
UFD convention, *Task Builder*, 1-15, 1-16
VMR
components, *System Management*, 10-4
Command Line Interpreter
See CLI
COMMAND LINE INTERPRETER
command, *MCR*, 1-8, 3-48
error messages, *MCR*, 3-53 to 3-54
examples, *MCR*, 3-52
formats, *MCR*, 3-48
keywords
/DISABLE, *MCR*, 3-48
/ELIM, *MCR*, 3-48
/ENABLE, *MCR*, 3-49
/INIT, *MCR*, 3-49
/MESSAGE, *MCR*, 3-52
/UNOVR, *MCR*, 3-52
parameters, *MCR*, 3-48
subkeywords
/CPR, *MCR*, 3-50
/CTRLC, *MCR*, 3-49
/DISABLE, *MCR*, 3-50
/DPR, *MCR*, 3-50
/LGO, *MCR*, 3-50
/MESSAGE, *MCR*, 3-51
/NULL, *MCR*, 3-51
/PRIV, *MCR*, 3-51
/PROMPT, *MCR*, 3-51
/QUIET, *MCR*, 3-51
/RESTRICT, *MCR*, 3-51
/SNGL, *MCR*, 3-51
/TASK, *MCR*, 3-52
Command Line Interpreter switch
See /CLI switch,
Command procedure
invoking, *Indirect*, 2-29
universal library, *Indirect*, 2-28

Command sequence
simple, *Task Builder*, 1-2
Command string
RMSBCK utility, *RMS-11 Utilities*, 6-2, 6-3
RMSCNV utility, *RMS-11 Utilities*, 4-3, 4-4
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDSP utility, *RMS-11 Utilities*, 5-2, 5-3
RMSIFL utility, *RMS-11 Utilities*, 3-2, 3-3
checking, *RMS-11 Utilities*, 3-9
RMSRST utility, *RMS-11 Utilities*, 7-2, 7-3
Command String Interpreter
See CSI
COMMAN symbol, *Indirect*, 2-25
Comma operator (,), *Task Builder*, 3-49
See also ODL operator
Comma separator (,)
See Separator
Comment, *Indirect*, 1-7, 2-4
block directive, *MACRO-11*, 6-18
card reader format, *MACRO-11*, 6-19
command file, *Task Builder*, 1-14
delimiter, *MACRO-11*, 3-2
field, *MACRO-11*, 2-1, 2-4, 2-5
COMMENTS argument, *MACRO-11*, 8-11
Comments in command lines, *Command Language*, 1-18
Commercial Instruction Set, *MACRO-11*, C-3, C-4
Common, *Task Builder*, 5-1, 5-28 to 5-32
See also Region
allocation diagram, *Task Builder*, 5-21
assigning reference, *Task Builder*, 5-24
building
linking task, *Task Builder*, 5-22 to 5-24
building and linking, *Task Builder*, 5-16, 5-18, 5-19, 5-20
to device, *Task Builder*, 5-28 to 5-32
checkpointing, *MCR*, 3-122 *System Management*, 10-28
definition, *Task Builder*, 2-18
Common (cont'd.)
device, *MCR*, 3-125, 3-238 *Task Builder*, 5-28 to 5-32
See also Device common
example map, *Task Builder*, 5-30
directive
fixing, *System Management*, 10-19
displaying, *Command Language*, 7-74 to 7-75
establishing offset, *Task Builder*, 5-29
installing, *MCR*, 3-122
RSX-11M, *Task Builder*, 5-2, 5-3, 5-22
RSX-11M-PLUS, *Task Builder*, 5-2, 5-3, 5-22
linking to region, *Task Builder*, 5-16
MACRO-11
building and linking, *Task Builder*, 5-18, 5-19, 5-20
See also Region
map, *Task Builder*, 5-20, 5-21
of linking task, *Task Builder*, 5-25
memory image, *MCR*, 3-125
name, *MCR*, 3-170
partition, *MCR*, 3-169 *System Management*, 14-1
read/write, *MCR*, 3-169
read-only, *MCR*, 3-169
program section
building a linking task, *Task Builder*, 5-24
protecting, *System Management*, 10-25
read/write
checkpointing, *MCR*, 3-122
read-only
installing, *MCR*, 3-122
region, *MCR*, 3-75
accessing, *MCR*, 3-120
displaying, *MCR*, 3-46
installed, *MCR*, 3-119
protecting, *MCR*, 3-119
removing, *MCR*, 3-175
status, *MCR*, 3-46
status bits, *MCR*, 3-46
synchronizing, *MCR*, 3-121
tasks, *MCR*, 3-47
unfixing, *MCR*, 3-284
reinstalling, *MCR*, 3-125
resident, *Task Builder*, 5-1, 5-2

Common
resident (cont'd.)
declaring, *Task Builder*, 12-12, 12-24, 12-30
name block data, *Task Builder*, B-8
specifying, *Task Builder*, 10-9, 11-65
status flags, *Command Language*, 7-74 to 7-75
synchronizing task use, *System Management*, 10-27
task sharing, *System Management*, 10-27
unfixing, *System Management*, 10-92
Common (UDDRV)
creating global, *I/O Drivers*, 16-12
linking task, *I/O Drivers*, 16-14
referencing global, *I/O Drivers*, 16-12
Common Block Directory, *MCR*, 3-116
displaying, *MCR*, 3-46
removing regions, *MCR*, 3-175
COMMON BLOCK DIRECTORY
command, *MCR*, 1-7, 3-46
examples, *MCR*, 3-47
format, *MCR*, 3-46
keyword
/TASKS, *MCR*, 3-46
parameters, *MCR*, 3-46
Common Block Directory dump, *CDA*, 3-36
Common event flag, *Executive*, 2-2
reading, *Executive*, 5-158
COMMON option, *Task Builder*, 12-12, 12-13, 12-24
shared region use, *Task Builder*, 5-15
Common region
checkpointing, *Executive*, 5-41
Communication
driver, *I/O Drivers*, 12-1
example, *I/O Drivers*, 12-13
programming hint, *I/O Drivers*, 12-11
function code list, *I/O Drivers*, B-8
link
function code list, *I/O Drivers*, B-12
mode
setting full-duplex (communication driver), *I/O Drivers*, 12-7
Communication
set operation
IO.SYN function (communication driver), *I/O Drivers*, 12-7
Communications
SYSGEN question, *System Generation*, 3-26
Communications device
SYSGEN question, *System Generation*, 3-62
Communications Executive
See CEX
COMPAREDATA YES/NO command
IOX, *System Management*, 4-28
$COMPARE macro, *RMS-11 Macro*, 2-16
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
/COMPARE qualifier
BRU utility, *Utilities*, 7-14
Compatibility mode
See VAX-11 RSX
/COMPATIBLE qualifier, *Task Builder*, 11-20
Compiler, *Introduction*, 5-3
See also High-level language
conditional
literal declaration, *Error Logging*, 4-12
Complement
See One's or Two's complement
Completion
handler, *RMS-11 Macro*, 2-17
return macro
declaring, *RMS-11 Macro*, C-2
routine
$CMPAL, *Task Builder*, 8-2, 8-8
$CMPCS, *Task Builder*, 8-2, 8-8, 8-12, 8-13
definition, *Task Builder*, A-11
identification, *Task Builder*, A-11
name, *Task Builder*, A-11
supervisor mode library, *Task Builder*, 8-1, 8-2, 8-7, 8-8
user-written, *Task Builder*, 8-21
symbol
declaring, *RMS-11 Macro*, C-3
Completion status
See STS field in FAB
See STS field in RAB
See STV field in FAB
See STV field in RAB

Complex relocation, *MACRO-11*, 4-1
Task Builder, A-22
entry, *Task Builder*, A-23
operation code, *Task Builder*, A-22
Compound test, *Indirect*, 2-64
Compression, *RMS-11 User's Guide*, 5-10, 5-16, 6-7, 6-9
RMSIFL utility, *RMS-11 Utilities*, 3-11
Computational function, *Error Logging*, 5-20
COM symbolic argument, *MACRO-11*, 6-11
CON, *I/O Drivers*, 13-5
See also CONFIGURATION command (VMR)
command descriptions, *System Management*, 15-7 to 15-28
commands
BUILD, *System Management*, 15-5, 15-7
CLEAR, *System Management*, 15-5
DISPLAY, *System Management*, 15-5, 15-9
ESTATUS, *System Management*, 15-5, 15-12
HELP, *System Management*, 15-5, 15-14
IDENT, *System Management*, 15-5, 15-15
LINK, *System Management*, 15-5, 15-16
LIST, *System Management*, 15-5, 15-17
OFFLINE, *System Management*, 15-5, 15-19
OFFLINE MEMORY, *System Management*, 15-21
ONLINE, *System Management*, 15-6, 15-22
ONLINE MEMORY, *System Management*, 15-24
SET, *System Management*, 15-6, 15-25
SWITCH, *System Management*, 15-6, 15-27
UNLINK, *System Management*, 15-6, 15-28
command summary, *System Management*, 15-5
error messages, *System Management*, 15-37 to 15-39
CON
error messages (cont'd.)
format, *System Management*, 15-37
invoking, *System Management*, 15-4
indirect command files, *System Management*, 15-4
/CONCATENATE qualifier, *Task Builder*, 11-21
CONCATENATION CHARACTER command
EDI utility, *Utilities*, 2-30
Concatenation indicator, *MACRO-11*, 3-3
Concurrent I/O, *Writing I/O Driver*, 1-13
Conditional assembly, *MACRO-11*, 6-50 to 6-54, 6-56
block, *MACRO-11*, 7-3
directive, *MACRO-11*, 6-50 to 6-54, 6-55, 6-56
case sensitivity control, *MACRO-11*, 6-19
nested, *MACRO-11*, 6-52
immediate, *MACRO-11*, 6-56
Conditional assembly directive, *Writing I/O Driver*, 4-2
Conditional declaration, *Error Logging*, 5-30
Conditional fork, *Writing I/O Driver*, 1-17, 1-18
necessity, *Writing I/O Driver*, 1-17
Conditional function, *Error Logging*, 5-17
CONDITIONALS argument, *MACRO-11*, 8-11
CONFIG symbol, *Indirect*, 2-18
Configuration
of devices in IOX, *System Management*, 4-29
peripheral
choosing at system generation, *Writing I/O Driver*, 5-10 to 5-11
worksheet, *System Generation*, A-1 to A-8
Configuration (UDDRV), *I/O Drivers*, 16-10
UDCOM.MAC, *I/O Drivers*, 16-10
UDCOM.MAC symbol, *I/O Drivers*, 16-10
CONFIGURATION command (VMR), *System Management*, 10-12

CONFIGURATION command (VMR) (cont'd.)
definition, *System Management*, 10-12
examples, *System Management*, 10-13 to 10-16
formats, *System Management*, 10-12
keywords
CONTROLLERS, *System Management*, 10-13
CPU, *System Management*, 10-13
FULL, *System Management*, 10-13
UNITS, *System Management*, 10-13
parameters, *System Management*, 10-12
Configuration Program
See CNF
CONFIGURE command
IOX, *System Management*, 4-29
Connect
function (UNIBUS switch driver), *I/O Drivers*, 24-4
task (LRDRV), *I/O Drivers*, 14-10
UNIBUS to another CPU (UNIBUS switch driver), *I/O Drivers*, 24-5
Connect directive, *Executive*, 5-38
Connectivity mask, *Writing I/O Driver*, 1-17
$CONNECT macro, *RMS-11 Macro*, 5-6
CONNECT operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
BDB requirement, *RMS-11 Macro*, 2-8
block stream, *RMS-11 Macro*, 4-13
$CONNECT macro, *RMS-11 Macro*, 5-6
I/O buffer requirement, *RMS-11 Macro*, 2-7
indexed files, *RMS-11 User's Guide*, 7-2
IRAB requirement, *RMS-11 Macro*, 2-5
key buffer requirement, *RMS-11 Macro*, 2-6
record stream, *RMS-11 Macro*, 4-8
relative files, *RMS-11 User's Guide*, 4-7
CONNECT operation (cont'd.)
sequential files, *RMS-11 User's Guide*, 3-7
Connect to Interrupt Vector directive, *Executive*, 5-21
Console driver
SYSGEN question, *System Generation*, 3-27
Console Logger, *System Management*, 1-1, 3-1
communication with, *System Management*, 3-2
task communication, *System Management*, 3-2
user communication, *System Management*, 3-2
Console Logging
CO:
writing to, *System Management*, 3-2
commands, *System Management*, 3-3
error messages, *System Management*, 3-11
installing COT..., *System Management*, 3-2
loading CODRV, *System Management*, 3-2
log file
disabling, *System Management*, 3-5
reassigning, *System Management*, 3-5
multiple commands, *System Management*, 3-6
reading log file, *System Management*, 3-8
sample session, *System Management*, 3-8
starting, *System Management*, 3-4
stopping, *System Management*, 3-4
Console Output Device
See CO:
Console switch register
obtaining contents, *Executive*, 5-115
Console terminal
disabling, *System Management*, 3-5
display, *System Management*, 3-4
reassigning, *System Management*, 3-5
Constant register
See C register
CON symbolic argument, *MACRO-11*, 6-42

Contact interrupt
digital input (UDDRV), *I/O Drivers*, 16-6
Container file
RMSBCK utility, *RMS-11 Utilities*, 6-1, 6-3, 6-7
RMSDSP utility, *RMS-11 Utilities*, 5-1, 5-3, 5-4
detailed display, *RMS-11 Utilities*, 5-4
RMSRST utility, *RMS-11 Utilities*, 7-3, 7-9, 7-10
CON task, *Writing I/O Driver*, 1-18, 5-2, 5-7, 5-8, 5-9
overview, *Writing I/O Driver*, 1-18
CONTENTS argument, *MACRO-11*, 8-11
Context, *RMS-11 Introduction*, 4-5 *RMS-11 User's Guide*, 1-9, 1-15
block, *RMS-11 Introduction*, 4-7
readable block, *RMS-11 Introduction*, 4-7
writable block, *RMS-11 Introduction*, 4-7
block stream, *RMS-11 Macro*, 4-12
CONNECT operation, *RMS-11 User's Guide*, 3-7, 4-7, 7-2
current record, *RMS-11 Introduction*, 4-5 *RMS-11 User's Guide*, 1-9, 1-15
DELETE operation, *RMS-11 User's Guide*, 4-7, 7-3
DISCONNECT operation, *RMS-11 User's Guide*, 3-7, 4-8
FIND operation, *RMS-11 User's Guide*, 3-8, 4-8, 7-3
FLUSH operation, *RMS-11 User's Guide*, 3-9, 4-10, 7-5
GET operation, *RMS-11 User's Guide*, 3-10, 4-11, 7-5
next record, *RMS-11 Introduction*, 4-5 *RMS-11 User's Guide*, 1-9, 1-15
PUT operation, *RMS-11 User's Guide*, 3-11, 4-11, 7-6
record stream, *RMS-11 Macro*, 4-3
REWIND operation, *RMS-11 User's Guide*, 3-11, 4-12, 7-6
TRUNCATE operation, *RMS-11 User's Guide*, 3-12
UPDATE operation, *RMS-11 User's Guide*, 3-13, 4-12, 7-6
Context block, *Executive*, 5-101, 5-190
Contiguity, *RMS-11 User's Guide*, 1-19
See also FB$CTG mask in FOP field
See also XB$CTG mask in AOP field
indexed files, *RMS-11 User's Guide*, 6-13
relative files, *RMS-11 User's Guide*, 4-4
RMSCNV utility, *RMS-11 Utilities*, 4-2
RMSDEF utility, *RMS-11 Utilities*, A-15
RMSIFL utility, *RMS-11 Utilities*, 3-1, 3-6
sequential files, *RMS-11 User's Guide*, 3-4
virtual, *RMS-11 Introduction*, 2-3
CONTIGUOUS attribute
RMSDES utility
area section, *RMS-11 Utilities*, 2-46
file section, *RMS-11 Utilities*, 2-35
Contiguous KRB and SCB, *Writing I/O Driver*, 2-2, 4-53
Continuation bucket, *RMS-11 User's Guide*, 5-5
Continuation line, *MCR*, 1-2
CLI, *System Management*, 11-8
CONTINUE command, *Command Language*, 7-21 to 7-22, 9-7
Shadow Recording, *System Management*, 18-8
Contradictory Bit Mask
See CBM
Control
character, *MCR*, 2-15 to 2-18
IOX command
category, *System Management*, 4-3
key, *MCR*, 2-15
CONTROL_C command
CONTROL_C YES/NO command
IOX, *System Management*, 4-32
IOX
effect on CTRL/C, *System Management*, 4-32
CONTROL_FIELD_SIZE attribute
RMSDES utility, *RMS-11 Utilities*, 2-37
CONTROL_P
See CTRL/P
Control and status register
See CSR

Control block, *RMS-11 Introduction,* 4-7 *RMS-11 Macro,* 1-2 *RMS-11 User's Guide,* 1-14
chaining, *RMS-11 Macro,* 2-12
declaring, *RMS-11 Macro,* 2-8
examining, *RMS-11 Macro,* 2-15
field
See Field
initializing, *RMS-11 Macro,* 2-8
setting up, *RMS-11 Macro,* 2-10
summary, *RMS-11 Introduction,* 4-8
Control character
half-duplex, *I/O Drivers,* 3-17, 3-21, 3-26
TTDRV
escape sequence, *I/O Drivers,* 2-74
Control file
universal library, *Error Logging,* 5-1
Control File Language compiler
See CFL
Control file module, *Error Logging,* 1-3
architecture, *Error Logging,* 4-1, 4-2
compilation path, *Error Logging,* 4-11
CPU level module, *Error Logging,* 4-7
data subpacket, *Error Logging,* 4-3
definition, *Error Logging,* 4-1
device ID subpacket, *Error Logging,* 4-3
device operation subpacket, *Error Logging,* 4-3
DEVSM1, *Error Logging,* 4-7
DEVUDA, *Error Logging,* 4-7
Dispatch, *Error Logging,* 4-3
dispatching, *Error Logging,* 4-1
DMPALL, *Error Logging,* 4-8
E1134, *Error Logging,* 4-8
E1144, *Error Logging,* 4-8
E117X, *Error Logging,* 4-8
E11XX, *Error Logging,* 4-8
ERRORM, *Error Logging,* 4-7
EUNKWN, *Error Logging,* 4-8
FM1NM1, *Error Logging,* 4-6
FM1WM1, *Error Logging,* 4-6
FM2CM1, *Error Logging,* 4-6
FM3CM1, *Error Logging,* 4-6
FM4NM1, *Error Logging,* 4-6
FM4WM1, *Error Logging,* 4-6
FMTNP1, *Error Logging,* 4-7
format, *Error Logging,* 5-1
Control file module (cont'd.)
header subpacket, *Error Logging,* 4-3
INITM1, *Error Logging,* 4-7
interaction of interface, *Error Logging,* 4-13
literal declaration, *Error Logging,* 4-12
naming conventions, *Error Logging,* 4-1
non-DIGITAL device module, *Error Logging,* 4-1
options, *Error Logging,* 4-12
PARS1M, *Error Logging,* 4-4
PARS2M, *Error Logging,* 4-4
PARS3M, *Error Logging,* 4-4
PARSEM, *Error Logging,* 4-4
program control flow, *Error Logging,* 4-10
PRS2AM, *Error Logging,* 4-4
PRS2BM, *Error Logging,* 4-4
recompilation, *Error Logging,* 4-13
SELTM1, *Error Logging,* 4-4
task subpacket, *Error Logging,* 4-3
Control function mask, *Writing I/O Driver,* 4-19, 4-20
Control key
See CTRL key
See also individual control (CTRL) keys
Controller, *Writing I/O Driver,* 1-4
access, *Writing I/O Driver,* 1-10
delayed, *Writing I/O Driver,* 1-11
dual support, *Writing I/O Driver,* 1-11
access list, *Writing I/O Driver,* 2-2
access restriction (ICDRV/ISDRV), *I/O Drivers,* 19-32
allowing parallel operations, *Writing I/O Driver,* 2-2
assignment, *Writing I/O Driver,* 1-11
busy/not busy, *Writing I/O Driver,* 1-11, 1-12
configuration status for, *Writing I/O Driver,* 2-2
DECtape
SYSGEN question, *System Generation,* 3-48
DECtape II
SYSGEN question, *System Generation,* 3-50

Controller (cont'd.)
defining type, *Writing I/O Driver*, 2-1
definition (XEDRV), *I/O Drivers*, 13-23
DEUNA
SYSGEN question, *System Generation*, 3-65
group number, *Writing I/O Driver*, 1-7
I/O count, *Writing I/O Driver*, 1-12, 1-13
interrupts, *Writing I/O Driver*, 1-11
interrupt vector, *Writing I/O Driver*, 1-7
LA180
SYSGEN question, *System Generation*, 3-51
2-level controllers, *Writing I/O Driver*, 1-13
location of a CSR for a, *Writing I/O Driver*, 2-2
LP11
SYSGEN question, *System Generation*, 3-51
LS11
SYSGEN question, *System Generation*, 3-51
LV11
SYSGEN question, *System Generation*, 3-51
maintaining hardware-specific information for, *Writing I/O Driver*, 2-2
making accessible, *Writing I/O Driver*, 5-6
MSCP-type
SYSGEN question, *System Generation*, 3-44
name, *Writing I/O Driver*, 2-1
number, *Writing I/O Driver*, 1-5
placing on line, *Writing I/O Driver*, 5-7
reassignment, *Writing I/O Driver*, 1-11
and load sharing, *Writing I/O Driver*, 1-11
RH-type
SYSGEN question, *System Generation*, 3-34
RK11
SYSGEN question, *System Generation*, 3-40
RK611/711
Controller
RK611/711 (cont'd.)
SYSGEN question, *System Generation*, 3-41
RL11/RLV11
SYSGEN question, *System Generation*, 3-42
RP11
SYSGEN question, *System Generation*, 3-43
RX11
SYSGEN question, *System Generation*, 3-49
RX211/RXV21
SYSGEN question, *System Generation*, 3-50
status, *Writing I/O Driver*, 1-11
subcontroller device, *Writing I/O Driver*, 1-13
block, *Writing I/O Driver*, 1-13
supporting more than one device, *Writing I/O Driver*, 1-12
TC11
SYSGEN question, *System Generation*, 3-48
TM/TMA/TMB11
SYSGEN question, *System Generation*, 3-53
TMSCP-type
SYSGEN question, *System Generation*, 3-46
TU58
SYSGEN question, *System Generation*, 3-50
universal digital, *I/O Drivers*, 16-1
Controller failures, *System Management*, 15-32
Controller mnemonic format, *System Generation*, 3-34
Controller Request Block
See KRB
Controller request queue, *Writing I/O Driver*, 1-11, 2-2
Controller status change
entry point, *Writing I/O Driver*, 4-66, 4-67, 4-68
overview, *Writing I/O Driver*, 2-6
Controller status extension 2, *Writing I/O Driver*, 4-42
Controller status extension 3, *Writing I/O Driver*, 4-41
Controller status word, *Writing I/O Driver*, 4-48

Controller table
See CTB
Controller Table Block, *MCR*, 3-132
Controller table status byte, *Writing I/O Driver*, 4-58
/CONTROL qualifier
SET TERMINAL command, *Command Language*, 3-40
Control section
name, *Task Builder*, A-5
CONTROL statement, *Error Logging*, 5-32
Control task
tape, *I/O Operations*, G-11
Control-Z mode, *Indirect*, 2-47
Conversion
A/D control word
AFC11/AD01 converter, *I/O Drivers*, 15-3
UDDRV, *I/O Drivers*, 16-5
A/D input to floating point (K-series), *I/O Drivers*, 23-13
case (half-duplex), *I/O Drivers*, 3-15
software (ICDRV/ISDRV), *I/O Drivers*, 19-80
affected feature, *I/O Drivers*, 19-80
module support, *I/O Drivers*, 19-80
switch gain A/D
to floating-point (LSDRV), *I/O Drivers*, 17-15
UIC, ASCII/binary, *I/O Operations*, 4-7, 4-8
unsigned integer (K-series), *I/O Drivers*, 23-21
Conversion routine, *Writing I/O Driver*, 1-15
CONVERT command, *Command Language*, 4-55 to 4-61, 9-7
Converter
A/D (UDDRV), *I/O Drivers*, 16-8
A/D terminal output (ICDRV/ISDRV), *I/O Drivers*, 19-32
ICS11 A/D (UDDRV), *I/O Drivers*, 16-8
Convert UIC
binary to ASCII, *I/O Operations*, 4-8
COP, *System Management*, 12-30
^C operator, *MACRO-11*, 3-5, 6-35, 6-36
/COPIES file qualifier
PRINT command, *Batch and Queue*, 2-6
SET QUEUE command, *Batch and Queue*, 2-21
Copy
backup of generated system, *System Generation*, 4-3
distribution kit, *System Generation*, 2-6 to 2-26
for Update, *System Generation*, 2-29
on line, *System Generation*, 2-15 to 2-20
on VAX/VMS host with VAX-11 RSX, *System Generation*, 2-21 to 2-26
stand alone, *System Generation*, 2-7 to 2-15
magnetic tape kit
on line, *System Generation*, 2-16 to 2-18
stand alone, *System Generation*, 2-8 to 2-12
under VAX-11 RSX, *System Generation*, 2-22 to 2-24
pregenerated kit
RL02 kit to DU-type disk, *System Generation*, 5-2
RL02 kit to RL02 disk, *System Generation*, 5-2
RK07 disk kit
on line, *System Generation*, 2-18 to 2-20
stand alone, *System Generation*, 2-12 to 2-15
under VAX-11 RSX, *System Generation*, 2-24 to 2-26
COPY command, *Command Language*, 4-47 to 4-51, 9-8 *Introduction*, 3-4 *System Management*, 9-7
DCL, *Program Development*, 4-3
COPY command_EDT editor, *Introduction*, 2-15
COPY key, *Command Language*, 3-16
/CO switch, *Task Builder*, 10-9
CMP utility, *Utilities*, 12-2
file
PRI command, *Batch and Queue*, 2-6
QUE /MOD command, *Batch and Queue*, 2-21
FLX utility, *Utilities*, 4-6

/CO switch (cont'd.)
job
PRI command, *Batch and Queue*, 2-4
QUE /MOD command, *Batch and Queue*, 2-20
LBR utility, *Utilities*, 10-10
PIP utility, *Utilities*, 3-11
COT..., *System Management*, 3-1
$COTB (Octal to binary), *System Library*, 4-5
Cotree, *Task Builder*, 3-31, 3-33
and main tree
virtual address space, *Task Builder*, 3-40
global symbol resolution, *Task Builder*, 3-17
null root, *Task Builder*, 3-31
ODL statement
from allocation diagram, *Task Builder*, 3-40
overlay, *Task Builder*, 3-34, 3-35
segment
affecting symbol search, *Task Builder*, 10-19, 11-33
loading, *Task Builder*, 4-3
summary, *Task Builder*, 3-51
virtual address space, *Task Builder*, 3-32
Counter
disconnect interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-22
location
definition, *Task Builder*, A-17
modification, *Task Builder*, A-18
routine (ICDRV/ISDRV), *I/O Drivers*, 19-58
COUNTER argument, *MACRO-11*, 8-11
Counter module, W734 (UDDRV), *I/O Drivers*, 16-7
/CPB switch, *CDA*, 2-4, 2-6
CPCR$ directive, *Executive*, 5-41
/CP switch, *Task Builder*, 10-10
CPU (Central Processing Unit), *Introduction*, 6-5, 6-6
CPU affinity
removing, *Executive*, 5-162
setting, *Executive*, 5-233
/CPU keyword
OPENREGISTER command, *MCR*, 3-165
CPU-level
dispatching module, *Error Logging*, 4-11
Cpu parameter (UNIBUS switch driver)
device-specific, *I/O Drivers*, 24-4
IO.CON function, *I/O Drivers*, 24-5
CR11, *I/O Drivers*, 11-1
Crash, *Command Language*, 9-2 to 9-3
Introduction, 1-17
cause
determining, *CDA*, 4-1
HALT instruction, *CDA*, 1-2
infinite loop, *CDA*, 1-2
processor trap, *CDA*, 1-2
restart procedure, *CDA*, 1-3
dump
obtaining, *CDA*, 1-2
/CRASHDEV keyword
SET command (MCR), *MCR*, 3-209
Crash dump analysis, *Writing I/O Driver*, 6-1
See also CDA
Crash Dump Analyzer
See CDA
Crash dump binary file, *CDA*, 1-3, 1-6, 2-2
Crash dump device, *CDA*, 1-1, 1-3
and drivers, *CDA*, 1-4
changing, *CDA*, 1-4
displaying, *CDA*, 1-5
on pregenerated kit, *System Generation*, 5-46
restrictions, *CDA*, 1-2
specifying, *CDA*, 1-4, 1-5, 2-2
SYSGEN question, *System Generation*, 3-32
valid for Micro/RSX system, *CDA*, 1-2
valid for pregenerated RSX-11M-PLUS system, *CDA*, 1-2
valid for RSX-11M/M-PLUS system, *CDA*, 1-2
Crash dump driver
and devices, *CDA*, 1-4
loadable, *CDA*, 1-1, 1-3 to 1-7
loading, *CDA*, 1-4
unloading, *CDA*, 1-5
Crash dump listing
See also Analysis listings
interpreting, *CDA*, 4-1 to 4-3
mapping data, *CDA*, 4-1
stack depth, *CDA*, 4-2

Crash dump routine
See Executive crash dump routine
Crash notification device, *CDA*, 1-1, 1-2, 1-3
Crash Recovery Transaction Block, *System Management*, 17-25
CRASH statement, *Error Logging*, 5-41
$CRAVL, *CDA*, 3-15, 3-45
CRAW$ directive, *Executive*, 5-44
CRE argument to ORG$ macro, *RMS-11 Macro*, 2-3
Create access
volume, *MCR*, 3-96, 3-106, 3-151
Create Address Window directive, *Executive*, 5-43
CREATE command, *Command Language*, 4-15 to 4-16, 9-9
Introduction, 2-1, 3-4
CREATE/DIRECTORY, *Command Language*, 4-17 to 4-19, 9-9
RMSDES utility, *RMS-11 Utilities*, 2-7, 2-18, 2-28, 2-31
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
defining areas by default, *RMS-11 Utilities*, 2-44
defining areas explicitly, *RMS-11 Utilities*, 2-43
key numbering, *RMS-11 Utilities*, 2-38
setting attributes, *RMS-11 Utilities*, 2-21
with GET, *RMS-11 Utilities*, 2-10, 2-25
/CREATED qualifier
BRU utility, *Utilities*, 7-14
Create Group Global Event Flags directive, *Executive*, 5-48
Create Logical Name directive, *Executive*, 5-32
$CREATE macro, *RMS-11 Macro*, 5-9
CREATE operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-7 *RMS-11 User's Guide*, 1-18
and shared access, *RMS-11 User's Guide*, 2-6
BDB requirement, *RMS-11 Macro*, 2-8
$CREATE macro, *RMS-11 Macro*, 5-9
CREATE operation (cont'd.)
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
remote access, *RMS-11 User's Guide*, B-2, B-3
wildcard loop, *RMS-11 Macro*, 3-10
Create option
ACNT, *System Management*, 2-3
Create Region directive, *Executive*, 5-50
Create Virtual Terminal directive, *Executive*, 5-54
Creating
macro library, *Program Development*, 6-1, 6-2, 6-3
object library, *Program Development*, 6-4 to 6-6
object module
FORTRAN IV, *Program Development*, 7-5
MACRO-11, *Program Development*, 3-4 to 3-6
source file
FORTRAN IV, *Program Development*, 7-2, 7-3
MACRO-11, *Program Development*, 2-12
skeleton, *Program Development*, 2-12
task image, *Program Development*, 1-6, 4-1, 4-2, 7-5, 7-6
Creating files
See also Data file (RMSDES)
RMSDEF utility, *RMS-11 Utilities*, A-19
Creation date
See CDT field in DAT block
RMSBCK utility, *RMS-11 Utilities*, 6-8
CREF processor, *MACRO-11*, 8-16
C register, *Debugging*, 2-6, 5-3, 9-10
indicator, *Debugging*, 2-8, 7-3, 9-12
/CRE keyword
FLA command, *MCR*, 3-77
CRF symbolic argument, *MACRO-11*, 6-19
CRF utility, *Program Development*, 1-8
assembly cross-reference, *Program Development*, 3-7, 3-8
data processing, *Utilities*, B-1

CRF utility (cont'd.)
error message, *Utilities*, B-5
global cross-reference, *Program Development*, 4-5, 4-6
MACRO-11/Task Builder, *Utilities*, B-1
SEND packet, *Utilities*, B-4
switch, *Utilities*, B-1
symbol table file, *Utilities*, B-3
task, *MACRO-11*, 8-16
CRGF$ directive, *Executive*, 5-48
Cross-reference
global
of overlaid task, *Task Builder*, 4-12, 4-13
listing
specifying, *Task Builder*, 10-11
/CROSS_REFERENCE qualifier, *MACRO-11*, 8-8 *Task Builder*, 11-22
.CROSS directive, *MACRO-11*, 6-21, 6-22
Cross-reference
directive, *MACRO-11*, 6-21, 6-22
listing, *MACRO-11*, 3-12
assembly, *Program Development*, 3-7, 3-8
asterisk in, *MACRO-11*, 8-17
controlling output in, *MACRO-11*, 6-19
equal sign in, *MACRO-11*, 8-17
generating, *MACRO-11*, 8-16, 8-17
global, *Program Development*, 4-5, 4-6
number sign in, *MACRO-11*, 8-17
specifying, *Task Builder*, 11-22
Cross-Reference Processor
See CRF utility
$CRPKT, *Error Logging*, 4-23
CRRG$ directive, *Executive*, 5-50
/CR switch, *MACRO-11*, 8-7 *Task Builder*, 10-11, 10-12, 10-13
CRF utility, *Utilities*, B-1
LBR utility, *Utilities*, 10-12
/CRT keyword
SET command (MCR), *MCR*, 3-210
SET command (VMR), *System Management*, 10-57
CRT rubout (TTDRV), *I/O Drivers*, 2-18
CRVT$ directive, *Executive*, 5-58
.CSECT directive, *MACRO-11*, 3-11, 6-46
CSI, *I/O Operations*, 6-1
control block bit values
definition, *I/O Operations*, 6-14
control block offsets
definition, *I/O Operations*, 6-14
expand file specification, *I/O Operations*, 6-19
initialize control block, *I/O Operations*, 6-19
parse file specification, *I/O Operations*, 6-19
routine, *I/O Operations*, 6-14
run-time macros, *I/O Operations*, 6-19
CSI$1 macro, command syntax analyzer, *I/O Operations*, 6-19
CSI$2 macro
command semantic parser, *I/O Operations*, 6-20
initialize control block, *I/O Operations*, 6-19
parse file specification, *I/O Operations*, 6-19
CSI$4 macro
command semantic parser, *I/O Operations*, 6-22
expand file specification, *I/O Operations*, 6-19
CSI$ macro, *I/O Operations*, 6-14, 6-15
CSI$ND macro, *I/O Operations*, 6-24
define end of descriptor table, *I/O Operations*, 6-31
CSI$SV macro, *I/O Operations*, 6-23
create switch value descriptor table entry, *I/O Operations*, 6-28
CSI$SW macro, *I/O Operations*, 6-23
create switch descriptor table entry, *I/O Operations*, 6-24
CSI macro, switch definition, *I/O Operations*, 6-23
CSM library
dispatching, *Task Builder*, 8-19
linking task
example, *Task Builder*, 8-14, 8-15, 8-16
supervisor mode, *Task Builder*, 8-7
building, *Task Builder*, 8-7, 8-8
.STB file, *Task Builder*, 8-9
Csm parameter (ICDRV/ISDRV), *I/O Drivers*, 19-10

Csm parameter (ICDRV/ISDRV) (cont'd.)
IO.LDI function, *I/O Drivers*, 19-25
CSM routine, *Task Builder*, 8-12
CSR, *Writing I/O Driver*, 1-1
accessing, *Writing I/O Driver*, 1-1
address
boot device, *MCR*, 3-190
BRUSYS default, *System Generation*, 2-8
determining, *System Generation*, 3-34
floating
assignment algorithm, *System Generation*, E-2
saving, *MCR*, 3-190
address space, *Writing I/O Driver*, 1-1
assignment
error, *Writing I/O Driver*, 5-8
setting, *Writing I/O Driver*, 5-6
definition, *System Generation*, 1-8
determining, *System Generation*, 2-1
CSR defintion (XEDRV), *I/O Drivers*, 13-23
/CSR keyword
SAVE command (MCR), *MCR*, 3-190
CSRQ$ directive, *Executive*, 5-60
/CSR switch
BAD utility, *Utilities*, 6-8
DSC utility, *Utilities*, 8-21
/CS switch
PAT utility, *Utilities*, 14-6
SLP utility, *Utilities*, 13-15
/CTB
use in LOAD, *Writing I/O Driver*, 5-14
CTB, *Writing I/O Driver*, 1-4
See also Controller Table Block
composite arrangement, *Writing I/O Driver*, 2-15
definition, *Writing I/O Driver*, 1-4
details, *Writing I/O Driver*, 4-53, 4-55 to 4-59
format, *Writing I/O Driver*, 4-55 to 4-59
layout, *Writing I/O Driver*, 4-55
overview, *Writing I/O Driver*, 2-1
requirement, *Writing I/O Driver*, B-3
system list, *Writing I/O Driver*, 2-1
use in handling interrupts, *Writing I/O Driver*, 2-1
CTB (cont'd.)
use in LOAD, *Writing I/O Driver*, 5-15
validation during LOAD, *Writing I/O Driver*, 5-12
CTBDF$, *CDA*, C-14 *Writing I/O Driver*, A-12
/CTB keyword
LOAD command (MCR), *MCR*, 3-132
LOAD command (VMR), *System Management*, 10-33
CTDI: routine
connect buffer to receive interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-51
CTDI: subroutine
connect contact interrupt (UDDRV), *I/O Drivers*, 16-20
CTDRV, *I/O Drivers*, 9-1
error recovery, *I/O Drivers*, 9-6
programming hint, *I/O Drivers*, 9-7
tape structure, *I/O Drivers*, 9-6
%CTL, *Error Logging*, 5-21
$CTLST symbol, *Writing I/O Driver*, 2-1, 2-15
/CTL switch, *CDA*, 2-5, 2-6
CTRL/C, *Command Language*, 3-20, 7-18 to 7-20 *Introduction*, 1-3 fig. *MCR*, 1-3, 2-17 *Program Development*, 1-2
half-duplex, *I/O Drivers*, 3-21
ignored, *I/O Drivers*, 3-15
MCR, *I/O Drivers*, 3-9
read all, *I/O Drivers*, 3-14
invoking CLI prompt, *MCR*, 3-49
ODT, *Debugging*, 1-5
CTRL/C abort
SYSGEN question, *System Generation*, 3-28
CTRL/C character
TTDRV, *I/O Drivers*, 2-68
abort, *I/O Drivers*, 2-68
abort task, *I/O Drivers*, 2-16
directed to task, *I/O Drivers*, 2-68
excluding, *I/O Drivers*, 2-16
hold screen mode, *I/O Drivers*, 2-68
pass to task, *I/O Drivers*, 2-13
terminate read, *I/O Drivers*, 2-68
TF.RPT, *I/O Drivers*, 2-14
TF.RST, *I/O Drivers*, 2-14

CTRL/C character
TTDRV (cont'd.)
unsolicited input, *I/O Drivers*, 2-13
CTRL/G, *Command Language*, 3-24
CTRL/I, *Command Language*, 3-24
MCR, 2-17
half-duplex, *I/O Drivers*, 3-21
CTRL/I character
TTDRV, *I/O Drivers*, 2-69
CTRL/J, *Debugging*, 4-3
half-duplex, *I/O Drivers*, 3-21
CTRL/J character
TTDRV, *I/O Drivers*, 2-69
CTRL/K, *Command Language*, 3-24
MCR, 2-17
half-duplex, *I/O Drivers*, 3-21
CTRL/K character
TTDRV, *I/O Drivers*, 2-69
CTRL/L, *Command Language*, 3-23
MCR, 2-17
half-duplex, *I/O Drivers*, 3-21
CTRL/L character
TTDRV, *I/O Drivers*, 2-69
CTRL/M, *Command Language*, 3-24
half-duplex, *I/O Drivers*, 3-21
CTRL/M character
TTDRV, *I/O Drivers*, 2-69
CTRL/O, *Command Language*, 3-21
Introduction, 1-14 *MCR*, 2-17
Program Development, 3-7
half-duplex, *I/O Drivers*, 3-22
AST, *I/O Drivers*, 3-9
cancel, *I/O Drivers*, 3-14, 3-16
read all, *I/O Drivers*, 3-14
unattached terminal, *I/O Drivers*, 3-22
XDT, *Debugging*, 9-13
CTRL/O character
TTDRV, *I/O Drivers*, 2-69
cancel, *I/O Drivers*, 2-12, 2-16, 2-17, 2-23, 2-26, 2-48, 2-50
cancel on write breakthrough, *I/O Drivers*, 2-24
cancel prior to TF.RPR, *I/O Drivers*, 2-27
IO.RPR, *I/O Drivers*, 2-40
pass to task, *I/O Drivers*, 2-13
prompt, *I/O Drivers*, 2-14
state, *I/O Drivers*, 2-57
TF.RPR, *I/O Drivers*, 2-14
TF.RPT, *I/O Drivers*, 2-14
TF.RST, *I/O Drivers*, 2-14
CTRL/P, *System Management*, 9-3, 9-7
CTRL/Q, *Command Language*, 3-21
MCR, 2-18 *Program Development*, 3-7
half-duplex, *I/O Drivers*, 3-22
AST, *I/O Drivers*, 3-9
read all, *I/O Drivers*, 3-14
CTRL/Q character
TTDRV
pass to task, *I/O Drivers*, 2-13
resume output, *I/O Drivers*, 2-70
state, *I/O Drivers*, 2-57
TF.RPT, *I/O Drivers*, 2-14
TF.RST, *I/O Drivers*, 2-14
CTRL/R, *Command Language*, 3-23
Introduction, 1-8 *MCR*, 2-18
half-duplex, *I/O Drivers*, 3-22
IO.RNE function, *I/O Drivers*, 3-14
CTRL/R character
TTDRV, *I/O Drivers*, 2-70
automatic redisplay, *I/O Drivers*, 2-16
carriage return, *I/O Drivers*, 2-70
input redisplay, *I/O Drivers*, 2-17
line feed, *I/O Drivers*, 2-70
prompt, *I/O Drivers*, 2-14
read no echo, *I/O Drivers*, 2-13
read no filter, *I/O Drivers*, 2-14
redisplay
write breakthrough, *I/O Drivers*, 2-24
retype, *I/O Drivers*, 2-17
TF.RPR, *I/O Drivers*, 2-14, 2-28
TF.RST, *I/O Drivers*, 2-14
CTRL/S, *Command Language*, 3-21
MCR, 2-18 *Program Development*, 3-7
half-duplex, *I/O Drivers*, 3-22
AST, *I/O Drivers*, 3-9
cancel, *I/O Drivers*, 3-16
CTRL/C restart output, *I/O Drivers*, 3-21
read all, *I/O Drivers*, 3-14
CTRL/S character
TTDRV, *I/O Drivers*, 2-70
break-through write, *I/O Drivers*, 2-17
pass to task, *I/O Drivers*, 2-13
state, *I/O Drivers*, 2-57

CTRL/S character
TTDRV (cont'd.)
suspend output, *I/O Drivers*, 2-70
TF.RPT (TTDRV), *I/O Drivers*, 2-14
TF.RST, *I/O Drivers*, 2-14
CTRL/U, *Command Language*, 3-22
Introduction, 1-8 *MCR*, 2-18
Program Development, 5-3
half-duplex, *I/O Drivers*, 3-22
ODT, *Debugging*, 2-8
CTRL/U character
TTDRV, *I/O Drivers*, 2-70
delete start of line, *I/O Drivers*, 2-70
prompt, *I/O Drivers*, 2-14
read no filter, *I/O Drivers*, 2-14
TF.RPR, *I/O Drivers*, 2-14, 2-28
TF.RST, *I/O Drivers*, 2-14
CTRL/X, *Command Language*, 3-23
MCR, 2-18
CTRL/X character
TTDRV, *I/O Drivers*, 2-70, 2-73
clear typeahead, *I/O Drivers*, 2-70
CTRL/Z, *Command Language*, 3-22
Introduction, 1-8, 1-9 *MCR*, 2-18
effect on Task Builder, *Task Builder*, 12-5
half-duplex, *I/O Drivers*, 3-22
read all, *I/O Drivers*, 3-14
RMSBCK utility, *RMS-11 Utilities*, 6-2
RMSCNV utility, *RMS-11 Utilities*, 4-4
file terminator, *RMS-11 Utilities*, 4-8
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Utilities*, 2-2, 2-9, 2-18
RMSDSP utility, *RMS-11 Utilities*, 5-2
RMSIFL utility, *RMS-11 Utilities*, 3-2
RMSRST utility, *RMS-11 Utilities*, 7-2
CTRL/Z character
TTDRV, *I/O Drivers*, 2-70, 2-73
exit task, *I/O Drivers*, 2-70
pass to task, *I/O Drivers*, 2-13
TF.RPT, *I/O Drivers*, 2-14
CTRL character
allowed
escape sequence (half-duplex), *I/O Drivers*, 3-26
half-duplex, *I/O Drivers*, 3-17
CTRL key, *Command Language*, 3-20
See also individual CTRL keys
.CTRL routine, control device, *I/O Operations*, 4-31
.CTRL routine, tape, *I/O Operations*, 5-7
CTTI:, connect buffer
receive counter data (ICDRV/ISDRV), *I/O Drivers*, 19-56
CTTI: subroutine
connect timer interrupt (UDDRV), *I/O Drivers*, 16-21
CTTY:, connect buffer
terminal interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-60
CTX field in FAB, *RMS-11 Macro*, 2-18
offset, *RMS-11 Macro*, 6-22
summary, *RMS-11 Macro*, 6-32
CTX field in RAB, *RMS-11 Macro*, 2-18
offset, *RMS-11 Macro*, 6-115
summary, *RMS-11 Macro*, 6-119
Current location counter, *MACRO-11*, 2-2, 3-12, 3-13, 3-15, 3-17, 6-11, 6-37, 6-43
example usage, *MACRO-11*, 3-14
indicator for, *MACRO-11*, 3-2
Current location indicator (.), *Debugging*, 7-3, 9-8
Current-record context, *RMS-11 Macro*, 4-3
See also Context
Current task priority
pointer to, *CDA*, 3-20
Cursor, *Introduction*, 1-3 fig.
Cursor control
direct (half-duplex), *I/O Drivers*, 3-34
terminal-independent (TTDRV), *I/O Drivers*, 2-18, 2-80
Cursor position (TTDRV)
restore, *I/O Drivers*, 2-13, 2-27, 2-46, 2-48
save, *I/O Drivers*, 2-13, 2-27, 2-46, 2-48
CUT key (EDT), *Introduction*, 2-8

CVADF: subroutine
convert A/D input to floating point
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-9
$CVLBN routine, *Writing I/O Driver*, 7-14
$CVLOK (Page lock), *System Library*, 8-22
$CVRL (Virtual to real address), *System Library*, 8-24
CVSWG: subroutine
convert switch gain A/D (LSDRV), *I/O Drivers*, 17-15
$CVTUC (Uppercase text), *System Library*, 6-1
Cylinder, *RMS-11 Introduction*, 2-1
See also Placement control
Cylinder number, *Writing I/O Driver*, 1-15
Cylinder Scan
definition, *Writing I/O Driver*, 1-15

D

D.xpxx offsets
in DCB, *Writing I/O Driver*, 4-16 to 4-18
D$CUIC, *Indirect*, 2-5
DA11-B parallel interface (communication driver), *I/O Drivers*, 12-2
DAN field in KEY block
CREATE operation, *RMS-11 Macro*, 5-19
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-71
DAP (data access protocol)
See DECnet
DAPRES
remote access code, *RMS-11 User's Guide*, B-1
/DA switch, *Error Logging*, 3-5, 3-8
Task Builder, 10-14
DASWP: subroutine
initiate synchronous D/A sweep
K-series, *I/O Drivers*, 23-14
LADRV, *I/O Drivers*, 22-9
$DAT (Date conversion), *System Library*, 6-2
Data
adjacency in memory, *Task Builder*, 2-27
segment
autoloadable, *Task Builder*, 4-7
sending to task, *Executive*, 5-192, 5-265
structure
building, *Task Builder*, 2-1
overlay, *Task Builder*, 3-18
transfer
checking, *MCR*, 3-265
DATA_AREA attribute
RMSDES utility, *RMS-11 Utilities*, 2-40
DATA_FILL attribute
RMSDES utility, *RMS-11 Utilities*, 2-40
Data access protocol (DAP)
See DECnet
Data area number
See DAN field in KEY block
Data base, *Writing I/O Driver*, 1-18
assembling
during system generation, *Writing I/O Driver*, 5-3
code
bit symbols, *Writing I/O Driver*, 4-30, 4-31
converting RSX-11M to RSX-11M-PLUS, *Writing I/O Driver*, B-1, B-2
defining CTB, *Writing I/O Driver*, B-3
SCB requirements, *Writing I/O Driver*, B-2
creating source code, *Writing I/O Driver*, 4-2
defining link word for, *Writing I/O Driver*, 4-3
details of structures, *Writing I/O Driver*, 4-31 to 4-37, 4-39, 4-49 to 4-53
driver
sample code, *Writing I/O Driver*, 8-1, 8-2, 8-3
structures, *Writing I/O Driver*, 2-1, 2-3
global label, *Writing I/O Driver*, 4-2
$USRTB, *Writing I/O Driver*, 4-3

Data base
global label (cont'd.)
$xxDCB, *Writing I/O Driver*, 4-3
labeling of data structures, *Writing I/O Driver*, 4-2
loadable, *Writing I/O Driver*, 1-19, 4-3
incorporating, *Writing I/O Driver*, 5-1
module
inserting into library, *Writing I/O Driver*, 5-4
overlay, *Task Builder*, B-15
I- and D-space task, *Task Builder*, B-16
overview of structures, *Writing I/O Driver*, 2-2, 2-3
owning CTB, *Writing I/O Driver*, 2-1
programming
requirements, *Writing I/O Driver*, 4-2 to 4-3
resident, *Writing I/O Driver*, 1-19, 4-3
incorporating, *Writing I/O Driver*, 5-1
linking to CTB, *Writing I/O Driver*, 4-3
structures
augmented, *Writing I/O Driver*, 1-13
composite arrangement, *Writing I/O Driver*, 2-11
conventional, *Writing I/O Driver*, 1-13
ordering of, *Writing I/O Driver*, 4-2
typical arrangements, *Writing I/O Driver*, 2-6, 2-7, 2-8
validation during LOAD, *Writing I/O Driver*, 5-12
Data block
dequeuing, *Executive*, 5-149, 5-151, 5-153, 5-257, 5-259, 5-261
local, *Program Development*, 2-8
queuing, *Executive*, 5-187, 5-263
Data caching, *MCR*, 3-146 to 3-147, 3-207 to 3-209
options, *MCR*, 3-146, 3-207
region, *MCR*, 3-146, 3-207
specifying partition, *MCR*, 3-146, 3-207
.DATA directive, *Indirect*, 2-43
Data file
RMSDES utility, *RMS-11 Utilities*, 2-3, 2-17, 2-24
creating, *RMS-11 Utilities*, 2-3, 2-7, 2-28
GET command, *RMS-11 Utilities*, 2-10
Data format
ANSI tape, *I/O Operations*, 1-7
file device, *I/O Operations*, 1-6
input
Task Builder, *Task Builder*, A-1 to A-32
Data integrity checking
RMSBCK utility, *RMS-11 Utilities*, 6-6, 6-7, 6-9
RMSRST utility, *RMS-11 Utilities*, 7-6, 7-8, 7-11
Data mode, *Indirect*, 2-47
Data packet
sending, *Executive*, 5-202
Data parameter
immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
Data record, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 5-2
Dataset descriptor, *I/O Operations*, 2-28
address, initialization, *I/O Operations*, 2-14
as data structure, *I/O Operations*, 1-4
definition, *I/O Operations*, 1-3
general description, *I/O Operations*, 1-5
OFNB$x macro, *I/O Operations*, 3-17
pointer
definition, *I/O Operations*, 1-3
file-open, *I/O Operations*, 2-14
initialization, *I/O Operations*, 2-14
specifying, *I/O Operations*, 2-28
Data sharing, *MACRO-11*, 6-45
Data space, *Debugging*, 7-2, 9-3 *Executive*, 3-1
command, *Debugging*, 2-8, 9-12
enabling, *Debugging*, 1-3
mapping, *Executive*, 3-3
moving data, *Executive*, 5-133
Data storage, *RMS-11 Introduction*, 2-1
and file organization, *RMS-11 User's Guide*, 2-5

Data storage (cont'd.)
control in assembly language, *Program Development*, 1-4, 1-5
directive, *Program Development*, 1-4, 1-5
MACRO-11 definition, *Program Development*, 2-8
program section, *Program Development*, 2-8
Data storage directive, *MACRO-11*, 6-23 to 6-39
Data structure, *Writing I/O Driver*, 1-13
definitions, *Writing I/O Driver*, A-1 to A-71
memory management directive, *Executive*, 3-11
Data terminal emulation
See DTE
Data Terminal Emulator
See DTE
Data transfer, *Writing I/O Driver*, 1-14
BRU utility, *Utilities*, 7-26
DSC utility, *Utilities*, 8-24
FLX utility, *Utilities*, 4-1
Data type
keys, *RMS-11 User's Guide*, 6-3
and segmenting, *RMS-11 User's Guide*, 6-7
2-byte-signed integer, *RMS-11 User's Guide*, 6-3
4-byte signed integer, *RMS-11 User's Guide*, 6-4
2-byte unsigned binary, *RMS-11 User's Guide*, 6-5
4-byte unsigned binary, *RMS-11 User's Guide*, 6-5
packed decimal, *RMS-11 User's Guide*, 6-6
string, *RMS-11 User's Guide*, 6-3
key values, *RMS-11 Introduction*, 3-7
DAT block, *RMS-11 Introduction*, 4-8
chaining to FAB, *RMS-11 Macro*, 2-12, 2-13
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-14
Date, *Command Language*, 1-13
See also DAT block
displaying, *System Management*, 10-90
Date (cont'd.)
setting, *System Management*, 10-90
XAB
See DAT block
Date conversion
date ($DAT), *System Library*, 6-2
Date-related qualifier (DCL), *Command Language*, 4-9
Date switch, *Error Logging*, 3-5, 3-8
DATE symbol, *Indirect*, 2-18
DBS field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-72
/DB switch
SLP utility, *Utilities*, 13-15
$$DBTS program section
reserved name, *Task Builder*, E-2
DB-type disk
SYSGEN question, *System Generation*, 3-36
DCB
ASCII device name, *Writing I/O Driver*, 4-17
composite arrangement, *Writing I/O Driver*, 2-11
creating mask words in, *Writing I/O Driver*, 4-21
definition, *Writing I/O Driver*, 1-4
details, *Writing I/O Driver*, 4-16, 4-17, 4-18
driver dispatch table pointer, *Writing I/O Driver*, 4-18
driver-specific function masks, *Writing I/O Driver*, 4-18 to 4-26
establishing characteristics for, *Writing I/O Driver*, 2-7
establishing I/O function masks, *Writing I/O Driver*, 4-22
fields, *Writing I/O Driver*, 4-16, 4-17, 4-18
format, *Writing I/O Driver*, 4-16, 4-17, 4-18
labeling, *Writing I/O Driver*, 4-3
length of UCB, *Writing I/O Driver*, 4-18
linking to next DCB, *Writing I/O Driver*, 4-16
list of, *Writing I/O Driver*, 2-3

DCB (cont'd.)
means to access Driver Dispatch Table, *Writing I/O Driver*, 2-2
number of units stored, *Writing I/O Driver*, 4-3
overview, *Writing I/O Driver*, 2-2, 2-3
pointer to first UCB, *Writing I/O Driver*, 4-17
unit number range, *Writing I/O Driver*, 4-18
validation during LOAD, *Writing I/O Driver*, 5-13
DCBDF$, *CDA*, B-6, C-15 *Writing I/O Driver*, A-13
/DCB switch, *CDA*, 2-5, 2-6
DCL, *Command Language*, 1-1, 9-1 *Introduction*, 1-1, 1-10, 3-1, 5-1 *MCR*, 3-56 *Program Development*, 1-1 to 1-3 *RMS-11 User's Guide*, B-2 *System Management*, 11-2, 11-5, 11-8
See also DIGITAL COMMAND LANGUAGE command
building, *System Management*, 12-1
command, *Command Language*, 1-12
interpretation, *System Management*, 12-5
mapping to MCR, *System Management*, 12-21
command line, *Command Language*, 1-7 to 1-8
conventional installation, *System Management*, 12-2
correcting errors, *Command Language*, 1-20 to 1-21
definition, *Batch and Queue*, 4-2
deleting files, *System Management*, 9-7
device and volume control commands, *Command Language*, 1-5
file control commands, *Command Language*, 1-4
functional grouping, *Command Language*, 1-2
IFORM, *System Management*, 12-24
installation, *System Management*, 12-1
alternatives, *System Management*, 12-2
catchall task, *System Management*, 12-3

DCL
installation (cont'd.)
MCR task, *System Management*, 12-3
intermediate form
See IFORM
MCR fallthrough, *System Management*, 12-4
parser process, *System Management*, 12-5
parser table example, *System Management*, 12-21
program development commands, *Command Language*, 1-6
RSX-11M-PLUS and VAX/VMS, *Command Language*, 1-23
SET and SHOW commands, *Command Language*, 1-3
SET commands, *System Management*, 12-3
SYSGEN question, *System Generation*, 3-28
system control commands, *Command Language*, 1-7
task, *System Management*, 12-1, 12-3, 12-5
task building, *System Management*, 12-4
first task build, *System Management*, 12-4
second task build, *System Management*, 12-5
task control commands, *Command Language*, 1-6
telephone number
specifying, *System Management*, 9-4
terminal emulation
specifying, *System Management*, 9-3 to 9-5
transferring files, *System Management*, 9-7
translator process, *System Management*, 12-5
DCL command
linking
ODT, *Debugging*, 1-3
ODTID, *Debugging*, 1-3
supervisor libraries, *Debugging*, 1-4
DCL command table, *System Management*, 12-7
constructing, *System Management*, 12-6

DCL command table (cont'd.)
example, *System Management*, 12-46 to 12-48
interpreting, *System Management*, 12-18
modifying, *System Management*, 12-8
DCL error message, *Command Language*, 10-1 to 10-18
/DCL keyword
HELP command, *MCR*, 3-87
SET command (MCR), *MCR*, 3-211
DCL Master Command Table
See DCL MCT
DCL MCT, *System Management*, 12-9
DCL task, *System Management*, 1-4, 12-1, 12-3, 12-5
adding commands, *System Management*, 12-8
definition, *System Management*, 12-1
deleting commands, *System Management*, 12-13
modifying commands, *System Management*, 12-13
overlay, *System Management*, 12-10
PT/TT, *System Management*, 12-12
file, *System Management*, 12-9
D command, *Debugging*, 2-8, 9-12
/DC switch
DMP utility, *Utilities*, 11-5
.DD2CT (Decimal to binary double-word), *System Library*, 4-1
DDDRV, *I/O Drivers*, 7-1
$DDIV (Double-precision divide), *System Library*, 3-3
DDS
See Default directory string
/DD switch
PIP utility, *Utilities*, 3-16
DDT$ macro call
arguments, *Writing I/O Driver*, 4-5, 4-6
use of, *Writing I/O Driver*, 4-4
DD-type magnetic tape
SYSGEN question, *System Generation*, 3-50
DEA
See DEALLOCATE command
$DEACB routine, *Writing I/O Driver*, 7-15
Deaccess lock (F11ACP), *I/O Drivers*, C-6
DEALLOCATE command, *Command Language*, 5-48 to 5-49, 9-9
DEALLOCATE command (MCR), *MCR*, 1-8, 3-57
example, *MCR*, 3-57
format, *MCR*, 3-57
parameters, *MCR*, 3-57
Deallocate Device Transaction Block, *System Management*, 17-28
Deallocation entry point, *Writing I/O Driver*, 4-66
DEASSIGN command, *Command Language*, 5-37 to 5-40, 9-9
DEASSIGN/QUEUE, *Command Language*, 9-10
DEB
See DEBUG command
$DEBUG, *I/O Operations*, 7-2
DEBUG command, *Command Language*, 7-46 to 7-47, 9-10
RSX-11M-PLUS and Micro/RSX, *Debugging*, 1-5
DEBUG command (MCR), *MCR*, 3-58
error messages, *MCR*, 3-59
examples, *MCR*, 3-58
format, *MCR*, 3-58
parameter, *MCR*, 3-58
Debugging
aid, *MCR*, 3-58
including, *Task Builder*, 10-14, 11-25 to 11-26
introduction, *Program Development*, 1-6, 1-7
MACRO-11 source file, *Program Development*, 3-3, 3-4
task, *MCR*, 3-58 *Program Development*, 4-9, 5-1, 5-2, 7-7, 7-8, 7-9
tool
See ODT
using map, *Program Development*, 5-2, 5-8
/DEBUG qualifier, *Task Builder*, 11-25 to 11-26
Debug routine, *I/O Operations*, 7-6
.DEC directive, *Indirect*, 2-44
Decimal conversion
decimal to binary ($CDTB), *System Library*, 4-4
decimal to binary double-word (.DD2CT), *System Library*, 4-1
Decimal mode, *Indirect*, 2-48

Decimal number, *Command Language*, 1-13
packing, *MACRO-11*, 6-31
Decimal version numbers
SYSGEN question, *System Generation*, 3-29
/DEC keyword
SET command (MCR), *MCR*, 3-211
SET command (VMR), *System Management*, 10-57
DECL$S directive, *Executive*, 5-61
Declaration flag byte
symbol, *Task Builder*, A-7
Declare Significant Event directive, *Executive*, 5-61
DECLARE statement, *Error Logging*, 5-26, 5-27
DECnet, *RMS-11 User's Guide*, B-1
and CREATE operations, *RMS-11 User's Guide*, B-2, B-3
and ERASE operations, *RMS-11 User's Guide*, B-2
and file organization, *RMS-11 User's Guide*, B-3
and OPEN operations, *RMS-11 User's Guide*, B-2, B-3
block access, *RMS-11 User's Guide*, B-3
CEX on pregenerated kit, *System Generation*, 5-47
DAPRES resident library, *RMS-11 User's Guide*, B-1
disk-resident overlaid code, *RMS-11 User's Guide*, B-1
FALs
on different systems, *RMS-11 User's Guide*, B-3
file specification, *RMS-11 User's Guide*, B-2
default, *RMS-11 User's Guide*, B-2
node, *RMS-11 User's Guide*, B-2
quoted string, *RMS-11 User's Guide*, B-2
I/O buffers, *RMS-11 User's Guide*, B-3
indexed files, *RMS-11 User's Guide*, B-3
relative files, *RMS-11 User's Guide*, B-3
sequential files, *RMS-11 User's Guide*, B-3
DECnet (cont'd.)
limitations on functions, *RMS-11 User's Guide*, B-1
pool use on pregenerated kit, *System Generation*, 5-47
SYSGEN question, *System Generation*, 3-26
DECnet Remote Terminal Facility
See RMT
DECnet software, *Command Language*, 1-16
DECODE statement, *Error Logging*, 5-32
DECREMENT statement, *Error Logging*, 5-31
DECtape, *RMS-11 Macro*, 3-1, 5-20, 5-37, 5-42, 5-77, 5-88, 5-104, 5-111, 5-117
exercising
IOX, *System Management*, 4-2
function code list, *I/O Drivers*, B-8
GLUN$ macro, *I/O Drivers*, 6-1
I/O function, *I/O Drivers*, 6-2, 6-3
I/O status return, *I/O Drivers*, 6-4
programming hint, *I/O Drivers*, 6-7
recovery, *I/O Drivers*, 6-6
reverse read, *I/O Drivers*, 6-7
reverse speed, *I/O Drivers*, 6-7
reverse write, *I/O Drivers*, 6-7
select recovery, *I/O Drivers*, 6-7
task aborting, *I/O Drivers*, 6-8
transfer length, *I/O Drivers*, 6-7
DECtape controller
SYSGEN question, *System Generation*, 3-48
DECtape file structure, *I/O Operations*, 5-1
DECtape II, *RMS-11 Macro*, 3-1, 5-20, 5-37, 5-42, 5-77, 5-88, 5-104, 5-111, 5-117
DECtape II controller
SYSGEN question, *System Generation*, 3-50
Dedicated mode (LADRV), *I/O Drivers*, 22-1
DEF$SZ argument, *RMS-11 Macro*, C-1
DEFAUL symbol, *Indirect*, 2-10
Default, *Introduction*, 1-12 to 1-13, 3-9 *RMS-11 User's Guide*, 2-2
compilers, *RMS-11 User's Guide*, 2-2
DEQ, *RMS-11 User's Guide*, 4-4

Default
device
VMR, *System Management*, 10-5
directory
VMR, *System Management*, 10-6
file specification, *Command Language*, 4-4 to 4-6 *RMS-11 User's Guide*, B-2
file type
MACRO-11, *Program Development*, 3-5
TKB, *Program Development*, 4-1
VMR, *System Management*, 10-6
operating system, *RMS-11 User's Guide*, 2-2
RMSDES utility, *RMS-11 Utilities*, 2-21
switch
modifying, *Task Builder*, F-7, F-8 to F-11
system library search
MACRO-11, *Program Development*, 1-5, 1-10, 2-7
TKB, *Program Development*, 1-11, 4-2
task building, *Task Builder*, 1-1
transfer (starting) address, *Program Development*, 4-8
version number
VMR, *System Management*, 10-6
VMR
file name, *System Management*, 10-6
/DEFAULT_LIBRARY qualifier, *Task Builder*, 11-27
Default directory string, *Executive*, 5-101, 5-190 *Indirect*, 2-18, 2-21
retrieving, *Executive*, 5-100
setting, *Executive*, 5-189
Default extension quantity
See DEQ
Default extension size
See DEQ field in ALL block
See DEQ field in FAB
Default Filename Block
See DFNB
Default fill character, *Error Logging*, 5-6
Default LUN (ICDRV/ISDRV), *I/O Drivers*, 19-38
Default print field width, *Error Logging*, 5-6
Default radix, *Error Logging*, 5-6
MACRO-11, 3-14
Default register definition, *MACRO-11*, 3-10
Default string
See DNA field in FAB
Deferred addressing indicator, *MACRO-11*, 3-2
Deferred address mode
autodecrement, *MACRO-11*, 5-5
autoincrement, *MACRO-11*, 5-4
index, *MACRO-11*, 5-6
register, *MACRO-11*, 5-3
relative, *MACRO-11*, 5-9
Deferred write, *RMS-11 User's Guide*, 2-17
See also FB$DFW mask in FOP field
and mass insertion, *RMS-11 User's Guide*, 6-29
indexed files, *RMS-11 User's Guide*, 7-8
relative files, *RMS-11 User's Guide*, 4-14
sequential files, *RMS-11 User's Guide*, 3-14
/DE file switch
PRI command, *Batch and Queue*, 2-6
DEFINE command, *Command Language*, 5-14, 5-41 to 5-44, 9-10
Defined report string
user, *Error Logging*, 3-21
DEFINE LOGICALS command (MCR), *MCR*, 1-6, 3-63
error messages, *MCR*, 3-69
examples, *MCR*, 3-66, 3-67, 3-68
format, *MCR*, 3-67, 3-68
formats, *MCR*, 3-65
keywords
/ALL, *MCR*, 3-68
/FINAL, *MCR*, 3-66
/GBL, *MCR*, 3-66, 3-67, 3-68
/GR, *MCR*, 3-66, 3-67, 3-68
/SYSTEM, *MCR*, 3-67, 3-68
/TERM, *MCR*, 3-67, 3-68
DEFINITIONS argument, *MACRO-11*, 8-11
/DEF keyword
SET command (MCR), *MCR*, 3-212
DEL argument to ORG$ macro, *RMS-11 Macro*, 2-3
DELAY directive, *Indirect*, 2-45

DEL C key (EDT), *Introduction*, 2-7
DELET$ macro, *I/O Operations*, 3-1, 3-42
  format
    file operations, *I/O Operations*, 3-42
Delete
  character (half-duplex), *I/O Drivers*, 3-15
    escape sequence, *I/O Drivers*, 3-25
  key (TTDRV), *I/O Drivers*, 2-71
  read no filter (TTDRV), *I/O Drivers*, 2-14
  TF.RST (TTDRV), *I/O Drivers*, 2-14
DELETE/REMOTE command, *System Management*, 9-7
DELETE & PRINT command
  EDI utility, *Utilities*, 2-14, 2-31
DELETE/ENTRY command, *Introduction*, 3-13
Delete access, *MCR*, 2-3
  common region, *MCR*, 3-120
  file, *MCR*, 3-149, 3-213
  UFD, *MCR*, 3-281
  volume, *MCR*, 3-94, 3-96, 3-106, 3-151
DELETE command, *Command Language*, 4-40 to 4-43, 9-11
    Introduction, 3-4 to 3-5, 3-7
    System Management, 9-7
  DELETE/DIRECTORY, *Command Language*, 4-20, 9-11
  DELETE/ENTRY, *Command Language*, 4-86 to 4-87, 9-11
  DELETE/JOB, *Command Language*, 4-86 to 4-87, 9-12
  DELETE/PROCESSOR, *Command Language*, 9-12
  DELETE/QUEUE, *Command Language*, 9-12
  EDI utility, *Utilities*, 2-13, 2-31
  example, *Batch and Queue*, 2-11
  format, *Batch and Queue*, 2-10
DELETE command_EDT editor, *Introduction*, 2-13
/DELETE file qualifier
  PRINT command, *Batch and Queue*, 2-6
  SET QUEUE command, *Batch and Queue*, 2-21
DELETE key, *Command Language*, 3-14 *Introduction*, 1-6 to 1-8 *MCR*, 2-16
Delete Logical Name directive, *Executive*, 5-62
$DELETE macro, *RMS-11 Macro*, 5-25
Delete mode, *Indirect*, 2-48
DELETE operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-11 *RMS-11 User's Guide*, 1-15
  and key position, *RMS-11 User's Guide*, 6-7
  and shared access, *RMS-11 User's Guide*, 2-6
  compressing records, *RMS-11 User's Guide*, 5-10, 5-16, 6-7, 6-9
  declaring with ORG$ macro, *RMS-11 Macro*, 2-3
  deferred write, *RMS-11 User's Guide*, 7-9
  $DELETE macro, *RMS-11 Macro*, 5-25
  duplicate keys, *RMS-11 User's Guide*, 6-9
  indexed files, *RMS-11 User's Guide*, 5-15, 7-3, 7-9
  optimizing, *RMS-11 User's Guide*, 6-7
  relative files, *RMS-11 User's Guide*, 4-7
Delete option
  ACNT, *System Management*, 2-9
DELETESYS.CMD
  on pregenerated kit, *System Generation*, 5-8, 5-15
Deleting text (EDT), *Introduction*, 2-7, 2-13
Deletion, file marked for
  See FB$MKD mask in FOP field
/DEL file switch
  QUE /MOD command, *Batch and Queue*, 2-21
Delimiter, *Program Development*, 2-16
Delimiting character, *MACRO-11*, 3-3
DEL L key (EDT), *Introduction*, 2-7
DEL W key (EDT), *Introduction*, 2-7
Density
  See also Bit density
  bit 11 characteristic (tape driver), *I/O Drivers*, 8-9
  parameter, device-specific (disk driver), *I/O Drivers*, 5-9

Density (cont'd.)
selection (tape driver), *I/O Drivers*, 8-16
tape
in IOX, *System Management*, 4-33
DENSITY command
IOX, *System Management*, 4-33
/DENSITY qualifier
BRU utility, *Utilities*, 7-14
/DENSITY switch
FMT utility, *Utilities*, 5-8
/DENS keyword
HOME command, *MCR*, 3-93
INITVOLUME command, *MCR*, 3-102
MOUNT command (MCR), *MCR*, 3-147
SAVE command (VMR), *System Management*, 10-48
/DENS switch, *CDA*, 2-10
DMP utility, *Utilities*, 11-5
DSC utility, *Utilities*, 8-14
Depth
indexed files, *RMS-11 User's Guide*, 5-5
DEQ
indexed files, *RMS-11 User's Guide*, 6-26
relative files, *RMS-11 User's Guide*, 4-4
default, *RMS-11 User's Guide*, 4-4
RMSDEF utility, *RMS-11 Utilities*, A-15
DEQ field in ALL block
CREATE operation, *RMS-11 Macro*, 5-17
DISPLAY operation, *RMS-11 Macro*, 5-30
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-11
DEQ field in FAB
CREATE operation, *RMS-11 Macro*, 5-17
offset, *RMS-11 Macro*, 6-22
OPEN operation, *RMS-11 Macro*, 5-74, 5-78
summary, *RMS-11 Macro*, 6-33
D error, *MACRO-11*, 2-3
summary, *MACRO-11*, D-3
Description file
RMSDES utility, *RMS-11 Utilities*, 2-3, 2-13, 2-17, 2-24
EXIT command, *RMS-11 Utilities*, 2-10
GET command, *RMS-11 Utilities*, 2-10
SAVE command, *RMS-11 Utilities*, 2-27
Descriptor
region, *Task Builder*, B-15, B-17, B-21, B-22
segment, *Task Builder*, B-15 to B-20
window, *Task Builder*, B-15, B-17, B-20, B-21
DESELECT command
IOX, *System Management*, 4-35
Design buffer
RMSDES utility, *RMS-11 Utilities*, 2-1
using, *RMS-11 Utilities*, 2-16
Design buffer sections (RMSDES)
See Section
Designing applications, *RMS-11 User's Guide*, 2-1
considerations, *RMS-11 User's Guide*, 2-2
ease of design, *RMS-11 User's Guide*, 2-10
shared access, *RMS-11 User's Guide*, 2-5
space, *RMS-11 User's Guide*, 2-4, 8-1
speed, *RMS-11 User's Guide*, 2-3, 8-1
when to design, *RMS-11 User's Guide*, 2-2
Designing files, *RMS-11 Introduction*, 3-15
See also Indexed file organization
See also Relative file organization
See also Sequential file organization
indexed, *RMS-11 User's Guide*, 6-1
relative, *RMS-11 User's Guide*, 4-2
sequential, *RMS-11 User's Guide*, 3-3
Design session
RMSDES utility, *RMS-11 Utilities*, 2-1
resuming, *RMS-11 Utilities*, 2-22
Despooler
definition, *Batch and Queue*, 4-3

Despool prototype task
See LPP
/DE switch, *Error Logging*, 3-5, 3-8
FLX utility, *Utilities*, 4-7
Indirect, *Indirect*, 2-29
LBR utility, *Utilities*, 10-13
PIP utility, *Utilities*, 3-17
RMSIFL utility, *RMS-11 Utilities*, 3-7, 3-10, 3-14
VFY utility, *Utilities*, 9-4
Detach mode, *Indirect*, 2-47
Detach Region directive, *Executive*, 5-67
$DEUMR routine, *Writing I/O Driver*, 7-16
calling from driver, *Writing I/O Driver*, 7-4
DEUNA driver
See XEDRV
DEUNA Ethernet controller
SYSGEN question, *System Generation*, 3-65
DEV
See DEVICES command
DEV command
disk data caching, *System Management*, 19-15
DEV-ctl parameter
IO.XOP function (XEDRV), *I/O Drivers*, 13-6
DEV field in FAB, *RMS-11 Macro*, 3-1, 3-2
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-42, 5-43
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-117, 5-118
summary, *RMS-11 Macro*, 6-34
$DEVHD routine, *Writing I/O Driver*, 2-3, 2-11
Device, *Introduction*, 1-5, 1-11, 3-10, 6-7 *MCR*, 2-10 to 2-14 *RMS-11 Introduction*, 2-1 *Writing I/O Driver*, 1-1
See also Controller
See also Disk
See also Line interface
See also Line printer
See also Magnetic tape
See also Medium
See also Multiplexer
accessing, *MCR*, 3-141
adding after SYSGEN, *System Generation*, 4-8
restrictions, *System Generation*, 4-10
address, *Writing I/O Driver*, 1-1
allocated, *Command Language*, 5-10 to 5-11
allocating, *MCR*, 2-13, 3-16
and record formats, *RMS-11 User's Guide*, 2-15
assigned controller, *Writing I/O Driver*, 1-18
assignment, *Task Builder*, 12-8
attached, *MCR*, 3-173
atttaching, *I/O Drivers*, 1-27
bootable, *MCR*, 3-35
busy/not busy, *Writing I/O Driver*, 1-13
changing CSR and vector with CNF, *System Generation*, 2-8
characteristic (tape driver), *I/O Drivers*, 8-3
characteristics
See also DEV field in FAB
setting, *MCR*, 3-197
common, *MCR*, 3-238 *Task Builder*, 5-30, 5-32
building and linking, *Task Builder*, 5-28 to 5-32
configuration
in baseline, *System Generation*, 3-12
on pregenerated kits, *System Generation*, 5-45
configured on-line, *Writing I/O Driver*, 1-13
control
LUN register, *Debugging*, 2-7, 5-4, 6-2

Device
controller
overlapped-seek support, *MCR*, 3-236
crash dump, *CDA*, 1-1
crash notification, *CDA*, 1-1
See also Crash notification device
deallocating, *MCR*, 2-13, 3-16, 3-57
default, *MCR*, 3-212
detaching, *I/O Drivers*, 1-28
disconnecting (communication driver), *I/O Drivers*, 12-7
disk, *RMS-11 Introduction*, 2-1
displaying, *MCR*, 3-60
attributes, *Command Language*, 5-135
driver, *RMS-11 Introduction*, 2-1
See also Driver
building, *MCR*, 3-134
loadable, *MCR*, 3-166
loading, *MCR*, 3-132
mapping, *MCR*, 3-132
nonresident, *MCR*, 3-132
vectoring, *MCR*, 3-132, 3-134
driver, loading
on pregenerated kit, *System Generation*, 5-41
dual-access
SYSGEN question, *System Generation*, 3-36, 3-37, 3-41
dual-access capability, *Writing I/O Driver*, 1-17
error logging, *Error Logging*, 2-4
control file module, *Error Logging*, 2-4, 2-5
errors
error logging, *Error Logging*, 1-6
hardware register contents, *Error Logging*, 1-6
exercising
examples
RL02, *System Management*, 4-10
fairness-count, *MCR*, 3-235
Files-11, *MCR*, 2-1
file-structured, *MCR*, 3-141
fixed media, *CDA*, 1-3, 1-5
generic name, *Writing I/O Driver*, 2-3
getting information, *Executive*, 5-103
I/O requests
redirecting, *MCR*, 3-173
Device (cont'd.)
identifier, *MCR*, 2-10
See also DVI field in NAM block
information, *Indirect*, 2-87
initializing (communication driver), *I/O Drivers*, 12-7
interrupt, *Writing I/O Driver*, 1-5
invalid crash dump, *CDA*, 1-3, 1-5
IOX
adding, *System Management*, 4-29
displaying, *System Management*, 4-29
exercising
steps, *System Management*, 4-2
status during exercise, *System Management*, 4-60
testing
removing, *System Management*, 4-35
time of, *System Management*, 4-57
LA-type
SYSGEN question, *System Generation*, 3-55
list, *MCR*, 3-144
list of supported, *I/O Drivers*, 1-43
logical, *Command Language*, 5-9 to 5-10, 5-26 to 5-33, 5-37 to 5-40, 5-129 to 5-131
assignment, *Command Language*, 5-9
logical name, *Command Language*, 5-9 to 5-10 *Indirect*, 2-89
magnetic tape, *RMS-11 Introduction*, 2-4
making accessible, *Writing I/O Driver*, 5-6
mnemonic, *System Generation*, 2-3
mounted, *MCR*, 3-62
MU-type
SYSGEN question, *System Generation*, 3-46
name, *MCR*, 2-4
assigning logical, *MCR*, 2-12
displaying, *MCR*, 3-60
logical, *CDA*, 3-17
nonphysical, *I/O Drivers*, 1-20
physical, *CDA*, 3-17 *I/O Drivers*, 1-18, 1-20
pseudo, *I/O Drivers*, 1-20
non-file-structured, *MCR*, 3-141
nonshared, *MCR*, 3-142

Device (cont'd.)
null, *MCR*, 2-11 *System Management*, 10-39
off-line, *MCR*, 3-62 *System Management*, 10-17
on-line, *MCR*, 3-62
PCL11
SYSGEN question, *System Generation*, 3-63
peripheral, *Introduction*, 6-1, 6-7 *MCR*, 2-10
placing off line, *System Management*, 15-3
placing on line, *System Management*, 15-3
private, *MCR*, 2-13, 3-246
deallocating, *MCR*, 3-16, 3-57
displaying, *MCR*, 3-246
privileged status, *MCR*, 2-13
pseudo, *Introduction*, 3-11 *MCR*, 2-10 to 2-11, 3-173 *System Generation*, B-3 *System Management*, 10-3
public, *MCR*, 2-13, 3-62, 3-142
dismounting, *MCR*, 2-13
displaying, *MCR*, 3-245, 3-246
setting, *MCR*, 3-245
queuing I/O request, *Executive*, 5-143, 5-147
REASSIGN command, *I/O Drivers*, 1-20
REDIRECT command, *I/O Drivers*, 1-20
redirecting, *System Management*, 10-39
redirecting restrictions, *System Management*, 10-39
registers, *Writing I/O Driver*, 1-1, 1-2, 4-50
removing, *System Management*, 10-93
attached device, *System Management*, 10-93
saving system image, *MCR*, 3-187
sequential, *MCR*, 3-141
setting attributes, *Command Language*, 5-132
shadow, *MCR*, 3-70
shared, *MCR*, 3-142
spooled, *MCR*, 3-173
storage of static characteristics, *Writing I/O Driver*, 2-3
subcontroller, *Writing I/O Driver*, 1-13

Device (cont'd.)
support
BAD utility, *Utilities*, 6-9
BRU utility, *Utilities*, 7-5
by Autoconfigure, *System Generation*, 3-10, E-1
DSC utility, *Utilities*, 8-4
FLX utility, *Utilities*, 4-2
FMT utility, *Utilities*, 5-5
on pregenerated kit, *System Generation*, 5-43
on RSX-11M-PLUS, *System Generation*, B-1 to B-3
switch, *CDA*, 2-6 *Error Logging*, 3-5, 3-8
system, *CDA*, 1-5
system default
adding to account entry, *System Management*, 2-3
changing, *System Management*, 2-7
displaying, *System Management*, 2-5, 2-8
in account entry, *System Management*, 2-1
TI:
pseudo, *I/O Drivers*, 1-21
virtual, *I/O Drivers*, 1-21
time-out, *Writing I/O Driver*, 2-5
entry point, *Writing I/O Driver*, 4-65
time out (half-duplex), *I/O Drivers*, 3-19
unit number, *CDA*, 1-4
unit-record, *RMS-11 Introduction*, 3-5
unowned, *Command Language*, 5-10 to 5-11 *MCR*, 2-13
user's default, *MCR*, 2-11
valid crash dump, *CDA*, 1-2, 1-5
verifying
BAD utility, *Utilities*, 6-3
Device context, *System Management*, 15-3
Device Control Block
See DCB
Device controller dump, *CDA*, 3-51
common interrupt address, *CDA*, 3-51
Controller Request Block, *CDA*, 3-52
controller status, *CDA*, 3-52
Controller Table, *CDA*, 3-51

Device controller switch
See /CTL switch
Device control routine, *I/O Operations*, 4-31
Device driver
testing, *Indirect*, 2-63
without error logging, *Error Logging*, 1-3
Device I/O activity, *Error Logging*, 1-1
Device information
.PRSDV routine, *I/O Operations*, 4-16
Device information dump, *CDA*, 3-38
control processing flags, *CDA*, 3-39
device characteristics word, *CDA*, 3-39
Device Control Block, *CDA*, 3-42
I/O request packet, *CDA*, 3-42
Status Control Block, *CDA*, 3-42
terminal status word, *CDA*, 3-38
UCB extension, *CDA*, 3-42
Device information table, *Error Logging*, 4-34
ALTPRINTNAME field, *Error Logging*, 4-35
DISPNAME field, *Error Logging*, 4-35
DRIVETYPE field, *Error Logging*, 4-36
MASSBUSFLAG field, *Error Logging*, 4-36
MNEMONIC field, *Error Logging*, 4-35
PRINTNAME field, *Error Logging*, 4-35
SIZE field, *Error Logging*, 4-36
Device interrupt address
overview, *Writing I/O Driver*, 2-6
Device interrupt vector, *Writing I/O Driver*, 2-4
Device-level module, *Error Logging*, 4-11
adding to system, *Error Logging*, 4-25
addition to device information table, *Error Logging*, 4-34
bit-to-text translation, *Error Logging*, 4-30
coroutine, *Error Logging*, 4-30
device data declaration, *Error Logging*, 4-26
device name, *Error Logging*, 4-26
error type, *Error Logging*, 4-30
EUNKWN, *Error Logging*, 4-37
Device-level module (cont'd.)
exit, *Error Logging*, 4-31
* flag, *Error Logging*, 4-28
intermodule variable, *Error Logging*, 4-29
local work variable, *Error Logging*, 4-29
MASSBUS, *Error Logging*, 4-33, 4-34
module statement, *Error Logging*, 4-26
Non-MASSBUS, *Error Logging*, 4-33, 4-34
notes, *Error Logging*, 4-31
procedure statement, *Error Logging*, 4-26
register definitions, *Error Logging*, 4-27
subpacket statement, *Error Logging*, 4-26
Device module
EML11, *Error Logging*, 4-8
ERK05, *Error Logging*, 4-8
ERK67, *Error Logging*, 4-8
ERL12, *Error Logging*, 4-8
ERM05, *Error Logging*, 4-8
ERM23, *Error Logging*, 4-8
ERM80, *Error Logging*, 4-8
ERP07, *Error Logging*, 4-8
ERP23, *Error Logging*, 4-8
ERP456, *Error Logging*, 4-8
ERS11, *Error Logging*, 4-9
ERS34, *Error Logging*, 4-9
ERX01, *Error Logging*, 4-9
ERX02, *Error Logging*, 4-9
ET0310, *Error Logging*, 4-9
ET1645, *Error Logging*, 4-9
ETA11, *Error Logging*, 4-9
ETC11, *Error Logging*, 4-9
ETS11, *Error Logging*, 4-9
ETSV05, *Error Logging*, 4-9
ETU58, *Error Logging*, 4-9
ETU77, *Error Logging*, 4-9
MSCP60, *Error Logging*, 4-9
MSCP80, *Error Logging*, 4-9
MSCPAT, *Error Logging*, 4-9
MSCPE, *Error Logging*, 4-9
MSCPEN, *Error Logging*, 4-9
MSCPSD, *Error Logging*, 4-9
MSCPTO, *Error Logging*, 4-9
Device name field, *I/O Operations*, 2-34
Device name string descriptor, *I/O Operations*, 2-29

Device notation format, *System Generation*, 3-34
/DEVICE qualifier
  PRINT command, *Batch and Queue*, 2-6
  SHOW QUEUE command, *Batch and Queue*, 2-15
DEVICES command (MCR), *MCR*, 1-7, 3-60
  examples, *MCR*, 3-60
  formats, *MCR*, 3-60
  keyword
    /LOG, *MCR*, 3-60
  parameters, *MCR*, 3-60
DEVICES command (VMR), *System Management*, 10-16
  definition, *System Management*, 10-16
  example, *System Management*, 10-16
  format, *System Management*, 10-16
  notes, *System Management*, 10-17
  parameter, *System Management*, 10-16
Device-specific QIO$ (LADRV), *I/O Drivers*, 22-28
Device Statistics Block, *System Management*, 17-31
Device statistics example
  Resource Accounting, *System Management*, 17-7
Device unit failures, *System Management*, 15-32
/DEV keyword
  DISMOUNT command (MCR), *MCR*, 3-71
Dev parameter
  ALUN$ macro, *I/O Drivers*, 1-17
DEVSM1, *Error Logging*, 4-7, 4-18, 4-34, 4-36
  SLP, *Error Logging*, 4-36
/DEV switch, *CDA*, 2-5, 2-6
$$DEVT program section
  reserved name, *Task Builder*, E-2
DEVUDA, *Error Logging*, 4-7
DF condition test argument, *MACRO-11*, 6-52
DFDI: routine
  disconnect buffer from digital interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-56
DFDI: subroutine
  disconnect contact interrupt (UDDRV), *I/O Drivers*, 16-22
DFIN$G argument, *RMS-11 Macro*, C-1
DFIN$L argument, *RMS-11 Macro*, C-1
DFL
  See DEFINE LOGICALS command
DFL field in KEY block
  CREATE operation, *RMS-11 Macro*, 5-20
  DISPLAY operation, *RMS-11 Macro*, 5-31
  offset, *RMS-11 Macro*, 6-67
  OPEN operation, *RMS-11 Macro*, 5-80
  summary, *RMS-11 Macro*, 6-73
DFNB, *I/O Operations*, 2-31, 3-17
  as data structure, *I/O Operations*, 1-4
  definition, *I/O Operations*, 1-2
  FNBLK$ macro, *I/O Operations*, 2-31
  OFNB$x macro, *I/O Operations*, 3-17
  specifying, *I/O Operations*, 2-28
/DF switch
  LBR utility, *Utilities*, 10-14
  PIP utility, *Utilities*, 3-18
DFTI: routine
  disconnect buffer from counter interrupt, *I/O Drivers*, 19-59
DFTI: subroutine
  disconnect timer interrupt (UDDRV), *I/O Drivers*, 16-23
DFTY: circular buffer
  terminal input (ICDRV/ISDRV), *I/O Drivers*, 19-62
/DG switch
  LBR utility, *Utilities*, 10-15
DH11, *I/O Drivers*, 3-31
  remote (half-duplex), *I/O Drivers*, 3-33
  remote line (TTDRV), *I/O Drivers*, 2-83
  TTDRV, *I/O Drivers*, 2-81
DH11 line multiplexer
  SYSGEN question, *System Generation*, 3-57
DHU11/DHV11 line muliplexer
  SYSGEN question, *System Generation*, 3-58
DHV11 (TTDRV), *I/O Drivers*, 2-81

DI/DIW: subroutine
read contact sense fields (UDDRV), *I/O Drivers*, 16-23
DI/DIW input routine
digital sense multiple field (ICDRV/ISDRV), *I/O Drivers*, 19-47, 19-48
Diagnostic
buffer
p5 address, *I/O Drivers*, 13-19
p6 size, *I/O Drivers*, 13-19
XEDRV, *I/O Drivers*, 13-19
function
IO.DGN (DDDRV), *I/O Drivers*, 7-4
IO.XRC, *I/O Drivers*, 13-19, 13-20
IO.XTM, *I/O Drivers*, 13-19, 13-20
no data transfer (XEDRV), *I/O Drivers*, 13-21
request block (XEDRV), *I/O Drivers*, 13-19
user-mode function, *I/O Drivers*, 1-34, 1-35
Diagnostic error message, *System Management*, 10-94
Diagnostic exit, *Task Builder*, 10-54, 11-28
Diagnostic run
FORTRAN IV source file, *Program Development*, 7-3, 7-4
MACRO-11 source file, *Program Development*, 3-1, 3-2
Diagnostics Loader task
See DLD
Dial-up line
baud rate
SYSGEN question, *System Generation*, 3-57, 3-59, 3-61
modem support
SYSGEN question, *System Generation*, 3-61
SYSGEN question, *System Generation*, 3-57, 3-58
DIC, *Executive*, 1-2
list, *Executive*, C-1
DID field in NAM block
CREATE operation, *RMS-11 Macro*, 5-10, 5-21
ENTER operation, *RMS-11 Macro*, 5-36, 5-37
DID field in NAM block (cont'd.)
ERASE operation, *RMS-11 Macro*, 5-41, 5-42
offset, *RMS-11 Macro*, 6-94
OPEN operation, *RMS-11 Macro*, 5-73, 5-77
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-103, 5-105
RENAME operation, *RMS-11 Macro*, 5-109, 5-110, 5-111
RSTS/E, *RMS-11 Macro*, D-4
SEARCH operation, *RMS-11 Macro*, 5-116, 5-118
summary, *RMS-11 Macro*, 6-95
DIF condition test argument, *MACRO-11*, 6-52
DIFFERENCES command, *Command Language*, 4-68 to 4-73, 9-12
DIGITAL Command Language
See DCL
DIGITAL COMMAND LANGUAGE
command, *MCR*, 1-8, 3-56
examples, *MCR*, 3-56
format, *MCR*, 3-56
Digital controller, universal, *I/O Drivers*, 16-1
Digital input (K-series), *I/O Drivers*, 23-16
DIGITAL Multinational Character Set, *MCR*, 3-8
Digital output (K-series), *I/O Drivers*, 23-20
Digital start event (K-series), *I/O Drivers*, 23-16
DIGITAL-supplied driver, *System Generation*, 1-8
DIGO: subroutine
digital start event (K-series), *I/O Drivers*, 23-16
DINP: subroutine
digital input (K-series), *I/O Drivers*, 23-16
DIR$ macro, *Executive*, 1-6 *I/O Drivers*, 1-14, 1-15
example, *I/O Drivers*, 1-16
format, *I/O Drivers*, 1-15
DIR attribute, *System Management*, 12-31
Direct access
See also Random access
error (UDDRV), *I/O Drivers*, 16-16

Direct access (cont'd.)
I/O page (UDDRV), *I/O Drivers*, 16-3
physical address (ICDRV/ISDRV), *I/O Drivers*, 19-74
Direct-access label, *Indirect*, 2-31
Direct assignment
operator, *MACRO-11*, 3-1, 3-2, 3-9
statement, *MACRO-11*, 3-6 to 3-9, 3-13
Directive
assembler, *Program Development*, 1-5
function, *MACRO-11*, 6-18 to 6-22
summary, *MACRO-11*, B-3 to B-8
comment block, *MACRO-11*, 6-18
conditional assembly, *MACRO-11*, 6-50 to 6-54, 6-55, 6-56
conventions, *Executive*, 5-6
cross-reference, *MACRO-11*, 6-21, 6-22
data storage, *MACRO-11*, 6-23 to 6-39
DIC list, *Executive*, C-1
file control, *MACRO-11*, 6-57, 6-58
general assembler, *MACRO-11*, 6-1, 6-2, 6-3
summary table, *MACRO-11*, 6-1, 6-2, 6-3
immediate conditional assembly, *MACRO-11*, 6-56
Indirect, *Indirect*, 1-4, 2-3, 2-30 *Introduction*, 4-2 to 4-3
function, *Indirect*, 2-3
summary, *Indirect*, 2-5
listing control, *MACRO-11*, 6-3 to 6-18
arguments for, *MACRO-11*, 6-10, 6-11, 6-12
macro, *MACRO-11*, 7-1
macros, *Executive*, 1-4
memory management, *Executive*, 3-1
data structures, *Executive*, 3-11
summary, *Executive*, 3-9
.NAME, *Task Builder*, 3-28
attributes, *Task Builder*, 3-28
example use, *Task Builder*, 3-29
ODL, *Task Builder*, 3-23, 3-24
.END, *Task Builder*, 3-23, 3-24
.FCTR, *Task Builder*, 3-23, 3-25
.NAME, *Task Builder*, 3-23
Directive
ODL (cont'd.)
.PSECT, *Task Builder*, 3-23
.ROOT, *Task Builder*, 3-23, 3-24
processing, *Executive*, 1-2
program identification, *MACRO-11*, 6-16, 6-17
program sectioning, *MACRO-11*, 6-40 to 6-48
.PSECT, *Task Builder*, 3-29
rejecting, *Executive*, 1-2
summary, *Executive*, A-1
symbol control, *MACRO-11*, 6-48, 6-49
system, *Program Development*, 1-9, 1-10
terminating, *MACRO-11*, 6-39
unconditional assembly, *MACRO-11*, 6-53
use, *Program Development*, 2-3, 2-5, 2-6
use of parentheses, *Task Builder*, 3-24
version number, *MACRO-11*, 6-16, 6-17
directive
macro
$C form, *Executive*, 1-6
$ form, *Executive*, 1-5
naming conventions, *Executive*, 1-5
$S form, *Executive*, 1-6
Directive condition, *I/O Drivers*, 1-37
Directive Identification Code
See DIC
Directive Parameter Block
See DPB
Directive status, *I/O Drivers*, 1-37
Directive status code, *Indirect*, 2-15
list, *Executive*, B-1
Directive Status Word
See DSW
Directive summary
I/O related, *I/O Operations*, C-1
Directory, *Command Language*, 4-1, 4-3 *Introduction*, 1-11
See also UFD
count
legal values, *MCR*, 3-95
maximum, *MCR*, 3-104
specifying, *MCR*, 3-104, 3-150
creating, *Command Language*, 4-17
creating files, *MCR*, 2-2

Directory (cont'd.)
data caching, *MCR*, 3-146, 3-207
default, *Command Language*, 4-4
MCR, 3-212
set, *Command Language*, 4-100
show, *Command Language*, 4-104
deleting, *Command Language*, 4-20
MCR, 2-2
file, *I/O Operations*, 5-2
format, *MCR*, 2-4
identification information
.PARSE routine, *I/O Operations*, 4-13
.PRSDI routine, *I/O Operations*, 4-16
library, *Command Language*, 7-28 to 7-32, 8-10 *MCR*, 3-182
displaying, *Command Language*, 8-12
setting, *Command Language*, 8-11
list, *Command Language*, 4-31
listing, *Program Development*, 3-9
login, *MCR*, 3-79
maintenance, *Command Language*, 4-30
named, *Command Language*, 4-100
MCR, 2-4
nonamed, *MCR*, 2-4
numbered, *Command Language*, 4-100 *MCR*, 2-4
group number, *MCR*, 2-4
member number, *MCR*, 2-4
protection, *Command Language*, 4-13, 4-18, 4-111 to 4-114
default, *Command Language*, 4-115 to 4-117
purging, *Program Development*, 3-9, 3-10
specification, *MCR*, 2-4
structure, *I/O Operations*, 5-3
syntax, *MCR*, 2-4
system, *Command Language*, 7-28 to 7-32, 8-10 *MCR*, 3-182
terminal
default, *MCR*, 2-7
wildcard context
See WDI field in NAM block
wildcard operation
See NB$WCH mask in FNB field
DIRECTORY command, *Command Language*, 4-31 to 4-39, 9-13
Introduction, 1-11, 3-6
DIRECTORY command (cont'd.)
DCL, *Program Development*, 3-9
Directory entry
creating
See ENTER operation
deleting
See REMOVE operation
.REMOV routine, *I/O Operations*, 4-20
inserting
.ENTER routine, *I/O Operations*, 4-19
locating
.FIND routine, *I/O Operations*, 4-17
replacing
See RENAME operation
routine, *I/O Operations*, 4-17
Directory identification
FNB (F11ACP), *I/O Drivers*, C-7
Directory operation, *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-5 *RMS-11 User's Guide*, 1-17
See also Operation
Directory operation macro, *RMS-11 Macro*, 1-2
declaring, *RMS-11 Macro*, C-2
Directory processing, *RMS-11 Macro*, 3-1
/DIRECTORY qualifier
BRU utility, *Utilities*, 7-15
Directory record
declare global symbol, *Task Builder*, A-2
end of global symbol, *Task Builder*, A-11
global symbol
end, *Task Builder*, A-11
internal symbol, *Task Builder*, A-24
relocation, *Task Builder*, A-12
Directory string
default
read, *I/O Operations*, 4-2
write, *I/O Operations*, 4-3
descriptor, *I/O Operations*, 2-29
routine
default, *I/O Operations*, 4-2
DIRECT symbol, *Indirect*, 2-18
/DIR keyword
FIX-IN-MEMORY command (VMR), *System Management*, 10-19
DIRSYM.MAC, *Executive*, 4-3
Disable AST Recognition directive, *Executive*, 5-64

Disable Checkpointing directive, *Executive*, 5-66
DISABLE directive, *Indirect*, 2-46
/DISABLE keyword
  COMMAND LINE INTERPRETER command, *MCR*, 3-48
/DISABLE subkeyword, *MCR*, 3-50
Disconnect
  digital interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-20
  UNIBUS switch driver, *I/O Drivers*, 24-5
$DISCONNECT macro, *RMS-11 Macro*, 5-27
DISCONNECT operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
  block stream, *RMS-11 Macro*, 4-14
  $DISCONNECT macro, *RMS-11 Macro*, 5-27
  indexed files, *RMS-11 User's Guide*, 7-3
  record stream, *RMS-11 Macro*, 4-9
  relative files, *RMS-11 User's Guide*, 4-8
  sequential files, *RMS-11 User's Guide*, 3-7
Disk, *RMS-11 Macro*, 3-1, 5-20, 5-37, 5-42, 5-77, 5-88, 5-104, 5-111, 5-117
  See also Medium
  backing up
    BRU utility, *Utilities*, 7-1
    DSC utility, *Utilities*, 8-1
  block
    random or sequential IOX, *System Management*, 4-51
    testing range display IOX, *System Management*, 4-52
    testing range for NFS volumes IOX, *System Management*, 4-52
  characteristics
    displaying, *MCR*, 3-60
  comparing
    DSC utility, *Utilities*, 8-14
  compressing
    DSC utility, *Utilities*, 8-3
  conventional backup
    BRU utility, *Utilities*, 7-4
Disk
  copying
    BRU utility, *Utilities*, 7-1
    DSC utility, *Utilities*, 8-1
  DB-type
    SYSGEN question, *System Generation*, 3-36
  dismounting, *MCR*, 3-70
  displaying free space
    PIP utility, *Utilities*, 3-23
    VFY utility, *Utilities*, 9-5
  DK-type
    SYSGEN question, *System Generation*, 3-40
  DL-type
    SYSGEN question, *System Generation*, 3-42
  DM-type
    SYSGEN question, *System Generation*, 3-41
  DP-type
    SYSGEN question, *System Generation*, 3-43
  drive, *RMS-11 Introduction*, 2-1
  DR-type
    SYSGEN question, *System Generation*, 3-36
  DS-type
    SYSGEN question, *System Generation*, 3-37
  DU-type
    SYSGEN question, *System Generation*, 3-45
  DX-type
    SYSGEN question, *System Generation*, 3-49
  DY-type
    SYSGEN question, *System Generation*, 3-50
  EM-type
    SYSGEN question, *System Generation*, 3-38
  examining data
    DMP utility, *Utilities*, 11-1
  exercising (IOX), *System Management*, 4-2
    examples
      NFS volume, *System Management*, 4-15
      RL02, *System Management*, 4-10
  Files-11

Disk
Files-11
IOX, *System Management*, 4-8
testing
IOX, *System Management*, 4-65
formatting
FLX utility, *Utilities*, 4-4
FMT utility, *Utilities*, 5-1
full backup
BRU utility, *Utilities*, 7-3
function code list, *I/O Drivers*, B-9
home block, *MCR*, 3-93
image backup
BRU utility, *Utilities*, 7-4
initialization values, *System Generation*, 2-11
initializing, *MCR*, 3-99
BRU utility, *Utilities*, 7-2, 7-17
locating bad block
BAD utility, *Utilities*, 6-1
ML11
SYSGEN question, *System Generation*, 3-38
mounting
BRU utility, *Utilities*, 7-2
power fail, *I/O Drivers*, 1-43
private, *Program Development*, 1-12
public, *Program Development*, 1-12
RA60/80/81
SYSGEN question, *System Generation*, 3-45
RC25
SYSGEN question, *System Generation*, 3-45
RD51/52/53
SYSGEN question, *System Generation*, 3-45
recovering
lost block
VFY utility, *Utilities*, 9-7
space
DSC utility, *Utilities*, 8-3
restoring
BRU utility, *Utilities*, 7-1
RK05
SYSGEN question, *System Generation*, 3-40
RK05F
SYSGEN question, *System Generation*, 3-40
Disk
RK06/07
SYSGEN question, *System Generation*, 3-41
RL01/RL02
SYSGEN question, *System Generation*, 3-42
RM02/03/05/80
SYSGEN question, *System Generation*, 3-36
RP02/RPR02/RP03
SYSGEN question, *System Generation*, 3-43
RP04/05/06
SYSGEN question, *System Generation*, 3-36
RP07
SYSGEN question, *System Generation*, 3-36
RS03/04
SYSGEN question, *System Generation*, 3-37
RX01
SYSGEN question, *System Generation*, 3-49
RX02
SYSGEN question, *System Generation*, 3-50
RX50
SYSGEN question, *System Generation*, 3-45
selective backup
BRU utility, *Utilities*, 7-3
spinning down, *MCR*, 3-71
structure, *RMS-11 Introduction*, 2-1
cylinder, *RMS-11 Introduction*, 2-1
platter, *RMS-11 Introduction*, 2-1
sector, *RMS-11 Introduction*, 2-1
track, *RMS-11 Introduction*, 2-1
swapping, *System Generation*, C-2
testing
selecting random testing
IOX, *System Management*, 4-51
skipping blocks
IOX, *System Management*, 4-41
transferring data
DSC utility, *Utilities*, 8-25
verifying, *Utilities*, 9-1
block
VFY utility, *Utilities*, 9-7

Disk-resident
overlay, *Task Builder*, 3-1, 3-2
loading, *Task Builder*, 4-1
remote access code, *RMS-11 User's Guide*, B-1
structure, *Task Builder*, 3-2
Disk Data Caching, *System Management*, 19-1
Data Cache Manager, *System Management*, 19-3
DCL commands, *System Management*, 19-6 to 19-10
features, *System Management*, 19-1
I/O operations, *System Management*, 19-1
including in system, *System Management*, 19-3
MCR commands, *System Management*, 19-10 to 19-16
options, *System Management*, 19-7, 19-10
region, *System Management*, 19-3
Disk data caching, *System Management*, 1-5
including in system, *System Management*, 19-1
SYSGEN support, *System Generation*, 3-27
Disk driver, *I/O Drivers*, 5-1
physical characteristic, *I/O Drivers*, 5-2
programming hint, *I/O Drivers*, 5-12
QIO$ macro, *I/O Drivers*, 5-6
/DIS keyword
SWITCH REGISTER command, *MCR*, 3-274
Disk file structure, *I/O Operations*, 5-1
Disk image, *Task Builder*, 2-8
conventional task, *Task Builder*, 7-5
Disk Save and Compress Utility Program
See DSC utility
Disk space recovery
See also DELETESYS.CMD
after SYSGEN, *System Generation*, 4-3
on pregenerated kit, *System Generation*, 5-46
Disk Volume Formatter Utility
See FMT utility
Dismount (RC25), *I/O Drivers*, 5-14
DISMOUNT command, *Command Language*, 5-12, 5-13, 5-68 to 5-72, 9-14
DISMOUNT command (MCR), *MCR*, 1-6, 3-70
error messages, *MCR*, 3-72
examples, *MCR*, 3-72
formats, *MCR*, 3-70
keywords
/DEV, *MCR*, 2-13, 3-71
/LOCK, *MCR*, 3-71
/TERM, *MCR*, 3-71
/USER, *MCR*, 3-71
parameters, *MCR*, 3-70
shadow device, *MCR*, 3-70
Dismount Device Transaction Block, *System Management*, 17-29
Dispatching
event-level, *Error Logging*, 4-16
Dispatch module, *Error Logging*, 4-3, 4-11
subpacket definition, *Error Logging*, 4-69 to 4-71
Dispatch module path
brief report, *Error Logging*, 4-15
full report, *Error Logging*, 4-15
no report, *Error Logging*, 4-15
register report, *Error Logging*, 4-15
Dispatch procedure, *Error Logging*, 4-10
Displaced relocation
internal, *Task Builder*, A-15
Display
graphic driver, *I/O Drivers*, 21-1
in LED lights (LSDRV), *I/O Drivers*, 17-21
IOX
bad blocks list, *System Management*, 4-26
commands as a category, *System Management*, 4-3
continuing
with PROCEED, *System Management*, 4-50
status during exercise, *System Management*, 4-60
signed integer (LSDRV), *I/O Drivers*, 17-4
DISPLAY command, *System Management*, 15-9
Shadow Recording, *System Management*, 18-9

Display information (RMSDSP), *RMS-11 Utilities*, 5-1
allocation information, *RMS-11 Utilities*, 5-4
area information, *RMS-11 Utilities*, 5-4
attributes, *RMS-11 Utilities*, 5-4
examples, *RMS-11 Utilities*, 5-5
key information, *RMS-11 Utilities*, 5-4
Displaying attributes (RMSDES)
See Attribute
Displaying time, *Command Language*, 8-4
$DISPLAY macro, *RMS-11 Macro*, 5-29
RSTS/E, *RMS-11 Macro*, D-4
Display mode, *Indirect*, 2-48
DISPLAY operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-7 *RMS-11 User's Guide*, 1-18
BDB requirement, *RMS-11 Macro*, 2-8
$DISPLAY macro, *RMS-11 Macro*, 5-29
I/O buffer requirement, *RMS-11 Macro*, 2-7
wildcard loop, *RMS-11 Macro*, 3-10
/DISPLAY qualifier
BRU utility, *Utilities*, 7-16
Distributed I/O, *Writing I/O Driver*, 1-16
Distribution kit
See also Pregenerated kit
backup sets, *System Generation*, 2-4
contents, *System Generation*, 2-3
copying, *System Generation*, 2-6 to 2-26
on line, *System Generation*, 2-15 to 2-20
on VAX/VMS host with VAX-11 RSX, *System Generation*, 2-21 to 2-26
stand alone, *System Generation*, 2-7 to 2-15
definition, *System Generation*, 1-1
label, *System Generation*, 2-4
magnetic tape, *System Generation*, 2-4
RK07, *System Generation*, 2-4
RL02, *System Generation*, 2-3
types, *System Generation*, 2-3
Update, *System Generation*, 2-4
/DI switch
CMP utility, *Utilities*, 12-3
FLX utility, *Utilities*, 4-7
DISWP: subroutine
initiating synchronous digital input sweep
K-series, *I/O Drivers*, 23-17
LADRV, *I/O Drivers*, 22-12
$DIV (Integer divide), *System Library*, 3-2
Divide routine
divide ($DIV), *System Library*, 3-2
double-precision divide ($DDIV), *System Library*, 3-3
Division operator, *MACRO-11*, 3-2, 3-5
DJ11, *I/O Drivers*, 3-31
TTDRV, *I/O Drivers*, 2-81
DJ11 line multiplexer
SYSGEN question, *System Generation*, 3-60
DK-type disk
SYSGEN question, *System Generation*, 3-40
DL11, *I/O Drivers*, 3-31
interrupt enable (half-duplex), *I/O Drivers*, 3-34
TTDRV, *I/O Drivers*, 2-81
DL11/DLV11 line interface
SYSGEN question, *System Generation*, 3-55
DL11-E
asynchronous interface (communication driver), *I/O Drivers*, 12-2
remote line (TTDRV), *I/O Drivers*, 2-83
serial asynchronous interface (communication driver), *I/O Drivers*, 12-2
DLD, *System Management*, 15-34
how to use, *System Management*, 15-34 to 15-37
.DLFNB routine, delete file by filename block, *I/O Operations*, 4-30
DLOG$ directive, *Executive*, 5-62
DLON$ directive, *Executive*, 5-62
/DL switch, *Task Builder*, 10-15
DL-type disk
SYSGEN question, *System Generation*, 3-42
DLX (XEDRV)
definition, *I/O Drivers*, 13-23

DLX (XEDRV) (cont'd.)
incompatibility, *I/O Drivers*, 13-21
DLXDF$ macro (XEDRV), *I/O Drivers*, 13-4
DM11-BB, *I/O Drivers*, 3-31
DM11-BB line interface
SYSGEN question, *System Generation*, 3-58
DMAP attribute, *System Management*, 12-32
DMC11 (communication driver)
message send, *I/O Drivers*, 12-13
powerfail, *I/O Drivers*, 12-12
serial synchronous interface, *I/O Drivers*, 12-2
synchronous line interface, *I/O Drivers*, 12-3
DMC11 line interface
SYSGEN question, *System Generation*, 3-63
DMO
See DISMOUNT command
DMPALL, *Error Logging*, 4-8
/DMP switch, *CDA*, 2-5, 2-6
DMP utility
command line, *Utilities*, 11-2
error message, *Utilities*, 11-12
example, *Utilities*, 11-8
mode
device, *Utilities*, 11-2
file, *Utilities*, 11-1
switch, *Utilities*, 11-3
DMR11 line interface
SYSGEN question, *System Generation*, 3-63
DM-type disk
SYSGEN question, *System Generation*, 3-41
$DMUL (Double-precision multiply), *System Library*, 3-3
DNA (XEDRV), *I/O Drivers*, 13-23
DNA field in FAB, *RMS-11 Macro*, 3-3
CREATE operation, *RMS-11 Macro*, 5-10
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-87
DNA field in FAB (cont'd.)
REMOVE operation, *RMS-11 Macro*, 5-103
RENAME operation, *RMS-11 Macro*, 5-109, 5-110
summary, *RMS-11 Macro*, 6-35
DNS field in FAB, *RMS-11 Macro*, 3-3
CREATE operation, *RMS-11 Macro*, 5-10
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-103
RENAME operation, *RMS-11 Macro*, 5-109, 5-110
summary, *RMS-11 Macro*, 6-36
/DNS switch
FLX utility, *Utilities*, 4-7
DOL/DOLW: subroutine
latch or unlatch fields (UDDRV), *I/O Drivers*, 16-24
DOL/DOLW routine
multiple bistable digital output field (ICDRV/ISDRV), *I/O Drivers*, 19-45, 19-46
Dollar sign ($), *Debugging*, 2-6, 5-1, 9-10
in file specification, *MCR*, 2-7
ODT, *Program Development*, 5-6, 5-7, 5-8
specifying directory, *MCR*, 3-182
DOM/DOMW
momentary digital output multiple field (ICDRV/ISDRV), *I/O Drivers*, 19-49
DOM/DOMW: subroutine
pulse fields (UDDRV), *I/O Drivers*, 16-25
^D operator, *MACRO-11*, 3-5, 6-32
DOS-11
device support
FLX utility, *Utilities*, 4-1
file copying
FLX utility, *Utilities*, 4-3
volume
deleting
FLX utility, *Utilities*, 4-10

DOS-11
volume (cont'd.)
directory listing
FLX utility, *Utilities*, 4-8
initializing
FLX utility, *Utilities*, 4-10
/DO switch
FLX utility, *Utilities*, 4-4
DOSWP: subroutine
initiating synchronous digital output sweep
K-series, *I/O Drivers*, 23-19
LADRV, *I/O Drivers*, 22-14
Dot (.) indicator
See Register indicator
Double ASCII character indicator, *MACRO-11*, 3-2
Double-precision divide ($DDIV), *System Library*, 3-3
Double-precision multiply ($DMUL), *System Library*, 3-3
Double-precision routine, *System Library*, 3-2
Double quote character, *MACRO-11*, 6-25
Double space
TTDRV, *I/O Drivers*, 2-75
VFC (half-duplex), *I/O Drivers*, 3-27
VFC (LPDRV), *I/O Drivers*, 10-6
Doubleword
address, *Writing I/O Driver*, 7-1, 7-2
DOUT: subroutine
digital output (K-series), *I/O Drivers*, 23-20
DP11 (communication driver)
baud rate, *I/O Drivers*, 12-3
serial synchronous interface, *I/O Drivers*, 12-2
synchronous line interface, *I/O Drivers*, 12-3
DPB, *Executive*, 1-2 *I/O Drivers*, 1-12, 1-14, 1-15 *Writing I/O Driver*, 4-11
details, *Writing I/O Driver*, 4-14, 4-15
diagnostic, *I/O Drivers*, 1-35
diagnostic word data, *I/O Drivers*, 1-34
dynamic creation, *I/O Drivers*, 1-14
example, *I/O Drivers*, 1-12
format, *Writing I/O Driver*, 4-14, 4-15
DPB (cont'd.)
I/O function allowances, *Writing I/O Driver*, 4-19
usage in creating I/O packet, *Writing I/O Driver*, 3-2
$DPB$$, *Executive*, 1-6
DP command
EDI utility, *Program Development*, 2-17 *Utilities*, 2-14, 2-31
Dp parameter
device-specific function (UDDRV), *I/O Drivers*, 16-5
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.MLO function, *I/O Drivers*, 19-17
IO.MSO function, *I/O Drivers*, 19-16
/DPRO keyword
SET command (MCR), *MCR*, 3-213
DP-type disk
SYSGEN question, *System Generation*, 3-43
DQ11 (communication driver)
baud rate, *I/O Drivers*, 12-3
serial synchronous interface, *I/O Drivers*, 12-2
sync character, *I/O Drivers*, 12-3
synchronous line interface, *I/O Drivers*, 12-3
DR11-K digital I/O interface, *I/O Drivers*, 23-2
DRDSP
directive dispatcher, *Writing I/O Driver*, 3-2
D register, *Debugging*, 2-7, 5-4, 6-2
DRERR$ macro
I/O completion code, *I/O Drivers*, 1-37
DRGIN.MAC, *Executive*, 1-24
Drive, *RMS-11 Introduction*, 2-1
Driver, *Writing I/O Driver*, 1-2
acceptance routine, *Writing I/O Driver*, 1-13
accessing a controller, *Writing I/O Driver*, 1-17
advanced features, *Writing I/O Driver*, 1-7, 1-10, 1-11, 1-13, 1-14, 1-15, 1-16, 2-4
assembling
during system generation, *Writing I/O Driver*, 5-3
building
loadable, *Writing I/O Driver*, 5-2

Driver
building (cont'd.)
resident, *Writing I/O Driver*, 5-2
code, *Writing I/O Driver*, 1-3, 1-19
creating, *Writing I/O Driver*, 4-4
definition, *Writing I/O Driver*, 1-5
function, *Writing I/O Driver*, 4-4
general description, *Writing I/O Driver*, 4-4
requirements, *Writing I/O Driver*, 4-59
usage of symbolic offsets, *Writing I/O Driver*, 4-59
conversion routine, *Writing I/O Driver*, 1-15
converting RSX-11M to RSX-11M-PLUS
adding $GTPKT, *Writing I/O Driver*, B-4
adding the DDT$ macro call, *Writing I/O Driver*, B-4
conditional symbols, *Writing I/O Driver*, B-4
handling function codes, *Writing I/O Driver*, B-6
interrupt entry point, *Writing I/O Driver*, B-6
LBN conversion, *Writing I/O Driver*, B-6
modifying the driver code, *Writing I/O Driver*, B-4
reconfiguration support, *Writing I/O Driver*, B-5
using $CVLBN, *Writing I/O Driver*, B-6
using INTSV$, *Writing I/O Driver*, B-6
volume valid processing, *Writing I/O Driver*, B-5
data base, *Writing I/O Driver*, 1-4, 1-18
linkages, *Writing I/O Driver*, 1-18
data structure, *Writing I/O Driver*, 1-4, 4-27
accessing, *Writing I/O Driver*, 4-2
details, *Writing I/O Driver*, 4-10

Driver
data structure (cont'd.)
symbolic offsets, *Writing I/O Driver*, 4-2
DDT$ macro call
arguments, *Writing I/O Driver*, 4-5, 4-6
placement of, *Writing I/O Driver*, 4-5, 4-6
debugging, *Debugging*, 9-2 *Writing I/O Driver*, 1-20, 6-1 to 6-6, 6-8, 6-10 to 6-13
using CDA, *Writing I/O Driver*, 6-1
using XDT, *Writing I/O Driver*, 6-1
defining labels, *Writing I/O Driver*, 4-60
definition, *System Generation*, 1-8
details of code, *Writing I/O Driver*, 4-59 to 4-70
dual access, *Writing I/O Driver*, 1-12
entry points, *Writing I/O Driver*, 1-4, 2-4
See also Driver entry point
executable instructions, *Writing I/O Driver*, 1-4
executing on correct processor, *Writing I/O Driver*, 1-18
Executive
choosing options, *Writing I/O Driver*, 5-9, 5-10, 5-11
Executive services, *Writing I/O Driver*, 3-4 to 3-6
for NPR devices (on PDP-11), *Writing I/O Driver*, 7-2
full-duplex, *Writing I/O Driver*, 4-13
GTPKT$ macro call
arguments, *Writing I/O Driver*, 4-7
placement of, *Writing I/O Driver*, 4-7
handling full-duplex operations, *Writing I/O Driver*, 1-13
handling multiple I/O requests, *Writing I/O Driver*, 1-13
I/O packet, *Writing I/O Driver*, 1-4
I/O queue
placement of I/O packet, *Writing I/O Driver*, 4-11

Driver
I/O request
function codes for, *Writing I/O Driver*, 4-13
processing, *Writing I/O Driver*, 1-15, 1-16
I/O requirements, *Writing I/O Driver*, 4-19
incorporating, *Writing I/O Driver*, 1-18, 1-19, 5-1
at system generation, *Writing I/O Driver*, 5-1
guidelines for, *Writing I/O Driver*, 5-1
loadable, *Writing I/O Driver*, 5-1
resident, *Writing I/O Driver*, 5-1
initiating I/O, *Writing I/O Driver*, 1-17
interrupt handling, *Writing I/O Driver*, 1-8
interrupt level, *Writing I/O Driver*, 1-6, 1-8
interrupts, *Writing I/O Driver*, 7-1
INTSV$ macro call
arguments, *Writing I/O Driver*, 4-8
placement of, *Writing I/O Driver*, 4-8
loadable
data base, *Writing I/O Driver*, 5-1 to 5-2
definition, *Writing I/O Driver*, 1-2
entry points for LOAD and UNLOAD, *Writing I/O Driver*, 4-9
incorporating, *Writing I/O Driver*, 1-18, 5-1, 5-2
rebuilding and reincorporating a, *Writing I/O Driver*, 6-13
SYSGEN question, *System Generation*, 3-25
with loadable data base, *Writing I/O Driver*, 1-19
with resident data base, *Writing I/O Driver*, 1-19
loading, *Writing I/O Driver*, 5-5
loading on pregenerated kit, *System Generation*, 5-41
macro call, *Writing I/O Driver*, 4-4, 4-5

Driver (cont'd.)
mapping with Executive, *Writing I/O Driver*, 1-2, 1-3
modifying data in UCB, *Writing I/O Driver*, 2-3
module
inserting into library, *Writing I/O Driver*, 5-4
partition, *Writing I/O Driver*, 5-5
predriver initiation, *Writing I/O Driver*, 3-2
process, *Writing I/O Driver*, 1-11
definition, *Writing I/O Driver*, 1-5
processing
I/O request, *Writing I/O Driver*, 1-4, 3-3
interrupts, *Writing I/O Driver*, 1-6
programming
conventions, *Writing I/O Driver*, 4-1
requirements, *Writing I/O Driver*, 4-4 to 4-9
protocol, *Writing I/O Driver*, 1-8, 4-1
requesting I/O packet, *Writing I/O Driver*, 1-5, 1-17
resident, *Writing I/O Driver*, 1-18
definition, *Writing I/O Driver*, 1-2
incorporating, *Writing I/O Driver*, 1-18, 5-1, 5-2
with resident data base, *Writing I/O Driver*, 1-19
sample source code, *Writing I/O Driver*, 8-3 to 8-12
servicing
I/O request, *Writing I/O Driver*, 1-4
specifying as loadable, *Writing I/O Driver*, 4-9
standards, *Writing I/O Driver*, 4-1
system generation, *Writing I/O Driver*, 5-4, 5-5
dialogue summary, *Writing I/O Driver*, 5-9
effect, *Writing I/O Driver*, 5-3
system macro call
arguments, *Writing I/O Driver*, 4-5
general functions, *Writing I/O Driver*, 4-5

Driver (cont'd.)
taskbuilding, *Writing I/O Driver*, 5-4, 5-5
terminal, extended I/O
SYSGEN question, *System Generation*, 3-30
type, *Writing I/O Driver*, 1-2
UMR procedures, *Writing I/O Driver*, 7-2 to 7-5
user-supplied
SYSGEN question, *System Generation*, 3-65
XDT support, *Writing I/O Driver*, 6-1
Driver Dispatch Table, *Writing I/O Driver*, 4-4
address of routines, *Writing I/O Driver*, 1-4
entry points, *Writing I/O Driver*, 2-4
association of, *Writing I/O Driver*, 4-60
format, *Writing I/O Driver*, 4-60
generation of, *Writing I/O Driver*, 4-4
from DDT$, *Writing I/O Driver*, 4-60
labels required, *Writing I/O Driver*, 4-60
layout, *Writing I/O Driver*, 4-61
linking to the driver code and data base, *Writing I/O Driver*, 4-60
Driver entry point, *Writing I/O Driver*, 2-4, 4-62
block check and conversion, *Writing I/O Driver*, 4-62
cancel I/O, *Writing I/O Driver*, 4-62, 4-64, 4-65
controller status change, *Writing I/O Driver*, 4-62, 4-66, 4-67, 4-68
deallocation, *Writing I/O Driver*, 4-66
device time-out, *Writing I/O Driver*, 4-62, 4-65
I/O initiation, *Writing I/O Driver*, 4-62, 4-63, 4-64
interrupt, *Writing I/O Driver*, 4-62, 4-69, 4-70
next command, *Writing I/O Driver*, 4-65
power failure, *Writing I/O Driver*, 4-62, 4-66
queue optimization, *Writing I/O Driver*, 4-65
Driver entry point (cont'd.)
standard labels, *Writing I/O Driver*, 4-62
unit status change, *Writing I/O Driver*, 4-62, 4-68, 4-69
Drive serial numbers
significant numbers, *Error Logging*, B-1
DRQIO
performing redirect algorithm, *Writing I/O Driver*, 3-2
$DRQRQ routine, *Writing I/O Driver*, 1-15
locating the conversion routine, *Writing I/O Driver*, 1-15
DRS11, *I/O Drivers*, 19-1
addressing, *I/O Drivers*, 19-8
sample configuration, *I/O Drivers*, 19-7
DRS: subroutine
synchronous digital input sweep (LSDRV), *I/O Drivers*, 17-15
DR-type disk
SYSGEN question, *System Generation*, 3-36
DRV11 digital I/O interface, *I/O Drivers*, 23-2
/DRV keyword
OPENREGISTER command, *MCR*, 3-166
.DSABL directive, *MACRO-11*, 6-19, 6-20, 6-21
arguments for, *MACRO-11*, 6-19, 6-20, 6-21
/DSABLE qualifier, *MACRO-11*, 8-8
DSAR$S directive, *Executive*, 5-64
I/O Drivers, 1-11
DSCP$S directive, *Executive*, 5-66
DSC utility
bad block information, *Utilities*, 8-9
command line, *Utilities*, 8-5
parameter, *Utilities*, 8-5
stand-alone, *Utilities*, 8-21
data transfer, *Utilities*, 8-24
device support, *Utilities*, 8-4
error message, *Utilities*, 8-28
file label, *Utilities*, 8-8
initiating, *Utilities*, 8-5
operation overview, *Utilities*, 8-19
stand-alone
command line, *Utilities*, 8-21
DSC64K.SYS, *Utilities*, 8-23
CNF and, *Utilities*, 8-24
DSCSYS.SYS, *Utilities*, 8-19

DSC utility (cont'd.)
switch, *Utilities*, 8-6
on-line, *Utilities*, 8-9
stand-alone
DSC64K.SYS, *Utilities*, 8-24
DSCSYS.SYS, *Utilities*, 8-20
summary, *Utilities*, 8-7, 8-20
terminating, *Utilities*, 8-5
DSP1M1
subpacket definition, *Error Logging*, 4-72
DSP1P1
subpacket definition, *Error Logging*, 4-72
DSP2M1
subpacket definition, *Error Logging*, 4-73
DSP2P1
subpacket definition, *Error Logging*, 4-73
DSP3M1
subpacket definition, *Error Logging*, 4-73
DSP3P1
subpacket definition, *Error Logging*, 4-73
DSP4M1
subpacket definition, *Error Logging*, 4-74
DSP4P1
subpacket definition, *Error Logging*, 4-74
DSP5M1
subpacket definition, *Error Logging*, 4-74
DSP5P1
subpacket definition, *Error Logging*, 4-74
DSP6M1
subpacket definition, *Error Logging*, 4-74
DSP6P1
subpacket definition, *Error Logging*, 4-74
DSP7M1
subpacket definition, *Error Logging*, 4-75
DSP7P1
subpacket definition, *Error Logging*, 4-75
D-space
See Data space
DSPPAT option, *Task Builder*, 12-14
DSR
See Pool
DSS11, *I/O Drivers*, 19-1
addressing, *I/O Drivers*, 19-8
configuration
hardware, *I/O Drivers*, 19-1
sample, *I/O Drivers*, 19-7
/DS switch, *MACRO-11*, 8-6
DS-type disk
SYSGEN question, *System Generation*, 3-37
$DSW, *Executive*, 1-2
DSW, *Executive*, 1-2
DSW$ status code return, *I/O Drivers*, 1-37
DSW register, *Debugging*, 5-3
See also W register
D symbolic argument, *MACRO-11*, 6-41
DT07 bus switch, *Writing I/O Driver*, 1-16
DT07 UNIBUS switch, *I/O Drivers*, 24-1
DTE, *System Management*, 1-3, 9-1
DTP field in KEY block
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-74
DTRG$ directive, *Executive*, 5-67
DT-type magnetic tape
SYSGEN question, *System Generation*, 3-49
DU11 (communication driver)
serial synchronous interface, *I/O Drivers*, 12-2
sync character, *I/O Drivers*, 12-3
synchronous line interface, *I/O Drivers*, 12-3
Dual access, *Writing I/O Driver*, 1-11
operation of, *Writing I/O Driver*, 2-10
Dual-access device
definition, *System Generation*, 1-9
SYSGEN question, *System Generation*, 3-36, 3-37, 3-41
Dual-access support, *Writing I/O Driver*, 1-11

Dummy argument, *MACRO-11*, 7-2
Dump
  See also PMD
  See also Snapshot dump
  memory, *Task Builder*, D-11
Dumping file
  DMP utility, *Utilities*, 11-1
/DUMP switch, *CDA*, 2-5, 2-6
DUP11 (communication driver)
  serial synchronous interface, *I/O Drivers*, 12-2
  synchronous line interface, *I/O Drivers*, 12-4
DUP11 line interface
  SYSGEN question, *System Generation*, 3-64
Duplicate key, *RMS-11 Introduction*, 3-10 *RMS-11 User's Guide*, 6-8
  See also XB$DUP mask in FLG field
DUPLICATES attribute
  RMSDES utility, *RMS-11 Utilities*, 2-40, 2-42
    area section, *RMS-11 Utilities*, 2-44
DU-type disk
  SYSGEN question, *System Generation*, 3-45
DV.UMD bit
  UCB, set for diagnostic, *I/O Drivers*, 1-34
DVB field in KEY block
  DISPLAY operation, *RMS-11 Macro*, 5-31
  offset, *RMS-11 Macro*, 6-68
  OPEN operation, *RMS-11 Macro*, 5-80
  summary, *RMS-11 Macro*, 6-75
DVI field in NAM block, *RMS-11 Macro*, 3-3
  CREATE operation, *RMS-11 Macro*, 5-10, 5-21
  ENTER operation, *RMS-11 Macro*, 5-36, 5-37
  ERASE operation, *RMS-11 Macro*, 5-41, 5-42
  offset, *RMS-11 Macro*, 6-94
  OPEN operation, *RMS-11 Macro*, 5-73, 5-77
  PARSE operation, *RMS-11 Macro*, 5-88
  REMOVE operation, *RMS-11 Macro*, 5-103, 5-105
DVI field in NAM block (cont'd.)
  RENAME operation, *RMS-11 Macro*, 5-109, 5-110, 5-111
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-96
$DVMSG routine, *Writing I/O Driver*, 7-17
/DV switch
  VFY utility, *Utilities*, 9-5
Dwell parameter
  XRATE: subroutine
    K-series, *I/O Drivers*, 23-30
    LADRV, *I/O Drivers*, 22-26
DX-type disk
  SYSGEN question, *System Generation*, 3-49
Dynamic checkpoint space allocation, *System Generation*, C-6
Dynamic common region
  checkpointing, *System Management*, 14-2
  shuffling, *System Management*, 14-4
Dynamic memory, *System Generation*, C-3
Dynamic region, *Executive*, 3-5 *Task Builder*, 5-40 to 5-44
  creating, *Executive*, 5-50
Dynamic storage region
  See Pool
DYNAMIC TABLE statement, *Error Logging*, 5-37
DY-type disk
  SYSGEN question, *System Generation*, 3-50
DZ11
  half-duplex
    remote line, *I/O Drivers*, 3-33
    serial line multiplexer, *I/O Drivers*, 3-31
    with modem, *I/O Drivers*, 3-33
  TTDRV
    remote serial line, *I/O Drivers*, 2-83
    serial line multiplexer, *I/O Drivers*, 2-82
    serial line with modem, *I/O Drivers*, 2-83
DZ11/DZQ11/DZV11 line multiplexer
  SYSGEN question, *System Generation*, 3-61

E

E1134, *Error Logging*, 4-8
E1144, *Error Logging*, 4-8
E117X, *Error Logging*, 4-8
E11XX, *Error Logging*, 4-8
/EA switch, *Task Builder*, 10-16
EBCDIC
  character set, *MCR*, 3-153
/EBC keyword
  SET command (MCR), *MCR*, 3-215
  SET command (VMR), *System Management*, 10-57
Echo, *Introduction*, 1-5
Echo, multiple (half-duplex), *I/O Drivers*, 3-16
/ECHO keyword
  SET command (MCR), *MCR*, 3-216
  SET command (VMR), *System Management*, 10-58
Echo loops, *System Management*, 9-4
E command, *Debugging*, 2-9, 6-2, 6-3
ED command
  EDI utility, *Utilities*, 2-32
EDI (Line Text Editor), *Command Language*, 4-28
EDIT command, *Command Language*, 4-21 to 4-30 *Introduction*, 3-6
  EDIT/EDI, *Command Language*, 4-28 to 4-30, 9-15
  EDIT/EDT, *Command Language*, 4-22 to 4-25, 9-14
  EDIT/SLP, *Command Language*, 4-26 to 4-28, 9-14
  /RECOVER qualifier, *Command Language*, 4-23
  /OUTPUT qualifier, *Introduction*, 5-8
/EDIT keyword
  SET command (MCR), *MCR*, 3-217
  SET command (VMR), *System Management*, 10-58
Editor
  EDI utility, *Utilities*, 2-1
  text, *Program Development*, 1-3, 1-4
    See also EDI utility
    See also EDT editor
EDI utility, *Program Development*, 1-3, 1-4
  abbreviating
    strings, *Program Development*, 2-16
EDI utility
  altering
    text, *Program Development*, 7-5
  asterisk (*), *Program Development*, 2-10
  block mode, *Program Development*, 1-3
  CHANGE command, *Program Development*, 7-5
  character erase, *Utilities*, 2-6
  command
    basic, *Utilities*, 2-9
    detailed reference summary, *Utilities*, 2-27
    device output, *Utilities*, 2-26
    file I/O, *Utilities*, 2-25
    function summary, *Utilities*, 2-20
    locator, *Utilities*, 2-22
    macro, *Utilities*, 2-25
    set up, *Utilities*, 2-21
    summary, *Utilities*, 2-10
    text manipulation, *Utilities*, 2-23 to 2-24
    text modification, *Utilities*, 2-23 to 2-24
  commands, *Program Development*, 2-12 to 2-18
    AP command, *Program Development*, 2-17
    BEGIN, *Program Development*, 2-14
    CHANGE, *Program Development*, 2-16
    DP command, *Program Development*, 2-17
    END, *Program Development*, 2-14
    EXIT
      closing file, *Program Development*, 2-10
      creating new file, *Program Development*, 2-12, 2-18
    INSERT, *Program Development*, 2-18
    LIST, *Program Development*, 2-13
    LOCATE, *Program Development*, 2-14, 2-18
    PLOCATE, *Program Development*, 2-15
    RENEW, *Program Development*, 2-15

EDI utility
commands (cont'd.)
TYPE, *Program Development*, 2-13, 2-14
TYPE command, *Program Development*, 2-17
control mode, *Utilities*, 2-3
convention
command, *Utilities*, 2-8
terminal, *Utilities*, 2-6
correcting
source file error, *Program Development*, 7-4, 7-5
task error, *Program Development*, 4-9, 7-9
creating
file, *Program Development*, 2-9, 2-10, 2-12, 7-2, 7-3
deleting
characters, *Program Development*, 2-17
lines, *Program Development*, 2-17
displaying text, *Program Development*, 2-13
ellipsis, *Program Development*, 2-16
error message, *Utilities*, 2-56
command level information, *Utilities*, 2-57
fatal, *Utilities*, 2-64
file access, *Utilities*, 2-60
requiring EDI restart, *Utilities*, 2-61
ESCAPE key, *Program Development*, 2-13
example, *Utilities*, 2-51
EXIT command
closing file, *Program Development*, 7-7
creating new file, *Program Development*, 7-5
file specification
default, *Utilities*, 2-2
format, *Utilities*, 2-2
initiating (invoking), *Utilities*, 2-1
input
initial, *Program Development*, 2-9, 7-3
terminating, *Program Development*, 2-10
INSERT command, *Program Development*, 7-7
EDI utility
inserting
characters, *Program Development*, 2-17
lines, *Program Development*, 2-9, 2-18
insert mode, *Program Development*, 2-18
line erase, *Utilities*, 2-7
LOCATE command, *Program Development*, 7-4, 7-5, 7-7
locating text, *Program Development*, 2-14, 2-15, 7-4, 7-5
paging, *Utilities*, 2-5
positioning line pointer, *Program Development*, 2-14, 2-15
RETURN key, *Program Development*, 2-9, 2-10, 2-13, 2-18, 7-7 *Utilities*, 2-7
slash (/), *Program Development*, 2-16
text access mode, *Utilities*, 2-3
block mode, *Utilities*, 2-4
line-by-line mode, *Utilities*, 2-4
text file
creating, *Utilities*, 2-2
input, *Utilities*, 2-6
output, *Utilities*, 2-6
secondary, *Utilities*, 2-6
text modification, *Program Development*, 2-16
usage notes, *Utilities*, 2-50
$EDMSG (Edit message), *System Library*, 6-5
EDT Editor, *Command Language*, 4-22
EDIT command, *Command Language*, 9-14
EDT editor, *Introduction*, 2-2 *Program Development*, 1-3
Best reference, *EDT Editor Manual*
EDT field in DAT block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-14
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-18
EDT field in NAM block
RSX-11, *RMS-11 Macro*, D-4
EDTINI.EDT file, *Introduction*, 2-2
E error, *MACRO-11*, 6-39
summary, *MACRO-11*, D-3
Efn parameter
general (TTDRV), *I/O Drivers*, 2-10

Efn parameter (cont'd.)
IO.ATA function (TTDRV), *I/O Drivers*, 2-20
IO.ATT function, *I/O Drivers*, 1-27
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.DET function, *I/O Drivers*, 1-28
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
IO.HNG function (TTDRV), *I/O Drivers*, 2-35
IO.KIL function, *I/O Drivers*, 1-29
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-40
IO.RST function (TTDRV), *I/O Drivers*, 2-43
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function, *I/O Drivers*, 1-31
IO.SMC function (TTDRV), *I/O Drivers*, 2-59
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
IO.WBT function (TTDRV), *I/O Drivers*, 2-49
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
IO.XCL function (XEDRV), *I/O Drivers*, 13-17
IO.XIN function (XEDRV), *I/O Drivers*, 13-10
IO.XOP function (XEDRV), *I/O Drivers*, 13-6
IO.XRC function (XEDRV), *I/O Drivers*, 13-14
IO.XSC function (XEDRV), *I/O Drivers*, 13-7
IO.XTL function (XEDRV), *I/O Drivers*, 13-18
IO.XTM function (XEDRV), *I/O Drivers*, 13-11
QIO$ basic syntax, *I/O Drivers*, 1-7
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
WTSE$ macro, *I/O Drivers*, 1-25
Elapsed time
between events (LSDRV), *I/O Drivers*, 17-7
ELAW$ directive, *Executive*, 5-69
Element
extended arithmetic
specifying, *Task Builder*, 11-16
Elevator
definition, *Writing I/O Driver*, 1-15
ELGF$ directive, *Executive*, 5-71
ELI, *Error Logging*, 1-1
Append switch, *Error Logging*, 2-3, 2-8
Delete subswitch, *Error Logging*, 2-3, 2-8
/AP switch, *Error Logging*, 2-3, 2-8
Backup switch, *Error Logging*, 2-3, 2-9
/BA switch, *Error Logging*, 2-3, 2-9
error messages
console terminal, *Error Logging*, 2-11
user terminal, *Error Logging*, 2-11
file naming switch, *Error Logging*, 2-8
Hard error limit switch, *Error Logging*, 2-3, 2-7
/HL switch, *Error Logging*, 2-3, 2-7
installing
privileged, *Error Logging*, 2-1
startup command file, *Error Logging*, 2-1
invoking, *Error Logging*, 2-2
privileged, *Error Logging*, 2-1
Limit switch, *Error Logging*, 2-3, 2-6
/LIM switch, *Error Logging*, 2-3, 2-6
/LOG switch, *Error Logging*, 2-2, 2-3, 2-4, 2-5, 2-8
Log switch, *Error Logging*, 2-3, 2-4, 2-5, 2-8
error limiting and, *Error Logging*, 2-2
New version subswitch, *Error Logging*, 2-3, 2-6
No limit subswitch, *Error Logging*, 2-3, 2-5, 2-6
No limit switch, *Error Logging*, 2-3, 2-6
/NOLIM switch, *Error Logging*, 2-3, 2-6
/NOLOG switch, *Error Logging*, 2-4
No log switch, *Error Logging*, 2-4

ELI (cont'd.)
nonprivileged command, *Error Logging*, 2-2
privileged commands, *Error Logging*, 2-2
Reset switch, *Error Logging*, 2-4, 2-7
/RE switch, *Error Logging*, 2-7
/R switch, *Error Logging*, 2-4
Show switch, *Error Logging*, 2-2, 2-4, 2-10, 2-11
/SH switch, *Error Logging*, 2-4, 2-10, 2-11
/SL switch, *Error Logging*, 2-4, 2-7
Soft error limit switch, *Error Logging*, 2-4, 2-7
subswitch summary, *Error Logging*, 2-3
switch functions, *Error Logging*, 2-1
switch summary, *Error Logging*, 2-3
Switch switch, *Error Logging*, 2-4, 2-8
Delete subswitch, *Error Logging*, 2-4, 2-9
New version subswitch, *Error Logging*, 2-4, 2-9
/SW switch, *Error Logging*, 2-4, 2-8
using ERRLOG defaults, *Error Logging*, 2-2
ELI command
reset limit, *Error Logging*, 1-4
Eliminate Address Window directive, *Executive*, 5-69
Eliminate Group Global Event Flags directive, *Executive*, 5-71
Eliminate Virtual Terminal directive, *Executive*, 5-73
/ELIM keyword
CLI command, *MCR*, 3-48
FLA command, *MCR*, 3-77
ELI show switch
QIO count, *Error Logging*, 2-11
ELI switches
type
display, *Error Logging*, 2-2
file naming, *Error Logging*, 2-2
limiting, *Error Logging*, 2-2
logging, *Error Logging*, 2-2
Ellipsis
EDI utility, *Program Development*, 2-16
/EL switch, *Task Builder*, 10-17
ELVT$ directive, *Executive*, 5-73
Emit Status directive, *Executive*, 5-75
EML11, *Error Logging*, 4-8
EMST$ directive, *Executive*, 5-75
EMT 377 instruction, *Executive*, 1-1
EMT trap instruction, *Debugging*, 8-5, 9-5
EM-type disk
SYSGEN question, *System Generation*, 3-38
.ENABL directive, *MACRO-11*, 6-19, 6-20, 6-21
arguments for, *MACRO-11*, 6-19, 6-20, 6-21
Enable AST Recognition directive, *Executive*, 5-76
Enable Checkpointing directive, *Executive*, 5-77
.ENABLE directive, *Indirect*, 2-47
.ENABLE GLOBAL directive, *Indirect*, 2-4
/ENABLE keyword, *MCR*, 3-49
/ENABLE qualifier, *MACRO-11*, 8-8
ENABLE statement, *Error Logging*, 5-40
ENAR$S directive, *Executive*, 5-76
I/O Drivers, 1-11
Encoding function, *Error Logging*, 5-19
ENCP$S directive, *Executive*, 5-77
.ENDC directive, *MACRO-11*, 6-51
END command
EDI utility, *Program Development*, 2-14 *Utilities*, 2-31
.END directive, *Indirect*, 2-4, 2-51 *MACRO-11*, 6-39 *Program Development*, 2-7, 3-4, 4-3, 4-8 *Task Builder*, 3-23, 3-24
summary, *Task Builder*, 3-50
.ENDM directive, *MACRO-11*, 7-2
End-of-block indicator
sequential files, *RMS-11 User's Guide*, 3-2
End-of-file
See also EOF
label (tape), *I/O Operations*, G-9
READ$ macro, *I/O Operations*, 3-36
sequential files, *RMS-11 User's Guide*, 3-2
End of global symbol directory, *Task Builder*, A-11
End-of-module
record, *Task Builder*, A-24, A-30
record format, *Task Builder*, A-32

End-of-tape
See EOT
End-of-tape handling, *I/O Operations*, G-10
End-of-volume label (tape), *I/O Operations*, G-8
.ENDR directive, *MACRO-11*, 7-19
/EN switch, *MACRO-11*, 8-6
PIP utility, *Utilities*, 3-19
QUE /DEL command, *Batch and Queue*, 2-10
QUE /LI command, *Batch and Queue*, 2-16
ENTER key, *Command Language*, 3-14
$ENTER macro, *RMS-11 Macro*, 5-35
RSTS/E, *RMS-11 Macro*, D-4
ENTER operation, *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-5
BDB requirement, *RMS-11 Macro*, 2-8
$ENTER macro, *RMS-11 Macro*, 5-35
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
wildcard loop, *RMS-11 Macro*, 3-10
.ENTER routine, insert directory entry, *I/O Operations*, 4-19
Entry number
QMG, *Command Language*, 4-86
Entry point, *Program Development*, 6-5, 6-6
definition, program, *MACRO-11*, 6-39
symbol, *MACRO-11*, 6-49
table, *Program Development*, 6-5, 6-9, 6-10
zero entry points, *Program Development*, 6-7
Entry procedure, *Error Logging*, 4-10
/ENTRY qualifier
DELETE command, *Batch and Queue*, 2-10
SHOW QUEUE command, *Batch and Queue*, 2-16
EOF
IO.SPF function (CTDRV), *I/O Drivers*, 9-7
/EOF switch
PIP utility, *Utilities*, 3-21
EOF symbol, *Indirect*, 2-10
EOL key (EDT), *Introduction*, 2-6
/EO switch
RMSCNV utility, *RMS-11 Utilities*, 4-8
EOT
logical (CTDRV), *I/O Drivers*, 9-6, 9-8
read (PRDRV), *I/O Drivers*, 18-5
EPKDF.MAC, *Error Logging*, 4-16
EPKDF$, *CDA*, B-13, C-17 *Writing I/O Driver*, A-14 to A-20
EPMDF$ macro (XEDRV), *I/O Drivers*, 13-4
/EP switch
LBR utility, *Utilities*, 10-16
EQ condition test argument, *MACRO-11*, 6-51
Equal sign (=)
DCL, *Command Language*, 1-14
Equal sign command (=), *Debugging*, 2-8, 9-11
ZAP utility, *Utilities*, 15-17
Equal sign operator (=)
See Operator
ER$CUR
DELETE operation, *RMS-11 User's Guide*, 4-7
TRUNCATE operation, *RMS-11 User's Guide*, 3-12
UPDATE operation, *RMS-11 User's Guide*, 3-12, 4-12, 7-6
ER$DEL
FIND operation, *RMS-11 User's Guide*, 4-8, 7-3
GET operation, *RMS-11 User's Guide*, 4-11, 7-5
ER$EOF
FIND operation, *RMS-11 User's Guide*, 3-8, 4-8, 7-3
GET operation, *RMS-11 User's Guide*, 3-10, 4-10, 7-5
PUT operation, *RMS-11 User's Guide*, 3-11
ER$-family symbol
declaring, *RMS-11 Macro*, C-3
value, *RMS-11 Macro*, A-1, A-2, A-3, A-4, A-5, A-6, A-7, A-8, A-9, A-10, A-11, A-12, A-13, A-14, A-15, A-16, A-17
ER$IOP
UPDATE operation, *RMS-11 User's Guide*, 3-12

ER$KEY
FIND operation, *RMS-11 User's Guide*, 3-8
GET operation, *RMS-11 User's Guide*, 3-10
ER$MRN
FIND operation, *RMS-11 User's Guide*, 4-8
GET operation, *RMS-11 User's Guide*, 4-10
ER$NEF
PUT operation, *RMS-11 User's Guide*, 3-10
ER$RAC
PUT operation, *RMS-11 User's Guide*, 3-10
ER$REX
PUT operation, *RMS-11 User's Guide*, 4-11
ER$RFA
FIND operation, *RMS-11 User's Guide*, 3-8, 7-3
GET operation, *RMS-11 User's Guide*, 3-10, 7-5
ER$RFM
UPDATE operation, *RMS-11 User's Guide*, 3-12
ER$RLK
and shared access, *RMS-11 User's Guide*, 2-10
ER$RNF
FIND operation, *RMS-11 User's Guide*, 4-8, 7-3
GET operation, *RMS-11 User's Guide*, 4-10, 4-11, 7-5
ER$RSZ
UPDATE operation, *RMS-11 User's Guide*, 3-12
Erase (tape driver), *I/O Drivers*, 8-8
data security, *I/O Drivers*, 8-8
ERASE command
EDI utility, *Utilities*, 2-32
.ERASE directive, *Indirect*, 2-52
$ERASE macro, *RMS-11 Macro*, 5-40
example, *RMS-11 Macro*, 7-11
ERASE operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-7 *RMS-11 User's Guide*, 1-18
BDB requirement, *RMS-11 Macro*, 2-8
$ERASE macro, *RMS-11 Macro*, 5-40
I/O buffer requirement, *RMS-11 Macro*, 2-7
ERASE operation (cont'd.)
IFAB requirement, *RMS-11 Macro*, 2-5
remote access, *RMS-11 User's Guide*, B-2
wildcard loop, *RMS-11 Macro*, 3-9, 3-10
nonselective, *RMS-11 Macro*, 3-10
selective, *RMS-11 Macro*, 3-11
E register, *Debugging*, 2-7, 5-4
ERK05, *Error Logging*, 4-8
ERK67, *Error Logging*, 4-8
ERL12, *Error Logging*, 4-8
ERLCFL Report Messages, *Error Logging*, 5-44
ERLCNF Report Messages, *Error Logging*, 3-22
fatal, *Error Logging*, 3-22
information, *Error Logging*, 3-27
ERLRPT Report Messages, *Error Logging*, 3-28
control file, *Error Logging*, 3-28
/ERL switch
FMT utility, *Utilities*, 5-8
ERM05, *Error Logging*, 4-8
ERM23, *Error Logging*, 4-8
ERM23 device-level module, *Error Logging*, 4-37 to 4-49
ERM80, *Error Logging*, 4-8
ERP07, *Error Logging*, 4-8
ERP23, *Error Logging*, 4-8
ERP456, *Error Logging*, 4-8
ERR attribute, *System Management*, 12-31
ERRCTL symbol, *Indirect*, 2-11
ERRDEFINE.CFS, *Error Logging*, 3-20
ERRLOG, *Error Logging*, 1-1
backup file, *Error Logging*, 1-4, 2-9
defaults, *Error Logging*, 2-2
ELI commands, *Error Logging*, 1-3, 1-4
installing
privileged, *Error Logging*, 2-1
log file, *Error Logging*, 1-4
mandatory installation, *Error Logging*, 2-1
ERRLOG.ULB, *Error Logging*, 3-2
module addition, *Error Logging*, 4-36
tuning, *Error Logging*, A-1
ERRLOGETC.ULG, *Error Logging*, 4-36

ERRLOG Messages, *Error Logging*, 2-12
ERRNUM symbol, *Indirect*, 2-12
Error
See also Error messages
See also Message
ADS: subroutine, *I/O Drivers*, 17-32
assembly-time, *RMS-11 Macro*, 2-20
condition (PPDRV/PRDRV), *I/O Drivers*, 18-4
correcting, *Command Language*, 1-20
data
ICAR register, *I/O Drivers*, 19-73
ICSR register, *I/O Drivers*, 19-73
detection, *Debugging*, A-1
hard receive (TTDRV), *I/O Drivers*, 2-18, 2-77
ICDRV/ISDRV, *I/O Drivers*, 19-70
error codes, *Debugging*, 9-6, A-2
exit TKB command, *Task Builder*, 12-5
facility codes, *Debugging*, 9-6
fatal, *RMS-11 Macro*, 2-15
handler, *RMS-11 Macro*, 2-17
handling
$ALERR entry, *Task Builder*, 4-11
for autoload, *Task Builder*, 4-11
for manual load, *Task Builder*, 4-11
overlay, *Task Builder*, 4-11
hardware, Ethernet, *I/O Drivers*, 13-3
interrupt disable (ICDRV/ISDRV), *I/O Drivers*, 19-32
log file, *MCR*, 3-273
message, *MCR*, A-1 to A-35
messages, *Task Builder*, H-1 to H-11
recovery
CTDRV, *I/O Drivers*, 9-6
ICDRV/ISDRV, *I/O Drivers*, 19-70
reporting
disable (ICDRV/ISDRV), *I/O Drivers*, 19-32
Error
reporting (cont'd.)
hardware enable (ICDRV/ISDRV), *I/O Drivers*, 19-33
retry (tape driver), *I/O Drivers*, 8-14
select (tape driver), *I/O Drivers*, 8-14
serial line (ICDRV/ISDRV), *I/O Drivers*, 19-71
SYSGEN, *System Generation*, 3-3
system initialization, *System Generation*, 4-12
task image, *Debugging*, A-2
T-bit, *Debugging*, 9-4
/ERROR_LIMIT qualifier, *Task Builder*, 11-28
Error code, *RMS-11 User's Guide*, 3-7, 4-7, 7-2
assembler
summary, *MACRO-11*, D-1 to D-5
block locking, *I/O Operations*, 2-48
definitions, *CDA*, D-1
file operations, *I/O Operations*, I-1
RMSIFL utility
sort routine, *RMS-11 Utilities*, D-1
shared file, *I/O Operations*, 2-48
.ERROR directive, *MACRO-11*, 7-15
Error limit, *Error Logging*, 1-4
altering
IOX, *System Management*, 4-36
device mount, *Error Logging*, 2-6
logging and, *Error Logging*, 2-6
notification, *Error Logging*, 1-4
reset, *Error Logging*, 1-4, 2-7
reset counts, *Error Logging*, 2-6
system reboot, *Error Logging*, 2-6
ERRORLIMIT command
IOX, *System Management*, 4-36
Error log
command packet, *Error Logging*, 1-4
control file, *Error Logging*, 1-3
architecture, *Error Logging*, 4-1
definition, *Error Logging*, 4-1
devices, *Error Logging*, 2-4
file, *Error Logging*, 1-1
definition, *Error Logging*, 4-2
format, *Error Logging*, 5-1
naming, *Error Logging*, 2-8
RPT, *Error Logging*, 1-3
packet, *Error Logging*, 1-1

Error log
packet (cont'd.)
command, *Error Logging*, 1-3
creation, *Error Logging*, 4-23
definition, *Error Logging*, 4-2
ERRSEQ, *Error Logging*, 1-3
format, *Error Logging*, 1-4, 5-1, C-1
packet number
definition, *Error Logging*, 1-3
processing, *Error Logging*, 5-1
queue, *Error Logging*, 4-24
removed from queue, *Error Logging*, 4-25
SMSG$, *Error Logging*, 1-4
structure, *Error Logging*, 4-3
unsolicited interrupt, *Error Logging*, 4-23
packet number, *Error Logging*, 3-1
report
context information, *Error Logging*, 1-5
subpacket
definition, *Error Logging*, 4-2
system
task interaction, *Error Logging*, 1-2
Error log buffer
address of, *CDA*, 3-19
Error Logger, *Executive*, 5-202 *System Management*, 15-30
See also ERRLOG
Error logging
device errors, *Error Logging*, 1-6
executive support, *Error Logging*, 1-6
device errors, *Error Logging*, 1-6
device timeouts, *Error Logging*, 1-6
memory errors, *Error Logging*, 1-6
unexpected traps or interrupts, *Error Logging*, 1-6
interrupt timeouts, *Error Logging*, 1-6
memory errors, *Error Logging*, 1-6
support on Non-DIGITAL device, *Error Logging*, 4-19
device level module, *Error Logging*, 4-19
driver, *Error Logging*, 4-19
universal library entry, *Error Logging*, 4-19
Error logging (cont'd.)
unexpected traps or interrupts, *Error Logging*, 1-6
unknown device
See EUNKWN
unused vectors, *Error Logging*, 1-6
Error logging devices
control file module, *Error Logging*, 2-4, 2-5
Error Logging System
CDA, *Error Logging*, 1-1
Control File Language compiler, *Error Logging*, 1-1
device I/O activity, *Error Logging*, 1-1
Error logger, *Error Logging*, 1-1
Error log interface, *Error Logging*, 1-1
executive routines, *Error Logging*, 1-1
hard error, *Error Logging*, 1-3
mass storage device errors, *Error Logging*, 1-1
memory errors, *Error Logging*, 1-1
operating system failure, *Error Logging*, 1-1
Report generator, *Error Logging*, 1-1
soft error, *Error Logging*, 1-3
Error Log Interface
See ELI
Error log packet dump, *CDA*, 1-9, 3-1, 3-19
Error log report generator, *MCR*, 3-273
ERRORM, *Error Logging*, 4-7
Error messages, *CDA*, A-1 *Indirect*, A-1 *Introduction*, 1-1
BACKUP command, *Command Language*, 5-103 to 5-128
BAD utility, *Utilities*, 6-10
BRU utility, *Utilities*, 7-34
CMP utility, *Utilities*, 12-6
CRF utility, *Utilities*, B-5
DCL, *Command Language*, 10-1 to 10-18
DMP utility, *Utilities*, 11-12
DSC utility, *Utilities*, 8-28
EDI utility, *Utilities*, 2-56
FLX utility, *Utilities*, 4-17
FMT utility, *Utilities*, 5-10
format, *System Management*, 10-94
FORTRAN IV, *Program Development*, 7-4

Error messages (cont'd.)
INITIALIZE command, *Command Language*, 5-82 to 5-85
INSTALL command, *Command Language*, 7-33 to 7-38
IOX, *System Management*, 4-68
LBR utility, *Utilities*, 10-33
LIBRARY command, *Command Language*, 6-57 to 6-62
MACRO-11, *MACRO-11*, 8-19 to 8-21 *Program Development*, 3-5
MOUNT command, *Command Language*, 5-64 to 5-67
ODT, *Program Development*, 5-3
PAT utility, *Utilities*, 14-7
PIP utility, *Utilities*, 3-43
SLP utility, *Utilities*, 13-20
TKB, *Program Development*, 4-2
TKTN, *Program Development*, 4-8
VFY utility, *Utilities*, 9-11
VMR, *System Management*, 10-94 to 10-112
diagnostic, *System Management*, 10-94
fatal, *System Management*, 10-94
format, *System Management*, 10-94
unmarked, *System Management*, 10-94
ZAP utility, *Utilities*, 15-23
ERROR module, *Error Logging*, 4-19
Error notice
macro definition, *MACRO-11*, 7-15, 7-16
Error processing, *Indirect*, 2-11, 2-67
Error report
data compare
IOX, *System Management*, 4-21
directing to device
IOX, *System Management*, 4-42
disabling
IOX, *System Management*, 4-54
enabling
IOX, *System Management*, 4-54
I/O error
IOX, *System Management*, 4-22
types
IOX, *System Management*, 4-54
Error return, *Executive*, 1-3
ACP, *I/O Drivers*, C-14
communication driver, *I/O Drivers*, 12-8
CRDRV, *I/O Drivers*, 11-3, 11-7
Error return (cont'd.)
CTDRV, *I/O Drivers*, 9-4
GCMLD$ macro, *I/O Operations*, 6-5
GRDRV, *I/O Drivers*, 21-3
ICDRV/ISDRV, *I/O Drivers*, 19-12
IE.IFC, *I/O Operations*, 2-49
IE.LCK, *I/O Operations*, 2-49
IE.ULK, *I/O Operations*, 2-49
IE.WAC, *I/O Operations*, 2-48
LPDRV, *I/O Drivers*, 10-4
LSDRV, *I/O Drivers*, 17-29
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-11
tape driver, *I/O Drivers*, 8-10
transmitter (LRDRV), *I/O Drivers*, 14-6
UDDRV, *I/O Drivers*, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-7
XEDRV, *I/O Drivers*, 13-5
IO.XCL function, *I/O Drivers*, 13-18
IO.XIN function, *I/O Drivers*, 13-11
IO.XRC function, *I/O Drivers*, 13-16
IO.XTL function, *I/O Drivers*, 13-18
IO.XTM function, *I/O Drivers*, 13-13
Error routine
file macro, *I/O Operations*, 3-2
Error sequence number
See ERRSEQ
/ERRORS qualifier
BRU utility, *Utilities*, 7-16
Error type definition, *Error Logging*, 1-5
Err parameter
ASTX$ macro, *I/O Drivers*, 1-24
DIR$ macro, *I/O Drivers*, 1-15
ERRSEQ
Append switch, *Error Logging*, 1-3
change, *Error Logging*, 1-3
RMD use, *Error Logging*, 1-3
ERRSEV symbol, *Indirect*, 2-12
ERS11, *Error Logging*, 4-9
ERS34, *Error Logging*, 4-9
ERSEEN symbol, *Indirect*, 2-10
/ER switch
RMSIFL utility, *RMS-11 Utilities*, 3-5, 3-6

ERX01, *Error Logging*, 4-9
ERX02, *Error Logging*, 4-9
ESA field in NAM block, *RMS-11 Macro*, 3-3, 3-9
  CREATE operation, *RMS-11 Macro*, 5-10
  ENTER operation, *RMS-11 Macro*, 5-36
  ERASE operation, *RMS-11 Macro*, 5-42
  offset, *RMS-11 Macro*, 6-94
  OPEN operation, *RMS-11 Macro*, 5-74
  PARSE operation, *RMS-11 Macro*, 5-87
  REMOVE operation, *RMS-11 Macro*, 5-104
  RENAME operation, *RMS-11 Macro*, 5-110
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-97
Escape character
  line terminator (half-duplex), *I/O Drivers*, 3-25
ESCAPE command
  EDI utility, *Utilities*, 2-14, 2-32
ESCAPE key, *Command Language*, 3-14 *MCR*, 2-15
  EDI utility, *Program Development*, 2-13
  requesting list of options
    ACNT, *System Management*, 2-3
Escape mode, *Indirect*, 2-48
Escape sequence
  half-duplex, *I/O Drivers*, 3-23
    allowed control character, *I/O Drivers*, 3-26
    characteristic, *I/O Drivers*, 3-25
    definition, *I/O Drivers*, 3-23
    echo, *I/O Drivers*, 3-25
    exception, *I/O Drivers*, 3-27
    full buffer, *I/O Drivers*, 3-26
    prerequisite, *I/O Drivers*, 3-25
    recognition, *I/O Drivers*, 3-11, 3-32
    syntax violation, *I/O Drivers*, 3-25
    unsolicited input, *I/O Drivers*, 3-25
  syntax exception (TTDRV), *I/O Drivers*, 2-75
Escape sequence (cont'd.)
  TTDRV, *I/O Drivers*, 2-72
    characteristic, *I/O Drivers*, 2-74
    control character, *I/O Drivers*, 2-74
    control character error, *I/O Drivers*, 2-74
    DELETE character, *I/O Drivers*, 2-74
    format, *I/O Drivers*, 2-72
    full buffer, *I/O Drivers*, 2-74
    handling, *I/O Drivers*, 2-17
    interrupt, *I/O Drivers*, 2-17
    prerequisite, *I/O Drivers*, 2-73
    recognition, *I/O Drivers*, 2-12
    RUBOUT character, *I/O Drivers*, 2-74
    syntax violation, *I/O Drivers*, 2-74
Escape-sequence mode, *Indirect*, 2-48
ESCAPE symbol, *Indirect*, 2-10
ESC command
  RMSDES utility, *RMS-11 Utilities*, 2-9, 2-21
ESC key
  half-duplex, *I/O Drivers*, 3-23, 3-24
  TTDRV, *I/O Drivers*, 2-71
/ESCSEQ keyword
  SET command (MCR), *MCR*, 3-217
  SET command (VMR), *System Management*, 10-58
ESL field in NAM block
  CREATE operation, *RMS-11 Macro*, 5-21
  ENTER operation, *RMS-11 Macro*, 5-37
  ERASE operation, *RMS-11 Macro*, 5-42
  offset, *RMS-11 Macro*, 6-94
  OPEN operation, *RMS-11 Macro*, 5-77
  PARSE operation, *RMS-11 Macro*, 5-88
  REMOVE operation, *RMS-11 Macro*, 5-105
  RENAME operation, *RMS-11 Macro*, 5-111
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-98
ESS field in NAM block
  CREATE operation, *RMS-11 Macro*, 5-10

ESS field in NAM block (cont'd.)
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-42
offset, *RMS-11 Macro*, 6-94
OPEN operation, *RMS-11 Macro*, 5-74
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-110
summary, *RMS-11 Macro*, 6-99
ESTATUS command, *System Management*, 15-12
/EST keyword
RUN command (MCR), *MCR*, 3-178, 3-182
ET0310, *Error Logging*, 4-9
ET1645, *Error Logging*, 4-9
ETA11, *Error Logging*, 4-9
ETC11, *Error Logging*, 4-9
Ethernet (XEDRV)
address
auxilliary buffer, *I/O Drivers*, 13-12
device consideration, *I/O Drivers*, 13-2
hardware error, *I/O Drivers*, 13-3
LF$DEF protocol, *I/O Drivers*, 13-3
LF$EXC protocol, *I/O Drivers*, 13-3
message, *I/O Drivers*, 13-2
message padding, *I/O Drivers*, 13-3
protocol
LF$DEF, *I/O Drivers*, 13-3
LF$EXC, *I/O Drivers*, 13-3
receive, *I/O Drivers*, 13-3
transmit, *I/O Drivers*, 13-3
ETS11, *Error Logging*, 4-9
ETSV05, *Error Logging*, 4-9
ETU58, *Error Logging*, 4-9
ETU77, *Error Logging*, 4-9
EUNKWN, *Error Logging*, 4-8, 4-19, 4-37
.EVEN assembler directive
control block alignment, *RMS-11 Macro*, 2-8
pool alignment, *RMS-11 Macro*, 2-4
.EVEN directive, *MACRO-11*, 6-37
Event
definition, *Error Logging*, 1-3, 4-2
significant, *I/O Drivers*, 1-9, 1-36
Event declaration, significant, *I/O Drivers*, 1-13
Event flag, *Executive*, 2-2 *I/O Drivers*, 1-9 *MCR*, 3-58
ast, *I/O Drivers*, 1-11
clearing polarity, *Executive*, 5-31
common, *Executive*, 2-2 *I/O Drivers*, 1-9, 1-10
creating, *MCR*, 3-77
displaying, *Command Language*, 6-65
eliminating, *MCR*, 3-77
group global, *Executive*, 2-2 *I/O Drivers*, 1-9 *MCR*, 3-77
creating, *Executive*, 5-48
on Micro/RSX, *Executive*, 2-4
decrementing use count, *Executive*, 5-253
deleting, *Executive*, 5-71
on Micro/RSX, *Executive*, 2-4
displaying on Micro/RSX, *Executive*, 2-4
eliminating, *Executive*, 5-253
I/O coordination, *I/O Operations*, 2-43
I/O synchronization, *I/O Operations*, 3-10
IOX, *System Management*, 4-66
local, *MCR*, 3-77
none, *I/O Drivers*, 1-8
number, *I/O Drivers*, 1-9
reading, *Executive*, 5-156, 5-158
setting, *Command Language*, 6-63 to 6-64 *Executive*, 5-199
task, *I/O Drivers*, 1-9
testing, *Executive*, 2-3, 5-157
UIC, *MCR*, 3-77
wait after I/O, *I/O Drivers*, 1-15
wait for single, *I/O Drivers*, 1-24
Event-level dispatching, *Error Logging*, 4-16
control information, *Error Logging*, 4-17
CPU-detected errors, *Error Logging*, 4-17
device control information, *Error Logging*, 4-17
device errors, *Error Logging*, 4-17
device information, *Error Logging*, 4-17

Event-level dispatching (cont'd.)
dispatcher module, *Error Logging*, 4-18
error log control code, *Error Logging*, 4-17
event code, *Error Logging*, 4-18
event type, *Error Logging*, 4-18
format, *Error Logging*, 4-18
system control information, *Error Logging*, 4-17
EVNDF$, *CDA*, B-14, C-25
EXACT_POSITIONING attribute
RMSDES utility, *RMS-11 Utilities*, 2-47
Examine option
ACNT, *System Management*, 2-5
Example
Brief format report, *Error Logging*, 3-13, 3-14
device information table, *Error Logging*, 4-34
ERM23, *Error Logging*, 4-26
ERM23 device-level module, *Error Logging*, 4-37 to 4-49
ERM23 notes file, *Error Logging*, 4-31
error log packet format, *Error Logging*, 5-2
error log subpacket format, *Error Logging*, 5-2
Full format report, *Error Logging*, 3-16, 3-17
notes module, *Error Logging*, 4-67, 4-68
NRM23 notes module, *Error Logging*, 4-67, 4-68
register report, *Error Logging*, 3-19
RM02/03
register printing, *Error Logging*, 4-27
RM02/03 module, *Error Logging*, 4-38 to 4-49
RM03 module, *Error Logging*, 4-13
RMS-11 MACRO-11 programs, *RMS-11 Macro*, 7-1
RMSBCK utility, *RMS-11 Utilities*, 6-10
RMSCNV utility, *RMS-11 Utilities*, 4-16
RMSDES utility, *RMS-11 Utilities*, 2-47
RMSDSP utility, *RMS-11 Utilities*, 5-5
Example (cont'd.)
RMSIFL utility, *RMS-11 Utilities*, 3-14
RMSRST utility, *RMS-11 Utilities*, 7-12
Exception code
RMSIFL utility, *RMS-11 Utilities*, 3-6
Exception record
RMSIFL utility, *RMS-11 Utilities*, 3-5, 3-6, 3-10
Exclamation point operator (!), *Task Builder*, 3-49
See also ODL operator
/EXCLUDE qualifier
BRU utility, *Utilities*, 7-16
/EXCLUDE qualifier (DCL), *Command Language*, 4-9
/EXECUTABLE qualifier, *Task Builder*, 11-29 to 11-30
EXECUTE command
IOX, *System Management*, 4-37
Execution
termination of task
IOX, *System Management*, 4-24
Execution mode
entering
IOX, *System Management*, 4-61
IOX, *System Management*, 4-18
Executive, *Introduction*, 5-1, 6-3, 6-5, 6-6 *Writing I/O Driver*, 1-2
Best reference, *Executive*
calling the driver, *Writing I/O Driver*, 1-17
coroutine
$INTSV, *Writing I/O Driver*, 1-6
definition, *System Generation*, 1-9
DIC list, *Executive*, C-1
directive, *MCR*, 3-140
aborting tasks, *MCR*, 3-5
directive dispatcher
DRDSP, *Writing I/O Driver*, 3-2
directive status code list, *Executive*, B-1
directive summary, *Executive*, A-1
dispatching to correct driver routine, *Writing I/O Driver*, 2-1
distributing I/O requests, *Writing I/O Driver*, 1-17
fast-mapping, *MCR*, 3-118
Full-functionality, *System Generation*, 1-10

Executive (cont'd.)
interrupt exit routine, *Writing I/O Driver*, 1-6
interrupts
handling, *Writing I/O Driver*, 2-1
interrupt save routine, *Writing I/O Driver*, 1-6, 1-7
library, *Program Development*, 1-11
macro, *Program Development*, 1-9, 1-10
loadable device driver, *MCR*, 3-132
macro library
EXEMC.MLB, *Writing I/O Driver*, 5-3
mapping, *Writing I/O Driver*, 1-3
modifying data in UCB, *Writing I/O Driver*, 2-3
module
DVINT, *Writing I/O Driver*, 1-12
options for driver, *Writing I/O Driver*, 5-9, 5-10, 5-11
partition
extended, *MCR*, 3-133
performing processor specific functions, *Writing I/O Driver*, 1-16
predriver initiation, *Writing I/O Driver*, 1-4
priority range, *MCR*, 3-257
queuing to the driver, *Writing I/O Driver*, 1-4
request queue for controller, *Writing I/O Driver*, 1-11
round-robin scheduling, *MCR*, 3-248
routines
handling, *Writing I/O Driver*, 1-5, 1-6
service routine, *Writing I/O Driver*, 1-2, 1-3
stack and register dump, *Writing I/O Driver*, 6-11
swapping interval, *MCR*, 3-256
symbol
$CTLST, *Writing I/O Driver*, 2-15
tables
logical device, *MCR*, 2-13
physical device, *MCR*, 2-13
task
aborting, *MCR*, 3-3
active, *MCR*, 2-23

Executive
task (cont'd.)
allocating space, *MCR*, 2-20
checkpointing, *MCR*, 2-20
dormant, *MCR*, 2-23
header, *MCR*, 3-122
loading, *MCR*, 3-116
priority, *MCR*, 2-21
running, *MCR*, 1-5, 2-23, 3-116
User-tailored, *System Generation*, 1-13
Executive crash dump routine, *CDA*, 1-1, 1-2, 1-3
building, *CDA*, 1-1
Executive data space
SYSGEN question, *System Generation*, 3-23
Executive data space support, *System Management*, 10-3
Executive Debugging Tool, *MCR*, 3-36
See also XDT
invoking, *MCR*, 3-38
Executive error logging support, *Error Logging*, 1-6
Executive-level dispatching, *Executive*, 5-5
Executive pool monitor code, *System Management*, 13-1
Executive routines, *Writing I/O Driver*, 1-12, 1-15, 4-41
See also Executive services
error collection
device registers, *Error Logging*, 1-3
$GTPKT, *Writing I/O Driver*, 1-5, 1-13
$IODON, *Writing I/O Driver*, 1-9
Executive Send Message directive
See SMSG$
Executive services
summaries of technically used, *Writing I/O Driver*, 7-5 to 7-40
Executive symbol table, *CDA*, 1-1, 2-2, 2-17
switch
See /STB switch
EXELIB.OLB (Executive library), *Program Development*, 1-11
EXELIB.OLB file, *Writing I/O Driver*, A-1
EXEMC.MLB (Executive macro library), *Program Development*, 1-9 to 1-10
EXEMC.MLB file, *Writing I/O Driver*, A-1

EXIF$ directive, *Executive*, 5-78
Existence indicator (ICDRV/ISDRV), *I/O Drivers*, 19-18
EXIT$S directive, *Executive*, 5-80
Program Development, 2-7
EXIT & DELETE command
EDI utility, *Utilities*, 2-32
EXIT command
EDI utility, *Program Development*, 2-10, 2-12, 2-18, 7-5, 7-7 *Utilities*, 2-14, 2-27, 2-32
EDT editor, *Introduction*, 2-8
IOX, *System Management*, 4-38
RMSDES utility, *RMS-11 Utilities*, 2-3, 2-9, 2-18, 2-27
Exit command
ODT, *Debugging*, 2-12
XDT, *Debugging*, 9-14
.EXIT directive, *Indirect*, 2-54
Exit If directive, *Executive*, 5-78
Exit on diagnostic, *Task Builder*, 10-54, 11-28
Exit option
ACNT, *System Management*, 2-11
Exit status, *Indirect*, 2-12
value, *Indirect*, 2-12
Exit Status Code
definition, *Batch and Queue*, 4-4
/EXIT switch, *CDA*, 2-10, 2-11
Exit switch
See /EXIT switch
Exit with Status directive, *Executive*, 5-82
Expanded string
See ESA field in NAM block
EXPANSIONS argument, *MACRO-11*, 8-11
/EXP keyword
LOAD command (MCR), *MCR*, 3-133
.EXPLG module
logical name expansion, *I/O Operations*, 4-15
Expression, *Debugging*, 2-3
absolute, *MACRO-11*, 3-17
address, *Debugging*, 2-2
complex relocatable, *MACRO-11*, 3-18
evaluating, *Debugging*, 2-3, 7-2 *MACRO-11*, 3-16 to 3-18
external, *MACRO-11*, 3-17
format, *Debugging*, 2-3
illegal, *Debugging*, 2-8, 9-11
Expression (cont'd.)
indicator
immediate, *MACRO-11*, 3-2
Radix-50
evaluating, *Debugging*, 7-4
register address, *Debugging*, 2-6, 9-10
relocatable, *MACRO-11*, 3-17
EXST$ directive, *Executive*, 5-82
EXSTAT symbol, *Indirect*, 2-12
EXSTRI symbol, *Indirect*, 2-18
/EX switch
LBR utility, *Utilities*, 10-18
PIP utility, *Utilities*, 3-21
Extend access, *MCR*, 2-3
common region, *MCR*, 3-120
file, *MCR*, 3-149, 3-213
UFD, *MCR*, 3-281
volume, *MCR*, 3-94
Extend control parameter (F11ACP), *I/O Drivers*, C-5
Extended arithmetic
specifying, *Task Builder*, 10-16
Extended attribute block
See XAB
Extended I/O (TTDRV), *I/O Drivers*, 2-18, 2-25
Extended User Control Block
See UCB
$EXTEND macro, *RMS-11 Macro*, 5-46
RSTS/E, *RMS-11 Macro*, D-4
EXTEND operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-8 *RMS-11 User's Guide*, 1-18
and shared access, *RMS-11 User's Guide*, 2-6
BDB requirement, *RMS-11 Macro*, 2-8
$EXTEND macro, *RMS-11 Macro*, 5-46
I/O buffer requirement, *RMS-11 Macro*, 2-7
wildcard loop, *RMS-11 Macro*, 3-10
/EXTEND qualifier
BRU utility, *Utilities*, 7-16
.EXTEND routine (disk driver), *I/O Drivers*, 5-8
Extend Task directive, *Executive*, 5-84
improving performance, *Task Builder*, F-2
Extension
default, *I/O Operations*, 2-20

EXTENSION attribute
RMSDES utility
area section, *RMS-11 Utilities*, 2-45
file section, *RMS-11 Utilities*, 2-32
EXTENSIONS argument, *MACRO-11*, 8-11
Extent
data caching, *MCR*, 3-146, 3-208
External expression, *MACRO-11*, 3-17
External file (RMSDES)
See Data file, Description file
External header, *Writing I/O Driver*, 6-8
/EXTERNAL qualifier, *Task Builder*, 11-31
External symbol
See Global symbol
EXTK$ directive, *Executive*, 5-84
/EXT keyword
HOME command, *MCR*, 3-94
INITVOLUME command, *MCR*, 3-102
.EXTND routine, extend file, *I/O Operations*, 4-28
EXTSCT option, *Task Builder*, 12-15
$EXTSK (Extend task), *System Library*, 8-13
EXTTSK option, *Task Builder*, 12-16

F

F$-family macro, *RMS-11 Macro*, 2-9
declaring, *RMS-11 Macro*, C-1
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
F.ACTL field, number of retrieval pointers, *I/O Operations*, A-9
F.ALOC field, number of blocks allocated for extend, *I/O Operations*, A-7
F.BBFS field, block buffer size, *I/O Operations*, A-8
F.BDB field, block buffer descriptor block address, *I/O Operations*, A-9
F.BGBC field, big-buffer block count, *I/O Operations*, A-8
F.BKDN field, AST service routine address, *I/O Operations*, A-6
F.BKDS field, block I/O buffer descriptor, *I/O Operations*, A-6
F.BKEF field, block I/O event flag, *I/O Operations*, A-7
F.BKP1 field, FCS internal control bits, *I/O Operations*, A-8
F.BKST field, I/O status block address, *I/O Operations*, A-6
F.BKVD field, user virtual block number, *I/O Operations*, A-8
F.CHR field, volume characteristics byte, *I/O Operations*, A-9
F.CNTG field, number of blocks to be allocated, *I/O Operations*, A-6
F.DFNB field, default filename block pointer, *I/O Operations*, A-7
F.DSPT field, dataset descriptor pointer, *I/O Operations*, A-7
F.EFBK field, end-of-file block number, *I/O Operations*, A-4
F.EFN field, record I/O event flag, *I/O Operations*, A-7
F.EOBB field, end-of-block buffer, *I/O Operations*, A-6
F.ERR1 field, F.ERR extension, *I/O Operations*, A-8
F.ERR field, error return code byte, *I/O Operations*, A-8
F.EXT field, FDB extension address, *I/O Operations*, A-9
F.FACC field, file access byte, *I/O Operations*, A-7
F.FFBK field, first free byte in last block, *I/O Operations*, A-4
F.FLG field, flag byte, *I/O Operations*, A-9
F.FNB field, filename block offset, *I/O Operations*, A-9
F.HIBK field, highest allocated virtual block number, *I/O Operations*, A-4
F.LUN field
FDB, *I/O Operations*, 4-17
F.LUN field, LUN for FDB, *I/O Operations*, A-7
F.MBC1 field, number of buffers in use, *I/O Operations*, A-8
F.MBCT field, number of multiple buffers, *I/O Operations*, A-8
F.MBFG field, multibuffer flag word, *I/O Operations*, A-8
F.NRBD field, next record buffer descriptor, *I/O Operations*, A-6
F.NREC field, adress of next record in block, *I/O Operations*, A-6

F.OVBS field, override block buffer size, *I/O Operations*, A-6
F.RACC field, record access byte, *I/O Operations*, A-4
F.RATT field, record attribute byte, *I/O Operations*, A-4
F.RCNM field, random access record number, *I/O Operations*, A-6
F.RCTL, device characteristic byte .PARSE routine, *I/O Operations*, 4-13
F.RCTL field, device characteristics byte, *I/O Operations*, A-5
F.RSIZ field, reocrd-size word, *I/O Operations*, A-4
F.RTYP field, record-type byte, *I/O Operations*, A-3
F.SEQN field, sequence number, *I/O Operations*, A-9
F.STBK field, statistics block address, *I/O Operations*, A-6
F.URBD field, user record buffer descriptor, *I/O Operations*, A-6
F.VBN field, virtual block number, *I/O Operations*, A-8
F.VBSZ, device buffer size word .PARSE routine, *I/O Operations*, 4-13
F.VBSZ field, device buffer size word, *I/O Operations*, A-8
F1.xxx bit, *I/O Drivers*, 2-34, 3-13
F11ACP, *RMS-11 Introduction*, 2-1
  SYSGEN question, *System Generation*, 3-28
F11ACP stall I/O performance (disk driver), *I/O Drivers*, 5-13
F11DF$, *CDA*, C-28 *Writing I/O Driver*, A-21 to A-24
F11TBL$, *CDA*, B-17
F2.xxx bit, *I/O Drivers*, 2-34, 3-13
F4POTS.OLB (FORTRAN IV and FORTRAN IV-PLUS library), *Program Development*, 1-11
F4PRES
  building, *Task Builder*, 5-56
FA.DLK value, not lock file, *I/O Operations*, 2-16
FA.EXL value, block locking, *I/O Operations*, 2-17
FA.LKL value, block locking, *I/O Operations*, 2-17
FA.NSP value, open file no supersede, *I/O Operations*, 3-19
FA.POS value, file position on close, *I/O Operations*, 2-16
FA.RWD value, rewind on close or open, *I/O Operations*, 2-16
FA.SHR value, open file shared access, *I/O Operations*, 3-19
FA.TMP value, open temporary file, *I/O Operations*, 3-19
FAB, *RMS-11 Introduction*, 4-8
  chaining to RAB, *RMS-11 Macro*, 2-13
  declaring, *RMS-11 Macro*, 2-8
  initializing, *RMS-11 Macro*, 2-9
  summary, *RMS-11 Macro*, 6-22
FAB$B macro, *RMS-11 Macro*, 2-8, C-1
  example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
FAB$BT macro, *RMS-11 Macro*, C-1
FAB$E macro, *RMS-11 Macro*, 2-9
  declaring, *RMS-11 Macro*, C-1
  example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
FAB field in RAB, *RMS-11 Macro*, 4-2
  chaining FAB to RAB, *RMS-11 Macro*, 2-13
  CONNECT operation, *RMS-11 Macro*, 5-6
  offset, *RMS-11 Macro*, 6-115
  summary, *RMS-11 Macro*, 6-120
FABOF$ macro, *RMS-11 Macro*, C-1
FAC field in FAB
  CREATE operation, *RMS-11 Macro*, 5-14
  offset, *RMS-11 Macro*, 6-22
  OPEN operation, *RMS-11 Macro*, 5-75
  summary, *RMS-11 Macro*, 6-37
Facilities-declaration macro, *RMS-11 Macro*, 2-2
  declaring, *RMS-11 Macro*, C-2
FAL, *RMS-11 User's Guide*, B-1
  RSTS/E, *RMS-11 User's Guide*, B-1, B-3
  RSX-11M/M-PLUS, *RMS-11 User's Guide*, B-3
  VAX/VMS, *RMS-11 User's Guide*, B-3
FALSE symbol, *Indirect*, 2-11
Fast deletion
  See RB$FDL mask in ROP field
Fast mapping, *Executive*, 3-20 *System Management*, 10-23

Fast mapping (cont'd.)
high-level language, *Executive*, 3-22
MACRO-11, *Executive*, 3-21
status returns, *Executive*, 3-23
/FAST qualifier, *Task Builder*, 11-32
Fast Task Builder
See FTB
/FA switch
FLX utility, *Utilities*, 4-5
Fatal error, *RMS-11 Macro*, 2-15
Fatal error message, *System Management*, 10-94
Fault
codes, *Writing I/O Driver*, 6-10
isolation, *Writing I/O Driver*, 6-8
tracing, *Writing I/O Driver*, 6-8, 6-12, 6-13
Fault isolation, *System Management*, 15-31 *Writing I/O Driver*, 6-5, 6-7
FB$BID code in BID field
summary, *RMS-11 Macro*, 6-26
value, *RMS-11 Macro*, 6-22
FB$BLK mask in RAT field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-60
value, *RMS-11 Macro*, 6-23
FB$BLN code in BLN field
summary, *RMS-11 Macro*, 6-28
value, *RMS-11 Macro*, 6-22
FB$CCL mask in DEV field, *RMS-11 Macro*, 3-1
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-42
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-117
value, *RMS-11 Macro*, 6-24
FB$CR mask in RAT field
CREATE operation, *RMS-11 Macro*, 5-12
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$CTG mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-18
EXTEND operation, *RMS-11 Macro*, 5-46
OPEN operation, *RMS-11 Macro*, 5-78
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-40
value, *RMS-11 Macro*, 6-23
FB$DEL mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$DFW mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-15
OPEN operation, *RMS-11 Macro*, 5-76
summary, *RMS-11 Macro*, 6-41
value, *RMS-11 Macro*, 6-23
FB$DLK mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-15
OPEN operation, *RMS-11 Macro*, 5-76
summary, *RMS-11 Macro*, 6-42
value, *RMS-11 Macro*, 6-23
FB$-family symbol
declaring, *RMS-11 Macro*, C-1
FB$FID mask in FOP field, *RMS-11 Macro*, 3-7, 3-9, 3-10, 3-11
CREATE operation, *RMS-11 Macro*, 5-10
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41
OPEN operation, *RMS-11 Macro*, 5-73, 5-74
REMOVE operation, *RMS-11 Macro*, 5-103
RENAME operation, *RMS-11 Macro*, 5-109, 5-110
summary, *RMS-11 Macro*, 6-43
value, *RMS-11 Macro*, 6-23

FB$FIX code in RFM field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$FTN mask in RAT field
CREATE operation, *RMS-11 Macro*, 5-12
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$GET mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$GET mask in SHR field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$IDX code in ORG field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$MDI mask in DEV field, *RMS-11 Macro*, 3-1
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-42
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-117
value, *RMS-11 Macro*, 6-24
FB$MKD mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-11
summary, *RMS-11 Macro*, 6-44
FB$MKD mask in FOP field (cont'd.)
value, *RMS-11 Macro*, 6-23
FB$NEF mask in FOP field
OPEN operation, *RMS-11 Macro*, 5-76
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-45
value, *RMS-11 Macro*, 6-23
FB$NIL mask in SHR field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$POS mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-15
summary, *RMS-11 Macro*, 6-46
value, *RMS-11 Macro*, 6-23
FB$PRN mask in RAT field
CREATE operation, *RMS-11 Macro*, 5-12
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$PUT mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$REA mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$REC mask in DEV field, *RMS-11 Macro*, 3-1, 3-2
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-42, 5-43
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111

FB$REC mask in DEV field (cont'd.)
SEARCH operation, *RMS-11 Macro*, 5-117, 5-118
value, *RMS-11 Macro*, 6-24
FB$REL code in ORG field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$RWC mask in FOP field
CLOSE operation, *RMS-11 Macro*, 5-4
CREATE operation, *RMS-11 Macro*, 5-15
OPEN operation, *RMS-11 Macro*, 5-77
SEARCH operation, *RMS-11 Macro*, 5-117
summary, *RMS-11 Macro*, 6-47
value, *RMS-11 Macro*, 6-23
FB$RWO mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-15
OPEN operation, *RMS-11 Macro*, 5-76
SEARCH operation, *RMS-11 Macro*, 5-117
summary, *RMS-11 Macro*, 6-48
value, *RMS-11 Macro*, 6-23
FB$SDI mask in DEV field, *RMS-11 Macro*, 3-2
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-118
value, *RMS-11 Macro*, 6-24
FB$SEQ code in ORG field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
FB$SEQ code in ORG field (cont'd.)
value, *RMS-11 Macro*, 6-23
FB$SQD mask in DEV field, *RMS-11 Macro*, 3-2
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-118
value, *RMS-11 Macro*, 6-24
FB$STM code in RFM field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$SUP mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-10
summary, *RMS-11 Macro*, 6-49
value, *RMS-11 Macro*, 6-23
FB$TMD mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-11
value, *RMS-11 Macro*, 6-23
FB$TMP mask in FOP field
CREATE operation, *RMS-11 Macro*, 5-11
summary, *RMS-11 Macro*, 6-50
value, *RMS-11 Macro*, 6-23
FB$TRM mask in DEV field, *RMS-11 Macro*, 3-1
CREATE operation, *RMS-11 Macro*, 5-20
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-42
OPEN operation, *RMS-11 Macro*, 5-77
PARSE operation, *RMS-11 Macro*, 5-88

FB$TRM mask in DEV field (cont'd.)
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-117
value, *RMS-11 Macro*, 6-24
FB$TRN mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$UDF code in RFM field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$UPD mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$UPI mask in SHR field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
RSX-11, *RMS-11 Macro*, D-4
value, *RMS-11 Macro*, 6-22
FB$VAR code in RFM field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$VFC code in RFM field
CREATE operation, *RMS-11 Macro*, 5-11
OPEN operation, *RMS-11 Macro*, 5-78
value, *RMS-11 Macro*, 6-23
FB$WRI mask in SHR field
CREATE operation, *RMS-11 Macro*, 5-14
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
FB$WRT mask in FAC field
CREATE operation, *RMS-11 Macro*, 5-14
FB$WRT mask in FAC field (cont'd.)
OPEN operation, *RMS-11 Macro*, 5-75
value, *RMS-11 Macro*, 6-22
$FBCAL macro, *RMS-11 Macro*, C-2
/FB switch
FLX utility, *Utilities*, 4-5
FCB
See File Control Block
F command, *Debugging*, 2-9, 6-4
FCPLRG
See F11ACP
FCPMDL
See F11ACP
FCS, *I/O Operations*, 1-1
data structure
general, *I/O Operations*, 1-4
definition, *System Generation*, 1-9
file access method, *I/O Operations*, 1-6
I/O macro, *I/O Operations*, 2-1
important characteristic, *I/O Operations*, 1-3
impure area, *I/O Operations*, 2-38
library
FCSFSL, *System Generation*, 3-73
FCSRES, *System Generation*, 3-73
on pregenerated kit, *System Generation*, 5-41
library options, *I/O Operations*, K-1
macro
FDB information, *I/O Operations*, 2-2
.MCALL directive, *I/O Operations*, 2-2
sequential file compatibility, *RMS-11 User's Guide*, 3-2
string
processing, *Executive*, 5-135
term definition, *I/O Operations*, 1-2
with Task Builder, *I/O Operations*, 1-1
FCS.OBJ FCS library, *I/O Operations*, K-1
FCSFSL
definition, *System Generation*, 1-10
on pregenerated kit, *System Generation*, 5-41
tasks supplied, *System Generation*, 4-6
FCSMBF.OBJ FCS library, *I/O Operations*, K-1

FCSMTA.OBJ FCS library, *I/O Operations*, K-1
FCSRES
  definition, *System Generation*, 1-10
  non-memory-resident, *Task Builder*, 5-56
  on pregenerated kit, *System Generation*, 5-41
  overlaid, *Task Builder*, 5-55
  SYSGEN question, *System Generation*, 3-24
  tasks supplied, *System Generation*, 4-6
  types, *Task Builder*, 5-55
FCSRES routines, *I/O Operations*, 1-20
/FC switch
  FLX utility, *Utilities*, 4-7
.FCTR directive, *Task Builder*, 3-23, 3-25
  allocation diagram
    creating, *Task Builder*, 3-38, 3-39
  argument, *Task Builder*, 3-26
    library modules, *Task Builder*, 3-26
    library to resolve references, *Task Builder*, 3-26
    named input file, *Task Builder*, 3-26
    program section name, *Task Builder*, 3-26
    segment name, *Task Builder*, 3-27
  autoloadable
    making first component, *Task Builder*, 4-3
  summary, *Task Builder*, 3-50
  use of label, *Task Builder*, 3-25
.FCTYP routine, assembly parameters, *I/O Operations*, K-1
FD.BLK parameter
  record attribute, *I/O Operations*, 2-6
    block boundary crossing, *I/O Operations*, 3-9
FD.CR parameter
  record attribute, *I/O Operations*, 2-6
    line-feed character, *I/O Operations*, 3-8
FD.FTN parameter, *I/O Operations*, 3-8
FD.INS parameter
  sequential file, *I/O Operations*, 2-10
  sequential mode, *I/O Operations*, 3-6, 3-9
FD.PLC parameter
  locate mode, *I/O Operations*, 2-10, 3-6, 3-9
  move mode, *I/O Operations*, 2-10
FD.PRN parameter
  record attribute, *I/O Operations*, 2-6
    carriage-control word, *I/O Operations*, 3-9
FD.RAH parameter, read-ahead operation, *I/O Operations*, 3-12
FD.RAH value, read-ahead, *I/O Operations*, 2-19
FD.RAN parameter
  random access, *I/O Operations*, 2-10, 3-9
  random record I/O, *I/O Operations*, 3-6
FD.RTN, record attribute, *I/O Operations*, 2-6
FD.RWM parameter
  block I/O operation, *I/O Operations*, 3-6
  record access, *I/O Operations*, 2-10
  record attribute
    process with block I/O, *I/O Operations*, 3-9
FD.WBH parameter, write-behind operation, *I/O Operations*, 3-12
FD.WBH value, write behind, *I/O Operations*, 2-19
FDAT$A macro, *I/O Operations*, 2-5
FDAT$R macro, *I/O Operations*, 2-21
FDB, *I/O Operations*, 2-3
  address, run-time macro, *I/O Operations*, 2-24
  allocate file block, *I/O Operations*, 2-8
  as data structure, *I/O Operations*, 1-4
  block I/O, *I/O Operations*, 2-10
  block locking, *I/O Operations*, 2-17
  block size reset, *I/O Operations*, 2-19
  carriage control, *I/O Operations*, 2-7
  definition, *I/O Operations*, 1-2
  description, *I/O Operations*, 1-5

FDB (cont'd.)
extension, logical name translation, *I/O Operations*, 4-15
F.LUN field, *I/O Operations*, 4-17
F.xxxx field, *I/O Operations*, A-3
file identification, *I/O Operations*, 3-10
GET$ macro, *I/O Operations*, 3-23
initialization, *I/O Operations*, 2-3
initialize block access, *I/O Operations*, 2-21
initialize block buffer, *I/O Operations*, 2-18, 2-22
initialize block buffer size, *I/O Operations*, 2-18
initialize file attribute, *I/O Operations*, 2-5, 2-21
initialize file-open section, *I/O Operations*, 2-14, 2-22
initialize record access, *I/O Operations*, 2-10, 2-21
initial values, *I/O Operations*, 2-1
largest record size, *I/O Operations*, 2-8
lun specification, *I/O Operations*, 3-10
macro
global symbol, *I/O Operations*, 2-26
local symbol, *I/O Operations*, 2-27
run-time exceptions, *I/O Operations*, 2-22
run-time initialization, *I/O Operations*, 2-21
multiple buffering, *I/O Operations*, 2-19
type, *I/O Operations*, 2-19
offset, global/local, *I/O Operations*, 2-25
OPEN$x macro requirement, *I/O Operations*, 3-7
PUT$ macro operation, *I/O Operations*, 3-27
record I/O, *I/O Operations*, 2-10
record size, *I/O Operations*, 3-9
sequence number field, *I/O Operations*, 2-7
space allocation, *I/O Operations*, 2-5
WRITE$ macro, *I/O Operations*, 3-39
FDBDF$ macro, FDB space allocation, *I/O Operations*, 2-5
FDBF$A macro, *I/O Operations*, 2-18
example, *I/O Operations*, 2-21
FDBF$R macro, *I/O Operations*, 2-22
FDBK$A macro
block access initialization, *I/O Operations*, 2-12
example, *I/O Operations*, 2-13
record access, block I/O, *I/O Operations*, 2-12
FDBK$R macro, initialize block access, *I/O Operations*, 2-21
FDOP$A macro, *I/O Operations*, 2-14
example, *I/O Operations*, 2-17
FDOP$R macro, initialize file-open section, *I/O Operations*, 2-22
FDRC$A macro, *I/O Operations*, 2-10
example, *I/O Operations*, 2-10
FDRC$R macro, initialize record access, *I/O Operations*, 2-21
/FDX keyword
SET command (MCR), *MCR*, 3-218
SET command (VMR), *System Management*, 10-59
FEAT$ directive, *Executive*, 5-86
$FETCH macro, *RMS-11 Macro*, 2-15
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
FF command
EDI utility, *Utilities*, 2-34
/FF switch
CMP utility, *Utilities*, 12-3
FID field in NAM block
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41, 5-42
offset, *RMS-11 Macro*, 6-94
OPEN operation, *RMS-11 Macro*, 5-73, 5-77
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
SEARCH operation, *RMS-11 Macro*, 5-118
summary, *RMS-11 Macro*, 6-100
Field, *RMS-11 Macro*, 1-2
clearing bits in, *RMS-11 Macro*, 2-11
comparing value, *RMS-11 Macro*, 2-16

Field (cont'd.)
copying value from, *RMS-11 Macro*, 2-15
copying value into, *RMS-11 Macro*, 2-10
examining, *RMS-11 Macro*, 2-15
initializing, *RMS-11 Macro*, 2-8
mnemonic, *RMS-11 Macro*, 1-2
setting bits in, *RMS-11 Macro*, 2-11
setting up, *RMS-11 Macro*, 2-10
testing bits in, *RMS-11 Macro*, 2-17
Field-access macro
$COMPARE, *RMS-11 Macro*, 2-16
declaring, *RMS-11 Macro*, C-2
$FETCH, *RMS-11 Macro*, 2-15
$OFF, *RMS-11 Macro*, 2-11
$SET, *RMS-11 Macro*, 2-11
$STORE, *RMS-11 Macro*, 2-10
$TESTBITS, *RMS-11 Macro*, 2-17
Field-initialization macro, *RMS-11 Macro*, 2-9
declaring
ALL block, *RMS-11 Macro*, C-3
DAT block, *RMS-11 Macro*, C-3
FAB, *RMS-11 Macro*, C-1
KEY block, *RMS-11 Macro*, C-3
NAM block, *RMS-11 Macro*, C-2
PRO block, *RMS-11 Macro*, C-3
RAB, *RMS-11 Macro*, C-2
SUM block, *RMS-11 Macro*, C-3
Field-offset symbol
declaring
ALL block, *RMS-11 Macro*, C-3, C-4
DAT block, *RMS-11 Macro*, C-3, C-4
FAB, *RMS-11 Macro*, C-1
KEY block, *RMS-11 Macro*, C-3, C-4
NAM block, *RMS-11 Macro*, C-2
PRO block, *RMS-11 Macro*, C-3, C-4
RAB, *RMS-11 Macro*, C-2
SUM block, *RMS-11 Macro*, C-3, C-4
XAB, *RMS-11 Macro*, C-4
value
ALL block, *RMS-11 Macro*, 6-2
DAT block, *RMS-11 Macro*, 6-14
FAB, *RMS-11 Macro*, 6-22
KEY block, *RMS-11 Macro*, 6-67
Field-offset symbol
value (cont'd.)
NAM block, *RMS-11 Macro*, 6-94
PRO block, *RMS-11 Macro*, 6-108
RAB, *RMS-11 Macro*, 6-115
SUM block, *RMS-11 Macro*, 6-145
Field size symbols, file operation, *I/O Operations*, J-1
Field terminator, *MACRO-11*, 3-2
/FI file switch
QUE /MOD command, *Batch and Queue*, 2-21
FILATR symbol, *Indirect*, 2-19
File, *Introduction*, 2-1, 3-1 *RMS-11 Introduction*, 1-1 *RMS-11 User's Guide*, 1-2
See also Account file
See also Indexed file organization
See also Relative file organization
See also Sequential file organization
access, *MCR*, 2-3, 2-6, 3-122
method, FCS, *I/O Operations*, 1-6
optimizing, *I/O Operations*, 2-34
access requested
See FAC field in FAB
access shared
See SHR field in FAB
alignment
See ALN field in ALL block
allocation
See ALQ field in ALL block
See ALQ field in FAB
and directory, *MCR*, 2-2
appending, *Command Language*, 4-65
PIP utility, *Utilities*, 3-14
area
See ALL block
assembler work, *MACRO-11*, F-1
attributes, *RMS-11 Introduction*, 5-1 *RMS-11 User's Guide*, 1-2
setting, *Command Language*, 4-105
attribute size (F11ACP), *I/O Drivers*, C-4
backing up, *RMS-11 Introduction*, 5-3

File
bucket size
See BKZ field in ALL block
close current command, *I/O Operations*, 6-12
close indirect command, *I/O Operations*, 6-12
closing, *I/O Operations*, 3-20
See also CLOSE operation
closing temporary, *I/O Operations*, 3-13
cluster size
See RTV field in FAB
command
comment, *Task Builder*, 1-14
level of indirection, *Task Builder*, 1-13
option, *Task Builder*, 1-14
comparing, *Command Language*, 4-68
CMP utility, *Utilities*, 12-1
content, *MCR*, 2-5
contiguity
See FB$CTG mask in FOP field
See XB$CTG mask in AOP field
contiguous, *Introduction*, 5-6
control directive, *MACRO-11*, 6-57, 6-58
copying, *Command Language*, 4-47
See also File transferring
BRU utility, *Utilities*, 7-1
DOS-11, *Utilities*, 4-3
DSC utility, *Utilities*, 8-1
Files-11, *Utilities*, 3-8
FLX utility, *Utilities*, 4-3
PIP utility, *Utilities*, 3-8
RT-11, *Utilities*, 4-3
count
calculating maximum, *MCR*, 3-105
creating, *Command Language*, 4-15, 4-21 *RMS-11 Introduction*, 5-1, 5-2
See also CREATE operation
EDI utility, *Utilities*, 2-2
FO.WRT value, *I/O Operations*, 3-19
source, *Program Development*, 2-9, 2-10
temporary, *I/O Operations*, 3-13
mark for deletion, *I/O Operations*, 3-14

File
creation date
See CDT field in DAT block
date
See DAT block
declaring number of active, *Task Builder*, 12-7
default extension size
See DEQ field in ALL block
See DEQ field in FAB
delete routine, *I/O Operations*, 4-29, 4-30
deleting, *Command Language*, 4-40
I/O Operations, 3-42
See also ERASE operation
PIP utility, *Utilities*, 3-17
deleting routine, *I/O Operations*, 4-29
deleting with wildcard, *MCR*, 2-7
design, *RMS-11 Introduction*, 3-15, 5-1
device
data format, *I/O Operations*, 1-6
directory, *I/O Operations*, 5-2
directory listing, *Program Development*, 3-9
displaying, *RMS-11 Introduction*, 5-3
block number
PIP utility, *Utilities*, 3-25
dumping
DMP utility, *Utilities*, 11-1
editing, *Command Language*, 4-21
EDI utility, *Utilities*, 2-1
recovering, *Command Language*, 4-23
source, *Program Development*, 2-9 to 2-18
EDTINI.EDT, *Introduction*, 2-2
extend
routine, *I/O Operations*, 4-28
WRITE$ macro, *I/O Operations*, 3-39
extending, *MCR*, 3-102
extending allocation
See EXTEND operation
FORTRAN direct access
See FLX utility
header
allocating, *MCR*, 3-103
calculating preallocated, *MCR*, 3-104
contents, *MCR*, 2-2

File
header (cont'd.)
initializing, *MCR*, 3-103
maximum per volume, *MCR*, 3-103
identification in FNB (F11ACP), *I/O Drivers*, C-7
identifier
See FID field in NAM block
index, *I/O Operations*, 5-2, E-1
listing contents
VFY utility, *Utilities*, 9-6
indirect command, *Task Builder*, 1-11
See also Indirect
See also Indirect command file
input
designating as debugging aid, *Task Builder*, 10-14, 11-25, 11-26
designating as library file, *Task Builder*, 10-23, 11-39
directing selective symbol search, *Task Builder*, 10-48, 10-49, 10-50, 11-61, 11-62, 11-63
including content of in map, *Task Builder*, 10-26
processing to reduce overhead, *Task Builder*, F-6
specifying as default library, *Task Builder*, 10-15, 11-27
internal file identifier
See IFI field in FAB
library
declaring, *Task Builder*, 10-23, 11-39
LBR utility, *Utilities*, 10-2
LINK command input, *Task Builder*, 1-4
list, *Command Language*, 4-31
listing, *Program Development*, 3-6
FLX utility, *Utilities*, 4-7
LBR utility, *Utilities*, 10-21
PIP utility, *Utilities*, 3-24
loading, *RMS-11 Introduction*, 5-2
location, *Command Language*, 4-2
MCR, 2-3
See also LOC field in ALL block
locked, *I/O Operations*, 2-16
locking
See FB$DLK mask in FOP field
lost
recovering
VFY utility, *Utilities*, 9-6

File (cont'd.)
MACRO-11 default specification, *MACRO-11*, 8-3 to 8-6
making autoloadable
using name, *Task Builder*, 4-2
map
LINK command, *Task Builder*, 1-5, 1-6
printing, *Task Builder*, 1-3
in LINK command, *Task Builder*, 1-6, 1-7
mark for delete, *I/O Operations*, 3-14
maximum per volume
calculating, *MCR*, 3-104
merging
PIP utility, *Utilities*, 3-9
multiple, operation, *I/O Operations*, 5-6
name, *Introduction*, 3-1
specifying, *MCR*, 2-4
name block
See FNB
See NAM block
name block pointer, *I/O Drivers*, C-6
name in FNB (F11ACP), *I/O Drivers*, C-7
no lock on close, *I/O Operations*, 2-16
non-RMS-11, *RMS-11 Introduction*, 3-4
object, *Introduction*, 5-4
ODL
creating using diagram, *Task Builder*, 3-35 to 3-40
omitting specific output, *Task Builder*, 1-3
open
at one time, *Task Builder*, 12-7
by filename block, *I/O Operations*, 3-16
by ID, *I/O Operations*, 3-14
for append
FO.APD value, *I/O Operations*, 3-19
for modify, *I/O Operations*, 3-19
for read, *I/O Operations*, 3-19
for shared access
FA.SHR value, *I/O Operations*, 3-19
for update and extend, *I/O Operations*, 3-19

File
open (cont'd.)
for write
FO.WRT value, *I/O Operations*, 3-19
on LP: for printing, *I/O Operations*, 8-3
processing, *I/O Operations*, 3-3
opening
See also OPEN operation
for reading, *Indirect*, 2-73
temporary, *I/O Operations*, 3-13
mark for deletion, *I/O Operations*, 3-14
open temporary
FA.TMP value, *I/O Operations*, 3-19
organization
See ORG field in FAB
output
omitting specific, *Task Builder*, 1-3
owner, *Command Language*, 4-2
See also PRG field in PRO block
ownership, *MCR*, 2-2, 2-3
PIP utility, *Utilities*, 3-11
position on close, *I/O Operations*, 2-16
printing, *Command Language*, 4-76 *Program Development*, 3-8 to 3-9
processing, *RMS-11 Introduction*, 4-1 *RMS-11 User's Guide*, 1-16
protection, *Command Language*, 4-10 to 4-12, 9-31 *Introduction*, 3-4, 6-4 *MCR*, 2-3, 2-6, 3-122, 3-148, 3-152, 3-214, 3-241
See also PRO field in PRO block
default, *MCR*, 3-103
setting, *Command Language*, 4-115 to 4-117
showing, *Command Language*, 4-118
specifying, *MCR*, 3-102
Files-11
PIP utility, *Utilities*, 3-29
setting, *Command Language*, 4-111 to 4-114
purging, *Command Language*, 4-44 *Program Development*, 3-9, 3-10
PIP utility, *Utilities*, 3-31

File (cont'd.)
record access intialization, *I/O Operations*, 2-21
record-output characteristic
See RAT field in FAB
recovering lost file
VFY utility, *Utilities*, 9-6
renaming, *Command Language*, 4-52 *I/O Operations*, 4-26
See also RENAME operation
PIP utility, *Utilities*, 3-33
restoring, *RMS-11 Introduction*, 5-3
revision date
See RDT field in DAT block
revision number
See RVN field in DAT block
saving
BRU utility, *Utilities*, 7-1
DSC utility, *Utilities*, 8-1
sequenced, *I/O Operations*, 2-6
reading, *I/O Operations*, 2-7
writing, *I/O Operations*, 2-7
shared access, *I/O Operations*, 1-12
single, operation, *I/O Operations*, 5-6
source, *Introduction*, 5-5
editing, *Command Language*, 4-26
specification, *Introduction*, 1-12 to 1-13 *RMS-11 Introduction*, 4-1 *Utilities*, 1-4
specification string
See FNA field in FAB
default
See DNA field in FAB
parsing
See FNB field in NAM block
spooling, *Program Development*, 1-8 to 3-8, 3-9
PIP utility, *Utilities*, 3-38
startup command, *Introduction*, 2-2
.STB, *Task Builder*, 5-10
I- and D-space task, *Task Builder*, 7-8
overlaid region, *Task Builder*, 5-13, 5-14
overlaid region global symbol, *Task Builder*, 5-13, 5-14
shared region, *Task Builder*, 5-13, 5-14
use of /CO/LI/PI switch, *Task Builder*, 5-10
string
See FNA field in FAB

File (cont'd.)
structure, *RMS-11 Introduction*, 3-1
supersession
See FB$SUP mask in FOP field
symbol definition
LINK command, *Task Builder*, 1-6
task, *Introduction*, 2-1, 5-6
LINK command, *Task Builder*, 1-5
testing for, *Indirect*, 2-89
text, *Introduction*, 2-1
transferring, *System Management*, 9-1, 9-3, 9-5 to 9-8
FLX utility, *Utilities*, 4-1
Professional Personal Computer systems, *System Management*, 9-1
VAX-11 RSX systems, *System Management*, 9-1, 9-5
truncate routine, *I/O Operations*, 4-29
truncating, *I/O Operations*, 2-11
See also TRUNCATE operation
PIP utility, *Utilities*, 3-40
type, *Introduction*, 2-1 *MCR*, 2-5, 2-8
conventional, *MCR*, 2-8
default, *MCR*, 2-8
type FNB (F11ACP), *I/O Drivers*, C-7
typing, *Command Language*, 4-62
universal library
See Universal library file
unlocking, *Command Language*, 4-74
updating
PAT utility, *Utilities*, 14-1
PIP utility, *Utilities*, 3-42
SLP utility, *Utilities*, 13-1
ZAP utility, *Utilities*, 15-1
validating contents
PAT utility, *Utilities*, 14-6
version number, *Command Language*, 4-3 *MCR*, 2-5
default, *Command Language*, 4-4
version number in FNB (F11ACP), *I/O Drivers*, C-7
wildcard context
See WCC field in NAM block
wildcard operation
See NB$WCH mask in FNB field
File
wildcard search
See SEARCH operation
window
mapping, *MCR*, 3-155
FILE.MAC source code, *Program Development*, 2-19, 2-20
/FILE_POSITION file qualifier
SET QUEUE command, *Batch and Queue*, 2-21
/FILE_POSITION qualifier
DELETE command, *Batch and Queue*, 2-11
FILEA.MAC source code, *Program Development*, 2-21, 2-22
File access block
See FAB
File access listener
See FAL
File allocation
See Allocation
File attribute, *Indirect*, 2-19
See also Attribute
initialize, *I/O Operations*, 2-5
run-time, *I/O Operations*, 2-21
RMSDSP utility
indexed file
detailed display, *RMS-11 Utilities*, 5-4
specifying tape, *I/O Operations*, G-17
FILEB.MAC source code, *Program Development*, 2-23, 2-24
File back-up date
See Back-up date
File block
access initialization, *I/O Operations*, 2-12
run time, *I/O Operations*, 2-21
allocation, *I/O Operations*, 2-8
buffer initialization, *I/O Operations*, 2-18
run time, *I/O Operations*, 2-22
locking, *I/O Operations*, 2-17
File characteristic
system-controlled
SC.BAD, bad data block, *I/O Operations*, F-4
SC.MDL, file marked for delete, *I/O Operations*, F-4
user-controlled
UC.CON, contiguous file, *I/O Operations*, F-4

File characteristic
user-controlled (cont'd.)
UC.DLK, file improperly closed, *I/O Operations*, F-4
FILE command
EDI utility, *Utilities*, 2-33
File Compare Utility
See CMP utility
File contiguity
See Contiguity
File Control Block, *MCR*, 3-104, 3-156
Writing I/O Driver, 2-14
File control block
See FCB
File control processor, *RMS-11 Introduction*, 2-1, 4-3 *RMS-11 User's Guide*, 1-16
retrieval pointers, *RMS-11 User's Guide*, 8-2
File control routine, *I/O Operations*, 4-1
File Control Services
See FCS
File Descriptor Block
See FDB
File Dump Utility
See DMP utility
File extension
default, *I/O Operations*, 2-20
default size, *I/O Operations*, 2-9
size, *I/O Operations*, 2-8
virtual block, *I/O Operations*, 2-9
File header block, *I/O Operations*, 5-3, E-2
format, *I/O Operations*, F-1
H.XXXX field, *I/O Operations*, F-1
header area
file characteristics, *I/O Operations*, F-4
file owner information, *I/O Operations*, F-3
file protection code, *I/O Operations*, F-4
identification area, *I/O Operations*, F-4
creation date, *I/O Operations*, F-5
creation time, *I/O Operations*, F-5
expiration date, *I/O Operations*, F-5
filename, *I/O Operations*, F-4
filetype, *I/O Operations*, F-4
File header block
identification area (cont'd.)
file version number, *I/O Operations*, F-4
revision date, *I/O Operations*, F-4
revision number, *I/O Operations*, F-4
revision time, *I/O Operations*, F-5
map area, *I/O Operations*, F-5
tape, *I/O Operations*, G-10
user file, *I/O Operations*, E-2
File header block, H.XXXX field, *I/O Operations*, F-2
File header block, I.XXXX field, *I/O Operations*, F-2
File header block, M.XXXX field, *I/O Operations*, F-2, F-3
File header label
ANSI, *I/O Operations*, 5-4
tape, *I/O Operations*, G-3
HDR1, *I/O Operations*, G-4
HDR2, *I/O Operations*, G-5
HDR3, *I/O Operations*, G-6
File I/O
coordination, *I/O Operations*, 2-42
status block, *I/O Operations*, 2-44
File identification, *I/O Operations*, 5-3
FDB, *I/O Operations*, 3-10
field, *I/O Operations*, 2-34
File Identification Block (F11ACP), *I/O Drivers*, C-2
File identifier
processing by Files-11 (tape), *I/O Operations*, G-7
File label
tape, *I/O Operations*, G-1
File macro, *I/O Operations*, 3-1
access privileges, *I/O Operations*, 3-3
error routine, *I/O Operations*, 3-2
File name, *Command Language*, 4-3
default, *Indirect*, 2-5
.PARSE routine, *I/O Operations*, 4-14
.PRSFN routine, *I/O Operations*, 4-16
tape
Radix-50 conversion, *I/O Operations*, 4-19
Filename block
See also FNB
default, *I/O Operations*, 2-31, 3-17

Filename block
default (cont'd.)
file-open, *I/O Operations*, 2-14
initialization, *I/O Operations*, 2-15
OFNB$x macro, *I/O Operations*, 3-17
specifying, *I/O Operations*, 2-28
default directory information
.GTDID routine, *I/O Operations*, 4-21
delete file, *I/O Operations*, 4-30
directory information
.GTDIR routine, *I/O Operations*, 4-20
initializing, *I/O Operations*, 2-35
local offset definition, *I/O Operations*, 2-33
manually initializing, *I/O Operations*, 2-36
N.DID field
.PARSE routine, *I/O Operations*, 4-13
N.DVNM field, *I/O Operations*, 4-17
N.NEXT
.PARSE routine, *I/O Operations*, 4-15
N.STAT word
.PARSE routine, *I/O Operations*, 4-15
NBOF$L macro, *I/O Operations*, 2-33
NMBLK$ macro, *I/O Operations*, 2-31
OPEN$x macro, *I/O Operations*, 2-35
open file by, *I/O Operations*, 3-16
.PARSE routine
disk, *I/O Operations*, 4-11
N.DID field, *I/O Operations*, 4-13
N.FID field, *I/O Operations*, 4-13
tape, *I/O Operations*, 4-11
Filename block routine, *I/O Operations*, 4-8, 4-20
Filename string descriptor, *I/O Operations*, 2-29
File number, *I/O Operations*, 5-3
File open
append, *I/O Operations*, 2-15
by ID, *I/O Operations*, 2-34
File open (cont'd.)
for file access, *I/O Operations*, 3-18
lock on close, *I/O Operations*, 2-16
modify, *I/O Operations*, 2-15
no supersede, *I/O Operations*, 2-15, 3-18, 3-19
read access, *I/O Operations*, 2-15
shared access, *I/O Operations*, 2-15
tape position, *I/O Operations*, 2-16
temporary, *I/O Operations*, 2-15
update, *I/O Operations*, 2-15
write access, *I/O Operations*, 2-15
File operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-6 *RMS-11 User's Guide*, 1-18
See also Operation
File operation, error codes, *I/O Operations*, I-1
File operation macro, *RMS-11 Macro*, 1-2
declaring, *RMS-11 Macro*, C-2
File organization, *Command Language*, 4-1 *RMS-11 Introduction*, 3-1, 3-4 *RMS-11 User's Guide*, 1-11, 1-18
See also Indexed file organization
See also Relative file organization
See also Sequential file organization
and data storage, *RMS-11 User's Guide*, 2-5
and file design, *RMS-11 User's Guide*, 2-11
and optimizations, *RMS-11 User's Guide*, 8-2
and record formats, *RMS-11 User's Guide*, 1-20, 2-15
random access
to indexed files, *RMS-11 Introduction*, 3-15
to relative files, *RMS-11 Introduction*, 3-15
to sequential files, *RMS-11 Introduction*, 3-14
RMSDEF utility, *RMS-11 Utilities*, A-8
selection, *RMS-11 User's Guide*, 2-11
sequential access
to indexed files, *RMS-11 Introduction*, 3-14
to relative files, *RMS-11 Introduction*, 3-14
to sequential files, *RMS-11 Introduction*, 3-14
File owner word, *I/O Operations*, 4-5

File owner word (cont'd.)
read, *I/O Operations*, 4-7
write, *I/O Operations*, 4-7
FILE PLACEMENT attribute
RMSDES utility, *RMS-11 Utilities*, 2-30
File pointer routine, *I/O Operations*, 4-21
File position
by byte, *I/O Operations*, 2-11
save, *I/O Operations*, 4-24
to byte
.POINT routine, *I/O Operations*, 4-22
to record
.POSRC routine, *I/O Operations*, 4-22
File processing, *RMS-11 Macro*, 3-1
File processing completion
CLOSE$ macro, *I/O Operations*, 2-8
File protection word, *I/O Operations*, 4-4, 4-5
FILER2 symbol (RSX-11M-PLUS only), *Indirect*, 2-15
File random I/O, *I/O Operations*, 2-20
File read-ahead
FD.RAH parameter, *I/O Operations*, 3-12
File record
attribute, *I/O Operations*, 2-6
File rename routine, *I/O Operations*, 4-26
File revision date
See Revision date
FILERR symbol, *Indirect*, 2-13
Files-11, *Command Language*, 5-4 *MCR*, 2-1
disk
selecting for testing
IOX, *System Management*, 4-39, 4-65
file
copying
FLX utility, *Utilities*, 4-2
PIP utility, *Utilities*, 3-8
protection
PIP utility, *Utilities*, 3-29
verifying structure, *Utilities*, 9-1
file name, *MCR*, 2-5
volume
backing up, *Command Language*, 5-90
Files-11
volume (cont'd.)
dismounting, *MCR*, 3-70
home block, *MCR*, 3-93
initializing, *Command Language*, 5-73 *MCR*, 3-99
label, *MCR*, 3-70
mounting, *MCR*, 3-142
protecting, *MCR*, 3-148, 3-151
protecting with TEMPORARYFILE
IOX, *System Management*, 4-63
restoring, *Command Language*, 5-90
selecting, *System Management*, 4-7
types, *MCR*, 2-1
volume exercise
example
IOX, *System Management*, 4-10
Files-11 ACP
See F11ACP
FILES11 command
IOX
default parameters, *System Management*, 4-39
Files-11 structure, *I/O Operations*, 5-1
File sequence number, *I/O Operations*, 2-7, 5-3
File Set Identifier, *MCR*, 3-143, 3-144, 3-150, 3-151, 3-154
File sharing
See Shared access
File size
specifying in blocks, *System Management*, 4-63
File space (RMSIFL)
calculating, *RMS-11 Utilities*, 3-12
File space preallocation, *I/O Operations*, 2-20
Filespec
See file specification
File specification, *Command Language*, 4-2 to 4-4 *Introduction*, 1-12 to 1-13 *MCR*, 2-4 *RMS-11 Introduction*, 4-1 *RMS-11 User's Guide*, 1-18, 1-19
See also File
See also Infile
See also Outfile
convention, *Task Builder*, 1-15, 1-16, 1-19

File specification (cont'd.)
default, *MCR*, 2-7, 3-35 *Task Builder*, 1-15, 1-16
node, *RMS-11 User's Guide*, B-2
defaults, *Command Language*, 4-4 to 4-6
definition, *I/O Operations*, 1-3
device, *I/O Operations*, 1-14
.PRSDV routine, *I/O Operations*, 4-16
directory, *I/O Operations*, 1-14
.PRSDI routine, *I/O Operations*, 4-16
dynamic processing
SYSLIB, *I/O Operations*, 2-34
examples, *MCR*, 2-9
Files-11
assigning logical name, *MCR*, 3-21
format, *Command Language*, 4-2
MCR, 2-4
fully qualified, *RMS-11 Macro*, 3-4
generation, *I/O Operations*, 1-17
input, *MCR*, 2-4
logical name expanding, *I/O Operations*, 4-10
logical name merging, *I/O Operations*, 4-10
logical name parsing, *I/O Operations*, 4-10
magnetic tape, *I/O Operations*, 1-16, 1-17
merged string, *RMS-11 Macro*, 3-3
name, *I/O Operations*, 1-15
node, *RMS-11 User's Guide*, B-2
parsing
See PARSE operation
processing, *Executive*, 5-10
quoted string, *RMS-11 User's Guide*, B-2
remote, *RMS-11 User's Guide*, B-2
RMSBCK utility, *RMS-11 Utilities*, 6-9
RMSDEF utility, *RMS-11 Utilities*, A-7
RMSRST utility, *RMS-11 Utilities*, 7-10
scanning, *Executive*, 5-89
syntax description, *I/O Operations*, 1-13
type, *I/O Operations*, 1-15
UIC, *MCR*, 2-6

File specification
unit
.PRSDV routine, *I/O Operations*, 4-16
version, *I/O Operations*, 1-16
VMR
components, *System Management*, 10-5
defaults, *System Management*, 10-5
device name, *System Management*, 10-5
directory, *System Management*, 10-6
named, *System Management*, 10-6
file name, *System Management*, 10-6
file type, *System Management*, 10-6
format, *System Management*, 10-5
/IM switch, *System Management*, 10-7
specifying, *System Management*, 10-5
version number, *System Management*, 10-6
wildcard, *Command Language*, 4-6 to 4-8 *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-8
within program, *I/O Operations*, 2-27
File Specification Scanner directive, *Executive*, 5-89
/FILES qualifier
SHOW QUEUE command, *Batch and Queue*, 2-15
FILE statement, *Error Logging*, 5-37, 5-38
File Storage Region
See FSR
File structure, *I/O Operations*, 5-1
See also Structure
tape, *I/O Operations*, G-9
user, *I/O Operations*, 5-2
virtual blocks, *I/O Operations*, 5-2
File-structured device
exercising
IOX, *System Management*, 4-3
File Structure Verification Utility
See VFY utility
File system options, *System Generation*, C-5

File trailer label (tape), *I/O Operations*, G-9
File Transfer Utility
  See FLX utility
File type, *Command Language*, 4-3
  Introduction, 2-1
  default, *Command Language*, 4-4, 4-5 to 4-6
  .FTN, *Program Development*, 7-3, 7-4
  .LST, *Program Development*, 3-4, 6-11, 7-3, 7-4
  .MAC, *Program Development*, 3-1
  .MAP, *Program Development*, 4-6
  .MLB, *Program Development*, 6-1
  .OBJ, *Program Development*, 3-4, 7-5
  .OLB, *Program Development*, 6-4
  .PARSE routine, *I/O Operations*, 4-14
  .PMD, *Program Development*, 5-10
  .PRSFN routine, *I/O Operations*, 4-16
  .TSK, *Program Development*, 4-1
File version
  .PARSE routine, *I/O Operations*, 4-14
  .PRSFN routine, *I/O Operations*, 4-16
File window in secondary pool
  SYSGEN question, *System Generation*, 3-29
File window pointer
  number, *I/O Operations*, 2-16
/FIL keyword
  HELP command, *MCR*, 3-87
Fill command
  See F command
Fill number
  data bucket
    See DFL field in KEY block
  index bucket
    See IFL field in KEY block
  RMSCNV utility, *RMS-11 Utilities*, 4-10
  RMSDEF utility, *RMS-11 Utilities*, A-16
  RMSIFL utility, *RMS-11 Utilities*, 3-6
Fill size
  See Bucket fill number
FILSPC symbol, *Indirect*, 2-20
/FINAL keyword
  ASSIGN command (MCR), *MCR*, 3-26
  DEFINE LOGICALS command (MCR), *MCR*, 3-66
FIN argument to ORG$ macro, *RMS-11 Macro*, 2-3
FIND command
  EDI utility, *Utilities*, 2-33
  EDT editor, *Introduction*, 2-13
FIND key (EDT), *Introduction*, 2-7
$FIND macro
  key access, *RMS-11 Macro*, 5-51
  RFA access, *RMS-11 Macro*, 5-54
  sequential access, *RMS-11 Macro*, 5-49
FIND NEXT key (EDT), *Introduction*, 2-8
FIND operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-10 *RMS-11 User's Guide*, 1-15
  access modes, *RMS-11 Introduction*, 4-6
  and bucket locking, *RMS-11 User's Guide*, 2-8
  and shared access, *RMS-11 User's Guide*, 2-6, 2-10
  and stream records, *RMS-11 User's Guide*, 2-16
  declaring with ORG$ macro, *RMS-11 Macro*, 2-3
  deferred write, *RMS-11 User's Guide*, 7-9
  $FIND macro
    key access, *RMS-11 Macro*, 5-51
    RFA access, *RMS-11 Macro*, 5-54
    sequential access, *RMS-11 Macro*, 5-49
  indexed files, *RMS-11 User's Guide*, 7-3
    key access, *RMS-11 User's Guide*, 7-3
    random by key, *RMS-11 User's Guide*, 5-13
    RFA access, *RMS-11 User's Guide*, 7-3
    sequential access, *RMS-11 User's Guide*, 5-17, 7-3
  key access, *RMS-11 User's Guide*, 1-15
  relative files, *RMS-11 User's Guide*, 4-8

FIND operation
relative files (cont'd.)
key access, *RMS-11 User's Guide*, 4-8
RFA access, *RMS-11 User's Guide*, 4-8
sequential access, *RMS-11 User's Guide*, 4-8
RFA access, *RMS-11 User's Guide*, 1-15
sequential access, *RMS-11 User's Guide*, 1-15
sequential files, *RMS-11 User's Guide*, 3-7
key access, *RMS-11 User's Guide*, 3-7
RFA access, *RMS-11 User's Guide*, 3-7
sequential access, *RMS-11 User's Guide*, 3-7
.FIND routine, find directory entry, *I/O Operations*, 4-17
FIND statement, *Error Logging*, 5-39
FINIT$ macro
FSR initialization
run-time, *I/O Operations*, 2-40
.FINIT routine, initialize before .PARSE routine, *I/O Operations*, 4-11
/FI switch
DMP utility, *Utilities*, 11-5
PIP utility, *Utilities*, 3-22
QUE /DEL command, *Batch and Queue*, 2-11
FIX
See FIX command
See FIX-IN MEMORY command
FIX command, *Command Language*, 7-41 to 7-42, 9-15
Fixed control area
RMSDEF utility, *RMS-11 Utilities*, A-8
Fixed-control-size
See FSZ field in FAB
Fixed-length record
PUT$ macro
block boundary, *I/O Operations*, 3-29
block buffer, *I/O Operations*, 3-29
Fixed-length record format, *RMS-11 Introduction*, 3-2 *RMS-11 User's Guide*, 1-11, 2-15
See also FB$FIX code in RFM field
Fixing
directive common, *System Management*, 10-19
FIX-IN-MEMORY command (MCR), *MCR*, 1-7, 3-75
error messages, *MCR*, 3-76
examples, *MCR*, 3-76
format, *MCR*, 3-75
keywords
/REG, *MCR*, 3-75
/RON, *MCR*, 3-75
FIX-IN-MEMORY command (VMR), *System Management*, 10-18
definition, *System Management*, 10-18
examples, *System Management*, 10-19
format, *System Management*, 10-18
keywords
/DIR, *System Management*, 10-19
/NSF, *System Management*, 10-19
/REG, *System Management*, 10-19
/RON, *System Management*, 10-19
parameter, *System Management*, 10-18
/FIX keyword
INSTALL command (VMR), *System Management*, 10-23
FLA
See GROUP GLOBAL EVENT FLAGS command
Flag
See also Event flag
group global event, *MCR*, 3-77
/FLAG_PAGE qualifier
PRINT command, *Batch and Queue*, 2-5
Flag page, *Command Language*, 4-78 to 4-79
Flagwd parameter
device-specific function
transmit (LRDRV), *I/O Drivers*, 14-4
FLG field in KEY block
CREATE operation, *RMS-11 Macro*, 5-19
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67

FLG field in KEY block (cont'd.)
OPEN operation, *RMS-11 Macro*, 5-80
summary
XB$CHG mask, *RMS-11 Macro*, 6-76
XB$DUP mask, *RMS-11 Macro*, 6-77
XB$NUL mask, *RMS-11 Macro*, 6-78
Floating CSR address, *System Generation*, E-1
assignment algorithm, *System Generation*, E-2
worksheet
blank, *System Generation*, E-5 to E-6
completed example, *System Generation*, E-7 to E-8
format, *System Generation*, E-3
instructions, *System Generation*, E-4
Floating-point
directive, *MACRO-11*, 6-35
.FLT2, *MACRO-11*, 6-35
.FLT4, *MACRO-11*, 6-35
number, *MACRO-11*, 6-33, 6-34
operation code, *MACRO-11*, C-4, C-5
processor, *MACRO-11*, 3-14
rounding, *MACRO-11*, 6-34
controlling, *MACRO-11*, 6-19
truncation, *MACRO-11*, 6-34
controlling, *MACRO-11*, 6-19
unary operator, *MACRO-11*, 6-35, 6-36
Floating Point Processor
specifying, *Task Builder*, 10-18, 11-17
SYSGEN question, *System Generation*, 3-32
Floating vector, *System Generation*, E-1
/FL switch
PRI command, *Batch and Queue*, 2-5
FLT16: subroutine
convert unsigned integer to real constant
K-series, *I/O Drivers*, 23-21
LADRV, *I/O Drivers*, 22-17
.FLT2 directive, *MACRO-11*, 6-35
.FLT4 directive, *MACRO-11*, 6-35
Flush buffer routine, *I/O Operations*, 4-32
$FLUSH macro, *RMS-11 Macro*, 5-56
FLUSH operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
$FLUSH macro, *RMS-11 Macro*, 5-56
indexed files, *RMS-11 User's Guide*, 7-5
record stream, *RMS-11 Macro*, 4-8
relative files, *RMS-11 User's Guide*, 4-10
sequential files, *RMS-11 User's Guide*, 3-9
.FLUSH routine, flush buffer, *I/O Operations*, 4-32
FLX utility, *MCR*, 2-2
cassette, *Utilities*, 4-13
input file, *Utilities*, 4-15
multivolume support, *Utilities*, 4-14
output file, *Utilities*, 4-14
TA11/TU60 support, *Utilities*, 4-13
command line, *Utilities*, 4-2
device support, *Utilities*, 4-2
DOS-11 volume, *Utilities*, 4-8
deleting, *Utilities*, 4-10
directory listing, *Utilities*, 4-8
initializing, *Utilities*, 4-10
valid, *Utilities*, 4-1
error message, *Utilities*, 4-17
file
deleting, *Utilities*, 4-7
Files-11, *Utilities*, 4-2
specifying, *Utilities*, 4-2
FORTRAN direct access file, *Utilities*, 4-16
paper tape support, *Utilities*, 4-15
RT-11 volume, *Utilities*, 4-10
deleting, *Utilities*, 4-12
directory listing, *Utilities*, 4-10
initializing, *Utilities*, 4-12
valid, *Utilities*, 4-2
switch, *Utilities*, 4-3
control, *Utilities*, 4-6
transfer mode, *Utilities*, 4-4
volume format, *Utilities*, 4-4
volume
directory listing, *Utilities*, 4-7
file deletion, *Utilities*, 4-7
file transfer, *Utilities*, 4-4
formatting, *Utilities*, 4-4
initializing, *Utilities*, 4-2

FLX utility (cont'd.)
wildcard, *Utilities*, 4-3
Flying installs, *System Management*, 12-4
FM1WM1, *Error Logging*, 4-6
FM2CM1, *Error Logging*, 4-6
FM3CM1, *Error Logging*, 4-6
FM4NM1, *Error Logging*, 4-6
FM4WM1, *Error Logging*, 4-6
/FMAP keyword
INSTALL command (MCR), *MCR*, 3-118
INSTALL command (VMR), *System Management*, 10-23
FMASK symbol, *Indirect*, 2-20
FMS-11 interface, *Indirect*, 2-55
FMTBUF option, *Task Builder*, 12-17
FMTNP1, *Error Logging*, 4-7
FMT utility
command line, *Utilities*, 5-1
device support, *Utilities*, 5-5
error message, *Utilities*, 5-10
indirect command file, *Utilities*, 5-9
initiating, *Utilities*, 5-1
operation mode, *Utilities*, 5-2
switch, *Utilities*, 5-7
summary, *Utilities*, 5-1
terminating, *Utilities*, 5-2
FN1NM1, *Error Logging*, 4-6
FNA field in FAB, *RMS-11 Macro*, 3-3
CREATE operation, *RMS-11 Macro*, 5-10
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-103
RENAME operation, *RMS-11 Macro*, 5-109, 5-110
summary, *RMS-11 Macro*, 6-38
FNB
definition, *I/O Operations*, 1-2
N.XXXX field, *I/O Operations*, B-1
FNB (F11ACP), *I/O Drivers*, C-6
directory identification, *I/O Drivers*, C-7
file identification, *I/O Drivers*, C-7
file name, *I/O Drivers*, C-7
FNB (F11ACP) (cont'd.)
file type, *I/O Drivers*, C-7
file version number, *I/O Drivers*, C-7
pointer, *I/O Drivers*, C-6
status word, *I/O Drivers*, C-7
wildcard context, *I/O Drivers*, C-7
FNB field in NAM block, *RMS-11 Macro*, 3-3, 3-9, 3-10
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37, 5-38
ERASE operation, *RMS-11 Macro*, 5-41, 5-43
offset, *RMS-11 Macro*, 6-94
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-103, 5-105
RENAME operation, *RMS-11 Macro*, 5-109, 5-111, 5-112
SEARCH operation, *RMS-11 Macro*, 5-116, 5-118
summary, *RMS-11 Macro*, 6-101
NB$WCH mask, *RMS-11 Macro*, 6-102
wildcard loop, *RMS-11 Macro*, 3-10
Fnc parameter
QIO$ basic syntax, *I/O Drivers*, 1-6
$FNDPG (Find page), *System Library*, 8-27
$FNERL, *Error Logging*, 4-22
FNS field in FAB, *RMS-11 Macro*, 3-3
CREATE operation, *RMS-11 Macro*, 5-10
ENTER operation, *RMS-11 Macro*, 5-36
ERASE operation, *RMS-11 Macro*, 5-41
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-103
RENAME operation, *RMS-11 Macro*, 5-109, 5-110
summary, *RMS-11 Macro*, 6-39
FO.APD value, open file for append, *I/O Operations*, 3-19

FO.MFY value, open file for modify, *I/O Operations*, 3-19
FO.RD value, open file for read, *I/O Operations*, 3-19
FO.UPD value, open file for update and extend, *I/O Operations*, 3-19
FO.WRT value
  open file for write and create, *I/O Operations*, 3-19
/FO job switch
  QUE /MOD command, *Batch and Queue*, 2-20
^F operator, *MACRO-11*, 3-5, 6-35, 6-36
FOP field in FAB, *RMS-11 Macro*, 3-7, 3-9, 3-10, 3-11
  CLOSE operation, *RMS-11 Macro*, 5-4
  CREATE operation, *RMS-11 Macro*, 5-10, 5-11, 5-15, 5-18
  ENTER operation, *RMS-11 Macro*, 5-36
  ERASE operation, *RMS-11 Macro*, 5-41
  EXTEND operation, *RMS-11 Macro*, 5-46
  offset, *RMS-11 Macro*, 6-23
  OPEN operation, *RMS-11 Macro*, 5-73, 5-74, 5-76, 5-77, 5-78
  REMOVE operation, *RMS-11 Macro*, 5-103
  RENAME operation, *RMS-11 Macro*, 5-109, 5-110
  SEARCH operation, *RMS-11 Macro*, 5-117
  summary
    FB$CTG mask, *RMS-11 Macro*, 6-40
    FB$DFW mask, *RMS-11 Macro*, 6-41
    FB$DLK mask, *RMS-11 Macro*, 6-42
    FB$FID mask, *RMS-11 Macro*, 6-43
    FB$MKD mask, *RMS-11 Macro*, 6-44
    FB$NEF mask, *RMS-11 Macro*, 6-45
    FB$POS mask, *RMS-11 Macro*, 6-46
    FB$RWC mask, *RMS-11 Macro*, 6-47
FOP field in FAB
  summary (cont'd.)
    FB$RWO mask, *RMS-11 Macro*, 6-48
    FB$SUP mask, *RMS-11 Macro*, 6-49
    FB$TMP mask, *RMS-11 Macro*, 6-50
FORATT symbol, *Indirect*, 2-16
FOR command
  MCR, *Program Development*, 7-1, 7-4
FOR compiler task, *Program Development*, 7-1
  creating object module, *Program Development*, 7-5
  /D_LINES, *Program Development*, 7-7
  /DE, *Program Development*, 7-7
  debugging statements, *Program Development*, 7-7
  diagnostic run, *Program Development*, 7-3, 7-4
  FOR command
    MCR, *Program Development*, 7-1, 7-4
  FORTRAN command
    DCL, *Program Development*, 7-1, 7-3
  .FTN file type, *Program Development*, 7-3, 7-4
  /LIST, *Program Development*, 7-3, 7-7
  /NOOBJECT, *Program Development*, 7-3
  /OBJECT, *Program Development*, 7-3, 7-7
/FOREIGN qualifier
  MOUNT command, *Command Language*, 5-4, 5-10, 5-11, 5-13, 5-53
Foreign volume
  See Volume
$FORK1 routine, *Writing I/O Driver*, 7-19
Fork block, *Writing I/O Driver*, 1-17
  storage area, *Writing I/O Driver*, 4-39
/FOR keyword
  MOUNT command (MCR), *MCR*, 3-148
Fork list
  head of ($FRKHD), *Writing I/O Driver*, 2-14

Fork process, *Writing I/O Driver*, 1-9, 1-14, 1-18
  definition, *Writing I/O Driver*, 1-8
$FORK routine, *Writing I/O Driver*, 1-8, 1-9, 1-18, 7-18
  driver use in I/O processing, *Writing I/O Driver*, 3-5
Form
  special hardcopy, *Batch and Queue*, 1-2
Format
  See also Record format
  assembler listing, *MACRO-11*, 6-4
    control directive, *MACRO-11*, 6-13, 6-14
    line printer, *MACRO-11*, 6-5, 6-6
    teleprinter, *MACRO-11*, 6-7, 6-8
  assembler statement, *MACRO-11*, 2-1
    control, *MACRO-11*, 2-5
  FORTRAN IV
    statement, *Program Development*, 7-3
  MACRO-11
    source file, *Program Development*, 2-1 to 2-3
      skeleton, *Program Development*, 2-4
    statement, *Program Development*, 2-3
  macro definition, *MACRO-11*, 7-4
  memory listing, *Debugging*, 6-5
  overall
    internal symbol, *Task Builder*, A-25
  PSW, *Debugging*, B-1
  source line, *MACRO-11*, 2-5
  Trace program listing, *Debugging*, 10-2
FORMAT attribute
  RMSDES utility, *RMS-11 Utilities*, 2-36
Format module, *Error Logging*, 4-11
Format register
  See F register
Format switch, *Error Logging*, 3-5
  full report, *Error Logging*, 3-15
  no report, *Error Logging*, 3-19
  register report, *Error Logging*, 3-18
Formatter, TM02/03
Formatter, TM02/03 (cont'd.)
  SYSGEN question, *System Generation*, 3-38
Formatting volume
  FLX utility, *Utilities*, 4-4
  FMT utility, *Utilities*, 5-1
.FORM directive, *Indirect*, 2-55
  commands, *Indirect*, 2-55
    parameters, *Indirect*, 2-56
  demonstrating, *Indirect*, 2-57
Form feed, *Command Language*, 3-23
Form feed (TTDRV), *I/O Drivers*, 2-69
FORM FEED command
  EDI utility, *Utilities*, 2-34
/FORMFEED keyword
  SET command (MCR), *MCR*, 3-219
  SET command (VMR), *System Management*, 10-59
Forms
  definition, *Batch and Queue*, 4-4
/FORMS qualifier
  PRINT command, *Batch and Queue*, 2-5
  QUE /LI command, *Batch and Queue*, 2-16
  SET QUEUE command, *Batch and Queue*, 2-20
FOROTS.OLB (FORTRAN IV and FORTRAN IV-PLUS library), *Program Development*, 1-11
FORTRAN
  AST service routine, *Executive*, 1-20
  common block
    overlays, *Task Builder*, 3-18
  ICDRV/ISDRV
    I/O status return, *I/O Drivers*, 19-35
    optional argument, *I/O Drivers*, 19-37
  interface
    AFC11/AD01 converter, *I/O Drivers*, 15-3
    K-series, *I/O Drivers*, 23-7
    LADRV, *I/O Drivers*, 22-2
    LSDRV, *I/O Drivers*, 17-9
    routine (ICDRV/ISDRV), *I/O Drivers*, 19-34
    routine list (K-series), *I/O Drivers*, 23-7
    status return value list (UDDRV), *I/O Drivers*, 16-33
    status value (LSDRV), *I/O Drivers*, 17-33
    UDDRV, *I/O Drivers*, 16-14

FORTRAN
interface (cont'd.)
values
AFC11/AD01 converter, *I/O Drivers*, 15-9
UDDRV, *I/O Drivers*, 16-33
manual load calling sequence, *Task Builder*, 4-9, 4-10
for I- and D-space task, *Task Builder*, 4-10, 4-11
run-time support
virtual program section, *Task Builder*, 5-61, 5-64
sample program (K-series), *I/O Drivers*, 23-33
completion routine, *I/O Drivers*, 23-35
with event flag, *I/O Drivers*, 23-34
subroutine
LADRV, *I/O Drivers*, 22-3
LSDRV, *I/O Drivers*, 17-11
UDDRV, *I/O Drivers*, 16-16
FORTRAN carriage-control
record attribute, *I/O Operations*, 3-8
FORTRAN command, *Introduction*, 5-10
DCL, *Program Development*, 7-1, 7-3
FORTRAN IV
See also FOR compiler task
compiler task, *Program Development*, 7-1
formatting source statements, *Program Development*, 7-3
library, *Program Development*, 1-11
source file
blank line, *Program Development*, 7-3
comment line, *Program Development*, 7-3
specifying OTS to TKB, *Program Development*, 7-5
FORTRAN IV-PLUS
library, *Program Development*, 1-11
FORTRAN-style carriage control
See FB$FTN mask in RAT field
FORTRAN subroutine
integer arguments, *Executive*, 1-11
list, *Executive*, 1-13
unavailable, *Executive*, 1-19
Forward reference, *MACRO-11*, 3-8 to 3-10, 3-13
/FO switch
PIP utility, *Utilities*, 3-11
PRI command, *Batch and Queue*, 2-5
QUE /LI command, *Batch and Queue*, 2-16
RMSCNV utility, *RMS-11 Utilities*, 4-9, 4-15
Four-byte signed integer key, *RMS-11 User's Guide*, 6-4
Four-byte unsigned binary key, *RMS-11 User's Guide*, 6-5
/FPRO keyword
HOME command, *MCR*, 3-94
INITVOLUME command, *MCR*, 3-102
MOUNT command (MCR), *MCR*, 3-148
/FP switch, *Task Builder*, 10-18
FPT symbolic argument, *MACRO-11*, 6-19
$FREE macro, *RMS-11 Macro*, 5-58
FREE operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
and shared access, *RMS-11 User's Guide*, 2-10
block stream, *RMS-11 Macro*, 4-13
$FREE macro, *RMS-11 Macro*, 5-58
record stream, *RMS-11 Macro*, 4-9
Free-space list for pool, *RMS-11 Macro*, 2-19
F register, *Debugging*, 2-6, 5-3, 9-10
$FRKHD symbol, *Writing I/O Driver*, 2-14
/FR switch
PIP utility, *Utilities*, 3-23
RMSRST utility, *RMS-11 Utilities*, 7-7
VFY utility, *Utilities*, 9-5
FSR
as data structure, *I/O Operations*, 1-4
definition, *I/O Operations*, 1-3
general description, *I/O Operations*, 1-5
increasing size
FORTRAN, *I/O Operations*, 2-42
MACRO-11, *I/O Operations*, 2-41

FSR
initialization
FINIT$ macro, *I/O Operations*, 2-40
FSRSZ$ macro, *I/O Operations*, 2-37
record I/O, *I/O Operations*, 2-38
multiple buffering, *I/O Operations*, 2-38
fsr
INITIALIZATION, *I/O Operations*, 2-37
$$FSR1, *I/O Operations*, 1-5
$$FSR1 program section
reserved name, *Task Builder*, E-3
$$FSR2
default UIC, *I/O Operations*, 4-4
file owner word, *I/O Operations*, 4-5
file protection word, *I/O Operations*, 4-4
general description, *I/O Operations*, 1-6
FSR block buffer
block boundary, *I/O Operations*, 3-28
locate mode, *I/O Operations*, 3-23, 3-29
pool space, *I/O Operations*, 2-39
space allocation, *I/O Operations*, 2-20
.FSRPT
low-memory context, *Task Builder*, B-10
reserved global symbol, *Task Builder*, E-1
FSRSZ$ macro, FSR initialization, *I/O Operations*, 2-37
FSS$ directive, *Executive*, 5-89
/F switch, *Error Logging*, 3-5
FSZ field in FAB
CREATE operation, *RMS-11 Macro*, 5-11
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-51
FTB, *Program Development*, 4-4
description, *Task Builder*, G-1, G-2
speed of, *Task Builder*, G-2
supported feature, *Task Builder*, G-1, G-2
supported option, *Task Builder*, G-2
supported switch, *Task Builder*, G-1
FTB (cont'd.)
unsupported feature, *Task Builder*, G-1, G-2
.FTN file type, *Program Development*, 7-3, 7-4
See also FOR compiler task
/FULL_SEARCH qualifier, *Task Builder*, 11-33
Full-duplex
considerations (communication driver), *I/O Drivers*, 12-11
mode
setting (communication driver), *I/O Drivers*, 12-7
operation (TTDRV), *I/O Drivers*, 2-79
Full-duplex I/O, *Writing I/O Driver*, 1-13
Full-duplex terminal driver, *System Management*, 10-50
GET/SET option, *System Management*, 10-50
Full format report, *Error Logging*, 3-15
context information, *Error Logging*, 1-5
device error, *Error Logging*, 1-5
device supplied information, *Error Logging*, 1-5
* flag, *Error Logging*, 1-5
I/O operation, *Error Logging*, 1-5
Full-functionality Executive
definition, *System Generation*, 1-10
features, *System Generation*, 3-21
SYSGEN question, *System Generation*, 3-21
/FULL qualifier
SHOW QUEUE command, *Batch and Queue*, 2-15
Function
Task Builder, *Task Builder*, 2-1 to 2-28
Function commands
IOX category, *System Management*, 4-3
Function directive, assembler, *MACRO-11*, 6-18 to 6-22
Function mask
ACP, *Writing I/O Driver*, 4-19, 4-20
building for mask word, *Writing I/O Driver*, 4-21
control, *Writing I/O Driver*, 4-19, 4-20

Function mask (cont'd.)
establishing, *Writing I/O Driver*, 4-22
layout, *Writing I/O Driver*, 4-19, 4-20
legal
details, *Writing I/O Driver*, 4-19, 4-20
no-op, *Writing I/O Driver*, 4-19, 4-20
Function switches, *CDA*, 2-9 to 2-12
/FU switch, *Task Builder*, 10-19
LBR utility, *Utilities*, 10-21
PIP utility, *Utilities*, 3-25
QUE /LI command, *Batch and Queue*, 2-15
RMSDSP utility, *RMS-11 Utilities*, 5-2, 5-4

G

Gain range (AFC11/AD01 converter), *I/O Drivers*, 15-10
Gather interevent time data (K-series), *I/O Drivers*, 23-21
GBLDEF option, *Task Builder*, 12-18
GBLINC option, *Task Builder*, 12-19
/GBL keyword
ASSIGN command (MCR), *MCR*, 3-26, 3-28, 3-29
ASSIGN command (VMR), *System Management*, 10-10
DEFINE LOGICALS command (MCR), *MCR*, 3-66, 3-67, 3-68
GBLPAT option, *Task Builder*, 12-20
See also TKB
GBLREF option, *Task Builder*, 12-21
GBL symbolic argument, *MACRO-11*, 6-21, 6-41
GBLXCL option, *Task Builder*, 8-4, 12-22
use in CSM library, *Task Builder*, 8-8, 8-9, 8-17
GCCI$ directive, *Executive*, 5-93
GCII$ directive, *Executive*, 5-96
GCML, *I/O Operations*, 6-1, 6-2
control block
allocate, *I/O Operations*, 6-3
define bit values, *I/O Operations*, 6-5
define offsets, *I/O Operations*, 6-5
initialize, *I/O Operations*, 6-3
GCML (cont'd.)
routine, run-time error, *I/O Operations*, 6-9
usage, *I/O Operations*, 6-13
GCML$ macro, *I/O Operations*, 6-9
GCMLB$ macro, *I/O Operations*, 6-3
GCMLD$ macro, *I/O Operations*, 6-5
G command, *Debugging*, 2-9, 3-2, 3-4, 8-6, 9-12
ODT, *Program Development*, 5-6, 5-8
GDIR$ directive, *Executive*, 5-100
General Information Directive, *Executive*, 1-24
General register, *Debugging*, 5-1
contents, *Debugging*, 5-2
examining, *Debugging*, 5-1
setting, *Debugging*, 5-1
Generic match, *RMS-11 Introduction*, 3-12
GET$ macro, *I/O Operations*, 1-8, 3-1
example, *I/O Operations*, 3-22
FD.RWM parameter, record I/O, *I/O Operations*, 2-10
FDB, file processing, *I/O Operations*, 3-23
file processing, *I/O Operations*, 3-21
locate mode, *I/O Operations*, 3-23
move mode, *I/O Operations*, 3-23
format, file processing, *I/O Operations*, 3-21
GET$R macro, *I/O Operations*, 3-1
file processing
read logical record, random mode, *I/O Operations*, 3-24
GET$S macro, *I/O Operations*, 3-1
file processing
read logical record, sequential mode, *I/O Operations*, 3-26
GETADR subroutine, *Executive*, 1-12
GET argument to ORG$ macro, *RMS-11 Macro*, 2-3
Get buffer status (K-series), *I/O Drivers*, 23-23
GET command
RMSDES utility, *RMS-11 Utilities*, 2-10, 2-17, 2-24
and PROTECTION attribute, *RMS-11 Utilities*, 2-33

GET command
RMSDES utility (cont'd.)
with SAVE, *RMS-11 Utilities*, 2-28
Get Command for Command Interpreter directive, *Executive*, 5-92
Get Command Interpreter Information directive, *Executive*, 5-96
Get command line
See also GCML
Get command line macro, *I/O Operations*, 6-9
Get Default Directory directive, *Executive*, 5-100
$GETGSA macro, *RMS-11 Macro*, 2-19
Get LUN Information directive, *Executive*, 5-103
$GET macro
key access, *RMS-11 Macro*, 5-63
RFA access, *RMS-11 Macro*, 5-67
sequential access, *RMS-11 Macro*, 5-60
Get Mapping Context directive, *Executive*, 5-108
Get MCR Command Line directive, *Executive*, 5-106
GET operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-10 *RMS-11 User's Guide*, 1-15
access modes, *RMS-11 Introduction*, 4-6
and bucket locking, *RMS-11 User's Guide*, 2-8
and shared access, *RMS-11 User's Guide*, 2-6, 2-10
and stream records, *RMS-11 User's Guide*, 2-16, 2-17
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
deferred write, *RMS-11 User's Guide*, 7-9
$GET macro
key access, *RMS-11 Macro*, 5-63
RFA access, *RMS-11 Macro*, 5-67
sequential access, *RMS-11 Macro*, 5-60
indexed files, *RMS-11 User's Guide*, 7-5, 7-9
key access, *RMS-11 User's Guide*, 7-5
GET operation
indexed files (cont'd.)
random by key, *RMS-11 User's Guide*, 5-13
RFA access, *RMS-11 User's Guide*, 7-5
sequential access, *RMS-11 User's Guide*, 5-17, 7-5
key access, *RMS-11 User's Guide*, 1-15
locate mode, *RMS-11 User's Guide*, 3-14
indexed files, *RMS-11 User's Guide*, 7-8
relative files, *RMS-11 User's Guide*, 4-13
move mode
indexed files, *RMS-11 User's Guide*, 7-7
relative files, *RMS-11 User's Guide*, 4-12
sequential files, *RMS-11 User's Guide*, 3-13
relative files, *RMS-11 User's Guide*, 4-10
key access, *RMS-11 User's Guide*, 4-10
RFA access, *RMS-11 User's Guide*, 4-10
sequential access, *RMS-11 User's Guide*, 4-10
RFA access, *RMS-11 User's Guide*, 1-15
sequential access, *RMS-11 User's Guide*, 1-15
sequential files, *RMS-11 User's Guide*, 3-9
key access, *RMS-11 User's Guide*, 3-9
RFA access, *RMS-11 User's Guide*, 3-9
sequential access, *RMS-11 User's Guide*, 3-9
Get Partition Parameters directive, *Executive*, 5-111
Get Region Parameters directive, *Executive*, 5-113
Get Sense Switches directive, *Executive*, 5-115
Get-space routine, *RMS-11 Macro*, 2-18
example, *RMS-11 Macro*, 7-18
macro
declaring, *RMS-11 Macro*, C-2

Get-space routine (cont'd.)
RMS-11-supplied, *RMS-11 Macro*, 2-4
Get Task Parameters directive, *Executive*, 5-119
Get terminal support, *I/O Drivers*, 3-13
Get Time Parameters directive, *Executive*, 5-117
GFB, *Executive*, 5-48, 5-71, 5-253
$$$GLB, *Executive*, 1-8
Global
additive
relocation, *Task Builder*, A-16
cross-reference listing, *Program Development*, 4-5, 4-6
default
disabling in MACRO-11, *Program Development*, 3-1, 3-2
expression evaluation, *MACRO-11*, 3-17
label, *MACRO-11*, 6-49
reference, *MACRO-11*, 6-49
relocation, *Task Builder*, A-15
additive displaced, *Task Builder*, A-17
displaced, *Task Builder*, A-16
symbol, *MACRO-11*, 3-7
address of ODT SST routine, *Task Builder*, 12-26
autoloadable segment, *Task Builder*, 4-7
cross-reference listing, *Task Builder*, 10-12, 10-13, 11-23, 11-24
declaration directory record, *Task Builder*, A-2
definition, *MACRO-11*, 3-1, 3-2, 3-8, 6-49
deleting definition, *Indirect*, 2-52
directory, *MACRO-11*, 1-2
directory record format, *Task Builder*, A-4
end of directory record, *Task Builder*, A-11
entry point, *Program Development*, 6-5, 6-6, 6-10
from the default library, *Task Builder*, 3-18
internal, *Task Builder*, A-28
label, *MACRO-11*, 2-2
Global
symbol (cont'd.)
name, *Task Builder*, A-6
name entry, *Task Builder*, A-6
resolution, *Program Development*, 4-2, 6-8, 6-9 *Task Builder*, 2-7, 2-8
default library, *Task Builder*, 3-18
undefined, *Program Development*, 6-8, 6-9 *Task Builder*, 2-7
undefined reference, *MACRO-11*, 6-21
GLOBAL argument, *MACRO-11*, 8-9
Global common (UDDRV)
creating, *I/O Drivers*, 16-12
referencing, *I/O Drivers*, 16-12
Global logical assignment, *MCR*, 3-20
Global mode, *Indirect*, 2-48
/GLOBALS qualifier, *Task Builder*, 11-34
Global switch
RMSBCK utility, *RMS-11 Utilities*, 6-5
RMSIFL utility, *RMS-11 Utilities*, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-5
Global symbol, *Program Development*, 1-4, 1-5
definition
See also .GLOBL directive
entry point, *Program Development*, 1-4
Global symbol, FDB macro, *I/O Operations*, 2-26
.GLOBL directive, *MACRO-11*, 3-7, 6-49
GLUN$ directive, *Executive*, 5-103
GLUN$ directive summary, *I/O Operations*, C-1
GLUN$ macro, *I/O Drivers*, 1-14, 1-21
buffer (TTDRV), *I/O Drivers*, 2-7
example, *I/O Drivers*, 1-21, 1-24
get information
AFC11/AD01 converter, *I/O Drivers*, 15-2
communication driver, *I/O Drivers*, 12-4
CRDRV, *I/O Drivers*, 11-1
CTDRV, *I/O Drivers*, 9-1
DDDRV, *I/O Drivers*, 7-1

GLUN$ macro
get information (cont'd.)
disk driver, *I/O Drivers*, 5-5
DTDRV, *I/O Drivers*, 6-1
GRDRV, *I/O Drivers*, 21-1
half-duplex, *I/O Drivers*, 3-4
ICDRV/ISDRV, *I/O Drivers*, 19-8
LADRV, *I/O Drivers*, 22-2
LPDRV, *I/O Drivers*, 10-3
LRDRV, *I/O Drivers*, 14-2
LSDRV, *I/O Drivers*, 17-2
PPDRV/PRDRV, *I/O Drivers*, 18-1
tape driver, *I/O Drivers*, 8-5
TTDRV, *I/O Drivers*, 2-7
UDDRV, *I/O Drivers*, 16-3
UNIBUS switch driver, *I/O Drivers*, 24-2
VTDRV, *I/O Drivers*, 4-1
information returned, *I/O Drivers*, 1-21
information table (TTDRV), *I/O Drivers*, 2-7
GMCR$ directive, *Executive*, 5-106
GMCR$ directive summary, *I/O Operations*, C-1
GMCX$ directive, *Executive*, 5-109
$GNCAL macro, *RMS-11 Macro*, C-2
Go command
See G command
GOLD key (EDT), *Introduction*, 2-3
.GOSUB directive, *Indirect*, 2-58
.GOTO directive, *Indirect*, 2-59
GPRT$ directive, *Executive*, 5-111
GRDRV, *I/O Drivers*, 21-1
function code list, *I/O Drivers*, B-9
programming hint, *I/O Drivers*, 21-3
GREG$ directive, *Executive*, 5-113
G register, *Debugging*, 2-7, 5-4, 9-10
/GR keyword
ASSIGN command (MCR), *MCR*, 3-26, 3-28, 3-29
DEFINE LOGICALS command (MCR), *MCR*, 3-66, 3-67, 3-68
/GRO keyword
HELP command, *MCR*, 3-87
Group event flag dump, *CDA*, 1-9
Group global event flag, *Executive*, 2-2
creating, *Executive*, 5-48
on Micro/RSX, *Executive*, 2-4
Group global event flag (cont'd.)
decrementing use count, *Executive*, 5-253
deleting, *Executive*, 5-71
on Micro/RSX, *Executive*, 2-4
displaying on Micro/RSX, *Executive*, 2-4
eliminating, *Executive*, 5-253
reading, *Executive*, 5-158
Group Global Event Flag Control Block
See GFB
Group global event flag dump, *CDA*, 3-1, 3-18
GROUP GLOBAL EVENT FLAGS
command, *MCR*, 1-6, 3-77
error messages, *MCR*, 3-78
examples, *MCR*, 3-77
format, *MCR*, 3-77
keywords
/CRE, *MCR*, 3-77
/ELIM, *MCR*, 3-77
Group logical assignment, *MCR*, 3-20
GSA$ macro, *RMS-11 Macro*, 2-18
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
$GSPKT routine, *Writing I/O Driver*, 1-13, 1-14, 7-21, 7-22
GSSW$S directive, *Executive*, 5-115
$GTBYT routine, *Writing I/O Driver*, 7-20
GT condition test argument, *MACRO-11*, 6-51
$GTCOR (Get core), *System Library*, 8-11
.GTDID routine, *I/O Operations*, 4-20
default directory information, *I/O Operations*, 4-21
.GTDIR routine, *I/O Operations*, 4-20
insert directory information, *I/O Operations*, 4-20
GTHIST: subroutine
gather interevent time data (K-series), *I/O Drivers*, 23-21
GTIM$ directive, *Executive*, 5-117
GTPKT$ macro call
arguments, *Writing I/O Driver*, 4-7
$GTPKT routine, *Writing I/O Driver*, 1-5, 1-13, 1-16, 7-21, 7-22
usage in driver code, *Writing I/O Driver*, 3-5
GTSK$ directive, *Executive*, 5-119
$GTWRK routine, *Writing I/O Driver*, 7-23

H

H.CKSM, checksum word, *I/O Operations*, F-3
H.FLEV, structure level, *I/O Operations*, F-1
H.FNUM, file number, *I/O Operations*, F-1
H.FOWN, offset to file owner, *I/O Operations*, F-1
H.FPRO, file protection code, *I/O Operations*, F-1
H.FSEQ, file sequence number, *I/O Operations*, F-1
H.IDOF, header area, *I/O Operations*, F-1
H.MPOF, map area offset, *I/O Operations*, F-1
H.PROG, member number, *I/O Operations*, F-1
H.PROJ, group number, *I/O Operations*, F-1
H.SCHA, system-controlled file characteristics, *I/O Operations*, F-2
H.UCHA, user-controlled file characteristics, *I/O Operations*, F-1
H.UFAT, user file attributes, *I/O Operations*, F-2
Half-duplex
  considerations (communication driver), *I/O Drivers*, 12-11
  hold-screen mode, *I/O Drivers*, 3-21
  programming hint, *I/O Drivers*, 3-31
  set mode (communication driver), *I/O Drivers*, 12-7
Hard error, *System Management*, 15-30
  definition, *Error Logging*, 1-3
  limit switch, *Error Logging*, 2-3, 2-7
Hard location
  See XB$HRD mask in AOP field
Hardware
  program development, *Program Development*, 1-12
Hardware bootstrap, *System Generation*, 1-11
Hardware configuration
  ICR11, *I/O Drivers*, 19-1
  ICS11, *I/O Drivers*, 19-1
  K-series, *I/O Drivers*, 23-2
Hardware configuration (cont'd.)
  relationship to structures at block level, *Writing I/O Driver*, 2-1
Hardware faults, *System Management*, 15-29
  intermittent failures, *System Management*, 15-30
  media failures, *System Management*, 15-29
  transient failures, *System Management*, 15-29
Hardware interrupt
  processing, *Executive*, 5-21
/HDR3 keyword
  MOUNT command (MCR), *MCR*, 3-149
HDRDF$, *CDA*, B-21, C-33 *Writing I/O Driver*, A-25, A-26
/HDR switch, *CDA*, 2-5, 2-6
/HD switch, *Task Builder*, 10-20
  DMP utility, *Utilities*, 11-5
  VFY utility, *Utilities*, 9-5
Header, *Task Builder*, 2-8, 2-9
  excluding task, *Task Builder*, 10-20, 11-35
  I- and D-space task, *Task Builder*, 7-10
  task
    fixed part, *Task Builder*, B-11
    variable part, *Task Builder*, B-12
    vector extension area, *Task Builder*, B-13
  task image, *Task Builder*, B-10
Header, page, *MACRO-11*, 6-4
Header area, *I/O Operations*, 5-3
  file header block, *I/O Operations*, F-3
    file characteristics, *I/O Operations*, F-4
    file number, *I/O Operations*, F-3
    file owner information, *I/O Operations*, F-3
    file protection code, *I/O Operations*, F-4
    file sequence number, *I/O Operations*, F-3
    identification area, *I/O Operations*, F-3
    map area offset, *I/O Operations*, F-3
    structure level, *I/O Operations*, F-3

Header area
user file attributes
file characteristics, *I/O Operations*, F-4
Header block
file, *I/O Operations*, 5-3
/HEADER qualifier, *Task Builder*, 11-35
/HEADERS qualifier
BRU utility, *System Generation*, 2-11
Utilities, 7-16
$HEADR, *Writing I/O Driver*, 6-7, 6-9
pointer to first word of task header, *Writing I/O Driver*, 6-8
HEL
See HELLO command
HELLO command, *Introduction*, 1-4
MCR, 1-8, 3-79
error messages, *MCR*, 3-84
examples, *MCR*, 3-83
formats, *MCR*, 3-81
Hello OOB (TTDRV), *I/O Drivers*, 2-61
HELP
getting, *Command Language*, 3-25 to 3-28
RMSBCK utility, *RMS-11 Utilities*, 6-4
RMSCNV utility, *RMS-11 Utilities*, 4-5
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Utilities*, 2-2, 2-11
RMSDSP utility, *RMS-11 Utilities*, 5-3
RMSIFL utility, *RMS-11 Utilities*, 3-3
RMSRST utility, *RMS-11 Utilities*, 7-3
HELP command, *Command Language*, 1-10 to 1-12, 3-25 to 3-28, 9-16
Introduction, 1-10, 1-11, 3-9 *MCR*, 1-8, 3-87 *System Management*, 15-14
EDT editor, *Introduction*, 2-5, 2-10
error messages, *MCR*, 3-91
examples, *MCR*, 3-90
formats, *MCR*, 3-87, 3-88
IOX, *System Management*, 4-40
keywords
/CLI, *MCR*, 3-87
/DCL, *MCR*, 3-87
/FIL, *MCR*, 3-87
HELP command
keywords (cont'd.)
/GRO, *MCR*, 3-87
/LOC, *MCR*, 3-87
/MCR, *MCR*, 3-88
/OUT, *MCR*, 3-88
qualifiers, *MCR*, 3-87, 3-88
Help file, *Command Language*, 3-28 to 3-31 *MCR*, 3-87 to 3-93 *System Generation*, 4-5
format, *MCR*, 3-88
qualifiers, *MCR*, 3-88
writing, *Command Language*, 3-28
Help paragraph
SYSGEN question, *System Generation*, 3-3
/HFILL keyword
SET command (MCR), *MCR*, 3-220
SET command (VMR), *System Management*, 10-59
/HF switch
DMP utility, *Utilities*, 11-6
/HHT keyword
SET command (MCR), *MCR*, 3-221
SET command (VMR), *System Management*, 10-59
High-key value
buckets, *RMS-11 User's Guide*, 5-5, 5-6
/HIGH keyword
LOAD command (MCR), *MCR*, 3-133
High-level language, *Introduction*, 5-10 to 5-11 *RMS-11 Introduction*, 4-7, 5-1
access streams, *RMS-11 User's Guide*, 1-15
and file design, *RMS-11 User's Guide*, 1-19
and remote access, *RMS-11 User's Guide*, B-1
and shared access, *RMS-11 User's Guide*, 2-7
bucket size, *RMS-11 User's Guide*, 6-21
defaults, *RMS-11 User's Guide*, 2-2
file and directory operations, *RMS-11 User's Guide*, 3-15, 4-15, 7-10
file operations, *RMS-11 User's Guide*, 8-2
key characteristics, *RMS-11 User's Guide*, 6-8
keys, *RMS-11 User's Guide*, 6-7

High-level language (cont'd.)
locate mode, *RMS-11 User's Guide*, 3-14, 4-13
overlay program, *Task Builder*, 3-40, 3-41
restrictions, *Executive*, 1-10 *RMS-11 User's Guide*, 1-13, 1-15, 2-1
subroutine, *Executive*, 1-9
error conditions, *Executive*, 1-19
optional arguments, *Executive*, 1-10
specifying task names, *Executive*, 1-11
support, *Executive*, 1-10
High limit register
See H register
High pool, *System Management*, 13-3, 13-4
event, *System Management*, 13-2
High-speed device, *Writing I/O Driver*, 1-16
HIST: subroutine
histogram sampling (LSDRV), *I/O Drivers*, 17-17
Histogram sampling (LSDRV), *I/O Drivers*, 17-17
HLP attribute, *System Management*, 12-32
/HL switch, *Error Logging*, 2-3, 2-7
HOLD/ENTRY command, *Introduction*, 3-14
HOLD command
format
entry number, *Batch and Queue*, 2-22
job name, *Batch and Queue*, 2-22
HOLD/ENTRY, *Command Language*, 4-97, 9-16
HOLD/JOB, *Command Language*, 4-97, 9-16
/HOLD keyword
BYE command, *MCR*, 3-43
SET command (MCR), *MCR*, 3-222
/HOLD qualifier
PRINT command, *Batch and Queue*, 2-4
HOLD SCREEN key, *Command Language*, 3-16 *Introduction*, 1-14
Hold-screen mode (half-duplex), *I/O Drivers*, 3-21
HOM
See HOME command
Home block, *I/O Operations*, E-1
access types, *MCR*, 3-94
changing, *MCR*, 3-93
initializing, *MCR*, 3-93
task
installing, *MCR*, 3-93
HOME command, *MCR*, 1-6, 3-93
error messages, *MCR*, 3-97
example, *MCR*, 3-97
format, *MCR*, 3-93
keywords
/DENS, *MCR*, 3-93
/EXT, *MCR*, 3-94
/FPRO, *MCR*, 3-94
/LRU, *MCR*, 3-94
/MXF, *MCR*, 3-95
/NAME, *MCR*, 3-95
/OVR, *MCR*, 3-95
/OWNER, *MCR*, 3-95
/POS, *MCR*, 3-95
/PRO, *MCR*, 3-96
/UIC, *MCR*, 3-96
/VI, *MCR*, 3-96
/WIN, *MCR*, 3-97
/HOST keyword
SET command (MCR), *MCR*, 3-223
Host system, *Task Builder*, C-1 to C-5
building a task for another system, *Task Builder*, C-1
definition, *System Generation*, 1-11
description, *Task Builder*, C-1, C-2
on line, *System Generation*, 2-6
stand alone, *System Generation*, 2-6
transferring
example, *Task Builder*, C-3 to C-5
to target, *Task Builder*, C-2
/HO switch
PRI command, *Batch and Queue*, 2-4
HRC, *System Management*, 15-2
error messages, *System Management*, 15-39 to 15-42
format, *System Management*, 15-37
H register, *Debugging*, 2-6, 5-3, 6-1, 9-10
/HSYNC keyword
SET command (MCR), *MCR*, 3-223
SET command (VMR), *System Management*, 10-60

HWDDF$, *CDA*, B-23, C-35 *Writing I/O Driver*, A-27 to A-30
/HX switch
  DMP utility, *Utilities*, 11-6
Hyphen operator (-), *Task Builder*, 3-49
  See also ODL operator

I

I- and D-space
  specifying, *Task Builder*, 10-21, 11-15
I.CRDT, creation date, *I/O Operations*, F-2
I.CRTI, creation time, *I/O Operations*, F-2
I.EXDT, expiration date, *I/O Operations*, F-2
I.FNAM, identification area, *I/O Operations*, F-2
I.FTYP, file type, *I/O Operations*, F-2
I.FVER, file version number, *I/O Operations*, F-2
I.RVDT, revision date, *I/O Operations*, F-2
I.RVNO, revision number, *I/O Operations*, F-2
I.RVTI, revision time, *I/O Operations*, F-2
I.xpxx offsets
  in I/O packet, *Writing I/O Driver*, 4-11 to 4-14
I/O, *RMS-11 Introduction*, 2-1
  and performance, *RMS-11 User's Guide*, 2-3
  and record operations, *RMS-11 User's Guide*, 5-17
  asynchronous (XEDRV), *I/O Drivers*, 13-21
  asynchronous process control (AFC11/AD01 converter), *I/O Drivers*, 15-3
  attach device, *I/O Drivers*, 1-27
  block operation, *I/O Operations*, 1-7
  buffer
    disable (VTDRV), *I/O Drivers*, 4-5
    enable (VTDRV), *I/O Drivers*, 4-5
  cancel, *I/O Drivers*, 1-29
    VTDRV, *I/O Drivers*, 4-4
I/O (cont'd.)
  cancel in-progress, *Writing I/O Driver*, 2-5
  completion, *I/O Drivers*, 1-8, 1-9, 1-11, 1-36
  completion status (VTDRV), *I/O Drivers*, 4-5, 4-6
  coordination
    event flag, *I/O Operations*, 2-43
    file operation, *I/O Operations*, 2-42
  data-transfer mode, *I/O Operations*, 1-9
  detach device, *I/O Drivers*, 1-28
  device-dependent, *I/O Drivers*, 1-1
  directive
    condition, *I/O Drivers*, 1-37
    status, *I/O Drivers*, 1-37
  directive summary, *I/O Operations*, C-1
  error
    DTDRV, *I/O Drivers*, 6-6
    status list, *I/O Drivers*, B-1
  extended
    subfunction modifier (TTDRV), *I/O Drivers*, 2-25
    TTDRV, *I/O Drivers*, 2-18, 2-25
  failure, *I/O Drivers*, 1-37
  function support
    F11ACP, *I/O Drivers*, C-1
    MTAACP, *I/O Drivers*, C-1
  high-speed device, *Writing I/O Driver*, 1-14
  in progress
    disk driver, *I/O Drivers*, 5-7
    DTDRV, *I/O Drivers*, 6-2
  issuing, *I/O Drivers*, 1-4
  kill I/O, *I/O Drivers*, 1-29
  locate mode, *I/O Operations*, 1-9, 1-10
  macro
    QIO$C form, *I/O Drivers*, 1-14
    QIO$ form, *I/O Drivers*, 1-13
    QIO$S form, *I/O Drivers*, 1-13
  move mode, *I/O Operations*, 1-9
  outstanding, before LUN reassignment, *I/O Drivers*, 1-3
  overlapped (disk driver), *I/O Drivers*, 5-8
  overview, *I/O Drivers*, 1-1 *Writing I/O Driver*, 3-4
  packet, *I/O Drivers*, 1-13

I/O (cont'd.)
paging operations, *RMS-11 User's Guide*, 8-2
preparation, FCS macro, *I/O Operations*, 2-1
processing requirements, *Writing I/O Driver*, 1-15
read logical block, *I/O Drivers*, 1-30
read virtual block, *I/O Drivers*, 1-30
record
big buffering, *I/O Operations*, 1-11
multiple buffering, *I/O Operations*, 1-10
record operation, *I/O Operations*, 1-8
related macro, *I/O Drivers*, 1-13
form, *I/O Drivers*, 1-13
request, issuing, *I/O Drivers*, 1-14
return code, *I/O Drivers*, 1-36
rundown (ICDRV/ISDRV), *I/O Drivers*, 19-33
second status word (tape driver), *I/O Drivers*, 8-13
slow-speed device, *Writing I/O Driver*, 1-14
stall (RC25), *I/O Drivers*, 5-12
standard function, *I/O Drivers*, 1-25
as a NOP, *I/O Drivers*, 1-26
code list, *I/O Drivers*, B-7
subsystem, industrial control
See ICDRV
See ISDRV
success, *I/O Drivers*, 1-37
status list, *I/O Drivers*, B-5
synchronization, *I/O Operations*, 1-7
event flag, *I/O Operations*, 2-18, 3-10
synchronous process control (AFC11/AD01 converter), *I/O Drivers*, 15-3
terminating (tape driver), *I/O Drivers*, 8-6
transfer length, write block (DTDRV), *I/O Drivers*, 6-7
unrecoverable error (DTDRV), *I/O Drivers*, 6-6
wait for completion
block I/O, *I/O Operations*, 3-40
I/O (cont'd.)
window turning, *RMS-11 User's Guide*, 8-2
write logical block, *I/O Drivers*, 1-31, 1-32
I/O buffer, *RMS-11 Introduction*, 4-2
RMS-11 User's Guide, 1-14
application design, *RMS-11 User's Guide*, 2-5
remote access, *RMS-11 User's Guide*, B-3
indexed files, *RMS-11 User's Guide*, B-3
relative files, *RMS-11 User's Guide*, B-3
sequential files, *RMS-11 User's Guide*, B-3
I/O buffer pool, *RMS-11 Macro*, 2-6
I/O count, *Writing I/O Driver*, 1-12
I/O data base structure
composite arrangement, *Writing I/O Driver*, 2-11
typical arrangements, *Writing I/O Driver*, 2-7, 2-8, 2-10
I/O data structure
details, *Writing I/O Driver*, 4-10
overview, *Writing I/O Driver*, 2-1, 2-2, 2-3
typical arrangements, *Writing I/O Driver*, 2-6
I/O error code, *Indirect*, 2-13
I/O error report
IOX, *System Management*, 4-22
I/O exercise
steps, *System Management*, 4-2
termination, *System Management*, 4-24
I/O Exerciser
See IOX
I/O finish
See $IOFIN routine
I/O function
code, basic syntax, *I/O Drivers*, 1-6
code, identical, *I/O Drivers*, 1-7
code, list, *I/O Drivers*, B-7
definition of types, *Writing I/O Driver*, 3-3
introduction, *I/O Drivers*, 1-1
mask values, *Writing I/O Driver*, 4-23
mask word bit settings, *Writing I/O Driver*, 4-24, 4-25, 4-26
summary, *I/O Drivers*, A-1

I/O function
summary (cont'd.)
analog-to-digital, *I/O Drivers*, A-1
card reader, *I/O Drivers*, A-1
cassette, *I/O Drivers*, A-1
communication driver, *I/O Drivers*, A-2
DECtape, *I/O Drivers*, A-2
DECtape II, *I/O Drivers*, A-2
DEUNA, *I/O Drivers*, A-3
disk, *I/O Drivers*, A-3
F11ACP, *I/O Drivers*, C-8
graphics, *I/O Drivers*, A-3
industrial control, *I/O Drivers*, A-4
lab peripheral accelerator, *I/O Drivers*, A-5
lab peripheral system, *I/O Drivers*, A-5
line printer, *I/O Drivers*, A-6
magnetic tape, *I/O Drivers*, A-6
MTAACP, *I/O Drivers*, C-10
paper tape, *I/O Drivers*, A-6
parallel communication, *I/O Drivers*, A-7
terminal, *I/O Drivers*, A-7
UNIBUS switch, *I/O Drivers*, A-9
universal digital controller, *I/O Drivers*, A-9
virtual terminal, *I/O Drivers*, A-10
I/O function mask
establishing, *Writing I/O Driver*, 4-22
I/O initiation
entry point, *Writing I/O Driver*, 4-63, 4-64
sample use of alternative, *Writing I/O Driver*, 8-12 to 8-26
overview, *Writing I/O Driver*, 2-5
I/O macro
AST service routine, *I/O Operations*, 2-45, 2-46
FCS, *I/O Operations*, 2-1
FDB, *I/O Operations*, 2-2
I/O packet, *Writing I/O Driver*, 1-4, 8-16, 8-25
building, *Writing I/O Driver*, 4-11
composite arrangement, *Writing I/O Driver*, 2-13, 2-14
I/O packet (cont'd.)
creation of, *Writing I/O Driver*, 3-2
current address, *Writing I/O Driver*, 4-40
fields, *Writing I/O Driver*, 4-11, 4-12, 4-13, 4-14
handling before it is queued, *Writing I/O Driver*, 8-12 to 8-15, 8-17 to 8-24, 8-26
layout, *Writing I/O Driver*, 4-11
I/O page, *Writing I/O Driver*, 1-3
access (ICDRV/ISDRV), *I/O Drivers*, 19-76
accessing, *MCR*, 3-238
direct access (UDDRV), *I/O Drivers*, 16-3
direct access procedure (UDDRV), *I/O Drivers*, 16-9
global definition (ICDRV/ISDRV), *I/O Drivers*, 19-77
overmapping, *MCR*, 3-183
specifying, *MCR*, 3-238 *Task Builder*, 10-22, 11-38
subpartition, *MCR*, 3-267
I/O parameter
basic, *I/O Drivers*, 1-5
I/O program example, *I/O Operations*, D-1
I/O queue
listhead, *Writing I/O Driver*, 4-39
I/O Queue Optimization, *System Management*, 1-5, 16-1
Cylinder Scan, *System Management*, 16-1, 16-4
default, *System Management*, 16-3
Elevator, *System Management*, 16-1
Elevator Method, *System Management*, 16-4
error messages, *System Management*, 16-4
fairness count, *System Management*, 16-1
adjustment, *System Management*, 16-3
initiating, *System Management*, 16-1
Nearest Cylinder, *System Management*, 16-1, 16-4
optimization status, *System Management*, 16-2
optimization types, *System Management*, 16-1
selecting method, *System Management*, 16-3

I/O queue optimization
Cylinder Scan, *Writing I/O Driver*, 1-15
Elevator, *Writing I/O Driver*, 1-15
Nearest Cylinder, *Writing I/O Driver*, 1-15
I/O request, *Writing I/O Driver*, 1-4, 1-5, 1-15
completing process for an, *Writing I/O Driver*, 3-4
flow of, *Writing I/O Driver*, 3-1, 3-2, 3-3, 3-4
issuing I/O for an, *Writing I/O Driver*, 3-4
queuing, *Executive*, 5-143, 5-147
I/O status, *I/O Drivers*, 1-36
block, *I/O Drivers*, 1-8, 1-11, 1-36, 1-38
AFC11/AD01 converter, *I/O Drivers*, 15-4, 15-8
communication driver, *I/O Drivers*, 12-8
CRDRV, *I/O Drivers*, 11-3
different content (TTDRV), *I/O Drivers*, 2-51, 2-59
error test, *I/O Drivers*, 1-39
example, *I/O Drivers*, 1-39
first word (LSDRV), *I/O Drivers*, 17-10
first word content
K-series, *I/O Drivers*, 23-32
LADRV, *I/O Drivers*, 22-31
UDDRV, *I/O Drivers*, 16-15
FORTRAN (ICDRV/ISDRV), *I/O Drivers*, 19-35, 19-36
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-13, 3-15, 3-16, 3-17, 3-18, 3-26
importance (LSDRV), *I/O Drivers*, 17-34
K-series, *I/O Drivers*, 23-6, 23-32
LADRV, *I/O Drivers*, 22-2, 22-30
LPDRV, *I/O Drivers*, 10-5
LRDRV, *I/O Drivers*, 14-4, 14-5, 14-11
LSDRV, *I/O Drivers*, 17-9, 17-31, 17-34
PPDRV/PRDRV, *I/O Drivers*, 18-3
I/O status
block
status (TTDRV), *I/O Drivers*, 2-63
second word (LSDRV), *I/O Drivers*, 17-31
SF.GMC different (TTDRV), *I/O Drivers*, 2-51, 2-59
UDDRV, *I/O Drivers*, 16-7, 16-15, 16-16, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-6, 24-7
VTDRV, *I/O Drivers*, 4-7
4-word (LADRV), *I/O Drivers*, 22-31
XEDRV, *I/O Drivers*, 13-18
code, *I/O Drivers*, 1-37
binary value, *I/O Drivers*, 1-37
code list, *I/O Drivers*, B-1
condition, *I/O Drivers*, 1-38
table, *I/O Drivers*, 1-40
CRDRV, *I/O Drivers*, 11-7
return
completion, *I/O Drivers*, 1-36
DDDRV, *I/O Drivers*, 7-4
disk driver, *I/O Drivers*, 5-9
DTDRV, *I/O Drivers*, 6-4
summary (ICDRV/ISDRV), *I/O Drivers*, 19-36
TTDRV, *I/O Drivers*, 2-63
VTDRV, *I/O Drivers*, 4-5
word
CTDRV, *I/O Drivers*, 9-6
tape driver, *I/O Drivers*, 8-13
word 1 (ICDRV/ISDRV), *I/O Drivers*, 19-36
I/O status block
block I/O, *I/O Operations*, 2-13
defined in task, *I/O Operations*, 2-45
file I/O, *I/O Operations*, 2-44
I/O subfunction
bit, *I/O Drivers*, 1-26
example, *I/O Drivers*, 1-26
unsupported, *I/O Drivers*, 1-26
summary, terminal, *I/O Drivers*, A-8
I/O technique, *RMS-11 User's Guide*, 2-17
deferred write, *RMS-11 User's Guide*, 2-17
indexed files, *RMS-11 User's Guide*, 7-8

I/O technique
indexed files (cont'd.)
deferred write, *RMS-11 User's Guide*, 7-8
multiple access streams, *RMS-11 User's Guide*, 7-10
multiple buffers, *RMS-11 User's Guide*, 7-9
sequential reads, *RMS-11 User's Guide*, 7-10
mass insertion, *RMS-11 User's Guide*, 2-18
MBC, *RMS-11 User's Guide*, 2-17
multiple buffers, *RMS-11 User's Guide*, 2-18
relative files, *RMS-11 User's Guide*, 4-14
deferred write, *RMS-11 User's Guide*, 4-14
multiple access streams, *RMS-11 User's Guide*, 4-15
multiple buffers, *RMS-11 User's Guide*, 4-15
sequential files, *RMS-11 User's Guide*, 3-14
deferred write, *RMS-11 User's Guide*, 3-14
MBC, *RMS-11 User's Guide*, 3-15
multiple access streams, *RMS-11 User's Guide*, 3-15
multiple buffers, *RMS-11 User's Guide*, 3-15
I/O unit, *RMS-11 User's Guide*, 1-14
blocks, *RMS-11 User's Guide*, 1-16
buckets, *RMS-11 User's Guide*, 1-16
IAD-IA A/D converter
address convention, *I/O Drivers*, 19-4
Iadj parameter
ADJLPS: subroutine (LSDRV), *I/O Drivers*, 17-13
I- and D-space
See Data space
See Instruction space
See Task
IAN field in KEY block
CREATE operation, *RMS-11 Macro*, 5-19
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
IAN field in KEY block (cont'd.)
summary, *RMS-11 Macro*, 6-79
IAS symbol, *Indirect*, 2-11
IBFSTS: subroutine
get buffer status
K-series, *I/O Drivers*, 23-23
LADRV, *I/O Drivers*, 22-17
IBS field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-80
Ibufno parameter
IGTBUF: subroutine
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-18
INXTBF: subroutine
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-19
IWTBUF: subroutine
K-series, *I/O Drivers*, 23-25
LADRV, *I/O Drivers*, 22-19
IWTBUF: subroutine (K-series), *I/O Drivers*, 23-25
Ibuf parameter
ADJLPS: subroutine (LSDRV), *I/O Drivers*, 17-13
ADSWP: subroutine
K-series, *I/O Drivers*, 23-9
LADRV, *I/O Drivers*, 22-4
CTDI: subroutine (UDDRV), *I/O Drivers*, 16-21
CTTI: subroutine (UDDRV), *I/O Drivers*, 16-22
DASWP: subroutine
K-series, *I/O Drivers*, 23-14
LADRV, *I/O Drivers*, 22-9
DISWP: subroutine
K-series, *I/O Drivers*, 23-17
LADRV, *I/O Drivers*, 22-12
DOSWP: subroutine
K-series, *I/O Drivers*, 23-19
LADRV, *I/O Drivers*, 22-14
DRS: subroutine (LSDRV), *I/O Drivers*, 17-16
GTHIST: subroutine (K-series), *I/O Drivers*, 23-21
HIST: subroutine (LSDRV), *I/O Drivers*, 17-17
IBFSTS: subroutine
K-series, *I/O Drivers*, 23-23
LADRV, *I/O Drivers*, 22-17

Ibuf parameter (cont'd.)
IGTBUF: subroutine
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-18
INXTBF: subroutine
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-19
IRDB: subroutine (LSDRV), *I/O Drivers*, 17-21
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
IWTBUF: subroutine
K-series, *I/O Drivers*, 23-25
LADRV, *I/O Drivers*, 22-19
LPSTP: subroutine (LSDRV), *I/O Drivers*, 17-22
PUTD: subroutine (LSDRV), *I/O Drivers*, 17-22
RLSBUF: subroutine
K-series, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
RMVBUF: subroutine
K-series, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
RTS: subroutine (LSDRV), *I/O Drivers*, 17-23
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-25
SDO: subroutine (LSDRV), *I/O Drivers*, 17-27
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
SETIBF: subroutine
K-series, *I/O Drivers*, 23-28
LADRV, *I/O Drivers*, 22-24
STPSWP: subroutine
K-series, *I/O Drivers*, 23-29
LADRV, *I/O Drivers*, 22-25
ICAR register
content, *I/O Drivers*, 19-74
error data, *I/O Drivers*, 19-73
ICB, *Writing I/O Driver*, 1-2, 1-6, 1-12, 1-18, 2-4
number of controllers allowed, *Writing I/O Driver*, 1-7
pool size
SYSGEN question, *System Generation*, 3-25
ICDRV/ISDRV
driver functions, *I/O Drivers*, 19-4
task functions, *I/O Drivers*, 19-4
.ICF module, *Error Logging*, 4-1
Ichan parameter
ADC: subroutine (LSDRV), *I/O Drivers*, 17-12
ADINP: subroutine (K-series), *I/O Drivers*, 23-8
RTS: subroutine (LSDRV), *I/O Drivers*, 17-24
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-26
Ichn parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-6
DASWP: subroutine
K-series, *I/O Drivers*, 23-15
LADRV, *I/O Drivers*, 22-11
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
ICLOKB: subroutine
read 16-bit clock (K-series), *I/O Drivers*, 23-23
Icntrl parameter
SCOPE: subroutine (K-series), *I/O Drivers*, 23-27
I command, *Debugging*, 2-9, 9-12
Icont parameter
AIRD/AIRDW subroutine (UDDRV), *I/O Drivers*, 16-18
AISQ/AISQW subroutine (UDDRV), *I/O Drivers*, 16-18
AO/AOW subroutine (UDDRV), *I/O Drivers*, 16-19
DI/DIW: subroutine (UDDRV), *I/O Drivers*, 16-23
DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
Icos parameter
RDWD: subroutine (UDDRV), *I/O Drivers*, 16-30
ICP
See Indirect
Ic parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.ITI function, *I/O Drivers*, 19-22
IO.LTI function, *I/O Drivers*, 19-26
ICR11, *I/O Drivers*, 19-1

ICR common block
linking task, *I/O Drivers*, 19-76
ICR register
read direct access sample subroutine, *I/O Drivers*, 19-78
ICS/ICR-DSS/DR
function code list, *I/O Drivers*, B-10
ICS11, *I/O Drivers*, 16-1, 19-1
ICS11 A/D converter (UDDRV), *I/O Drivers*, 16-8
ICS common block
linking task, *I/O Drivers*, 19-76
ICS register
read direct access sample subroutine, *I/O Drivers*, 19-78
ICSR register
content, *I/O Drivers*, 19-73
error data, *I/O Drivers*, 19-73
Ict parameter (UDDRV)
RDCS: subroutine, *I/O Drivers*, 16-27
RDDI: subroutine, *I/O Drivers*, 16-28
Idata parameter
AIRD/AIRDW subroutine (UDDRV), *I/O Drivers*, 16-18
AISQ/AISQW subroutine (UDDRV), *I/O Drivers*, 16-18
AO/AOW subroutine (UDDRV), *I/O Drivers*, 16-19
DI/DIW: subroutine (UDDRV), *I/O Drivers*, 16-23
DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
DOUT: subroutine (K-series), *I/O Drivers*, 23-21
IDB pool, *RMS-11 Macro*, 2-5
Idec parameter
LED: subroutine (LSDRV), *I/O Drivers*, 17-21
IDENT command, *System Management*, 15-15
.IDENT directive, *MACRO-11*, 6-16, 6-17 *Program Development*, 2-5
Identification area, *I/O Operations*, 5-4
file header block, *I/O Operations*, F-4
creation date, *I/O Operations*, F-5
Identification area
file header block (cont'd.)
creation time, *I/O Operations*, F-5
expiration date, *I/O Operations*, F-5
filename, *I/O Operations*, F-4
filetype, *I/O Operations*, F-4
file version number, *I/O Operations*, F-4
revision date, *I/O Operations*, F-4
revision number, *I/O Operations*, F-4
revision time, *I/O Operations*, F-5
IDENT option, *Task Builder*, 12-23
IDIR: subroutine
read digital input (LSDRV), *I/O Drivers*, 17-19
Idir parameter
IDIR: subroutine (LSDRV), *I/O Drivers*, 17-19
IDN condition test argument, *MACRO-11*, 6-52
IDOR: subroutine
write digital output (LSDRV), *I/O Drivers*, 17-20
Id parameter
device-specific function
transmit (LRDRV), *I/O Drivers*, 14-4
Idsc parameter
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21
/ID switch, *Task Builder*, 10-21
DMP utility, *Utilities*, 11-6
FLX utility, *Utilities*, 4-7
PIP utility, *Utilities*, 3-23
RMSBCK utility, *RMS-11 Utilities*, 6-4, 6-5
RMSCNV utility, *RMS-11 Utilities*, 4-5, 4-9
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDSP utility, *RMS-11 Utilities*, 5-3, 5-5
RMSIFL utility, *RMS-11 Utilities*, 3-3, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-3, 7-5
Idsw parameter
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21

Idwell parameter
ADSWP: subroutine (LADRV), *I/O Drivers*, 22-5
DASWP: subroutine (LADRV), *I/O Drivers*, 22-10
DISWP: subroutine (LADRV), *I/O Drivers*, 22-13
DOSWP: subroutine (LADRV), *I/O Drivers*, 22-15
IDX argument to ORG$ macro, *RMS-11 Macro*, 2-3
Idx parameter
DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
IE.ABO error return, *I/O Drivers*, 1-40
ACP, *I/O Drivers*, C-14
AFC11/AD01 converter, *I/O Drivers*, 15-8
communication driver, *I/O Drivers*, 12-10
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-4
disk driver, *I/O Drivers*, 5-10
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-18
ICDRV/ISDRV, *I/O Drivers*, 19-13
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-29
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-10
transmitter (LRDRV), *I/O Drivers*, 14-8
TTDRV, *I/O Drivers*, 2-63
UDDRV, *I/O Drivers*, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-7
VTDRV, *I/O Drivers*, 4-8
XEDRV, *I/O Drivers*, 13-16, 13-19
initialize line error
IO.XIN function, *I/O Drivers*, 13-11
transmit line error, *I/O Drivers*, 13-13
IE.ADP error return, *I/O Drivers*, 1-37
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
IE.ADP error return (cont'd.)
ICDRV/ISDRV, *I/O Drivers*, 19-12
IE.ALC error return, ACP, *I/O Drivers*, C-14
IE.ALN error return, *I/O Drivers*, 1-40
disk driver, *I/O Drivers*, 5-10
DTDRV, *I/O Drivers*, 6-4
XEDRV, *I/O Drivers*, 13-5
IE.ALN error return, ACP, *I/O Drivers*, C-14
IE.BAD error return, *I/O Drivers*, 1-40
AFC11/AD01 converter, *I/O Drivers*, 15-8
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-18
ICDRV/ISDRV
IO.LDI function, *I/O Drivers*, 19-26
IO.RBC function, *I/O Drivers*, 19-14
LSDRV, *I/O Drivers*, 17-29
receiver (LRDRV), *I/O Drivers*, 14-11
transmitter (LRDRV), *I/O Drivers*, 14-7
TTDRV, *I/O Drivers*, 2-63
UDDRV, *I/O Drivers*, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-7
VTDRV, *I/O Drivers*, 4-9
IE.BAD error return, ACP, *I/O Drivers*, C-14
IE.BBE error return, *I/O Drivers*, 1-40
disk driver, *I/O Drivers*, 5-10
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-10
transmitter (LRDRV), *I/O Drivers*, 14-8
IE.BCC error return
communication driver, *I/O Drivers*, 12-9
TTDRV, *I/O Drivers*, 2-64
IE.BDR error return, ACP, *I/O Drivers*, C-14
IE.BLK error return, *I/O Drivers*, 1-40
disk driver, *I/O Drivers*, 5-10
DTDRV, *I/O Drivers*, 6-4
IE.BTP error return, ACP, *I/O Drivers*, C-15
IE.BVR error return, ACP, *I/O Drivers*, C-15

IE.BYT error return, *I/O Drivers*, 1-41
AFC11/AD01 converter, *I/O Drivers*, 15-8
disk driver, *I/O Drivers*, 5-10
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
ICDRV/ISDRV
IO.CCI function, *I/O Drivers*, 19-20
IO.CTI function, *I/O Drivers*, 19-21
IO.CTY function, *I/O Drivers*, 19-23
IO.RAD function, *I/O Drivers*, 19-29
IO.RBC function, *I/O Drivers*, 19-14
LSDRV, *I/O Drivers*, 17-29
tape driver, *I/O Drivers*, 8-10
UDDRV, *I/O Drivers*, 16-32
IE.BYT error return, ACP, *I/O Drivers*, C-15
IE.CKS error return, ACP, *I/O Drivers*, C-15
IE.CLO error return, ACP, *I/O Drivers*, C-15
IE.CNR error return
communication driver, *I/O Drivers*, 12-9
GRDRV, *I/O Drivers*, 21-3
UNIBUS switch driver, *I/O Drivers*, 24-7
IE.CON error return
ICDRV/ISDRV
IO.CCI function, *I/O Drivers*, 19-20
IO.CTI function, *I/O Drivers*, 19-21
IO.CTY function, *I/O Drivers*, 19-23
IO.DCI function, *I/O Drivers*, 19-21
IO.DTI function, *I/O Drivers*, 19-23
IO.DTY function, *I/O Drivers*, 19-24
UDDRV, *I/O Drivers*, 16-32
IE.DAA error return, *I/O Drivers*, 1-41
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-4
IE.DAA error return (cont'd.)
half-duplex, *I/O Drivers*, 3-19
LPDRV, *I/O Drivers*, 10-5
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-11
TTDRV, *I/O Drivers*, 2-64
UNIBUS switch driver, *I/O Drivers*, 24-7
IE.DAO error return
communication driver, *I/O Drivers*, 12-9
CTDRV, *I/O Drivers*, 9-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
LSDRV, *I/O Drivers*, 17-29
tape driver, *I/O Drivers*, 8-11
TTDRV, *I/O Drivers*, 2-64
XEDRV, *I/O Drivers*, 13-17
IE.DFU error return, ACP, *I/O Drivers*, C-15
IE.DNA error return, *I/O Drivers*, 1-41
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-4
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-19
LPDRV, *I/O Drivers*, 10-5
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-11
TTDRV, *I/O Drivers*, 2-64
UNIBUS switch driver, *I/O Drivers*, 24-7
IE.DNR error return, *I/O Drivers*, 1-41
AFC11/AD01 converter, *I/O Drivers*, 15-8
communication driver, *I/O Drivers*, 12-9
CTDRV, *I/O Drivers*, 9-4
DDDRV, *I/O Drivers*, 7-5
diagnostic, device not ready, *I/O Drivers*, 1-35
disk driver, *I/O Drivers*, 5-10
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-19
ICDRV/ISDRV, *I/O Drivers*, 19-13

IE.DNR error return
ICDRV/ISDRV (cont'd.)
IO.RBC function, *I/O Drivers*, 19-14
LSDRV, *I/O Drivers*, 17-29
power fail, *I/O Drivers*, 1-43
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-11
tape driver, *I/O Drivers*, 8-11
transmitter (LRDRV), *I/O Drivers*, 14-7
TTDRV, *I/O Drivers*, 2-64
UDDRV, *I/O Drivers*, 16-32
IE.DOA error return
receiver (LRDRV), *I/O Drivers*, 14-12
IE.DUN error return (VTDRV), *I/O Drivers*, 4-9
IE.DUP error return, ACP, *I/O Drivers*, C-15
IE.EOF error return, *I/O Drivers*, 1-41
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-5
half-duplex, *I/O Drivers*, 3-18
PPDRV/PRDRV, *I/O Drivers*, 18-3
tape driver, *I/O Drivers*, 8-11
TTDRV, *I/O Drivers*, 2-65
VTDRV, *I/O Drivers*, 4-9
IE.EOF error return, ACP, *I/O Drivers*, C-15
IE.EOT error return
CTDRV, *I/O Drivers*, 9-5
tape driver, *I/O Drivers*, 8-11
IE.EOV error return
tape driver, *I/O Drivers*, 8-12
IE.FHE error return, *I/O Drivers*, 1-41
DDDRV, *I/O Drivers*, 7-5
disk driver, *I/O Drivers*, 5-10
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-12
IE.FLG error return
transmitter (LRDRV), *I/O Drivers*, 14-8
IE.FLN error return
IO.FLN function (ICDRV/ISDRV), *I/O Drivers*, 19-33
IE.HFU error return, ACP, *I/O Drivers*, C-16
IE.IEF error return, *I/O Drivers*, 1-38
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
IE.IEF error return (cont'd.)
GRDRV, *I/O Drivers*, 21-3
ICDRV/ISDRV, *I/O Drivers*, 19-12
IO.CCI function, *I/O Drivers*, 19-20
IO.CTI function, *I/O Drivers*, 19-22
IO.CTY function, *I/O Drivers*, 19-23
IO.LDI function, *I/O Drivers*, 19-26
IO.LKE function, *I/O Drivers*, 19-28
IO.LTI function, *I/O Drivers*, 19-26
IO.LTY function, *I/O Drivers*, 19-27
LSDRV, *I/O Drivers*, 17-30
UDDRV, *I/O Drivers*, 16-32
IE.IES error return
half-duplex, *I/O Drivers*, 3-19
TTDRV, *I/O Drivers*, 2-65
IE.IFC error return, *I/O Drivers*, 1-41
AFC11/AD01 converter, *I/O Drivers*, 15-9
communication driver, *I/O Drivers*, 12-10
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-5
DDDRV, *I/O Drivers*, 7-5
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-19
ICDRV/ISDRV, *I/O Drivers*, 19-13
IO.LKE function, *I/O Drivers*, 19-28
IO.UER function, *I/O Drivers*, 19-31
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-30
PPDRV/PRDRV, *I/O Drivers*, 18-4
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-12
transmitter (LRDRV), *I/O Drivers*, 14-8
TTDRV, *I/O Drivers*, 2-65
UDDRV, *I/O Drivers*, 16-32
UNIBUS switch driver, *I/O Drivers*, 24-7

IE.IFC error return (cont'd.)
VTDRV, *I/O Drivers*, 4-8, 4-9
XEDRV, *I/O Drivers*, 13-5, 13-13, 13-17, 13-18
IO.XIN function, *I/O Drivers*, 13-11
IE.IFC error return, ACP, *I/O Drivers*, C-16
IE.IFU error return, ACP, *I/O Drivers*, C-16
IE.ILU error return, *I/O Drivers*, 1-38
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
ICDRV/ISDRV, *I/O Drivers*, 19-12
IE.LCK error return, ACP, *I/O Drivers*, C-16
IE.LUN error return, ACP, *I/O Drivers*, C-16
IE.MOD error return
ICDRV/ISDRV
IO.CTY function, *I/O Drivers*, 19-23
IO.ITI function, *I/O Drivers*, 19-22
IO.LDI function, *I/O Drivers*, 19-26
IO.LTI function, *I/O Drivers*, 19-27
IO.LTY function, *I/O Drivers*, 19-27
IO.MLO function, *I/O Drivers*, 19-17
IO.MSO function, *I/O Drivers*, 19-16
IO.SAO function, *I/O Drivers*, 19-16
IO.UDI function, *I/O Drivers*, 19-30
IO.UTI function, *I/O Drivers*, 19-31
IO.UTY function, *I/O Drivers*, 19-31
IO.WLB function, *I/O Drivers*, 19-32
UDDRV, *I/O Drivers*, 16-32
IE.NLK error return
ICDRV/ISDRV
IO.NLK function, *I/O Drivers*, 19-30
IO.RAD function, *I/O Drivers*, 19-29
IO.UDI function, *I/O Drivers*, 19-30
IE.NLK error return
ICDRV/ISDRV (cont'd.)
IO.UER function, *I/O Drivers*, 19-31
IO.UTI function, *I/O Drivers*, 19-31
IO.UTY function, *I/O Drivers*, 19-31
IE.NLN error return, *I/O Drivers*, 1-42
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
XEDRV, *I/O Drivers*, 13-13, 13-17, 13-18
IO.XIN function, *I/O Drivers*, 13-11
IE.NOD error return, *I/O Drivers*, 1-42
CRDRV, *I/O Drivers*, 11-7
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-19
ICDRV/ISDRV, *I/O Drivers*, 19-13
IO.LDI function, *I/O Drivers*, 19-26
IO.LKE function, *I/O Drivers*, 19-28
IO.LTI function, *I/O Drivers*, 19-27
IO.LTY function, *I/O Drivers*, 19-27
LSDRV, *I/O Drivers*, 17-30
TTDRV, *I/O Drivers*, 2-65
UNIBUS switch driver, *I/O Drivers*, 24-8
IE.NOD error return, ACP, *I/O Drivers*, C-16
IE.NSF error return
XEDRV, *I/O Drivers*, 13-5
IE.NSF error return, ACP, *I/O Drivers*, C-16
IE.NST error return
ICDRV/ISDRV
IO.LDI function, *I/O Drivers*, 19-26
IO.LKE function, *I/O Drivers*, 19-28
IO.LTY function, *I/O Drivers*, 19-27
IO.UDI function, *I/O Drivers*, 19-30

IE.NST error return
ICDRV/ISDRV (cont'd.)
IO.UER function, *I/O Drivers*, 19-31
IO.UTI function, *I/O Drivers*, 19-31
IO.UTY function, *I/O Drivers*, 19-31
IE.NTR error return
receiver (LRDRV), *I/O Drivers*, 14-12
IE.OFL error return, *I/O Drivers*, 1-42
AFC11/AD01 converter, *I/O Drivers*, 15-9
communication driver, *I/O Drivers*, 12-10
CRDRV, *I/O Drivers*, 11-8
CTDRV, *I/O Drivers*, 9-5
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
half-duplex, *I/O Drivers*, 3-20
ICDRV/ISDRV, *I/O Drivers*, 19-13
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-30
PPDRV/PRDRV, *I/O Drivers*, 18-4
tape driver, *I/O Drivers*, 8-12
TTDRV, *I/O Drivers*, 2-65
UDDRV, *I/O Drivers*, 16-32
UNIBUS switch driver, *I/O Drivers*, 24-8
IE.OFL error return, ACP, *I/O Drivers*, C-16
IE.ONP error return
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
LSDRV, *I/O Drivers*, 17-30
IE.OVR error return, *I/O Drivers*, 1-42
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
IE.PES error return
half-duplex, *I/O Drivers*, 3-20
TTDRV, *I/O Drivers*, 2-65
IE.PRI error return, *I/O Drivers*, 1-42
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-20
ICDRV/ISDRV
IO.CCI function, *I/O Drivers*, 19-20
IE.PRI error return
ICDRV/ISDRV (cont'd.)
IO.CTI function, *I/O Drivers*, 19-22
IO.FLN function, *I/O Drivers*, 19-33
IO.ONL function, *I/O Drivers*, 19-33
LSDRV, *I/O Drivers*, 17-30
TTDRV, *I/O Drivers*, 2-65
UDDRV, *I/O Drivers*, 16-33
XEDRV, *I/O Drivers*, 13-19
IE.PRI error return, ACP, *I/O Drivers*, C-17
IE.REJ error return
transmitter (LRDRV), *I/O Drivers*, 14-8
IE.RER error return, ACP, *I/O Drivers*, C-17
IE.RSU error return
communication driver, *I/O Drivers*, 12-10
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-20
ICDRV/ISDRV
IO.LDI function, *I/O Drivers*, 19-26
IO.LKE function, *I/O Drivers*, 19-28
IO.LTI function, *I/O Drivers*, 19-27
IO.LTY function, *I/O Drivers*, 19-27
LSDRV, *I/O Drivers*, 17-30, 17-31
IO.ADS function, *I/O Drivers*, 17-31
IO.HIS function, *I/O Drivers*, 17-31
IO.MDA function, *I/O Drivers*, 17-31
IO.MDI function, *I/O Drivers*, 17-31
IO.MDO function, *I/O Drivers*, 17-31
IO.SDO function, *I/O Drivers*, 17-31
IE.SDP error return, *I/O Drivers*, 1-38
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
ICDRV/ISDRV, *I/O Drivers*, 19-13

IE.SNC error return, ACP, *I/O Drivers*, C-17
IE.SPC error return, *I/O Drivers*, 1-42
AFC11/AD01 converter, *I/O Drivers*, 15-9
communication driver, *I/O Drivers*, 12-10
CRDRV, *I/O Drivers*, 11-8
CTDRV, *I/O Drivers*, 9-5
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-5
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-20
ICDRV/ISDRV
IO.CCI function, *I/O Drivers*, 19-20
IO.CTI function, *I/O Drivers*, 19-22
IO.CTY function, *I/O Drivers*, 19-23
IO.RAD function, *I/O Drivers*, 19-29
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-30
PPDRV/PRDRV, *I/O Drivers*, 18-4
receiver (LRDRV), *I/O Drivers*, 14-12
tape driver, *I/O Drivers*, 8-12
transmitter (LRDRV), *I/O Drivers*, 14-8
TTDRV, *I/O Drivers*, 2-66
IO.ATA function, *I/O Drivers*, 2-21
UDDRV, *I/O Drivers*, 16-33
UNIBUS switch driver, *I/O Drivers*, 24-8
VTDRV, *I/O Drivers*, 4-8
XEDRV, *I/O Drivers*, 13-13, 13-17, 13-19
IE.SPC error return, ACP, *I/O Drivers*, C-17
IE.SQC error return, ACP, *I/O Drivers*, C-17
IE.TMO error return
communication driver, *I/O Drivers*, 12-10
DDDRV, *I/O Drivers*, 7-5
UNIBUS switch driver, *I/O Drivers*, 24-8
XEDRV, *I/O Drivers*, 13-17
IE.ULN error return, *I/O Drivers*, 1-38
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
ICDRV/ISDRV, *I/O Drivers*, 19-13
IE.UPN error return, *I/O Drivers*, 1-38
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
VTDRV, *I/O Drivers*, 4-8
IE.VER error return, *I/O Drivers*, 1-43
communication driver, *I/O Drivers*, 12-10
CTDRV, *I/O Drivers*, 9-5
DDDRV, *I/O Drivers*, 7-5
disk driver, *I/O Drivers*, 5-11
DTDRV, *I/O Drivers*, 6-6
PPDRV/PRDRV, *I/O Drivers*, 18-4
tape driver, *I/O Drivers*, 8-13
transmitter (LRDRV), *I/O Drivers*, 14-8
TTDRV, *I/O Drivers*, 2-66
IE.WAC error return, ACP, *I/O Drivers*, C-17
IE.WAT error return, ACP, *I/O Drivers*, C-17
IE.WCK error return, *I/O Drivers*, 1-43
disk driver, *I/O Drivers*, 5-12
IE.WER error return, ACP, *I/O Drivers*, C-18
IE.WLK error return, *I/O Drivers*, 1-43
CTDRV, *I/O Drivers*, 9-5
DDDRV, *I/O Drivers*, 7-5
disk driver, *I/O Drivers*, 5-12
tape driver, *I/O Drivers*, 8-13
IE.WLK error return, ACP, *I/O Drivers*, C-18
Iefn parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-10
LADRV, *I/O Drivers*, 22-5
DASWP: subroutine
K-series, *I/O Drivers*, 23-15
LADRV, *I/O Drivers*, 22-10
DISWP: subroutine
K-series, *I/O Drivers*, 23-18
LADRV, *I/O Drivers*, 22-13
DOSWP: subroutine
K-series, *I/O Drivers*, 23-20
LADRV, *I/O Drivers*, 22-15

Iefn parameter (cont'd.)
DRS: subroutine (LSDRV), *I/O Drivers*, 17-16
GTHIST: subroutine (K-series), *I/O Drivers*, 23-22
HIST: subroutine (LSDRV), *I/O Drivers*, 17-18
IWTBUF: subroutine
K-series, *I/O Drivers*, 23-25
LADRV, *I/O Drivers*, 22-19
RTS: subroutine (LSDRV), *I/O Drivers*, 17-24
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-26
SDO: subroutine (LSDRV), *I/O Drivers*, 17-28
Iemc parameter
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21
Iemw parameter
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21
I error, *MACRO-11*, 6-26, 6-28, 6-29
summary, *MACRO-11*, D-3
Iev parameter (UDDRV)
CTDI: subroutine, *I/O Drivers*, 16-21
CTTI: subroutine, *I/O Drivers*, 16-22
IFAB pool, *RMS-11 Macro*, 2-5
.IFACT directive, *Indirect*, 2-61
.IFDF directive, *Indirect*, 2-61
.IF directive, *Indirect*, 2-60 *MACRO-11*, 6-51 to 6-55
condition test argument, *MACRO-11*, 6-51, 6-52
.IFDISABLED directive, *Indirect*, 2-62
.IFENABLED directive, *Indirect*, 2-62
.IFF directive, *Indirect*, 2-63 *MACRO-11*, 6-53, 6-54, 6-55
IFI field in FAB
CLOSE operation, *RMS-11 Macro*, 5-3, 5-4
CONNECT operation, *RMS-11 Macro*, 5-6
CREATE operation, *RMS-11 Macro*, 5-20
DISPLAY operation, *RMS-11 Macro*, 5-30
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-22
OPEN operation, *RMS-11 Macro*, 5-77
IFI field in FAB (cont'd.)
summary, *RMS-11 Macro*, 6-52
.IFINS directive, *Indirect*, 2-62
IFLA.TMP (RMSIFL), *RMS-11 Utilities*, 3-11
allocating space, *RMS-11 Utilities*, 3-13
IFLA1.TMP (RMSIFL), *RMS-11 Utilities*, 3-12
allocating space, *RMS-11 Utilities*, 3-14
Iflag parameter
ADINP: subroutine (K-series), *I/O Drivers*, 23-8
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
XRATE: subroutine
K-series, *I/O Drivers*, 23-30
LADRV, *I/O Drivers*, 22-26
IFL field in KEY block
CREATE operation, *RMS-11 Macro*, 5-20
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-81
.IFLOA directive, *Indirect*, 2-63
IFLP.TMP (RMSIFL), *RMS-11 Utilities*, 3-10
allocating space, *RMS-11 Utilities*, 3-13
.IFNACT directive, *Indirect*, 2-61
.IFNDF directive, *Indirect*, 2-61
.IFNINS directive, *Indirect*, 2-62
.IFNLOA directive, *Indirect*, 2-63
IFORM, *System Management*, 12-24
.IFT directive, *Indirect*, 2-63 *MACRO-11*, 6-53, 6-54, 6-55
.IFTF directive, *MACRO-11*, 6-53, 6-54
IF-THEN-ELSE statement, *Error Logging*, 5-34
Igain parameter
ADC: subroutine (LSDRV), *I/O Drivers*, 17-12
IGTBUF: subroutine
return buffer number
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-17
IHAR$S directive, *Executive*, 5-64
.IIF directive, *MACRO-11*, 6-56

Ilen parameter (LSDRV)
DRS: subroutine, *I/O Drivers*, 17-16
HIST: subroutine, *I/O Drivers*, 17-18
RTS: subroutine, *I/O Drivers*, 17-23
SDAC: subroutine, *I/O Drivers*, 17-25
SDO: subroutine, *I/O Drivers*, 17-27
Illegal character, *MACRO-11*, 3-3
Image
disk, *Task Builder*, 2-8
memory, *Task Builder*, 2-9
task
See Task image
/IMAGE qualifier
BRU utiltiy, *Utilities*, 7-17
Imask parameter (LSDRV)
DRS: subroutine, *I/O Drivers*, 17-17
IDOR: subroutine, *I/O Drivers*, 17-20
SDO: subroutine, *I/O Drivers*, 17-28
Immediate address mode, *MACRO-11*, 5-6, 5-7
Immediate conditional assembly, *MACRO-11*, 6-56
Immediate expression indicator, *MACRO-11*, 3-2
Imode parameter
DRS: subroutine (LSDRV), *I/O Drivers*, 17-16
HIST: subroutine (LSDRV), *I/O Drivers*, 17-18
IDOR: subroutine (LSDRV), *I/O Drivers*, 17-20
RTS: subroutine (LSDRV), *I/O Drivers*, 17-23
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-25
SDO: subroutine (LSDRV), *I/O Drivers*, 17-27
Imod parameter (UDDRV)
RDTI: subroutine, *I/O Drivers*, 16-29
RDWD: subroutine, *I/O Drivers*, 16-29
RSTI: subroutine, *I/O Drivers*, 16-30
Imod parameter (UDDRV) (cont'd.)
SCTI: subroutine, *I/O Drivers*, 16-30
Implicit .WORD directive, *MACRO-11*, 2-1, 2-4, 6-25
Imsk parameter
DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
/IM switch
FLX utility, *Utilities*, 4-5
RMSCNV utility, *RMS-11 Utilities*, 4-9
VMR
definition, *System Management*, 10-7, 10-47
relationship to symbol definition file, *System Management*, 10-7
uses, *System Management*, 10-7
.INC directive, *Indirect*, 2-65
/INC keyword
INSTALL command (MCR), *MCR*, 3-118
INSTALL command (VMR), *System Management*, 10-24
RUN command (MCR), *MCR*, 3-183
INCLUDE command_EDT editor, *Introduction*, 2-16
.INCLUDE directive, *MACRO-11*, 6-58
Include OOB (TTDRV), *I/O Drivers*, 2-61
/INCLUDE qualifier, *Task Builder*, 11-36 to 11-37
Inc parameter
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
Incremental reorganization, *RMS-11 User's Guide*, 5-12
INCREMENT statement, *Error Logging*, 5-31
Indefinite repeat block, *MACRO-11*, 7-3, 7-16 to 7-19
Index, *RMS-11 Introduction*, 3-7
See also KEY block
alternate
bucket size calculation, *RMS-11 User's Guide*, 6-19
level 0, *RMS-11 User's Guide*, 5-5
SIDRs, *RMS-11 User's Guide*, 5-5

Index (cont'd.)
area bucket size
See IBS field in KEY block
area number (higher levels)
See IAN field in KEY block
area number (lowest level)
See LAN field in KEY block
count
See NOK field in SUM block
data bucket size
See DBS field in KEY block
data bucket VBN
See DVB field in KEY block
depth, *RMS-11 User's Guide*, 5-5
description, obtaining
See DISPLAY operation
level count
See LVL field in KEY block
levels, *RMS-11 User's Guide*, 5-4, 5-6
data, *RMS-11 User's Guide*, 5-5
primary
bucket size calculation, *RMS-11 User's Guide*, 6-15
level 0, *RMS-11 User's Guide*, 5-5
reference number
See REF field in KEY block
root, *RMS-11 User's Guide*, 5-5
root bucket VBN
See RVB field in KEY block
INDEX_AREA attribute
RMSDES utility, *RMS-11 Utilities*, 2-41
INDEX_FILL attribute
RMSDES utility, *RMS-11 Utilities*, 2-41
Index address mode, *MACRO-11*, 5-5
Index bucket, *RMS-11 User's Guide*, 5-6
Index deferred address mode, *MACRO-11*, 5-6
Indexed file organization, *RMS-11 Introduction*, 3-6 *RMS-11 User's Guide*, 1-5
See also Index
See also FB$IDX code
access declarations, *RMS-11 User's Guide*, 7-1
allocation, *RMS-11 User's Guide*, 6-22
DEQ, *RMS-11 User's Guide*, 6-26

Indexed file organization
allocation (cont'd.)
initial, calculation, *RMS-11 User's Guide*, 6-22
alternate key, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 1-11
and remote access, *RMS-11 User's Guide*, B-3
areas, *RMS-11 User's Guide*, 5-2, 6-10
multiarea files, *RMS-11 User's Guide*, 6-12
single-area files, *RMS-11 User's Guide*, 6-11
bucket fill size, *RMS-11 User's Guide*, 6-27
bucket format, *RMS-11 User's Guide*, 5-2
bucket size, *RMS-11 User's Guide*, 6-15
calculation, alternate indexes, *RMS-11 User's Guide*, 6-19
calculation, primary index, *RMS-11 User's Guide*, 6-15
bucket splitting, *RMS-11 User's Guide*, 5-11
changeable keys, *RMS-11 Introduction*, 3-10
compressing deleted records, *RMS-11 User's Guide*, 5-10, 5-16, 6-7, 6-9
CONNECT operation, *RMS-11 User's Guide*, 7-2
contiguity, *RMS-11 User's Guide*, 6-13
data level, *RMS-11 User's Guide*, 5-5
data records, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 5-2
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
deferred write, *RMS-11 User's Guide*, 7-8
DELETE operation, *RMS-11 User's Guide*, 5-15, 6-7, 7-3, 7-9
duplicate keys, *RMS-11 User's Guide*, 6-9
depth, *RMS-11 User's Guide*, 5-5
design, *RMS-11 User's Guide*, 5-1, 6-1
allocation, *RMS-11 User's Guide*, 6-22
areas, *RMS-11 User's Guide*, 6-10

Indexed file organization
design (cont'd.)
bucket size, *RMS-11 User's Guide*, 6-15
keys, *RMS-11 User's Guide*, 6-2
placement control, *RMS-11 User's Guide*, 6-13
populating files, *RMS-11 User's Guide*, 6-26
record format, *RMS-11 User's Guide*, 6-1
record size, *RMS-11 User's Guide*, 6-1
directory operations, *RMS-11 User's Guide*, 7-10
DISCONNECT operation, *RMS-11 User's Guide*, 7-3
duplicate keys, *RMS-11 Introduction*, 3-10
file operations, *RMS-11 User's Guide*, 7-10
FIND operation, *RMS-11 User's Guide*, 7-3, 7-9
random by key, *RMS-11 User's Guide*, 5-13
sequential access, *RMS-11 User's Guide*, 5-17
FLUSH operation, *RMS-11 User's Guide*, 7-5
GET operation, *RMS-11 User's Guide*, 7-5, 7-7, 7-8, 7-9
random by key, *RMS-11 User's Guide*, 5-13
sequential access, *RMS-11 User's Guide*, 5-17
I/O techniques, *RMS-11 User's Guide*, 7-8
incremental reorganization, *RMS-11 User's Guide*, 5-12
index, *RMS-11 Introduction*, 3-7
index buckets, *RMS-11 User's Guide*, 5-6
index levels, *RMS-11 User's Guide*, 5-4, 5-6
index records, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 5-2, 5-6
keys, *RMS-11 Introduction*, 3-6 *RMS-11 User's Guide*, 1-5, 6-2
changeable, *RMS-11 User's Guide*, 6-9
characteristics, *RMS-11 User's Guide*, 6-8

Indexed file organization
keys (cont'd.)
data type, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 6-3
duplicates, *RMS-11 User's Guide*, 6-8
null, *RMS-11 User's Guide*, 6-10
number of, *RMS-11 User's Guide*, 6-2
position, *RMS-11 User's Guide*, 6-7
size, *RMS-11 User's Guide*, 6-6
level 0
alternate indexes, *RMS-11 User's Guide*, 5-5
primary indexes, *RMS-11 User's Guide*, 5-5
locate mode, *RMS-11 User's Guide*, 7-7
mass insertion, *RMS-11 User's Guide*, 6-28
move mode, *RMS-11 User's Guide*, 7-7
multiple access streams, *RMS-11 User's Guide*, 7-10
multiple buffers, *RMS-11 User's Guide*, 7-9
null keys, *RMS-11 Introduction*, 3-10
placement control, *RMS-11 User's Guide*, 6-13
populating files, *RMS-11 User's Guide*, 6-26
primary key order, *RMS-11 User's Guide*, 6-27
random insertions, *RMS-11 User's Guide*, 6-27
primary key, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 1-11
prologue, *RMS-11 User's Guide*, 5-2
PUT operation, *RMS-11 User's Guide*, 6-7, 7-5, 7-7, 7-9
duplicate keys, *RMS-11 User's Guide*, 6-9
mass insertion, *RMS-11 User's Guide*, 7-9
random by key, *RMS-11 User's Guide*, 5-10
random access, *RMS-11 User's Guide*, 5-7, 6-12
record operations, *RMS-11 User's Guide*, 7-1

Indexed file organization
record operations (cont'd.)
random access, *RMS-11 User's Guide*, 5-9
sequential access, *RMS-11 User's Guide*, 5-16
record transfer modes, *RMS-11 User's Guide*, 7-6
locate mode, *RMS-11 User's Guide*, 7-7
move mode, *RMS-11 User's Guide*, 7-7
REWIND operation, *RMS-11 User's Guide*, 7-6
root, *RMS-11 User's Guide*, 1-7, 5-5
search times, *RMS-11 User's Guide*, 5-8
segmented keys, *RMS-11 Introduction*, 3-10
sequential reads, *RMS-11 User's Guide*, 7-10
shared access, *RMS-11 User's Guide*, 7-1
block access, *RMS-11 User's Guide*, 7-1
record access, *RMS-11 User's Guide*, 7-1
sharing declarations, *RMS-11 User's Guide*, 7-1
stream operations, *RMS-11 User's Guide*, 7-1
structure
conceptual, *RMS-11 User's Guide*, 5-4
physical, *RMS-11 User's Guide*, 5-2
tree structure, *RMS-11 Introduction*, 3-7
UPDATE operation, *RMS-11 User's Guide*, 5-14, 7-6, 7-7, 7-8, 7-9
changeable keys, *RMS-11 User's Guide*, 6-10
duplicate keys, *RMS-11 User's Guide*, 6-9
Index file, *I/O Operations*, 5-2 *MCR*, 3-103
bit map, *I/O Operations*, E-2
format, *I/O Operations*, E-1
header, *I/O Operations*, E-2
allocating, *MCR*, 3-103
listing contents
VFY utility, *Utilities*, 9-6
Index record, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 5-2, 5-6
Indicator
See Register indicator
Indirect, *Command Language*, 1-22 *Indirect*, 1-1, 2-1 bookIntroduction4-1
Indirect command file, *Indirect*, 1-2, 2-1 *Utilities*, 1-9
BAD utility, *Utilities*, 6-2
block-structuring, *Indirect*, 2-4
chaining, *Indirect*, 2-41
CLI, *Indirect*, 2-2
default file type, *Indirect*, 2-2
nesting, *Indirect*, 2-2
definition, *Batch and Queue*, 4-5
deleting, *Indirect*, 2-29, 2-48
examples, *Indirect*, 1-7, 2-96
FMT utility, *Utilities*, 5-9
formatting, *Indirect*, 2-30
IOX, *System Management*, 4-6
RMSBCK utility, *RMS-11 Utilities*, 6-2
RMSCNV utility, *RMS-11 Utilities*, 4-4
RMSDEF utility, *RMS-11 Utilities*, A-1, A-2, A-5, A-6, A-19
RMSDES utility, *RMS-11 Utilities*, 2-3
comments, *RMS-11 Utilities*, 2-4
RMSDSP utility, *RMS-11 Utilities*, 5-2
RMSIFL utility, *RMS-11 Utilities*, 3-2
RMSRST utility, *RMS-11 Utilities*, 7-2
searching for, *Indirect*, 2-5
SLP utility, *Utilities*, 13-8
task, *Indirect*, 2-1
default file type, *Indirect*, 2-2
nesting, *Indirect*, 2-2
tracing, *Indirect*, 2-27, 2-49
using task name, *Indirect*, 2-5
VMR, *System Management*, 10-3
levels allowed, *System Management*, 10-4
requirements, *System Management*, 10-3
specifying, *System Management*, 10-4
ZAP utility, *Utilities*, 15-6
Indirect command file processing
delaying, *Indirect*, 2-45
interrupting, *Indirect*, 2-77

Indirect command file processing (cont'd.)
suspending, *Indirect*, 2-94
terminating, *Indirect*, 2-54, 2-66, 2-84
Indirect Command Processor
See Indirect
Ind parameter
ADSWP: subroutine (LADRV), *I/O Drivers*, 22-6
CLOCKA: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-7
CLOCKB: subroutine
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-8
DASWP: subroutine (LADRV), *I/O Drivers*, 22-11
DINP: subroutine (K-series), *I/O Drivers*, 23-17
DISWP: subroutine (LADRV), *I/O Drivers*, 22-14
DOSWP: subroutine (LADRV), *I/O Drivers*, 22-16
INXTBF: subroutine
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-19
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21
RLSBUF: subroutine
K-seriesn, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
RMVBUF: subroutine
K-series, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
SETIBF: subroutine
K-series, *I/O Drivers*, 23-29
LADRV, *I/O Drivers*, 22-24
STPSWP: subroutine
K-series, *I/O Drivers*, 23-30
LADRV, *I/O Drivers*, 22-25
Industrial control subsystem
See ICDRV
See ISDRV
/INDX keyword
INITVOLUME command, *MCR*, 3-103
Infile
RMSBCK utility, *RMS-11 Utilities*, 6-3
Infile (cont'd.)
RMSCNV utility, *RMS-11 Utilities*, 4-5
RMSDSP utility, *RMS-11 Utilities*, 5-3
RMSIFL utility, *RMS-11 Utilities*, 3-3
RMSRST utility, *RMS-11 Utilities*, 7-3
/INF keyword
INITVOLUME command, *MCR*, 3-103
Informational commands, *MCR*, 1-7
Information record
text, *Task Builder*, A-11
Inhibit AST Recognition directive, *Executive*, 5-64
INI
See INITVOLUME command
$INIBF routine, *Writing I/O Driver*, 1-14, 7-24
$INIDM (Initialize memory), *System Library*, 7-2
$INISI routine, *Writing I/O Driver*, 1-6
Initial allocation
indexed files, *RMS-11 User's Guide*, 6-22
relative files, *RMS-11 User's Guide*, 4-3
sequential files, *RMS-11 User's Guide*, 3-4
Initial argument indicator, *MACRO-11*, 3-2
Initial expression indicator, *MACRO-11*, 3-2
Initialization
field, *RMS-11 Macro*, 2-9
Initialization commands, *MCR*, 1-6
Initialize
MACRO-11 source module (K-series), *I/O Drivers*, 23-31
timer module
SCTI: subroutine (UDDRV), *I/O Drivers*, 16-30
INITIALIZE command, *Command Language*, 5-4, 5-11, 5-13, 5-73 to 5-85, 9-16
error messages, *Command Language*, 5-82 to 5-85
INITIALIZE/PROCESSOR
input, *Command Language*, 9-17
output, *Command Language*, 9-18

INITIALIZE command (cont'd.)
INITIALIZE/QUEUE, *Command Language*, 9-18
INITIALIZE/UPDATE, *Command Language*, 5-86 to 5-89, 9-18
Initialize LPA11
IO.INI function (LADRV), *I/O Drivers*, 22-29
/INITIALIZE qualifier
BRU utility, *Utilities*, 7-17
Initial register indicator, *MACRO-11*, 3-2
/INIT keyword, *MCR*, 3-49
subkeywords, *MCR*, 3-49 to 3-52
INITL module
errors from, *Writing I/O Driver*, 6-3
INITM1, *Error Logging*, 4-7
INITS macro
calling example (LADRV), *I/O Drivers*, 22-28
special calling (LADRV), *I/O Drivers*, 22-27
special purpose (K-series), *I/O Drivers*, 23-31
INITVOLUME command, *MCR*, 1-6, 3-99
default file protection, *MCR*, 2-3
error messages, *MCR*, 3-108 to 3-116
examples, *MCR*, 3-107
format, *MCR*, 3-99
keywords
/ACCESS, *MCR*, 3-100
/BAD, *MCR*, 3-100
/DENS, *MCR*, 3-102
/EXT, *MCR*, 3-102
/FPRO, *MCR*, 3-102
/INDX, *MCR*, 3-103
/INF, *MCR*, 3-103
/LRU, *MCR*, 3-104
/MXF, *MCR*, 3-105
/OWNER, *MCR*, 3-105
/POS, *MCR*, 3-106
/PRO, *MCR*, 3-106
/UIC, *MCR*, 3-107
/WIN, *MCR*, 3-107
parameters, *MCR*, 3-99
$INIVM (Initialize virtual memory), *System Library*, 8-5
Inm parameter (UDDRV)
AIRD/AIRDW subroutine, *I/O Drivers*, 16-17
AISQ/AISQW subroutine, *I/O Drivers*, 16-18
Inm parameter (UDDRV) (cont'd.)
AO/AOW subroutine, *I/O Drivers*, 16-19
DI/DIW: subroutine, *I/O Drivers*, 16-23
DOL/DOLW: subroutine, *I/O Drivers*, 16-24
DOM/DOMW: subroutine, *I/O Drivers*, 16-25
Input, *Introduction*, 1-3 fig.
ADJLPS: subroutine, use of, *I/O Drivers*, 17-36
analog (ICDRV/ISDRV), *I/O Drivers*, 19-39, 19-40
sequential channel, *I/O Drivers*, 19-42
specified channel, *I/O Drivers*, 19-39
buffer, intermediate (TTDRV), *I/O Drivers*, 2-80
checkpoint, terminal (TTDRV), *I/O Drivers*, 2-82
data format
Task Builder, *Task Builder*, A-1 to A-32
default read (TTDRV), *I/O Drivers*, 2-13
digital (ICDRV/ISDRV), *I/O Drivers*, 19-47
interrupt single-point, *I/O Drivers*, 19-48
sense multiple field, *I/O Drivers*, 19-47, 19-48
line, delete start (TTDRV), *I/O Drivers*, 2-70
parameter
DINP: subroutine (K-series), *I/O Drivers*, 23-17
random analog data (UDDRV), *I/O Drivers*, 16-17
unsolicited (TTDRV), *I/O Drivers*, 2-55, 2-68
notification, *I/O Drivers*, 2-13
Input/output
See I/O
Input file switch
RMSBCK utility, *RMS-11 Utilities*, 6-8
RMSIFL utility, *RMS-11 Utilities*, 3-7
RMSRST utility, *RMS-11 Utilities*, 7-8
/INQUIRE keyword
SET command (MCR), *MCR*, 3-225

/INQUIRE qualifier
SET TERMINAL command, *Command Language*, 3-41
INS, *I/O Drivers*, 13-5
See INSTALL command
INSERT command
EDI utility, *Program Development*, 2-18, *7-7 Utilities*, 2-15
EDT editor, *Introduction*, 2-12
Inserting
characters in a line, *Program Development*, 2-17
code in the source file, *Program Development*, 2-18
lines in a file, *Program Development*, 2-9, 2-18
modules in a library, *Program Development*, 6-9, 6-10
Inserting text (EDT), *Introduction*, 2-6
INSTALL command, *Command Language*, 7-28 to 7-38, 9-19
Introduction, 5-8
error messages, *Command Language*, 7-33 to 7-38
INSTALL command (MCR), *MCR*, 1-6, 3-116
format, *MCR*, 3-116
installing task, *MCR*, 2-21, 2-23
keywords
/AFF, *MCR*, 3-117
/CKP, *MCR*, 3-117
/CLI, *MCR*, 3-117
/FMAP, *MCR*, 3-118
/INC, *MCR*, 3-118
/IOP, *MCR*, 3-118
/PAR, *MCR*, 3-119
/PMD, *MCR*, 3-119
/PRI, *MCR*, 3-119
/ROPAR, *MCR*, 3-120
/SEC, *MCR*, 3-120
/SLV, *MCR*, 3-120
/SYNC, *MCR*, 3-121
/TASK, *MCR*, 3-121
/TIME, *MCR*, 3-121
/UIC, *MCR*, 3-121
/WB, *MCR*, 3-122
/XHR, *MCR*, 3-122
parameters, *MCR*, 3-116
INSTALL command (VMR), *System Management*, 10-21
definition, *System Management*, 10-21
INSTALL command (VMR) (cont'd.)
examples, *System Management*, 10-30 to 10-31
format, *System Management*, 10-21
keywords
/AFF, *System Management*, 10-22, 10-25
/CKP, *System Management*, 10-22
/CLI, *System Management*, 10-23
/FIX, *System Management*, 10-23
/FMAP, *System Management*, 10-23
/INC, *System Management*, 10-24
/IOP, *System Management*, 10-24
/PMD, *System Management*, 10-25
/PRI, *System Management*, 10-25
/PRO, *System Management*, 10-25
/RON, *System Management*, 10-26
/ROPAR, *System Management*, 10-26
/SEC, *System Management*, 10-27
/SLV, *System Management*, 10-27
/SYNC, *System Management*, 10-27
/TASK, *System Management*, 10-27
/UIC, *System Management*, 10-28
/WB, *System Management*, 10-28
/XHR, *System Management*, 10-28
notes, *System Management*, 10-31 to 10-32
parameters, *System Management*, 10-21
Installed task, *Command Language*, 7-1 to 7-2, 7-3, 7-12 to 7-16
Installing task, *Command Language*, 7-28 to 7-38
Instruction data space, *MCR*, 3-167
Instruction set
commercial, *MACRO-11*, C-3, C-4

Instruction set (cont'd.)
floating-point, *MACRO-11*, C-4, C-5
PDP-11, *MACRO-11*, C-1, C-2
Instruction space, *Debugging*, 3-2, 7-2, 9-3 *Executive*, 3-1
command, *Debugging*, 2-9, 9-12
enabling, *Debugging*, 1-3
mapping, *Executive*, 3-3
moving data, *Executive*, 5-133
/IN switch
LBR utility, *Utilities*, 10-19
Integer key
See also XB$IN2 mask in DTP field
See also XB$IN4 mask in DTP field
2-byte signed, *RMS-11 User's Guide*, 6-3
4-byte signed, *RMS-11 User's Guide*, 6-4
Integer routine
divide ($DIV), *System Library*, 3-2
multiply ($MUL), *System Library*, 3-1
Interactive mode
IOX, *System Management*, 4-19
Interactive terminal
definition, *Batch and Queue*, 4-5
Interface
character-oriented (communication driver), *I/O Drivers*, 12-1
line driver, *I/O Drivers*, 12-1
message-oriented (communication driver), *I/O Drivers*, 12-1
status value, FORTRAN (LSDRV), *I/O Drivers*, 17-33
terminal (TTDRV), *I/O Drivers*, 2-81
INTERLEAVE command
IOX, *System Management*, 4-41
Intermittent failures, *System Management*, 15-30
Intermodule variable, *Error Logging*, 4-29
block number, *Error Logging*, 4-29
cylinder error, *Error Logging*, 4-29
declaration, *Error Logging*, 4-14
device function, *Error Logging*, 4-29
drive serial number, *Error Logging*, 4-29
drive type, *Error Logging*, 4-29
error type, *Error Logging*, 4-29, 4-30
group error, *Error Logging*, 4-29
head error, *Error Logging*, 4-29
MASSBUS, *Error Logging*, 4-33
Intermodule variable (cont'd.)
Non-MASSBUS, *Error Logging*, 4-33
physical unit number, *Error Logging*, 4-29
sector error, *Error Logging*, 4-29
Internal displaced relocation, *Task Builder*, A-15
Internal file identifier
See IFI field in FAB
Internal register, *Debugging*, 5-2
accessing, *Debugging*, 5-2
Internal stream identifier
See ISI field in RAB
Internal symbol
directory record, *Task Builder*, A-24
name entry, *Task Builder*, A-5
overall format, *Task Builder*, A-25
start-of-segment, *Task Builder*, A-26
Internal vertical format (TTDRV), *I/O Drivers*, 2-76
Interrupt, *Writing I/O Driver*, 1-1
addresses
overview, *Writing I/O Driver*, 2-6
clock, *MCR*, 3-180
connect contact
CTDI: subroutine (UDDRV), *I/O Drivers*, 16-20
connect digital (ICDRV/ISDRV), *I/O Drivers*, 19-19
connect terminal (ICDRV/ISDRV), *I/O Drivers*, 19-23
connect timer
CTTI: subroutine (UDDRV), *I/O Drivers*, 16-21
connect-to directive, *Writing I/O Driver*, 1-1
contact
digital input (UDDRV), *I/O Drivers*, 16-6
counter
disconnect buffer (ICDRV/ISDRV), *I/O Drivers*, 19-59
link task (ICDRV/ISDRV), *I/O Drivers*, 19-26
counter disconnect (ICDRV/ISDRV), *I/O Drivers*, 19-22
counter module
connect (ICDRV/ISDRV), *I/O Drivers*, 19-21
definition, *System Generation*, 1-11

Interrupt
digital
disconnect buffer (ICDRV/ISDRV), *I/O Drivers*, 19-56
link task (ICDRV/ISDRV), *I/O Drivers*, 19-25
unlink task (ICDRV/ISDRV), *I/O Drivers*, 19-30
digital changed state point read (ICDRV/ISDRV), *I/O Drivers*, 19-54
digital data
read (ICDRV/ISDRV), *I/O Drivers*, 19-52, 19-53
read full word (ICDRV/ISDRV), *I/O Drivers*, 19-55
digital single-point (ICDRV/ISDRV), *I/O Drivers*, 19-48
disable error (ICDRV/ISDRV), *I/O Drivers*, 19-32
disconnect contact
DRDI: subroutine (UDDRV), *I/O Drivers*, 16-22
disconnect digital (ICDRV/ISDRV), *I/O Drivers*, 19-20
disconnect timer
DRTI: subroutine (UDDRV), *I/O Drivers*, 16-23
dispatching, *Writing I/O Driver*, 1-7
for common interrupt devices, *Writing I/O Driver*, 1-12
overview, *Writing I/O Driver*, 2-6
entry address, *Writing I/O Driver*, 2-4
entry point, *Writing I/O Driver*, 4-69 to 4-70
for overlapped seek, *Writing I/O Driver*, 1-12
handling, *Writing I/O Driver*, 1-5, 1-7, 1-8, 1-9, 1-12
link task (ICDRV)/ISDRV, *I/O Drivers*, 19-27
link task (ICDRV/ISDRV), *I/O Drivers*, 19-64, 19-66
protocol, *Writing I/O Driver*, 1-6, 1-9
read contact change data
RDCS: subroutine (UDDRV), *I/O Drivers*, 16-26
Interrupt
read contact data
RDDI: subroutine (UDDRV), *I/O Drivers*, 16-27
read contact point
RCIPT: subroutine (UDDRV), *I/O Drivers*, 16-25
read timer data
RDTI: subroutine (UDDRV), *I/O Drivers*, 16-28
read word contact data
RDWD: subroutine (UDDRV), *I/O Drivers*, 16-29
service routine, *Writing I/O Driver*, 1-5, 1-6
task
remove link (ICDRV/ISDRV), *I/O Drivers*, 19-68
remove link example (ICDRV/ISDRV), *I/O Drivers*, 19-69
unlink error (ICDRV/ISDRV), *I/O Drivers*, 19-31
terminal
connect buffer (ICDRV/ISDRV), *I/O Drivers*, 19-60
unlink task (ICDRV/ISDRV), *I/O Drivers*, 19-31
unlink (ICDRV/ISDRV), *I/O Drivers*, 19-30
unlink counter (ICDRV/ISDRV), *I/O Drivers*, 19-30
unlink task (ICDRV/ISDRV), *I/O Drivers*, 19-29
unsolicited
processing (ICDRV/ISDRV), *I/O Drivers*, 19-64
task activate (ICDRV/ISDRV), *I/O Drivers*, 19-24
unsolicited data
continual monitoring (ICDRV/ISDRV), *I/O Drivers*, 19-51
unsolicited processing (ICDRV/ISDRV), *I/O Drivers*, 19-17
vector, *MCR*, 3-132 *Writing I/O Driver*, 1-1, 1-12
Interrupt Control Block
See ICB
Interrupting function (ICDRV/ISDRV), *I/O Drivers*, 19-5
Interrupt processing, *Debugging*, 8-3
by driver, *Writing I/O Driver*, 3-4

Interrupt save
See $INTSV routine
Interrupt Service Routine
See ISR
Interrupt timeouts
error logging, *Error Logging*, 1-6
Interrupt vector, highest address
SYSGEN question, *System Generation*, 3-66
Intersystem file transfer, *RMS-11 Utilities*, 1-2, 6-1
RMSCNV utility, *RMS-11 Utilities*, 4-1
RMSRST utility, *RMS-11 Utilities*, 7-1, 7-10
/FR switch, *RMS-11 Utilities*, 7-7
version number conversion, *RMS-11 Utilities*, 7-5
Interval
reschedule, *MCR*, 3-180
Interval report
IOX, *System Management*, 4-20
Int parameter
immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
Introduction
Task Builder, *Task Builder*, 1-1 to 1-19
$INTSI routine, *Writing I/O Driver*, 1-7
INTSV$ macro call
arguments, *Writing I/O Driver*, 4-8
INTSV$ routine, *Writing I/O Driver*, 7-25
$INTSV routine, *Writing I/O Driver*, 1-6, 1-7
$INTXT routine, *Writing I/O Driver*, 1-6, 7-26
Invalid Login Transaction Block, *System Management*, 17-27
Invoking
interactively, *Indirect*, 1-10, 2-96
RMSBCK utility, *RMS-11 Utilities*, 6-2
RMSCNV utility, *RMS-11 Utilities*, 4-3
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Utilities*, 2-2
RMSDSP utility, *RMS-11 Utilities*, 5-2
Invoking (cont'd.)
RMSIFL utility, *RMS-11 Utilities*, 3-2
RMSRST utility, *RMS-11 Utilities*, 7-2
/INVOLUME qualifier
BRU utility, *Utilities*, 7-17
INXTBF: subroutine
set next buffer
K-series, *I/O Drivers*, 23-24
LADRV, *I/O Drivers*, 22-18
IO.ACE function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-10
IO.ACP function (MTAACP), *I/O Drivers*, C-12
IO.ACR function
F11ACP, *I/O Drivers*, C-8
MTAACP, *I/O Drivers*, C-10
IO.ACW function
F11ACP, *I/O Drivers*, C-8
MTAACP, *I/O Drivers*, C-10
IO.ADS function
ADC: subroutine error (LSDRV), *I/O Drivers*, 17-32
IO.RSU return (LSDRV), *I/O Drivers*, 17-31
synchronous (LSDRV), *I/O Drivers*, 17-6
IO.APV function (MTAACP), *I/O Drivers*, C-12
IO.ATA function
half-duplex, *I/O Drivers*, 3-9
TTDRV, *I/O Drivers*, 2-20
IO.ATF function, receive (LRDRV), *I/O Drivers*, 14-10
IO.ATT function
GLUN$, before (RX02), *I/O Drivers*, 5-12
(GRDRV), *I/O Drivers*, 21-2
standard function, *I/O Drivers*, 1-27
TF.ESQ, with (half-duplex), *I/O Drivers*, 3-11
UNIBUS switch driver, *I/O Drivers*, 24-2, 24-3
VTDRV, *I/O Drivers*, 4-4
IO.ATX function, transmitter (LRDRV), *I/O Drivers*, 14-5
IO.BLS function (DDDRV), *I/O Drivers*, 7-4
IO.CCI function (ICDRV/ISDRV), *I/O Drivers*, 19-19

IO.CCO function
half-duplex, *I/O Drivers*, 3-11
TTDRV, *I/O Drivers*, 2-23
VFC (TTDRV), *I/O Drivers*, 2-75
IO.CLK function (LADRV), *I/O Drivers*, 22-29
IO.CNT function (GRDRV), *I/O Drivers*, 21-2
IO.CON function
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-4
GRDRV, *I/O Drivers*, 21-2
IO.CRE function
F11ACP, *I/O Drivers*, C-8
MTAACP, *I/O Drivers*, C-11
IO.CRX function, receive (LRDRV), *I/O Drivers*, 14-10
IO.CSR function
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-6
IO.CTI function
ICDRV/ISDRV, *I/O Drivers*, 19-21
UDDRV, *I/O Drivers*, 16-8
IO.CTY function (ICDRV/ISDRV), *I/O Drivers*, 19-23
IO.DAC function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-10
IO.DCI function (ICDRV/ISDRV), *I/O Drivers*, 19-20
IO.DEL function (F11ACP), *I/O Drivers*, C-8
IO.DET function
GRDRV, *I/O Drivers*, 21-2
standard function, *I/O Drivers*, 1-28
UNIBUS switch driver, *I/O Drivers*, 24-2, 24-3
VTDRV, *I/O Drivers*, 4-4
IO.DGN function
diagnostic (DDDRV), *I/O Drivers*, 7-4
IO.DIS function
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-5
GRDRV, *I/O Drivers*, 21-2
IO.DPT function
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-5
IO.DRX function, receive (LRDRV), *I/O Drivers*, 14-11
IO.DSE function (tape driver), *I/O Drivers*, 8-8
IO.DTI function
ICDRV/ISDRV, *I/O Drivers*, 19-22
UDDRV, *I/O Drivers*, 16-8
IO.DTY function (ICDRV/ISDRV), *I/O Drivers*, 19-24
IO.EIO function (TTDRV), *I/O Drivers*, 2-25
item list 1 buffer, *I/O Drivers*, 2-30
item list 2 buffer, *I/O Drivers*, 2-32
remote terminal, *I/O Drivers*, 2-25
IO.ENA function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-10
IO.ERS function (tape driver), *I/O Drivers*, 8-8
IO.EXT function (F11ACP), *I/O Drivers*, C-9
IO.FDX function (communication driver), *I/O Drivers*, 12-7
IO.FLN function (ICDRV/ISDRV), *I/O Drivers*, 19-32
IO.FNA function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-10
IO.GTS function
half-duplex, *I/O Drivers*, 3-13
support returned (TTDRV), *I/O Drivers*, 2-34
TTDRV, *I/O Drivers*, 2-18, 2-33
VTDRV, *I/O Drivers*, 4-6
IO.HDX function, set mode (communication driver), *I/O Drivers*, 12-7
IO.HIS function (LSDRV)
IO.RSU return, *I/O Drivers*, 17-31
synchronous, *I/O Drivers*, 17-7
IO.HNG function (TTDRV), *I/O Drivers*, 2-35
IO.INI function (LADRV), *I/O Drivers*, 22-29
IO.INL function
communication driver, *I/O Drivers*, 12-7
after sync, *I/O Drivers*, 12-12
IO.ITI function (ICDRV/ISDRV), *I/O Drivers*, 19-22
IO.KIL function
CRDRV, *I/O Drivers*, 11-2
DTDRV, *I/O Drivers*, 6-2
GRDRV, *I/O Drivers*, 21-2
I/O in progress (CTDRV), *I/O Drivers*, 9-3
ICDRV/ISDRV, *I/O Drivers*, 19-33
LPDRV, *I/O Drivers*, 10-4

IO.KIL function (cont'd.)
standard function, *I/O Drivers*, 1-29
tape driver, *I/O Drivers*, 8-6
time required (half-duplex), *I/O Drivers*, 3-32
UDDRV, *I/O Drivers*, 16-3
UNIBUS switch driver, *I/O Drivers*, 24-3
VTDRV, *I/O Drivers*, 4-4
IO.KIL function (PPDRV/PRDRV), *I/O Drivers*, 18-2
IO.LDI function (ICDRV/ISDRV), *I/O Drivers*, 19-25
IO.LED function, immediate (LSDRV), *I/O Drivers*, 17-4
IO.LKE function (ICDRV/ISDRV), *I/O Drivers*, 19-27
IO.LOD function (LADRV), *I/O Drivers*, 22-29
IO.LTI function (ICDRV/ISDRV), *I/O Drivers*, 19-26
IO.LTY function (ICDRV/ISDRV), *I/O Drivers*, 19-27
IO.MDA function (LSDRV)
IO.RSU return, *I/O Drivers*, 17-31
synchronous, *I/O Drivers*, 17-8
IO.MDI function (LSDRV)
IE.RSU return, *I/O Drivers*, 17-31
synchronous, *I/O Drivers*, 17-8
IO.MDO function (LSDRV)
IO.RSU return, *I/O Drivers*, 17-31
synchronous, *I/O Drivers*, 17-8
IO.MLO function (ICDRV/ISDRV), *I/O Drivers*, 19-17
IO.MSO function (ICDRV/ISDRV), *I/O Drivers*, 19-16
IO.NLK function (ICDRV/ISDRV), *I/O Drivers*, 19-30
IO.ONL function (ICDRV/ISDRV), *I/O Drivers*, 19-33
IO.RAD function (ICDRV/ISDRV), *I/O Drivers*, 19-28
IO.RAL function
Badge Reader (TTDRV), *I/O Drivers*, 2-82
character echo (half-duplex), *I/O Drivers*, 3-14
half-duplex, *I/O Drivers*, 3-14
TTDRV, *I/O Drivers*, 2-36
IO.RAT function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-11
IO.RBC function (ICDRV/ISDRV), *I/O Drivers*, 19-13
IO.REL function, immediate (LSDRV), *I/O Drivers*, 17-4
IO.RLB function
communication driver, *I/O Drivers*, 12-7
ignore prompt (TTDRV), *I/O Drivers*, 2-27
standard function, *I/O Drivers*, 1-30
tape driver, *I/O Drivers*, 8-7
VTDRV, *I/O Drivers*, 4-4
IO.RLC function (DDDRV), *I/O Drivers*, 7-4
IO.RNA function (F11ACP), *I/O Drivers*, C-9
IO.RNE function
Badge Reader (TTDRV), *I/O Drivers*, 2-82
half-duplex, *I/O Drivers*, 3-14
TTDRV, *I/O Drivers*, 2-38
IO.RNS function (communication driver), *I/O Drivers*, 12-7
IO.RPR!TF.XOF function (half-duplex), *I/O Drivers*, 3-15
IO.RPR function
allowed subfunction bit (half-duplex), *I/O Drivers*, 3-14
half-duplex, *I/O Drivers*, 3-14, 3-15
TTDRV, *I/O Drivers*, 2-40
VFC (TTDRV), *I/O Drivers*, 2-75
VTDRV, *I/O Drivers*, 4-7
IO.RST function
half-duplex, *I/O Drivers*, 3-15
TTDRV, *I/O Drivers*, 2-43
successful completion, *I/O Drivers*, 2-43
IO.RTF function, receive (LRDRV), *I/O Drivers*, 14-10
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function
F11ACP, *I/O Drivers*, C-9
MTAACP, *I/O Drivers*, C-11
open file (DTDRV), *I/O Drivers*, 6-3
operation (disk driver), *I/O Drivers*, 5-8
standard function, *I/O Drivers*, 1-30
VTDRV, *I/O Drivers*, 4-4

IO.RWD function (tape driver), *I/O Drivers*, 8-7
IO.RWU function (tape driver), *I/O Drivers*, 8-7
IO.SAO function (ICDRV/ISDRV), *I/O Drivers*, 19-15
IO.SDI function, immediate (LSDRV), *I/O Drivers*, 17-4
IO.SDO function (LSDRV)
  IE.RSU return, *I/O Drivers*, 17-31
  immediate, *I/O Drivers*, 17-4
IO.SEC function
  GLUN$, before (RX02), *I/O Drivers*, 5-12
  tape driver, *I/O Drivers*, 8-8
  transmitter (LRDRV), *I/O Drivers*, 14-5
IO.SMC function (TTDRV), *I/O Drivers*, 2-59
IO.SMO function (tape driver), *I/O Drivers*, 8-10
IO.SPB function, space (CTDRV), *I/O Drivers*, 9-7
IO.SPF function
  EOF (CTDRV), *I/O Drivers*, 9-7
  space (CTDRV), *I/O Drivers*, 9-7
IO.STA function, data transfer start (LADRV), *I/O Drivers*, 22-30
IO.STC function
  LRDRV
    transmitter, *I/O Drivers*, 14-5
      mode parameter, *I/O Drivers*, 14-6
      state parameter, *I/O Drivers*, 14-6
  VTDRV, *I/O Drivers*, 4-5
IO.STP function
  data transfer stop (LADRV), *I/O Drivers*, 22-30
  device-specific (LSDRV), *I/O Drivers*, 17-9
  GRDRV, *I/O Drivers*, 21-2
IO.SWI function
  device-specific (UNIBUS switch driver), *I/O Drivers*, 24-6
IO.SYN function (communication driver), *I/O Drivers*, 12-8
  set operation, *I/O Drivers*, 12-7
  with IO.INL, *I/O Drivers*, 12-12
IO.TRM function (communication driver), *I/O Drivers*, 12-7
IO.UDI function (ICDRV/ISDRV), *I/O Drivers*, 19-30
IO.UER function (ICDRV/ISDRV), *I/O Drivers*, 19-31
IO.ULK function (F11ACP), *I/O Drivers*, C-9
IO.UTI function (ICDRV/ISDRV), *I/O Drivers*, 19-30
IO.UTY function (ICDRV/ISDRV), *I/O Drivers*, 19-31
IO.WAL function
  half-duplex, *I/O Drivers*, 3-16
  TTDRV, *I/O Drivers*, 2-47
IO.WBT function
  half-duplex, *I/O Drivers*, 3-16
  TTDRV, *I/O Drivers*, 2-49
  VFC (TTDRV), *I/O Drivers*, 2-75
IO.WLB function
  ICDRV/ISDRV, *I/O Drivers*, 19-32
  ignore prompt (TTDRV), *I/O Drivers*, 2-27
  standard function, *I/O Drivers*, 1-31, 1-32
  VFC (TTDRV), *I/O Drivers*, 2-75
  VTDRV, *I/O Drivers*, 4-4
IO.WLC function (DDDRV), *I/O Drivers*, 7-4
IO.WNS function (communication driver), *I/O Drivers*, 12-8
IO.WVB function
  F11ACP, *I/O Drivers*, C-9
  open file (DTDRV), *I/O Drivers*, 6-3
  operation (disk driver), *I/O Drivers*, 5-8
  use (half-duplex), *I/O Drivers*, 3-32
  VFC (TTDRV), *I/O Drivers*, 2-75
  VTDRV, *I/O Drivers*, 4-4
IO.XCL function (XEDRV), *I/O Drivers*, 13-4, 13-17
  error return, *I/O Drivers*, 13-18
  status return, *I/O Drivers*, 13-18
  syntax, *I/O Drivers*, 13-17
IO.XIN function (XEDRV), *I/O Drivers*, 13-4, 13-10
  error return, *I/O Drivers*, 13-11
  status return, *I/O Drivers*, 13-11
  syntax, *I/O Drivers*, 13-10
IO.XOP function (XEDRV), *I/O Drivers*, 13-4, 13-6
  syntax, *I/O Drivers*, 13-6
IO.XRC function (XEDRV), *I/O Drivers*, 13-4, 13-13
  diagnostic, *I/O Drivers*, 13-19
  error return, *I/O Drivers*, 13-16

IO.XRC function (XEDRV) (cont'd.)
status return, *I/O Drivers*, 13-16
syntax, *I/O Drivers*, 13-13
IO.XSC function (XEDRV), *I/O Drivers*, 13-4, 13-7
syntax, *I/O Drivers*, 13-7
IO.XTL function (XEDRV), *I/O Drivers*, 13-18
error return, *I/O Drivers*, 13-18
status return, *I/O Drivers*, 13-18
syntax, *I/O Drivers*, 13-18
IO.XTM function (XEDRV), *I/O Drivers*, 13-4, 13-11
diagnostic, *I/O Drivers*, 13-19
error return, *I/O Drivers*, 13-13
status return, *I/O Drivers*, 13-13
syntax, *I/O Drivers*, 13-11
/IO_PAGE qualifier, *Task Builder*, 11-38
$IOALT routine, *Writing I/O Driver*, 1-13, 1-15, 7-27
driver use in I/O processing, *Writing I/O Driver*, 3-5, 3-6
$$IOB1 program section
reserved name, *Task Builder*, E-3
$$IOB2 program section
reserved name, *Task Builder*, E-3
$IODON routine, *Writing I/O Driver*, 1-9, 1-13, 7-27
driver use in I/O processing, *Writing I/O Driver*, 3-5, 3-6
IOERR$ macro, *I/O Drivers*, 1-8
I/O completion code, *I/O Drivers*, 1-37
$IOFIN routine, *Writing I/O Driver*, 1-13, 1-14, 3-3, 7-28
/IOP keyword
INSTALL command (MCR), *MCR*, 3-118
INSTALL command (VMR), *System Management*, 10-24
RUN command (MCR), *MCR*, 3-183
IOSB
validity checks, *Writing I/O Driver*, 3-2
Iosb parameter (K-series)
DINP: subroutine, *I/O Drivers*, 23-17
DOUT: subroutine, *I/O Drivers*, 23-21
SCOPE: subroutine, *I/O Drivers*, 23-27
IOT trap instruction, *Debugging*, 8-5, 9-4
Iout parameter
DOUT: subroutine (K-series), *I/O Drivers*, 23-21
IOX, *System Management*, 1-1
command
LOOPBACK, *System Management*, 4-43
parameter list
Files-11, *System Management*, 4-8
command mode, *System Management*, 4-18
commands
ABORT, *System Management*, 4-24
BADBLOCKS, *System Management*, 4-25
BUFFERSIZE, *System Management*, 4-27
categories, *System Management*, 4-3
COMPAREDATA YES/NO, *System Management*, 4-28
CONFIGURE, *System Management*, 4-29
CONTROL_C YES/NO, *System Management*, 4-32
CTRL/C, *System Management*, 4-32
DENSITY, *System Management*, 4-33
descriptions, *System Management*, 4-22
DESELECT, *System Management*, 4-35
ERRORLIMIT, *System Management*, 4-36
EXECUTE, *System Management*, 4-37
EXIT, *System Management*, 4-38
files, *System Management*, 4-6
FILES11, *System Management*, 4-39
HELP, *System Management*, 4-40
in interactive mode, *System Management*, 4-19
INTERLEAVE, *System Management*, 4-41
LOGFILE, *System Management*, 4-42

IOX
commands (cont'd.)
parameter
by device type, *System Management*, 4-9
with FILES11, *System Management*, 4-8
with SELECT, *System Management*, 4-9
with VERIFY, *System Management*, 4-9
PARAMETERLIST, *System Management*, 4-44
parameter list
for NFS volumes, *System Management*, 4-9
PATTERN, *System Management*, 4-48
PRINTSUMMARY, *System Management*, 4-49
PROCEED, *System Management*, 4-50
RANDOM, *System Management*, 4-51
RANGE, *System Management*, 4-52
RECORDS, *System Management*, 4-53
REPORTERRORS YES/NO, *System Management*, 4-54
RESTART, *System Management*, 4-55
RETRIES, *System Management*, 4-56
RUNTIME, *System Management*, 4-57
SELECT, *System Management*, 4-58
SPY, *System Management*, 4-60
START, *System Management*, 4-61
SUMMARYTIME, *System Management*, 4-62
syntax, *System Management*, 4-22
TEMPORARYFILE, *System Management*, 4-63
VERIFY, *System Management*, 4-64
VOLUMECHECK, *System Management*, 4-65
WAIT, *System Management*, 4-66

IOX
commands (cont'd.)
WRITECHECK, *System Management*, 4-67
considerations for, *System Management*, 4-1
controlling with CTRL/C, *System Management*, 4-32
data
compare error report, *System Management*, 4-21
pattern checking, *System Management*, 4-28
transfer size of, *System Management*, 4-27
DECtape exercising, *System Management*, 4-2
defaults
changing during task build, *System Management*, 4-22
device
exercising steps, *System Management*, 4-2
status display, *System Management*, 4-60
testing
time of, *System Management*, 4-57
disk exercising, *System Management*, 4-2
error messages, *System Management*, 4-68
execution mode, *System Management*, 4-18
entering, *System Management*, 4-18
exercise parameters
general list, *System Management*, 4-8
exiting, *System Management*, 4-38
file-structured exercising, *System Management*, 4-3
increment, *System Management*, 4-5
indirect command files, *System Management*, 4-6
installation
on RSX-11M, *System Management*, 4-4
on RSX-11M-PLUS, *System Management*, 4-4
interleaving with Executive, *System Management*, 4-66
interval report output frequency, *System Management*, 4-62

IOX (cont'd.)
invoking
on RSX-11M, *System Management*, 4-5
on RSX-11M-PLUS, *System Management*, 4-5
when installed, *System Management*, 4-5
when not installed, *System Management*, 4-5
with an increment, *System Management*, 4-5
without an increment, *System Management*, 4-5
nonfile-structured exercising, *System Management*, 4-3
output type
activity report, *System Management*, 4-20
interval report, *System Management*, 4-20
summary report, *System Management*, 4-20
parameter
command exercising magnetic tape, *System Management*, 4-12
exercising
device-dependent exercise, *System Management*, 4-8
Files-11 volumes, *System Management*, 4-10
NFS volume, *System Management*, 4-15
general list of exercise parameters, *System Management*, 4-8
overriding default
FILES11, *System Management*, 4-39
SELECT, *System Management*, 4-58
showing default with PARAMETERLIST, *System Management*, 4-44
parameter command category, *System Management*, 4-3
pattern
altering test, *System Management*, 4-48
displaying test, *System Management*, 4-48
IOX (cont'd.)
restarting, *System Management*, 4-55
running steps, *System Management*, 4-1
selecting
NFS volume, *System Management*, 4-8
starting, *System Management*, 4-61
task-build file
location of, *System Management*, 4-22
task termination, *System Management*, 4-18
termination, *System Management*, 4-38
using PROCEED, *System Management*, 4-50
test configuration, *System Management*, 4-29
adding units, *System Management*, 4-6
displaying, *System Management*, 4-6
setting up, *System Management*, 4-6
testing
removing devices from, *System Management*, 4-35
wait-for-event flag, *System Management*, 4-66
write-check, *System Management*, 4-67
IP11 industrial I/O subsystem
SYSGEN question, *System Generation*, 3-31
IP11 power fail
SYSGEN question, *System Generation*, 3-31
Iprset parameter
ADSWP: subroutine (K-series), *I/O Drivers*, 23-10
CLOCKA: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-7
CLOCKB: subroutine
K-series, *I/O Drivers*, 23-12
LADRV, *I/O Drivers*, 22-8
DASWP: subroutine (K-series), *I/O Drivers*, 23-15
DISWP: subroutine (K-series), *I/O Drivers*, 23-18
DOSWP: subroutine (K-series), *I/O Drivers*, 23-19

Iprset parameter (cont'd.)
GTHIST: subroutine (K-series), *I/O Drivers*, 23-22
XRATE: subroutine
K-series, *I/O Drivers*, 23-30
LADRV, *I/O Drivers*, 22-26
/IP switch, *Task Builder*, 10-22
Ipt parameter (UDDRV)
RCIPT: subroutine, *I/O Drivers*, 16-25
RDCS: subroutine, *I/O Drivers*, 16-27
RDDI: subroutine, *I/O Drivers*, 16-28
IQ.Q function (disk driver), *I/O Drivers*, 5-8
IQ.UMD bit
diagnostic function, *I/O Drivers*, 1-34
IQ.X function (disk driver), *I/O Drivers*, 5-8
IRAB pool, *RMS-11 Macro*, 2-5
Irate parameter
CLOCKA: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-7
CLOCKB: subroutine
K-series, *I/O Drivers*, 23-12
LADRV, *I/O Drivers*, 22-8
DRS: subroutine (LSDRV), *I/O Drivers*, 17-16
HIST: subroutine (LSDRV), *I/O Drivers*, 17-18
RTS: subroutine (LSDRV), *I/O Drivers*, 17-24
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-26
SDO: subroutine (LSDRV), *I/O Drivers*, 17-28
XRATE: subroutine
K-series, *I/O Drivers*, 23-30
LADRV, *I/O Drivers*, 22-26
Irbuf parameter
IO.INI function (LADRV), *I/O Drivers*, 22-29
IRDB: subroutine
read data from input buffer (LSDRV), *I/O Drivers*, 17-20
I register, *Debugging*, 2-7, 5-4, 9-10
Irel parameter
RELAY: subroutine (LSDRV), *I/O Drivers*, 17-22
.IRPC directive, *MACRO-11*, 7-18
.IRP directive, *MACRO-11*, 7-17
IS.CC status return (TTDRV), *I/O Drivers*, 2-66
IS.CR status return, *I/O Drivers*, 1-39
half-duplex, *I/O Drivers*, 3-18
TTDRV, *I/O Drivers*, 2-66
VTDRV, *I/O Drivers*, 4-6
IS.ESC status return, *I/O Drivers*, 1-39
half-duplex, *I/O Drivers*, 3-18
VTDRV, *I/O Drivers*, 4-6
IS.ESQ status return
half-duplex, *I/O Drivers*, 3-18
TTDRV, *I/O Drivers*, 2-66
VTDRV, *I/O Drivers*, 4-6
IS.PND status return, *I/O Drivers*, 1-40
AFC11/AD01 converter, *I/O Drivers*, 15-8
communication driver, *I/O Drivers*, 12-8
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-4
disk driver, *I/O Drivers*, 5-9
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
half-duplex, *I/O Drivers*, 3-18
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-29
PPDRV/PRDRV, *I/O Drivers*, 18-3
tape driver, *I/O Drivers*, 8-10
TTDRV, *I/O Drivers*, 2-66
UDDRV, *I/O Drivers*, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-7
IS.RDD status return (disk driver), *I/O Drivers*, 5-10
IS.SEC status return (TTDRV), *I/O Drivers*, 2-66
IS.SUC status return
UNIBUS switch driver, *I/O Drivers*, 24-7
IS.SUC success return, *I/O Drivers*, 1-37, 1-40
AFC11/AD01 converter, *I/O Drivers*, 15-8
communication driver, *I/O Drivers*, 12-8
CRDRV, *I/O Drivers*, 11-7
CTDRV, *I/O Drivers*, 9-4
DDDRV, *I/O Drivers*, 7-5

IS.SUC success return (cont'd.)
diagnostic success, *I/O Drivers*, 1-35
disk driver, *I/O Drivers*, 5-9
DTDRV, *I/O Drivers*, 6-4
FORTRAN interface value (AFC11/AD01 converter), *I/O Drivers*, 15-9
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-18
ICDRV/ISDRV, *I/O Drivers*, 19-12
IO.CCI function, *I/O Drivers*, 19-20
IO.CTI function, *I/O Drivers*, 19-21
IO.CTY function, *I/O Drivers*, 19-23
IO.DCI function, *I/O Drivers*, 19-21
IO.DTI function, *I/O Drivers*, 19-23
IO.DTY function, *I/O Drivers*, 19-24
IO.FLN function, *I/O Drivers*, 19-33
IO.ITI function, *I/O Drivers*, 19-22
IO.KIL function, *I/O Drivers*, 19-33
IO.LDI function, *I/O Drivers*, 19-26
IO.LKE function, *I/O Drivers*, 19-28
IO.LTI function, *I/O Drivers*, 19-26
IO.LTY function, *I/O Drivers*, 19-27
IO.MLO function, *I/O Drivers*, 19-17
IO.MSO function, *I/O Drivers*, 19-16
IO.NLK function, *I/O Drivers*, 19-30
IO.ONL function, *I/O Drivers*, 19-33
IO.RAD function, *I/O Drivers*, 19-29
IO.RBC function, *I/O Drivers*, 19-14
IO.SAO function, *I/O Drivers*, 19-16
IO.UDI function, *I/O Drivers*, 19-30
IS.SUC success return
ICDRV/ISDRV (cont'd.)
IO.UER function, *I/O Drivers*, 19-31
IO.UTI function, *I/O Drivers*, 19-31
IO.UTY function, *I/O Drivers*, 19-31
IO.WLB function, *I/O Drivers*, 19-32
initialize line
IO.XIN function, *I/O Drivers*, 13-11
load microcode (XEDRV), *I/O Drivers*, 13-18
LPDRV, *I/O Drivers*, 10-5
LSDRV, *I/O Drivers*, 17-29
PPDRV/PRDRV, *I/O Drivers*, 18-3
receive message status (XEDRV), *I/O Drivers*, 13-16
receiver (LRDRV), *I/O Drivers*, 14-11
tape driver, *I/O Drivers*, 8-10
transmit line message status (XEDRV), *I/O Drivers*, 13-13
transmitter (LRDRV), *I/O Drivers*, 14-7
TTDRV, *I/O Drivers*, 2-67
UDDRV, *I/O Drivers*, 16-31
VTDRV, *I/O Drivers*, 4-6, 4-8, 4-9
XEDRV, *I/O Drivers*, 13-5, 13-18
IS.TMO status return (TTDRV), *I/O Drivers*, 2-67
IS.TNC status return (LRDRV)
receiver, *I/O Drivers*, 14-11
transmitter, *I/O Drivers*, 14-7
Isb parameter
ADC: subroutine (LSDRV), *I/O Drivers*, 17-12
ADJLPS: subroutine (LSDRV), *I/O Drivers*, 17-13
AIRD/AIRDW subroutine (UDDRV), *I/O Drivers*, 16-18
AISQ/AISQW subroutine (UDDRV), *I/O Drivers*, 16-19
AO/AOW subroutine (UDDRV), *I/O Drivers*, 16-20
ASARLN: subroutine (LSDRV), *I/O Drivers*, 17-14
ASLSLN: subroutine (LSDRV), *I/O Drivers*, 17-14
CTDI: subroutine (UDDRV), *I/O Drivers*, 16-21

lsb parameter (cont'd.)
CTTI: subroutine (UDDRV), *I/O Drivers*, 16-22
DFTI: subroutine (UDDRV), *I/O Drivers*, 16-23
DI/DIW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
DRS: subroutine (LSDRV), *I/O Drivers*, 17-17
DSDI: subroutine (UDDRV), *I/O Drivers*, 16-23
general (TTDRV), *I/O Drivers*, 2-10
HIST: subroutine (LSDRV), *I/O Drivers*, 17-18
I/O completion, *I/O Drivers*, 1-36
IDIR: subroutine (LSDRV), *I/O Drivers*, 17-19
IDOR: subroutine (LSDRV), *I/O Drivers*, 17-20
IO.ATA function (TTDRV), *I/O Drivers*, 2-20
IO.ATT function, *I/O Drivers*, 1-27
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.DET function, *I/O Drivers*, 1-28
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
IO.HNG function (TTDRV), *I/O Drivers*, 2-35
IO.KIL function, *I/O Drivers*, 1-29
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-40
IO.RST function (TTDRV), *I/O Drivers*, 2-43
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function, *I/O Drivers*, 1-31
IO.SMC function (TTDRV), *I/O Drivers*, 2-59
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
IO.WBT function (TTDRV), *I/O Drivers*, 2-49
lsb parameter (cont'd.)
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
LED: subroutine (LSDRV), *I/O Drivers*, 17-21
omitted, *I/O Drivers*, 1-39
QIO$ basic syntax, *I/O Drivers*, 1-8
RCIPT: subroutine (UDDRV), *I/O Drivers*, 16-26
RELAY: subroutine (LSDRV), *I/O Drivers*, 17-22
RSTI: subroutine (UDDRV), *I/O Drivers*, 16-30
RTS: subroutine (LSDRV), *I/O Drivers*, 17-24
SCTI: subroutine (UDDRV), *I/O Drivers*, 16-31
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-26
SDO: subroutine (LSDRV), *I/O Drivers*, 17-28
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
ISI field in RAB, *RMS-11 Macro*, 4-2
CONNECT operation, *RMS-11 Macro*, 5-7
DELETE operation, *RMS-11 Macro*, 5-25
DISCONNECT operation, *RMS-11 Macro*, 5-27
FIND operation, *RMS-11 Macro*, 5-49, 5-51, 5-54
FLUSH operation, *RMS-11 Macro*, 5-56
FREE operation, *RMS-11 Macro*, 5-58
GET operation, *RMS-11 Macro*, 5-60, 5-63, 5-67
NXTVOL operation, *RMS-11 Macro*, 5-70
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-91, 5-95
READ operation, *RMS-11 Macro*, 5-98, 5-100
REWIND operation, *RMS-11 Macro*, 5-114
SPACE operation, *RMS-11 Macro*, 5-120
summary, *RMS-11 Macro*, 6-121
TRUNCATE operation, *RMS-11 Macro*, 5-122
UPDATE operation, *RMS-11 Macro*, 5-124

ISI field in RAB (cont'd.)
WAIT operation, *RMS-11 Macro*, 5-126
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
I-space
See Instruction space
ISR, *Executive*, 5-21
Istart parameter (LSDRV)
DRS: subroutine, *I/O Drivers*, 17-17
HIST: subroutine, *I/O Drivers*, 17-19
RTS: subroutine, *I/O Drivers*, 17-24
SDAC: subroutine, *I/O Drivers*, 17-26
SDO: subroutine, *I/O Drivers*, 17-28
ISTAT$ macro, *I/O Operations*, 7-1, 7-2
Istate parameter
RELAY: subroutine (LSDRV), *I/O Drivers*, 17-22
Istat parameter
IBFSTS: subroutine
K-series, *I/O Drivers*, 23-23
LADRV, *I/O Drivers*, 22-17
Istop parameter (LSDRV)
DRS: subroutine, *I/O Drivers*, 17-17
HIST: subroutine, *I/O Drivers*, 17-19
RTS: subroutine, *I/O Drivers*, 17-24
SDAC: subroutine, *I/O Drivers*, 17-27
SDO: subroutine, *I/O Drivers*, 17-28
Ist parameter
RDWD: subroutine (UDDRV), *I/O Drivers*, 16-30
Isw parameter
ASUDLN: subroutine (UDDRV), *I/O Drivers*, 16-20
I symbolic argument, *MACRO-11*, 6-41
Isz parameter (UDDRV)
CTDI: subroutine, *I/O Drivers*, 16-21
CTTI: subroutine, *I/O Drivers*, 16-22
ITBDF$, *CDA*, B-26 *Writing I/O Driver*, A-31
Item terminator, *MACRO-11*, 3-2
Itim parameter
ICLOKB: subroutine (K-series), *I/O Drivers*, 23-23
Itm parameter
RDTI: subroutine (UDDRV), *I/O Drivers*, 16-29
Iunit parameter
DIGO: subroutine (K-series), *I/O Drivers*, 23-16
DINP: subroutine (K-series), *I/O Drivers*, 23-16
DISWP: subroutine
K-series, *I/O Drivers*, 23-18
LADRV, *I/O Drivers*, 22-14
DOSWP: subroutine
K-series, *I/O Drivers*, 23-20
LADRV, *I/O Drivers*, 22-16
DOUT: subroutine (K-series), *I/O Drivers*, 23-20
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-21
SCOPE: subroutine (K-series), *I/O Drivers*, 23-27
Iun parameter
ASARLN: subroutine (LSDRV), *I/O Drivers*, 17-14
ASLSLN: subroutine (LSDRV), *I/O Drivers*, 17-14
ASUDLN: subroutine (UDDRV), *I/O Drivers*, 16-20
Ival parameter
ADINP: subroutine (K-series), *I/O Drivers*, 23-8
CVADF: subroutine
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-9
CVSWG: subroutine (LSDRV), *I/O Drivers*, 17-15
FLT16: subroutine
K-series, *I/O Drivers*, 23-21
LADRV, *I/O Drivers*, 22-17
IDIR: subroutine (LSDRV), *I/O Drivers*, 17-19
IRDB: subroutine (LSDRV), *I/O Drivers*, 17-21
LED: subroutine (LSDRV), *I/O Drivers*, 17-21
PUTD: subroutine (LSDRV), *I/O Drivers*, 17-22
RDCS: subroutine (UDDRV), *I/O Drivers*, 16-27

Ival parameter (cont'd.)
RDDI: subroutine (UDDRV), *I/O Drivers*, 16-28
SCTI: subroutine (UDDRV), *I/O Drivers*, 16-31
Iv parameter
CTTI: subroutine (UDDRV), *I/O Drivers*, 16-22
Ivrn parameter (UDDRV)
RDTI: subroutine, *I/O Drivers*, 16-29
RDWD: subroutine, *I/O Drivers*, 16-30
Iwhen parameter
STPSWP: subroutine
K-series, *I/O Drivers*, 23-29
LADRV, *I/O Drivers*, 22-25
IWTBUF: subroutine
wait for buffer
K-series, *I/O Drivers*, 23-25
LADRV, *I/O Drivers*, 22-19

J

Job
deleting, *Batch and Queue*, 2-10
holding, *Batch and Queue*, 2-1
modifying, *Batch and Queue*, 2-1
releasing, *Batch and Queue*, 2-1
/JOB_PAGE qualifier
PRINT command, *Batch and Queue*, 2-6
/JOBCOUNT job qualifier
SET QUEUE command, *Batch and Queue*, 2-20
/JOBCOUNT qualifier
PRINT command, *Batch and Queue*, 2-3
Jobname= switch
PRI command, *Batch and Queue*, 2-4
Jobname parameter
DELETE command, *Batch and Queue*, 2-10
Jobname switch
QUE /LI command, *Batch and Queue*, 2-16
/JO switch
PRI command, *Batch and Queue*, 2-6

K

K.STS, *Writing I/O Driver*, 4-48
K.xpxx offsets
in KRB, *Writing I/O Driver*, 4-47, 4-48, 4-50, 4-51, 4-52
KBF field in RAB, *RMS-11 Macro*, 4-5
FIND operation, *RMS-11 Macro*, 5-52
GET operation, *RMS-11 Macro*, 5-63
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-96
summary, *RMS-11 Macro*, 6-122
K command, *Debugging*, 2-9, 7-1, 9-12
ZAP utility, *Utilities*, 15-16
KDA50 disk controller, *I/O Drivers*, 5-4
/KDS switch, *CDA*, 2-5, 2-6
Kernel data space
dump, *CDA*, 3-53
switch
See /KDS switch
Kernel instruction space
dump, *CDA*, 3-53
switch
See /KIS switch
Kernel Mapping Register switch
See /KMR switch
Kernel stack dump, *CDA*, 3-1, 3-5
Key, *RMS-11 Introduction*, 3-6 *RMS-11 User's Guide*, 1-5, 1-19, 6-2
alternate, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 1-7, 1-11
buffer address
See KBF field in RAB
buffer size
See KSZ field in RAB
changeable, *RMS-11 Introduction*, 3-10
See also XB$CHG mask in FLG field
characteristics, *RMS-11 User's Guide*, 6-8
See also FLG field in KEY block
changeable, *RMS-11 User's Guide*, 6-9
duplicates, *RMS-11 User's Guide*, 6-8
null, *RMS-11 User's Guide*, 6-10
data type, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 6-3
See also DTP field in KEY block
2-byte signed integer, *RMS-11 User's Guide*, 6-3

Key
data type (cont'd.)
4-byte signed integer, *RMS-11 User's Guide*, 6-4
2-byte unsigned binary, *RMS-11 User's Guide*, 6-5
4-byte unsigned binary, *RMS-11 User's Guide*, 6-5
packed decimal, *RMS-11 User's Guide*, 6-6
string, *RMS-11 User's Guide*, 6-3
duplicate, *RMS-11 Introduction*, 3-10
See also XB$DUP mask in FLG field
match criterion, *RMS-11 Introduction*, 3-12
See also RB$KGE mask in ROP field
See also RB$KGT mask in ROP field
name
See KNM field in KEY block
null, *RMS-11 Introduction*, 3-10
See also NUL field in KEY block
number of, *RMS-11 User's Guide*, 6-2
position, *RMS-11 User's Guide*, 6-7
primary, *RMS-11 Introduction*, 3-7
RMS-11 User's Guide, 1-7, 1-11
reference
See KRF field in RAB
RMSDES utility
numbering, *RMS-11 Utilities*, 2-8, 2-28, 2-38
segment, *RMS-11 Introduction*, 3-10
RMS-11 User's Guide, 6-7
segment, position
See POS field in KEY block
segment, size
See SIZ field in KEY block
segment count
See NSG field in KEY block
size, *RMS-11 User's Guide*, 6-6
See also TKS field in KEY block
special
table (TTDRV), *I/O Drivers*, 2-71
special (TTDRV), *I/O Drivers*, 2-68
XAB
See KEY block
KEY block, *RMS-11 Introduction*, 4-8
KEY block (cont'd.)
chaining to FAB, *RMS-11 Macro*, 2-12, 2-13
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-67
Keyboard, *Command Language*, 3-13 to 3-18
keys table, *Command Language*, 3-16 to 3-18
VT200-series terminal, *Command Language*, 3-1
Key buffer pool, *RMS-11 Macro*, 2-6
Key information
RMSDSP utility
displaying, *RMS-11 Utilities*, 5-4
Key name
RMSCNV utility, *RMS-11 Utilities*, 4-10
Key of reference
RMSCNV utility, *RMS-11 Utilities*, 4-10, 4-16
RMSIFL utility, *RMS-11 Utilities*, 3-8, 3-9
Keypad, *Command Language*, 3-18 to 3-19
alternate, *Command Language*, 3-18 to 3-19
editing
VT100-series terminal, *Command Language*, 3-18
VT200-series terminal, *Command Language*, 3-19
Keypad (EDT), *Introduction*, 2-3, 2-3 fig.
Key record access, *RMS-11 Introduction*, 3-12
See also RB$KEY code in RAC field
to indexed files, *RMS-11 User's Guide*, 5-7, 5-9
to relative files, *RMS-11 User's Guide*, 4-1
to sequential files, *RMS-11 User's Guide*, 3-2
Keyword
See also individual keyword entries
function, *MCR*, 1-4
position, *MCR*, 1-4
syntax, *MCR*, 1-4
Keyword recognition, transition table, *I/O Operations*, 7-9
KILL command
EDI utility, *Utilities*, 2-34

/KIS switch, *CDA*, 2-5, 2-6
KMC-11 auxiliary processor, *I/O Drivers*, 10-2
/KMR switch, *CDA*, 2-10, 2-11
/KNLD keyword
  OPENREGISTER command, *MCR*, 3-166
/KNL keyword
  OPENREGISTER command, *MCR*, 3-166
KNM field in KEY block
  CREATE operation, *RMS-11 Macro*, 5-18
  DISPLAY operation, *RMS-11 Macro*, 5-30
  offset, *RMS-11 Macro*, 6-68
  OPEN operation, *RMS-11 Macro*, 5-74
  summary, *RMS-11 Macro*, 6-82
/KN switch
  RMSCNV utility, *RMS-11 Utilities*, 4-10, 4-16
Kount parameter
  DIGO: subroutine (K-series), *I/O Drivers*, 23-16
  GTHIST: subroutine (K-series), *I/O Drivers*, 23-22
KRB, *Writing I/O Driver*, 1-4, 1-13
  access queue in the, *Writing I/O Driver*, 2-2, 2-15
  combined with SCB, *Writing I/O Driver*, 2-2, 4-53
    layout, *Writing I/O Driver*, 4-54
  composite arrangement, *Writing I/O Driver*, 2-15
  configuration status in the, *Writing I/O Driver*, 2-2
  contiguous with SCB, *Writing I/O Driver*, 2-7, 4-3
  controller status register, *Writing I/O Driver*, 4-50
  defining start of addresses, *Writing I/O Driver*, 4-3
  definition, *Writing I/O Driver*, 1-4
  details, *Writing I/O Driver*, 4-45, 4-47 to 4-53
  format, *Writing I/O Driver*, 4-47 to 4-53
  layout, *Writing I/O Driver*, 4-46
  overview, *Writing I/O Driver*, 2-1, 2-2
  subsets, *Writing I/O Driver*, 1-13
KRB (cont'd.)
  use in determining interrupting unit, *Writing I/O Driver*, 2-2
KRB1, *Writing I/O Driver*, 1-13
KRBDF$, *CDA*, C-41 *Writing I/O Driver*, A-32, A-33
KRF field in RAB, *RMS-11 Macro*, 4-5
  CONNECT operation, *RMS-11 Macro*, 5-7
  FIND operation, *RMS-11 Macro*, 5-51
  GET operation, *RMS-11 Macro*, 5-63
  offset, *RMS-11 Macro*, 6-115
  REWIND operation, *RMS-11 Macro*, 5-114
  summary, *RMS-11 Macro*, 6-123
/KR switch
  RMSCNV utility, *RMS-11 Utilities*, 4-10, 4-16
  RMSIFL utility, *RMS-11 Utilities*, 3-8, 3-9
K-Series
  on pregenerated kit, *System Generation*, 5-46
K-series
  supported hardware, *I/O Drivers*, 23-1
KSR-33/35 Teletypewriter, *I/O Drivers*, 3-2
Ksubr parameter
  CALLS macro (K-series), *I/O Drivers*, 23-31
k symbol, *Debugging*, 2-1
KSZ field in RAB, *RMS-11 Macro*, 4-5, 4-6
  FIND operation, *RMS-11 Macro*, 5-52
  GET operation, *RMS-11 Macro*, 5-63
  offset, *RMS-11 Macro*, 6-115
  PUT operation, *RMS-11 Macro*, 5-96
  summary, *RMS-11 Macro*, 6-124
KW11-K dual programmable real-time clock, *I/O Drivers*, 23-3

L

L.STS, *Writing I/O Driver*, 4-58
L.xpxx offsets
  in CTB, *Writing I/O Driver*, 4-55, 4-56, 4-58, 4-59
LA100 DECprinter, *I/O Drivers*, 2-4

LA120 DECwriter, *I/O Drivers*, 2-4, 3-3
LA12 portable terminal, *I/O Drivers*, 2-4
LA12 teletypewriter, *I/O Drivers*, 2-4
LA180 DECprinter, *I/O Drivers*, 10-3
LA180 line printer controller
  SYSGEN question, *System Generation*, 3-51
LA180S DECprinter, *I/O Drivers*, 2-4, 3-3
LA30 DECwriter, *I/O Drivers*, 2-4, 3-2
LA30-P, *I/O Drivers*, 3-30
LA34 DECwriter, *I/O Drivers*, 2-4
LA36 DECwriter, *I/O Drivers*, 2-4, 3-2
LA36 terminal, *Introduction*, 1-1 fig., 1-2
LA38 DECwriter, *I/O Drivers*, 2-4
LA50 personal printer, *I/O Drivers*, 2-5
Label, *Indirect*, 1-5 *RMS-11 Introduction*, 2-5
  block, *Task Builder*, 2-8
    group, *Task Builder*, B-1
  branching to, *Indirect*, 2-59
  defining, *Indirect*, 2-31
  direct-access, *Indirect*, 2-31
  field, *MACRO-11*, 2-1, 2-2, 2-3
  legal character in, *MACRO-11*, 2-3
  multiple definition, *MACRO-11*, 2-3
  terminator, *MACRO-11*, 3-1
/LABEL keyword
  MOUNT command (MCR), *MCR*, 3-149
Labels
  Indirect, *Introduction*, 4-3
Laboratory device, *Command Language*, 5-5
Laboratory peripheral (K-series), *I/O Drivers*, 23-1
Laboratory peripheral accelerator
  driver (LADRV), *I/O Drivers*, 22-1
Laboratory peripheral system (LPS11)
  See LSDRV
LAINIT
  microcode loader (LADRV), *I/O Drivers*, 22-34
Lamskb parameter
  LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-20
Lamskb parameter
  SETIBF: subroutine
    K-series, *I/O Drivers*, 23-29
    LADRV, *I/O Drivers*, 22-24
LAMSKS: subroutine
  set masks buffer (LADRV), *I/O Drivers*, 22-20
LAN field in KEY block
  CREATE operation, *RMS-11 Macro*, 5-19
  DISPLAY operation, *RMS-11 Macro*, 5-31
  offset, *RMS-11 Macro*, 6-67
  OPEN operation, *RMS-11 Macro*, 5-80
  summary, *RMS-11 Macro*, 6-83
Language
  assembly, *Program Development*, 1-4 to 1-5
    See also MACRO-11
  high-level
    overlay program, *Task Builder*, 3-40
Latch
  unlatch fields
    DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
Latching digital output (UDDRV), *I/O Drivers*, 16-8
LAT terminal server
  SYSGEN question, *System Generation*, 3-26
LA-type device
  SYSGEN question, *System Generation*, 3-55
LB:, *Command Language*, 5-6, 5-7
  MCR, 2-7, 2-11, 3-35, 3-188
LBLDF$ macro, *Task Builder*, B-1
LBN, *RMS-11 Introduction*, 2-4
  RMS-11 User's Guide, 8-2 *System Management*, 5-2, 10-31 *Writing I/O Driver*, 1-15
  See also Logical Block Number
  See also Placement control
Lbn parameter
  device-specific function
    DDDRV, *I/O Drivers*, 7-4
    DTDRV, *I/O Drivers*, 6-3
  standard function
    DDDRV, *I/O Drivers*, 7-3
    DTDRV, *I/O Drivers*, 6-3

LBR
object module library, *Program Development*, 6-4 to 6-6
LBR utility, *Program Development*, 1-9
adding a module to a library, *Program Development*, 6-9, 6-10
combining library function, *Utilities*, 10-32
command line, *Utilities*, 10-8
/COMPRESS, *Program Development*, 6-10
/CR, *Program Development*, 6-2, 6-5
/CREATE, *Program Development*, 6-1, 6-4, 6-5
default, *Utilities*, 10-8
efficiency, *Program Development*, 1-9
error message, *Utilities*, 10-33
/FULL, *Program Development*, 6-11
/INSERT, *Program Development*, 6-9, 6-10
LBR command
MCR, *Program Development*, 1-9, 6-2
LBR command line
device-level module, *Error Logging*, 4-37
DEVSM1, *Error Logging*, 4-36
/LE, *Program Development*, 6-11, 6-12
LIBRARY command
DCL, *Program Development*, 1-9, 6-1
library file
creating, *Utilities*, 10-12
deleting, *Utilities*, 10-13
format, *Utilities*, 10-2
inserting module, *Utilities*, 10-20
listing, *Utilities*, 10-21
replacing module, *Utilities*, 10-23
spooling, *Utilities*, 10-29
/LIST, *Program Development*, 6-9, 6-11
listing information, *Program Development*, 6-11, 6-12
/MACRO, *Program Development*, 6-1, 6-2
macro library, *Program Development*, 6-1, 6-2, 6-3
LBR utility (cont'd.)
module name requirement, *Error Logging*, 4-17
/NAMES, *Program Development*, 6-11
/OBJECT, *Program Development*, 6-2, 6-4, 6-5
.OLB file type, *Program Development*, 6-4
/REPLACE, *Program Development*, 6-9, 6-10
replacing a module in a library, *Program Development*, 6-10, 6-11
restriction, *Utilities*, 10-8
/RP, *Program Development*, 6-10, 6-11
/-SP, *Program Development*, 6-11
switch, *Utilities*, 10-9
universal library
replacing module, *Utilities*, 10-27
universal library file
inserting module, *Utilities*, 10-20
LBR utility command
MCR, *Program Development*, 6-2
/LB switch, *Task Builder*, 10-23, 10-24
DMP utility, *Utilities*, 11-6
Indirect, *Indirect*, 2-28
Lbuf parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-9
LADRV, *I/O Drivers*, 22-4
DASWP: subroutine
K-series, *I/O Drivers*, 23-14
LADRV, *I/O Drivers*, 22-9
DISWP: subroutine
K-series, *I/O Drivers*, 23-17
LADRV, *I/O Drivers*, 22-12
DOSWP: subroutine
K-series, *I/O Drivers*, 23-19
LADRV, *I/O Drivers*, 22-14
GTHIST: subroutine (K-series), *I/O Drivers*, 23-21
LCBDF$, *CDA*, B-27, C-43 *Writing I/O Driver*, A-34
LC command
EDI utility, *Utilities*, 2-35
LCH field in FAB, *RMS-11 Macro*, 3-2
CREATE operation, *RMS-11 Macro*, 5-13
ENTER operation, *RMS-11 Macro*, 5-36

LCH field in FAB (cont'd.)
ERASE operation, *RMS-11 Macro*, 5-42
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-74
PARSE operation, *RMS-11 Macro*, 5-87
REMOVE operation, *RMS-11 Macro*, 5-104
RENAME operation, *RMS-11 Macro*, 5-110
SEARCH operation, *RMS-11 Macro*, 5-117
summary, *RMS-11 Macro*, 6-53
$LCKPG (Lock page), *System Library*, 8-30
LCL symbolic argument, *MACRO-11*, 6-41
LCM symbolic argument, *MACRO-11*, 6-19
L command, *Debugging*, 2-10, 6-4, 9-13
/LC switch
DMP utility, *Utilities*, 11-6
LC symbolic argument, *MACRO-11*, 6-19
LD$xx symbol, *Writing I/O Driver*, 4-9
Ldelay parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-10
LADRV, *I/O Drivers*, 22-6
DASWP: subroutine
K-series, *I/O Drivers*, 23-15
LADRV, *I/O Drivers*, 22-11
DISWP: subroutine
K-series, *I/O Drivers*, 23-18
DISWP: subroutine (LADRV), *I/O Drivers*, 22-13
DOSWP: subroutine
K-series, *I/O Drivers*, 23-20
LADRV, *I/O Drivers*, 22-16
/LD switch
PIP utility, *Utilities*, 3-17
LD symbolic argument, *MACRO-11*, 6-12
LEAVE statement, *Error Logging*, 5-35
LE condition test argument, *MACRO-11*, 6-51
LED: subroutine
display in LED lights (LSDRV), *I/O Drivers*, 17-21
Left-angle bracket command (<), *Debugging*, 2-6, 4-5, 9-9
Legal function mask
details, *Writing I/O Driver*, 4-19, 4-20
/LE job switch
QUE /MOD command, *Batch and Queue*, 2-20
/LENGTH job qualifier
SET QUEUE command, *Batch and Queue*, 2-20
/LENGTH qualifier
BRU utility, *Utilities*, 7-18
PRINT command, *Batch and Queue*, 2-5
L error, *MACRO-11*, 2-1
summary, *MACRO-11*, D-4
/LE switch
LBR utility, *Utilities*, 10-21
PRI command, *Batch and Queue*, 2-5
Level
indexed files, *RMS-11 User's Guide*, 5-4
data, *RMS-11 User's Guide*, 5-5
level 0, alternate indexes, *RMS-11 User's Guide*, 5-5
level 0, primary indexes, *RMS-11 User's Guide*, 5-5
LEVEL1_INDEX_AREA attribute
RMSDES utility, *RMS-11 Utilities*, 2-41
Level count
listing, *MACRO-11*, 6-9, 6-10
Lexical conditionals, *Error Logging*, 5-36
/LI:P switch
QUE /LI command, *Batch and Queue*, 2-15 to 2-16
LIBR
linking to region, *Task Builder*, 5-15
option, *Task Builder*, 12-12, 12-13, 12-24
shared region use, *Task Builder*, 5-15
Librarian Utility Program
See LBR utility
Library, *Command Language*, 6-38 to 6-40
See also Macro, Object, OTS
autoloadable
internal symbol, *Task Builder*, A-27

Library
autoloadable (cont'd.)
symbol, *Task Builder*, A-26
cluster, *Task Builder*, 5-44
building, *Task Builder*, 5-45, 5-49 to 5-53
building rule 1: overlay, *Task Builder*, 5-45
building rule 2: reference, *Task Builder*, 5-46
building rule 3: .STB file, *Task Builder*, 5-47
building rule 4: stack, *Task Builder*, 5-48
building rule 5: PIC, *Task Builder*, 5-48
building rule 6: trap, *Task Builder*, 5-48
building rule summary, *Task Builder*, 5-45
example, *Task Builder*, 5-49
overlay description, *Task Builder*, 5-52, 5-53
overlay run-time support, *Task Builder*, 5-53, 5-54
resolving interlibrary reference, *Task Builder*, 5-52
converting SCAL to CSM, *Task Builder*, 8-19
CSM
use of CMPRT option, *Task Builder*, 8-8
use of GBLXCL option, *Task Builder*, 8-8, 8-9, 8-17
use of RESSUP option, *Task Builder*, 8-9, 8-18, 8-19, 8-20
use of SUPLIB option, *Task Builder*, 8-9, 8-19
declaring, *Task Builder*, 10-23, 11-39
default
controlling symbol search, *Task Builder*, 10-15, 10-19, 11-27, 11-33
global symbol resolution, *Task Builder*, 3-18
specifying, *Task Builder*, 10-15, 11-27
system search
TKB, *Program Development*, 4-2
DIGITAL-supplied, *Program Development*, 1-9

Library (cont'd.)
directory, *MCR*, 3-117, 3-182
extending, *Task Builder*, 10-17
F4PRES
building, *Task Builder*, 5-56
FCSRES
non-memory-resident, *Task Builder*, 5-56
overlaid, *Task Builder*, 5-55
task linking alternatives, *Task Builder*, 5-57, 5-58, 5-59
file
declaring, *Task Builder*, 10-23, 11-39
linking
CLSTR option, *Task Builder*, 12-9, 12-10
resident to supervisor mode, *Task Builder*, 8-20
macro, *Command Language*, 6-40 *Program Development*, 6-1 to 6-3
maintenance, *Program Development*, 6-10, 6-11
modules
.FCTR directive, *Task Builder*, 3-26
object module, *Command Language*, 6-39 *Program Development*, 6-4 to 6-6
designating in TKB, *Program Development*, 6-6 to 6-9
placing in overlay structure, *Task Builder*, 10-24, 11-39
system, *Program Development*, 1-11
using to resolve undefined global symbols, *Program Development*, 6-8, 6-9
obtaining information about a user, *Program Development*, 6-11, 6-12
OTS, *Program Development*, 7-2
overlay
high-level language, *Task Builder*, 3-40
region, *Task Builder*, 2-19
specifying, *Task Builder*, 10-25
relocation
resident, *Task Builder*, A-23
resident, *Task Builder*, 5-1, 5-3
building and linking, *Task Builder*, 5-33 to 5-39

Library
resident (cont'd.)
data in task image, *Task Builder*, B-4, B-5, B-6
declaring, *Task Builder*, 12-12, 12-24, 12-30
installing, *MCR*, 3-116
label block 0, *Task Builder*, B-7
label block 1, *Task Builder*, B-9
label block 2, *Task Builder*, B-9
label block 3, *Task Builder*, B-9
name block data, *Task Builder*, B-8
relocation, *Task Builder*, A-23
search, *Task Builder*, 10-23, 11-39
resolving references
.FCTR directive, *Task Builder*, 3-26
restriction in I- and D-space task, *Task Builder*, 7-8
search
MACRO-11, *Program Development*, 1-5, 1-10, 2-7
TKB, *Program Development*, 1-11
specifying, *Task Builder*, 11-66
squeezing, *Program Development*, 6-3
supervisor mode, *Task Builder*, 2-23
building, *Task Builder*, 8-7
building the referencing task, *Task Builder*, 8-7
building with relevant option, *Task Builder*, 8-4, 8-7
completion routine, *Task Builder*, 8-1, 8-2, 8-8, 8-21
converting SCAL to CSM, *Task Builder*, 8-19
data, *Task Builder*, 8-4
definition, *Task Builder*, 8-1
description, *Task Builder*, 8-1 to 8-21
example, *Task Builder*, 8-10 to 8-16
linking, *Task Builder*, 8-9, 8-20
linking a resident, *Task Builder*, 8-20
linking task, *Task Builder*, 8-9, 8-10, 8-11
linking to SYSLIB, *Task Builder*, 8-2, 8-9, 8-10, 8-11, 8-14 to 8-18
Library
supervisor mode (cont'd.)
linking with relevant option, *Task Builder*, 8-4, 8-8, 8-9
mapping, *Task Builder*, 8-2
conventional task, *Task Builder*, 8-3, 8-5
with I- and D-space task, *Task Builder*, 8-6
mode switching, *Task Builder*, 8-1, 8-7
comparison, *Task Builder*, 8-1
method, *Task Builder*, 8-1, 8-19
vector, *Task Builder*, 8-1
$MSDS directive, *Task Builder*, 8-2
$MSDS directive restriction, *Task Builder*, 8-2
multiple, *Task Builder*, 8-20
overlaid, *Task Builder*, 8-21
overlay restriction, *Task Builder*, 8-21
parameter passing, *Task Builder*, 8-2
restrictions on content, *Task Builder*, 8-2
using as resident, *Task Builder*, 8-20
using system supplied vector, *Task Builder*, 8-19
with I- and D-space task, *Task Builder*, 8-4
your own completion routine, *Task Builder*, 8-21
your own vector, *Task Builder*, 8-21
SYSLIB
replacing as default, *Task Builder*, 10-23, 11-39
system
macro (RSXMAC.SML), *Program Development*, 1-5
type of FCSRES, *Task Builder*, 5-55
universal, *Command Language*, 6-40
LIBRARY command
LIBRARY/REMOVE, *Command Language*, 6-54
LIBRARY command, *Command Language*, 6-38 to 6-62, 9-19
DCL, *Program Development*, 1-9, 6-1
See also LBR utility

LIBRARY command (cont'd.)
error messages, *Command Language*, 6-57 to 6-62
LIBRARY/COMPRESS, *Command Language*, 6-40 to 6-41, 9-20
LIBRARY/CREATE, *Command Language*, 6-42 to 6-44, 9-20
LIBRARY/DELETE, *Command Language*, 6-45 to 6-46, 9-20
LIBRARY/EXTRACT, *Command Language*, 6-46 to 6-47, 9-20
LIBRARY/INSERT, *Command Language*, 6-47 to 6-49, 9-21
LIBRARY/LIST, *Command Language*, 6-50 to 6-54, 9-21
LIBRARY/REMOVE, *Command Language*, 9-21
LIBRARY/REPLACE, *Command Language*, 6-55 to 6-56, 9-21
/SQUEEZE qualifier, *Command Language*, 6-44
.LIBRARY directive, *MACRO-11*, 6-57
Library directory, *Command Language*, 7-28 to 7-32
displaying, *Command Language*, 8-12
setting, *Command Language*, 8-11
Library file
See also LBR utility
macro
force search of, *MACRO-11*, 6-20
including in assembly, *MACRO-11*, 8-6
Library files, *Command Language*, 6-4 to 6-5
Library option, FCS, *I/O Operations*, K-1
/LIBRARY qualifier, *MACRO-11*, 8-12
Task Builder, 11-39 to 11-40
Library routine
communication between, *System Library*, 1-1 to 1-2
placement of, *System Library*, 1-2
search of, *System Library*, 1-2
storage, *System Library*, 1-2
LIBUIC
See Library directory
/LIBUIC keyword
SET command (MCR), *MCR*, 3-225
SET command (VMR), *System Management*, 10-60
LIBUIC symbol (RSX-11M-PLUS only), *Indirect*, 2-20
LI command
EDI utility, *Utilities*, 2-35
.LIMIT directive, *MACRO-11*, 6-39
Limit register, *Debugging*, 5-3
/LIMIT switch, *CDA*, 2-10, 2-11
Limit switch, *Error Logging*, 2-3, 2-6
/LIM switch, *Error Logging*, 2-3, 2-6
Line
dial-up, *MCR*, 3-247
local, *MCR*, 3-248
displaying, *MCR*, 3-248
multiple
TKB input, *Task Builder*, 1-7, 1-8
remote, *MCR*, 3-202, 3-247
terminal
parallel processing, *MCR*, 3-252
serial processing, *MCR*, 3-251
TKB input, *Task Builder*, 1-7
LINE CHANGE command
EDI utility, *Utilities*, 2-35
Line continuation, *Command Language*, 1-18
Line definition (XEDRV), *I/O Drivers*, 13-23
Line feed
CTRL/R (TTDRV), *I/O Drivers*, 2-70
Line-feed character
record attribute, *I/O Operations*, 3-8
Line feed command, *Debugging*, 2-5, 4-3, 9-8
LINE FEED key
closing location
ODT, *Program Development*, 5-5, 5-7
displaying word on stack
ODT, *Program Development*, 5-8
opening location
ODT, *Program Development*, 5-5, 5-7
Line frequency
SYSGEN question, *System Generation*, 3-33
Line interface
DL11/DLV11
SYSGEN question, *System Generation*, 3-55
DM11-BB
SYSGEN question, *System Generation*, 3-58

Line interface (cont'd.)
DMC11
SYSGEN question, *System Generation*, 3-63
DMR11
SYSGEN question, *System Generation*, 3-63
DUP11
SYSGEN question, *System Generation*, 3-64
TT-type
SYSGEN question, *System Generation*, 3-56
LINE key (EDT), *Introduction*, 2-6
Line mode (EDT), *Introduction*, 2-4, 2-9
Line-number item
internal symbol, *Task Builder*, A-29, A-30
Line printer
definition, *Batch and Queue*, 4-5
LA180 controller
SYSGEN question, *System Generation*, 3-51
listing format, *MACRO-11*, 6-5, 6-6
LP11 controller
SYSGEN question, *System Generation*, 3-51
LP-type
SYSGEN question, *System Generation*, 3-51
LS11 controller
SYSGEN question, *System Generation*, 3-51
LV11 controller
SYSGEN question, *System Generation*, 3-51
physical feature list, *I/O Drivers*, 10-1
type
SYSGEN question, *System Generation*, 3-52
Line printer controller
See Controller
Line printer driver
See LPDRV
/LINES keyword
SET command (MCR), *MCR*, 3-226
SET command (VMR), *System Management*, 10-61
Lines per page switch
See /LINES switch
/LINES switch, *CDA*, 2-10, 2-11
Line terminators, *Command Language*, 3-14
Line Text Editor
See EDI utility
LINK command, *Command Language*, 6-10 to 6-37, 9-22 to 9-23 *Debugging*, 1-3 *Introduction*, 5-3, 5-6 *System Management*, 15-16
command line
syntax, *Task Builder*, 11-1, 11-2
DCL, *Program Development*, 1-5, 4-1, 5-1, 5-9, 6-7
See also TKB
debugger
specifying, *Debugging*, 10-1
description, *Command Language*, 6-15
examples, *Command Language*, 6-34 to 6-36
introduction, *Command Language*, 6-10 to 6-15
option, *Command Language*, 6-31
/OVERLAY_DESCRIPTION
qualifier, *Command Language*, 6-6, 6-23
qualifier, *Command Language*, 6-16 to 6-30
qualifiers
abbreviation, *Task Builder*, 11-3
list, *Task Builder*, 1-8
/DEBUG, *Debugging*, 10-1
description, *Task Builder*, 11-1 to 11-77
designation, *Task Builder*, 11-3
overriding, *Task Builder*, 11-3
summary table, *Task Builder*, 11-3 to 11-10
Linker, *MACRO-11*, 1-2, 2-2
Linking
ODT
from DCL, *Debugging*, 1-3
from MCR, *Debugging*, 1-2
to enable instruction and data space features, *Debugging*, 1-3
overview of, *MACRO-11*, 4-1
LIST command, *System Management*, 15-17
EDI utility, *Program Development*, 2-13
List command
See L command

.LIST directive, *MACRO-11*, 6-9 to 6-14
arguments for, *MACRO-11*, 6-10, 6-11, 6-12
Listing
assembly, *Program Development*, 3-4, 3-5
control, *Program Development*, 1-4, 1-5, 2-6
directory, *Program Development*, 3-9
examining at a terminal, *Program Development*, 3-6, 7-4
format of, *MACRO-11*, 6-4
FORTRAN IV, *Program Development*, 7-5
global cross-reference, *Program Development*, 4-5, 4-6 *Task Builder*, 10-11, 11-22
printing, *Program Development*, 3-8 to 3-9
sample assembly, *MACRO-11*, H-1, H-2, H-3
spooling, *Program Development*, 3-8, 3-9
use in debugging, *Program Development*, 5-4
wide
specifying, *Task Builder*, 10-52, 11-77
LISTING_DIRECTIVES argument, *MACRO-11*, 8-11
Listing control
See also .LIST or .NLIST directive
comment block, *MACRO-11*, 6-18
directive, *MACRO-11*, 6-3 to 6-18
arguments for, *MACRO-11*, 6-11, 6-12
.IDENT, *MACRO-11*, 6-16, 6-17
.LIST, *MACRO-11*, 6-9 to 6-14
.NLIST, *MACRO-11*, 6-9 to 6-14
.PAGE, *MACRO-11*, 6-17, 6-18
.REM, *MACRO-11*, 6-18
.SBTTL, *MACRO-11*, 6-15, 6-16
.TITLE, *MACRO-11*, 6-15
level count, *MACRO-11*, 6-9, 6-10
MAC task command, *MACRO-11*, 8-6, 8-7
page ejection, *MACRO-11*, 6-17
switch, *MACRO-11*, 8-6, 8-7
/CR, *MACRO-11*, 8-7
/LI, *MACRO-11*, 8-6
/NL, *MACRO-11*, 8-6
Listing control
switch (cont'd.)
/NOSP, *MACRO-11*, 8-7
/SP, *MACRO-11*, 8-7
Listing control directive
arguments for, *MACRO-11*, 6-10
Listing file
FLX utility, *Utilities*, 4-7
PIP utility, *Utilities*, 3-24
Listing level count, *MACRO-11*, 6-9, 6-10
LIST ON PSEUDO DEVICE command
EDI utility, *Utilities*, 2-36
LIST ON TERMINAL command
EDI utility, *Utilities*, 2-35
List option
ACNT, *System Management*, 2-8
/LIST qualifier, *MACRO-11*, 8-10
LIST statement, *Error Logging*, 5-39
/LIST switch
BAD utility, *Utilities*, 6-5
.LIST TTM directive, *Program Development*, 2-6
/LI switch, *MACRO-11*, 8-6 *Task Builder*, 10-25
See also /LIST switch
CMP utility, *Utilities*, 12-3
FLX utility, *Utilities*, 4-7
LBR utility, *Utilities*, 10-21
PIP utility, *Utilities*, 3-24
/BR, *Utilities*, 3-25
/FU, *Utilities*, 3-25
/TB, *Utilities*, 3-26
QUE /LI command, *Batch and Queue*, 2-15
VFY utility, *Utilities*, 9-6
ZAP utility, *Utilities*, 15-2
Literal declaration, *Error Logging*, 4-12
Literal record
format
internal symbol, *Task Builder*, A-31
internal symbol, *Task Builder*, A-30
LITERAL statement, *Error Logging*, 5-33
LN01 laser printer, *I/O Drivers*, 10-3
LNK:, link task to interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-64, 19-66
/LN switch
CMP utility, *Utilities*, 12-3
LOA, *I/O Drivers*, 13-5
See LOAD command

Load
asynchronous example, *Task Builder*, 4-10
manual
calling sequence, *Task Builder*, 4-7, 4-8
FORTRAN calling sequence, *Task Builder*, 4-9, 4-10, 4-11
MACRO-11 calling sequence, *Task Builder*, 4-7, 4-8, 4-9
path
autoload, *Task Builder*, 4-3, 4-4
Loadable crash dump driver
See Crash dump driver
Loadable data base
See Data base
Loadable driver
See Driver
Loadable driver restriction (half-duplex), *I/O Drivers*, 3-35
Load buffer LPA-11 microcode (LADRV), *I/O Drivers*, 22-29
LOAD command, *Writing I/O Driver*, 1-18, 1-19, 1-20, 5-2
allowances, *Writing I/O Driver*, 1-7
Executive operation for driver, *Writing I/O Driver*, 5-11
operation, *Writing I/O Driver*, 5-11
overview, *Writing I/O Driver*, 1-18
use of /CTB, *Writing I/O Driver*, 5-14
LOAD command (MCR), *MCR*, 1-6, 3-132
format, *MCR*, 3-132
keywords
/CTB, *MCR*, 3-132
/EXP, *MCR*, 3-133
/HIGH, *MCR*, 3-133
/PAR, *MCR*, 3-133
/SIZE, *MCR*, 3-133
/VEC, *MCR*, 3-133
parameters, *MCR*, 3-132
LOAD command (VMR), *System Management*, 10-33
definition, *System Management*, 10-33
examples, *System Management*, 10-34
format, *System Management*, 10-33
keywords
/CTB, *System Management*, 10-33
LOAD command (VMR)
keywords (cont'd.)
/PAR, *System Management*, 10-33
/SIZE, *System Management*, 10-34
/VEC, *System Management*, 10-34
notes, *System Management*, 10-34
parameters, *System Management*, 10-33
Loading
mechanism
overlay, *Task Builder*, 3-16
Load microcode (XEDRV), *I/O Drivers*, 13-18
LOAD module, *Task Builder*, 5-55
$$LOAD program section, *Task Builder*, 5-55
reserved name, *Task Builder*, E-3
$LOAD routine
manual load, *Task Builder*, 4-7
Load sharing, *Writing I/O Driver*, 1-11
LOC0 field in ALL block
offset, *RMS-11 Macro*, 6-2
LOC1 field in ALL block
offset, *RMS-11 Macro*, 6-2
LOCAL argument, *MACRO-11*, 8-9
Local data block, *Program Development*, 2-8
Local event flag
reading, *Executive*, 5-158
Local logical assignment, *MCR*, 3-20
Local macro, *Program Development*, 2-8
definitions, *Program Development*, 2-8
LOCAL symbol, *Indirect*, 2-11
Local symbol, *MACRO-11*, 3-11, 3-12 *Program Development*, 1-4, 1-5
automatic creation, *MACRO-11*, 7-8, 7-9
block, *MACRO-11*, 3-11, 3-12
enabling, *MACRO-11*, 6-19, 6-20
definitions, *Program Development*, 2-7, 2-8
deleting definition, *Indirect*, 2-52
FDB macro, *I/O Operations*, 2-27
treatment as user-defined, *MACRO-11*, 3-7

LOCATE command
EDI utility, *Program Development*, 2-14, 2-18, 7-4, 7-5, 7-7
Utilities, 2-15, 2-36
Locate mode, *I/O Operations*, 1-9, 1-10, 2-10 *RMS-11 Introduction*, 4-6
See also RB$LOC mask in ROP field
file processing, *I/O Operations*, 3-29
FSR block buffer, *I/O Operations*, 3-29
GET$ macro, *I/O Operations*, 3-21, 3-23
indexed files, *RMS-11 User's Guide*, 7-7
PUT$ macro, *I/O Operations*, 3-26, 3-30
record attribute, *I/O Operations*, 3-9
relative files, *RMS-11 User's Guide*, 4-13
sequential files, *RMS-11 User's Guide*, 3-14
task record buffer, *I/O Operations*, 3-29
Location
See also LOC field in ALL block
absolute, *Debugging*, 2-5, 4-4, 9-9
altering, *Debugging*, 4-1
branch, *Debugging*, 4-5
closing, *Debugging*, 4-2
displaying, *Debugging*, 4-1
format, *Debugging*, 4-1
hard
See XB$HRD mask in AOP field
indicator, *Debugging*, 7-3
opening, *Debugging*, 4-1
ASCII, *Debugging*, 4-6
branch offset, *Debugging*, 4-5
byte, *Debugging*, 4-2
next sequential, *Debugging*, 4-3
preceding, *Debugging*, 4-4
Radix-50, *Debugging*, 4-7
word, *Debugging*, 4-2
PC-relative, *Debugging*, 4-4
reopening last opened, *Debugging*, 4-2
returning from, *Debugging*, 4-5
RMSDEF utility, *RMS-11 Utilities*, A-14
Location counter, *Program Development*, 1-4, 1-5
See also Current location counter
Location counter (cont'd.)
control directive, *MACRO-11*, 6-36
definition, *Task Builder*, A-17
modification, *Task Builder*, A-18
use in debugging, *Program Development*, 5-3, 5-4
Location indicator
See Register indicator
LOC field in ALL block
CREATE operation, *RMS-11 Macro*, 5-17
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-2
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-12
/LOC keyword
HELP command, *MCR*, 3-87
Locking, file
See FB$DLK mask in FOP field
Locking buckets, *RMS-11 Introduction*, 4-3
/LOCK keyword
DISMOUNT command (MCR), *MCR*, 3-71
MOUNT command (MCR), *MCR*, 3-149
options
/Nounload, *MCR*, 3-71
/Unload, *MCR*, 3-71
/Virtual, *MCR*, 3-71
LOC symbolic argument, *MACRO-11*, 6-11
LOG
See LOGIN command
LOGDEV symbol, *Indirect*, 2-21
$LOGER, *Error Logging*, 4-23
LOGFILE YES/NO command
IOX, *System Management*, 4-42
Logging in, *Introduction*, 1-4 to 1-5
Logical/physical association, *I/O Drivers*, 1-2
Logical AND, *MACRO-11*, 3-2, 3-5
System Management, 12-27
special meaning, *MACRO-11*, 6-52
Logical assignment, *MCR*, 3-20 to 3-30, 3-63 to 3-69
assigning, *MCR*, 3-25, 3-26
deleting, *MCR*, 3-21, 3-25, 3-27, 3-28
displaying, *MCR*, 3-29
global, *MCR*, 2-12, 3-20, 3-64
group, *MCR*, 2-12, 3-20, 3-64
local, *MCR*, 2-12, 3-20, 3-64

Logical assignment (cont'd.)
login, *MCR*, 2-12, 3-20, 3-64
system, *MCR*, 3-20
tables, *MCR*, 3-64
task, *MCR*, 2-12, 3-20
Logical block, *I/O Operations*, 5-2
RMS-11 Introduction, 2-3
file device, *I/O Operations*, 1-7
read (TTDRV), *I/O Drivers*, 2-43
Logical Block Number, *MCR*, 3-103, 3-116, 3-189
See also LBN
Logical channel number
See LCH field in FAB
Logical device, *Command Language*, 5-6, 5-9 to 5-10
assigning, *Command Language*, 5-26 to 5-33
assignment, *Command Language*, 5-9
deleting, *Command Language*, 5-37 to 5-40
displaying, *Command Language*, 5-129 to 5-131
Logical device assignment, *CDA*, 3-17
Indirect, 2-89 *MCR*, 2-12, 3-20 to 3-30
device name tables, *MCR*, 3-20
Logical device name, *CDA*, 3-17
Command Language, 5-9 to 5-10
MCR, 2-12
assigning, *MCR*, 3-20
syntax, *MCR*, 2-12, 3-20
Logical end-of-file directive (/), *Indirect*, 2-66
Logical I/O, *I/O Drivers*, 1-2
Logical inclusive OR operator, *MACRO-11*, 3-2, 3-5
special meaning, *MACRO-11*, 6-52
Logical name, *Command Language*, 5-6
I/O Operations, 1-18
assigning, *Command Language*, 5-26 to 5-33
creating, *Executive*, 5-32
defining, *Command Language*, 5-41 to 5-44
deleting, *Command Language*, 5-37 to 5-40 *Executive*, 5-62
description, *Command Language*, 5-14 to 5-18
displaying, *Command Language*, 5-15, 5-129 to 5-131
format, *Command Language*, 5-16
specifying, *I/O Operations*, 1-19
Logical name (cont'd.)
SYSGEN question, *System Generation*, 3-24
tables, *Command Language*, 5-15
translating, *Executive*, 5-250
iteratively, *Executive*, 5-159
translation, *Command Language*, 5-17
using, *I/O Operations*, 1-19
Logical name assignment, *MCR*, 3-20, 3-21, 3-63 to 3-69
deleting, *MCR*, 3-65, 3-67
displaying, *MCR*, 3-65, 3-68
expanding, *Indirect*, 2-92
global, *MCR*, 3-21, 3-63, 3-64
group, *MCR*, 3-21, 3-63, 3-64
local, *MCR*, 3-63, 3-64
login, *MCR*, 3-21
tables, *MCR*, 3-22, 3-63 to 3-64
task, *MCR*, 3-20
translation, *MCR*, 3-64
using, *Indirect*, 2-2
Logical name table, *Command Language*, 5-15
Logical name translation, *I/O Operations*, 4-9
ASSIGN command, *I/O Operations*, 4-9
expanding file specification string, *I/O Operations*, 4-10
FDB extension, *I/O Operations*, 4-15
iterative, *I/O Operations*, 4-9
merging file specification, *I/O Operations*, 4-10
name expansion
.EXPLG module, *I/O Operations*, 4-15
parse file specification, *I/O Operations*, 4-10
.PARSE routine
device and unit, *I/O Operations*, 4-12
process, *I/O Operations*, 4-10
.PRSDV routine, *I/O Operations*, 4-16
Logical operator, *Indirect*, 2-22
See also Operator, binary
Logical OR
changing mode (XEDRV), *I/O Drivers*, 13-20
Logical page
definition, *Batch and Queue*, 4-5
Logical symbol, *Indirect*, 2-9

Logical symbol (cont'd.)
defining, *Indirect*, 2-33
setting, *Indirect*, 2-80
testing, *Indirect*, 2-61, 2-63
Logical test, *Indirect*, 2-60
Logical unit, *I/O Drivers*, 1-2
Logical unit number, *MCR*, 2-10, 3-36, 3-172
See also LOGICAL UNIT NUMBERS command
See LUN
assigning, *MCR*, 2-10
reassigning, *MCR*, 3-172
LOGICAL UNIT NUMBERS command (MCR), *MCR*, 1-7, 3-140
error messages, *MCR*, 3-140
example, *MCR*, 3-140
format, *MCR*, 3-140
LOGICAL UNIT NUMBERS command (VMR), *System Management*, 10-35
definition, *System Management*, 10-35
example, *System Management*, 10-35
format, *System Management*, 10-35
parameter, *System Management*, 10-35
Logical Unit Table
See LUT
Login
default logical device, *MCR*, 3-79
default logical directory, *MCR*, 3-79
logical assignment, *MCR*, 3-20
UIC, *MCR*, 2-6
LOGIN.CMD
on pregenerated kit, *System Generation*, 5-36
LOGIN command, *Command Language*, 3-4 to 3-8, 9-23 *Introduction*, 1-4 to 1-5 *MCR*, 1-8, 3-79 *System Management*, 9-6
error messages, *MCR*, 3-84
examples, *MCR*, 3-83
password, *Command Language*, 3-4
UIC, *Command Language*, 3-4
/LOGIN keyword
ASSIGN command (MCR), *MCR*, 3-26, 3-28
Login message file
BATCH.TXT, *System Generation*, 4-5
LOGIN.TXT, *System Generation*, 4-4
Login Transaction Block, *System Management*, 17-30
/LOG keyword
DEVICES command (MCR), *MCR*, 3-60
/LOGON keyword
SET command (MCR), *MCR*, 3-226
SET command (VMR), *System Management*, 10-61
LOGOUT.CMD
on pregenerated kit, *System Generation*, 5-37
LOGOUT command, *Command Language*, 3-9 to 3-10, 5-14, 7-20, 9-23 *Introduction*, 1-16 *System Management*, 9-3, 9-7
/LOG switch, *Error Logging*, 2-3, 2-5, 2-8
New version subswitch, *Error Logging*, 2-3, 2-6
No limit subswitch, *Error Logging*, 2-3, 2-5, 2-6
LOGTST
ERROR routines, *Error Logging*, 4-23
LOGUIC symbol, *Indirect*, 2-21
/LO job switch
QUE /MOD command, *Batch and Queue*, 2-20
%LOK, *Error Logging*, 5-21
LONG qualifier, *Task Builder*, 11-41 to 11-48
Lookahead function, *Error Logging*, 5-21
Loop, *Debugging*, 3-4
LOOPBACK
parameter command, *System Management*, 4-43
/LO switch
Indirect, *Indirect*, 2-4, 2-29
RMSCNV utility, *RMS-11 Utilities*, 4-10
RMSIFL utility, *RMS-11 Utilities*, 3-6
VFY utility, *Utilities*, 9-6
Low core memory
dump, *CDA*, 1-9, 3-1, 3-20
labels, *CDA*, 3-20
LOWER_CASE argument, *MACRO-11*, 8-10
Lowercase conversion (half-duplex), *I/O Drivers*, 3-15
Lowercase mode, *Indirect*, 2-48

/LOWERCASE qualifier
PRINT command, *Batch and Queue*, 2-4
SET QUEUE command, *Batch and Queue*, 2-20
/LOWER keyword
SET command (MCR), *MCR*, 3-226
SET command (VMR), *System Management*, 10-61
Low limit register
See L register
Low-memory context, *Task Builder*, B-10
Low pool, *System Management*, 13-3, 13-4
event, *System Management*, 13-2
/LOW switch
PRI command, *Batch and Queue*, 2-4
Low-traffic sync (communication driver), *I/O Drivers*, 12-12
LP11 line printer, *I/O Drivers*, 10-2
LP11 line printer controller
SYSGEN question, *System Generation*, 3-51
LPA11
22-bit addressing, *I/O Drivers*, 22-36
data transfer start (LADRV), *I/O Drivers*, 22-30
data transfer stop (LADRV), *I/O Drivers*, 22-30
initialize, *I/O Drivers*, 22-29
IO.STA function (LADRV), *I/O Drivers*, 22-30
IO.STP function (LADRV), *I/O Drivers*, 22-30
sample program, *I/O Drivers*, 22-37
LPA11-K, *Writing I/O Driver*, 1-13, 1-14
LPA11K
function code list, *I/O Drivers*, B-11
LPA11-K laboratory subsystem
microcode version, *System Generation*, 3-71
on pregenerated kit, *System Generation*, 5-46
SYSGEN question, *System Generation*, 3-55
Lpast parameter
device-specific function (GRDRV), *I/O Drivers*, 21-2
LP command
EDI utility, *Utilities*, 2-36
LPDRV, *I/O Drivers*, 10-1
programming hint, *I/O Drivers*, 10-7
Lpef parameter
device-specific function (GRDRV), *I/O Drivers*, 21-2
LPP, *System Management*, 7-2
LPS11, *I/O Drivers*, 17-2
See also LSDRV
LPS11/AR11 comparison, *I/O Drivers*, 17-1
LPS11 clock
sampling rate (LSDRV), *I/O Drivers*, 17-33
LPS function code list, *I/O Drivers*, B-11
LPSTP: subroutine
stop synchronous function (LSDRV), *I/O Drivers*, 17-22
LP-type line printer
SYSGEN question, *System Generation*, 3-52
LQP02, *I/O Drivers*, 2-4
LRDRV
transmit, device-specific QIO$, *I/O Drivers*, 14-3
L register, *Debugging*, 2-6, 5-3, 6-1, 9-10
LRL field in FAB
CREATE operation, *RMS-11 Macro*, 5-20
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-79
summary, *RMS-11 Macro*, 6-54
/LRU keyword
HOME command, *MCR*, 3-94
INITVOLUME command, *MCR*, 3-104
MOUNT command (MCR), *MCR*, 3-150
LS11 line printer, *I/O Drivers*, 10-2
LS11 line printer controller
SYSGEN question, *System Generation*, 3-51
LSB symbolic argument, *MACRO-11*, 6-19, 6-20

LSDRV
measuring elapsed time, *I/O Drivers*, 17-7
programming hint, *I/O Drivers*, 17-33
return data, *I/O Drivers*, 17-7
SYSGEN option, *I/O Drivers*, 17-1
.LST file type, *Program Development*, 3-4, 6-11, 7-3, 7-4
.LST module, *Error Logging*, 4-1
Lsubr parameter
CALLS calling macro (LADRV), *I/O Drivers*, 22-27
LUN, *Command Language*, 5-6, 5-8 to 5-9, 7-44 to 7-45, 7-68 to 7-70 *I/O Drivers*, 1-2 *Task Builder*, 12-41
See also Logical unit number
See also LOGICAL UNIT NUMBERS command
ASUDLN: subroutine (UDDRV), *I/O Drivers*, 16-20
assigning, *Executive*, 5-10, 5-15 *I/O Drivers*, 1-16
to physical device, *Task Builder*, 12-8
to AR0: (LSDRV), *I/O Drivers*, 17-14
to LS0: (LSDRV), *I/O Drivers*, 17-13
assigning default
ICDRV/ISDSV, *I/O Drivers*, 19-38
assignment
ALUN$ directive, *I/O Drivers*, 1-4
ASSIGN command, *I/O Drivers*, 1-4
change, *I/O Drivers*, 1-4
dynamic change, *I/O Drivers*, 1-4
REASSIGN command, *I/O Drivers*, 1-4
default by TKB, *Program Development*, 4-4, 4-5
get information, *I/O Drivers*, 1-21
AFC11/AD01 converter, *I/O Drivers*, 15-2
communication driver, *I/O Drivers*, 12-4
CRDRV, *I/O Drivers*, 11-1
CTDRV, *I/O Drivers*, 9-1
DDDRV, *I/O Drivers*, 7-1
disk driver, *I/O Drivers*, 5-5
DTDRV, *I/O Drivers*, 6-1
LUN
get information (cont'd.)
GRDRV, *I/O Drivers*, 21-1
half-duplex, *I/O Drivers*, 3-4
ICDRV/ISDRV, *I/O Drivers*, 19-8
LADRV, *I/O Drivers*, 22-2
LPDRV, *I/O Drivers*, 10-3
LRDRV, *I/O Drivers*, 14-2
receive, *I/O Drivers*, 14-2
transmit, *I/O Drivers*, 14-2
LSDRV, *I/O Drivers*, 17-2
PPDRV/PRDRV, *I/O Drivers*, 18-1
tape driver, *I/O Drivers*, 8-5
TTDRV, *I/O Drivers*, 2-7
UDDRV, *I/O Drivers*, 16-3
UNIBUS switch driver, *I/O Drivers*, 24-2
VTDRV, *I/O Drivers*, 4-1
identical
IO.DET/IO.ATT, *I/O Drivers*, 1-28
information table, *I/O Drivers*, 1-21
logical/physical association, *I/O Drivers*, 1-16
number, *I/O Drivers*, 1-7
physical
logical, *I/O Drivers*, 1-21
QIO$ basic syntax, *I/O Drivers*, 1-5
reassigning, *I/O Drivers*, 1-3
redirection
ASSIGN command, *I/O Drivers*, 1-3
table, *I/O Drivers*, 1-3 *Task Builder*, B-9, B-10
table entry, *Task Builder*, B-14
valid number, *I/O Drivers*, 1-3
LUN, assign with .ASLUN routine, *I/O Operations*, 4-16
Lun parameter
AIRD/AIRDW subroutine (UDDRV), *I/O Drivers*, 16-18
AISQ/AISQW subroutine (UDDRV), *I/O Drivers*, 16-19
ALUN$, *I/O Drivers*, 1-17
AO/AOW subroutine (UDDRV), *I/O Drivers*, 16-20
ASARLN: subroutine (LSDRV), *I/O Drivers*, 17-14
ASLSLN: subroutine (LSDRV), *I/O Drivers*, 17-14

Lun parameter (cont'd.)
ASUDLN: subroutine (UDDRV), *I/O Drivers*, 16-20
CLOCKA: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-7
CLOCKB: subroutine
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-8
CTDI: subroutine (UDDRV), *I/O Drivers*, 16-21
CTTI: subroutine (UDDRV), *I/O Drivers*, 16-22
DFTI: subroutine (UDDRV), *I/O Drivers*, 16-23
DI/DIW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOL/DOLW: subroutine (UDDRV), *I/O Drivers*, 16-24
DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
DSDI: subroutine (UDDRV), *I/O Drivers*, 16-23
general (TTDRV), *I/O Drivers*, 2-11
GLUN$ macro, *I/O Drivers*, 1-21
IO.ATA function (TTDRV), *I/O Drivers*, 2-20
IO.ATT function, *I/O Drivers*, 1-27
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.DET function, *I/O Drivers*, 1-28
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
IO.HNG function (TTDRV), *I/O Drivers*, 2-35
IO.KIL function, *I/O Drivers*, 1-29
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-40
IO.RST function (TTDRV), *I/O Drivers*, 2-43
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function, *I/O Drivers*, 1-31
IO.SMC function (TTDRV), *I/O Drivers*, 2-59
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
Lun parameter (cont'd.)
IO.WBT function (TTDRV), *I/O Drivers*, 2-49
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
IO.XCL function (XEDRV), *I/O Drivers*, 13-17
IO.XIN function (XEDRV), *I/O Drivers*, 13-10
IO.XOP function (XEDRV), *I/O Drivers*, 13-6
IO.XRC function (XEDRV), *I/O Drivers*, 13-14
IO.XSC function (XEDRV), *I/O Drivers*, 13-7
IO.XTL function (XEDRV), *I/O Drivers*, 13-18
IO.XTM function (XEDRV), *I/O Drivers*, 13-11
LAMSKS: subroutine (LADRV), *I/O Drivers*, 22-20
QIO$ basic syntax, *I/O Drivers*, 1-7
RCIPT: subroutine (UDDRV), *I/O Drivers*, 16-26
RSTI: subroutine (UDDRV), *I/O Drivers*, 16-30
SCTI: subroutine (UDDRV), *I/O Drivers*, 16-31
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
LUT, *I/O Drivers*, 1-7 *Writing I/O Driver*, 2-11, 3-2
contents, *I/O Drivers*, 1-3
defined, *I/O Drivers*, 1-3
specifying, *I/O Drivers*, 1-3
LV11 line printer, *I/O Drivers*, 10-2
LV11 line printer controller
SYSGEN question, *System Generation*, 3-51
LVL field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-84
/LW switch
DMP utility, *Utilities*, 11-7
LX:, *Error Logging*, 3-2

M

M.CTSZ, retrieval pointer block count field size, *I/O Operations*, F-2

M.EFNU, extension file number, *I/O Operations*, F-2
M.EFSQ, extension file sequence number, *I/O Operations*, F-2
M.ERVN, extension relative volume number, *I/O Operations*, F-2
M.ESQN, map area, *I/O Operations*, F-2
M.LBSZ, retrieval pointer logical block number field size, *I/O Operations*, F-2
M.MAX, available retrieval pointer words, *I/O Operations*, F-3
M.RTRV, retrieval pointer start, *I/O Operations*, F-3
M.USE, retrieval pointer word count, *I/O Operations*, F-3
MAC command
  MCR, *Program Development*, 1-4, 3-1, 3-5, 6-3
    See also MACRO-11
.MAC file type, *Program Development*, 3-1
Machine code, binary, *Introduction*, 5-4, 5-5
Macro, *Introduction*, 5-11 *RMS-11 Introduction*, 4-7
  See also MACRO-11
  call
    cross-reference of symbols, *Program Development*, 3-7, 3-8
    resolution, *Program Development*, 1-4, 1-10, 2-7
    unrecognized, *Program Development*, 2-7
  directive
    See .MACRO directive
  global symbol, *I/O Operations*, 2-26
  LBLDF$, *Task Builder*, B-1
  library, *Program Development*, 6-1, 6-2, 6-3
    adding modules, *Program Development*, 6-9, 6-10
    creating a user, *Program Development*, 6-1, 6-2, 6-3
    definitions, *Program Development*, 6-3, 6-4
    DIGITAL-supplied, *Program Development*, 1-9
Macro
  library (cont'd.)
    listing information, *Program Development*, 6-11, 6-12
    replacing modules, *Program Development*, 6-10, 6-11
    search of system, *Program Development*, 1-5, 1-10, 2-7
  library directive
    See .MCALL directive
  local symbol, *I/O Operations*, 2-27
  run-time
    exceptions, *I/O Operations*, 2-22
    FDB address, *I/O Operations*, 2-24
    initialization, *I/O Operations*, 2-21
  SNAP$, *Task Builder*, D-6
  SNPBK$, *Task Builder*, D-6
  SNPDF$, *Task Builder*, D-6
  symbol
    definition, *Program Development*, 1-4, 1-10, 2-7, 6-4
Macro, CALL (K-series), *I/O Drivers*, 23-31
Macro, CALLS (LADRV), *I/O Drivers*, 22-27
Macro, INITS
  K-series, *I/O Drivers*, 23-31
  LADRV, *I/O Drivers*, 22-27
MACRO-11, *Program Development*, 1-5 *RMS-11 User's Guide*, 1-13
  address mode summary, *MACRO-11*, B-2
  assembler, *Introduction*, 5-4
  assembling source file, *Program Development*, 3-1, 3-2
  calling sequence
    manual load, *Task Builder*, 4-7
      I- and D-space task, *Task Builder*, 4-8, 4-9
  coding standard, *MACRO-11*, E-1 to E-16
  /CR, *Program Development*, 1-8, 3-8
  /CROSS_REFERENCE, *Program Development*, 1-8, 3-7
  cross-reference listing, *Program Development*, 1-5, 1-7, 3-7, 3-8
  data storage
    definition, *Program Development*, 2-8

MACRO-11 (cont'd.)
default search of system library, *Program Development*, 1-5, 1-10, 2-7
defining local symbols, *Program Development*, 2-7, 2-8
directives, *Program Development*, 1-4, 1-5
directive summary, *MACRO-11*, B-3 to B-8
/DISABLE:GLOBAL, *Program Development*, 3-1
disabling global default, *Program Development*, 3-1, 3-2
/DS:GBL, *Program Development*, 3-1
error, *Program Development*, 3-2, 3-3, 3-4
error code
A, *Program Development*, 3-2, 3-3
E, *Program Development*, 3-4
Q, *Program Development*, 3-4
U, *Program Development*, 3-3
error code summary, *MACRO-11*, D-1 to D-5
error message, *MACRO-11*, 8-19, 8-20, 8-21 *Program Development*, 3-2, 3-5
file specification, *MACRO-11*, 8-3, 8-4, 8-5
switch, *MACRO-11*, 8-6
/LIBRARY, *Program Development*, 6-3
/LIST, *Program Development*, 3-1, 3-4, 3-5, 3-7
listing, *Program Development*, 3-4, 3-5
generation, *Program Development*, 3-6
location counter, *Program Development*, 1-4, 1-5
MAC command
MCR, *Program Development*, 1-4, 3-1, 3-5, 6-3
macro
cross-reference, *Program Development*, 3-7, 3-8
directive, *MACRO-11*, 7-1
expansion, *MACRO-11*, 7-1
terminating, *MACRO-11*, 7-3
expansion listing, *MACRO-11*, 6-9

MACRO-11
macro (cont'd.)
keyword indicator, *MACRO-11*, 3-1
library
force search of, *MACRO-11*, 6-20
including in assembly, *MACRO-11*, 8-6
library usage, *Program Development*, 6-3, 6-4
name, *MACRO-11*, 7-1
nesting, *MACRO-11*, 7-3
symbol, *MACRO-11*, 3-6
Program Development, 1-4, 2-7, 6-4
symbol table, *MACRO-11*, 3-6, 3-7
macro call, *MACRO-11*, 7-1, 7-4
argument in, *MACRO-11*, 7-4, 7-5
format, *MACRO-11*, 7-4
numeric argument indicator, *MACRO-11*, 3-3
unary operator in, *MACRO-11*, 7-5
MACRO command
DCL, *Program Development*, 1-4, 3-1, 3-4, 6-3
macro definition
argument concatenation, *MACRO-11*, 7-10, 7-11
argument in, *MACRO-11*, 7-4, 7-5, 7-6
argument limit, *MACRO-11*, 7-8
argument passing, *MACRO-11*, 7-7
deletion, *MACRO-11*, 7-21
dummy argument, *MACRO-11*, 7-2
error notice, *MACRO-11*, 7-15, 7-16
format, *MACRO-11*, 7-4
keyword argument, *MACRO-11*, 7-9
name, *MACRO-11*, 7-2
nesting, *MACRO-11*, 7-3, 7-5, 7-6
single argument, *MACRO-11*, 7-16
special characters in, *MACRO-11*, 7-6

MACRO-11
MAC task
command format, *MACRO-11*, 8-4 to 8-7
cross-reference listing, *MACRO-11*, 8-16
error message, *MACRO-11*, 8-19, 8-20, 8-21
listing control, *MACRO-11*, 8-6, 8-7
running by indirect command, *MACRO-11*, 8-3
running directly, *MACRO-11*, 8-2
/ML, *Program Development*, 6-3, 6-4
/NOOBJECT, *Program Development*, 3-1
/OBJECT, *Program Development*, 3-4
object module, *Program Development*, 3-4, 3-5, 3-6
obsolete functions, *MACRO-11*, I-1
operating hints, *MACRO-11*, F-1
operating procedures, *MACRO-11*, 8-1
position independent code, *MACRO-11*, G-1
source file, *Program Development*, 2-2
cross-referencing symbols
CRF utility, *Utilities*, B-1
format, *Program Development*, 2-1 to 2-3
skeleton, *Program Development*, 2-4
source input, *Program Development*, 1-4
/-SP, *Program Development*, 3-5, 3-8
special character summary, *MACRO-11*, B-1
statement format, *MACRO-11*, 2-1
Program Development, 2-3
support routine (LADRV), *I/O Drivers*, 22-26
symbol
cross-reference, *Program Development*, 3-7, 3-8
evaluation, *Program Development*, 1-4, 3-1, 3-2, 6-4
table of contents generation, *Program Development*, 2-6
MACRO-11 (cont'd.)
work file, *MACRO-11*, F-1
MACRO-11 Assembler, *Introduction*, 5-10
MACRO-11 interface
K-series, *I/O Drivers*, 23-31
LADRV, *I/O Drivers*, 22-26
Macro call
See .MCALL directive
MACRO CALL command
EDI utility, *Utilities*, 2-37
MACRO command, *Introduction*, 5-4
MACRO-11, 8-8 to 8-12
DCL, *Program Development*, 1-4, 3-1, 3-4, 6-3
See also MACRO-11
EDI utility, *Utilities*, 2-36
Macro-declaration macro, *RMS-11 Macro*, 2-2
Macro definition, *MACRO-11*, 7-1 to 7-4
attribute, *MACRO-11*, 7-11 to 7-14
.MACRO directive, *MACRO-11*, 7-1, 7-2, 7-10
MACRO EXECUTE command
EDI utility, *Utilities*, 2-38
$ macro form, *Executive*, 1-5
MACRO IMMEDIATE command
EDI utility, *Utilities*, 2-38
Macro library, *Command Language*, 6-40
RMSMAC.MLB, *RMS-11 Macro*, 2-20
RSTS/E, *RMS-11 Macro*, D-3
Macro Metalanguage
See MML
MAC task, *Program Development*, 1-4
See also MACRO-11
MAG, *I/O Operations*, G-11
Magnetic tape, *RMS-11 Introduction*, 2-4 *RMS-11 Macro*, 3-2, 5-20, 5-37, 5-43, 5-77, 5-88, 5-104, 5-111, 5-118
See also Medium
See also Tape
ANSI, *RMS-11 Macro*, 3-2, 5-20, 5-37, 5-43, 5-77, 5-88, 5-104, 5-111, 5-118
blank, *Command Language*, 5-13
DD-type
SYSGEN question, *System Generation*, 3-50

Magnetic tape
density
displaying in IOX, *System Management*, 4-33
specifying in IOX, *System Management*, 4-33
dismounting, *MCR*, 3-71
driver, *I/O Drivers*, 8-1
DT-type
SYSGEN question, *System Generation*, 3-49
error retries, *System Management*, 4-56
exercise
example, *System Management*, 4-12
using SELECT, *System Management*, 4-12
function code list, *I/O Drivers*, B-12
initializing, *MCR*, 3-99
kit
contents, *System Generation*, 2-5
copying
on line, *System Generation*, 2-16 to 2-18
stand alone, *System Generation*, 2-8 to 2-12
under VAX-11 RSX, *System Generation*, 2-22 to 2-24
label, *MCR*, 3-71, 3-100 *RMS-11 Introduction*, 2-5
MM-type
SYSGEN question, *System Generation*, 3-38
mounting, *Command Language*, 5-62 to 5-67 *MCR*, 3-143
MS-type
SYSGEN question, *System Generation*, 3-48
MT-type
SYSGEN question, *System Generation*, 3-53
new, *Command Language*, 5-13
P/OS, *RMS-11 Macro*, D-3
positioning
See FB$NEF mask in FOP field
See FB$POS mask in FOP field
See RB$EOF mask in ROP field
preparing for use, *Command Language*, 5-13
Magnetic tape (cont'd.)
record, *MCR*, 3-152
records tested, *System Management*, 4-53
rewind-after-closing
See FB$RWC mask in FOP field
rewind-before-creating
See FB$RWO mask in FOP field
rewind-before-opening
See FB$RWO mask in FOP field
RMSBCK utility, *RMS-11 Utilities*, 6-7
multivolume, *RMS-11 Utilities*, 6-9
RMSCNV utility, *RMS-11 Utilities*, 4-8
RMSDEF utility, *RMS-11 Utilities*, A-8, A-10
RMSDES utility, *RMS-11 Utilities*, 2-34
RMSDSP utility, *RMS-11 Utilities*, 5-3
RMSRST utility, *RMS-11 Utilities*, 7-8, 7-9
TA11 cassette
SYSGEN question, *System Generation*, 3-47
tape mark, *RMS-11 Introduction*, 2-5
TE16
SYSGEN question, *System Generation*, 3-38
testing
altering record count, *System Management*, 4-53
TK25
SYSGEN question, *System Generation*, 3-48
TK50
SYSGEN question, *System Generation*, 3-46
TS11
SYSGEN question, *System Generation*, 3-48
TSV05
SYSGEN question, *System Generation*, 3-48
TU16/45/77
SYSGEN question, *System Generation*, 3-38
TU58
SYSGEN question, *System Generation*, 3-50

Magnetic tape
TU80
SYSGEN question, *System Generation*, 3-48
TU81
SYSGEN question, *System Generation*, 3-46
volume, *RMS-11 Introduction*, 2-5
labeled, *Command Language*, 1-15
Magnetic tape block size
See BLS field in FAB
Magtape
See Magnetic tape
MAGTAPE_BLOCK_SIZE attribute
RMSDES utility, *RMS-11 Utilities*, 2-34
MAG task error messages, *I/O Operations*, G-15
.MAIN. default name, *MACRO-11*, 6-15
/MAIN keyword
SET command (MCR), *MCR*, 3-227
SET command (VMR), *System Management*, 10-61 to 10-63
Maintenance function (ICDRV/ISDRV), *I/O Drivers*, 19-32, 19-69
Manual load
error handling, *Task Builder*, 4-11
/MANUAL switch
BAD utility, *Utilities*, 6-6
FMT utility, *Utilities*, 5-8
Map
common, *Task Builder*, 5-20, 5-21
debugging use, *Program Development*, 5-2, 5-8
examining at terminal, *Program Development*, 4-6
file, *Task Builder*, 1-1
adding cross-reference, *Task Builder*, 10-11, 11-22
content, *Task Builder*, 10-37 to 10-44, 11-41 to 11-48
description, *Task Builder*, 10-37 to 10-44, 11-41 to 11-48
example, *Task Builder*, 10-37 to 10-44, 11-41 to 11-48
general, *Task Builder*, 10-37 to 10-44, 11-41 to 11-48
inhibiting spooling, *Task Builder*, 10-46, 11-55
LINK command, *Task Builder*, 1-5, 1-6
printing, *Task Builder*, 1-3
Map
file (cont'd.)
LINK command, *Task Builder*, 1-6, 1-7
specifying, *Task Builder*, 10-26, 11-41, 11-49
full, *Program Development*, 4-7
generating, *Program Development*, 4-5, 4-6, 4-7
including SYSLIB contribution, *Task Builder*, 10-26
microcode loader, *System Generation*, 3-71
multiuser task, *Task Builder*, 9-7
nonprivileged task build, *System Generation*, 3-75
overlaid I- and D-space task, *Task Builder*, 7-11 to 7-15
privileged task, *Task Builder*, 6-10, 6-11
privileged task build, *System Generation*, 3-71
reducing width, *Program Development*, 4-5, 4-6
region, *Task Builder*, 5-20, 5-21
resident region
including symbol definition, *Task Builder*, 10-26
short
specifying, *Task Builder*, 10-37
spooling to print, *Task Builder*, 10-46, 11-55
stack limits, *Program Development*, 5-8
standard, *Program Development*, 4-5, 4-6
task
I- and D-space, *Task Builder*, 7-8
linked to a common, *Task Builder*, 5-25
MAP$ directive, *Executive*, 5-123
Map Address Window directive, *Executive*, 5-122
Map area, *I/O Operations*, 5-4
file header block, *I/O Operations*, F-5
MAP attributes, *System Management*, 12-33 to 12-34
secondary mappings, *System Management*, 12-35
.MAP file type, *Program Development*, 4-6

Mapped array
area, *Task Builder*, 5-61, 5-63
declaration, *Task Builder*, A-10
declaration entry, *Task Builder*, A-10
Mapped region
declaring address window, *Task Builder*, 12-45
MAPPED symbol, *Indirect*, 2-11
Mapped system, *Task Builder*, 2-13
definition, *System Generation*, 1-11
Mapping, *Executive*, 3-2
conventional task
linked to region
I- and D-space system, *Task Builder*, 7-3
supervisor mode library, *Task Builder*, 2-24, 2-25
data space, *Executive*, 3-3
I- and D-space task, *Task Builder*, 7-3, 7-4
I- and D-space system, *Task Builder*, 7-4
instruction space, *Executive*, 3-3
privileged tasks, *Executive*, 3-19
supervisor mode, *Task Builder*, 2-23
task, *Task Builder*, 2-14
window concept, *Task Builder*, 2-21, 2-22, 2-23
window-to-region
returning current assignment, *Executive*, 5-108
Mapping table format (ICDRV/ISDRV), *I/O Drivers*, 19-77
/MAP qualifier, *Task Builder*, 11-49
designation, *Task Builder*, 11-2
Map Supervisor D-Space directive, *Executive*, 5-130
Mark file for delete, *I/O Operations*, 4-29
Mark-for-deletion
See FB$MKD mask in FOP field
.MARK routine, save file position, *I/O Operations*, 4-24
Mark Time directive, *Executive*, 5-125
Mark time request
canceling, *Executive*, 5-36
Mask parameter
DIGO: subroutine (K-series), *I/O Drivers*, 23-16
DINP: subroutine (K-series), *I/O Drivers*, 23-17
DOUT: subroutine (K-series), *I/O Drivers*, 23-20
Mask parameter (cont'd.)
immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-6
Mask register
See M register
Mask symbol
See Code and mask symbol
Mask word
creating, *Writing I/O Driver*, 4-21
I/O function, *Writing I/O Driver*, 4-21
MASSBUS
controller, *Writing I/O Driver*, 1-13
mixed device, *Writing I/O Driver*, 1-12
Mass insertion, *RMS-11 User's Guide*, 2-18, 7-9
See also RB$MAS mask in ROP field
populating indexed files, *RMS-11 User's Guide*, 6-28
RMSCNV utility, *RMS-11 Utilities*, 4-10
Mass Storage Control Protocol
See MSCP
Mass-storage device, *RMS-11 Introduction*, 2-1
errors, *Error Logging*, 1-1
Master Command Table
See MCT
Master File Directory, *I/O Operations*, 5-2 *MCR*, 2-2, 3-94, 3-103, 3-104, 3-150, 3-280
See also MFD
/MA switch, *Task Builder*, 10-26
RMSCNV utility, *RMS-11 Utilities*, 4-10
Match criterion, *RMS-11 Introduction*, 3-12
See also RB$KGE mask in ROP field
See also RB$KGT mask in ROP field
random access, *RMS-11 User's Guide*, 5-13
MAX_RECORD_NUMBER attribute
RMSDES utility, *RMS-11 Utilities*, 2-34
MAXBUF option, *Task Builder*, 12-25
/MAXEXT keyword
SET command (MCR), *MCR*, 3-229
SET command (VMR), *System Management*, 10-63
/MAXIMUM qualifier
BRU utility, *Utilities*, 7-18

Maximum record number
See MRN
RMSDEF utility, *RMS-11 Utilities*, A-9
Maximum record size
RMSDEF utility, *RMS-11 Utilities*, A-9
/MAXPKT keyword
SET command (MCR), *MCR*, 3-230
/MAX qualifier
BRU utility, *System Generation*, 2-11
MBC, *RMS-11 User's Guide*, 2-17
sequential files, *RMS-11 User's Guide*, 3-15
MBC field in RAB
CONNECT operation, *RMS-11 Macro*, 5-6
offset, *RMS-11 Macro*, 6-115
summary, *RMS-11 Macro*, 6-125
MBF field in RAB
CONNECT operation, *RMS-11 Macro*, 5-6
offset, *RMS-11 Macro*, 6-115
summary, *RMS-11 Macro*, 6-126
.MBLUN
reserved global symbol, *Task Builder*, E-1
/MB switch
CMP utility, *Utilities*, 12-3
Mbuf parameter
IO.LOD function (LADRV), *I/O Drivers*, 22-30
.MCALL
for QIO, *I/O Drivers*, 1-4
.MCALL assembler directive, *Executive*, 1-5 *RMS-11 Macro*, 2-2
.MCALL directive, *I/O Drivers*, 1-16 *I/O Operations*, 2-2 *MACRO-11*, 7-20 *Program Development*, 1-10, 2-6, 2-7, 3-3
using with user macro library, *Program Development*, 6-3, 6-4
.MCALL macro, *I/O Drivers*, 1-14
example, *I/O Drivers*, 1-16
MC command
EDI utility, *Utilities*, 2-37
MCL symbolic argument, *MACRO-11*, 6-20
M command
EDI utility, *Utilities*, 2-38
MCR, *Command Language*, 1-1 to 1-2 *Introduction*, 1-4, 5-1 *Program Development*, 1-1, 1-2, 1-3 *System Management*, 11-1, 11-2
CLI default, *System Management*, 2-3
command, *Command Language*, 1-12
interface, *MCR*, 1-5
keywords, *MCR*, 1-4
prompt, *MCR*, 1-3, 2-17
See also Prompt
summary of commands, *MCR*, 1-5 to 1-8
transferring files, *System Management*, 9-5 to 9-7
translator table example, *System Management*, 12-21
MCR CLI command, *System Management*, 11-5
MCR command, *Command Language*, 9-24 *System Management*, 12-3
linking
ODT, *Debugging*, 1-2
ODTID, *Debugging*, 1-3
supervisor libraries, *Debugging*, 1-4
/MCR keyword
HELP command, *MCR*, 3-88
SET command (MCR), *MCR*, 3-231
MCR mode, *Indirect*, 2-48
MCR QMG commands
MCR UFDs, *System Management*, B-3t
MCR Unit Control Block, *CDA*, 3-26
/MC switch
Indirect, *Indirect*, 2-27
MC symbolic argument, *MACRO-11*, 6-11
MCT
contents, *System Management*, 12-7
.MDELETE directive, *MACRO-11*, 7-21
/MD switch
DMP utility, *Utilities*, 11-7
MD symbolic argument, *MACRO-11*, 6-11
MEB symbolic argument, *MACRO-11*, 6-11
Media, *Introduction*, 6-8
failures, *System Management*, 15-29
Medium
and I/O time, *RMS-11 User's Guide*, 2-3

Medium (cont'd.)
and record formats and
file organizations, *RMS-11 User's Guide*, 1-20
and variable-length format, *RMS-11 User's Guide*, 2-15
disk
retrieval pointers, *RMS-11 User's Guide*, 8-2
usage, *RMS-11 User's Guide*, 8-3
placement control, *RMS-11 User's Guide*, 6-13
sequential files, *RMS-11 User's Guide*, 3-3
Memory, *Introduction*, 6-5 *System Management*, 14-1
address, *MCR*, 3-164
allocation
file
See Map file
I- and D-space task, *Task Builder*, 7-8, 7-9, 7-10
task, *Task Builder*, 2-6
compacting space
See SHF
compaction, *System Generation*, C-2
dump, *Task Builder*, D-11
dynamic, *MCR*, 3-118, 3-132, 3-183 *System Generation*, C-3
E command, *Debugging*, 6-2
examining memory location
XDT, *Debugging*, 9-3
F command, *Debugging*, 6-4
fill command, *Debugging*, 2-9
fixing tasks in, *MCR*, 3-75
H register, *Debugging*, 2-6
image, *Task Builder*, 2-9
layout
unmapped system, *Task Builder*, 2-15
L command, *Debugging*, 6-4
limit register, *Debugging*, 5-3, 6-1
list command, *Debugging*, 2-10
listing
format, *Debugging*, 6-5
location
closing, *MCR*, 3-165
displaying, *MCR*, 3-164
inserting values in, *MCR*, 3-164
opening, *MCR*, 3-164
L register, *Debugging*, 2-6
Memory
management
specifying for target system, *Task Builder*, 10-27, 11-50
mapping, *MCR*, 2-20
N command, *Debugging*, 6-2
parity support, *System Generation*, C-4
partition, *Introduction*, 6-5 *MCR*, 2-20 *System Generation*, C-1
physical
disk-resident overlay, *Task Builder*, 3-3
memory-resident overlay, *Task Builder*, 3-6
overlay, *Task Builder*, 3-5, 3-6, 3-33, 3-34, 3-35
reducing
to build a task, *Task Builder*, F-4
usage, *Task Builder*, 3-1
resident overlay structure, *Task Builder*, 3-6
saving
overlaid task, *Task Builder*, 3-9, 3-10
search command, *Debugging*, 2-9, 2-10, 2-11, 6-2
size
SYSGEN question, *System Generation*, 3-32
W command, *Debugging*, 6-2
/MEMORY_MANAGEMENT qualifier, *Task Builder*, 11-50
Memory allocation, *MACRO-11*, 6-46
Memory allocation file
See Map
Memory dump, *Task Builder*, D-1
Memory errors, *Error Logging*, 1-1
error logging, *Error Logging*, 1-6
Memory management, *System Library*, 7-1
See also Virtual memory management
core blocks release ($RLCB), *System Library*, 7-4
core blocks request ($RQCB), *System Library*, 7-3
directives, *Executive*, 3-1
data structures, *Executive*, 3-11
summary, *Executive*, 3-9
fixing tasks, *System Management*, 10-18, 10-23

Memory management (cont'd.)
initialize ($INIDM), *System Library*, 7-2
use by task, *Task Builder*, 2-15
Memory Management Unit, *Task Builder*, 2-14
Memory-resident
overlay, *Task Builder*, 3-1
loading, *Task Builder*, 4-1
/MEMSIZ switch, *CDA*, 2-10, 2-11
MEMSIZ symbol, *Indirect*, 2-16
Merged string, *RMS-11 Macro*, 3-3
Merging file
PIP utility, *Utilities*, 3-9
M error, *MACRO-11*, 2-3, 3-1, 3-2, 3-8
summary, *MACRO-11*, D-4
/MESSAGE
keyword
CLI command, *MCR*, 3-52
subkeyword
CLI command, *MCR*, 3-52
Message
assembly-time, *RMS-11 Macro*, B-1
completion returns, *RMS-11 Macro*, A-1
diagnostic
eliminating, *Task Builder*, 10-30, 11-76
error, *MCR*, A-1 to A-35 *Task Builder*, H-1 to H-11
virtual memory system, *Task Builder*, F-5
fatal error completions, *RMS-11 Macro*, A-16
formatting, *System Library*, 6-1
ASCII string, *System Library*, 6-7
carriage return/line feed insertion, *System Library*, 6-9
date conversion ($DAT), *System Library*, 6-2
edit directive ($EDMSG), *System Library*, 6-5
extended ASCII, *System Library*, 6-8
field mark, *System Library*, 6-12
file name string, *System Library*, 6-11
form feed insertion, *System Library*, 6-8
general, *System Library*, 6-5
space insertion, *System Library*, 6-10
Message
formatting (cont'd.)
length of, *System Library*, 6-12
time conversion ($TIM), *System Library*, 6-3
uppercase text ($CVTUC), *System Library*, 6-1
inhibiting system queuing, *Task Builder*, 10-35, 11-57
invocation, *Debugging*, 1-4
RMSBCK utility, *RMS-11 Utilities*, C-1
RMSCNV utility, *RMS-11 Utilities*, C-1
RMSDEF utility, *RMS-11 Utilities*, A-20
RMSDES utility, *RMS-11 Utilities*, 2-52
RMSDSP utility, *RMS-11 Utilities*, C-1
RMSIFL utility, *RMS-11 Utilities*, C-1
RMSRST utility, *RMS-11 Utilities*, C-1
system service, *MCR*, 3-273
Message-oriented driver, *I/O Drivers*, 12-1
Message-oriented interface (communication driver), *I/O Drivers*, 12-1
Messages
ERLCFL, *Error Logging*, 5-44
MESSAGE statement, *Error Logging*, 5-41
/ME switch
PIP utility, *Utilities*, 3-9, 3-28
ME symbolic argument, *MACRO-11*, 6-11
Metalanguage, *System Management*, 12-13
category references, *System Management*, 12-14
exclusive-OR, *System Management*, 12-15
optional syntax indicators, *System Management*, 12-15
production rule, *System Management*, 12-14
adjective, *System Management*, 12-14
subject, *System Management*, 12-14

Metalanguage (cont'd.)
syntax tree, *System Management*, 12-14
.MEXIT directive, *MACRO-11*, 7-3
MFD, *Command Language*, 4-1, 4-2, 5-12 *I/O Operations*, 5-2
See also Master File Directory
MFD header, *I/O Operations*, E-2
MFT, *System Management*, 9-1
MFT command, *System Management*, 9-5 to 9-7
/MH switch
LBR utility, *Utilities*, 10-22
Micro/RSX
Advanced Programmer's Kit, *CDA*, 1-1, 1-3
Micro/RSX File Transfer Utility
See MFT
Microcode loading
LADRV, *I/O Drivers*, 22-34
LPA11 (LADRV), *I/O Drivers*, 22-34
XEDRV, *I/O Drivers*, 13-18
Minus sign operator (-), *MACRO-11*, 3-4
See also Operator
Mixed MASSBUS
configuration, *Error Logging*, 4-33
definition, *System Generation*, 1-11
SYSGEN question, *System Generation*, 3-35
MK11 memory box failures, *System Management*, 15-33
MK: pseudo device, *Command Language*, 5-6, 5-7
ML-11, *I/O Drivers*, 5-4
ML11 disk
SYSGEN question, *System Generation*, 3-38
/ML assembler switch, *RMS-11 Macro*, 2-20
.MLB file type, *Program Development*, 6-1
/ML switch, *MACRO-11*, 8-6, 8-7
RMSCNV utility, *RMS-11 Utilities*, 4-11
MML, *System Management*, 12-16
features, *System Management*, 12-6 to 12-7
literals, *System Management*, 12-20
nonliterals, *System Management*, 12-19
parser functions, *System Management*, 12-20
MML
parser functions (cont'd.)
handling of literals, *System Management*, 12-20
handling of nonliterals, *System Management*, 12-19
translator functions, *System Management*, 12-20
handling of literals, *System Management*, 12-20
handling of nonliterals, *System Management*, 12-19
/MM switch, *Task Builder*, 10-27
MM-type magnetic tape
SYSGEN question, *System Generation*, 3-38
Mnemonic
device, *System Generation*, 2-3
Mn parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.ITI function, *I/O Drivers*, 19-22
Mode
See Access mode
See Address mode
See Record transfer mode
change (XEDRV), *I/O Drivers*, 13-20
compatibility
task, *Task Builder*, 10-8, 11-20
default bit (XEDRV), *I/O Drivers*, 13-21
maintenance (communication driver), *I/O Drivers*, 12-7
set (communication driver), *I/O Drivers*, 12-7
user, *Debugging*, 9-2
Modem
TTDRV, *I/O Drivers*, 2-83
autobaud, *I/O Drivers*, 2-83
auto-call enable, *I/O Drivers*, 2-52
default answer speed, *I/O Drivers*, 2-18, 2-83
DZ11 remote line, *I/O Drivers*, 2-83
set answer speed, *I/O Drivers*, 2-83
with DZ11 (half-duplex), *I/O Drivers*, 3-33

Mode parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-9
LADRV, *I/O Drivers*, 22-4
CLOCKB: subroutine
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-8
DASWP: subroutine
K-series, *I/O Drivers*, 23-14
LADRV, *I/O Drivers*, 22-9
device-specific (communication driver), *I/O Drivers*, 12-6
device-specific function
transmit (LRDRV), *I/O Drivers*, 14-5
DISWP: subroutine
K-series, *I/O Drivers*, 23-17
LADRV, *I/O Drivers*, 22-12
DOSWP: subroutine
K-series, *I/O Drivers*, 23-19
LADRV, *I/O Drivers*, 22-15
GTHIST: subroutine (K-series), *I/O Drivers*, 23-22
IO.CLK function (LADRV), *I/O Drivers*, 22-29
IO.STC function
transmitter (LRDRV), *I/O Drivers*, 14-6
Mode switching
to supervisor mode, *Task Builder*, 8-18
vector
supervisor mode library, *Task Builder*, 8-1, 8-19
Modify option
ACNT, *System Management*, 2-7
Modularity
program, *MACRO-11*, 6-43
Module
accessing (UDDRV), *I/O Drivers*, 16-2
addressing (ICDRV/ISDRV), *I/O Drivers*, 19-6
calls in overlay, *Task Builder*, 3-16
common in root
improving performance, *Task Builder*, F-6
concatenated object
using to reduce overhead, *Task Builder*, F-4, F-6
extracting from library, *Task Builder*, 10-23, 11-39
interrupt connect (ICDRV/ISDRV), *I/O Drivers*, 19-21
Module (cont'd.)
linked
mapped, *Task Builder*, 2-3
unmapped, *Task Builder*, 2-3
name, *Task Builder*, A-4
internal symbol, *Task Builder*, A-27, A-28
name entry format, *Task Builder*, A-4
object, *Task Builder*, 1-1
concatenating, *Task Builder*, 10-7, 11-21
extracting by name, *Task Builder*, F-4
linking, *Task Builder*, 2-1 to 2-8
placing in segment
reducing overhead, *Task Builder*, F-4, F-6
record
end, *Task Builder*, A-24
serviced (UDDRV), *I/O Drivers*, 16-2
supported (ICDRV/ISDRV), *I/O Drivers*, 19-3
Module name, *Program Development*, 2-3, 2-5, 6-5, 6-6, 6-7
table, *Program Development*, 6-9, 6-10
macro library, *Program Development*, 6-2, 6-3
object library, *Program Development*, 6-5, 6-7
MODULE statement, *Error Logging*, 5-32
Module version, *Program Development*, 2-5
.MOLUN
reserved global symbol, *Task Builder*, E-1
Monitor Console Routine
See MCR
MOU
See MOUNT command
/MOU keyword
SAVE command (MCR), *MCR*, 3-190
MOUNT/CACHE command
disk data caching, *System Management*, 19-6, 19-10
MOUNT command, *Command Language*, 5-12, 5-13, 5-50 to 5-67, 9-24 to 9-25
error messages, *Command Language*, 5-64 to 5-67

MOUNT command (cont'd.)
qualifiers
/FOREIGN, *Command Language*, 5-4, 5-10, 5-11, 5-13, 5-53
/NOLABEL, *Command Language*, 5-4, 5-58
/NOSHAREABLE, *Command Language*, 5-55
/SHAREABLE, *Command Language*, 5-14, 5-55
MOUNT command (MCR), *MCR*, 1-6, 3-141
formats, *MCR*, 3-142, 3-144
keywords
/ACP, *MCR*, 3-145
/BS, *MCR*, 3-146
/CACHE, *MCR*, 3-146
/CC, *MCR*, 3-147
/DENS, *MCR*, 3-147
/FOR, *MCR*, 2-14, 3-148
/FPRO, *MCR*, 3-148
/LOCK, *MCR*, 3-149
/LRU, *MCR*, 3-150
/[NO]HDR3, *MCR*, 3-149
/[NO]LABEL, *MCR*, 3-149
/[NO]SHARE, *MCR*, 3-152
/[NO]WAIT, *MCR*, 3-154
/[NO]WRITE, *MCR*, 3-155
/OVR, *MCR*, 3-150
/OVRACC, *MCR*, 3-151
/OVREXP, *MCR*, 3-151
/OVRFSID, *MCR*, 3-151
/PARM, *MCR*, 3-151
/PRO, *MCR*, 3-151
/PUB, *MCR*, 3-152
/RS, *MCR*, 3-152
/TR, *MCR*, 3-152
/UIC, *MCR*, 3-153
/UNL, *MCR*, 3-153
/VI, *MCR*, 3-153
/VOL, *MCR*, 3-154
/WIN, *MCR*, 3-155
parameters, *MCR*, 3-142
volume
accessing, *MCR*, 2-13
mounting, *MCR*, 2-3
Mount Device Transaction Block, *System Management*, 17-28
/MOUNTED qualifier
BRU utility, *Utilities*, 7-18
Mounted volume, *Command Language*, 5-10 to 5-11
MOVE command_EDT editor, *Introduction*, 2-15
Move mode, *I/O Operations*, 1-9
RMS-11 Introduction, 4-6
GET$ macro, *I/O Operations*, 3-21, 3-23
indexed files, *RMS-11 User's Guide*, 7-7
PUT$ macro, *I/O Operations*, 3-26, 3-28
relative files, *RMS-11 User's Guide*, 4-12
sequential files, *RMS-11 User's Guide*, 3-13
Move to/from User/Supervisor I/D-Space directive, *Executive*, 5-133
Moving text (EDT), *Introduction*, 2-8, 2-15
/MP switch, *Task Builder*, 10-28
$MPUB1 routine, *Writing I/O Driver*, 7-30
$MPUBM routine, *Writing I/O Driver*, 7-29
M register, *Debugging*, 2-6, 5-3, 6-2
.MRKDL routine, mark temporary file for delete, *I/O Operations*, 4-29
$$MRKS program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-3
MRKT$ directive, *Executive*, 5-125
MRL field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-85
MRN, *RMS-11 User's Guide*, 1-19
relative files, *RMS-11 User's Guide*, 4-4, 4-5
MRN field in FAB
CREATE operation, *RMS-11 Macro*, 5-13
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-79
summary, *RMS-11 Macro*, 6-55
MRS field in FAB
CREATE operation, *RMS-11 Macro*, 5-12
offset, *RMS-11 Macro*, 6-24
OPEN operation, *RMS-11 Macro*, 5-79
summary, *RMS-11 Macro*, 6-56

MS.ADS address silo, transmitter (LRDRV), *I/O Drivers*, 14-5
MS.AUT auto addressing, transmitter (LRDRV), *I/O Drivers*, 14-5
MSCP
  controller
    SYSGEN question, *System Generation*, 3-44
  disk
    SYSGEN question, *System Generation*, 3-45
MSCP60, *Error Logging*, 4-9
MSCP80, *Error Logging*, 4-9
MSCPAT, *Error Logging*, 4-9
MSCP disks
  configuration, *System Management*, 5-2
MSCPE, *Error Logging*, 4-9
MSCPEN, *Error Logging*, 4-9
MSCPSD, *Error Logging*, 4-9
MSCPTO, *Error Logging*, 4-9
MSDS$ directive, *Executive*, 5-131
MS-type magnetic tape
  SYSGEN question, *System Generation*, 3-48
m symbol, *Debugging*, 2-1
MTADF$, *CDA*, B-28, C-44 *Writing I/O Driver*, A-35 to A-38
MT-type magnetic tape
  SYSGEN question, *System Generation*, 3-53
$MUL (Integer multiply), *System Library*, 3-1
Multiblock count
  See MBC
  See MBC field in RAB
Multibuffer count
  See MBF field in RAB
Multidirectory device
  See FB$MDI mask in DEV field
Multiple access operation
  data base structures, *Writing I/O Driver*, 2-8, 2-10
Multiple access streams
  and shared access, *RMS-11 User's Guide*, 2-9, 2-10
  indexed files, *RMS-11 User's Guide*, 7-10
  relative files, *RMS-11 User's Guide*, 4-15
  sequential files, *RMS-11 User's Guide*, 3-15
Multiple areas
  RMSDES utility, *RMS-11 Utilities*, 2-7, 2-43
Multiple buffers, *RMS-11 User's Guide*, 2-18
  indexed files, *RMS-11 User's Guide*, 7-9
  relative files, *RMS-11 User's Guide*, 4-15
  sequential files, *RMS-11 User's Guide*, 3-15
Multiple controller, *Writing I/O Driver*, 1-7
Multiple definition error
  See M error
Multiple expression, *MACRO-11*, 2-4
Multiple file systems, *System Generation*, C-5
Multiple keys
  RMSDES utility, *RMS-11 Utilities*, 2-7, 2-38
Multiple label, *MACRO-11*, 2-2
Multiple parameters, *Command Language*, 1-14
Multiple symbol, *MACRO-11*, 2-4
Multiplexer, *MCR*, 3-247, 3-254
  asynchronous (communication driver), *I/O Drivers*, 12-1
  DH11
    SYSGEN question, *System Generation*, 3-57
  DHU11/DHV11
    SYSGEN question, *System Generation*, 3-58
  DJ11
    SYSGEN question, *System Generation*, 3-60
  DZ11/DZQ11/DZV11
    SYSGEN question, *System Generation*, 3-61
Multiplication operator, *MACRO-11*, 3-2, 3-5
Multiply routine
  double-precision multiply ($DMUL), *System Library*, 3-3
  multiply ($MUL), *System Library*, 3-1
Multiprocessor system
  task issuing I/O request, *Writing I/O Driver*, 1-16
Multiprogramming, *MCR*, 2-21
Multirequest mode (LADRV), *I/O Drivers*, 22-1

Multistream line printer spooling, *System Management*, 7-1
Multiuser protection
  and devices, *MCR*, 2-13
  commands, *MCR*, 1-8
  system, *MCR*, 2-6
Multiuser system, *Introduction*, 6-2
Multiuser task
  as an overlaid task, *Task Builder*, 9-2
  building, *Task Builder*, 9-5
  declaring read-only partition, *Task Builder*, 12-35
  defined, *Task Builder*, 9-1
  description, *Task Builder*, 9-1, 9-7
  disk image, *Task Builder*, 9-2
  example, *Task Builder*, 9-5, 9-6, 9-7
  example map, *Task Builder*, 9-7, 9-8
  I- and D-space, *Task Builder*, 9-3
    APR allocation, *Task Builder*, 9-3
    building, *Task Builder*, 9-4
    program section, *Task Builder*, 9-3
    program section allocation, *Task Builder*, 9-4
    window, *Task Builder*, 9-5
  program section allocation, *Task Builder*, 9-1, 9-2
  specifying, *Task Builder*, 10-29, 11-67
  TKB command sequence, *Task Builder*, 9-7
  window block assignment, *Task Builder*, 9-1, 9-3
/MU switch, *Task Builder*, 10-29
Mutiple file operation, *I/O Operations*, 5-6
Mutiprocessor systems
  stand-alone maintenance, *System Management*, 15-34
MU-type device
  SYSGEN question, *System Generation*, 3-46
MVTS$ directive, *Executive*, 5-133
/MXF keyword
  HOME command, *MCR*, 3-95
  INITVOLUME command, *MCR*, 3-105

N

N$-family macro, *RMS-11 Macro*, 2-9
  declaring, *RMS-11 Macro*, C-2
N$-family macro (cont'd.)
  example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
N.ANM1 field, ANSI filename string, *I/O Operations*, B-4
N.ANM2 field, remainder of ANSI filename string, *I/O Operations*, B-4
N.DID field, .PARSE routine, *I/O Operations*, 4-13
N.DID field, directory identification, *I/O Operations*, B-2
N.DVNM field, *I/O Operations*, 4-17
N.DVNM field, ASCII device name, *I/O Operations*, B-2
N.DVNM field, ASCII tape device name, *I/O Operations*, B-4
N.FID field
  .FIND routine, *I/O Operations*, 4-17
  .PARSE routine, *I/O Operations*, 4-13
N.FID field, file identification, *I/O Operations*, B-1, B-4
N.FNAM field, file name, *I/O Operations*, B-1
N.FTYP field, file type, *I/O Operations*, B-1
N.FVER field, file version number, *I/O Operations*, B-1
N.FVER field, tape file version number, *I/O Operations*, B-4
N.NEXT field, context for next .FIND, *I/O Operations*, B-2
N.NEXT field, tape context for next .FIND, *I/O Operations*, B-4
N.OVPT
  low-memory context, *Task Builder*, B-10
  reserved global symbol, *Task Builder*, E-1
N.STAT field, filename block status word, *I/O Operations*, B-1
N.STAT field, tape filename block status word, *I/O Operations*, B-4
N.UNIT field
  FNB (tape), *I/O Operations*, B-4
N.UNIT field, unit number field, *I/O Operations*, B-2
N0 parameter
  RLSBUF: subroutine
    K-series, *I/O Drivers*, 23-26
    LADRV, *I/O Drivers*, 22-22

NAM$B macro, *RMS-11 Macro*, 2-8, C-2
  example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
NAM$E macro, *RMS-11 Macro*, 2-9
  declaring, *RMS-11 Macro*, C-2
  example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
NAM block, *RMS-11 Introduction*, 4-8
  chaining to FAB, *RMS-11 Macro*, 2-12
  declaring, *RMS-11 Macro*, 2-8
  identification by
    See FB$FID mask in FOP field
  initializing, *RMS-11 Macro*, 2-9
  summary, *RMS-11 Macro*, 6-94
Name
  format
    internal symbol, *Task Builder*, A-32
  global symbol, *Task Builder*, A-6
/NAME:jobname qualifier
  PRINT command, *Batch and Queue*, 2-4
NAME attribute
  RMSDES utility
    file section, *RMS-11 Utilities*, 2-31
    key section, *RMS-11 Utilities*, 2-38
/NAMED_DIRECTORY qualifier
  SET DEFAULT command, *Command Language*, 4-100 to 4-101
.NAME directive, *Task Builder*, 3-23, 3-28
  attribute
    DSK, *Task Builder*, 3-28
    GBL, *Task Builder*, 3-28
    NODSK, *Task Builder*, 3-28
    NOGBL, *Task Builder*, 3-28
  example use, *Task Builder*, 3-29
  summary, *Task Builder*, 3-51
/NAMED keyword
  SET command (MCR), *MCR*, 3-231
Named variable, *Error Logging*, 5-8
/NAME keyword
  HOME command, *MCR*, 3-95
/NAME qualifier
  SHOW QUEUE command, *Batch and Queue*, 2-16
NAM field in FAB
  chaining NAM block to FAB, *RMS-11 Macro*, 2-12
NAM field in FAB (cont'd.)
  CREATE operation, *RMS-11 Macro*, 5-9
  ENTER operation, *RMS-11 Macro*, 5-35
  ERASE operation, *RMS-11 Macro*, 5-40
  offset, *RMS-11 Macro*, 6-24
  OPEN operation, *RMS-11 Macro*, 5-72
  PARSE operation, *RMS-11 Macro*, 5-86
  REMOVE operation, *RMS-11 Macro*, 5-102
  RENAME operation, *RMS-11 Macro*, 5-108
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-57
NAMOF$ macro, *RMS-11 Macro*, C-2
.NARG directive, *MACRO-11*, 7-11
  example, *MACRO-11*, 7-12
NB$DEV mask in FNB field
  CREATE operation, *RMS-11 Macro*, 5-21
  ENTER operation, *RMS-11 Macro*, 5-37
  ERASE operation, *RMS-11 Macro*, 5-43
  OPEN operation, *RMS-11 Macro*, 5-81
  PARSE operation, *RMS-11 Macro*, 5-88
  REMOVE operation, *RMS-11 Macro*, 5-105
  RENAME operation, *RMS-11 Macro*, 5-111
  value, *RMS-11 Macro*, 6-94
NB$DIR mask in FNB field
  CREATE operation, *RMS-11 Macro*, 5-21
  ENTER operation, *RMS-11 Macro*, 5-37
  ERASE operation, *RMS-11 Macro*, 5-43
  OPEN operation, *RMS-11 Macro*, 5-81
  PARSE operation, *RMS-11 Macro*, 5-88
  REMOVE operation, *RMS-11 Macro*, 5-105
  RENAME operation, *RMS-11 Macro*, 5-111
  value, *RMS-11 Macro*, 6-94

NB$-family symbol
declaring, *RMS-11 Macro*, C-2
NB$NAM mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation (set if NB$QUO is set), *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$NOD mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$QUO mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$TYP mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation (set if NB$QUO is set), *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$VER mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
RSX-11, *RMS-11 Macro*, D-3, D-4
value, *RMS-11 Macro*, 6-94
NB$WCH mask in FNB field, *RMS-11 Macro*, 3-9, 3-10
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-38
ERASE operation, *RMS-11 Macro*, 5-41, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-103, 5-105
RENAME operation, *RMS-11 Macro*, 5-109, 5-112
SEARCH operation, *RMS-11 Macro*, 5-116, 5-118
summary, *RMS-11 Macro*, 6-102
value, *RMS-11 Macro*, 6-94

NB$WCH mask in FNB field (cont'd.)
wildcard loop, *RMS-11 Macro*, 3-10
NB$WDI mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$WNA mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$WTY mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB$WVE mask in FNB field
CREATE operation, *RMS-11 Macro*, 5-21
NB$WVE mask in FNB field (cont'd.)
ENTER operation, *RMS-11 Macro*, 5-37
ERASE operation, *RMS-11 Macro*, 5-43
OPEN operation, *RMS-11 Macro*, 5-81
PARSE operation, *RMS-11 Macro*, 5-88
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-111
value, *RMS-11 Macro*, 6-94
NB condition test argument, *MACRO-11*, 6-52
NBOF$L macro, *I/O Operations*, 2-33
Nbs parameter
device-specific function (tape driver), *I/O Drivers*, 8-8
Nbuf parameter
ADSWP: subroutine (K-series), *I/O Drivers*, 23-9
DASWP: subroutine
K-series, *I/O Drivers*, 23-14
LADRV, *I/O Drivers*, 22-9
DISWP: subroutine
K-series, *I/O Drivers*, 23-17
LADRV, *I/O Drivers*, 22-12
DOSWP: subroutine
K-series, *I/O Drivers*, 23-19
LADRV, *I/O Drivers*, 22-14
DRS: subroutine (LSDRV), *I/O Drivers*, 17-17
GTHIST: subroutine (K-series), *I/O Drivers*, 23-22
HIST: subroutine (LSDRV), *I/O Drivers*, 17-18
RTS: subroutine (LSDRV), *I/O Drivers*, 17-24
SDAC: subroutine (LSDRV), *I/O Drivers*, 17-26
SDO: subroutine (LSDRV), *I/O Drivers*, 17-28
Nbu parameter
ADSWP: subroutine (LADRV), *I/O Drivers*, 22-4
Nchan parameter (LSDRV)
RTS: subroutine, *I/O Drivers*, 17-24
SDAC: subroutine, *I/O Drivers*, 17-26

Nchn parameter
ADSWP: subroutine
K-series, *I/O Drivers*, 23-11
LADRV, *I/O Drivers*, 22-6
DASWP: subroutine
K-series, *I/O Drivers*, 23-15
LADRV, *I/O Drivers*, 22-11
DISWP: subroutine (LADRV), *I/O Drivers*, 22-14
DOSWP: subroutine (LADRV), *I/O Drivers*, 22-16
ISTADC: subroutine (K-series), *I/O Drivers*, 23-28
SETADC: subroutine (LADRV), *I/O Drivers*, 22-23
.NCHR directive, *MACRO-11*, 7-13
N command, *Debugging*, 2-10, 6-2, 6-3
NCT (TTDRV), *I/O Drivers*, 2-18
NDF condition test argument, *MACRO-11*, 6-52
Nearest Cylinder
definition, *Writing I/O Driver*, 1-15
NE condition test argument, *MACRO-11*, 6-51
N error, *MACRO-11*, 3-15
summary, *MACRO-11*, D-4
Nes parameter
device-specific function (tape driver), *I/O Drivers*, 8-8
Nested conditional assembly directive, *MACRO-11*, 6-52
Nesting
macro definition, *MACRO-11*, 7-5, 7-6
NETNOD symbol, *Indirect*, 2-21
/NETUIC keyword
SET command (MCR), *MCR*, 3-234
SET command (VMR), *System Management*, 10-63
NETUIC symbol, *Indirect*, 2-21
Network, *Command Language*, 1-16
connecting to, *MCR*, 3-247
dial-up, *MCR*, 3-247
Network Command Terminal
See NCT
Network facilities
RMSCNV utility, *RMS-11 Utilities*, 4-1
/NEW_VERSION qualifier
BRU utility, *Utilities*, 7-19
New disk, *Command Language*, 5-11 to 5-13
Newval parameter
IDOR: subroutine (LSDRV), *I/O Drivers*, 17-20
NEXT & PRINT command
EDI utility, *Utilities*, 2-16, 2-39
NEXT command
EDI utility, *Utilities*, 2-16, 2-39
Next command entry point, *Writing I/O Driver*, 4-65
Next-record context, *RMS-11 Macro*, 4-3
See also Context
NFS
exercise example, *System Management*, 4-15
testing range of blocks, *System Management*, 4-52
volume
altering range of test blocks, *System Management*, 4-52
displaying range of test blocks, *System Management*, 4-52
error retries, *System Management*, 4-56
selecting with SELECT, *System Management*, 4-58
selecting with VERIFY, *System Management*, 4-8, 4-64
NI definition (XEDRV), *I/O Drivers*, 13-23
NL: pseudo device, *Command Language*, 5-7
NLDRV, *I/O Drivers*, 20-1
example, *I/O Drivers*, 20-1
function, *I/O Drivers*, 20-1
.NLIST BEX directive, *Program Development*, 2-6
.NLIST directive, *MACRO-11*, 6-9 to 6-14
arguments for, *MACRO-11*, 6-10, 6-11, 6-12
/NL switch, *MACRO-11*, 8-6
.NLUNS
reserved global symbol, *Task Builder*, E-1
NMBLK$ macro
default filename block, *I/O Operations*, 2-31
example, *I/O Operations*, 2-33
NML11, *Error Logging*, 4-9
/NM switch, *Task Builder*, 10-30
PIP utility, *Utilities*, 3-28

/[NO]CV switch
RMSRST utility, *RMS-11 Utilities*, 7-5, 7-10
/[NO]QU switch
RMSBCK utility, *RMS-11 Utilities*, 6-5, 6-6, 6-7, 6-10
RMSRST utility, *RMS-11 Utilities*, 7-6, 7-7, 7-8, 7-12
NOA field in SUM block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-145
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-148
NO attribute, *System Management*, 12-36
/NOCEX keyword
SET command (MCR), *MCR*, 3-234
/NOCONTROL qualifier
SET TERMINAL command, *Command Language*, 3-40
.NOCROSS directive, *MACRO-11*, 6-21, 6-22
Node, *Command Language*, 1-16
remote file specification, *RMS-11 User's Guide*, B-2
No echo (half-duplex), *I/O Drivers*, 3-14
/NOER switch
RMSIFL utility, *RMS-11 Utilities*, 3-6
/NOINITIALIZE qualifier
BRU utility, *Utilities*, 7-19
NOK field in SUM block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-145
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-149
/NOLABEL qualifier
MOUNT command, *Command Language*, 5-4, 5-58
Nolabel tape block size (tape driver), *I/O Drivers*, 8-18
No limit switch, *Error Logging*, 2-3, 2-6
/NOLIM switch, *Error Logging*, 2-3, 2-6
/NOLOG switch, *Error Logging*, 2-3
No log switch, *Error Logging*, 2-3
/NOLO job switch
QUE /MOD command, *Batch and Queue*, 2-21
/NOLOW switch
PRI command, *Batch and Queue*, 2-4
/NONAMED_DIRECTORY qualifier
SET DEFAULT command, *Command Language*, 4-100 to 4-101
Nonexternal header, *Writing I/O Driver*, 6-8
Non-file-structured exercising
IOX, *System Management*, 4-3
Non-pool-resident, *Writing I/O Driver*, 6-8
header, *Writing I/O Driver*, 6-9
Nonprivileged task
rebuilding, *System Generation*, 4-10
types supplied, *System Generation*, 3-73
Nonrecoverable errors, *System Management*, 15-30
Non-RMS-11 files, *RMS-11 Introduction*, 3-4
Nonsense interrupt logging, *Error Logging*, 4-22
No-op function mask, *Writing I/O Driver*, 4-19, 4-20
/NOPRESERVE qualifier
BRU utility, *Utilities*, 7-19
NOSAV symbolic argument, *MACRO-11*, 6-42
NO SCROLL key, *Command Language*, 3-16 *Introduction*, 1-14
/NOSERIAL qualifier
SET TERMINAL command, *Command Language*, 3-49
/NOSHAREABLE qualifier
MOUNT command, *Command Language*, 5-55
No sharing
sharing declaration, *RMS-11 User's Guide*, 2-7
/NOSO switch
RMSIFL utility, *RMS-11 Utilities*, 3-8, 3-9, 3-10
No spool switch
See /-SP switch
/NOSP switch, *MACRO-11*, 8-7
/NOSUPERSEDE qualifier
BRU utility, *Utilities*, 7-19
Notes module
exit, *Error Logging*, 4-33
heading, *Error Logging*, 4-32

Notes module (cont'd.)
MODULE statement, *Error Logging*, 4-32
NML11, *Error Logging*, 4-9
note name, *Error Logging*, 4-32
NRK67, *Error Logging*, 4-9
NRM05, *Error Logging*, 4-9
NRM23, *Error Logging*, 4-9
NT0310, *Error Logging*, 4-9
NTS11, *Error Logging*, 4-9
print declaration, *Error Logging*, 4-32
print number, *Error Logging*, 4-33
PROCEDURE statement, *Error Logging*, 4-32
unknown note, *Error Logging*, 4-33
user written, *Error Logging*, 4-31
/NOVERIFY switch
FMT utility, *Utilities*, 5-8
.NOVLY
reserved global symbol, *Task Builder*, E-1
/NOWCHK switch
BAD utility, *Utilities*, 6-9
NOWIDE argument, *MACRO-11*, 8-11, 8-12
N parameter
RMVBUF: subroutine
K-series, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
NP command
EDI utility, *Utilities*, 2-16, 2-39
NPR device
drivers for (on PDP-11), *Writing I/O Driver*, 7-2
NRK67, *Error Logging*, 4-9
NRM05, *Error Logging*, 4-9
NRM23, *Error Logging*, 4-9
NRZI even parity (tape driver), *I/O Drivers*, 8-16
/NSF keyword
FIX-IN-MEMORY command (VMR), *System Management*, 10-19
NSG field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-86
$NSIER, *Error Logging*, 4-22
/NS switch
SLP utility, *Utilities*, 13-16
.NSTBL
reserved global symbol, *Task Builder*, E-1
n symbol, *Debugging*, 2-1
NT0310, *Error Logging*, 4-9
NTS11, *Error Logging*, 4-9
.NTYPE directive, *MACRO-11*, 7-14
NUL field in KEY block
CREATE operation, *RMS-11 Macro*, 5-19
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-87
Null
segment
ODL, *Task Builder*, 3-31
NULL_KEY attribute
RMSDES utility, *RMS-11 Utilities*, 2-39
NULL_VALUE attribute
RMSDES utility, *RMS-11 Utilities*, 2-39
Null device, *MCR*, 2-11 *System Management*, 10-39
Null device driver
See NLDRV
Null key, *RMS-11 Introduction*, 3-10 *RMS-11 User's Guide*, 6-10
See also NUL field in KEY block
See also XB$NUL mask in FLG field
Number, *Command Language*, 1-13
floating-point, *MACRO-11*, 6-33, 6-34
MACRO-11 treatment, *MACRO-11*, 3-14
one's complement, *MACRO-11*, 6-35, 6-36
one-word floating-point, *MACRO-11*, 6-35, 6-36
packing decimal, *MACRO-11*, 6-31
radix control, *MACRO-11*, 6-31, 6-32
two's complement operator, *MACRO-11*, 3-4
Number of arguments
See .NARG directive
Number sign (#)
cross-reference listing, *Task Builder*, 10-12, 10-13, 11-23, 11-24
NUMBER symbol, *Indirect*, 2-11

Numeric control
operator, *MACRO-11*, 6-33
temporary operator, *MACRO-11*, 6-35, 6-36
Numeric conversion function, *Error Logging*, 5-17, 5-18
Numeric directive, *MACRO-11*, 6-33
Numeric expression, *Indirect*, 2-22
Numeric symbol, *Indirect*, 2-9, 2-22
comparing, *Indirect*, 2-60
decrementing, *Indirect*, 2-44
defining, *Indirect*, 2-35
incrementing, *Indirect*, 2-65
radix, *Indirect*, 2-23
setting, *Indirect*, 2-82
setting, *Indirect*, 2-81
substituting, *Indirect*, 2-23
testing, *Indirect*, 2-61
Numeric to ASCII, *System Library*, 5-1
See also ASCII number conversion
binary byte to octal ($CBTMG), *System Library*, 5-9
binary date to decimal ($CBDAT), *System Library*, 5-2
binary to signed decimal ($CBDSG), *System Library*, 5-4
binary to signed octal ($CBOSG), *System Library*, 5-8
binary to unsigned decimal ($CBDMG), *System Library*, 5-3
binary to unsigned octal ($CBOMG), *System Library*, 5-7
double-precision binary to decimal ($CDDMG), *System Library*, 5-5
general purpose binary to ASCII ($CBTA), *System Library*, 5-10
Radix-50 to ASCII ($C5TA), *System Library*, 5-11
Num parameter
immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
/NU switch
FLX utility, *Utilities*, 4-7
/NV subswitch
PIP utility, *Utilities*, 3-20
/NV switch
PIP utility, *Utilities*, 3-12
NXT field in ALL block
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9
NXT field in ALL block (cont'd.)
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-2
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-13
NXT field in DAT block
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-14
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-19
NXT field in KEY block
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9
DISPLAY operation, *RMS-11 Macro*, 5-30

NXT field in KEY block (cont'd.)
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-88
NXT field in PRO block
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-108
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-111
NXT field in SUM block
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
NXT field in SUM block (cont'd.)
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-145
OPEN operation, *RMS-11 Macro*, 5-73
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-150
NXT field in XAB
chaining XABs to FAB, *RMS-11 Macro*, 2-12
NXTSYM symbol, *Indirect*, 2-21
$NXTVOL macro, *RMS-11 Macro*, 5-70
RSTS/E, *RMS-11 Macro*, D-4
NXTVOL operation, *RMS-11 Introduction*, 4-4
$NXTVOL macro, *RMS-11 Macro*, 5-70
record stream, *RMS-11 Macro*, 4-9

O

O$-family symbol
declaring
ALL block, *RMS-11 Macro*, C-3, C-4
DAT block, *RMS-11 Macro*, C-3, C-4
FAB field offset, *RMS-11 Macro*, C-1
KEY block, *RMS-11 Macro*, C-3, C-4
NAM block field offset, *RMS-11 Macro*, C-2
PRO block, *RMS-11 Macro*, C-3, C-4
RAB, *RMS-11 Macro*, C-2
SUM block, *RMS-11 Macro*, C-3, C-4
XAB, *RMS-11 Macro*, C-4
value
ALL block, *RMS-11 Macro*, 6-2
DAT block, *RMS-11 Macro*, 6-14

O$-family symbol
value (cont'd.)
FAB, *RMS-11 Macro*, 6-22, 6-23, 6-24
KEY block, *RMS-11 Macro*, 6-67, 6-68
NAM block, *RMS-11 Macro*, 6-94
PRO block, *RMS-11 Macro*, 6-108
RAB, *RMS-11 Macro*, 6-115
SUM block, *RMS-11 Macro*, 6-145
/OA switch
RMSRST utility, *RMS-11 Utilities*, 7-9, 7-10
$$OBF1 program section
reserved name, *Task Builder*, E-3
$$OBF2 program section
reserved name, *Task Builder*, E-3
OBJECT_BINARY argument, *MACRO-11*, 8-11
Object code
assembling, *RMS-11 User's Guide*, 1-13
compiling, *RMS-11 User's Guide*, 1-13
patching, *Task Builder*, 12-6
Object file, *Command Language*, 6-1, 6-3, 6-4, 6-10
Object library
adding modules, *Program Development*, 6-9, 6-10
creating a user, *Program Development*, 6-4, 6-5, 6-6
default search of system, *Program Development*, 1-11, 4-2
DIGITAL-supplied, *Program Development*, 1-10, 1-11
dual use, *Program Development*, 6-8, 6-9
listing information, *Program Development*, 6-11, 6-12
OTS, *Program Development*, 7-1, 7-2
using to resolve undefined global symbols, *Program Development*, 6-8, 6-9
Object module, *Introduction*, 5-3, 5-4, 5-9 *Task Builder*, 1-1
concatenated, *Program Development*, 4-3, 4-4
content, *Task Builder*, A-1
default name, *MACRO-11*, 6-15
Object module (cont'd.)
format, *Task Builder*, A-3
FORTRAN IV, *Program Development*, 7-5, 7-6
input to TKB, *Program Development*, 4-1
library
See Library
See SYSLIB.OLB
linking, *Task Builder*, 2-1 to 2-8
MACRO-11, *Program Development*, 1-4, 3-4, 3-5, 3-6
name, *MACRO-11*, 1-2
name assignment, *MACRO-11*, 6-15
overriding definition, *Task Builder*, 12-18
patching
PAT utility, *Utilities*, 14-1
selective global symbol
using SS to include, *Task Builder*, 10-48, 10-49, 10-50, 11-61, 11-62, 11-63
storing in library
LBR utility, *Utilities*, 10-19
system library, *Introduction*, 5-9
Object module library, *Command Language*, 6-39 *I/O Drivers*, 1-7
Object Module Patch Utility
See PAT utility
/OBJECT qualifier, *MACRO-11*, 8-10
Object Time System
See OTS
.OBJ file type, *Program Development*, 3-4, 7-5
O command, *Debugging*, 2-10, 7-1, 9-13
ZAP utility, *Utilities*, 15-17
OCOP, *System Management*, 12-30
Octal conversion
octal to binary ($COTB), *System Library*, 4-5
octal to binary double-word (.OD2CT), *System Library*, 4-2
Octal number, *Command Language*, 1-13
Octal operator, *Debugging*, 2-3, 2-7, 2-8
byte mode, *Debugging*, 9-11
word mode, *Debugging*, 9-11
OCTAL symbol, *Indirect*, 2-11
/OCT switch
DMP utility, *Utilities*, 11-7

.OD2CT (Octal to binary double-word), *System Library*, 4-2
.ODD directive, *MACRO-11*, 6-37
ODL
  autoload indicator, *Task Builder*, 4-2
  directive, *Task Builder*, 3-23
    .END, *Task Builder*, 3-23, 3-24
    example use of .NAME, *Task Builder*, 3-29
    .FCTR, *Task Builder*, 3-23, 3-25
    introduction, *Task Builder*, 3-23
    .NAME, *Task Builder*, 3-23, 3-28
    .NAME attributes, *Task Builder*, 3-28
    .PSECT, *Task Builder*, 3-23, 3-29
    .ROOT, *Task Builder*, 3-23, 3-24
  efficiently placing in
    autoload indicator, *Task Builder*, 4-6
  enabling operator
    memory-resident overlay, *Task Builder*, 10-34, 11-58
  file, *Task Builder*, 3-49
    creating
      start of procedure, *Task Builder*, 3-36
      with allocation diagram, *Task Builder*, 3-35 to 3-40
    declaring, *Task Builder*, 10-28, 11-53
    .FCTR statement
      creating from allocation diagram, *Task Builder*, 3-38, 3-39
    .ROOT directive
      creating from allocation diagram, *Task Builder*, 3-37
    virtual address space
      allocation diagram, *Task Builder*, 3-36
  introduction, *Task Builder*, 3-23 to 3-31
  multiple tree
    defining structure, *Task Builder*, 3-30 to 3-35
    example, *Task Builder*, 3-31, 3-32
ODL
  multiple tree (cont'd.)
    structure, *Task Builder*, 3-30 to 3-35
  operator
    comma (,), *Task Builder*, 3-24
    exclamation point (!), *Task Builder*, 3-24, 3-27
    hyphen (-), *Task Builder*, 3-24
    introduction, *Task Builder*, 3-24
  statement
    cotree
      from allocation diagram, *Task Builder*, 3-40
  summary, *Task Builder*, 3-49, 3-50, 3-51
  tree
    defining, *Task Builder*, 3-49
  using indirect file, *Task Builder*, 3-30
.ODL file type, *Command Language*, 6-5
ODT, *MCR*, 3-58 *Program Development*, 1-6, 1-7
  at sign (@), *Program Development*, 5-8
  backslash (\), *Program Development*, 5-5
  B command, *Program Development*, 5-6
  breakpoint register, *Program Development*, 5-6
  changing location contents, *Program Development*, 5-7
  correcting input, *Program Development*, 5-3
  disabling, *System Management*, 9-4
  dollar sign ($), *Program Development*, 5-6, 5-7, 5-8
  error conditions in task, *Program Development*, 5-8
  examining locations, *Program Development*, 5-4, 5-5
  exiting, *Debugging*, 1-4
  forming address, *Program Development*, 5-4
  G command, *Program Development*, 5-6, 5-8
  including in a task, *Program Development*, 5-1, 5-2
  invoking, *Debugging*, 1-4
  LINE FEED key, *Program Development*, 5-5, 5-7, 5-8
  linking, *Debugging*, 1-2

ODT (cont'd.)
map use, *Program Development*, 5-2
ODT.OBJ file, *Program Development*, 5-1
overview, *Debugging*, 1-1
P command, *Program Development*, 5-7
question mark (?), *Program Development*, 5-3
R command, *Program Development*, 5-3
relocation register, *Program Development*, 5-2, 5-3, 5-4
RETURN key, *Program Development*, 5-8
setting breakpoints, *Program Development*, 5-6
setting up a task with, *Program Development*, 1-7
slash (/), *Program Development*, 5-4
source listing use, *Program Development*, 5-4
SST within, *Program Development*, 5-8
terminating task execution, *Program Development*, 5-8
underline (_), *Program Development*, 5-2
X command, *Program Development*, 5-8
ZAP utility, *Utilities*, 15-1
ODTID module, *Debugging*, 1-3
.ODTL1
reserved global symbol, *Task Builder*, E-1
.ODTL2
reserved global symbol, *Task Builder*, E-1
ODT vector, *Task Builder*, 12-26
ODTV option, *Task Builder*, 12-26
O error, *MACRO-11*, 6-39, 6-53, 7-3, 7-12, 7-14, 7-21
summary, *MACRO-11*, D-4
Offline, place unit (ICDRV/ISDRV), *I/O Drivers*, 19-70
OFFLINE command, *System Management*, 15-19
OFFLINE MEMORY, *System Management*, 15-21
$OFF macro, *RMS-11 Macro*, 2-11
Offset, *Debugging*, 2-3
branch, *Debugging*, 7-1
calculating, *Debugging*, 2-10, 7-1, 9-13
Offset
calculating (cont'd.)
instruction and data space, *Debugging*, 7-2
negative, *Debugging*, 7-2
PC-relative, *Debugging*, 7-1, 9-13
positive, *Debugging*, 7-2
Offset mode, *CDA*, 3-1
Offspring task
enable (VTDRV), *I/O Drivers*, 4-5
offspring task
VTDRV, *I/O Drivers*, 4-1
OFID$ macro, *I/O Operations*, 3-1
OFID$x macro, file processing, *I/O Operations*, 3-14
OFLIN: place unit offline (ICDRV/ISDRV), *I/O Drivers*, 19-70
OFNB$ macro, *I/O Operations*, 3-1
OFNB$x macro
dataset descriptor, *I/O Operations*, 3-17
default filename block, *I/O Operations*, 3-17
file processing, *I/O Operations*, 3-16
.OLB file type, *Program Development*, 6-4
See also LBR utility
OLRDF$, *CDA*, C-47 *Writing I/O Driver*, A-39 to A-45
One's complement operator, *MACRO-11*, 3-5, 6-35, 6-36
.ONERR directive, *Indirect*, 2-67
One-word floating-point number, *MACRO-11*, 6-35, 6-36
ONLIN: place unit online (ICDRV/ISDRV), *I/O Drivers*, 19-70
Online, place unit (ICDRV/ISDRV), *I/O Drivers*, 19-70
ONLINE command, *System Management*, 15-22
On-Line Debugging Tool
See ODT
ONLINE MEMORY, *System Management*, 15-24
On-line system
definition, *System Generation*, 1-11
OOB (TTDRV)
clear, *I/O Drivers*, 2-61
hello, *I/O Drivers*, 2-61
include, *I/O Drivers*, 2-61
^O operator, *MACRO-11*, 3-5, 6-32

Op code
See Operation code
OP command
EDI utility, *Utilities*, 2-39
OPE
See OPENREGISTER command
/OPE keyword
OPENREGISTER command, *MCR*, 3-166
OPEN$
example, *I/O Operations*, 5-9
macro, *I/O Operations*, 3-1
macro, file processing, *I/O Operations*, 3-18
OPEN$R
example, *I/O Operations*, 5-8
macro, shared access, *I/O Operations*, 1-13
OPEN$x macro
file processing, *I/O Operations*, 3-2, 3-7
format, file operations, *I/O Operations*, 3-5
.OPENA directive, *Indirect*, 2-71
OPEN command, *Debugging*, 8-7
.OPEN directive, *Indirect*, 2-69
Open file
by filename block, *I/O Operations*, 3-16
by ID, *I/O Operations*, 2-34, 3-14
existing, *I/O Operations*, 3-9
for access, *I/O Operations*, 3-18
for modify, *I/O Operations*, 3-19
for read, *I/O Operations*, 3-19
for update and extend, *I/O Operations*, 3-19
new, *I/O Operations*, 3-9
no supersede, *I/O Operations*, 3-18, 3-19
processing, *I/O Operations*, 3-3
Open line (XEDRV), *I/O Drivers*, 13-6
OPEN LINE key (EDT), *Introduction*, 2-7
$OPEN macro, *RMS-11 Macro*, 5-72
RSTS/E, *RMS-11 Macro*, D-4
OPEN operation, *RMS-11 Introduction*, 4-2 *RMS-11 Macro*, 3-7 *RMS-11 User's Guide*, 1-18
BDB requirement, *RMS-11 Macro*, 2-8
I/O buffer requirement, *RMS-11 Macro*, 2-7
OPEN operation (cont'd.)
IFAB requirement, *RMS-11 Macro*, 2-5
$OPEN macro, *RMS-11 Macro*, 5-72
remote access, *RMS-11 User's Guide*, B-2, B-3
wildcard loop, *RMS-11 Macro*, 3-10, 3-11
.OPENR directive, *Indirect*, 2-73
OPENREGISTER command, *MCR*, 1-8, 3-164
format, *MCR*, 3-164
keywords
/AFF, *MCR*, 3-165
/CPU, *MCR*, 3-165
/KNL, *MCR*, 3-166
/KNLD, *MCR*, 3-166
parameters, *MCR*, 3-164
Open relay (LSDRV), *I/O Drivers*, 17-4
OPEN SECONDARY command
EDI utility, *Utilities*, 2-39
Operand field, *MACRO-11*, 2-1, 2-4
separator, *MACRO-11*, 3-2
Operating mode
disabling, *Indirect*, 2-46
enabling, *Indirect*, 2-47
initial setting, *Indirect*, 2-47
list, *Indirect*, 2-47
testing, *Indirect*, 2-62
Operating system, *Introduction*, 1-1, 5-1 *RMS-11 User's Guide*, 1-13
See also System
allocating system resources, *RMS-11 User's Guide*, 8-3
block locking, *RMS-11 User's Guide*, 3-6
compatibility, *RMS-11 User's Guide*, 3-4
defaults, *RMS-11 User's Guide*, 2-2
failure, *Error Logging*, 1-1
FALs, *RMS-11 User's Guide*, B-3
multiuser, *Introduction*, 6-2
protection codes
and shared access, *RMS-11 User's Guide*, 2-5
real-time, *Introduction*, 6-2
remote access
RSTS/E, *RMS-11 User's Guide*, B-3
RSX-11M/M-PLUS, *RMS-11 User's Guide*, B-3
VAX/VMS, *RMS-11 User's Guide*, B-1, B-3

Operating system (cont'd.)
return to, *Debugging*, 2-12
Operation, *RMS-11 Introduction*, 4-1
RMS-11 Macro, 1-2
asynchronous, *RMS-11 Introduction*, 4-4
block, *RMS-11 Introduction*, 4-7
directory, *RMS-11 Introduction*, 4-1
RMS-11 User's Guide, 1-17
indexed files, *RMS-11 User's Guide*, 7-10
relative files, *RMS-11 User's Guide*, 4-15
sequential files, *RMS-11 User's Guide*, 3-15
file, *RMS-11 Introduction*, 4-2
RMS-11 User's Guide, 1-18
indexed files, *RMS-11 User's Guide*, 7-10
optimizations, *RMS-11 User's Guide*, 8-2
relative files, *RMS-11 User's Guide*, 4-15
sequential files, *RMS-11 User's Guide*, 3-15
from high-level languages, *RMS-11 Introduction*, 4-7
optimizations, *RMS-11 User's Guide*, 8-2
record, *RMS-11 Introduction*, 4-4
RMS-11 User's Guide, 1-10, 1-15
and I/O costs, *RMS-11 User's Guide*, 5-17
and indexed files, *RMS-11 User's Guide*, 5-9, 5-16, 7-1
optimizations, *RMS-11 User's Guide*, 8-2
relative files, *RMS-11 User's Guide*, 4-7
sequential files, *RMS-11 User's Guide*, 3-7
routine
calling, *RMS-11 Macro*, 2-13
return, *RMS-11 Macro*, 2-14
stream, *RMS-11 Introduction*, 4-4
RMS-11 User's Guide, 1-15
indexed files, *RMS-11 User's Guide*, 7-1
relative files, *RMS-11 User's Guide*, 4-7
sequential files, *RMS-11 User's Guide*, 3-7
Operation (cont'd.)
synchronous, *RMS-11 Introduction*, 4-4
using, *RMS-11 Macro*, 2-9
Operation code
comercial instruction, *MACRO-11*, C-3, C-4
floating-point, *MACRO-11*, C-4, C-5
PDP-11, *MACRO-11*, C-1, C-2, C-3
Operation macro, *RMS-11 Macro*, 1-2, 2-9
Operator, *Debugging*, 2-3, 2-4
See SLP utility
apostrophe ('), *Debugging*, 2-7, 4-6, 9-10
arithmetic, *Indirect*, 2-22
ASCII
byte mode, *Debugging*, 4-6
word mode, *Debugging*, 4-6
backslash (\), *Debugging*, 2-8, 4-2, 4-3, 9-11
binary, *MACRO-11*, 3-5, 3-6
addition, *MACRO-11*, 3-5
division, *MACRO-11*, 3-5
evaluation of multiple, *MACRO-11*, 3-6
logical AND, *MACRO-11*, 3-5
logical inclusive OR, *MACRO-11*, 3-5
multiplication, *MACRO-11*, 3-5
precedence with unary, *MACRO-11*, 3-16
subtraction, *MACRO-11*, 3-5
byte mode
ASCII, *Debugging*, 2-7, 9-10
octal, *Debugging*, 2-8, 4-2, 9-11
equal sign (=), *Debugging*, 7-2
field, *MACRO-11*, 2-1, 2-3, 2-4
logical, *Indirect*, 2-22
minus sign (-), *Debugging*, 2-3, 2-4, 9-8
ODL, *Task Builder*, 3-24
comma (,), *Task Builder*, 3-24
exclamation point (!), *Task Builder*, 3-24, 3-27
hyphen (-), *Task Builder*, 3-24
introduction, *Task Builder*, 3-24
percent sign (%), *Debugging*, 2-7, 4-7, 9-11
plus sign (+), *Debugging*, 2-3, 2-4, 9-8
quotation mark ("), *Debugging*, 2-7, 4-6, 9-10

Operator (cont'd.)
Radix-50
word mode, *Debugging*, 4-7
slash (/), *Debugging*, 2-7, 4-2, 4-3, 9-11
space, *Debugging*, 9-8
unary, *MACRO-11*, 3-4
binary radix control, *MACRO-11*, 3-5, 6-32
decimal radix control, *MACRO-11*, 3-5, 6-32
evaluation of multiple, *MACRO-11*, 3-4
macro call use, *MACRO-11*, 7-5
minus, *MACRO-11*, 3-4
numeric control, *MACRO-11*, 6-33, 6-35
octal radix control, *MACRO-11*, 3-5, 6-32
one's complement, *MACRO-11*, 3-5, 6-35, 6-36
one-word floating-point, *MACRO-11*, 3-5, 6-35, 6-36
plus, *MACRO-11*, 3-4
precedence over binary, *MACRO-11*, 3-16
Radix-50 control, *MACRO-11*, 3-5, 6-30
radix control, *MACRO-11*, 6-31, 6-32, 6-33
two's complement, *MACRO-11*, 3-4
universal, *MACRO-11*, 3-5
word mode
ASCII, *Debugging*, 2-7, 9-10
octal, *Debugging*, 2-7, 4-2, 9-11
Radix-50, *Debugging*, 2-7, 9-11
Opn parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.MLO function, *I/O Drivers*, 19-17
IO.MSO function, *I/O Drivers*, 19-16
OPNS$ macro, *I/O Operations*, 3-1
OPNS$R macro, shared access, *I/O Operations*, 1-12
OPNS$x macro, file processing, *I/O Operations*, 3-13
OPNT$D macro, *I/O Operations*, 3-14
OPNT$ macro, *I/O Operations*, 3-1
OPNT$W macro, file processing, *I/O Operations*, 3-13
Optimization
allocating system resources, *RMS-11 User's Guide*, 8-3
application design, *RMS-11 User's Guide*, 2-11
DELETE operation, *RMS-11 User's Guide*, 6-7
disk usage, *RMS-11 User's Guide*, 8-3
operations, *RMS-11 User's Guide*, 8-2
program development, *RMS-11 User's Guide*, 8-1
PUT operation, *RMS-11 User's Guide*, 6-7
virtual-to-logical block mapping, *RMS-11 User's Guide*, 8-2
window turning, *RMS-11 User's Guide*, 8-3
Option
See also specific options
category, *Task Builder*, 12-1
CMPRT
supervisor mode, *Task Builder*, 8-8
use in CSM library, *Task Builder*, 8-8
description, *Task Builder*, 12-1 to 12-45
entering, *Task Builder*, 1-9, 1-10, 1-11
FTB supported, *Task Builder*, G-2
GBLXCL
use in CSM library, *Task Builder*, 8-8, 8-9, 8-17
general form, *Task Builder*, 1-9
indirect command file, *Task Builder*, 1-14
input
LINK command line, *Task Builder*, 1-9, 1-10
TKB command line, *Task Builder*, 1-9
linking to a region, *Task Builder*, 5-15
RESLIB
supervisor mode library, *Task Builder*, 8-20
RESSUP
supervisor mode library, *Task Builder*, 8-7, 8-9

Option
RESSUP (cont'd.)
use in CSM library, *Task Builder*, 8-9, 8-18, 8-19, 8-20
separation of argument list, *Task Builder*, 1-11
summary, *Task Builder*, 12-2, 12-3, 12-4
SUPLIB
supervisor mode library, *Task Builder*, 8-7, 8-9
use in CSM library, *Task Builder*, 8-9, 8-19
supported by FTB, *Task Builder*, G-2
Task Builder, *Task Builder*, 1-9
usage
virtual section, *Task Builder*, 5-61, 5-62
/OPTION qualifier, *Task Builder*, 11-51 to 11-52
/OPT keyword
SET command (MCR), *MCR*, 3-235
SET command (VMR), *System Management*, 10-64
ORG$ macro, *RMS-11 Macro*, 2-2
Organization
See File organization
See ORG field in FAB
ORGANIZATION attribute
RMSDES utility, *RMS-11 Utilities*, 2-31
ORG field in FAB
CREATE operation, *RMS-11 Macro*, 5-11
offset, *RMS-11 Macro*, 6-23
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-58
OTS
library, *Program Development*, 7-1, 7-2
usage to extend record buffer, *Task Builder*, 12-17
$OTSV
low-memory context, *Task Builder*, B-10
reserved global symbol, *Task Builder*, E-2
Outfile
RMSBCK utility, *RMS-11 Utilities*, 6-3
RMSCNV utility, *RMS-11 Utilities*, 4-4
Outfile (cont'd.)
RMSDSP utility, *RMS-11 Utilities*, 5-3
RMSIFL utility, *RMS-11 Utilities*, 3-3
RMSRST utility, *RMS-11 Utilities*, 7-3
Output
ADJLPS: subroutine, use of, *I/O Drivers*, 17-36
analog (UDDRV), *I/O Drivers*, 16-19
analog multichannel (ICDRV/ISDRV), *I/O Drivers*, 19-44
buffer, intermediate (TTDRV), *I/O Drivers*, 2-80
byte, high-order bit (half-duplex), *I/O Drivers*, 3-33
digital
bistable multiple field (ICDRV/ISDRV), *I/O Drivers*, 19-45, 19-46
bistable multipoint (ICDRV/ISDRV), *I/O Drivers*, 19-17
multipoint momentary (ICDRV/ISDRV), *I/O Drivers*, 19-16
initiating
single analog (K-series), *I/O Drivers*, 23-8
synchronous A/D (LSDRV), *I/O Drivers*, 17-25
synchronous digital (LSDRV), *I/O Drivers*, 17-27
latching digital (UDDRV), *I/O Drivers*, 16-8
momentary
multiple field (ICDRV/ISDRV), *I/O Drivers*, 19-49
prompting, VFC (half-duplex), *I/O Drivers*, 3-28
remote terminal (ICDRV/ISDRV), *I/O Drivers*, 19-50
resuming by CTRL/Q (TTDRV), *I/O Drivers*, 2-70
suppressing (TTDRV), *I/O Drivers*, 2-69
suspending by CTRL/S (TTDRV), *I/O Drivers*, 2-70
terminal (ICDRV/ISDRV), *I/O Drivers*, 19-32

Output file switches
RMSBCK utility, *RMS-11 Utilities*, 6-6
RMSIFL utility, *RMS-11 Utilities*, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-7
Output listing limit switch
See /LIMIT switch
OUTPUT ON/OFF command
EDI utility, *Utilities*, 2-40
/OUTVOLUME qualifier
BRU utility, *Utilities*, 7-20
OVCTC module, *Task Builder*, 5-54
OVCTL module, *Task Builder*, 5-54
OVCTR module, *Task Builder*, 5-54
OVDAT module, *Task Builder*, 5-54
$$OVDT program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-3
Overflow mode, *Indirect*, 2-49
Overhead, system
half-duplex, *I/O Drivers*, 3-14
TF.RPR (TTDRV), *I/O Drivers*, 2-14
Overlapped I/O (disk driver), *I/O Drivers*, 5-8
Overlapped I/O completion, *System Generation*, C-7
Overlapped Seek I/O, *Writing I/O Driver*, 1-11
data base structures, *Writing I/O Driver*, 2-8
data transfers, *Writing I/O Driver*, 1-10
difficulty factor, *Writing I/O Driver*, 1-10
executing parallel operations, *Writing I/O Driver*, 1-10
Overlay, *MCR*, 1-5
allocation diagram
creating ODL file, *Task Builder*, 3-35 to 3-40
and disk usage, *RMS-11 User's Guide*, 8-4
autoload vector, *Task Builder*, 3-21
building, *Task Builder*, 3-41 to 3-48
memory-resident
for region, *Task Builder*, 5-10
capability, *Task Builder*, 3-1
choosing a memory-resident, *Task Builder*, 3-14
cotree, *Task Builder*, 3-34, 3-35
Overlay (cont'd.)
data base, *Task Builder*, B-15
I- and D-space task, *Task Builder*, B-16
data caching, *MCR*, 3-146, 3-208
data structure, *Task Builder*, 3-19
linked into root, *Task Builder*, 3-20, 3-21
defining a multiple tree, *Task Builder*, 3-31, 3-32
description
effect on performance, *Task Builder*, F-4
disk-resident, *Task Builder*, 3-1, 3-2
defined, *Task Builder*, 4-1
effect of virtual address space, *Task Builder*, 3-1, 3-2, 3-3
effect on memory, *Task Builder*, 3-1, 3-2, 3-3
effect
physical memory, *Task Builder*, 3-5, 3-6
virtual address space, *Task Builder*, 3-5, 3-6
error handling, *Task Builder*, 4-11
example of building, *Task Builder*, 3-41 to 3-48
high-level language, *Task Builder*, 3-40
considerations, *Task Builder*, 3-41
I- and D-space task, *Task Builder*, 3-21, 3-22, 7-5
disk image, *Task Builder*, 7-7
program section, *Task Builder*, 7-6
I- and D-space task vector
region, *Task Builder*, 5-13, 5-14
introduction, *Task Builder*, 2-9
loading
asynchronously, *Task Builder*, 4-8, 4-10
disk-resident, *Task Builder*, 4-1
mechanism, *Task Builder*, 3-16
memory-resident, *Task Builder*, 4-1
method, *Task Builder*, 4-1
synchronously, *Task Builder*, 4-8, 4-9
memory-resident, *MCR*, 3-183 *Task Builder*, 3-1, 3-6
conserving physical memory, *Task Builder*, 3-14
defined, *Task Builder*, 4-1

Overlay
memory-resident (cont'd.)
effect on physical memory, *Task Builder*, 3-6
effect on virtual address space, *Task Builder*, 3-6
region, *Task Builder*, 5-10
virtual address space, *Task Builder*, 3-14
multiuser task, *Task Builder*, 9-2
operator
enabling recognition, *Task Builder*, 10-34, 11-58
suppression of a memory-resident, *Task Builder*, 10-34, 11-58
path loading, *Task Builder*, 4-4
physical memory, *Task Builder*, 3-33, 3-34, 3-35
program section
specifying, *Task Builder*, 3-19
region
autoload vector, *Task Builder*, 5-13, 5-14
building, *Task Builder*, 5-10
descriptor, *Task Builder*, 3-20, 3-21
example of building, *Task Builder*, 5-11
global symbols in .STB file, *Task Builder*, 5-13, 5-14
restriction, *Task Builder*, 5-14
.STB file, *Task Builder*, 5-13, 5-14
vectors in I- and D-space task, *Task Builder*, 5-13, 5-14
run-time, *Task Builder*, 3-19
comparison of sizes in routine, *Task Builder*, 4-16, 4-17
module, *Task Builder*, 4-16, 5-54, 5-55
routine, *Task Builder*, 3-19, 4-14 to 4-17
support requirement, *Task Builder*, 5-14, 5-53
run-time module
ALERR, *Task Builder*, 4-17
AUTO, *Task Builder*, 4-16
AUTOT, *Task Builder*, 4-16
LOAD, *Task Builder*, 4-17
OVCTC, *Task Builder*, 4-16
OVCTL, *Task Builder*, 4-16
OVCTR, *Task Builder*, 4-16
OVDAT, *Task Builder*, 4-16

Overlay
run-time module (cont'd.)
OVIDC, *Task Builder*, 4-16
OVIDL, *Task Builder*, 4-16
OVIDR, *Task Builder*, 4-16
run-time program section
$$ALERR, *Task Builder*, 4-17
$$AUTO, *Task Builder*, 4-16, 4-17
$$LOAD, *Task Builder*, 4-17
$$MRKS, *Task Builder*, 4-16
$$OVDT, *Task Builder*, 4-16
$$PDLS, *Task Builder*, 4-16
$$RDSG, *Task Builder*, 4-16
$$RTQ, *Task Builder*, 4-16
$$RTR, *Task Builder*, 4-16
$$RTS, *Task Builder*, 4-16
$$SGD0, *Task Builder*, 4-16
$$SGD2, *Task Builder*, 4-16
segment, *Task Builder*, B-14
alignment, *Task Builder*, 10-8, 11-20
arrangement, *Task Builder*, 3-15
descriptor, *Task Builder*, 3-20, 3-21
processing order, *Task Builder*, 3-17
structure, *Task Builder*, 3-49
ambiguously defined symbol, *Task Builder*, 3-16
considerations in creating, *Task Builder*, 3-1
most effective, *Task Builder*, 3-2, 3-3
multiple tree, *Task Builder*, 3-18
multiply defined symbol, *Task Builder*, 3-16
specifying library search, *Task Builder*, 10-23, 11-39
symbol resolution, *Task Builder*, 3-16
task, *Task Builder*, 3-7
global cross-reference, *Task Builder*, 4-12, 4-13
memory resident, *Task Builder*, 3-9
segment call, *Task Builder*, 3-10
virtual address space, *Task Builder*, 3-10
tree
calling segment, *Task Builder*, 4-4
for I- and D-space task, *Task Builder*, 7-6

Overlay
tree (cont'd.)
path, *Task Builder*, 3-15
root, *Task Builder*, 3-15
vector
region, *Task Builder*, 5-13, 5-14
virtual
address space, *Task Builder*, 3-33, 3-34, 3-35, 3-48
and memory, *Task Builder*, 3-11 to 3-14
window
block, *Task Builder*, 3-48
descriptor, *Task Builder*, 3-20, 3-21
/OVERLAY_DESCRIPTION qualifier, *Task Builder*, 11-53
LINK command, *Command Language*, 6-6, 6-23
OVERLAY command
EDI utility, *Utilities*, 2-40
Overlay Description Language
See ODL
Overlay description operator
See ODL
See Operator
Overlay files, *Command Language*, 6-5 to 6-6
Overprint
TTDRV, *I/O Drivers*, 2-76
VFC (half-duplex), *I/O Drivers*, 3-28
VFC (LPDRV), *I/O Drivers*, 10-7
/OVERRIDE switch
BAD utility, *Utilities*, 6-6
OVIDC module, *Task Builder*, 5-54
OVIDL module, *Task Builder*, 5-54
OVIDR module, *Task Builder*, 5-54
/OVLP keyword
SET command (MCR), *MCR*, 3-236
/OVRACC keyword
MOUNT command (MCR), *MCR*, 3-151
/OVREXP keyword
MOUNT command (MCR), *MCR*, 3-151
/OVRFSID keyword
MOUNT command (MCR), *MCR*, 3-151
/OVR keyword
HOME command, *MCR*, 3-95
MOUNT command (MCR), *MCR*, 3-150
$$OVRS program section
reserved name, *Task Builder*, E-3
/OVR switch
FMT utility, *Utilities*, 5-9
OVR symbolic argument, *MACRO-11*, 6-42
Owner, file
See PRG field in PRO block
/OWNER_UIC qualifier
SHOW QUEUE command, *Batch and Queue*, 2-16
OWNER attribute
RMSDES utility, *RMS-11 Utilities*, 2-34
Owner ID field
tape, *I/O Operations*, G-2
/OWNER keyword
HOME command, *MCR*, 3-95
INITVOLUME command, *MCR*, 3-105

P

P$BDB macro
argument computation, *RMS-11 Macro*, 2-8
format, *RMS-11 Macro*, 2-4
P$BUF macro
argument computation, *RMS-11 Macro*, 2-7
format, *RMS-11 Macro*, 2-4
P$FAB macro
argument computation, *RMS-11 Macro*, 2-5
format, *RMS-11 Macro*, 2-4
P$-family macro
declaring, *RMS-11 Macro*, C-2
P$IDX macro
argument computation, *RMS-11 Macro*, 2-5
format, *RMS-11 Macro*, 2-4
P$RAB macro
argument computation, *RMS-11 Macro*, 2-5
format, *RMS-11 Macro*, 2-4
P$RABX macro
argument computation, *RMS-11 Macro*, 2-5, 2-6
format, *RMS-11 Macro*, 2-4
P1 parameter (XEDRV)
IO.XIN function, *I/O Drivers*, 13-10
IO.XOP function, *I/O Drivers*, 13-6

P1 parameter (XEDRV) (cont'd.)
IO.XRC function, *I/O Drivers*, 13-14
IO.XSC function, *I/O Drivers*, 13-7
IO.XTM function, *I/O Drivers*, 13-11
P2 parameter (XEDRV)
IO.XOP function, *I/O Drivers*, 13-6
IO.XRC function, *I/O Drivers*, 13-14
IO.XSC function, *I/O Drivers*, 13-7
IO.XTM function, *I/O Drivers*, 13-11
P3 parameter (XEDRV)
IO.XOP function, *I/O Drivers*, 13-6
IO.XRC function, *I/O Drivers*, 13-14
IO.XTM function, *I/O Drivers*, 13-11
P4 parameter (XEDRV)
IO.XRC function, *I/O Drivers*, 13-14
IO.XTM function, *I/O Drivers*, 13-11
P5 parameter (XEDRV)
IO.XRC function, *I/O Drivers*, 13-14
IO.XTM function, *I/O Drivers*, 13-12
P6 parameter (XEDRV)
IO.XRC function, *I/O Drivers*, 13-14
IO.XTM function, *I/O Drivers*, 13-12
Packed decimal key, *RMS-11 User's Guide*, 6-6
See also XB$PAC mask in DTP field
.PACKED directive, *MACRO-11*, 6-31
Packet information function, *Error Logging*, 5-22
Packet number, *Error Logging*, 3-1
Packet number switch, *Error Logging*, 3-5, 3-8
Packet selection switches, *Error Logging*, 3-8
PACKET statement, *Error Logging*, 5-28
Packing decimal number, *MACRO-11*, 6-31
Padding
character (tape driver), *I/O Drivers*, 8-18
Ethernet message (XEDRV), *I/O Drivers*, 13-3
Padding character
RMSCNV utility, *RMS-11 Utilities*, 4-12
RMSIFL utility, *RMS-11 Utilities*, 3-6
/PAGE_COUNT qualifier
PRINT command, *Batch and Queue*, 2-4
SET QUEUE command, *Batch and Queue*, 2-20
Page Address Register
See PAR
PAGE command
EDI utility, *Utilities*, 2-41
Page Description Register
See PDR
.PAGE directive, *MACRO-11*, 6-17, 6-18 *Program Development*, 2-6
Page eject
TTDRV, *I/O Drivers*, 2-75
VFC (half-duplex), *I/O Drivers*, 3-27
VFC (LPDRV), *I/O Drivers*, 10-6
Page ejection, *MACRO-11*, 6-17
PAGE FIND command
EDI utility, *Utilities*, 2-41
Page header, *MACRO-11*, 6-4
PAGE key (EDT), *Introduction*, 2-6
PAGE LOCATE command
EDI utility, *Utilities*, 2-41
Paging, *RMS-11 User's Guide*, 8-2
memory
See Virtual memory management
/PA job switch
QUE /MOD command, *Batch and Queue*, 2-20
Paper tape
PC11 reader/punch
SYSGEN question, *System Generation*, 3-54
PR11 reader
SYSGEN question, *System Generation*, 3-54
PAR, *Task Builder*, 2-15 *Writing I/O Driver*, 1-2
See PARTITION DEFINITIONS command
Parallel communication link driver
See PCL11
Parallel unit operation
data base structures, *Writing I/O Driver*, 2-8

Parameter
displaying system, *Command Language*, 8-8 to 8-10
IOX
command category, *System Management*, 4-3
exercising
device-dependent exercise, *System Management*, 4-8
Files-11 volumes, *System Management*, 4-10
magnetic tape, *System Management*, 4-12
NFS volume, *System Management*, 4-15
list of exercise parameters, *System Management*, 4-8
overriding default
FILES11, *System Management*, 4-39
SELECT, *System Management*, 4-58
showing default with PARAMETERLIST, *System Management*, 4-44
QIO$ basic syntax
function-dependent, *I/O Drivers*, 1-6
optional, *I/O Drivers*, 1-6
required argument, *I/O Drivers*, 1-6
setting system, *Command Language*, 8-5 to 8-7
Parameter2 parameter (TTDRV)
general, *I/O Drivers*, 2-11
IO.ATA function, *I/O Drivers*, 2-21
PARAMETERLIST command
IOX, *System Management*, 4-44
displaying buffer space, *System Management*, 4-44
displaying defaults, *System Management*, 4-44
Parent/offspring tasking, *Executive*, 4-1
chaining, *Executive*, 4-2, 5-163, 5-195
connecting, *Executive*, 4-1, 5-265
directives, *Executive*, 4-1
requesting task, *Executive*, 5-212, 5-265
returning status, *Executive*, 4-3
sending data, *Executive*, 5-265
Parent/offspring tasking (cont'd.)
sending send-data packet, *Executive*, 5-195
spawning, *Executive*, 4-1, 4-5
synchronizing, *Executive*, 5-38
Parentheses
in overlay, *Task Builder*, 3-49
with ODL, *Task Builder*, 3-24
Parent task (VTDRV), *I/O Drivers*, 4-1
Parity, vertical (communication driver), *I/O Drivers*, 12-12
Parity checking, *MCR*, 3-239
/PARITY keyword
SET command (MCR), *MCR*, 3-239
SET command (VMR), *System Management*, 10-66 to 10-67
Parity support, *System Generation*, C-4
/PAR keyword
INSTALL command (MCR), *MCR*, 3-119
LOAD command (MCR), *MCR*, 3-133
LOAD command (VMR), *System Management*, 10-33
RUN command (MCR), *MCR*, 3-183
SET command (MCR), *MCR*, 3-237
SET command (VMR), *System Management*, 10-64 to 10-66
/PARM keyword
MOUNT command (MCR), *MCR*, 3-151
PAR option, *Task Builder*, 12-27, 12-28
building region, *Task Builder*, 5-2
PARS1M, *Error Logging*, 4-4
PARS2M, *Error Logging*, 4-4
PARS3M, *Error Logging*, 4-4
Parse block
format, *Executive*, 5-90
returning, *Executive*, 5-89, 5-135, 5-139
.PARSE directive, *Indirect*, 2-75
Parse FCS directive, *Executive*, 5-135
PARSEM, *Error Logging*, 4-4
$PARSE macro, *RMS-11 Macro*, 5-86
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
PARSE operation, *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-6
BDB requirement, *RMS-11 Macro*, 2-8

PARSE operation (cont'd.)
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
$PARSE macro, *RMS-11 Macro*, 5-86
wildcard initialization, *RMS-11 Macro*, 3-9
Parse RMS directive, *Executive*, 5-139
.PARSE routine
device and unit translation, *I/O Operations*, 4-12
logical name translation, *I/O Operations*, 4-11
Parser processing, *System Management*, 12-19
Parser program
TPARS, *I/O Operations*, 7-12
processing steps, *I/O Operations*, 7-14
Parsing
command line, *I/O Operations*, 7-1
complex command lines, *I/O Operations*, 7-19
UFD, *I/O Operations*, 7-14
/PAR switch, *CDA*, 2-5, 2-8
Partition
See also Subpartition
address, *MCR*, 2-20
accessing, *MCR*, 3-166
base address, *CDA*, 3-21
cache
specifying, *MCR*, 3-146, 3-207
common, *MCR*, 3-116, 3-169 *System Management*, 14-1
common block, *System Management*, 10-31
creating, *MCR*, 3-237 *System Management*, 10-54
declaring, *Task Builder*, 12-27
defining, *MCR*, 3-267
definition, *MCR*, 2-20 *System Management*, 14-1
displaying, *MCR*, 3-169, 3-237
eliminating, *MCR*, 3-267
fragmentation, *System Management*, 14-3
GEN, *MCR*, 3-119, 3-133
getting parameters, *Executive*, 5-111
information, *Indirect*, 2-91
loading device driver, *MCR*, 3-133
main, *System Management*, 19-4
Partition (cont'd.)
mapped system, *MCR*, 2-20
memory
displaying, *Command Language*, 7-52 to 7-54
setting, *Command Language*, 7-48 to 7-51
modifying, *System Management*, 10-55
name, *CDA*, 3-21 *MCR*, 2-20, 3-169
naming, *MCR*, 3-119
naming for target system, *Task Builder*, C-1
option, *Task Builder*, 12-27
overriding, *System Management*, 10-24
PCB address, *CDA*, 3-21
region, *System Management*, 10-18 *Task Builder*, 5-29
requirement
region, *Task Builder*, 5-2
shared region, *Task Builder*, 5-3
size, *MCR*, 2-20, 3-169, 3-237
improving performance, *Task Builder*, F-2
setting, *MCR*, 3-259
specifying for region, *Task Builder*, 5-29
status flags, *CDA*, 3-33
system, *MCR*, 3-183, 3-267
system-controlled, *MCR*, 2-20, 3-118, 3-169 *System Management*, 14-1
task
allocating, *MCR*, 2-20
fixing, *MCR*, 3-76
installing, *MCR*, 3-183
relationship between, *MCR*, 2-20
type, *MCR*, 2-20, 3-169 *System Management*, 10-65
DEV, *MCR*, 3-237
DIAG, *MCR*, 3-238
SYS, *MCR*, 3-237
unmapped system, *MCR*, 2-20
user, *MCR*, 3-267
user-controlled, *MCR*, 2-20, 3-169 *System Management*, 14-1
Partition Control Block, *MCR*, 3-31, 3-134
See also PCB
address, *MCR*, 3-46, 3-169

PARTITION DEFINITIONS command (MCR), *MCR*, 1-7, 3-169
display, *MCR*, 3-169
format, *MCR*, 3-170
PARTITION DEFINITIONS command (VMR), *System Management*, 10-36
definition, *System Management*, 10-36
example, *System Management*, 10-36
format, *System Management*, 10-36
Partition display
contents, *System Management*, 10-36
symbol meaning, *System Management*, 10-36
Partition information dump
attachment descriptor, *CDA*, 3-34
individual, *CDA*, 3-33
system, *CDA*, 3-31
wait queue, *CDA*, 3-34
/PASS option, *MACRO-11*, I-1
Password, *Command Language*, 3-4 *Introduction*, 1-5, 3-10
account, *MCR*, 3-240
adding to account entry, *System Management*, 2-3
changing, *Command Language*, 3-11 *MCR*, 2-24 *System Management*, 2-1, 2-7
characters, *System Management*, 2-3
contained in account entry, *System Management*, 2-1
displaying, *System Management*, 2-5, 2-8
encryption, *MCR*, 3-240
maximum length, *MCR*, 3-240
task, *MCR*, 3-240
/PASSWORD keyword
SET command (MCR), *MCR*, 3-240
PASTE command
EDI utility, *Utilities*, 2-42
PASTE key (EDT), *Introduction*, 2-8
/PASTHRU keyword
SET command (MCR), *MCR*, 3-241
SET command (VMR), *System Management*, 10-67
/PA switch
PRI command, *Batch and Queue*, 2-4
Patch
declaring object level, *Task Builder*, 12-6
D-space, *Task Builder*, 12-14
global relative, *Task Builder*, 12-20
Patching
object module
See PAT utility
source file
See SLP utility
task image file
See ZAP utility
Patch level
RMSBCK utility, *RMS-11 Utilities*, 6-5
RMSCNV utility, *RMS-11 Utilities*, 4-9
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDSP utility, *RMS-11 Utilities*, 5-5
RMSIFL utility, *RMS-11 Utilities*, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-5
Path load, *Task Builder*, 4-3, 4-4
See also Overlay
autoload, *Task Builder*, 4-3, 4-4
example, *Task Builder*, 4-4
Pattern
IOX
altering test, *System Management*, 4-48
displaying test, *System Management*, 4-48
PATTERN command
IOX, *System Management*, 4-48
/PATTERN switch
BAD utility, *Utilities*, 6-6
PAT utility
checksum, *Utilities*, 14-6
command line, *Utilities*, 14-1
error message, *Utilities*, 14-7
file
correction, *Utilities*, 14-3
input, *Utilities*, 14-3
Task Builder, *Utilities*, 14-4
validating file content, *Utilities*, 14-6
.PAUSE directive, *Indirect*, 2-77
Pbn parameter
device-specific (disk driver), *I/O Drivers*, 5-9

PC
See Program counter
PC11 paper tape reader/punch
SYSGEN question, *System Generation*, 3-54
PCB, *CDA*, 3-33
See Partition Control Block
address, *CDA*, 3-31
composite arrangement, *Writing I/O Driver*, 2-11
pointer to, *CDA*, 3-33
switches
/PAR, *CDA*, 2-5, 2-8
/PCB, *CDA*, 2-5, 2-8
PCBDF$, *CDA*, B-31, C-55 *Writing I/O Driver*, A-46 to A-49
/PCB switch, *CDA*, 2-5, 2-8
PC correction
internal symbol, *Task Builder*, A-29, A-30
PCL11
hardware, *I/O Drivers*, 14-1
receiver driver, *I/O Drivers*, 14-1
transmitter driver, *I/O Drivers*, 14-1
PCL11, parallel communication link driver, *I/O Drivers*, 14-1
See also LRDRV
PCL11 receiver/transmitter
SYSGEN question, *System Generation*, 3-63
P command, *Debugging*, 2-10, 3-3, 3-4, 8-7, 9-13
ODT, *Program Development*, 5-7
PC-relative
location, *Debugging*, 2-5, 4-4
offset, *Debugging*, 2-10, 7-1, 9-13
$$PDLS program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-3
PDR, *Task Builder*, 2-15 *Writing I/O Driver*, 1-2
/PD switch
RMSCNV utility, *RMS-11 Utilities*, 4-12
RMSIFL utility, *RMS-11 Utilities*, 3-6, 3-7, 3-11
Percent sign (%)
See also Wildcard
in register expression, *MACRO-11*, 5-2
percent sign operator (%)
See Operator
Performance
See Speed
improving TKB, *Task Builder*, F-1 to F-11
stall I/O (disk driver), *I/O Drivers*, 5-13
Peripheral configuration
choosing at system generation, *Writing I/O Driver*, 5-10 to 5-11
Peripheral device, *Command Language*, 5-1 to 5-11
See also Device
Peripheral Interchange Program
See PIP utility
Peripheral support routine (K-series), *I/O Drivers*, 23-1
Permanent symbol table, *MACRO-11*, 3-6, 3-7
summary, *MACRO-11*, C-1 to C-7
P error, *MACRO-11*, 3-12, 3-14, 6-20, 6-38, 7-16
summary, *MACRO-11*, D-4
PF command
EDI utility, *Utilities*, 2-41
PFCS$ directive, *Executive*, 5-135
Physical/logical association, *I/O Drivers*, 1-2
Physical device names, *CDA*, 3-17
Physical I/O, *I/O Drivers*, 1-2
Physical memory switch
See /DUMP switch
PIC (Position Independent Code), *MACRO-11*, G-1 to G-4
PIP/ENTER command (RMSBCK), *RMS-11 Utilities*, 6-3
PIP utility, *Introduction*, 5-1 *MCR*, 2-2 *Program Development*, 1-8 *RMS-11 Utilities*, 5-2
accessing files, *MCR*, 2-3
account file
copying, *System Management*, 2-3
extending, *System Management*, 2-3
asterisk (*), *Program Development*, 3-10
cleaning up a UFD, *Program Development*, 3-9, 3-10
command functions, *Utilities*, 3-8
copying Files-11 file, *Utilities*, 3-8
file control, *Utilities*, 3-14
command line, *Utilities*, 3-1

PIP utility (cont'd.)
creating a concatenated object module, *Program Development*, 4-3, 4-4
deleting directory, *MCR*, 2-2
deleting files, *MCR*, 2-2
error code, *Utilities*, 3-53
error message, *Utilities*, 3-43
examining listing at terminal, *Program Development*, 3-6, 4-6, 7-4
file
deleting, *Utilities*, 3-17
listing, *Utilities*, 3-24
merging, *Utilities*, 3-9
protecting, *Utilities*, 3-29
purging, *Utilities*, 3-31
renaming, *Utilities*, 3-33
spooling, *Utilities*, 3-38
file specification, *Utilities*, 3-1
default, *Utilities*, 3-1 to 3-2
wildcard, *Utilities*, 3-7
/LI, *Program Development*, 3-9
/ME, *Program Development*, 4-3, 4-4
printing listing, *Program Development*, 3-8 to 3-9
/PU, *Program Development*, 3-10
/SP, *Program Development*, 3-8
spooling listing, *Program Development*, 3-8, 3-9
subswitch, *Utilities*, 3-14
description, *Utilities*, 3-6
merge, *Utilities*, 3-11
summary, *Utilities*, 3-3
switch, *Utilities*, 3-14
description, *Utilities*, 3-5
summary, *Utilities*, 3-3
UFD creating, *Utilities*, 3-41
wildcard, *Utilities*, 3-7
/PI switch, *Task Builder*, 10-31
$PKAVL, *CDA*, 3-45
%PKT, *Error Logging*, 5-22
PKTDF$, *CDA*, B-33, C-60 *Writing I/O Driver*, A-50 to A-55
Placement control, *RMS-11 User's Guide*, 1-17, 1-19
calculating starting LBN, *RMS-11 User's Guide*, 6-14
cylinder, *RMS-11 User's Guide*, 6-13, 6-14
indexed files, *RMS-11 User's Guide*, 6-13
Placement control (cont'd.)
RMSBCK utility, *RMS-11 Utilities*, 6-1
RMSDEF utility, *RMS-11 Utilities*, A-14
RMSRST utility, *RMS-11 Utilities*, 7-1
sector, *RMS-11 User's Guide*, 6-14
track, *RMS-11 User's Guide*, 6-13, 6-14
Placement control (F11ACP), *I/O Drivers*, C-7
PLAS
fixing tasks, *System Management*, 10-23
Platter, *RMS-11 Introduction*, 2-1
PL command
EDI utility, *Utilities*, 2-41
/PLCTL keyword
SET command (MCR), *MCR*, 3-243
SET command (VMR), *System Management*, 10-68
PLOCATE command
EDI utility, *Program Development*, 2-15
Plus sign operator (+), *MACRO-11*, 3-4
See also Operator
PMD, *MCR*, 3-3 *Program Development*, 1-7
enabling with TKB, *Program Development*, 5-9
generating, *MCR*, 3-119
requesting, *MCR*, 3-184
task, *MCR*, 3-184 *Task Builder*, D-1
content, *Task Builder*, D-3 to D-6
example, *Task Builder*, D-3 to D-6
installation for timely operation, *Task Builder*, D-1
specifying, *Task Builder*, 10-32, 11-54
.PMD file type, *Program Development*, 5-10
/PMD keyword
ABORT command (MCR), *MCR*, 3-4
INSTALL command (MCR), *MCR*, 3-119
INSTALL command (VMR), *System Management*, 10-25
RUN command (MCR), *MCR*, 3-184

/PM switch, *Task Builder*, 10-32
PMT, *MCR*, 3-243 *System Management*, 1-4, 13-1
  abortable tasks, *System Management*, 13-7
  aborting, *System Management*, 13-11 to 13-12
  action, *System Management*, 13-11
  activation, *System Management*, 13-3
  conditions affecting, *System Management*, 13-3
  controlling pool use, *System Management*, 13-11
  defaults
    extreme fragmentation, *System Management*, 13-6
    high pool state, *System Management*, 13-5
    low pool state, *System Management*, 13-5
  functions, *System Management*, 13-3
  installation, *System Management*, 13-3
  messages, *System Management*, 13-8
  output
    example of extreme fragmentation, *System Management*, 13-9 to 13-10
    low pool state, *System Management*, 13-6
  task-build options, *System Management*, 13-10
  timing, *System Management*, 13-10
PNC symbolic argument, *MACRO-11*, 6-20
Pn parameter
  ICDRV/ISDRV, *I/O Drivers*, 19-10
    IO.LDI function, *I/O Drivers*, 19-25
  IO.RLB function, *I/O Drivers*, 1-30
  IO.RVB function, *I/O Drivers*, 1-31
  IO.WLB function, *I/O Drivers*, 1-32
  IO.WVB function, *I/O Drivers*, 1-33
Pnt parameter
  synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-5
POINTER statement, *Error Logging*, 5-38, 5-39
.POINT routine
  file byte position, *I/O Operations*, 2-11
.POINT routine (cont'd.)
  position file to byte, *I/O Operations*, 4-22
Pol parameter
  immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
Pool, *System Generation*, C-3
  See also Get-space routine
  bit map, *CDA*, 3-15
  buffer descriptor block, *RMS-11 Macro*, 2-8
  conditions, *System Management*, 13-2
    largest fragment increases, *System Management*, 13-5
    largest fragment too small, *System Management*, 13-4
  declaring space, *RMS-11 Macro*, 2-4
  definition, *System Generation*, 1-12 *System Management*, 13-1
  displaying, *Command Language*, 8-15 to 8-18
  dump, *CDA*, 3-45
  fragmentation, *System Management*, 13-1
  free, *CDA*, 3-15
  free-space list, *RMS-11 Macro*, 2-19
  I/O buffer, *RMS-11 Macro*, 2-6
  index descriptor block, *RMS-11 Macro*, 2-5
  installing headers in, *MCR*, 3-122
  internal FAB, *RMS-11 Macro*, 2-5
  internal RAB, *RMS-11 Macro*, 2-5
  key buffer, *RMS-11 Macro*, 2-6
  largest fragment, *CDA*, 3-15
  limit
    displaying, *MCR*, 3-244
    setting, *MCR*, 3-243
  number of unallocated fragments, *CDA*, 3-15
  primary
    installing tasks, *MCR*, 3-31
  secondary
    displaying, *MCR*, 3-251
    installing tasks, *MCR*, 3-31, 3-120
    percent in use, *MCR*, 3-251
    saving, *MCR*, 3-187
  secondary pool dump, *CDA*, 3-45
  size, *CDA*, 3-15
    displaying, *MCR*, 3-244
    setting, *MCR*, 3-244
  smallest possible block, *CDA*, 3-15

Pool
space
allocating, *MCR*, 3-267
total free bytes, *CDA*, 3-15
use by DECnet on pregenerated kit, *System Generation*, 5-47
POOL$B macro, *RMS-11 Macro*, 2-4, C-2
POOL$E macro, *RMS-11 Macro*, 2-4
declaring, *RMS-11 Macro*, C-2
Pool, buffer, private (TTDRV), *I/O Drivers*, 2-79
Pool-declaration macro, *RMS-11 Macro*, 2-4
declaring, *RMS-11 Macro*, C-2
Pool fragment size, *System Management*, 13-13
/POOL keyword
SET command (MCR), *MCR*, 3-244
SET command (VMR), *System Management*, 10-69
Pool limits, *System Management*, 13-12
high, *System Management*, 13-12
low, *System Management*, 13-12
Pool monitoring interface
functions, *System Management*, 13-2
Pool Monitoring Support, *System Management*, 1-4
receiving, *System Management*, 13-1
Pool Monitor Task
See PMT
Pool-resident, *Writing I/O Driver*, 6-8
header, *Writing I/O Driver*, 6-9
/POOLSIZE keyword
SET command (VMR), *System Management*, 10-69
Pool statistics dump, *CDA*, 3-1, 3-15
/POOL switch, *CDA*, 2-5, 2-8
Populating indexed files, *RMS-11 User's Guide*, 6-26
primary key order, *RMS-11 User's Guide*, 6-27
random insertions, *RMS-11 User's Guide*, 6-27
bucket fill size, *RMS-11 User's Guide*, 6-27
mass insertion, *RMS-11 User's Guide*, 6-28
Port parameter
UNIBUS switch driver
device-specific, *I/O Drivers*, 24-4
IO.DPT function, *I/O Drivers*, 24-6
Ports, *Writing I/O Driver*, 1-11
switching between, *Writing I/O Driver*, 1-12
POS0 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS1 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS2 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS3 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS4 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS5 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS6 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS7 field in KEY block
offset, *RMS-11 Macro*, 6-68
POS field in KEY block
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-89
POSITION attribute
RMSDES utility, *RMS-11 Utilities*, 2-46
Position independent code, *MACRO-11*, G-1 to G-4
Positioning
magnetic tape
See FB$NEF mask in FOP field
See FB$POS mask in FOP field
/POSITION qualifier
BRU utility, *Utilities*, 7-20
Position tape (DDDRV), *I/O Drivers*, 7-4
Position to next file
tape, *I/O Operations*, 5-5
.POSIT routine, return record position, *I/O Operations*, 4-24
/POS keyword
HOME command, *MCR*, 3-95
INITVOLUME command, *MCR*, 3-106
.POSRC routine, position file to record, *I/O Operations*, 4-22
Postmortem Dump
See PMD

/POSTMORTEM qualifier, *Task Builder*, 11-54
Powerfail
  disk, *I/O Drivers*, 1-43
  DMC11 (communication driver), *I/O Drivers*, 12-12
  QIO$, valid (TM11), *I/O Drivers*, 8-15
  recovery
    tape driver, *I/O Drivers*, 8-15
    UNIBUS switch driver, *I/O Drivers*, 24-6
  tape, *I/O Drivers*, 1-43
Power failure
  entry point, *Writing I/O Driver*, 4-66
  overview, *Writing I/O Driver*, 2-6
Power recovery (ICDRV/ISDRV), *I/O Drivers*, 19-72
Power switch (CRDRV), *I/O Drivers*, 11-5
.PPASC routine, convert UIC to ASCII, *I/O Operations*, 4-8
PPDRV, *I/O Drivers*, 18-1
PPDRV/PRDRV, programming hint, *I/O Drivers*, 18-5
Pp parameter
  device-specific function (UDDRV), *I/O Drivers*, 16-5
  ICDRV/ISDRV, *I/O Drivers*, 19-10
    IO.MLO function, *I/O Drivers*, 19-17
PR11 paper tape reader
  SYSGEN question, *System Generation*, 3-54
PR:0 privileged task, *Task Builder*, 6-2
PR:4 privileged task, *Task Builder*, 6-2
PR:5 privileged task, *Task Builder*, 6-2
Pradd parameter
  device-specific
    half-duplex, *I/O Drivers*, 3-7
    VTDRV, *I/O Drivers*, 4-4
  TTDRV
    general, *I/O Drivers*, 2-11
    IO.RPR function, *I/O Drivers*, 2-41
PRDRV, *I/O Drivers*, 18-1
Predefined syntax elements, *System Management*, 12-40
  basic data types, *System Management*, 12-40 to 12-41
  common command elements, *System Management*, 12-42 to 12-43
Predefined syntax elements (cont'd.)
  program control elements, *System Management*, 12-46
  special parser elements, *System Management*, 12-43 to 12-45
  special translator elements, *System Management*, 12-45 to 12-46
Predriver initiation
  processing during, *Writing I/O Driver*, 3-2, 3-3, 3-4
Pregenerated kit
  account file, *System Generation*, 5-33
  BLDLAINIT.CMD, *System Generation*, 5-46
  changing crash device, *System Generation*, 5-46
  configuration file statement, *System Generation*, 5-21 to 5-32
  copying, *System Generation*, 5-2
    example, *System Generation*, 5-16 to 5-20
    RL02 kit to DU-type disk, *System Generation*, 5-9 to 5-16
    RL02 kit to RL02 disk, *System Generation*, 5-3 to 5-9
  creating system management files, *System Generation*, 5-37
  DECnet, *System Generation*, 5-47
  definition, *System Generation*, 1-1
  DELETESYS.CMD, *System Generation*, 5-8, 5-15
  deleting unused system, *System Generation*, 5-5
  detailed description, *System Generation*, 5-42
  device configuration, *System Generation*, 5-45
  Executive features included, *System Generation*, 5-42
  hardware support, *System Generation*, 5-43
  installation, *System Generation*, 5-2
  kit contents, *System Generation*, 5-1
  K-Series device, *System Generation*, 5-46
  LOGIN.CMD, *System Generation*, 5-36
  LOGOUT.CMD, *System Generation*, 5-37
  LPA11-K laboratory subsystem, *System Generation*, 5-46
  overview, *System Generation*, 5-1

Pregenerated kit (cont'd.)
recovering disk space, *System Generation*, 5-46
restrictions, *System Generation*, 5-44
RMS-11, *System Generation*, 5-40
setting crash device, *System Generation*, 5-46
set-up information, *System Generation*, 5-21
startup procedure, *System Generation*, 5-21
error message, *System Generation*, 5-32
troubleshooting, *System Generation*, 5-33
device configuration, *System Generation*, 5-33
SYSLOGIN.CMD, *System Generation*, 5-34
functions, *System Generation*, 5-35
SYSLOGOUT.CMD, *System Generation*, 5-36
system images, description of, *System Generation*, 5-5
system management
help files, *System Generation*, 5-38 to 5-40
tasks supplied, *System Generation*, 5-40
PREPGEN
definition, *System Generation*, 1-12
description, *System Generation*, 3-6
SYSGEN question, *System Generation*, 3-18
Preset parameter
IO.CLK function (LADRV), *I/O Drivers*, 22-29
PRG field in PRO block
CLOSE operation, *RMS-11 Macro*, 5-3
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-108
OPEN operation, *RMS-11 Macro*, 5-81
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-112
PRI command
file switches, *Batch and Queue*, 2-3
format, *Batch and Queue*, 2-3
job switches, *Batch and Queue*, 2-3
/PRI keyword
ALTER command (MCR), *MCR*, 3-19
ALTER command (VMR), *System Management*, 10-8
INSTALL command (MCR), *MCR*, 3-119
INSTALL command (VMR), *System Management*, 10-25
RUN command (MCR), *MCR*, 3-184
Primary index
See also Index
RMSCNV utility, *RMS-11 Utilities*, 4-1
RMSIFL utility, *RMS-11 Utilities*, 3-10, 3-11
Primary key, *RMS-11 Introduction*, 3-7 *RMS-11 User's Guide*, 1-7, 1-11
RMSCNV utility, *RMS-11 Utilities*, 4-1, 4-16
RMSDEF utility
definition, *RMS-11 Utilities*, A-10
RMSIFL utility, *RMS-11 Utilities*, 3-5, 3-6
sorting, *RMS-11 Utilities*, 3-9
Primary RBNs, *System Management*, 5-4
Primary UNIBUS run, *Writing I/O Driver*, 1-17
Print
open file on LP:, *I/O Operations*, 8-3
PRINT$ macro, *I/O Operations*, 8-1
error handling, *I/O Operations*, 8-3
PRINT command, *Batch and Queue*, 1-3, 2-2 *Command Language*, 4-76 to 4-85, 9-25 *I/O Operations*, 8-3
command qualifiers, *Batch and Queue*, 2-3
DCL, *Program Development*, 1-12, 3-8
definition, *Batch and Queue*, 4-6
EDI utility, *Utilities*, 2-17, 2-42
examples, *Batch and Queue*, 2-7
file qualifiers, *Batch and Queue*, 2-3
format, *Batch and Queue*, 2-3
MCR, *Program Development*, 3-9
processing, *Batch and Queue*, 1-4 to 1-6
Print Despooler Transaction Block, *System Management*, 17-30
.PRINT directive, *MACRO-11*, 7-15

Printer, *Program Development*, 1-12
RMS-11 Macro, 3-1, 5-20, 5-37, 5-42, 5-77, 5-88, 5-104, 5-111, 5-117
stopping, *Command Language*, 4-96
/PRINTER_PORT keyword
SET command (MCR), *MCR*, 3-242
SET command (VMR), *System Management*, 10-69
/PRINTER qualifier, *Task Builder*, 11-55
PRINT FORMATTING statement, *Error Logging*, 5-41
keyword string, *Error Logging*, 5-41, 5-42
Print job
definition, *Batch and Queue*, 4-7
queued by system tasks
maps, logs, listings, *Batch and Queue*, 2-12
PIP, *Batch and Queue*, 2-12
queued by user tasks
.PRINT, *Batch and Queue*, 2-13
PRINT command, *Batch and Queue*, 2-13
stopping, *Command Language*, 4-96
submission notification, *Batch and Queue*, 2-2
Print processor, *Batch and Queue*, 1-3
See also Despooler
definition, *Batch and Queue*, 4-6
print processors
installation
DCL command, *System Management*, 7-6
MCR command, *System Management*, 7-6
/PRINT qualifier
SHOW QUEUE command, *Batch and Queue*, 2-16
print queue
initialization
DCL command, *System Management*, 7-5
MCR command, *System Management*, 7-5
.PRINT routine, error handling, *I/O Operations*, 8-3
.PRINT subroutine, *I/O Operations*, 8-1
PRINTSUMMARY command
IOX, *System Management*, 4-49
/PRIO job switch
QUE /MOD command, *Batch and Queue*, 2-20
PRI option, *Task Builder*, 12-29
Priority, *Introduction*, 6-4
definition, *Batch and Queue*, 4-7
task, *Command Language*, 7-71 to 7-72
declaring, *Task Builder*, 12-29
/PRIORITY qualifier
PRINT command, *Batch and Queue*, 2-5
SET QUEUE command, *Batch and Queue*, 2-20
/PRIO switch
PRI command, *Batch and Queue*, 2-5
Pri parameter
IO.ATT function, *I/O Drivers*, 1-27
IO.DET function, *I/O Drivers*, 1-28
IO.KIL function, *I/O Drivers*, 1-29
IO.RLB function, *I/O Drivers*, 1-30
IO.RVB function, *I/O Drivers*, 1-31
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
QIO$ basic syntax, *I/O Drivers*, 1-8
TTDRV
general, *I/O Drivers*, 2-11
IO.ATA function, *I/O Drivers*, 2-20
IO.CCO function, *I/O Drivers*, 2-23
IO.EIO function, *I/O Drivers*, 2-26
IO.GTS function, *I/O Drivers*, 2-33
IO.HNG function, *I/O Drivers*, 2-35
IO.RAL function, *I/O Drivers*, 2-36
IO.RNE function, *I/O Drivers*, 2-38
IO.RPR function, *I/O Drivers*, 2-40
IO.RST function, *I/O Drivers*, 2-43
IO.RTT function, *I/O Drivers*, 2-45
IO.SMC function, *I/O Drivers*, 2-59
IO.WAL function, *I/O Drivers*, 2-47
IO.WBT function, *I/O Drivers*, 2-49

Pri parameter
TTDRV (cont'd.)
SF.GMC function, *I/O Drivers*, 2-51
Private buffer pool
See BPA field in FAB
See BPS field in FAB
Private device, *Command Language*, 5-45 to 5-49
Private volume, *Command Language*, 5-10 to 5-11, 5-45 to 5-49, 5-55
Privilege
privileged task, *Introduction*, 6-4
privileged user, *Introduction*, 6-4
Privilege 0 task, *Task Builder*, 6-4, 6-5
uses, *Task Builder*, 6-5
Privilege 4 task, *Task Builder*, 6-4, 6-5
uses, *Task Builder*, 6-5
Privilege 5 task, *Task Builder*, 6-4, 6-5, 6-6
uses, *Task Builder*, 6-5
/PRIVILEGED qualifier, *Task Builder*, 6-2, 11-56
Privileged task, *Task Builder*, 2-26
accessing
Executive, *Task Builder*, 6-4
I/O page, *Task Builder*, 6-4
access right
establishing, *Task Builder*, 10-33
building, *Task Builder*, 6-6 to 6-11
compared with nonprivileged, *Task Builder*, 6-1
description, *Task Builder*, 6-1, 6-11
establishing access right, *Task Builder*, 11-56
examining unit control block, *Task Builder*, 6-7, 6-8, 6-9, 6-10, 6-11
example, *Task Builder*, 6-7 to 6-11
examining unit control block, *Task Builder*, 6-6
hazards, *Task Builder*, 6-1, 6-2
I- and D-space system, *Task Builder*, 6-11, 6-12
LINK command sequence, *Task Builder*, 6-10
logging off, *Task Builder*, 6-1
MAC command sequence, *Task Builder*, 6-9
map, *Task Builder*, 6-10, 6-11
mapped system, *Task Builder*, 6-1
mapping, *Task Builder*, 6-2, 6-3
Privileged task
mapping (cont'd.)
I- and D-space system, *Task Builder*, 6-12, 6-13
PR:0, *Task Builder*, 6-2, 6-4, 6-5
PR:4, *Task Builder*, 6-2, 6-4, 6-5
PR:4 mapping, *Task Builder*, 6-4
PR:5, *Task Builder*, 6-2, 6-4, 6-5, 6-6
PR:5 mapping, *Task Builder*, 6-4
specifying, *Task Builder*, 2-26, 6-2, 10-33, 11-56
TKB command sequence, *Task Builder*, 6-9
trap, *Task Builder*, 6-1, 6-2
virtual address space
example, *Task Builder*, 6-11
Privileged user input
rejection of, *System Management*, 10-50
Privilege status, *MCR*, 2-6, 3-2
PRIVIL symbol, *Indirect*, 2-11
/PRIV keyword
SET command (MCR), *MCR*, 3-244
SET command (VMR), *System Management*, 10-70
PRJ field in PRO block
CLOSE operation, *RMS-11 Macro*, 5-3
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-108
OPEN operation, *RMS-11 Macro*, 5-81
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-113
PRMS$ directive, *Executive*, 5-139
PRO/RMS-11
contrasted with RSTS/E RMS-11, *RMS-11 Macro*, D-1
contrasted with RSX-11 RMS-11, *RMS-11 Macro*, D-3
PRO attribute, *System Management*, 12-37
PRO block, *RMS-11 Introduction*, 4-8
chaining to FAB, *RMS-11 Macro*, 2-12, 2-13
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-108
PROCEDURE statement, *Error Logging*, 5-33, 5-34
PROCEED command
IOX, *System Management*, 4-50

Proceed command
See P command
Proceed count, *Debugging*, 3-4
register, *Debugging*, 5-4
Process control
asynchronous
AFC11/AD01 converter, *I/O Drivers*, 15-3
ICDRV/ISDRV, *I/O Drivers*, 19-35
UDDRV, *I/O Drivers*, 16-15
synchronous
AFC11/AD01 converter, *I/O Drivers*, 15-3
ICDRV/ISDRV, *I/O Drivers*, 19-35
UDDRV, *I/O Drivers*, 16-15
Processing
RMSBCK utility, *RMS-11 Utilities*, 6-8
data integrity checking, *RMS-11 Utilities*, 6-9
explicit/implicit filespec, *RMS-11 Utilities*, 6-9
extended diagnostic messages, *RMS-11 Utilities*, 6-10
summary listing, *RMS-11 Utilities*, 6-10
RMSCNV utility, *RMS-11 Utilities*, 4-14
input file organization, *RMS-11 Utilities*, 4-16
output file organization, *RMS-11 Utilities*, 4-15
RMSDEF utility, *RMS-11 Utilities*, A-1
RMSIFL utility, *RMS-11 Utilities*, 3-9
building alternate indexes, *RMS-11 Utilities*, 3-12
command string checking, *RMS-11 Utilities*, 3-9
loading output file, *RMS-11 Utilities*, 3-10
reading and sorting input, *RMS-11 Utilities*, 3-9
sorting alternate key files, *RMS-11 Utilities*, 3-11
summary, *RMS-11 Utilities*, 3-1
terminating, *RMS-11 Utilities*, 3-12
RMSRST utility, *RMS-11 Utilities*, 7-9
Processing
RMSRST utility (cont'd.)
data integrity checking, *RMS-11 Utilities*, 7-11
explicit/implicit filespec, *RMS-11 Utilities*, 7-10
extended diagnostic messages, *RMS-11 Utilities*, 7-11
restoration account, *RMS-11 Utilities*, 7-10
summary listing, *RMS-11 Utilities*, 7-12
Processing blocks, *RMS-11 Introduction*, 4-1, 4-7 *RMS-11 User's Guide*, 1-20
Processing files, *RMS-11 Introduction*, 4-1 *RMS-11 User's Guide*, 1-16
indexed files, *RMS-11 User's Guide*, 7-10
relative files, *RMS-11 User's Guide*, 4-15
sequential files, *RMS-11 User's Guide*, 3-15
Processing records, *RMS-11 Introduction*, 4-1, 4-3 *RMS-11 User's Guide*, 1-10, 1-15
indexed files, *RMS-11 User's Guide*, 7-1
relative files, *RMS-11 User's Guide*, 4-7
sequential files, *RMS-11 User's Guide*, 3-7
Processor
floating point
SYSGEN question, *System Generation*, 3-32
halt
tracing fault, *Writing I/O Driver*, 6-11
loop
tracing fault, *Writing I/O Driver*, 6-12
memory size
SYSGEN question, *System Generation*, 3-32
support on RSX-11M-PLUS, *System Generation*, 3-21
type
SYSGEN question, *System Generation*, 3-21
Processor clock, *Debugging*, 8-9
turning off, *Debugging*, 9-3
Processor failures, *System Management*, 15-32

Processor-specific functions, *Writing I/O Driver*, 1-17
Processor states, *Debugging*, 8-2
  priority, *Debugging*, 8-3
Processor Status Word, *CDA*, 3-2
  MCR, 3-31, 3-58
  See also PSW
Processor traps
  XDT, *Debugging*, 8-5
Professional Personal Computer
  file transfer, *System Management*, 9-1
PRO field in PRO block
  CLOSE operation, *RMS-11 Macro*, 5-3
  CREATE operation, *RMS-11 Macro*, 5-11
  DISPLAY operation, *RMS-11 Macro*, 5-32
  offset, *RMS-11 Macro*, 6-108
  OPEN operation, *RMS-11 Macro*, 5-81
  RSTS/E, *RMS-11 Macro*, D-4
  summary, *RMS-11 Macro*, 6-114
Program, *Introduction*, 5-2
  development, *Task Builder*, 1-1
    advanced, *Program Development*, 1-6
    conventions, *System Library*, 1-1
  entry point definition, *MACRO-11*, 6-39
  limit, *Task Builder*, A-18
  modularity, *MACRO-11*, 6-43
  section
    directive
      See also .PSECT directive
  sectioning, *Program Development*, 1-4, 1-5, 2-5, 2-8, 2-9
  transfer address, *MACRO-11*, 6-39
  user
    breakpoints
      setting, *Program Development*, 5-6
    FORTRAN IV, *Program Development*, 7-3
    library, *Program Development*, 6-1
    macro symbol, *Program Development*, 6-4
      definition placement, *Program Development*, 1-5
Program
  user (cont'd.)
    module
      name, *Program Development*, 2-3, 2-5
      version, *Program Development*, 2-5
    object library routines, *Program Development*, 6-6
    overview of development, *Program Development*, 1-13, 1-14
    section definiton, *Program Development*, 2-8, 2-9
    system routines, *Program Development*, 1-11
  version
    identification, *Task Builder*, A-10
  version number
    See Version identifier
  virtual section
    building a task using, *Task Builder*, 5-66, 5-67
    creating, *Task Builder*, 5-66, 5-67
Program counter, *CDA*, 3-2 *MCR*, 3-31 *MACRO-11*, 5-1
  definition, *MACRO-11*, 3-10
  value, *Program Development*, 4-8
Program development, *Command Language*, 6-1 to 6-37
  optimizing, *RMS-11 User's Guide*, 8-1
Program example I/O, *I/O Operations*, D-1
Program identification directive, *MACRO-11*, 6-16, 6-17
Program interface subroutine (LADRV), *I/O Drivers*, 22-2
Programming hint
  AFC11/AD01 converter, *I/O Drivers*, 15-10
  communication driver, *I/O Drivers*, 12-11
  CRDRV, *I/O Drivers*, 11-9
  CTDRV, *I/O Drivers*, 9-7
  disk driver, *I/O Drivers*, 5-12
  DTDRV, *I/O Drivers*, 6-7
  GRDRV, *I/O Drivers*, 21-3
  half-duplex, *I/O Drivers*, 3-31
  LPDRV, *I/O Drivers*, 10-7
  LSDRV, *I/O Drivers*, 17-33
  PPDRV/PRDRV, *I/O Drivers*, 18-5

Programming hint (cont'd.)
tape driver, *I/O Drivers*, 8-15
TTDRV, *I/O Drivers*, 2-82
UDDRV, *I/O Drivers*, 16-34
XEDRV, *I/O Drivers*, 13-20
Programming sequence (XEDRV), *I/O Drivers*, 13-4
Programming standard, *MACRO-11*, E-1 to E-16
Program section, *Task Builder*, 2-2, 5-60
See also individual program section names
absolute, *MACRO-11*, 6-42, 6-44, 6-45
access-code, *Task Builder*, 2-4, 2-5
additive displaced relocation, *Task Builder*, A-21
additive relocation, *Task Builder*, A-20
adjacency requirement, *Task Builder*, 10-47, 11-64
allocation, *Task Builder*, 2-2, 2-4 to 2-8
allocation-code, *Task Builder*, 2-4, 2-5, 2-6
$$ALVC, *Task Builder*, 7-10
$$ALVD, *Task Builder*, 7-10
$$ALVI, *Task Builder*, 7-10
attribute, *Task Builder*, 2-2, 2-4
.BLK, *Task Builder*, 2-3
context saving, *MACRO-11*, 6-47, 6-48
creating, *MACRO-11*, 6-43, 6-44
directive, *MACRO-11*, 6-40 to 6-48
.ASECT, *MACRO-11*, 6-46, 6-47
.CSECT, *MACRO-11*, 6-46, 6-47
.PSECT, *MACRO-11*, 6-40 to 6-45
.RESTORE, *MACRO-11*, 6-47, 6-48
.SAVE, *MACRO-11*, 6-47, 6-48
displaced relocation, *Task Builder*, A-19
extension, *Task Builder*, 12-15
I- and D-space task
overlay, *Task Builder*, 7-5, 7-6
item
internal symbol, *Task Builder*, A-29
length, *Task Builder*, 2-2, 2-4
limit on quantity, *MACRO-11*, 6-43
Program section (cont'd.)
local symbol block control, *MACRO-11*, 6-19, 6-20
making autoloadable, *Task Builder*, 4-3
multiuser task
I- and D-space, *Task Builder*, 9-3
name, *Task Builder*, 2-2, 2-3, 2-4, A-7
applying autoload indicator, *Task Builder*, 4-3
conflict, *Task Builder*, 5-8, 5-39, 5-40
entry, *Task Builder*, A-8
.FCTR directive argument, *Task Builder*, 3-26
flag byte, *Task Builder*, A-8, A-9
resolution, *Task Builder*, 5-8, 5-39
restriction, *Task Builder*, 5-8
named in region, *Task Builder*, 5-14
naming
table, *System Library*, 1-3
ordering, *Task Builder*, 5-8, 10-36, 10-47, 11-60, 11-64
overlay
allocation, *Task Builder*, 3-19
run-time, *Task Builder*, 5-54, 5-55
PSECT, *Task Builder*, 2-3
relocatable, *MACRO-11*, 6-44, 6-45
relocation, *Task Builder*, A-19
relocation-code, *Task Builder*, 2-4
resolution, *Task Builder*, 3-19
resolving name, *Task Builder*, 5-40
save, *Task Builder*, 2-4, 2-6
scope-code, *Task Builder*, 2-4, 2-5, 2-7
segregating, *Task Builder*, 10-36, 10-47, 11-60, 11-64
sequential ordering, *Task Builder*, 10-36, 10-47, 11-60, 11-64
shared region, *Task Builder*, 5-8
specifying in overlay, *Task Builder*, 3-19, 3-29
table, *MACRO-11*, 1-1
TPARS, *I/O Operations*, 7-10
type-code, *Task Builder*, 2-5, 2-7
unnamed, *Task Builder*, 2-3
virtual, *Task Builder*, 5-60
allocating physical memory, *Task Builder*, 5-63

Program section
virtual (cont'd.)
attaching virtual attribute, *Task Builder*, 5-63
building a task using, *Task Builder*, 5-65
creating, *Task Builder*, 5-63, 5-65
FORTRAN run-time support, *Task Builder*, 5-61, 5-64
option usage, *Task Builder*, 5-60, 5-61, 5-62
run time support, *Task Builder*, 5-61
specifying, *Task Builder*, 12-44
base address, *Task Builder*, 5-64
length, *Task Builder*, 5-60
physical size, *Task Builder*, 5-60
window size, *Task Builder*, 5-60
support, *Task Builder*, 5-64
/PRO keyword
HOME command, *MCR*, 3-96
INITVOLUME command, *MCR*, 3-106
INSTALL command (VMR), *System Management*, 10-25
MOUNT command (MCR), *MCR*, 3-151
USER FILE DIRECTORY command, *MCR*, 3-281
Prologue, *RMS-11 Introduction*, 3-15 *RMS-11 User's Guide*, 1-19
indexed files, *RMS-11 User's Guide*, 5-2
relative files, *RMS-11 User's Guide*, 4-1
Prologue version number
See PVN field in SUM block
Prompt, *Command Language*, 1-8 *Introduction*, 1-3 fig., 1-9
binary (TTDRV), *I/O Drivers*, 2-41
checkpointing (TTDRV), *I/O Drivers*, 2-14, 2-40
CLI string, *MCR*, 3-49
CTRL/O (TTDRV), *I/O Drivers*, 2-14
default, *MCR*, 2-14
explicit, *Introduction*, 1-4
ignoring
response (half-duplex), *I/O Drivers*, 3-14
Prompt
ignoring (cont'd.)
TTDRV, *I/O Drivers*, 2-14, 2-40
MCR, *MCR*, 1-3, 2-14, 2-16
ODT, *Debugging*, 1-4
pass all (TTDRV), *I/O Drivers*, 2-26
read with (TTDRV), *I/O Drivers*, 2-18
redisplay (TTDRV), *I/O Drivers*, 2-28
RMSBCK utility, *RMS-11 Utilities*, 6-2
RMSCNV utility, *RMS-11 Utilities*, 4-3
RMSDES utility, *RMS-11 Utilities*, 2-2
conditional, *RMS-11 Utilities*, 2-1, 2-13, 2-15, 2-17, 2-29
RMSDSP utility, *RMS-11 Utilities*, 5-2
RMSIFL utility, *RMS-11 Utilities*, 3-2
RMSRST utility, *RMS-11 Utilities*, 7-2
send and read (TTDRV), *I/O Drivers*, 2-40
send pass all (TTDRV), *I/O Drivers*, 2-12
task, *MCR*, 2-14
XDT, *Debugging*, 9-4
Prompting
CLI, *System Management*, 11-7, 11-8
Prompting output
TTDRV, *I/O Drivers*, 2-76
VFC (half-duplex), *I/O Drivers*, 3-28
VFC (LPDRV), *I/O Drivers*, 10-7
Protection, *Command Language*, 4-9 to 4-14, 4-111 to 4-118, 9-31 *RMS-11 User's Guide*, 1-18
account, *MCR*, 2-24, 3-241
code
UIC, *MCR*, 2-3
common region, *MCR*, 3-119
directory, *Command Language*, 4-13, 4-18
file, *Command Language*, 4-10 to 4-12, 9-31 *MCR*, 3-148, 3-152, 3-214 *System Management*, 2-3
See also PRO field in PRO block

Protection
file
setting, *Command Language*, 4-115 to 4-117
showing, *Command Language*, 4-118
setting, *Command Language*, 4-111 to 4-114
specifying, *Command Language*, 5-97
specifying default, *MCR*, 3-102
magnetic tape, *MCR*, 3-151
multiuser, *MCR*, 2-6, 2-12, 2-24, 3-79
multiuser commands, *MCR*, 1-8
RMSDEF utility, *RMS-11 Utilities*, A-18
RMSRST utility, *RMS-11 Utilities*, 7-7
UIC, *MCR*, 3-185
volume, *Command Language*, 4-13 to 4-14 *MCR*, 3-148, 3-151
specifying, *Command Language*, 5-76
XAB
See PRO block
PROTECTION attribute
RMSDES utility, *RMS-11 Utilities*, 2-33
Protection code
file
PIP utility, *Utilities*, 3-26
Protection mask, *System Management*, 10-25
/PROTECTION qualifier
BRU utility, *Utilities*, 7-20
Protection UIC, *System Management*, 10-25
Protocol
Ethernet
LF$DEF, *I/O Drivers*, 13-3
LF$EXC, *I/O Drivers*, 13-3
type definition (XEDRV), *I/O Drivers*, 13-23
Prototype task
fixing, *System Management*, 10-18
Prototype tasks, *System Management*, 10-27
PRS2AM, *Error Logging*, 4-4
PRS2BM, *Error Logging*, 4-4
.PRSDI routine, fill in directory information, *I/O Operations*, 4-16
.PRSDV routine, fill in device/unit information, *I/O Operations*, 4-16
.PRSFN routine, fill in file name, type, version, *I/O Operations*, 4-16
Prsize parameter
device-specific
half-duplex, *I/O Drivers*, 3-7
VTDRV, *I/O Drivers*, 4-4
TTDRV
general, *I/O Drivers*, 2-11
IO.RPR function, *I/O Drivers*, 2-41
/PR switch, *Task Builder*, 6-2, 10-33
PIP utility, *Utilities*, 3-29
PRT...
See Serial Despooler Task
PRT error messages, *System Management*, A-2
PRT task, *System Management*, 1-6
PSECT
See .PSECT directive
See Program section
.PSECT directive, *MACRO-11*, 3-11, 6-40, 6-41, 6-42, 6-43, 6-44, 6-45 *Program Development*, 2-8, 2-9 *Task Builder*, 3-23, 3-29
See also Program section
summary, *Task Builder*, 3-50
symbolic argument, *MACRO-11*, 6-40, 6-41, 6-42
Pseudo device, *Command Language*, 3-2, 5-1, 5-6 to 5-8 *Introduction*, 3-11 *MCR*, 2-10 to 2-11
See also Device
CL:, *Command Language*, 5-6, 5-7
CO:, *Command Language*, 5-6, 5-7
installing from, *System Management*, 10-3
LB:, *Command Language*, 5-6, 5-7
MK:, *Command Language*, 5-6, 5-7
names, *MCR*, 2-10
NL:, *Command Language*, 5-7
RD:, *Command Language*, 5-7
SP:, *Command Language*, 5-7
SY:, *Command Language*, 5-7
TI:, *Command Language*, 5-7, 5-8
VT:, *Command Language*, 5-7, 5-8
WK:, *Command Language*, 5-7, 5-8
PSW, *Debugging*, B-1 *Executive*, 1-2
format, *Debugging*, B-1
register, *Debugging*, 2-6, 5-3
/P switch, *Error Logging*, 3-5, 3-8

$PTBYT routine, *Writing I/O Driver*, 7-31
.PTLUN
  reserved global symbol, *Task Builder*, E-2
$PTWRD routine, *Writing I/O Driver*, 7-32
/PUB keyword
  MOUNT command (MCR), *MCR*, 3-152
  SET command (MCR), *MCR*, 3-245
  SET command (VMR), *System Management*, 10-70
Public device, *Command Language*, 5-14
Public volume, *Command Language*, 5-10 to 5-11, 5-55
Pulse fields
  DOM/DOMW: subroutine (UDDRV), *I/O Drivers*, 16-25
PURGE command, *Command Language*, 4-44 to 4-46, 9-26 *Introduction*, 3-7
  DCL, *Program Development*, 3-9
/PU switch
  PIP utility, *Utilities*, 3-31
PUT$ macro, *I/O Operations*, 1-8, 3-1, 3-28
  FD.RWM parameter
    record I/O, *I/O Operations*, 2-10
  FDB, file processing, *I/O Operations*, 3-27
  file processing
    locate mode, *I/O Operations*, 3-29
    write logical record, *I/O Operations*, 3-26
  file truncate, *I/O Operations*, 2-11
  fixed-length record, *I/O Operations*, 3-28
    block boundary, *I/O Operations*, 3-29
    block buffer, *I/O Operations*, 3-29
  format, *I/O Operations*, 3-26
  locate mode, *I/O Operations*, 3-26, 3-30
  move mode, *I/O Operations*, 3-26, 3-28
  no truncate, *I/O Operations*, 2-10
  sequenced record, *I/O Operations*, 3-26
PUT$ macro (cont'd.)
  task record buffer, *I/O Operations*, 3-28
  variable-length record, *I/O Operations*, 3-28
    block boundary, *I/O Operations*, 3-29
PUT$R macro, *I/O Operations*, 3-1
  example, *I/O Operations*, 3-31
  file processing
    write logical record, random mode, *I/O Operations*, 3-30
  random mode
    locate mode execution, *I/O Operations*, 3-31
PUT$S macro, *I/O Operations*, 3-1
  file processing
    write logical record, sequential mode, *I/O Operations*, 3-33
PUT argument to ORG$ macro, *RMS-11 Macro*, 2-3
PUTD: subroutine
  put data into output buffer (LSDRV), *I/O Drivers*, 17-22
$PUT macro
  key access, *RMS-11 Macro*, 5-95
  sequential access, *RMS-11 Macro*, 5-91
PUT operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-10 *RMS-11 User's Guide*, 1-15
  access modes, *RMS-11 Introduction*, 4-6
  and key position, *RMS-11 User's Guide*, 6-7
  and shared access, *RMS-11 User's Guide*, 2-6
  and stream records, *RMS-11 User's Guide*, 2-17
  declaring with ORG$ macro, *RMS-11 Macro*, 2-3
  deferred write, *RMS-11 User's Guide*, 7-9
  duplicate keys, *RMS-11 User's Guide*, 6-9
  indexed files, *RMS-11 User's Guide*, 7-5, 7-9
    key access, *RMS-11 User's Guide*, 5-10, 7-6
    mass insertion, *RMS-11 User's Guide*, 7-9

PUT operation
indexed files (cont'd.)
sequential access, *RMS-11 User's Guide*, 5-17, 7-6
initial allocation, *RMS-11 User's Guide*, 4-4
key access, *RMS-11 User's Guide*, 1-15
locate mode, *RMS-11 User's Guide*, 3-14
move mode
indexed files, *RMS-11 User's Guide*, 7-7
relative files, *RMS-11 User's Guide*, 4-12
sequential files, *RMS-11 User's Guide*, 3-13
optimizing, *RMS-11 User's Guide*, 6-7
$PUT macro
key access, *RMS-11 Macro*, 5-95
sequential access, *RMS-11 Macro*, 5-91
relative files, *RMS-11 User's Guide*, 4-11
key access, *RMS-11 User's Guide*, 4-11
sequential access, *RMS-11 User's Guide*, 4-11
sequential access, *RMS-11 User's Guide*, 1-15
sequential files, *RMS-11 User's Guide*, 3-10
key access, *RMS-11 User's Guide*, 3-10
sequential access, *RMS-11 User's Guide*, 3-10
PUT statement, *Error Logging*, 4-31, 5-39
PVN field in SUM block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-145
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-151

Q

Q.xpxx offsets
in I/O packet, *Writing I/O Driver*, 4-15, 4-16
$QERMV, *Error Logging*, 4-25
Q error, *MACRO-11*, 3-16, 6-28, 6-29, 6-33, 6-37, 7-8
summary, *MACRO-11*, D-4
$QINSP routine, *Writing I/O Driver*, 7-33
QIO$
ACP interface, *I/O Drivers*, C-1
device-specific (TTDRV), *I/O Drivers*, 2-17
directive error status list, *I/O Drivers*, B-5
directive success status list, *I/O Drivers*, B-7
parameter list (F11ACP), *I/O Drivers*, C-2
QIO$C macro, *I/O Drivers*, 1-15
QIO$ directive, *Executive*, 5-143
QIO$ directive summary, *I/O Operations*, C-1
QIO$ function
ACP
closing a file, *I/O Drivers*, C-13
creating a file, *I/O Drivers*, C-12
deleting a file, *I/O Drivers*, C-13
extending a file, *I/O Drivers*, C-13
opening a file, *I/O Drivers*, C-13
using, *I/O Drivers*, C-12
device-specific
half-duplex, *I/O Drivers*, 3-9
UNIBUS switch driver, *I/O Drivers*, 24-4
standard (UNIBUS switch driver), *I/O Drivers*, 24-2
summary (ICDRV/ISDRV), *I/O Drivers*, 19-8
TTDRV, *I/O Drivers*, 2-18
QIO$ macro, *I/O Drivers*, 1-14
communication driver, *I/O Drivers*, 12-5
CRDRV, *I/O Drivers*, 11-2
CTDRV, *I/O Drivers*, 9-2
DDDRV, *I/O Drivers*, 7-2
device-specific function
AFC11/AD01 converter, *I/O Drivers*, 15-2
communication driver, *I/O Drivers*, 12-5
CRDRV, *I/O Drivers*, 11-3
CTDRV, *I/O Drivers*, 9-3

QIO$ macro
device-specific function (cont'd.)
DDDRV, *I/O Drivers*, 7-3
disk driver, *I/O Drivers*, 5-8
DTDRV, *I/O Drivers*, 6-3
DUDRV, *I/O Drivers*, 5-9
GRDRV, *I/O Drivers*, 21-2
half-duplex, *I/O Drivers*, 3-7
immediate (LSDRV), *I/O Drivers*, 17-3
LADRV, *I/O Drivers*, 22-28
list TTDRV, *I/O Drivers*, 2-19
receive (LRDRV), *I/O Drivers*, 14-9
synchronous (LSDRV), *I/O Drivers*, 17-4
tape driver, *I/O Drivers*, 8-6, 8-7
transmit (LRDRV), *I/O Drivers*, 14-3
TTDRV, *I/O Drivers*, 2-8, 2-9, 2-17
UDDRV, *I/O Drivers*, 16-3
VTDRV, *I/O Drivers*, 4-3, 4-5
XEDRV, *I/O Drivers*, 13-4, 13-6
disk driver, *I/O Drivers*, 5-6
DTDRV, *I/O Drivers*, 6-2
event flag, *I/O Drivers*, 1-4
Executive function, *I/O Drivers*, 1-4
format, basic, *I/O Drivers*, 1-5, 1-6
general (XEDRV), *I/O Drivers*, 13-4
GRDRV, *I/O Drivers*, 21-2
half-duplex, *I/O Drivers*, 3-6
introduction, *I/O Drivers*, 1-1
IO.ATT function, *I/O Drivers*, 1-27
IO.DET function, *I/O Drivers*, 1-28
IO.KIL function, *I/O Drivers*, 1-29
IO.RLB function, *I/O Drivers*, 1-30
IO.RVB function, *I/O Drivers*, 1-30
IO.WLB function, *I/O Drivers*, 1-31
IO.WVB function, *I/O Drivers*, 1-32
issuing hint (tape driver), *I/O Drivers*, 8-17
library (XEDRV), *I/O Drivers*, 13-4
LPDRV, *I/O Drivers*, 10-4
LSDRV, *I/O Drivers*, 17-2
null argument, *I/O Drivers*, 1-5
omitting comma in syntax, *I/O Drivers*, 1-6
power fail, *I/O Drivers*, 1-43
PPDRV/PRDRV, *I/O Drivers*, 18-2
QIO$ macro
standard function
AFC11/AD01 converter, *I/O Drivers*, 15-2
communication driver, *I/O Drivers*, 12-5
CRDRV, *I/O Drivers*, 11-2
CTDRV, *I/O Drivers*, 9-2
DDDRV, *I/O Drivers*, 7-2
disk driver, *I/O Drivers*, 5-6
DTDRV, *I/O Drivers*, 6-2
GRDRV, *I/O Drivers*, 21-2
half-duplex, *I/O Drivers*, 3-6
LPDRV, *I/O Drivers*, 10-4
LSDRV, *I/O Drivers*, 17-2
receive (LRDRV), *I/O Drivers*, 14-8
tape driver, *I/O Drivers*, 8-5
transmit (LRDRV), *I/O Drivers*, 14-3
TTDRV, *I/O Drivers*, 2-8, 2-9
UDDRV, *I/O Drivers*, 16-3
VTDRV, *I/O Drivers*, 4-2, 4-4
XEDRV, *I/O Drivers*, 13-6
standard I/O format (TTDRV), *I/O Drivers*, 2-8
subfunction use (half-duplex), *I/O Drivers*, 3-9
syntax element, *I/O Drivers*, 1-6
tape driver, *I/O Drivers*, 8-5
TTDRV, *I/O Drivers*, 2-8
UDDRV, *I/O Drivers*, 16-3
UNIBUS switch, *I/O Drivers*, 24-2
valid powerfail (TM11), *I/O Drivers*, 8-15
VTDRV, *I/O Drivers*, 4-2
XEDRV, *I/O Drivers*, 13-3, 13-6
QIO$S macro, *I/O Drivers*, 1-15
QIO$ syntax
P1,P2,...,P6 parameter, *I/O Drivers*, 1-9
QIO DEUNA driver
See XEDRV
QIO directive
building I/O packet, *Writing I/O Driver*, 4-11
creating DPB, *Writing I/O Driver*, 3-2
directive dispatching, *Writing I/O Driver*, 3-2
QIO Directive Parameter Block (QIO DPB), *Writing I/O Driver*, 4-12, 4-15 to 4-16

QIO execution routine, *I/O Operations*, 4-26
QIOMAC.MAC error codes, *I/O Operations*, I-1
QIO request, *Writing I/O Driver*, 2-11
QIOW$ directive, *Executive*, 5-147
QIOW$ directive summary, *I/O Operations*, C-2
QIOW$ macro, *I/O Drivers*, 1-14, 1-15
  format, *I/O Drivers*, 1-15
  task synchronization, *I/O Drivers*, 1-5
QMG, *Batch and Queue*, 1-1 *Command Language*, 1-21, 4-85 to 4-98 *Program Development*, 1-12 *System Management*, 1-2, 7-1
  commands, *System Management*, 7-14
    ASSIGN/QUEUE, *System Management*, 7-23
    DCL format, *System Management*, 7-14
    DEASSIGN/QUE, *System Management*, 7-23
    DELETE, *System Management*, 7-21
    DELETE/QUEUE, *System Management*, 7-21
    DELETE PROCESSOR, *System Management*, 7-21
    INITIALIZE, *System Management*, 7-14
    INITIALIZE/PROCESSOR, *System Management*, 7-16
    INITIALIZE/QUEUE, *System Management*, 7-14
    MCR format, *System Management*, 7-14
    START, *System Management*, 7-27
    START/PROCESSOR, *System Management*, 7-30
    START/QUEUE, *System Management*, 7-27
    START/QUEUE/MANAGER, *System Management*, 7-27
    STOP, *System Management*, 7-24
    STOP/ABORT, *System Management*, 7-26
    STOP/PROCESSOR, *System Management*, 7-25
QMG
  commands (cont'd.)
    STOP/QUEUE, *System Management*, 7-24
    STOP/QUEUE/MANAGER, *System Management*, 7-24
  definition, *Batch and Queue*, 4-7
  dequeuing jobs, *Batch and Queue*, 2-1
  entry number, *Command Language*, 4-86
  installation, *System Management*, 7-2 to 7-9
  output, *Batch and Queue*, 1-3
  queuing jobs, *Batch and Queue*, 2-1
  special applications, *Batch and Queue*, 1-2
  starting, *System Management*, 7-4
    DCL command, *System Management*, 7-4
    MCR command, *System Management*, 7-4
  SYSGEN question, *System Generation*, 3-27
QMGCLI, *System Management*, 7-1
Q register, *Debugging*, 2-6, 5-3, 7-2, 9-10
  indicator, *Debugging*, 2-11, 7-3, 9-13
$QTRAN, *System Management*, 17-17
$QTRAN1, *System Management*, 17-18
$QTRAN2, *System Management*, 17-19
QUA attribute, *System Management*, 12-38
Qualifier, *Command Language*, 1-9
  See also specific qualifiers
  BRU utility, *Utilities*, 7-12
  command, *CDA*, 2-14 to 2-17
  DCL, *Introduction*, 3-1
  description, *Task Builder*, 11-10
  MACRO command, *MACRO-11*, 8-8
Qualifiers
  crash-input, *CDA*, 2-17 to 2-23
Quantity register
  See Q register
QUE /DEL command
  format, *Batch and Queue*, 2-10
QUE /HO command
  format
    entry number, *Batch and Queue*, 2-22
    job name, *Batch and Queue*, 2-22

QUE /LI:DEV command
format, *Batch and Queue*, 2-18
QUE /LI command, *Batch and Queue*, 2-14
batch queue, *Batch and Queue*, 1-9
display, *Batch and Queue*, 2-16 to 2-17
format, *Batch and Queue*, 2-15
print queue, *Batch and Queue*, 1-9
QUE /LI display, *Batch and Queue*, 1-10
switches, *Batch and Queue*, 2-15
QUE /MOD command
example, *Batch and Queue*, 2-21
file format
switches, *Batch and Queue*, 2-19
job format
switches, *Batch and Queue*, 2-19
QUE /REL command
format
entry number, *Batch and Queue*, 2-23
job name, *Batch and Queue*, 2-23
$QUEBF routine, *Writing I/O Driver*, 1-14
Query mode
RMSBCK utility, *RMS-11 Utilities*, 6-5, 6-6, 6-7, 6-10
RMSRST utility, *RMS-11 Utilities*, 7-6, 7-7, 7-8, 7-11
Question mark (?)
ODT, *Program Development*, 5-3
user input error, *Debugging*, A-1
Queue, *Batch and Queue*, 1-1
assignments, *Batch and Queue*, 1-2
definition, *Batch and Queue*, 4-7
device
definition, *Batch and Queue*, 4-3
device-specific, *Batch and Queue*, 1-2, 4-3
disk file
definition, *Batch and Queue*, 4-7
displaying information, *Batch and Queue*, 2-1
general, *Batch and Queue*, 1-2, 4-5
job
holding, *Batch and Queue*, 2-1
releasing, *Batch and Queue*, 2-1
Queue
job
altering, *Batch and Queue*, 2-1
PRINT
definition, *Batch and Queue*, 4-7
Queue I/O Request and Wait directive, *Executive*, 5-147
Queue I/O Request directive, *Executive*, 5-143
Queue management subsystem, *System Management*, 7-1 to 7-2
Queue Manager
See QMG
Queuename parameter
DELETE command, *Batch and Queue*, 2-10
Queuename switch
PRI command, *Batch and Queue*, 2-4
Queue optimization, *MCR*, 3-235
Writing I/O Driver, 1-15
algorithms, *MCR*, 3-235
entry point, *Writing I/O Driver*, 4-65
fairness-count, *MCR*, 3-235
/QUEUE qualifier
PRINT command, *Batch and Queue*, 2-4
Quiet mode, *Indirect*, 2-49
QUIT command
EDT editor, *Introduction*, 2-8, 2-9
RMSDES utility, *RMS-11 Utilities*, 2-2, 2-12, 2-18
Quotation mark operator (")
See Operator
Quote character, *MACRO-11*, 6-25
Quoted string, *Command Language*, 1-15
remote file specification, *RMS-11 User's Guide*, B-2
QUPKT, *Error Logging*, 4-24

R

R$-family macro, *RMS-11 Macro*, 2-9
declaring, *RMS-11 Macro*, C-2
R.FIX
file attribute, *I/O Operations*, 2-5
parameter, fixed-length records, *I/O Operations*, 3-8
R.SEQ
file attribute, *I/O Operations*, 2-6

R.SEQ (cont'd.)
parameter, sequenced records, *I/O Operations*, 3-8
R.VAR
file attribute, *I/O Operations*, 2-6
parameter, variable-length records, *I/O Operations*, 3-8
/R5 switch
DMP utility, *Utilities*, 11-7
RA60/80/81 disk
SYSGEN question, *System Generation*, 3-45
RA60 disk, *I/O Drivers*, 5-4
RA80 disk, *I/O Drivers*, 5-4
RA81 disk, *I/O Drivers*, 5-4
RAB, *RMS-11 Introduction*, 4-8
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-115
RAB$B macro, *RMS-11 Macro*, 2-8, C-2
RAB$BT macro, *RMS-11 Macro*, C-2
RAB$E macro, *RMS-11 Macro*, 2-9
declaring, *RMS-11 Macro*, C-2
RABOF$ macro, *RMS-11 Macro*, C-2
RAC field in RAB, *RMS-11 Macro*, 4-4, 4-5, 4-6
FIND operation, *RMS-11 Macro*, 5-49, 5-51, 5-54
GET operation, *RMS-11 Macro*, 5-60, 5-63, 5-67
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-91, 5-95
summary, *RMS-11 Macro*, 6-127
.RAD50 directive, *MACRO-11*, 6-29, 6-30
RAD50 symbol, *Indirect*, 2-11
Radix-50
character set, *Debugging*, 7-4
MACRO-11, A-4, A-5
conversion
ASCII to Radix-50 ($CAT5), *System Library*, 4-6
ASCII with blanks to Radix-50 ($CAT5B), *System Library*, 4-8
Radix-50 to ASCII ($C5TA), *System Library*, 5-11
displaying, *Debugging*, 4-7
evaluating, *Debugging*, 7-4
numeric equivalents, *Debugging*, 7-4
opening, *Debugging*, 4-7
Radix-50 (cont'd.)
operator, *Debugging*, 2-7
word mode, *Debugging*, 4-7, 9-11
separator (*), *Debugging*, 2-4, 7-4, 9-8
temporary operator, *MACRO-11*, 6-30
Radix control, *MACRO-11*, 3-14, 6-31, 6-33
temporary operator, *MACRO-11*, 6-31, 6-32
Radix default, *MACRO-11*, 3-14
.RADIX directive, *MACRO-11*, 3-14, 6-32, 6-33
Random access, *I/O Operations*, 2-10
RMS-11 Introduction, 2-4 *RMS-11 User's Guide*, 1-7, 1-9
by key, *RMS-11 Introduction*, 3-12
RMS-11 User's Guide, 1-12
FIND, *RMS-11 User's Guide*, 1-15
GET, *RMS-11 User's Guide*, 1-15
match criterion, *RMS-11 Introduction*, 3-12
PUT, *RMS-11 User's Guide*, 1-15
by RFA, *RMS-11 Introduction*, 3-11
FIND, *RMS-11 User's Guide*, 1-15
GET, *RMS-11 User's Guide*, 1-15
by VBN, *RMS-11 Introduction*, 3-12
RMS-11 User's Guide, 1-20
match criteria, *RMS-11 User's Guide*, 5-13
to indexed files, *RMS-11 User's Guide*, 5-7, 5-9, 6-12
to relative files, *RMS-11 User's Guide*, 4-1
to sequential files, *RMS-11 User's Guide*, 3-2
Random access mode, *I/O Operations*, 3-23
Random access mode, record attribute, *I/O Operations*, 3-9
RANDOM command
IOX, *System Management*, 4-51
Random I/O, *I/O Operations*, 2-20
Random mode
PUT$R macro
locate mode execution, *I/O Operations*, 3-31

Random mode (cont'd.)
write logical record, *I/O Operations*, 3-30
Range
Trace program, *Debugging*, 10-3
Range (EDT), *Introduction*, 2-10 to 2-12
RANGE command
IOX, *System Management*, 4-52
/RA switch
RMSBCK utility, *RMS-11 Utilities*, 6-6, 6-7, 6-9
RMSRST utility, *RMS-11 Utilities*, 7-7, 7-11
RAT field in FAB
CREATE operation, *RMS-11 Macro*, 5-11, 5-12
offset, *RMS-11 Macro*, 6-23
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-59
FB$BLK mask, *RMS-11 Macro*, 6-60
RB$ASY mask in ROP field, *RMS-11 Macro*, 4-1
CONNECT operation, *RMS-11 Macro*, 5-7
DELETE operation, *RMS-11 Macro*, 5-25
DISCONNECT operation, *RMS-11 Macro*, 5-27
FIND operation, *RMS-11 Macro*, 5-49, 5-51, 5-54
FLUSH operation, *RMS-11 Macro*, 5-56
FREE operation, *RMS-11 Macro*, 5-58
GET operation, *RMS-11 Macro*, 5-60, 5-63, 5-67
NXTVOL operation, *RMS-11 Macro*, 5-70
PUT operation, *RMS-11 Macro*, 5-91, 5-95
READ operation, *RMS-11 Macro*, 5-98, 5-100
REWIND operation, *RMS-11 Macro*, 5-114
RSTS/E, *RMS-11 Macro*, D-4
SPACE operation, *RMS-11 Macro*, 5-120
summary, *RMS-11 Macro*, 6-131
TRUNCATE operation, *RMS-11 Macro*, 5-122
RB$ASY mask in ROP field (cont'd.)
UPDATE operation, *RMS-11 Macro*, 5-124
value, *RMS-11 Macro*, 6-115
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
RB$BID code in BID field
summary, *RMS-11 Macro*, 6-116
value, *RMS-11 Macro*, 6-115
RB$BLL code in BLN field
RSTS/E, *RMS-11 Macro*, D-4
value, *RMS-11 Macro*, 6-115
RB$BLN code in BLN field
value, *RMS-11 Macro*, 6-115
RB$EOF mask in ROP field
CONNECT operation, *RMS-11 Macro*, 5-7
summary, *RMS-11 Macro*, 6-132
value, *RMS-11 Macro*, 6-115
RB$-family symbol
declaring, *RMS-11 Macro*, C-2
RB$FDL mask in ROP field
DELETE operation, *RMS-11 Macro*, 5-25
summary, *RMS-11 Macro*, 6-133
value, *RMS-11 Macro*, 6-115
RB$KEY code in RAC field, *RMS-11 Macro*, 4-5
FIND operation, *RMS-11 Macro*, 5-51
GET operation, *RMS-11 Macro*, 5-63
PUT operation, *RMS-11 Macro*, 5-95
value, *RMS-11 Macro*, 6-115
RB$KGE mask in ROP field, *RMS-11 Macro*, 4-5, 4-6
FIND operation, *RMS-11 Macro*, 5-52
GET operation, *RMS-11 Macro*, 5-64
summary, *RMS-11 Macro*, 6-134
value, *RMS-11 Macro*, 6-115
RB$KGT mask in ROP field, *RMS-11 Macro*, 4-5, 4-6
FIND operation, *RMS-11 Macro*, 5-52
GET operation, *RMS-11 Macro*, 5-64
summary, *RMS-11 Macro*, 6-135
value, *RMS-11 Macro*, 6-115
RB$LOA mask in ROP field
PUT operation, *RMS-11 Macro*, 5-92, 5-96

RB$LOA mask in ROP field (cont'd.)
summary, *RMS-11 Macro*, 6-136
UPDATE operation, *RMS-11 Macro*, 5-124
value, *RMS-11 Macro*, 6-115
RB$LOC mask in ROP field, *RMS-11 Macro*, 4-7
CONNECT operation, *RMS-11 Macro*, 5-6
GET operation, *RMS-11 Macro*, 5-61, 5-64, 5-68
PUT operation, *RMS-11 Macro*, 5-92
summary, *RMS-11 Macro*, 6-137
value, *RMS-11 Macro*, 6-115
RB$MAS mask in ROP field
PUT operation, *RMS-11 Macro*, 5-92
summary, *RMS-11 Macro*, 6-138
value, *RMS-11 Macro*, 6-115
RB$RFA code in RAC field, *RMS-11 Macro*, 4-6
FIND operation, *RMS-11 Macro*, 5-54
GET operation, *RMS-11 Macro*, 5-67
value, *RMS-11 Macro*, 6-115
RB$SEQ code in RAC field, *RMS-11 Macro*, 4-4
FIND operation, *RMS-11 Macro*, 5-49
GET operation, *RMS-11 Macro*, 5-60
PUT operation, *RMS-11 Macro*, 5-91
value, *RMS-11 Macro*, 6-115
RB$UIF mask in ROP field, *RMS-11 Macro*, 4-4
PUT operation, *RMS-11 Macro*, 5-92, 5-96
summary, *RMS-11 Macro*, 6-139
value, *RMS-11 Macro*, 6-115
$RBCAL macro, *RMS-11 Macro*, C-3
RBF field in RAB, *RMS-11 Macro*, 4-7, 4-13
CONNECT operation, *RMS-11 Macro*, 5-7
GET operation, *RMS-11 Macro*, 5-61, 5-65, 5-68
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-92, 5-93, 5-95
READ operation, *RMS-11 Macro*, 5-99, 5-101
RBF field in RAB (cont'd.)
summary, *RMS-11 Macro*, 6-128
UPDATE operation, *RMS-11 Macro*, 5-124
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
RBNs, *System Management*, 5-2
primary
secondary
status codes, *System Management*, 5-2 to 5-3
RC25 disk, *I/O Drivers*, 5-4
SYSGEN question, *System Generation*, 3-45
RCIPT: routine
digital input interrupt single-point (ICDRV/ISDRV), *I/O Drivers*, 19-48
RCIPT: subroutine
read contact interrupt point (UDDRV), *I/O Drivers*, 16-25
RCLOKB: subroutine
read 16-bit clock (K-series), *I/O Drivers*, 23-25
RCML$ macro, *I/O Operations*, 6-12
Rcnt parameter
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-4
R command, *Debugging*, 2-11, 9-13
ZAP utility, *Utilities*, 15-18
RCST$ directive, *Executive*, 5-149
RCST$ directive summary, *I/O Operations*, C-2
/RC switch
DMP utility, *Utilities*, 11-7
RMSBCK utility, *RMS-11 Utilities*, 6-7, 6-9
RMSRST utility, *RMS-11 Utilities*, 7-8, 7-11
VFY utility, *Utilities*, 9-7
RCT, *System Management*, 5-1, 5-5
See also Bad Block Replacement Control Task
and Error Logger, *System Management*, 5-5
installation, *System Management*, 5-2
RCVD$ directive, *Executive*, 5-151
RCVD$ directive summary, *I/O Operations*, C-3
RCVX$ directive, *Executive*, 5-153
RCVX$ directive summary, *I/O Operations*, C-3
RD51/52/53 disk

RD51/52/53 disk (cont'd.)
SYSGEN question, *System Generation*, 3-45
RD51 disk, *I/O Drivers*, 5-5
RD52 disk, *I/O Drivers*, 5-5
RD:, *Command Language*, 5-7 *System Management*, 15-1
RDACT: routine
ICDRV/ISDRV
read activation data, *I/O Drivers*, 19-66
read activation data example, *I/O Drivers*, 19-68
RDAF$ directive, *Executive*, 5-156 *I/O Drivers*, 1-7
RDB, *Executive*, 3-11
assigning values, *Executive*, 3-19
format, *Executive*, 3-11
generating, *Executive*, 3-13, 3-14
RDBBK$, *Executive*, 3-13
RDBDF$, *Executive*, 3-13
RDCS: changed state
read interrupt point (ICDRV/ISDRV), *I/O Drivers*, 19-54
RDCS: subroutine
read contact interrupt change data (UDDRV), *I/O Drivers*, 16-26
RDDI: circular buffer
read interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-53
RDDI: subroutine
read contact interrupt data (UDDRV), *I/O Drivers*, 16-27
RDEF$ directive, *Executive*, 5-157
.RDFDR routine, read $$FSR2 default directory string, *I/O Operations*, 4-2
.RDFPP routine, read $$FSR2 default file protection word, *I/O Operations*, 4-5
.RDFUI routine, read default UIC, *I/O Operations*, 4-3, 4-4
$RDPAG (Read page), *System Library*, 8-26
$$RDSG program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-3
/RD switch
RMSBCK utility, *RMS-11 Utilities*, 6-8, 6-9
RDT field in DAT block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-14
RDT field in DAT block (cont'd.)
OPEN operation, *RMS-11 Macro*, 5-81
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-20
RDTI: circular buffer
read counter data (ICDRV/ISDRV), *I/O Drivers*, 19-58
RDTI: subroutine
read timer interrupt data (UDDRV), *I/O Drivers*, 16-28
RDTY: terminal buffer
read character (ICDRV/ISDRV), *I/O Drivers*, 19-61
RDWD: digital interrupt data
read full word (ICDRV/ISDRV), *I/O Drivers*, 19-55
RDWD: subroutine
read word contact interrupt data (UDDRV), *I/O Drivers*, 16-29
RDXF$ directive, *Executive*, 5-158 *I/O Drivers*, 1-7
REA
See REASSIGN command
Read
A/D channel, timed interval (LSDRV), *I/O Drivers*, 17-6
activation data (ICDRV/ISDRV), *I/O Drivers*, 19-66
example, *I/O Drivers*, 19-68
after prompt
TTDRV, *I/O Drivers*, 2-14, 2-18, 2-27, 2-40
VTDRV, *I/O Drivers*, 4-7
all characters (TTDRV), *I/O Drivers*, 2-13, 2-26, 2-36, 2-39, 2-42, 2-44, 2-46
check (CRDRV), *I/O Drivers*, 11-5
checkpointing (TTDRV), *I/O Drivers*, 2-14
contact interrupt change data
RDCS: subroutine (UDDRV), *I/O Drivers*, 16-26
contact interrupt data
RDDI: subroutine (UDDRV), *I/O Drivers*, 16-27
contact interrupt point
RCIPT: subroutine (UDDRV), *I/O Drivers*, 16-25
contact sense fields
DI/DIW: subroutine (UDDRV), *I/O Drivers*, 16-23
converting lowercase (TTDRV), *I/O Drivers*, 2-13, 2-27

Read (cont'd.)
DDDRV, *I/O Drivers*, 7-4
default input (TTDRV), *I/O Drivers*, 2-13, 2-27
destination address (XEDRV), *I/O Drivers*, 13-16
digital interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-52
direct access sample subroutine
ICS/ICR register, *I/O Drivers*, 19-78
end-of-tape (PRDRV), *I/O Drivers*, 18-5
error (tape driver), *I/O Drivers*, 8-14
Ethernet address (XEDRV), *I/O Drivers*, 13-14
full word
digital interrupt data (ICDRV/ISDRV), *I/O Drivers*, 19-55
logical block, *I/O Drivers*, 1-30
special terminator (TTDRV), *I/O Drivers*, 2-43
TTDRV, *I/O Drivers*, 2-13
logical block (communication driver), *I/O Drivers*, 12-7
multiple A/D channel (ICDRV/ISDRV), *I/O Drivers*, 19-13
no echo
TF.RNE (TTDRV), *I/O Drivers*, 2-37
TTDRV, *I/O Drivers*, 2-13, 2-27, 2-29, 2-38, 2-42, 2-44, 2-46
no filter (TTDRV), *I/O Drivers*, 2-14, 2-27
nondestructive
NFS volumes, *System Management*, 4-64
pass through (TTDRV), *I/O Drivers*, 2-14, 2-28
process escape sequence (TTDRV), *I/O Drivers*, 2-13, 2-27
protocol type (XEDRV), *I/O Drivers*, 13-15
reverse (DTDRV), *I/O Drivers*, 6-7
RSTI: counter module (ICDRV/ISDRV), *I/O Drivers*, 19-58
sequential analog input channel (UDDRV), *I/O Drivers*, 16-18
Read (cont'd.)
single A/D channel (LSDRV), *I/O Drivers*, 17-12
special terminator (TTDRV), *I/O Drivers*, 2-14, 2-28, 2-42
TF.RNE, *I/O Drivers*, 2-37
sync character (communication driver), *I/O Drivers*, 12-7
tape driver, *I/O Drivers*, 8-7
terminator (TTDRV)
CTRL/C, *I/O Drivers*, 2-68
no echo, *I/O Drivers*, 2-15
table, *I/O Drivers*, 2-15, 2-45
time out
TF.TMO (TTDRV), *I/O Drivers*, 2-37
TTDRV, *I/O Drivers*, 2-15, 2-28, 2-42, 2-44, 2-46
timer interrupt data
RDTI: subroutine (UDDRV), *I/O Drivers*, 16-28
timer module
RSTI: subroutine (UDDRV), *I/O Drivers*, 16-30
virtual block, *I/O Drivers*, 1-30
word contact interrupt data
RDWD: subroutine (UDDRV), *I/O Drivers*, 16-29
Read/write
access, *MACRO-11*, 6-40
access declaration, *RMS-11 User's Guide*, 2-6
sharing declaration, *RMS-11 User's Guide*, 2-7
Read 16-bit clock (K-series), *I/O Drivers*, 23-23, 23-25
Read $$FSR2, default directory string, *I/O Operations*, 4-2
READ$ macro, *I/O Operations*, 1-7, 3-1
block access, *I/O Operations*, 2-12
end-of-file, *I/O Operations*, 3-36
example, *I/O Operations*, 3-35
FD.RWM parameter
block I/O, *I/O Operations*, 2-10
FDB, file operation, *I/O Operations*, 3-36
file processing
read virtual block, *I/O Operations*, 3-33
format
file processing, *I/O Operations*, 3-34

READ$ macro (cont'd.)
virtual block number, *I/O Operations*, 3-34
Readable-block context, *RMS-11 Macro*, 4-12
Read access, *MCR*, 2-3
common region, *MCR*, 3-119
file, *MCR*, 3-148, 3-213
file open, *I/O Operations*, 2-15
shared, *I/O Operations*, 1-13
UFD, *MCR*, 3-281
volume, *MCR*, 3-94, 3-96, 3-106, 3-151
Read access (F11ACP), *I/O Drivers*, C-8
Read-ahead file processing, *I/O Operations*, 2-19
Read All Event Flags directive, *Executive*, 5-156
READ command
EDI utility, *Utilities*, 2-42
Read counter data
circular buffer (ICDRV/ISDRV), *I/O Drivers*, 19-58
Read data (LSDRV)
from input buffer, *I/O Drivers*, 17-20
from input register, *I/O Drivers*, 17-4
timed intervals, *I/O Drivers*, 17-8
Read default UIC, *I/O Operations*, 4-4
Read digital input (LSDRV), *I/O Drivers*, 17-19
.READ directive, *Indirect*, 2-78
Read Event Flag directive, *Executive*, 5-157
Read Extended Event Flags directive, *Executive*, 5-158
Read file owner word, *I/O Operations*, 4-7
Read file protection word
default, *I/O Operations*, 4-5
Read interrupt data
circular buffer (ICDRV/ISDRV), *I/O Drivers*, 19-53
Read interrupt point
changed state (ICDRV/ISDRV), *I/O Drivers*, 19-54
Read logical record
file processing, *I/O Operations*, 3-21
Read logical record
random mode
file processing, *I/O Operations*, 3-24
sequential mode, *I/O Operations*, 3-26
$READ macro
sequential access, *RMS-11 Macro*, 5-98
VBN access, *RMS-11 Macro*, 5-100
Read-only
access declaration, *RMS-11 User's Guide*, 2-6
sharing declaration, *RMS-11 User's Guide*, 2-7
Read-only access, *MACRO-11*, 6-40
READ operation, *RMS-11 Introduction*, 4-7 *RMS-11 Macro*, 4-14
access modes, *RMS-11 Introduction*, 4-7
$READ macro
sequential access, *RMS-11 Macro*, 5-98
VBN access, *RMS-11 Macro*, 5-100
Read virtual block
file processing, *I/O Operations*, 3-33
Ready recovery
LPDRV, *I/O Drivers*, 10-6
PPDRV, *I/O Drivers*, 18-4
Real-time system, *Introduction*, 6-2
REASSIGN command
device, *I/O Drivers*, 1-20
LUN assignment, *I/O Drivers*, 1-4
REASSIGN command (MCR), *MCR*, 1-7, 3-172
error messages, *MCR*, 3-172
examples, *MCR*, 3-172
format, *MCR*, 3-172
parameters, *MCR*, 3-172
REASSIGN command (VMR), *System Management*, 10-38
definition, *System Management*, 10-38
examples, *System Management*, 10-38
format, *System Management*, 10-38
parameters, *System Management*, 10-38
Receive
error detection, hard (TTDRV), *I/O Drivers*, 2-77

Receive (cont'd.)
message (XEDRV), *I/O Drivers*, 13-13
standard QIO$ (LRDRV), *I/O Drivers*, 14-8
XEDRV
Ethernet, *I/O Drivers*, 13-3
Receive By Reference directive, *Executive*, 5-170
Receive By Reference or Stop directive, *Executive*, 5-173
Receive-by-reference queue packet
dequeuing, *Executive*, 5-170, 5-173
inserting, *Executive*, 5-228
Receive counter data
connect buffer (ICDRV/ISDRV), *I/O Drivers*, 19-56
Receive Data directive, *Executive*, 5-151
Receive Data or Exit directive, *Executive*, 5-153
Receive Data or Stop directive, *Executive*, 5-149
Receive interrupt data
connect buffer (ICDRV/ISDRV), *I/O Drivers*, 19-51
/RECEIVE qualifier, *Task Builder*, 11-57
Receiver disconnect (LRDRV), *I/O Drivers*, 14-11
Receive speed (TTDRV), *I/O Drivers*, 2-56
Reconfiguration components, *System Management*, 15-1
CON, *System Management*, 15-1
HRC, *System Management*, 15-1
RD:, *System Management*, 15-1
Reconfiguration driver
See RD:
Reconfiguration services, *System Management*, 1-4, 15-1
initiating, *System Management*, 15-4
system faults, *System Management*, 15-29
Reconfiguration task
See HRC
Record, *RMS-11 Introduction*, 1-1
RMS-11 User's Guide, 1-1
See also Access mode
See also Record format
blocked
See FB$BLK mask in RAT field
buffer address
See RBF field in RAB
Record (cont'd.)
data, *RMS-11 Introduction*, 3-7
RMS-11 User's Guide, 5-2
deleting
See DELETE operation
deleting, fast
See RB$FDL mask in ROP field
fast deletion
See RB$FDL mask in ROP field
fixed-length
PUT$ macro, *I/O Operations*, 3-28
R.FIX parameter, *I/O Operations*, 3-8
format
See RFM field in FAB
index, *RMS-11 Introduction*, 3-7
RMS-11 User's Guide, 5-2, 5-6
locating
See FIND operation
longest
See LRL field in FAB
moving, *Command Language*, 4-55
processing, *RMS-11 Introduction*, 4-1, 4-3 *RMS-11 User's Guide*, 1-15
reading, *Indirect*, 2-78
See also GET operation
replacing
See UPDATE operation
sequenced
PUT$ macro, *I/O Operations*, 3-26
R.SEQ parameter, *I/O Operations*, 3-8
size
See RSZ field in RAB
update existing
See RB$UIF mask in ROP field
variable-length, *I/O Operations*, 1-6
PUT$ macro, *I/O Operations*, 3-28
R.VAR parameter, *I/O Operations*, 3-8
writing
See PUT operation
Record access, *RMS-11 User's Guide*, 1-12
See also Shared access
Record access block
See RAB field in RAB
Record access initialization, *I/O Operations*, 2-10

Record access mode
See Access mode
Record attribute, *I/O Operations*, 2-6, 3-8
FD.BLK parameter
block boundary crossing, *I/O Operations*, 3-9
FD.CR, *I/O Operations*, 2-6
FD.CR parameter
line-feed character, *I/O Operations*, 3-8
FD.FTN parameter
FORTRAN carriage-control, *I/O Operations*, 3-8
FD.RAN parameter
random access mode, *I/O Operations*, 3-9
FD.RPN parameter
carriage-control word, *I/O Operations*, 3-9
locate mode, *I/O Operations*, 3-9
sequential mode, *I/O Operations*, 3-9
FD.RTN, *I/O Operations*, 2-6
FD.RWM parameter
process with block I/O, *I/O Operations*, 3-9
Record buffer
task
locate mode, *I/O Operations*, 3-29
Record context, *RMS-11 Macro*, 4-3
Record file address
See RFA
See RFA field in RAB
Record format, *RMS-11 Introduction*, 3-1 *RMS-11 User's Guide*, 1-11, 1-18
and file organizations, *RMS-11 User's Guide*, 1-20, 2-15
indexed files, *RMS-11 User's Guide*, 6-1
relative files, *RMS-11 User's Guide*, 4-2
RMSCNV utility, *RMS-11 Utilities*, 4-14
RMSDEF utility, *RMS-11 Utilities*, A-8
sequential files, *RMS-11 User's Guide*, 3-3
tape, *I/O Operations*, 5-4
Record I/O, *I/O Operations*, 2-10
FSR, *I/O Operations*, 2-38
Record I/O (cont'd.)
FSRZ
multiple buffering, *I/O Operations*, 2-38
locate mode, FD.PLC parameter, *I/O Operations*, 3-6
macro, *I/O Operations*, 2-10
mode, *I/O Operations*, 1-9
multiple buffering, *I/O Operations*, 1-10
operation, *I/O Operations*, 1-8
random, FD.RAN parameter, *I/O Operations*, 3-6
synchronization, event flag, *I/O Operations*, 2-18
Record length
longest
See LRL field in FAB
maximum
See MRL field in FAB
Record Management Services
See RMS-11
Record number
maximum
See MRN field in FAB
Record operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-9 *RMS-11 User's Guide*, 1-15
Record operation macro, *RMS-11 Macro*, 1-2
declaring, *RMS-11 Macro*, C-3
Record-oriented device
See FB$REC mask in DEV field
Record-output characteristic
See RAT field in FAB
Record-output handling, *RMS-11 User's Guide*, 1-19
Record processing, *RMS-11 Macro*, 4-3
Record reference vector
See RRV
RECORDS command
IOX, *System Management*, 4-53
Record size, *RMS-11 User's Guide*, 1-18
FDB, *I/O Operations*, 3-9
fixed length, *I/O Operations*, 2-8
indexed files, *RMS-11 User's Guide*, 6-1
largest, *I/O Operations*, 2-8
relative files, *RMS-11 User's Guide*, 4-2
sequential files, *RMS-11 User's Guide*, 3-2

Record size (cont'd.)
UPDATE operation, *RMS-11 User's Guide*, 2-16
Record stream, *RMS-11 Macro*, 4-3
Record transfer mode, *RMS-11 Introduction*, 4-6
indexed files, *RMS-11 User's Guide*, 7-6
locate mode, *RMS-11 Introduction*, 4-6
move mode, *RMS-11 Introduction*, 4-6
relative files, *RMS-11 User's Guide*, 4-12
sequential files, *RMS-11 User's Guide*, 3-13
Recoverable errors, *System Management*, 15-30
/RECOVER qualifier
EDIT command, *Command Language*, 4-23
Recovery
check (CRDRV), *I/O Drivers*, 11-4
DTDRV, *I/O Drivers*, 6-6
select, *I/O Drivers*, 6-7
Recursive Translation of Logical Name directive, *Executive*, 5-159
RED
See REDIRECT command
Redirect algorithm, *Writing I/O Driver*, 3-2
REDIRECT command
device, *I/O Drivers*, 1-20
REDIRECT command (MCR), *MCR*, 1-6, 3-173
and pseudo devices, *MCR*, 2-10
error messages, *MCR*, 3-173
examples, *MCR*, 3-173
format, *MCR*, 3-173
parameters, *MCR*, 3-173
REDIRECT command (VMR), *System Management*, 10-39
definition, *System Management*, 10-39
examples, *System Management*, 10-39
format, *System Management*, 10-39
parameters, *System Management*, 10-39
restrictions, *System Management*, 10-39
Redundancy checking (communication driver), *I/O Drivers*, 12-11
Reentry vector register
See X register
Reference
search, *Debugging*, 6-3
REF field in KEY block, *RMS-11 Macro*, 2-13
CLOSE operation, *RMS-11 Macro*, 5-3
CREATE operation, *RMS-11 Macro*, 5-9, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-30
ENTER operation, *RMS-11 Macro*, 5-35
ERASE operation, *RMS-11 Macro*, 5-40
EXTEND operation, *RMS-11 Macro*, 5-46
offset, *RMS-11 Macro*, 6-67
OPEN operation, *RMS-11 Macro*, 5-73, 5-74
PARSE operation, *RMS-11 Macro*, 5-86
REMOVE operation, *RMS-11 Macro*, 5-102
RENAME operation, *RMS-11 Macro*, 5-108
SEARCH operation, *RMS-11 Macro*, 5-116
summary, *RMS-11 Macro*, 6-90
Region, *Executive*, 3-4
absolute, *Task Builder*, 5-8, 5-9, 5-10
building precautions, *Task Builder*, 5-10
mapping, *Task Builder*, 5-8, 5-9
specifying, *Task Builder*, 5-10
symbol definition file, *Task Builder*, 5-10
address
accessing, *MCR*, 3-166
allocation
diagram, *Task Builder*, 5-21
window block, *Task Builder*, 5-26
APR
specifying, *Task Builder*, 5-7
assigning reference, *Task Builder*, 5-24
attaching, *Executive*, 3-8, 5-19
building, *Task Builder*, 5-18
and linking, *Task Builder*, 5-18, 5-19, 5-20

Region
building
interaction of, *Task Builder*, 5-3
use of, *Task Builder*, 5-3
linking task, *Task Builder*, 5-22 to 5-24
option, *Task Builder*, 5-18, 5-19
procedure, *Task Builder*, 5-18 to 5-20
with PAR option, *Task Builder*, 5-2
/CO/LI/PI switch, *Task Builder*, 5-6
/CODE:PIC qualifier, *Task Builder*, 5-3 to 5-6
common, *MCR*, 3-75
accessing, *MCR*, 3-120
installed, *MCR*, 3-119
protecting, *MCR*, 3-119
status, *MCR*, 3-46
synchronizing, *MCR*, 3-121
tasks, *MCR*, 3-47
unfixing, *MCR*, 3-284
data caching, *MCR*, 3-146, 3-207
definition, *Task Builder*, 2-17
descriptor, *Task Builder*, B-15, B-17, B-21, B-22
descriptor in overlay, *Task Builder*, 3-20, 3-21
detaching, *Executive*, 5-67
disk data cache, *System Management*, 19-3
extent, *System Management*, 19-3
format, *System Management*, 19-4
dynamic, *Executive*, 3-5 *Task Builder*, 2-19, 5-40 to 5-44
building a task that creates, *Task Builder*, 5-40 to 5-44
creating, *Executive*, 5-50
dynamic storage, *System Management*, 10-69
fixing, *System Management*, 10-19
getting parameters, *Executive*, 5-113
installing
RSX-11M, *Task Builder*, 5-2, 5-3, 5-22
RSX-11M-PLUS, *Task Builder*, 5-2, 5-3, 5-22
library, *Task Builder*, 2-19
Region (cont'd.)
linked to a region, *Task Builder*, 5-26, 5-27
linking, *Task Builder*, 5-15, 5-16, 5-28
.STB file, *Task Builder*, 5-15
map, *Task Builder*, 5-20, 5-21
mapping of an absolute, *Task Builder*, 5-8, 5-9
memory-resident overlaid, *Task Builder*, 5-10
building, *Task Builder*, 5-10
example of building, *Task Builder*, 5-11
number and size, *Task Builder*, 5-18
overlaid, *Task Builder*, 5-10
autoload, *Task Builder*, 5-14
autoload vector, *Task Builder*, 5-13, 5-14
FTB and old library, *Task Builder*, 5-14
global symbols in .STB file, *Task Builder*, 5-13, 5-14
I- and D-space task vector, *Task Builder*, 5-13, 5-14
named program section, *Task Builder*, 5-14
options, *Task Builder*, 5-12, 5-13, 5-15
reference inclusion, *Task Builder*, 5-12
run-time support, *Task Builder*, 5-14
.STB file, *Task Builder*, 5-13, 5-14
symbol declaration, *Task Builder*, 5-12
symbol inclusion, *Task Builder*, 5-12
vector, *Task Builder*, 5-13, 5-14
partition, *Task Builder*, 5-29
requirements, *Task Builder*, 5-2
program section, *Task Builder*, 5-8
building a linking task, *Task Builder*, 5-24
protecting, *Executive*, 3-8
read/write access, *System Management*, 10-26
read-only, *System Management*, 10-26
relocatable, *Task Builder*, 5-6
mapping, *Task Builder*, 5-6
specifying, *Task Builder*, 5-7

Region
relocatable (cont'd.)
specifying APR, *Task Builder*, 5-7
.STB file, *Task Builder*, 5-10
removing, *MCR*, 3-175
resident relocatable, *Task Builder*, 5-6
resolving program section name, *Task Builder*, 5-39, 5-40
shareable, *Executive*, 3-5
/SHAREABLE:COMMON qualifier, *Task Builder*, 5-3 to 5-6
/SHAREABLE:LIBRARY qualifier, *Task Builder*, 5-3 to 5-6
shared, *Executive*, 3-6 *Task Builder*, 2-19, 5-1
autoload vector, *Task Builder*, 5-14
/CO/LI/PI switch, *Task Builder*, 5-6
defined, *Task Builder*, 5-1
partition requirement, *Task Builder*, 5-3
restrictions for overlaid, *Task Builder*, 5-14
specifying
partition, *Task Builder*, 5-29
position-independent, *Task Builder*, 10-9, 10-31, 11-18, 11-65, 11-66
static common, *Executive*, 3-4
.STB file, *Task Builder*, 5-4, 5-6
for an absolute, *Task Builder*, 5-10, 5-14
using /CO/LI/PI switch, *Task Builder*, 5-4
symbol definition file, *Task Builder*, 5-10
symbol exclusion, *Task Builder*, 5-13
symbol resolution, *Task Builder*, 5-12, 5-13
task, *Executive*, 3-4 *Task Builder*, 2-18
task building option, *Task Builder*, 5-15
unfixing, *System Management*, 10-92
window, *Task Builder*, 5-17, 5-26
with linked task
I- and D-space system, *Task Builder*, 7-3
Region Definition Block
See RDB
Region ID, *Executive*, 3-5
determining, *Executive*, 5-19
ReGIS character set, *MCR*, 3-246
/REGIS keyword
SET command (MCR), *MCR*, 3-246
SET command (VMR), *System Management*, 10-70
Register, *Debugging*, 2-6, 5-1
A, *Debugging*, 2-6, 5-3, 6-2, 9-10
address expression, *Debugging*, 5-1
address mode, *MACRO-11*, 5-2
deferred, *MACRO-11*, 5-3
B, *Debugging*, 2-7, 5-4, 9-10
clearing, *Debugging*, 3-2
breakpoint, *Program Development*, 5-6
address, *Debugging*, 5-4, 9-10
instruction, *Debugging*, 5-4, 9-10
proceed count, *Debugging*, 5-4, 9-10
C, *Debugging*, 2-6, 5-3, 9-10
indicator, *Debugging*, 9-12
cache control, *CDA*, 3-3
conventions
at system state, *Writing I/O Driver*, 7-1
D, *Debugging*, 2-7, 5-4, 6-2
definition
control, *MACRO-11*, 6-20, 6-21
default, *MACRO-11*, 3-10
E, *Debugging*, 2-7, 5-4
error, *CDA*, 3-2
expression, *MACRO-11*, 5-2
F, *Debugging*, 2-6, 4-1, 5-3, 9-10
G, *Debugging*, 2-7, 5-4, 9-10
general, *CDA*, 3-2 *Debugging*, 5-1, 9-10
contents, *Debugging*, 5-2
examining, *Debugging*, 5-1
setting, *Debugging*, 5-1
H, *Debugging*, 2-6, 5-3, 6-1, 9-10
handling
control swapping, *System Library*, 2-2
save all registers ($SAVAL), *System Library*, 2-2
save registers 0-2 ($SAVVR), *System Library*, 2-4
save registers 1-5 (.SAVR1), *System Library*, 2-5
save registers 3-5 ($SAVRG), *System Library*, 2-3

Register (cont'd.)
I, *Debugging*, 2-7, 5-4, 9-10
indicator, *Debugging*, 2-3, 2-8, 2-11
C register, *Debugging*, 2-3, 7-3, 9-12
current location (.), *Debugging*, 2-3, 7-3, 9-8
Q register, *Debugging*, 2-3, 7-3, 9-13
internal, *Debugging*, 5-2
accessing, *Debugging*, 5-2
L, *Debugging*, 2-6, 5-3, 6-1, 9-10
M, *Debugging*, 2-6, 5-3, 6-2
memory management, *CDA*, 3-2
memory operations, *Debugging*, 6-1
memory system error, *CDA*, 3-2
page
address, *CDA*, 3-2
description, *CDA*, 3-2
percent sign (%) in expression, *MACRO-11*, 5-2
Q, *Debugging*, 2-6, 5-3, 7-2, 9-10
indicator, *Debugging*, 9-13
R, *Debugging*, 2-7, 5-5, 9-10
clearing, *Debugging*, 2-11, 5-6, 9-13
setting, *Debugging*, 2-11, 5-6, 9-13
relocation, *Program Development*, 5-2, 5-3, 5-4
report, *Error Logging*, 3-18
S, *Debugging*, 2-6, 5-3, 9-10
search limit, *Debugging*, 6-1
set, *Debugging*, 5-4
symbol, *MACRO-11*, 3-10
term indicator, *MACRO-11*, 3-2
UNIBUS mapping, *CDA*, 3-2
V, *Debugging*, 2-7, 5-5
volatile, *CDA*, 3-1, 3-3
See also Volatile registers
W, *Debugging*, 2-6, 5-3
X, *Debugging*, 2-6, 5-3, 5-6
XDT internal, *Debugging*, 9-10
REGISTER_DEFINITIONS argument, *MACRO-11*, 8-10
Register access (ICDRV/ISDRV), *I/O Drivers*, 19-4
direct function, *I/O Drivers*, 19-4
/REG keyword
FIX-IN-MEMORY command (MCR), *MCR*, 3-75
FIX-IN-MEMORY command (VMR), *System Management*, 10-19
/REG keyword (cont'd.)
REMOVE command (VMR), *System Management*, 10-40
UNFIX command (MCR), *MCR*, 3-284
UNFIX command (VMR), *System Management*, 10-92
REG symbolic argument, *MACRO-11*, 6-20, 6-21
Rejecting message (LRDRV), *I/O Drivers*, 14-10
/RE job switch
QUE /MOD command, *Batch and Queue*, 2-21
REL argument to ORG$ macro, *RMS-11 Macro*, 2-3
Relative address, *CDA*, 3-1 *Debugging*, 2-2
format, *Debugging*, 2-2
Relative address mode, *MACRO-11*, 5-8
assemble as absolute, *MACRO-11*, 6-19
Relative branch location, *Debugging*, 2-6, 4-5, 9-9
Relative deferred address mode, *MACRO-11*, 5-9
Relative file organization, *RMS-11 Introduction*, 3-5 *RMS-11 User's Guide*, 1-4, 1-11
See also FB$REL code
access declarations, *RMS-11 User's Guide*, 4-6
allocation
DEQ, *RMS-11 User's Guide*, 4-4
initial, *RMS-11 User's Guide*, 4-3
and remote access, *RMS-11 User's Guide*, B-3
buckets, *RMS-11 User's Guide*, 4-1
cells, *RMS-11 Introduction*, 3-5 *RMS-11 User's Guide*, 4-1
CONNECT operation, *RMS-11 User's Guide*, 4-7
contiguity, *RMS-11 User's Guide*, 4-4
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
deferred write, *RMS-11 User's Guide*, 4-14
DELETE operation, *RMS-11 User's Guide*, 4-7
design, *RMS-11 User's Guide*, 4-1

Relative file organization
design (cont'd.)
allocation, *RMS-11 User's Guide*, 4-3
bucket size, *RMS-11 User's Guide*, 4-2
MRN, *RMS-11 User's Guide*, 4-5
record format, *RMS-11 User's Guide*, 4-2
directory operations, *RMS-11 User's Guide*, 4-15
DISCONNECT operation, *RMS-11 User's Guide*, 4-8
file operations, *RMS-11 User's Guide*, 4-15
FIND operation, *RMS-11 User's Guide*, 4-8
FLUSH operation, *RMS-11 User's Guide*, 4-10
GET operation, *RMS-11 User's Guide*, 4-10, 4-12, 4-13
I/O techniques, *RMS-11 User's Guide*, 4-14
MRN, *RMS-11 User's Guide*, 4-4
multiple access streams, *RMS-11 User's Guide*, 4-15
multiple buffers, *RMS-11 User's Guide*, 4-15
prologue, *RMS-11 User's Guide*, 4-1
PUT operation, *RMS-11 User's Guide*, 4-11, 4-12
random access
by key, *RMS-11 User's Guide*, 4-1
by RFA, *RMS-11 User's Guide*, 4-1
record operations, *RMS-11 User's Guide*, 4-7
record size, *RMS-11 User's Guide*, 4-2
record transfer modes, *RMS-11 User's Guide*, 4-12
move mode, *RMS-11 User's Guide*, 4-12
REWIND operation, *RMS-11 User's Guide*, 4-12
RRN, *RMS-11 Introduction*, 3-6
sequential access, *RMS-11 User's Guide*, 4-1
shared access, *RMS-11 User's Guide*, 4-6
block access, *RMS-11 User's Guide*, 4-6
Relative file organization
shared access (cont'd.)
record access, *RMS-11 User's Guide*, 4-6
sharing declarations, *RMS-11 User's Guide*, 4-6
stream operations, *RMS-11 User's Guide*, 4-7
structure, *RMS-11 User's Guide*, 4-1
conceptual, *RMS-11 User's Guide*, 4-1
UPDATE operation, *RMS-11 User's Guide*, 4-12, 4-13
Relative record number
See BKT field in RAB
See RRN
Relay, latch output (LSDRV), *I/O Drivers*, 17-22
RELAY: subroutine
latch output relay (LSDRV), *I/O Drivers*, 17-22
RELEASE command
format
entry number, *Batch and Queue*, 2-23
job name, *Batch and Queue*, 2-23
RELEASE/ENTRY, *Command Language*, 4-98, 9-26
RELEASE/JOB, *Command Language*, 4-98, 9-27
Release data buffer (K-series), *I/O Drivers*, 23-26
Relocatable
address, *Debugging*, 2-2, 5-6, 9-12
calculating, *Debugging*, 2-9, 7-1
expression, *MACRO-11*, 3-17
program section, *MACRO-11*, 6-44, 6-45
region
See Region
symbol, *Task Builder*, A-27
relocatable
complex
expression, *MACRO-11*, 3-18
Relocation
bias, *MACRO-11*, 2-2, 3-17, 3-18, 4-1
complex, *MACRO-11*, 4-1 *Task Builder*, A-22
entry, *Task Builder*, A-23
operation code, *Task Builder*, A-22

Relocation (cont'd.)
directory command byte, *Task Builder*, A-13
directory record, *Task Builder*, A-12
entry, *Task Builder*, A-12, A-13
format, *Task Builder*, A-14
displaced
global, *Task Builder*, A-16
global, *Task Builder*, A-15
additive, *Task Builder*, A-16
additive displaced, *Task Builder*, A-17
internal, *Task Builder*, A-14
displaced, *Task Builder*, A-15
library
resident, *Task Builder*, A-23
overview, *MACRO-11*, 4-1
program section, *Task Builder*, A-19
additive, *Task Builder*, A-20
additive displaced, *Task Builder*, A-21
displaced, *Task Builder*, A-19
resident library, *Task Builder*, A-23
task
mapped system, *Task Builder*, 2-16
Relocation register, *Program Development*, 5-2, 5-3, 5-4
See also R register
$RELOC routine, *Writing I/O Driver*, 7-34
$RELOP routine, *Writing I/O Driver*, 7-35
Rel parameter
immediate device-specific function (LSDRV), *I/O Drivers*, 17-3
REL symbolic argument, *MACRO-11*, 6-42
REM
See REMOVE command
.REM directive, *MACRO-11*, 6-18
/REMOTE keyword
SET command (MCR), *MCR*, 3-247
SET command (VMR), *System Management*, 10-71 to 10-72
Remote line
clearing characteristic (TTDRV), *I/O Drivers*, 2-83
Remote operation
P/OS, *RMS-11 Macro*, D-3
Remote site powerfail (ICDRV/ISDRV), *I/O Drivers*, 19-71
Remote terminal
IO.EIO (TTDRV), *I/O Drivers*, 2-25
Remote terminal (cont'd.)
monitor example (ICDRV/ISDRV), *I/O Drivers*, 19-62
Remove Affinity directive, *Executive*, 5-162
REMOVE command, *Command Language*, 7-39 to 7-40, 9-27
REMOVE command (MCR), *MCR*, 1-7, 3-175, 3-180
error messages, *MCR*, 3-176
example, *MCR*, 3-175
format, *MCR*, 3-175
parameter, *MCR*, 3-175
REMOVE command (VMR), *System Management*, 10-40
definition, *System Management*, 10-40
examples, *System Management*, 10-40
format, *System Management*, 10-40
keyword
/REG, *System Management*, 10-40
notes, *System Management*, 10-40
parameters, *System Management*, 10-40
$REMOVE macro, *RMS-11 Macro*, 5-102
RSTS/E, *RMS-11 Macro*, D-4
REMOVE operation, *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-6
BDB requirement, *RMS-11 Macro*, 2-8
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
$REMOVE macro, *RMS-11 Macro*, 5-102
wildcard loop, *RMS-11 Macro*, 3-9, 3-10
nonselective, *RMS-11 Macro*, 3-10
selective, *RMS-11 Macro*, 3-11
.REMOVE routine, delete directory entry, *I/O Operations*, 4-20
RENAME command, *Command Language*, 4-52 to 4-54, 9-27
Introduction, 3-7
$RENAME macro, *RMS-11 Macro*, 5-108
example, *RMS-11 Macro*, 7-15

RENAME operation, *RMS-11 Introduction*, 4-1 *RMS-11 Macro*, 3-6
BDB requirement, *RMS-11 Macro*, 2-8
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
$RENAME macro, *RMS-11 Macro*, 5-108
wildcard loop, *RMS-11 Macro*, 3-9, 3-10
nonselective, *RMS-11 Macro*, 3-10
selective, *RMS-11 Macro*, 3-11
.RENAME routine, rename file, *I/O Operations*, 4-26
RENEW command
EDI utility, *Program Development*, 2-15 *Utilities*, 2-19, 2-43
Repeat block
indefinite, *MACRO-11*, 7-3, 7-16 to 7-19
Repeating code block, *MACRO-11*, 7-19
REPEAT key, *Command Language*, 3-15
Replacement blocks
See RBNs
Report
interval
output frequency, *System Management*, 4-62
Report control function, *Error Logging*, 5-22
REPORTERRORS YES/NO command
IOX, *System Management*, 4-54
Report Generator
See also RPT
Report switch, *Error Logging*, 3-6, 3-20
.REPT directive, *MACRO-11*, 7-19
$REQU1 routine, *Writing I/O Driver*, 7-36
$REQUE routine, *Writing I/O Driver*, 7-36
Request and Pass Offspring Information directive, *Executive*, 5-163
REQUEST command, *Command Language*, 3-36 to 3-37, 9-27
Request Task directive, *Executive*, 5-167
R error, *MACRO-11*, 3-10
R error (cont'd.)
summary, *MACRO-11*, D-4
RES
See RESUME command
Reschedule interval, *System Management*, 10-43
RESCOM
linking to region, *Task Builder*, 5-15
option, *Task Builder*, 12-30, 12-31
shared region use, *Task Builder*, 5-15
RESEQUENCE command_EDT editor, *Introduction*, 2-12, 2-13
Reserved symbol, *Indirect*, 2-25 *MACRO-11*, 2-3, 3-1, 3-7
See also Permanent Symbol Table
description, *Task Builder*, E-1 to E-4
Reset counter initial value
SCTI: (ICDRV/ISDRV), *I/O Drivers*, 19-59
RESET key (EDT), *Introduction*, 2-8
Reset switch, *Error Logging*, 2-4, 2-7
Reset switch (CRDRV), *I/O Drivers*, 11-6
Resident
common
name block data, *Task Builder*, B-8
driver
See Driver
library
name block data, *Task Builder*, B-8
relocation, *Task Builder*, A-23
memory
for TKB performance, *Task Builder*, F-2, F-3
overlay operator
enabling recognition, *Task Builder*, 10-34, 11-58
region
map file
including symbol definition, *Task Builder*, 10-26
using to reduce overhead, *Task Builder*, F-4
/RESIDENT_OVERLAYS qualifier, *Task Builder*, 11-58
Resident data base
See Data base
RESLIB
linking to region, *Task Builder*, 5-15
option, *Task Builder*, 12-30, 12-31, 12-32

RESLIB
option (cont'd.)
shared region use, *Task Builder*, 5-15
supervisor mode library, *Task Builder*, 8-20
Resource Accounting, *Command Language*, 3-9, 3-12 to 3-13, 9-35 *MCR*, 2-6, 3-121 *System Management*, 1-5, 17-1
See also Transaction file
commands, *System Management*, 17-4
SET ACCOUNTING, *System Management*, 17-4, 17-8
SHOW ACCOUNTING/DATATRIEVE, *System Management*, 17-3, 17-17
SHOW ACCOUNTING/INFORMATION, *System Management*, 17-3, 17-11
SHOW ACCOUNTING/TRANSACTION_FILE, *System Management*, 17-3, 17-12
START/ACCOUNTING, *System Management*, 17-4, 17-5
STOP/ACCOUNTING, *System Management*, 17-4, 17-10
device statistics example, *System Management*, 17-7
interface for creating transactions
$QTRAN, *System Management*, 17-17
$QTRAN1, *System Management*, 17-18
$QTRAN2, *System Management*, 17-19
messages, *System Management*, 17-40
privileged task interface, *System Management*, 17-21
scan rate, *System Management*, 17-6
secondary pool, *System Management*, 17-5
statistics scan, *System Management*, 17-6
SYSGEN question, *System Generation*, 3-27
system resources, *System Management*, 17-39
system statistics, *System Management*, 17-5
task accounting, *System Management*, 17-6
Resource Accounting (cont'd.)
user-written analysis programs, *System Management*, 17-3
using DATATRIEVE-11 for an accounting report, *System Management*, 17-16
Resource Monitoring Display
See RMD
RESSUP
option, *Task Builder*, 8-4, 8-9, 12-33, 12-34
supervisor mode library, *Task Builder*, 8-7, 8-9
use in CSM library, *Task Builder*, 8-9, 8-18, 8-19, 8-20
/RES switch
PRI command, *Batch and Queue*, 2-5
RESTART command
IOX, *System Management*, 4-55
/RESTART qualifier
PRINT command, *Batch and Queue*, 2-5
SET QUEUE command, *Batch and Queue*, 2-21
.RESTORE directive, *MACRO-11*, 3-11, 6-47, 6-48
Resultant string
See RSA field in NAM block
RESUME command, *MCR*, 1-7, 3-177
error messages, *MCR*, 3-177
example, *MCR*, 3-177
format, *MCR*, 3-177
keyword
/TERM, *MCR*, 3-177
parameter, *MCR*, 3-177
Resume Task directive, *Executive*, 5-176
/RE switch
PIP utility, *Utilities*, 3-33
VFY utility, *Utilities*, 9-7
Retadd parameter
device-specific function
receive (LRDRV), *I/O Drivers*, 14-9
transmit (LRDRV), *I/O Drivers*, 14-4
RETRIES command
IOX, *System Management*, 4-56
Retries parameter
device-specific function
transmit (LRDRV), *I/O Drivers*, 14-4

Retrieval pointer, *RMS-11 User's Guide*, 8-2
in memory, *RMS-11 User's Guide*, 8-2
on disk, *RMS-11 User's Guide*, 8-2
Retrieval pointer count
See RTV field in FAB
Retry count parameter (UNIBUS switch driver)
IO.CON function, *I/O Drivers*, 24-4
Retry procedure (tape driver), *I/O Drivers*, 8-14
/RETRY switch
BAD utility, *Utilities*, 6-6
Return
operation, from, *RMS-11 Macro*, 2-14
Return, automatic carriage (half-duplex), *I/O Drivers*, 3-31
Return buffer number (K-series), *I/O Drivers*, 23-24
Return character (TTDRV), *I/O Drivers*, 2-69
RETURN command
EDI utility, *Utilities*, 2-19, 2-43
Return command, *Debugging*, 2-5, 4-2, 9-8
.RETURN directive, *Indirect*, 2-79
Return from completion handler, *RMS-11 Macro*, 2-18
RETURN key, *Command Language*, 3-13 to 3-14, 3-24 *Introduction*, 1-3 fig. *MCR*, 2-15
closing location
ODT, *Program Development*, 5-5, 5-8
displaying new line
EDI utility, *Program Development*, 2-13
entering text
EDI utility, *Program Development*, 2-9
half-duplex, *I/O Drivers*, 3-23, 3-24
terminating input
EDI utility, *Program Development*, 2-9, 2-10, 2-18, 7-7
TTDRV, *I/O Drivers*, 2-71
$RETURN macro, *RMS-11 Macro*, 2-18
RETURN statement, *Error Logging*, 4-31, 5-33
RETYPE command
EDI utility, *Utilities*, 2-19, 2-43
Revector control tables, *System Management*, 5-2
Reverse
operation (DTDRV), *I/O Drivers*, 6-8
speed
DTDRV, *I/O Drivers*, 6-7
/REVISED qualifier
BRU utility, *Utilities*, 7-21
Revision date
See RDT field in DAT block
RMSBCK utility, *RMS-11 Utilities*, 6-8
Revision number
See RVN field in DAT block
Rewind
importance (CTDRV), *I/O Drivers*, 9-7
on close or open, *I/O Operations*, 2-16
tape driver, *I/O Drivers*, 8-7
volume, *I/O Operations*, 5-5
REWIND_MAGTAPE attribute
RMSDES utility, *RMS-11 Utilities*, 2-34
$REWIND macro, *RMS-11 Macro*, 5-114
RSTS/E magtape device, *RMS-11 Macro*, D-4
REWIND operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
indexed files, *RMS-11 User's Guide*, 7-6
record stream, *RMS-11 Macro*, 4-9
relative files, *RMS-11 User's Guide*, 4-12
$REWIND macro, *RMS-11 Macro*, 5-114
sequential files, *RMS-11 User's Guide*, 3-11
/REWIND qualifier
BRU utility, *Utilities*, 7-21
RF11 disk controller, *I/O Drivers*, 5-1
RFA, *RMS-11 Introduction*, 3-11, 3-15
relative files, *RMS-11 User's Guide*, 4-1
sequential files, *RMS-11 User's Guide*, 3-2
RFA field in RAB, *RMS-11 Macro*, 4-6

RFA field in RAB (cont'd.)
CONNECT operation, *RMS-11 Macro*, 5-7
FIND operation, *RMS-11 Macro*, 5-50, 5-52, 5-54
GET operation, *RMS-11 Macro*, 5-61, 5-65, 5-67
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-93, 5-96
READ operation, *RMS-11 Macro*, 5-99, 5-101
summary, *RMS-11 Macro*, 6-129
WRITE operation, *RMS-11 Macro*, 5-128, 5-130
RFA record access
See also RB$RFA code in RAC field
to relative files, *RMS-11 User's Guide*, 4-1
to sequential files, *RMS-11 User's Guide*, 3-2
RFM field in FAB
CREATE operation, *RMS-11 Macro*, 5-11
offset, *RMS-11 Macro*, 6-23
OPEN operation, *RMS-11 Macro*, 5-78
summary, *RMS-11 Macro*, 6-61
.RFOWN routine, read $$FSR2 file owner word, *I/O Operations*, 4-7
$$RGDS program section
reserved name, *Task Builder*, E-3
RHB field in RAB, *RMS-11 Macro*, 4-7
GET operation, *RMS-11 Macro*, 5-61, 5-64, 5-68
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-92, 5-96
summary, *RMS-11 Macro*, 6-130
UPDATE operation, *RMS-11 Macro*, 5-124
RH controller
SYSGEN question, *System Generation*, 3-34
Right-angle bracket command (>), *Debugging*, 2-6, 4-5, 9-9
RK05 disk, *I/O Drivers*, 5-3
SYSGEN question, *System Generation*, 3-40
RK05F disk, *I/O Drivers*, 5-3
SYSGEN question, *System Generation*, 3-40
RK06/07 disk
SYSGEN question, *System Generation*, 3-41
RK06 disk, *I/O Drivers*, 5-3
RK07 disk, *I/O Drivers*, 5-3
RK07 disk kit
contents, *System Generation*, 2-6
copying
on line, *System Generation*, 2-18 to 2-20
stand alone, *System Generation*, 2-12 to 2-15
under VAX-11 RSX, *System Generation*, 2-24 to 2-26
RK11 controller
SYSGEN question, *System Generation*, 3-40
RK11 disk controller, *I/O Drivers*, 5-3
RK611/711 controller
SYSGEN question, *System Generation*, 3-41
RK611 disk controller, *I/O Drivers*, 5-3
RL01/02 disk
SYSGEN question, *System Generation*, 3-42
RL01 disk, *I/O Drivers*, 5-3
RL02 disk, *I/O Drivers*, 5-3
RL02 exercise
IOX, *System Management*, 4-10
RL11/RLV11 controller
SYSGEN question, *System Generation*, 3-42
RL11 disk controller, *I/O Drivers*, 5-3
Rlast parameter
RCLOKB: subroutine (K-series), *I/O Drivers*, 23-25
$RLCB (Release core block), *System Library*, 7-4
$RLCB system routine, *RMS-11 Macro*, 2-20
RLOG$ directive, *Executive*, 5-159
RLON$ directive, *Executive*, 5-159
RLSBUF: subroutine
release data buffer (K-series), *I/O Drivers*, 23-26
release data buffer (LADRV), *I/O Drivers*, 22-21
RLSCT FORTRAN subroutine, *Task Builder*, 5-64, 5-65
RM02/03/05/80 disk
SYSGEN question, *System Generation*, 3-36

RM02/03 module, *Error Logging*, 4-37 to 4-49
RM02/03 notes module, *Error Logging*, 4-67, 4-68
RM02 disk, *I/O Drivers*, 5-3
RM03 disk, *I/O Drivers*, 5-3
RM05 disk, *I/O Drivers*, 5-3
RM80 disk, *I/O Drivers*, 5-3
RMAF$S directive, *Executive*, 5-162
RMD, *System Management*, 1-2, 6-1
  Active Task Display, *System Management*, 6-8
    altering
      from MCR, *System Management*, 6-9
    altering from setup page, *System Management*, 6-8
  Active Task List Page, *System Management*, 6-1
  cached device
    Detailed Statistics Page, *System Management*, 6-1
  cache region
    detailed statistics
      altering from MCR, *System Management*, 6-18
    detailed statistics display, *System Management*, 6-16
      altering from setup page, *System Management*, 6-17
    general statistics
      altering from MCR, *System Management*, 6-16
    general statistics display, *System Management*, 6-14
      altering from setup page, *System Management*, 6-15
    General Statistics Page, *System Management*, 6-1
  displaying disk data cache statistics, *System Management*, 19-12, 19-14
  display pages, *System Management*, 6-1
  displays available on RSX-11M-PLUS, *System Management*, 6-11
  error messages, *System Management*, 6-18
  Help display, *System Management*, 6-3
RMD (cont'd.)
  Help Page, *System Management*, 6-1
  I/O Counts Display
    altering
      from MCR, *System Management*, 6-12
      from setup page, *System Management*, 6-12
  I/O Counts Page, *System Management*, 6-1
  installation, *System Management*, 6-2
    MCR INSTALL command, *System Management*, 6-2
    RSX-11M-PLUS systems, *System Management*, 6-2
    RSX-11M systems, *System Management*, 6-2
  invoking, *System Management*, 6-2
  memory display, *System Management*, 6-4
    FREE command, *System Management*, 6-7
    modifying, *System Management*, 6-7
    RATE command, *System Management*, 6-7
  Memory Page, *System Management*, 6-1
  pages, *System Management*, 6-1
  running on a slaved terminal, *System Management*, 6-3
  setup command, *System Management*, 6-2
  setup pages, *System Management*, 6-2
  System Statistics Display, *System Management*, 6-13
    altering
      from MCR, *System Management*, 6-14
      from setup page, *System Management*, 6-14
  System Statistics Page, *System Management*, 6-1
  task-build command file
    altering, *System Management*, 6-18
  Task Header Display, *System Management*, 6-9
    altering
      from MCR, *System Management*, 6-11

RMD
Task Header Display (cont'd.)
from setup page, *System Management*, 6-10
contents, *System Management*, 6-10
Task Header Page, *System Management*, 6-1
using at terminals, *System Management*, 6-2
RMDEMO, *Introduction*, 6-9
RMS-11
installing libraries and utilities, *System Generation*, 4-4
introductory information
Best reference, *RMS-11 Introduction*
library, *Program Development*, 1-9, 1-11
on pregenerated kit, *System Generation*, 5-40
reference information
Best reference, *RMS-11 Macro*
user information
Best reference, *RMS-11 User's Guide*
utilities
Best reference, *RMS-11 Utilities*
RMS-11 File Back-Up Utility
See RMSBCK
RMS-11 File Conversion Utility
See RMSCNV
RMS-11 File Definition Utility
See RMSDEF
RMS-11 File Design Utility
See RMSDES
RMS-11 File Display Utility
See RMSDSP
RMS-11 File Restoration Utility
See RMSRST
RMS-11 Indexed File Load Utility
See RMSIFL
RMS-11 string
processing, *Executive*, 5-139
RMSBCK utility, *RMS-11 Introduction*, 5-3 *RMS-11 Utilities*, 1-1, 3-3, 4-5, 5-1, 6-1, 7-1, 7-5, 7-9, 7-10
backup file contents, *RMS-11 Utilities*, 6-1
backup medium, *RMS-11 Utilities*, 6-3
/CD switch, *RMS-11 Utilities*, 6-8, 6-9
RMSBCK utility (cont'd.)
command string, *RMS-11 Utilities*, 6-2, 6-3
container file, *RMS-11 Utilities*, 6-1
data integrity checking, *RMS-11 Utilities*, 6-6, 6-7, 6-9
examples, *RMS-11 Utilities*, 6-10
global switches, *RMS-11 Utilities*, 6-5
HELP, *RMS-11 Utilities*, 6-4
/ID switch, *RMS-11 Utilities*, 6-4, 6-5
indirect command file, *RMS-11 Utilities*, 6-2
input file switches, *RMS-11 Utilities*, 6-8
intersystem file transfer, *RMS-11 Utilities*, 1-2
invoking, *RMS-11 Utilities*, 6-2
magnetic tape, *RMS-11 Utilities*, 6-7
multivolume, *RMS-11 Utilities*, 6-9
messages, *RMS-11 Utilities*, C-1
/[NO]QU switch, *RMS-11 Utilities*, 6-5, 6-6, 6-7, 6-10
output file switches, *RMS-11 Utilities*, 6-6
processing, *RMS-11 Utilities*, 6-8
data integrity checking, *RMS-11 Utilities*, 6-9
explicit/implicit filespec, *RMS-11 Utilities*, 6-9
extended diagnostic messages, *RMS-11 Utilities*, 6-10
summary listing, *RMS-11 Utilities*, 6-10
prompt, *RMS-11 Utilities*, 6-2
query mode, *RMS-11 Utilities*, 6-5, 6-6, 6-7, 6-10
/RA switch, *RMS-11 Utilities*, 6-6, 6-7, 6-9
/RC switch, *RMS-11 Utilities*, 6-7, 6-9
/RD switch, *RMS-11 Utilities*, 6-8, 6-9
/RW switch, *RMS-11 Utilities*, 6-7
/SL switch, *RMS-11 Utilities*, 6-6, 6-10
summary listing, *RMS-11 Utilities*, 6-10
/SU switch, *RMS-11 Utilities*, 6-7
terminating, *RMS-11 Utilities*, 6-2

RMSCNV utility, *RMS-11 Introduction*, 5-2 *RMS-11 Utilities*, 1-1, 3-1, 4-1
/AP switch, *RMS-11 Utilities*, 4-5, 4-7, 4-13, 4-15
ASCII stream files, *RMS-11 Utilities*, 4-3, 4-8
block mode, *RMS-11 Utilities*, 4-1
/BL switch, *RMS-11 Utilities*, 4-8
/CA switch, *RMS-11 Utilities*, 4-8
command string, *RMS-11 Utilities*, 4-3, 4-4
CTRL/Z
file terminator, *RMS-11 Utilities*, 4-8
/EO switch, *RMS-11 Utilities*, 4-8
examples, *RMS-11 Utilities*, 4-16
/FO switch, *RMS-11 Utilities*, 4-9, 4-15
HELP, *RMS-11 Utilities*, 4-5
/ID switch, *RMS-11 Utilities*, 4-5, 4-9
/IM switch, *RMS-11 Utilities*, 4-9
indirect command file, *RMS-11 Utilities*, 4-4
intersystem file transfer, *RMS-11 Utilities*, 1-2, 4-1
invoking, *RMS-11 Utilities*, 4-3
key name, *RMS-11 Utilities*, 4-10
key of reference, *RMS-11 Utilities*, 4-10
/KN switch, *RMS-11 Utilities*, 4-10, 4-16
/KR switch, *RMS-11 Utilities*, 4-10, 4-16
/LO switch, *RMS-11 Utilities*, 4-10
mass-insertion mode, *RMS-11 Utilities*, 4-10
/MA switch, *RMS-11 Utilities*, 4-10
messages, *RMS-11 Utilities*, C-1
/ML switch, *RMS-11 Utilities*, 4-11
network facilities, *RMS-11 Utilities*, 4-1
/PD switch, *RMS-11 Utilities*, 4-12
processing, *RMS-11 Utilities*, 4-14
input file organization, *RMS-11 Utilities*, 4-16
output file organization, *RMS-11 Utilities*, 4-15
prompt, *RMS-11 Utilities*, 4-3
/SL switch, *RMS-11 Utilities*, 4-12
summary listing, *RMS-11 Utilities*, 4-12
supersession, *RMS-11 Utilities*, 4-13

RMSCNV utility (cont'd.)
/SU switch, *RMS-11 Utilities*, 4-5, 4-7, 4-13, 4-15
terminating, *RMS-11 Utilities*, 4-4
/TR switch, *RMS-11 Utilities*, 4-13
/WF switch, *RMS-11 Utilities*, 4-14
RMSDEF utility, *RMS-11 Utilities*, 1-1, A-1
alignment, *RMS-11 Utilities*, A-14
allocation
data, *RMS-11 Utilities*, A-16
file, *RMS-11 Utilities*, A-14
alternate key, definition, *RMS-11 Utilities*, A-11
area definition, *RMS-11 Utilities*, A-13
area numbers, *RMS-11 Utilities*, A-16
block boundaries, *RMS-11 Utilities*, A-9
bucket size, *RMS-11 Utilities*, A-15
carriage control, *RMS-11 Utilities*, A-9
command string, *RMS-11 Utilities*, A-5
contiguity, *RMS-11 Utilities*, A-15
default extension quantity, *RMS-11 Utilities*, A-15
file creation, *RMS-11 Utilities*, A-19
file organization, *RMS-11 Utilities*, A-8
file specification, *RMS-11 Utilities*, A-7
fill numbers, *RMS-11 Utilities*, A-16
fixed control area, *RMS-11 Utilities*, A-8
HELP, *RMS-11 Utilities*, A-5
/ID switch, *RMS-11 Utilities*, A-5
indirect command file, *RMS-11 Utilities*, A-1, A-2, A-5, A-6, A-19
invoking, *RMS-11 Utilities*, A-5
location, *RMS-11 Utilities*, A-14
magnetic tape, *RMS-11 Utilities*, A-8, A-10
maximum record number, *RMS-11 Utilities*, A-9
maximum record size, *RMS-11 Utilities*, A-9
messages, *RMS-11 Utilities*, A-20
placement control, *RMS-11 Utilities*, A-14
primary key, definition, *RMS-11 Utilities*, A-10

RMSDEF utility (cont'd.)
processing, *RMS-11 Utilities*, A-1
protection, *RMS-11 Utilities*, A-18
record format, *RMS-11 Utilities*, A-8
terminating, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Introduction*, 5-1 *RMS-11 Utilities*, 1-1, 2-1, 4-2, 5-1
allocation
areas, *RMS-11 Utilities*, 2-10, 2-25
areas
defining, *RMS-11 Utilities*, 2-1, 2-42, B-1
and BUCKET_SIZE attribute, *RMS-11 Utilities*, 2-32
and DATA_AREA attribute, *RMS-11 Utilities*, 2-40
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA, *RMS-11 Utilities*, 2-41
and SIZE attribute, *RMS-11 Utilities*, 2-36
by default, *RMS-11 Utilities*, 2-43
explicitly, *RMS-11 Utilities*, 2-43
defining by default, *RMS-11 Utilities*, 2-17, 2-38
CREATE command, *RMS-11 Utilities*, 2-8
SET ALL command, *RMS-11 Utilities*, 2-14
defining explicitly, *RMS-11 Utilities*, 2-17
numbering, *RMS-11 Utilities*, 2-8, 2-28, 2-43
attributes, *RMS-11 Utilities*, 2-29
clearing, *RMS-11 Utilities*, 2-22, 2-25
clearing individual values, *RMS-11 Utilities*, 2-26
clearing sections, *RMS-11 Utilities*, 2-26
displaying, *RMS-11 Utilities*, 2-15, 2-26
displaying individual values, *RMS-11 Utilities*, 2-26
displaying sections, *RMS-11 Utilities*, 2-27
informational, *RMS-11 Utilities*, 2-1, 2-17, 2-29

RMSDES utility
attributes (cont'd.)
resetting, *RMS-11 Utilities*, 2-21
RMS-11, *RMS-11 Utilities*, 2-1, 2-17, 2-29
setting, *RMS-11 Utilities*, 2-13
setting from data file, *RMS-11 Utilities*, 2-25
setting from description file, *RMS-11 Utilities*, 2-24
setting individual values, *RMS-11 Utilities*, 2-21
setting sections, *RMS-11 Utilities*, 2-21
CLEAR command, *RMS-11 Utilities*, 2-6, 2-18, 2-25, 2-26
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
defining areas by default, *RMS-11 Utilities*, 2-44
in indirect command file, *RMS-11 Utilities*, 2-4
with CREATE, *RMS-11 Utilities*, 2-8, 2-28
with SAVE, *RMS-11 Utilities*, 2-27
clearing attributes, *RMS-11 Utilities*, 2-6
commands, *RMS-11 Utilities*, 2-4
CREATE command, *RMS-11 Utilities*, 2-7, 2-18, 2-28, 2-31
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
defining areas by default, *RMS-11 Utilities*, 2-44
defining areas explicitly, *RMS-11 Utilities*, 2-43
key numbering, *RMS-11 Utilities*, 2-38
setting attributes, *RMS-11 Utilities*, 2-21
with GET, *RMS-11 Utilities*, 2-10, 2-25
creating data files, *RMS-11 Utilities*, 2-28
CTRL/Z command, *RMS-11 Utilities*, 2-2, 2-9, 2-18
data file, *RMS-11 Utilities*, 2-3, 2-17, 2-24

RMSDES utility
data file (cont'd.)
creating, *RMS-11 Utilities*, 2-3, 2-7, 2-28
GET command, *RMS-11 Utilities*, 2-10
defaults, *RMS-11 Utilities*, 2-21
defining areas by default
CREATE command, *RMS-11 Utilities*, 2-28
description file, *RMS-11 Utilities*, 2-3, 2-17, 2-24
EXIT command, *RMS-11 Utilities*, 2-10
GET command, *RMS-11 Utilities*, 2-10
SAVE command, *RMS-11 Utilities*, 2-27
saving the design, *RMS-11 Utilities*, 2-13
design buffer, *RMS-11 Utilities*, 2-1
using, *RMS-11 Utilities*, 2-16
design session, *RMS-11 Utilities*, 2-1
resuming, *RMS-11 Utilities*, 2-22
ESC command, *RMS-11 Utilities*, 2-9, 2-21
examples, *RMS-11 Utilities*, 2-47
EXIT command, *RMS-11 Utilities*, 2-3, 2-9, 2-18, 2-27
GET command, *RMS-11 Utilities*, 2-10, 2-17, 2-24
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
with SAVE, *RMS-11 Utilities*, 2-28
HELP command, *RMS-11 Utilities*, 2-11
indirect command file, *RMS-11 Utilities*, 2-3
comments, *RMS-11 Utilities*, 2-4
invoking, *RMS-11 Utilities*, 2-2
keys
numbering, *RMS-11 Utilities*, 2-8, 2-28, 2-38
magnetic tape, *RMS-11 Utilities*, 2-34
messages, *RMS-11 Utilities*, 2-52
multiple areas, *RMS-11 Utilities*, 2-7, 2-43
multiple keys, *RMS-11 Utilities*, 2-7, 2-38
RMSDES utility (cont'd.)
prompt, *RMS-11 Utilities*, 2-2
conditional, *RMS-11 Utilities*, 2-1, 2-13, 2-14, 2-15, 2-17, 2-21, 2-29
QUIT command, *RMS-11 Utilities*, 2-2, 2-12, 2-18
SAVE command, *RMS-11 Utilities*, 2-13, 2-18, 2-27
setting attributes, *RMS-11 Utilities*, 2-21
saving the design, *RMS-11 Utilities*, 2-13, 2-22, 2-27
sections, design buffer, *RMS-11 Utilities*, 2-1, 2-16, 2-29
area section, *RMS-11 Utilities*, 2-29, 2-42
file section, *RMS-11 Utilities*, 2-29, 2-31
key section, *RMS-11 Utilities*, 2-29, 2-38
key segments, *RMS-11 Utilities*, 2-41
record section, *RMS-11 Utilities*, 2-29, 2-36
system section, *RMS-11 Utilities*, 2-29, 2-30
SET command, *RMS-11 Utilities*, 2-13, 2-17, 2-20, 2-33
allocation, *RMS-11 Utilities*, 2-10
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
defining areas by default, *RMS-11 Utilities*, 2-17, 2-43
defining areas explicitly, *RMS-11 Utilities*, 2-43
with GET, *RMS-11 Utilities*, 2-25
SHOW ALL command, *RMS-11 Utilities*, 2-4
defining areas by default, *RMS-11 Utilities*, 2-17
defining areas explicitly, *RMS-11 Utilities*, 2-43
setting attributes, *RMS-11 Utilities*, 2-21

RMSDES utility (cont'd.)
SHOW command, *RMS-11 Utilities*, 2-15, 2-18, 2-26
allocation, *RMS-11 Utilities*, 2-10
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
with GET, *RMS-11 Utilities*, 2-25
SHOW ID command, *RMS-11 Utilities*, 2-16
terminating, *RMS-11 Utilities*, 2-2, 2-9, 2-12
version, *RMS-11 Utilities*, 2-16
RMSDSP utility, *RMS-11 Introduction*, 5-3 *RMS-11 Utilities*, 1-1, 5-1, 6-3, 7-5, 7-10
ANSI-standard tape, *RMS-11 Utilities*, 5-3
/BP switch, *RMS-11 Utilities*, 5-3, 5-4
command string, *RMS-11 Utilities*, 5-2, 5-3
container file, *RMS-11 Utilities*, 5-1, 5-3, 5-4
detailed display, *RMS-11 Utilities*, 5-4
display information, *RMS-11 Utilities*, 5-1
examples, *RMS-11 Utilities*, 5-5
/FU switch, *RMS-11 Utilities*, 5-2, 5-4
HELP, *RMS-11 Utilities*, 5-3
/ID switch, *RMS-11 Utilities*, 5-3, 5-5
indirect command file, *RMS-11 Utilities*, 5-2
intersystem file transfer, *RMS-11 Utilities*, 1-2
invoking, *RMS-11 Utilities*, 5-2
magtape allocation information, *RMS-11 Utilities*, 5-2
messages, *RMS-11 Utilities*, C-1
mounting tapes, *RMS-11 Utilities*, 5-3
prompt, *RMS-11 Utilities*, 5-2
switches, *RMS-11 Utilities*, 5-3, 5-4
terminating, *RMS-11 Utilities*, 5-2
RMSIFL utility, *RMS-11 Introduction*, 5-2 *RMS-11 Utilities*, 1-1, 3-1, 4-1, 4-2
calculating file work space, *RMS-11 Utilities*, 3-12
RMSIFL utility (cont'd.)
command string, *RMS-11 Utilities*, 3-2, 3-3
/DE switch, *RMS-11 Utilities*, 3-7, 3-10, 3-14
/ER switch, *RMS-11 Utilities*, 3-5, 3-6
examples, *RMS-11 Utilities*, 3-14
global switch, *RMS-11 Utilities*, 3-5
HELP, *RMS-11 Utilities*, 3-3
/ID switch, *RMS-11 Utilities*, 3-3, 3-5
indirect command file, *RMS-11 Utilities*, 3-2
input file switches, *RMS-11 Utilities*, 3-7
invoking, *RMS-11 Utilities*, 3-2
/KR switch, *RMS-11 Utilities*, 3-8, 3-9
/LO switch, *RMS-11 Utilities*, 3-6
messages, *RMS-11 Utilities*, C-1
/NOER switch, *RMS-11 Utilities*, 3-6
/NOSO switch, *RMS-11 Utilities*, 3-8, 3-9, 3-10
output file switches, *RMS-11 Utilities*, 3-5
/PD switch, *RMS-11 Utilities*, 3-6, 3-7, 3-11
processing, *RMS-11 Utilities*, 3-9
building alternate indexes, *RMS-11 Utilities*, 3-12
command string checking, *RMS-11 Utilities*, 3-9
loading output file, *RMS-11 Utilities*, 3-10
reading and sorting input, *RMS-11 Utilities*, 3-9
sorting alternate key files, *RMS-11 Utilities*, 3-11
summary, *RMS-11 Utilities*, 3-1
terminating, *RMS-11 Utilities*, 3-12
prompt, *RMS-11 Utilities*, 3-2
sort error codes, *RMS-11 Utilities*, D-1
sort work files, *RMS-11 Utilities*, 3-1, 3-7, 3-12, 3-13
switches, *RMS-11 Utilities*, 3-3, 3-5
terminating, *RMS-11 Utilities*, 3-2
/TR switch, *RMS-11 Utilities*, 3-7, 3-11

RMSLIB.OLB (Record Management Services library), *Program Development*, 1-11
RMSMAC.MLB, *RMS-11 Macro*, 2-20
RSTS/E, *RMS-11 Macro*, D-3
RMSMAC.MLB (Record Management Services Library), *Program Development*, 1-9
RMSRES
and I/O paging operations, *RMS-11 User's Guide*, 8-2
RMSRST utility, *RMS-11 Introduction*, 5-3 *RMS-11 Utilities*, 1-1, 4-2, 5-4, 6-1, 6-3, 6-8, 7-1
/BD switch, *RMS-11 Utilities*, 7-8, 7-10
command string, *RMS-11 Utilities*, 7-2, 7-3
data integrity checking, *RMS-11 Utilities*, 7-6, 7-8, 7-11
examples, *RMS-11 Utilities*, 7-12
/FR switch, *RMS-11 Utilities*, 7-7
global switches, *RMS-11 Utilities*, 7-5
HELP, *RMS-11 Utilities*, 7-3
/ID switch, *RMS-11 Utilities*, 7-3, 7-5
indirect command file, *RMS-11 Utilities*, 7-2
input file switches, *RMS-11 Utilities*, 7-8
intersystem file transfer, *RMS-11 Utilities*, 1-2, 7-1, 7-10
/FR switch, *RMS-11 Utilities*, 7-7
version number conversion, *RMS-11 Utilities*, 7-5
invoking, *RMS-11 Utilities*, 7-2
messages, *RMS-11 Utilities*, C-1
/[NO]CV switch, *RMS-11 Utilities*, 7-5, 7-10
/[NO]QU switch, *RMS-11 Utilities*, 7-6, 7-7, 7-8, 7-12
/OA switch, *RMS-11 Utilities*, 7-9, 7-10
output file switches, *RMS-11 Utilities*, 7-7
processing, *RMS-11 Utilities*, 7-9
data integrity checking, *RMS-11 Utilities*, 7-11
explicit/implicit filespec, *RMS-11 Utilities*, 7-10
RMSRST utility
processing (cont'd.)
extended diagnostic messages, *RMS-11 Utilities*, 7-11
restoration account, *RMS-11 Utilities*, 7-10
summary listing, *RMS-11 Utilities*, 7-12
prompt, *RMS-11 Utilities*, 7-2
query mode, *RMS-11 Utilities*, 7-6, 7-7, 7-8, 7-11
/RA switch, *RMS-11 Utilities*, 7-7, 7-11
/RC switch, *RMS-11 Utilities*, 7-8, 7-11
/SE switch, *RMS-11 Utilities*, 7-3, 7-9
/SL switch, *RMS-11 Utilities*, 7-6, 7-12
summary listing, *RMS-11 Utilities*, 7-12
/SU switch, *RMS-11 Utilities*, 7-8
terminating, *RMS-11 Utilities*, 7-2
$RMSTAT macro, *RMS-11 Macro*, C-3
/RM switch
PIP utility, *Utilities*, 3-35
RMT, *System Management*, 11-2
RMVBUF: subroutine
remove buffer from device queue
K-series, *I/O Drivers*, 23-26
LADRV, *I/O Drivers*, 22-22
/RNDC keyword
SET command (MCR), *MCR*, 3-248
SET command (VMR), *System Management*, 10-72
/RNDH keyword
SET command (MCR), *MCR*, 3-249
SET command (VMR), *System Management*, 10-72
/RNDL keyword
SET command (MCR), *MCR*, 3-249
SET command (VMR), *System Management*, 10-72
/RON keyword
FIX-IN-MEMORY command (MCR), *MCR*, 3-75
FIX-IN-MEMORY command (VMR), *System Management*, 10-19
INSTALL command (VMR), *System Management*, 10-26
UNFIX command (MCR), *MCR*, 3-284
UNFIX command (VMR), *System Management*, 10-92

$RONLY
state table, *I/O Operations*, 7-2
Root, *RMS-11 User's Guide*, 1-7
cotree, *Task Builder*, 3-31
indexed files, *RMS-11 User's Guide*, 5-5
null, *Task Builder*, 3-31
ODL, *Task Builder*, 3-31
segment, *Task Builder*, B-14
structure
overlay, *Task Builder*, 3-21
.ROOT directive, *Task Builder*, 3-23, 3-24
allocation diagram
creating, *Task Builder*, 3-37
argument, *Task Builder*, 3-26
summary, *Task Builder*, 3-50
/ROPAR keyword
INSTALL command (MCR), *MCR*, 3-120
INSTALL command (VMR), *System Management*, 10-26
RUN command (MCR), *MCR*, 3-184
ROPAR option, *Task Builder*, 12-35
^R operator, *MACRO-11*, 3-5, 6-30
ROP field in RAB, *RMS-11 Macro*, 4-1, 4-4, 4-5, 4-6, 4-7
CONNECT operation, *RMS-11 Macro*, 5-6, 5-7
DELETE operation, *RMS-11 Macro*, 5-25
DISCONNECT operation, *RMS-11 Macro*, 5-27
FIND operation, *RMS-11 Macro*, 5-49, 5-51, 5-52, 5-54
FLUSH operation, *RMS-11 Macro*, 5-56
FREE operation, *RMS-11 Macro*, 5-58
GET operation, *RMS-11 Macro*, 5-60, 5-61, 5-63, 5-64, 5-67, 5-68
NXTVOL operation, *RMS-11 Macro*, 5-70
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-91, 5-92, 5-95, 5-96
READ operation, *RMS-11 Macro*, 5-98, 5-100
REWIND operation, *RMS-11 Macro*, 5-114
ROP field in RAB (cont'd.)
SPACE operation, *RMS-11 Macro*, 5-120
summary
RB$ASY mask, *RMS-11 Macro*, 6-131
RB$EOF mask, *RMS-11 Macro*, 6-132
RB$FDL mask, *RMS-11 Macro*, 6-133
RB$KGE mask, *RMS-11 Macro*, 6-134
RB$KGT mask, *RMS-11 Macro*, 6-135
RB$LOA mask, *RMS-11 Macro*, 6-136
RB$LOC mask, *RMS-11 Macro*, 6-137
RB$MAS mask, *RMS-11 Macro*, 6-138
RB$UIF mask, *RMS-11 Macro*, 6-139
TRUNCATE operation, *RMS-11 Macro*, 5-122
UPDATE operation, *RMS-11 Macro*, 5-124
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
/RO switch, *Task Builder*, 10-34
ZAP utility, *Utilities*, 15-2
RO symbolic argument, *MACRO-11*, 6-40
Round-robin scheduler, *System Generation*, C-3
Routine
completion
See Completion routine
RP02/RPR02/RP03 disk
SYSGEN question, *System Generation*, 3-43
RP02 disk, *I/O Drivers*, 5-1
RP03 disk, *I/O Drivers*, 5-1
RP04/05/06
SYSGEN question, *System Generation*, 3-36
RP04 disk, *I/O Drivers*, 5-3
RP05 disk, *I/O Drivers*, 5-3
RP06 disk, *I/O Drivers*, 5-3
RP07 disk
SYSGEN question, *System Generation*, 3-36
RP11 controller
SYSGEN question, *System Generation*, 3-43

RP11 disk controller, *I/O Drivers*, 5-1
/RPA keyword
  SET command (MCR), *MCR*, 3-250
  SET command (VMR), *System Management*, 10-73
RPOI$ directive, *Executive*, 5-164
/RPRI keyword
  ALTER command (MCR), *MCR*, 3-19
/RP switch
  LBR utility, *Utilities*, 10-23
%RPT, *Error Logging*, 5-22
RPT, *Error Logging*, 1-1
  command line, *Error Logging*, 3-2
    input file, *Error Logging*, 3-2
    multiple qualifiers, *Error Logging*, 3-3
    report file, *Error Logging*, 3-2
    switches, *Error Logging*, 3-2
    universal library, *Error Logging*, 3-2
  control function, *Error Logging*, 5-21
  /DA switch, *Error Logging*, 3-5, 3-8
  Date switch, *Error Logging*, 3-5, 3-8
  default file specification, *Error Logging*, 3-3
  /DE switch, *Error Logging*, 3-5, 3-8
  Device switch, *Error Logging*, 3-5, 3-8
    multiple qualifiers, *Error Logging*, 3-4
  error log control file, *Error Logging*, 1-4
  error log file, *Error Logging*, 1-4
  error log packet, *Error Logging*, 1-4
    number, *Error Logging*, 3-1
  error type definition, *Error Logging*, 1-5
  Format switch, *Error Logging*, 3-5, 3-11
    brief report, *Error Logging*, 3-11
    full report, *Error Logging*, 3-15
    no report, *Error Logging*, 3-19
    register report, *Error Logging*, 3-18
  /F switch, *Error Logging*, 3-5, 3-11
  information required, *Error Logging*, 3-2
    format selection, *Error Logging*, 3-2
    packet selection, *Error Logging*, 3-2
RPT (cont'd.)
  installation, *Error Logging*, 3-1
  interpreter, *Error Logging*, 5-1
  Packet number switch, *Error Logging*, 3-5, 3-8
    multiple qualifiers, *Error Logging*, 3-4
  /P switch, *Error Logging*, 3-5, 3-8
  report information selection, *Error Logging*, 1-4, 1-5
  Report switch, *Error Logging*, 3-6, 3-20
  report switch
    format packet, *Error Logging*, 3-5
    select packet, *Error Logging*, 3-5
  /R switch, *Error Logging*, 3-6, 3-20
  Serial number switch, *Error Logging*, 3-6, 3-9
    multiple qualifiers, *Error Logging*, 3-4
  /SE switch, *Error Logging*, 3-6, 3-9
  subswitch summary, *Error Logging*, 3-5
  switch summary, *Error Logging*, 3-5
  /T switch, *Error Logging*, 3-7, 3-9
  Type switch, *Error Logging*, 3-7, 3-9
    multiple qualifiers, *Error Logging*, 3-4
  Volume label switch, *Error Logging*, 3-7, 3-10
  /V switch, *Error Logging*, 3-7, 3-10
  Width switch, *Error Logging*, 3-7, 3-21
  /W switch, *Error Logging*, 3-7, 3-21
RPTBLD.BLD file, *Error Logging*, 3-2
RPT command line
  default, *Error Logging*, 3-4
    Date switch, *Error Logging*, 3-4
    Device switch, *Error Logging*, 3-4
    Format switch, *Error Logging*, 3-4
    Packet switch, *Error Logging*, 3-4
    Type switch, *Error Logging*, 3-4
    Width switch, *Error Logging*, 3-4
$RQCB (Request core blocks), *System Library*, 7-3
$RQCB system routine, *RMS-11 Macro*, 2-20
$RQCNC, *Writing I/O Driver*, 4-41
$RQCND, *Writing I/O Driver*, 4-41

RQST$ directive, *Executive*, 5-167
$RQVCB (Request virtual core block), *System Library*, 8-20
RREF$ directive, *Executive*, 5-170
R register, *Debugging*, 2-7, 5-5, 9-10
  clearing, *Debugging*, 2-11, 5-6, 9-13
  setting, *Debugging*, 2-11, 5-6, 9-13
RRN, *RMS-11 Introduction*, 3-12, 3-14, 3-15
  See also BKT field in RAB
  relative files, *RMS-11 Introduction*, 3-6 *RMS-11 User's Guide*, 4-1
  sequential files, *RMS-11 Introduction*, 3-5 *RMS-11 User's Guide*, 3-2
RRST$ directive, *Executive*, 5-173
RRV, *RMS-11 User's Guide*, 5-12, 5-16
RS03/04 disk
  SYSGEN question, *System Generation*, 3-37
RS03 disk, *I/O Drivers*, 5-1
RS04 disk, *I/O Drivers*, 5-1
RS11 disk, *I/O Drivers*, 5-1
RSA field in NAM block, *RMS-11 Macro*, 3-9
  offset, *RMS-11 Macro*, 6-94
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-103
RSEF$ directive, *I/O Drivers*, 1-7
/RSI keyword
  RUN command (MCR), *MCR*, 3-180, 3-181
  RUN command (VMR), *System Management*, 10-44
/RS keyword
  MOUNT command (MCR), *MCR*, 3-152
RSL field in NAM block
  CREATE operation, *RMS-11 Macro*, 5-21
  ENTER operation, *RMS-11 Macro*, 5-38
  ERASE operation, *RMS-11 Macro*, 5-43
  offset, *RMS-11 Macro*, 6-94
  OPEN operation, *RMS-11 Macro*, 5-81
  PARSE operation, *RMS-11 Macro*, 5-87
  REMOVE operation, *RMS-11 Macro*, 5-105
  RENAME operation, *RMS-11 Macro*, 5-112
RSL field in NAM block (cont'd.)
  SEARCH operation, *RMS-11 Macro*, 5-116, 5-117
  summary, *RMS-11 Macro*, 6-104
RSS field in NAM block
  offset, *RMS-11 Macro*, 6-94
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-105
/RS switch
  FLX utility, *Utilities*, 4-4
  SLP utility, *Utilities*, 13-16
RSTI: read counter module (ICDRV/ISDRV), *I/O Drivers*, 19-58
RSTI: subroutine
  read timer module (UDDRV), *I/O Drivers*, 16-30
RSTS/E RMS-11
  contrasted with PRO/RMS-11, *RMS-11 Macro*, D-1
  contrasted with RSX-11 RMS-11, *RMS-11 Macro*, D-3
  remote access, *RMS-11 User's Guide*, B-3
RSUM$ directive, *Executive*, 5-176
/R switch, *Error Logging*, 2-4, 2-7, 3-6, 3-20
RSX11.SYS, *System Management*, 2-3
RSX11D symbol, *Indirect*, 2-11
RSX11M.STB
  See Executive symbol table
RSX-11M/M-PLUS RMS-11
  contrasted with PRO/RMS-11, *RMS-11 Macro*, D-3
  contrasted with RSTS/E RMS-11, *RMS-11 Macro*, D-3
  remote access, *RMS-11 User's Guide*, B-3
RSX-11M-PLUS Operating System, *Command Language*, 1-1
RSXASM.CMD file, *Writing I/O Driver*, 5-3
RSXMAC.SML, *Executive*, 1-5
RSXMAC.SML (System macro library), *Program Development*, 1-5 to 2-7
RSXTIME, *Error Logging*, 5-7
RSZ field in RAB, *RMS-11 Macro*, 4-7, 4-13
  GET operation, *RMS-11 Macro*, 5-61, 5-65, 5-68
  offset, *RMS-11 Macro*, 6-115
  PUT operation, *RMS-11 Macro*, 5-92, 5-95

RSZ field in RAB (cont'd.)
READ operation, *RMS-11 Macro*, 5-99, 5-101
summary, *RMS-11 Macro*, 6-140
UPDATE operation, *RMS-11 Macro*, 5-124
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
RT01 Alphanumeric Display Terminal, *I/O Drivers*, 3-3
RT02, *I/O Drivers*, 2-82
RT02 Alphanumeric Display Terminal, *I/O Drivers*, 2-5
RT02-C Badge Reader, *I/O Drivers*, 3-32
RT-11
device support
FLX utility, *Utilities*, 4-2
file copying
FLX utility, *Utilities*, 4-3
volume
deleting
FLX utility, *Utilities*, 4-12
directory listing
FLX utility, *Utilities*, 4-10
initializing
FLX utility, *Utilities*, 4-12
RTO/RTOW routine
remote terminal output (ICDRV/ISDRV), *I/O Drivers*, 19-50
$$RTQ program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-3
$$RTR program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-4
RTS: subroutine
initiate synchronous A/D sample (LSDRV), *I/O Drivers*, 17-23
$$RTS program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-4
/RT switch
FLX utility, *Utilities*, 4-4
RTV field in FAB
CREATE operation, *RMS-11 Macro*, 5-13
offset, *RMS-11 Macro*, 6-23
OPEN operation, *RMS-11 Macro*, 5-75
RSTS/E, *RMS-11 Macro*, D-3
summary, *RMS-11 Macro*, 6-62
RUBOUT character
CRT (TTDRV), *I/O Drivers*, 2-18
Rubout character
escape sequence (half-duplex), *I/O Drivers*, 3-25
LPDRV, *I/O Drivers*, 10-7
RUBOUT key
half-duplex, *I/O Drivers*, 3-23, 3-24
TTDRV, *I/O Drivers*, 2-71
Run-time support
overlaid region, *Task Builder*, 5-14
autoload, *Task Builder*, 5-14
autoload call overhead, *Task Builder*, 5-14
FTB and old library, *Task Builder*, 5-14
named program section, *Task Builder*, 5-14
RUN$ directive, *Executive*, 5-178
RUN command, *Command Language*, 7-5 to 7-16, 9-28 *Introduction*, 3-9, 5-7, 5-11 *Program Development*, 4-7, 5-2, 7-6
installed task, *Command Language*, 7-12 to 7-16
introduction, *Command Language*, 7-5 to 7-7
/TASK_NAME qualifier, *Introduction*, 5-11
uninstalled task, *Command Language*, 7-8 to 7-12
RUN command (MCR), *MCR*, 1-8, 3-178
error messages, *MCR*, 3-186
examples, *MCR*, 3-185
formats, *MCR*, 3-178
installing task, *MCR*, 2-23
keywords
/CKP, *MCR*, 3-182
/CMD, *MCR*, 3-182
/EST, *MCR*, 3-178, 3-182
/INC, *MCR*, 3-183
/IOP, *MCR*, 3-183
/PAR, *MCR*, 3-183
/PMD, *MCR*, 3-184
/PRI, *MCR*, 3-184
/ROPAR, *MCR*, 3-184
/RSI, *MCR*, 3-180, 3-181
/SLV, *MCR*, 3-184
/TASK, *MCR*, 3-184
/TIME, *MCR*, 3-185
/UIC, *MCR*, 3-179, 3-180, 3-185

RUN command (MCR)
options
absolute time, *MCR*, 3-178
immediate, *MCR*, 3-178
install-run-remove, *MCR*, 2-21, 2-23, 3-140, 3-178
synchronized, *MCR*, 3-178
time increment, *MCR*, 3-178
prototype task, *MCR*, 3-178
RUN command (VMR), *System Management*, 10-42
definition, *System Management*, 10-42
formats, *System Management*, 10-42 to 10-46
keywords
/RSI, *System Management*, 10-44
/UIC, *System Management*, 10-44
parameters, *System Management*, 10-42
restriction, *System Management*, 10-42
time options, *System Management*, 10-42
Running VMR, *System Management*, 10-2
Run Task directive, *Executive*, 5-177
RUNTIME command
IOX, *System Management*, 4-57
Run-time initialization
FSR
FINIT$ macro, *I/O Operations*, 2-40
RUX50 Unibus interface, *I/O Drivers*, 5-5
RVB field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-91
RVN field in DAT block
DISPLAY operation, *RMS-11 Macro*, 5-32
offset, *RMS-11 Macro*, 6-14
OPEN operation, *RMS-11 Macro*, 5-81
RSTS/E, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-21
RVN field in NAM block
RSX-11, *RMS-11 Macro*, D-4
/RW switch
DMP utility, *Utilities*, 11-7
DSC utility, *Utilities*, 8-15
FLX utility, *Utilities*, 4-8
PIP utility, *Utilities*, 3-36
RMSBCK utility, *RMS-11 Utilities*, 6-7
RW symbolic argument, *MACRO-11*, 6-40
RX01 disk, *I/O Drivers*, 5-3
SYSGEN question, *System Generation*, 3-49
RX02 disk, *I/O Drivers*, 5-4
SYSGEN question, *System Generation*, 3-50
RX11 controller
SYSGEN question, *System Generation*, 3-49
RX11 disk controller, *I/O Drivers*, 5-3
RX180 disk drive, *I/O Drivers*, 5-5
RX211/RXV21 controller
SYSGEN question, *System Generation*, 3-50
RX211 disk controller, *I/O Drivers*, 5-4
RX50 disk, *I/O Drivers*, 5-5
SYSGEN question, *System Generation*, 3-45

S

S.BFHD, FSR block buffer header size, *I/O Operations*, J-1
S.FATT, FDB file attribute area size, *I/O Operations*, J-1
S.FDB, FDB size, *I/O Operations*, J-1
S.FNAM, file name size, *I/O Operations*, J-1
S.FNB, filename block size in bytes, *I/O Operations*, J-1
S.FNBW, filename block size in words, *I/O Operations*, J-1
S.FNTY, file name and type size, *I/O Operations*, J-1
S.FSR2, FSR2 (impure area) size, *I/O Operations*, J-1
S.FTYP, file type size, *I/O Operations*, J-1
S.HDHD, header area size, *I/O Operations*, F-2
S.IDHD, identification area size, *I/O Operations*, F-2
S.MPHD, map area size, *I/O Operations*, F-3

S.NFEN, complete file name size, *I/O Operations*, J-1
S.ST2, *Writing I/O Driver*, 4-42
S.ST3, *Writing I/O Driver*, 4-41
S.STS, *Writing I/O Driver*, 4-41
S.xpxx offsets
  in SCB, *Writing I/O Driver*, 4-39 to 4-45
SAB, *Writing I/O Driver*, A-5
  Resource Accounting, *System Management*, 17-11
$SAHDB, *Writing I/O Driver*, 6-9, 6-10
  contains an unknown value, *Writing I/O Driver*, 6-8
$SAHPT, *Writing I/O Driver*, 6-9
  pointer to first word of task header, *Writing I/O Driver*, 6-8
Sample
  initiate synchronous A/D (LSDRV), *I/O Drivers*, 17-23
Sample configuration
  increasing system throughput, *System Management*, 15-19
Sampling rate (AFC11), *I/O Drivers*, 15-11
SAV
  See SAVE command
$SAVAL (Save all registers), *System Library*, 2-2 *Task Builder*, 5-40
SAVE command
  EDI utility, *Utilities*, 2-44
  RMSDES utility, *RMS-11 Utilities*, 2-13, 2-18, 2-27
    setting attributes, *RMS-11 Utilities*, 2-21
SAVE command (MCR), *MCR*, 1-8, 3-187
  error messages, *MCR*, 3-191
  examples, *MCR*, 3-191
  format, *MCR*, 3-189
  keywords
    /CSR, *MCR*, 3-190
    /MOU, *MCR*, 3-190
    /SFILE, *MCR*, 3-190
    /WB, *MCR*, 3-190
SAVE command (VMR), *System Management*, 10-47
  definition, *System Management*, 10-47
  example, *System Management*, 10-48
  format, *System Management*, 10-47
SAVE command (VMR) (cont'd.)
  keywords
    /BOOT, *System Management*, 10-47
    /DENS, *System Management*, 10-48
  notes, *System Management*, 10-48
  parameters, *System Management*, 10-47
Saved answer file
  comment line, *System Generation*, 3-5
  content, *System Generation*, 3-5
  default names, *System Generation*, 3-5
  definition, *System Generation*, 1-12
  description, *System Generation*, 3-5
  incomplete, *System Generation*, 3-6
  SYSGEN question, *System Generation*, 3-17
.SAVE directive, *MACRO-11*, 6-47, 6-48
Saved stack pointer, *CDA*, 3-20
Saved system
  backing up, *System Generation*, 4-3
  definition, *System Generation*, 1-12
/SAVE qualifier, *Task Builder*, 11-59
Saving the design
  See also Description file
  RMSDES utility, *RMS-11 Utilities*, 2-22, 2-27
.SAVR1 (Save registers 1-5), *System Library*, 2-5
$SAVRG (Save registers 3-5), *System Library*, 2-3
$SAVSP, *Writing I/O Driver*, 6-9
  pointer to first word of task header, *Writing I/O Driver*, 6-8
SAV symbolic argument, *MACRO-11*, 6-42
$SAVVR (Save registers 0-2), *System Library*, 2-4
/SB switch
  DMP utility, *Utilities*, 11-8
  PIP utility, *Utilities*, 3-37
.SBTTL directive, *MACRO-11*, 6-15, 6-16 *Program Development*, 2-6
SC.MDL, bad data block
  user-controlled file characteristic, *I/O Operations*, F-4
SC.MDL, file marked for delete
  user-controlled file characteristic, *I/O Operations*, F-4
SCAA$ directive, *Executive*, 5-182

SCAL$S directive, *Executive*, 5-183
SCAL to CSM library
  converting, *Task Builder*, 8-19
Scan rate
  Resource Accounting, *System Management*, 17-6
SCB, *Writing I/O Driver*, 1-13, 2-2
  adding KRB, *Writing I/O Driver*, B-2
  address for KRB, *Writing I/O Driver*, 2-3
  changes for converting a driver, *Writing I/O Driver*, B-2
  combined with KRB, *Writing I/O Driver*, 4-53
    layout, *Writing I/O Driver*, 4-54
  composite arrangement, *Writing I/O Driver*, 2-13, 2-14
  contiguous with KRB, *Writing I/O Driver*, 2-7, 4-3
  details, *Writing I/O Driver*, 4-37, 4-39 to 4-44
  format, *Writing I/O Driver*, 4-39 to 4-44
  KRB addresses for, *Writing I/O Driver*, 4-45
  layout, *Writing I/O Driver*, 4-38
  linking to fork blocks, *Writing I/O Driver*, 2-3
  overview, *Writing I/O Driver*, 2-3
  parallel operations, *Writing I/O Driver*, 2-3
  pointer
    to currently assigned KRB, *Writing I/O Driver*, 4-44
    to head of queue for I/O requests, *Writing I/O Driver*, 2-3
  validation during LOAD, *Writing I/O Driver*, 5-13, 5-14
SCBDF$, *CDA*, B-39, C-66 *Writing I/O Driver*, A-56, A-57
/SCB switch, *CDA*, 2-5, 2-6
SC command
  EDI utility, *Utilities*, 2-44
SCLI$ directive, *Executive*, 5-185
S command, *Debugging*, 2-11, 3-4, 9-1, 9-14
SCOPE: subroutine
  control scope (K-series), *I/O Drivers*, 23-27
Scratch disk
  formatting, *Command Language*, 5-11
  preparing for use, *Command Language*, 5-11 to 5-13
SCTI: routine
  resetting counter intial value (ICDRV/ISDRV), *I/O Drivers*, 19-59
SCTI: subroutine
  initializing timer module (UDDRV), *I/O Drivers*, 16-30
SDAC: subroutine
  initiating synchronous A/D output (LSDRV), *I/O Drivers*, 17-25
SDAT$ directive, *Executive*, 5-187
SDAT$ directive summary, *I/O Operations*, C-3
SDIR$ directive, *Executive*, 5-189
SDO: subroutine
  initiating synchronous digital output (LSDRV), *I/O Drivers*, 17-27
SDRC$ directive, *Executive*, 5-192
SDRC$ directive summary, *I/O Operations*, C-3
SDRP$ directive, *Executive*, 5-196
SDRP$ directive summary, *I/O Operations*, C-4
/SD switch
  PIP utility, *Utilities*, 3-37
SE.ATA error return (TTDRV), *I/O Drivers*, 2-67
SE.BIN error return
  half-duplex, *I/O Drivers*, 3-20
  TTDRV, *I/O Drivers*, 2-67
SE.FIX error return (TTDRV), *I/O Drivers*, 2-67
SE.IAA error return (TTDRV), *I/O Drivers*, 2-67
SE.NAT error return (TTDRV), *I/O Drivers*, 2-67
SE.NIH error return
  half-duplex, *I/O Drivers*, 3-20
  TTDRV, *I/O Drivers*, 2-67
  VTDRV, *I/O Drivers*, 4-8, 4-9
SE.NSC error return (TTDRV), *I/O Drivers*, 2-67
SE.SPD error return (TTDRV), *I/O Drivers*, 2-67
SE.UPN error return (TTDRV), *I/O Drivers*, 2-67
SE.VAL error return
  half-duplex, *I/O Drivers*, 3-20
  TTDRV, *I/O Drivers*, 2-67

Search
argument register, *Debugging*, 2-6, 5-3, 6-2
byte, *Debugging*, 6-3
command, *Debugging*, 6-2
E, *Debugging*, 6-3
N, *Debugging*, 6-3
W, *Debugging*, 6-3
limit register, *Debugging*, 6-1
mask register, *Debugging*, 2-6, 5-3, 6-2
memory
command, *Debugging*, 2-9, 2-10
reference, *Debugging*, 6-3
word, *Debugging*, 6-3
SEARCH & CHANGE command
EDI utility, *Utilities*, 2-44
$SEARCH macro, *RMS-11 Macro*, 5-116
example, *RMS-11 Macro*, 7-7, 7-15
SEARCH operation, *RMS-11 Introduction*, 4-1
BDB requirement, *RMS-11 Macro*, 2-8
I/O buffer requirement, *RMS-11 Macro*, 2-7
IFAB requirement, *RMS-11 Macro*, 2-5
$SEARCH macro, *RMS-11 Macro*, 5-116
wildcard loop, *RMS-11 Macro*, 3-9
explicit, *RMS-11 Macro*, 3-11
implicit, *RMS-11 Macro*, 3-9, 3-10
SEARCH statement, *Error Logging*, 5-40
Search time
indexed files, *RMS-11 User's Guide*, 5-8
/SEC keyword
INSTALL command (MCR), *MCR*, 3-120
INSTALL command (VMR), *System Management*, 10-27
Secondary file
closing, *Indirect*, 2-42
opening, *Indirect*, 2-69
for appending, *Indirect*, 2-71
outputting data to, *Indirect*, 2-43
Secondary index data record
See SIDR
Secondary pool
dump, *CDA*, 3-45
Secondary pool (cont'd.)
Resource Accounting, *System Management*, 17-5
switch
See /SECPOOL switch
Secondary RBNs, *System Management*, 5-4
Secondary UNIBUS run, *Writing I/O Driver*, 1-17
/SECPOL keyword
SET command (MCR), *MCR*, 3-251
SET command (VMR), *System Management*, 10-73
/SECPOOL switch, *CDA*, 2-8
Section, design buffer
RMSDES utility, *RMS-11 Utilities*, 2-1, 2-16, 2-29
area section, *RMS-11 Utilities*, 2-29, 2-42
file section, *RMS-11 Utilities*, 2-29, 2-31
key section, *RMS-11 Utilities*, 2-29, 2-38
key segments, *RMS-11 Utilities*, 2-41
record section, *RMS-11 Utilities*, 2-29, 2-36
system section, *RMS-11 Utilities*, 2-29, 2-30
SECT key (EDT), *Introduction*, 2-6
Sector, *RMS-11 Introduction*, 2-1
See also Placement control
Security information
DELET$ macro, *I/O Operations*, 3-42
SEG0_POSITION attribute
RMSDES utility, *RMS-11 Utilities*, 2-42
Segment
autoloadable
data, *Task Builder*, 4-6
defining, *Task Builder*, 4-3
global symbol, *Task Builder*, 4-7
call, *Task Builder*, 3-10
to up-tree, *Task Builder*, 4-4
definition, *Task Builder*, 3-1
descriptor, *Task Builder*, B-15 to B-20
I- and D-space, *Task Builder*, 7-10
I- and D-space task, *Task Builder*, 7-10
overlay, *Task Builder*, 3-20, 3-21

Segment (cont'd.)
global symbol
autoload, *Task Builder*, 4-7
limiting number
reducing overhead, *Task Builder*, F-4
loading
as part of cotree, *Task Builder*, 4-3
when called, *Task Builder*, 4-6, 4-7
load list, *Task Builder*, B-9
mapping, *Task Builder*, 2-10, 2-11
disk-resident, *Task Builder*, 2-10
memory-resident, *Task Builder*, 2-11
multiple
global symbol, *Task Builder*, 3-16
global symbol resolution, *Task Builder*, 3-17
overlay, *Task Builder*, 3-5
symbol resolution, *Task Builder*, 3-16
name
applying autoload indicator, *Task Builder*, 4-3
.FCTR directive argument, *Task Builder*, 3-27
null
ODL, *Task Builder*, 3-31
overlay
arrangement, *Task Builder*, 3-15
root structure, *Task Builder*, 3-21
symbol processing, *Task Builder*, 3-17
processing order, *Task Builder*, 3-17
single
overlay, *Task Builder*, 3-4, 3-8
up-tree
I- and D-space, *Task Builder*, 3-22
Segmented key, *RMS-11 Introduction*, 3-10 *RMS-11 User's Guide*, 6-7
SEGn_LENGTH attribute
RMSDES utility, *RMS-11 Utilities*, 2-42
SEGn_POSITION attribute
RMSDES utility, *RMS-11 Utilities*, 2-42
/SEGREGATE qualifier, *Task Builder*, 11-60
SELECT command
IOX, *System Management*, 4-58
Select error (tape driver), *I/O Drivers*, 8-14
/SELECTIVE_SEARCH qualifier, *Task Builder*, 11-61 to 11-63
SELECT key (EDT), *Introduction*, 2-8
SELECT PRIMARY command
EDI utility, *Utilities*, 2-45
Select recovery (tape driver), *I/O Drivers*, 8-14
SELECT SECONDARY command
EDI utility, *Utilities*, 2-46
SELECT statement, *Error Logging*, 5-34, 5-35
SELTM1, *Error Logging*, 4-4
Semicolon (;)
for comment, *Task Builder*, 1-14
Semicolon separator (;)
See Separator
Send, Request, and Connect directive, *Executive*, 5-192
Send By Reference directive, *Executive*, 5-228
Send Data directive, *Executive*, 5-187
Send Data Request and Pass Offspring Control Block directive, *Executive*, 5-195
SEND directive
enabling for your task, *Task Builder*, 10-35, 11-57
Send Message directive, *Executive*, 5-202
Send Next Command directive, *Executive*, 5-205
Send XOFF (TTDRV), *I/O Drivers*, 2-16, 2-29, 2-37, 2-42, 2-44
Sense status (LRDRV), *I/O Drivers*, 14-5
Separating character, *MACRO-11*, 3-3
Separator
argument (,), *Debugging*, 2-4, 9-8
argument (;), *Debugging*, 2-5
Radix-50 (*), *Debugging*, 2-4, 7-4, 9-8
SEQ argument to ORG$ macro, *RMS-11 Macro*, 2-3
SEQ symbolic argument, *MACRO-11*, 6-10
SEQUENCE_NUMBERS argument, *MACRO-11*, 8-11
Sequenced mode
GET$, *I/O Operations*, 3-21

Sequential access, *RMS-11 Introduction*, 2-4, 2-5 *RMS-11 User's Guide*, 1-7, 1-8
block, *RMS-11 Introduction*, 3-12 *RMS-11 User's Guide*, 1-20
See also BKT field in RAB
FIND, *RMS-11 User's Guide*, 1-15
GET, *RMS-11 User's Guide*, 1-15
PUT, *RMS-11 User's Guide*, 1-15
record, *RMS-11 Introduction*, 3-11 *RMS-11 User's Guide*, 1-12
See also RB$SEQ code in RAC field
to indexed files, *RMS-11 User's Guide*, 5-16
to relative files, *RMS-11 User's Guide*, 4-1
to sequential files, *RMS-11 User's Guide*, 3-2
Sequential device
See FB$SQD mask in DEV field
Sequential file, *I/O Operations*, 2-10
Sequential file organization, *RMS-11 Introduction*, 3-4 *RMS-11 User's Guide*, 1-3, 1-11
See also FB$SEQ code
access declarations, *RMS-11 User's Guide*, 3-6
allocation
initial, *RMS-11 User's Guide*, 3-4
and remote access, *RMS-11 User's Guide*, B-3
cells, *RMS-11 User's Guide*, 3-2
CONNECT operation, *RMS-11 User's Guide*, 3-7
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
deferred write, *RMS-11 User's Guide*, 3-14
design, *RMS-11 User's Guide*, 3-1
allocation, *RMS-11 User's Guide*, 3-4
contiguity, *RMS-11 User's Guide*, 3-4
medium, *RMS-11 User's Guide*, 3-3
record format, *RMS-11 User's Guide*, 3-3
directory operations, *RMS-11 User's Guide*, 3-15
DISCONNECT operation, *RMS-11 User's Guide*, 3-7
Sequential file organization (cont'd.)
end-of-block indicators, *RMS-11 User's Guide*, 3-2
end-of-file, *RMS-11 User's Guide*, 3-2
FCS-11 compatibility, *RMS-11 User's Guide*, 3-2
file operations, *RMS-11 User's Guide*, 3-15
FIND operation, *RMS-11 User's Guide*, 3-7
FLUSH operation, *RMS-11 User's Guide*, 3-9
GET operation, *RMS-11 User's Guide*, 3-9, 3-13, 3-14
I/O techniques, *RMS-11 User's Guide*, 3-14
MBC, *RMS-11 User's Guide*, 3-15
multiple access streams, *RMS-11 User's Guide*, 3-15
multiple buffers, *RMS-11 User's Guide*, 3-15
PUT operation, *RMS-11 User's Guide*, 3-10, 3-13
random access
by key, *RMS-11 User's Guide*, 3-2
by RFA, *RMS-11 User's Guide*, 3-2
record operations, *RMS-11 User's Guide*, 3-7
record size, *RMS-11 User's Guide*, 3-2
record transfer modes, *RMS-11 User's Guide*, 3-13
locate mode, *RMS-11 User's Guide*, 3-14, 4-13
move mode, *RMS-11 User's Guide*, 3-13, 3-14
REWIND operation, *RMS-11 User's Guide*, 3-11
RRN, *RMS-11 Introduction*, 3-5
sequential access, *RMS-11 User's Guide*, 3-2
shared access, *RMS-11 User's Guide*, 3-5
block access, *RMS-11 User's Guide*, 3-6
record access, *RMS-11 User's Guide*, 3-6
record structured files, *RMS-11 User's Guide*, 3-6
with undefined records, *RMS-11 User's Guide*, 3-6

Sequential file organization (cont'd.)
sharing declarations, *RMS-11 User's Guide*, 3-6
stream operations, *RMS-11 User's Guide*, 3-7
structure, *RMS-11 User's Guide*, 3-1
conceptual, *RMS-11 User's Guide*, 3-2
physical, *RMS-11 User's Guide*, 3-1
TRUNCATE operation, *RMS-11 User's Guide*, 3-12
UPDATE operation, *RMS-11 User's Guide*, 3-12, 3-13, 3-14
Sequential mode
FD.INS parameter, *I/O Operations*, 3-6
record attribute, *I/O Operations*, 3-9
write logical record, *I/O Operations*, 3-33
/SEQUENTIAL qualifier, *Task Builder*, 11-64
Serial
number switch, *Error Logging*, 3-6, 3-9
operations
single controller, *Writing I/O Driver*, 2-7
unit operation
data base structures, *Writing I/O Driver*, 2-7
multiple units per controller, *Writing I/O Driver*, 2-7
Serial, nondisk device (RMSIFL), *RMS-11 Utilities*, 3-1, 3-12
Serial command processing
CLI, *System Management*, 11-8
Serial Despooler
See PRT
Serial Despooler Task
error messages, *System Management*, A-2
receive queue operation, *System Management*, A-1
task-build information, *System Management*, A-1
text requirements, *System Management*, A-1
/SERIAL keyword
SET command (MCR), *MCR*, 3-251
SET command (VMR), *System Management*, 10-73
Serial line error (ICDRV/ISDRV), *I/O Drivers*, 19-71
/SERIAL qualifier
SET TERMINAL command, *Command Language*, 3-49
Serviced modules (UDDRV), *I/O Drivers*, 16-2
Service routine, *Writing I/O Driver*, 1-2
See also Executive services
summaries of Executive, *Writing I/O Driver*, 3-5, 3-6, 7-5 to 7-40
/SE switch, *Error Logging*, 3-6, 3-9
Task Builder, 10-35
RMSRST utility, *RMS-11 Utilities*, 7-3, 7-9
SET /PLCTL command, *System Management*, 13-12
SET ACCOUNTING
Resource Accounting, *System Management*, 17-4
Set Accounting Transaction Block, *System Management*, 17-26
SETADC: subroutine
set channel information
K-series, *I/O Drivers*, 23-28
LADRV, *I/O Drivers*, 22-22
Set Affinity directive, *Executive*, 5-233
Set clock A rate (K-series), *I/O Drivers*, 23-11
SET command, *Introduction*, 1-15
System Management, 15-25
See also individual SET commands
disk data caching, *System Management*, 19-16
I/O Queue Optimization, *System Management*, 16-1
RMSDES utility, *RMS-11 Utilities*, 2-13, 2-17, 2-20, 2-33
allocation, *RMS-11 Utilities*, 2-10
and INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and LEVEL1_INDEX_AREA attribute, *RMS-11 Utilities*, 2-41
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
defining areas by default, *RMS-11 Utilities*, 2-17, 2-43
defining areas explicitly, *RMS-11 Utilities*, 2-43

SET command
RMSDES utility (cont'd.)
with GET, *RMS-11 Utilities*, 2-25
SET [DAY]TIME, *Command Language*, 8-2, 9-29
SET DEBUG, *Command Language*, 1-19, 9-29
SET DEFAULT, *Command Language*, 4-100 to 4-103, 9-29 *In troduction*, 3-9
/NAMED_DIRECTORY qualifier, *Command Language*, 4-100 to 4-101
/NONAMED_DIRECTORY qualifier, *Command Language*, 4-100 to 4-101
SET DEVICE, *Command Language*, 5-132 to 5-134, 9-29
SET FILE, *Command Language*, 4-105 to 4-107, 9-30
SET GROUPFLAGS, *Command Language*, 6-63 to 6-64, 9-30
SET HOST, *Command Language*, 1-16, 9-30
SET LIBRARY/DIRECTORY, *Command Language*, 8-11, 9-31
SET PARTITION, *Command Language*, 7-48 to 7-51, 9-31
SET PASSWORD, *Command Language*, 3-11 to 3-12, 9-31 *Int roduction*, 3-10
SET PRIORITY, *Command Language*, 7-71 to 7-72, 9-31
SET PROTECTION, *Command Language*, 4-111 to 4-114, 9-31
SET PROTECTION/DEFAULT, *Command Language*, 4-115 to 4-117, 9-32
SET QUEUE, *Command Language*, 4-92 to 4-95 *Introduction*, 3-13
SET QUEUE/ENTRY, *Command Language*, 9-32
SET QUEUE/JOB, *Command Language*, 9-32
SET SYSTEM, *Command Language*, 8-5 to 8-7, 9-33
SET TERMINAL command, *Introduction*, 1-15
SET UIC, *Command Language*, 4-108 to 4-109, 9-35
SET command (MCR), *MCR*, 1-6, 3-197
SET command (MCR) (cont'd.)
error messages, *MCR*, 3-268 to 3-272
format, *MCR*, 3-198
keywords
/BUF, *MCR*, 3-206
/CLI, *MCR*, 3-118, 3-209
/CRASHDEV, *MCR*, 3-209
/DCL, *MCR*, 3-211
/DEF, *MCR*, 3-212
/HFILL, *MCR*, 3-220
/HOST, *MCR*, 3-223
/INQUIRE, *MCR*, 3-225
/LIBUIC, *MCR*, 3-225
/LINES, *MCR*, 3-226
list, *MCR*, 3-199t to 3-202t
/MAXEXT, *MCR*, 3-229
/MAXPKT, *MCR*, 3-230
/MCR, *MCR*, 3-231
/NETUIC, *MCR*, 3-234
/[NO]ABAUD, *MCR*, 3-202
/[NO]ANSI, *MCR*, 3-203
/[NO]AVO, *MCR*, 3-204
/[NO]BLKMOD, *MCR*, 3-205
/[NO]BRO, *MCR*, 3-205
/[NO]CACHE, *MCR*, 3-207
/[NO]CRT, *MCR*, 3-210
/[NO]DEC, *MCR*, 3-211
/[NO]DPRO, *MCR*, 2-3, 3-213
/[NO]EBC, *MCR*, 3-215
/[NO]ECHO, *MCR*, 3-216
/[NO]EDIT, *MCR*, 3-217
/[NO]ESCSEQ, *MCR*, 3-217
/[NO]FDX, *MCR*, 3-218
/[NO]FORMFEED, *MCR*, 3-219
/[NO]HHT, *MCR*, 3-221
/[NO]HOLD, *MCR*, 2-17, 3-222
/[NO]HSYNC, *MCR*, 3-223
/[NO]LOGON, *MCR*, 3-226
/[NO]LOWER, *MCR*, 3-226
/[NO]MAIN, *MCR*, 3-227
/[NO]NAMED, *MCR*, 3-231
/[NO]OPT, *MCR*, 3-235
/[NO]OVLP, *MCR*, 3-236
/[NO]PAR, *MCR*, 3-237
/[NO]PARITY, *MCR*, 3-239
/[NO]PASTHRU, *MCR*, 3-241
/[NO]PRINTER_PORT, *MCR*, 3-242
/[NO]PRIV, *MCR*, 2-19, 3-244
/[NO]PUB, *MCR*, 2-13, 3-245
/[NO]REGIS, *MCR*, 3-246
/[NO]REMOTE, *MCR*, 3-247

SET command (MCR)
keywords (cont'd.)
/[NO]RPA, *MCR*, 3-250
/[NO]SLAVE, *MCR*, 2-19, 3-252
/[NO]SUB, *MCR*, 3-255
/[NO]TTSYNC, *MCR*, 3-261
/[NO]TYPEAHEAD, *MCR*, 3-261
/[NO]VFILL, *MCR*, 3-264
/[NO]WCHK, *MCR*, 3-265
/[NO]WRAP, *MCR*, 3-266
/NOCEX, *MCR*, 3-234
/PASSWORD, *MCR*, 3-240
/PLCTL, *MCR*, 3-243
/POOL, *MCR*, 3-244
/RNDC, *MCR*, 3-248
/RNDH, *MCR*, 3-249
/RNDL, *MCR*, 3-249
/SECPOL, *MCR*, 3-251
/SPEED, *MCR*, 3-254
/SWPC, *MCR*, 3-256
/SYSUIC, *MCR*, 3-182, 3-257
/TERM, *MCR*, 3-258
/TOP, *MCR*, 3-259
/UIC, *MCR*, 2-6, 3-263
nonprivileged options, *MCR*, 3-197
privileged options, *MCR*, 3-197
SET command (VMR), *System Management*, 10-50
definition, *System Management*, 10-50
examples, *System Management*, 10-83 to 10-87
Executive features, *System Management*, 10-50
format, *System Management*, 10-50
keywords
/AFF, *System Management*, 10-54
/BOT, *System Management*, 10-55 to 10-56
/BUF, *System Management*, 10-57
/HFILL, *System Management*, 10-59
/LIBUIC, *System Management*, 10-60
/LINES, *System Management*, 10-61
/MAXEXT, *System Management*, 10-63
/NETUIC, *System Management*, 10-63

SET command (VMR)
keywords (cont'd.)
/[NO]ABAUD, *System Management*, 10-53
/[NO]ANSI, *System Management*, 10-54
/[NO]AVO, *System Management*, 10-54
/[NO]BLKMOD, *System Management*, 10-55
/[NO]BRO, *System Management*, 10-56
/[NO]CRT, *System Management*, 10-57
/[NO]DEC, *System Management*, 10-57
/[NO]EBC, *System Management*, 10-57
/[NO]ECHO, *System Management*, 10-58
/[NO]EDIT, *System Management*, 10-58
/[NO]ESCSEQ, *System Management*, 10-58
/[NO]FDX, *System Management*, 10-59
/[NO]FORMFEED, *System Management*, 10-59
/[NO]HHT, *System Management*, 10-59
/[NO]HSYNC, *System Management*, 10-60
/[NO]LOGON, *System Management*, 10-61
/[NO]LOWER, *System Management*, 10-61
/[NO]MAIN, *System Management*, 10-61 to 10-63
/[NO]OPT, *System Management*, 10-64
/[NO]PAR, *System Management*, 10-64 to 10-66
/[NO]PARITY, *System Management*, 10-66 to 10-67
/[NO]PASTHRU, *System Management*, 10-67
/[NO]PRINTER_PORT, *System Management*, 10-69
/[NO]PRIV, *System Management*, 10-70
/[NO]PUB, *System Management*, 10-70

SET command (VMR)
keywords (cont'd.)
/[NO]REGIS, *System Management*, 10-70
/[NO]REMOTE, *System Management*, 10-71 to 10-72
/[NO]RPA, *System Management*, 10-73
/[NO]SERIAL, *System Management*, 10-73
/[NO]SLAVE, *System Management*, 10-74
/[NO]SOFT, *System Management*, 10-74
/[NO]SUB, *System Management*, 10-76 to 10-77
/[NO]TTSYNC, *System Management*, 10-80
/[NO]TYPEAHEAD, *System Management*, 10-80 to 10-81
/[NO]VFILL, *System Management*, 10-81
/[NO]WCHK, *System Management*, 10-81
/[NO]WRAP, *System Management*, 10-82 to 10-83
/PLCTL, *System Management*, 10-68
/POOL, *System Management*, 10-69
/POOLSIZE, *System Management*, 10-69
/RNDC, *System Management*, 10-72
/RNDH, *System Management*, 10-72
/RNDL, *System Management*, 10-72
/SECPOL, *System Management*, 10-73
/SPEED, *System Management*, 10-75
/SWPC, *System Management*, 10-77
/SWPR, *System Management*, 10-77
/SYSUIC, *System Management*, 10-77
/TERM, *System Management*, 10-78 to 10-79
SET command (VMR)
keywords (cont'd.)
/TOP, *System Management*, 10-79 to 10-80
/UIC, *System Management*, 10-81
keyword table, *System Management*, 10-51 to 10-53
parameter, *System Management*, 10-51
uses, *System Management*, 10-50
Set Command Line Interpreter directive, *Executive*, 5-185
Set counter
initial value (ICDRV/ISDRV), *I/O Drivers*, 19-22
.SETD directive, *Indirect*, 2-82
Set Default Directory directive, *Executive*, 5-189
Set Event Flag directive, *Executive*, 5-199
SETF$ directive, *Executive*, 5-199
.SETF directive, *Indirect*, 2-80
$SETGSA macro, *RMS-11 Macro*, 2-18
SET HOST/DTE command, *System Management*, 9-3 to 9-5, 9-6
SETIBF: subroutine
set array for buffered sweep
K-series, *I/O Drivers*, 23-28
LADRV, *I/O Drivers*, 22-23
/SET keyword
SWITCH REGISTER command, *MCR*, 3-274
.SETL directive, *Indirect*, 2-80
$SET macro, *RMS-11 Macro*, 2-11
Set mode
half-duplex (communication driver), *I/O Drivers*, 12-7
IO.HDX function (communication driver), *I/O Drivers*, 12-7
.SETN directive, *Indirect*, 2-81
Set next buffer (K-series), *I/O Drivers*, 23-24
.SETO directive, *Indirect*, 2-82
Set operational characteristic (LRDRV), *I/O Drivers*, 14-5
SET PASSWORD command, *System Management*, 2-1
SET QUEUE command
example, *Batch and Queue*, 2-21
file format
qualifiers, *Batch and Queue*, 2-19

SET QUEUE command
job format
qualifiers, *Batch and Queue*, 2-19
.SETS directive, *Indirect*, 2-83
SET statement, *Error Logging*, 5-31
Set System Time directive, *Executive*, 5-235
.SETT directive, *Indirect*, 2-80
SET TERMINAL command, *Command Language*, 3-20, 3-38 to 3-52, 9-33 to 9-35 *System Management*, 9-3
qualifiers
/CONTROL, *Command Language*, 3-40
/INQUIRE, *Command Language*, 3-41
/NOCONTROL, *Command Language*, 3-40
/NOSERIAL, *Command Language*, 3-49
/SERIAL, *Command Language*, 3-49
Setting attributes (RMSDES)
See Attribute
Setting time, *Command Language*, 8-2
SF.GMC function
half-duplex, *I/O Drivers*, 3-11
TTDRV, *I/O Drivers*, 2-18, 2-51
VTDRV, *I/O Drivers*, 4-6
SF.SMC function
half-duplex, *I/O Drivers*, 3-15
TTDRV, *I/O Drivers*, 2-18, 2-59
VTDRV, *I/O Drivers*, 4-7
/SFILE keyword
SAVE command (MCR), *MCR*, 3-190
SFPA$ directive, *Executive*, 5-200
/SF switch
DMP utility, *Utilities*, 11-8
$$SGD0 program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-4
$$SGD1 program section
reserved name, *Task Builder*, E-4
$$SGD2 program section, *Task Builder*, 5-54
reserved name, *Task Builder*, E-4
/SG switch, *Task Builder*, 10-36
Shadow Recording, *System Management*, 1-5
Bad block handling, *System Management*, 18-10
Shadow Recording (cont'd.)
commands, *System Management*, 18-4
ABORT, *System Management*, 18-4, 18-7
CONTINUE, *System Management*, 18-4, 18-8
DISPLAY, *System Management*, 18-4, 18-9
START, *System Management*, 18-4, 18-5
STOP, *System Management*, 18-4, 18-6
controlling, *System Management*, 18-4
error messages, *System Management*, 18-11
preparation, *System Management*, 18-2
primary disk errors, *System Management*, 18-10
secondary disk errors, *System Management*, 18-10
simultaneous disk errors, *System Management*, 18-11
uses, *System Management*, 18-1
Shadow recording
SYSGEN question, *System Generation*, 3-26
/SHAREABLE[:COMMON] qualifier, *Task Builder*, 11-65
use in region, *Task Builder*, 5-3 to 5-6
/SHAREABLE[:LIBRARY] qualifier, *Task Builder*, 11-66
use in region, *Task Builder*, 5-3 to 5-6
/SHAREABLE[:TASK] qualifier, *Task Builder*, 11-67
/SHAREABLE qualifier
MOUNT command, *Command Language*, 5-14, 5-55
Shareable region, *Executive*, 3-5
Shareable volume, *Command Language*, 5-10 to 5-11, 5-55
Shared access, *RMS-11 Introduction*, 2-4 *RMS-11 User's Guide*, 1-17
See also Access sharing
See also SHR field in FAB
access declarations, *RMS-11 User's Guide*, 2-6
read/write, *RMS-11 User's Guide*, 2-6

Shared access
access declarations (cont'd.)
read-only, *RMS-11 User's Guide*, 2-6
and high-level languages, *RMS-11 User's Guide*, 2-7
application design consideration, *RMS-11 User's Guide*, 2-5
bucket locking, *RMS-11 User's Guide*, 2-7
deferred write
to relative files, *RMS-11 User's Guide*, 4-14
file, *I/O Operations*, 1-12
file open, *I/O Operations*, 2-15, 3-13
multiple access streams, *RMS-11 User's Guide*, 2-9, 2-10
programming considerations, *RMS-11 User's Guide*, 2-10
sharing declarations, *RMS-11 User's Guide*, 2-7
no sharing, *RMS-11 User's Guide*, 2-7
read/write, *RMS-11 User's Guide*, 2-7
read-only, *RMS-11 User's Guide*, 2-7
system protection codes, *RMS-11 User's Guide*, 2-5
to indexed files, *RMS-11 User's Guide*, 7-1
block access, *RMS-11 User's Guide*, 7-1
record access, *RMS-11 User's Guide*, 7-1
to relative files, *RMS-11 User's Guide*, 4-6
block access, *RMS-11 User's Guide*, 4-6
record access, *RMS-11 User's Guide*, 4-6
to sequential files, *RMS-11 User's Guide*, 3-5
record structured, *RMS-11 User's Guide*, 3-6
with undefined records, *RMS-11 User's Guide*, 3-6
Shared region, *Executive*, 3-6 *Task Builder*, 5-1
See also Region
/SHARE keyword
MOUNT command (MCR), *MCR*, 3-152
Sharing
See Shared access
Sharing code or data, *MACRO-11*, 6-45
Sharing declaration, *RMS-11 User's Guide*, 2-7
indexed files, *RMS-11 User's Guide*, 7-1
no sharing, *RMS-11 User's Guide*, 2-7
read/write, *RMS-11 User's Guide*, 2-7
read-only, *RMS-11 User's Guide*, 2-7
relative files, *RMS-11 User's Guide*, 4-6
sequential files, *RMS-11 User's Guide*, 3-6
SHDDF$, *CDA*, C-69 *Writing I/O Driver*, A-58, A-59
SHF, *System Management*, 1-4
algorithms
first pass, *System Management*, 14-5
second pass, *System Management*, 14-6
conventions, *System Management*, 14-1
installation, *System Management*, 14-3
monitoring with RMD, *System Management*, 14-4
overhead, *System Management*, 14-3
performance, *System Management*, 14-3
removal, *System Management*, 14-5
shuffling
dynamic common regions, *System Management*, 14-5
fixed tasks, *System Management*, 14-5
partition sections, *System Management*, 14-5
static common regions, *System Management*, 14-5
size, *System Management*, 14-3
$SHFCT
changing contents, *System Management*, 14-3
$SHFTM, *System Management*, 14-3
SHIFT key, *Command Language*, 3-15

SHOW ACCOUNTING/INFORMATION
Resource Accounting, *System Management*, 17-3
SHOW ACCOUNTING/TRANSACTION_FILE
Resource Accounting, *System Management*, 17-3
SHOW ACCOUNTING commands, *System Management*, 17-11
SHOW ALL command
RMSDES utility
defining areas by default, *RMS-11 Utilities*, 2-17
defining areas explicitly, *RMS-11 Utilities*, 2-43
SHOW CACHE command
disk data caching, *System Management*, 19-8
SHOW command, *Introduction*, 1-9
See also individual SHOW commands
RMSDES utility, *RMS-11 Utilities*, 2-15, 2-18, 2-26
allocation, *RMS-11 Utilities*, 2-10
and PROTECTION attribute, *RMS-11 Utilities*, 2-33
SHOW ALL, *RMS-11 Utilities*, 2-4
setting attributes, *RMS-11 Utilities*, 2-21
with GET, *RMS-11 Utilities*, 2-25
SHOW ACCOUNTING, *Command Language*, 9-35
SHOW ASSIGNMENTS, *Command Language*, 5-15, 5-129 to 5-131, 9-36
SHOW CACHE, *Command Language*, 9-36
SHOW CLOCK_QUEUE, *Command Language*, 7-73, 9-36
SHOW COMMON, *Command Language*, 7-74 to 7-75, 9-36
SHOW [DAY]TIME, *Command Language*, 8-4, 9-37
SHOW DEFAULT, *Command Language*, 4-104, 9-37 *Introducti on*, 1-13, 3-10
SHOW DEVICES, *Command Language*, 5-5, 5-135 to 5-138, 9-37 *Introduction*, 3-10
SHOW command (cont'd.)
SHOW GROUPFLAGS, *Command Language*, 6-65
SHOW HOST, *Command Language*, 1-17, 9-37
SHOW LIBRARY, *Command Language*, 8-12, 9-37
SHOW LOGICALS, *Command Language*, 5-15, 5-129 to 5-131, 9-38
SHOW MEMORY, *Command Language*, 8-15 to 8-18, 9-38 *Intr oduction*, 6-9
SHOW PARTITIONS, *Command Language*, 7-52 to 7-54, 9-38
SHOW PROCESSOR, *Command Language*, 4-91, 9-38
SHOW PROTECTION, *Command Language*, 4-118, 9-39
SHOW QUEUE, *Command Language*, 4-88 to 4-90, 9-39 *Intro duction*, 3-13
SHOW SYSTEM, *Command Language*, 8-8 to 8-10, 9-40
SHOW TASKS, *Command Language*, 7-55 to 7-70, 9-40
SHOW TASKS/ACTIVE, *Command Language*, 7-55 to 7-60
SHOW TASKS/DYNAMIC, *Command Language*, 7-64 to 7-68, 9-40
SHOW TASKS/INSTALLED, *Command Language*, 7-60 to 7-63
SHOW TASKS/INSTALLED/DEVICE, *Command Language*, 7-63 to 7-64
SHOW TASKS/LOGICAL_UNITS, *Command Language*, 7-68 to 7-70
SHOW TASKS command, *Introduction*, 1-16, 5-4
SHOW TERMINAL, *Command Language*, 3-53 to 3-61, 9-41 to 9-42 *Introduction*, 1-15
SHOW TIME command, *Introduction*, 1-9, 3-11
SHOW UIC, *Command Language*, 4-110, 9-42
SHOW USERS, *Command Language*, 8-13 to 8-14, 9-43 *Intro duction*, 1-16, 3-11

SHOW DEVICE command
disk data caching, *System Management*, 19-9
SHOW ID command
RMSDES utility, *RMS-11 Utilities*, 2-16
SHOW PROCESSOR command
format, *Batch and Queue*, 2-18
/SHOW qualifier, *MACRO-11*, 8-11
SHOW QUEUE command, *Batch and Queue*, 2-14
batch queue, *Batch and Queue*, 1-9
display, *Batch and Queue*, 2-16 to 2-17
format, *Batch and Queue*, 2-15
print queue, *Batch and Queue*, 1-9
qualifiers, *Batch and Queue*, 2-15
SHOW QUEUE display, *Batch and Queue*, 1-10
/Show switch, *Error Logging*, 2-10, 2-11
Show switch, *Error Logging*, 2-4
SHR field in FAB
CREATE operation, *RMS-11 Macro*, 5-14
offset, *RMS-11 Macro*, 6-22
OPEN operation, *RMS-11 Macro*, 5-75
READ operation, *RMS-11 Macro*, 5-99, 5-101
summary, *RMS-11 Macro*, 6-63
WRITE operation, *RMS-11 Macro*, 5-127, 5-129
/SH switch, *Error Logging*, 2-4, 2-10, 2-11 *Task Builder*, 10-37
Shuffler
See SHF
Shutdown
RSX-11M-PLUS system
example, *System Management*, 8-7
procedure, *System Management*, 8-6
RSX-11M system
example, *System Management*, 8-5
procedure, *System Management*, 8-4
SHUTUP
examples
RSX-11M, *System Management*, 8-2
RSX-11M-PLUS, *System Management*, 8-2
SHUTUP (cont'd.)
input, *System Management*, 8-2
invoking, *System Management*, 8-1
output, *System Management*, 8-2
prerequisites to running, *System Management*, 8-1
SHUTUP.CMD, *System Management*, 8-3
example of file, *System Management*, 8-4
SHUTUP program, *System Management*, 1-3, 8-1
SIDR, *RMS-11 User's Guide*, 5-5, 7-9
changeable keys, *RMS-11 User's Guide*, 6-10
duplicate keys, *RMS-11 User's Guide*, 6-8, 6-9
Signalling
definition, *Error Logging*, 5-40
SIGNAL statement, *Error Logging*, 5-40, 5-41
SIGNAL STOP statement, *Error Logging*, 5-41
Significant event, *Executive*, 2-1 *Introduction*, 6-6
declaring, *Executive*, 5-61, 5-125, 5-187
list, *Executive*, 2-1
Single ASCII character indicator, *MACRO-11*, 3-3
Single-directory device
See FB$SDI mask in DEV field
Single file operation, *I/O Operations*, 5-6
Single-precision routine
See Integer routine
Single space
TTDRV, *I/O Drivers*, 2-75
VFC
half-duplex, *I/O Drivers*, 3-27
LPDRV, *I/O Drivers*, 10-6
SIZ0 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ1 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ2 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ3 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ4 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ5 field in KEY block
offset, *RMS-11 Macro*, 6-68

SIZ6 field in KEY block
offset, *RMS-11 Macro*, 6-68
SIZ7 field in KEY block
offset, *RMS-11 Macro*, 6-68
Sizb parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.CCI function, *I/O Drivers*, 19-19
IO.CTI function, *I/O Drivers*, 19-21
IO.CTY function, *I/O Drivers*, 19-23
IO.WLB function, *I/O Drivers*, 19-32
SIZE attribute
RMSDES utility, *RMS-11 Utilities*, 2-36
SIZE command
EDI utility, *Utilities*, 2-46
/SIZE keyword
LOAD command (MCR), *MCR*, 3-133
LOAD command (VMR), *System Management*, 10-34
Size parameter
device-specific
AFC11/AD01 converter, *I/O Drivers*, 15-3
communication driver, *I/O Drivers*, 12-6
CRDRV, *I/O Drivers*, 11-3
DDDRV, *I/O Drivers*, 7-4
disk driver, *I/O Drivers*, 5-9
DTDRV, *I/O Drivers*, 6-3
GRDRV, *I/O Drivers*, 21-2
half-duplex, *I/O Drivers*, 3-7
receiving (LRDRV), *I/O Drivers*, 14-9
tape driver, *I/O Drivers*, 8-8
transmitting (LRDRV), *I/O Drivers*, 14-4
UDDRV, *I/O Drivers*, 16-5
VTDRV, *I/O Drivers*, 4-3
F11ACP, *I/O Drivers*, C-5
general (TTDRV), *I/O Drivers*, 2-11
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
Size parameter (cont'd.)
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RBC function (ICDRV/ISDRV), *I/O Drivers*, 19-14
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-41
IO.RST function (TTDRV), *I/O Drivers*, 2-44
IO.RTT function (TTDRV), *I/O Drivers*, 2-46
IO.RVB function, *I/O Drivers*, 1-31
IO.SMC function (TTDRV), *I/O Drivers*, 2-60
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
IO.WBT function (TTDRV), *I/O Drivers*, 2-50
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB function, *I/O Drivers*, 1-33
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
standard function
communication driver, *I/O Drivers*, 12-5
CRDRV, *I/O Drivers*, 11-2
CTDRV, *I/O Drivers*, 9-3
DDDRV, *I/O Drivers*, 7-3
disk driver, *I/O Drivers*, 5-7
DTDRV, *I/O Drivers*, 6-3
LPDRV, *I/O Drivers*, 10-4
PPDRV/PRDRV, *I/O Drivers*, 18-2
tape driver, *I/O Drivers*, 8-6
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-5
SIZ field in KEY block
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-92
Skeleton source file
MACRO-11, *Program Development*, 2-4
Slash (/)
EDI utility, *Program Development*, 2-16

Slash (/) (cont'd.)
ODT, *Program Development*, 5-4
Slash operator
See also Operator
double (//), *Task Builder*, 1-12, 1-13, 1-17
single (/), *Task Builder*, 1-7, 1-11, 1-12, 1-13, 1-17
/SLAVE keyword
SET command (MCR), *MCR*, 3-252
SET command (VMR), *System Management*, 10-74
/SLAVE qualifier, *Task Builder*, 11-68
/SLOW qualifier, *Task Builder*, 11-69
Slow Task Builder
See Slow TKB
Slow TKB, *Task Builder*, F-4
to improve performance, *Task Builder*, F-11
SLP, *Command Language*, 4-26
SLP utility
audit trail, *Utilities*, 13-16
changing value, *Utilities*, 13-17
deleting, *Utilities*, 13-19
setting
length, *Utilities*, 13-17
position, *Utilities*, 13-17
suppressing, *Utilities*, 13-18
checksum, *Utilities*, 13-3
edit command line, *Utilities*, 13-5
edit commands, *Utilities*, 13-5
error message, *Utilities*, 13-20
file
input, *Utilities*, 13-2
listing, *Utilities*, 13-3
output, *Utilities*, 13-3
processing, *Utilities*, 13-4
source
creating, *Utilities*, 13-14
updating, *Utilities*, 13-9
indirect command file, *Utilities*, 13-8
initiating (invoking), *Utilities*, 13-1
operator, *Utilities*, 13-9
switch, *Utilities*, 13-14
/SL switch, *Error Logging*, 2-4, 2-7
Task Builder, 10-45
CMP utility, *Utilities*, 12-3
RMSBCK utility, *RMS-11 Utilities*, 6-6, 6-10
RMSCNV utility, *RMS-11 Utilities*, 4-12
RMSRST utility, *RMS-11 Utilities*, 7-6, 7-12
/SL switch (TKB), *System Management*, 10-27
$$SLVC program section
reserved name, *Task Builder*, E-4
/SLV keyword
INSTALL command (MCR), *MCR*, 3-120
INSTALL command (VMR), *System Management*, 10-27
and/SL switch (TKB), *System Management*, 10-27
and prototype tasks, *System Management*, 10-27
RUN command (MCR), *MCR*, 3-184
$S macro form, *Executive*, 1-6
processing errors, *Executive*, 1-7
SMSG$, *Error Logging*, 1-4
SMSG$ directive, *Executive*, 5-202
SMSG$ directive summary, *I/O Operations*, C-4
$SNAP, *Program Development*, 1-7, 1-8, 5-9, 5-10
subset of Postmortem Dump Task, *Program Development*, 5-9, 5-10
SNAP$ macro, *Task Builder*, D-6
format, *Task Builder*, D-8, D-9
Snapshot dump, *Task Builder*, D-2, D-6, D-11
See also $SNAP
call to, *Task Builder*, D-10
example, *Task Builder*, D-9, D-10, D-11
macro, *Task Builder*, D-2
SNPBK$, *Task Builder*, D-5
macro format
for creating, *Task Builder*, D-6, D-7
SNPBK$ macro, *Task Builder*, D-6
format, *Task Builder*, D-7
SNPDF$ macro, *Task Builder*, D-6
SNXC$ directive, *Executive*, 5-205
Soft error, *System Management*, 15-30
definition, *Error Logging*, 1-3
limit switch, *Error Logging*, 2-4, 2-7
/SOFT keyword
SET command (MCR), *MCR*, 3-253
SET command (VMR), *System Management*, 10-74
Software bootstrap, *System Generation*, 1-13

Sorting (RMSIFL)
alternate key, *RMS-11 Utilities*, 3-11, 3-12, 3-13
alternate key files, *RMS-11 Utilities*, 3-7
bypassing primary key sort, *RMS-11 Utilities*, 3-8, 3-9
input file organization, *RMS-11 Utilities*, 3-9
primary key, *RMS-11 Utilities*, 3-9
work files, *RMS-11 Utilities*, 3-7, 3-13
Sort option
ACNT, *System Management*, 2-10
Sort routine error code
RMSIFL utility, *RMS-11 Utilities*, D-1
Sort work files (RMSIFL), *RMS-11 Utilities*, 3-1, 3-10, 3-12
allocating space
primary key sort, *RMS-11 Utilities*, 3-13
device allocation, *RMS-11 Utilities*, 3-7
SOURCE argument, *MACRO-11*, 8-11
SOURCE attribute
RMSDES utility, *RMS-11 Utilities*, 2-30
Source file, *Command Language*, 6-1, 6-3 *Introduction*, 5-3, 5-4, 5-5
See also SLP utility
case control in, *MACRO-11*, 6-19
FORTRAN IV
adding debugging statements, *Program Development*, 7-7
blank line, *Program Development*, 7-3
comment line, *Program Development*, 7-3
creating, *Program Development*, 7-2, 7-3
editing, *Program Development*, 7-4, 7-5, 7-7, 7-9
MACRO-11
assembling, *Program Development*, 3-1, 3-2
creating from a skeleton, *Program Development*, 2-12
editing, *Program Development*, 2-13 to 2-18
error, *Program Development*, 3-2, 3-3, 3-4
format, *Program Development*, 2-1 to 2-3
Source file
MACRO-11 (cont'd.)
skeleton, *Program Development*, 2-4
inserting lines, *Program Development*, 2-18
listing, *Program Development*, 3-4, 3-5, 3-6
macro library call, *Program Development*, 6-3, 6-4
preface, *Program Development*, 2-1
terminating input in, *MACRO-11*, 6-39
Source language, *Introduction*, 5-3
Source Language Input Program
See SLP utility
Source line format, *MACRO-11*, 2-5
SP: pseudo device, *Command Language*, 5-7
Space
application design consideration, *RMS-11 User's Guide*, 2-4, 8-1
data storage, *RMS-11 User's Guide*, 2-5
I/O buffer size, *RMS-11 User's Guide*, 2-5
task size, *RMS-11 User's Guide*, 2-5
Space function (CTDRV), *I/O Drivers*, 9-7
$SPACE macro, *RMS-11 Macro*, 5-120
RSTS/E, *RMS-11 Macro*, D-4
SPACE operation, *RMS-11 Introduction*, 4-7 *RMS-11 Macro*, 4-14
access modes, *RMS-11 Introduction*, 4-7
$SPACE macro, *RMS-11 Macro*, 5-120
Space operator
See Operator
SPACE symbol, *Indirect*, 2-16
Spacing
abort
tape driver, *I/O Drivers*, 8-16
TK50, *I/O Drivers*, 8-16
end-of-volume (tape driver), *I/O Drivers*, 8-16
Spanning blocks, *RMS-11 Introduction*, 4-2 *RMS-11 User's Guide*, 1-16, 1-19, 3-1
variable-length records, *RMS-11 User's Guide*, 2-16
Spawn directive, *Executive*, 5-212

Spawning, *Executive*, 4-5
SP command
  EDI utility, *Utilities*, 2-45
SPEA$ directive, *Executive*, 5-207
Special character, *MACRO-11*, 3-1, 3-2, 3-3
  assembler
    summary, *MACRO-11*, B-1
  key, *MCR*, 2-15 to 2-18
  state table, *I/O Operations*, 7-8
Special key
  table (TTDRV), *I/O Drivers*, 2-71
Special keys
  VT100-series terminal, *Command Language*, 3-19
  VT200-series terminal, *Command Language*, 3-19
  VT52 terminal, *Command Language*, 3-19
Special symbol, *Indirect*, 1-4, 2-9
  format, *Indirect*, 2-9
  Indirect, *Introduction*, 4-3
  logical, *Indirect*, 2-10
  numeric, *Indirect*, 2-11
  string, *Indirect*, 2-17
  type, *Indirect*, 2-9
Specify Command Arrival AST directive, *Executive*, 5-182
Specify Floating Point Processor Exception AST directive, *Executive*, 5-200
Specify Parity Error AST directive, *Executive*, 5-207
Specify Power Recovery AST directive, *Executive*, 5-210
Specify Receive-By-Reference AST directive, *Executive*, 5-231
Specify Receive Data AST directive, *Executive*, 5-222
Specify Requested Exit AST directive, *Executive*, 5-224
Specify SST Vector Table for Debugging Aid directive, *Executive*, 5-242
Specify SST Vector Table for Task directive, *Executive*, 5-244
Speed
  application design consideration, *RMS-11 User's Guide*, 2-3, 8-1
/SPEED keyword
  SET command (MCR), *MCR*, 3-254
  SET command (VMR), *System Management*, 10-75
SPND$S directive, *Executive*, 5-209
Spool
  definition, *Batch and Queue*, 4-8
Spooled device, *Batch and Queue*, 1-3, 2-1
  definition, *Batch and Queue*, 4-8
  line printer, *Batch and Queue*, 1-3
  output, *Batch and Queue*, 1-3
Spooling, *I/O Operations*, 8-1
  file
    PIP utility, *Utilities*, 3-38
  library file
    LBR utility, *Utilities*, 10-29
  output, *Batch and Queue*, 2-1
  .PRINT subroutine, *I/O Operations*, 8-1
SPR, *Writing I/O Driver*, 1-20
SPRA$ directive, *Executive*, 5-210
/-SP switch, *CDA*, 2-10, 2-12
/SP switch, *MACRO-11*, 8-7 *Task Builder*, 10-46
  CMP utility, *Utilities*, 12-3
  DMP utility, *Utilities*, 11-8
  FLX utility, *Utilities*, 4-8
  LBR utility, *Utilities*, 10-29
  PIP utility, *Utilities*, 3-38
  SLP utility, *Utilities*, 13-15
SPWN$ directive, *Executive*, 5-212
  IOX
    in EXECUTE command, *System Management*, 4-37
SPY command
  IOX, *System Management*, 4-60
/SQ switch, *Task Builder*, 10-47
  SLP utility, *Utilities*, 13-16
/SQUEEZE qulaifier
  LIBRARY command, *Command Language*, 6-44
SRC symbolic argument, *MACRO-11*, 6-11
SRDA$ directive, *Executive*, 5-222
SREA$ directive, *Executive*, 5-224
SREF$ directive, *Executive*, 5-229
S register, *Debugging*, 2-6, 5-3, 9-10
SREX$ directive, *Executive*, 5-224
SRRA$ directive, *Executive*, 5-231
/SR switch
  PIP utility, *Utilities*, 3-39
SRTI routine, *Task Builder*, 8-13
SS.MAS state setting, transmitter (LRDRV), *I/O Drivers*, 14-4
SS.NEU state setting, transmitter (LRDRV), *I/O Drivers*, 14-4

SS command
EDI utility, *Utilities*, 2-46
SSM
See SYSTEM SERVICE MESSAGE command
/SS switch, *Task Builder*, 10-48, 10-49, 10-50
LBR utility, *Utilities*, 10-29
symbol definition file
reducing overhead, *Task Builder*, F-4
SST, *Executive*, 2-5
ODT, *Program Development*, 5-8
relation to Postmortem Dump, *Program Development*, 1-7
role in task termination, *Program Development*, 4-8, 4-9
service routine, *Executive*, 2-6
specifying, *Executive*, 5-242, 5-244
stack content register, *Debugging*, 2-7, 5-4
vector
address
declaring, *Task Builder*, 12-29
handling, *Debugging*, 2-11
register, *Debugging*, 2-7, 5-5
XDT, *Debugging*, 8-4
SST routine
interrupt, *I/O Drivers*, 1-11
Stack
declaring size, *Task Builder*, 12-36
structure, *Writing I/O Driver*, 6-12
internal SST fault, *Writing I/O Driver*, 6-10, 6-11
supervisor mode, *Task Builder*, 8-19
Stack and register dump
Executive, *Writing I/O Driver*, 6-11
Stack check, card reader (CRDRV), *I/O Drivers*, 11-6
Stack Depth Indicator
See $STKDP
STACK option, *Task Builder*, 12-36
Stack pointer
definition, *MACRO-11*, 3-10
kernel, *CDA*, 3-2, 3-5
user, *CDA*, 3-2
Staddb parameter
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.WLB function, *I/O Drivers*, 19-32
Stadd parameter
device-specific
AFC11/AD01 converter, *I/O Drivers*, 15-2
communication driver, *I/O Drivers*, 12-6
CRDRV, *I/O Drivers*, 11-3
DDDRV, *I/O Drivers*, 7-4
disk driver, *I/O Drivers*, 5-8
DTDRV, *I/O Drivers*, 6-3
GRDRV, *I/O Drivers*, 21-2
half-duplex, *I/O Drivers*, 3-8
receive (LRDRV), *I/O Drivers*, 14-9
tape driver, *I/O Drivers*, 8-8
transmit (LRDRV), *I/O Drivers*, 14-4
UDDRV, *I/O Drivers*, 16-4
VTDRV, *I/O Drivers*, 4-3
general (TTDRV), *I/O Drivers*, 2-11
ICDRV/ISDRV, *I/O Drivers*, 19-10
IO.CCI function (ICDRV/ISDRV), *I/O Drivers*, 19-19
IO.CCO function (TTDRV), *I/O Drivers*, 2-23
IO.CTI function (ICDRV/ISDRV), *I/O Drivers*, 19-21
IO.CTY function (ICDRV/ISDRV), *I/O Drivers*, 19-23
IO.EIO function (TTDRV), *I/O Drivers*, 2-26
IO.GTS function (TTDRV), *I/O Drivers*, 2-33
IO.RAD function (ICDRV/ISDRV), *I/O Drivers*, 19-28
IO.RAL function (TTDRV), *I/O Drivers*, 2-36
IO.RBC function (ICDRV/ISDRV), *I/O Drivers*, 19-14
IO.RLB function, *I/O Drivers*, 1-30
IO.RNE function (TTDRV), *I/O Drivers*, 2-38
IO.RPR function (TTDRV), *I/O Drivers*, 2-41
IO.RST function (TTDRV), *I/O Drivers*, 2-43
IO.RTT function (TTDRV), *I/O Drivers*, 2-45
IO.RVB function, *I/O Drivers*, 1-31
IO.SMC function (TTDRV), *I/O Drivers*, 2-60
IO.SPT function (LSDRV), *I/O Drivers*, 17-9

Stadd parameter (cont'd.)
IO.WAL function (TTDRV), *I/O Drivers*, 2-47
IO.WBT function (TTDRV), *I/O Drivers*, 2-49
IO.WLB function, *I/O Drivers*, 1-32
IO.WVB, *I/O Drivers*, 1-33
SF.GMC function (half-duplex), *I/O Drivers*, 3-11
SF.GMC function (TTDRV), *I/O Drivers*, 2-51
standard function
communication driver, *I/O Drivers*, 12-5
CRDRV, *I/O Drivers*, 11-2
CTDRV, *I/O Drivers*, 9-3
DDDRV, *I/O Drivers*, 7-3
disk driver, *I/O Drivers*, 5-7
DTDRV, *I/O Drivers*, 6-3
LPDRV, *I/O Drivers*, 10-4
PPDRV/PRDRV, *I/O Drivers*, 18-2
tape driver, *I/O Drivers*, 8-6
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-5
STAF$ directive, *Executive*, 5-234
Stall I/O
F11ACP performance (disk driver), *I/O Drivers*, 5-13
RC25, *I/O Drivers*, 5-12
system performance (disk driver), *I/O Drivers*, 5-13
Stand-alone system, *System Generation*, 1-13
Standard function list (TTDRV), *I/O Drivers*, 2-19
START/ACCOUNTING
Resource Accounting, *System Management*, 17-5
START command, *Command Language*, 7-26, 9-43
IOX, *System Management*, 4-61
Shadow Recording, *System Management*, 18-5
START/PROCESSOR, *Command Language*, 9-43
START/QUEUE, *Command Language*, 9-44
START/QUEUE/MANAGER, *Command Language*, 9-44
START/UNBLOCK, *Command Language*, 7-27, 9-44
Start-of-segment symbol, *Task Builder*, A-26
STARTUP.CMD, *System Management*, 7-1
Startup command file, *Introduction*, 2-2
Startup procedure
content, *System Generation*, 4-3
description, *System Generation*, 4-3
for pregenerated kit, *System Generation*, 5-21
STARTUP.CMD, *System Generation*, 4-4
system, *System Generation*, 4-3
STATE$ macro, *I/O Operations*, 7-1, 7-2
State change
read interrupt point (ICDRV/ISDRV), *I/O Drivers*, 19-54
Statement
format, *MACRO-11*, 2-1
MACRO-11, *Program Development*, 1-4
format, *Program Development*, 2-3
State parameter
device-specific function
transmit (LRDRV), *I/O Drivers*, 14-4
IO.STC function
transmitter (LRDRV), *I/O Drivers*, 14-6
$STATE program section, *I/O Operations*, 7-2
State setting, transmitter (LRDRV), *I/O Drivers*, 14-4
State table, *I/O Operations*, 7-1
arrangement of syntax types, *I/O Operations*, 7-7
initializing, *I/O Operations*, 7-2
rejecting transitions, *I/O Operations*, 7-18
special character, *I/O Operations*, 7-8
using subexpressions, *I/O Operations*, 7-18
Static common region, *Executive*, 3-4
checkpointing, *System Management*, 14-2
resident common, *System Management*, 14-2
resident libraries, *System Management*, 14-2
shuffling, *System Management*, 14-4

Static structure, *Writing I/O Driver*, 2-1
Statistics block, *I/O Operations*, H-1
Statistics scan
  Resource Accounting, *System Management*, 17-6
Stat parameter
  device-specific (communication driver), *I/O Drivers*, 12-6
  device-specific function (VTDRV), *I/O Drivers*, 4-3
Status
  completion (VTDRV), *I/O Drivers*, 4-6
  end-of-volume
    unlabeled tape (tape driver), *I/O Drivers*, 8-16
  I/O, *I/O Drivers*, 1-36
  I/O (CRDRV), *I/O Drivers*, 11-7
  I/O completion (VTDRV), *I/O Drivers*, 4-5
  I/O condition, *I/O Drivers*, 1-38
  I/O directive, *I/O Drivers*, 1-37
  IO.XOP function (XEDRV), *I/O Drivers*, 13-6
  resetting transport (tape driver), *I/O Drivers*, 8-17
Status block, I/O, *I/O Drivers*, 1-5, 1-8, 1-11, 1-26, 1-29, 1-36, 1-37, 1-38, 1-39
  AFC11/AD01 converter, *I/O Drivers*, 15-4, 15-8
  communication driver, *I/O Drivers*, 12-8
  CRDRV, *I/O Drivers*, 11-3, 11-7
  CTDRV, *I/O Drivers*, 9-4
  DDDRV, *I/O Drivers*, 7-5
  disk driver, *I/O Drivers*, 5-9, 5-10
  DTDRV, *I/O Drivers*, 6-4
  first word content
    K-series, *I/O Drivers*, 23-32
    LADRV, *I/O Drivers*, 22-31
    UDDRV, *I/O Drivers*, 16-15
  FORTRAN (ICDRV/ISDRV), *I/O Drivers*, 19-35, 19-36
  GRDRV, *I/O Drivers*, 21-3
  half-duplex, *I/O Drivers*, 3-13, 3-15, 3-16, 3-17, 3-18, 3-26
  K-series, *I/O Drivers*, 23-6, 23-32
  LADRV, *I/O Drivers*, 22-2, 22-30
  LPDRV, *I/O Drivers*, 10-5
  LRDRV, *I/O Drivers*, 14-4, 14-5, 14-7, 14-11
Status block, I/O (cont'd.)
  LSDRV, *I/O Drivers*, 17-9, 17-10, 17-31, 17-34
  PPDRV/PRDRV, *I/O Drivers*, 18-3
  tape driver, *I/O Drivers*, 8-10, 8-11
  TTDRV, *I/O Drivers*, 2-10, 2-43, 2-51, 2-59, 2-63, 2-75, 2-77, 2-80
  UDDRV, *I/O Drivers*, 16-7, 16-15, 16-16, 16-31
  UNIBUS switch driver, *I/O Drivers*, 24-6, 24-7
  VTDRV, *I/O Drivers*, 4-7, 4-8, 4-9
  4-word (LADRV), *I/O Drivers*, 22-31
  XEDRV, *I/O Drivers*, 13-6, 13-7, 13-10, 13-11, 13-14, 13-16, 13-17, 13-18
Status code
  ERROR
    definition, *Batch and Queue*, 4-4
  SEVERERROR
    definition, *Batch and Queue*, 4-4
  SUCCESS
    definiton, *Batch and Queue*, 4-4
  WARNING
    definition, *Batch and Queue*, 4-4
Status code, binary value, *I/O Drivers*, 1-37
Status Control Block
  See SCB
Status flags
  common, *Command Language*, 7-74 to 7-75
  task, *Command Language*, 7-57 to 7-59
Status parameter (XEDRV)
  IO.XCL function, *I/O Drivers*, 13-17
  IO.XIN function, *I/O Drivers*, 13-10
  IO.XRC function, *I/O Drivers*, 13-14
  IO.XSC function, *I/O Drivers*, 13-7
  IO.XTL function, *I/O Drivers*, 13-18
  IO.XTM function, *I/O Drivers*, 13-11
Status return
  communication driver, *I/O Drivers*, 12-8
  CRDRV, *I/O Drivers*, 11-3, 11-7
  CTDRV, *I/O Drivers*, 9-4
  DDDRV, *I/O Drivers*, 7-4

Status return (cont'd.)
disk driver, *I/O Drivers*, 5-9
DTDRV, *I/O Drivers*, 6-4
FORTRAN (ICDRV/ISDRV), *I/O Drivers*, 19-35
FORTRAN, interface value list (UDDRV), *I/O Drivers*, 16-33
GRDRV, *I/O Drivers*, 21-3
half-duplex, *I/O Drivers*, 3-17
ICDRV/ISDRV, *I/O Drivers*, 19-12
IO.XCL function (XEDRV), *I/O Drivers*, 13-18
IO.XIN function (XEDRV), *I/O Drivers*, 13-11
IO.XRC function (XEDRV), *I/O Drivers*, 13-16
IO.XTL function (XEDRV), *I/O Drivers*, 13-18
IO.XTM function (XEDRV), *I/O Drivers*, 13-13
LPDRV, *I/O Drivers*, 10-4
LSDRV, *I/O Drivers*, 17-29
PPDRV/PRDRV, *I/O Drivers*, 18-3
receiver (LRDRV), *I/O Drivers*, 14-11
summary (ICDRV/ISDRV), *I/O Drivers*, 19-36
tape driver, *I/O Drivers*, 8-10
transmitter (LRDRV), *I/O Drivers*, 14-6
TTDRV, *I/O Drivers*, 2-63
UDDRV, *I/O Drivers*, 16-31
UNIBUS switch driver, *I/O Drivers*, 24-7
VTDRV, *I/O Drivers*, 4-7
word 1 (ICDRV/ISDRV), *I/O Drivers*, 19-36
XEDRV, *I/O Drivers*, 13-5
Status word (F11ACP)
FNB, *I/O Drivers*, C-7
.STB file
absolute region, *Task Builder*, 5-10
content, *Task Builder*, 5-6
excluding symbol, *Task Builder*, 12-22
for region, *Task Builder*, 5-4, 5-6
system-owned, *Task Builder*, 12-12
for user-owned region, *Task Builder*, 12-31
interaction of /CO/LI/PI switch, *Task Builder*, 5-4
LINK command, *Task Builder*, 1-6
program sections, *Task Builder*, 5-6
.STB file (cont'd.)
reducing overhead, *Task Builder*, F-4
region
system-owned, *Task Builder*, 12-24
relocatable region, *Task Builder*, 5-10
supervisor mode library
system-owned, *Task Builder*, 12-37
user-owned, *Task Builder*, 12-33
symbol inclusion, *Task Builder*, 12-19
use of /CO/LI/PI switch, *Task Builder*, 5-6
/STB switch, *CDA*, 2-2, 2-10, 2-12
Stcnta parameter
device-specific
AFC11/AD01 converter, *I/O Drivers*, 15-3
device-specific function (UDDRV), *I/O Drivers*, 16-5
ICDRV/ISDRV, *I/O Drivers*, 19-11
IO.RBC function, *I/O Drivers*, 19-14
STD, *Command Language*, 7-1 to 7-5
See also System Task Directory
/STD switch, *CDA*, 2-5, 2-8
Step command
See S command
STIM$ directive, *Executive*, 5-235
$STKDP, *CDA*, 4-2 *Debugging*, 8-3, 8-6, 9-1 *Writing I/O Driver*, 6-8, 6-11
Stack Depth Indicator, *Writing I/O Driver*, 6-7
STLO$ directive, *Executive*, 5-238
$STMAP routine, *Writing I/O Driver*, 7-37
calling from the driver, *Writing I/O Driver*, 7-3
$STMP1 routine, *Writing I/O Driver*, 7-38
calling from the driver, *Writing I/O Driver*, 7-3
STOP/ACCOUNTING
Resource Accounting, *System Management*, 17-4
STOP$S directive, *Executive*, 5-240
STOP/ABORT command, *Introduction*, 3-14

Stop-bit synchronization, *Executive*, 2-12
directives, *Executive*, 2-13
STOP command
Shadow Recording, *System Management*, 18-6
STOP/ABORT, *Command Language*, 4-96, 9-44
STOP/BLOCK, *Command Language*, 7-24 to 7-25, 9-44
STOP/PROCESSOR, *Command Language*, 9-45
STOP/QUEUE, *Command Language*, 9-45
STOP/QUEUE/MANAGER, *Command Language*, 9-45
.STOP directive, *Indirect*, 2-84
Stop directive, *Executive*, 5-240
Stop for Logical OR of Event Flags directive, *Executive*, 5-238
Stop for Single Event Flag directive, *Executive*, 5-241
Stop I/O
in-progress request (LSDRV), *I/O Drivers*, 17-9
Stop switch
card reader (CRDRV), *I/O Drivers*, 11-6
Stop synchronous function (LSDRV), *I/O Drivers*, 17-22
Storage
data, *RMS-11 Introduction*, 2-1
Storage map, file header, *I/O Operations*, E-2
$STORE macro, *RMS-11 Macro*, 2-10
example, *RMS-11 Macro*, 7-3, 7-7, 7-11, 7-15
STPSWP: subroutine
stop sweep
K-series, *I/O Drivers*, 23-29
LADRV, *I/O Drivers*, 22-24
%STR, *Error Logging*, 5-23, 5-24
Stream, *RMS-11 Macro*, 4-2
See also Access stream
access, *RMS-11 Introduction*, 4-3
connecting
See CONNECT operation
disconnecting
See DISCONNECT operation
internal identifier
See ISI field in RAB
Stream
writing buffers
See FLUSH operation
Stream context
advancing to next volume
See NXTVOL operation
rewinding
See REWIND operation
Stream operation, *RMS-11 Introduction*, 4-4 *RMS-11 User's Guide*, 1-15
See also Operation
block stream, *RMS-11 Macro*, 4-13
record stream, *RMS-11 Macro*, 4-8
Stream operation macro, *RMS-11 Macro*, 1-2
declaring, *RMS-11 Macro*, C-3
Stream record format, *RMS-11 Introduction*, 3-4 *RMS-11 User's Guide*, 1-11, 2-16
See also FB$STM code in RFM field
terminators, *RMS-11 Introduction*, 3-4 *RMS-11 User's Guide*, 2-16
String
quoted, *Command Language*, 1-15
String constant, *Indirect*, 2-24
String conversion function, *Error Logging*, 5-19
String expression, *Indirect*, 2-24
String handling function, *Error Logging*, 5-23, 5-24
String key, *RMS-11 User's Guide*, 6-3
See also XB$STG mask in DTP field
segmented, *RMS-11 User's Guide*, 6-7
String symbol, *Indirect*, 2-9, 2-24
comparing, *Indirect*, 2-60
defining, *Indirect*, 2-38
setting, *Indirect*, 2-83
testing, *Indirect*, 2-61
STRLEN symbol, *Indirect*, 2-16
Structure
indexed files
conceptual, *RMS-11 User's Guide*, 5-4
physical, *RMS-11 User's Guide*, 5-2
relative files, *RMS-11 User's Guide*, 4-1
conceptual, *RMS-11 User's Guide*, 4-1
sequential files, *RMS-11 User's Guide*, 3-1
conceptual, *RMS-11 User's Guide*, 3-2

Structure
sequential files (cont'd.)
physical, *RMS-11 User's Guide*, 3-1
TKB
size, *Task Builder*, F-3
STSE$ directive, *Executive*, 5-241 *I/O Drivers*, 1-10
STS field in FAB, *RMS-11 Macro*, 2-14, 3-5
CLOSE operation, *RMS-11 Macro*, 5-4
CREATE operation, *RMS-11 Macro*, 5-21
DISPLAY operation, *RMS-11 Macro*, 5-32
ENTER operation, *RMS-11 Macro*, 5-38
ERASE operation, *RMS-11 Macro*, 5-43
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-22
OPEN operation, *RMS-11 Macro*, 5-82
PARSE operation, *RMS-11 Macro*, 5-89
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-112
SEARCH operation, *RMS-11 Macro*, 5-118
summary, *RMS-11 Macro*, 6-64
STS field in RAB, *RMS-11 Macro*, 2-14, 4-2
CONNECT operation, *RMS-11 Macro*, 5-8
DELETE operation, *RMS-11 Macro*, 5-26
DISCONNECT operation, *RMS-11 Macro*, 5-27
FIND operation, *RMS-11 Macro*, 5-50, 5-53, 5-55
FLUSH operation, *RMS-11 Macro*, 5-56
FREE operation, *RMS-11 Macro*, 5-58
GET operation, *RMS-11 Macro*, 5-62, 5-65, 5-68
NXTVOL operation, *RMS-11 Macro*, 5-70
offset, *RMS-11 Macro*, 6-115
STS field in RAB (cont'd.)
PUT operation, *RMS-11 Macro*, 5-93, 5-97
READ operation, *RMS-11 Macro*, 5-99, 5-101
REWIND operation, *RMS-11 Macro*, 5-115
SPACE operation, *RMS-11 Macro*, 5-120
summary, *RMS-11 Macro*, 6-141
TRUNCATE operation, *RMS-11 Macro*, 5-122
UPDATE operation, *RMS-11 Macro*, 5-125
WRITE operation, *RMS-11 Macro*, 5-128, 5-130
STV field in FAB, *RMS-11 Macro*, 2-14, 3-5
CLOSE operation, *RMS-11 Macro*, 5-4
CREATE operation, *RMS-11 Macro*, 5-21
DISPLAY operation, *RMS-11 Macro*, 5-32
ENTER operation, *RMS-11 Macro*, 5-38
ERASE operation, *RMS-11 Macro*, 5-43
EXTEND operation, *RMS-11 Macro*, 5-47
offset, *RMS-11 Macro*, 6-22
OPEN operation, *RMS-11 Macro*, 5-82
PARSE operation, *RMS-11 Macro*, 5-89
REMOVE operation, *RMS-11 Macro*, 5-105
RENAME operation, *RMS-11 Macro*, 5-112
SEARCH operation, *RMS-11 Macro*, 5-118
summary, *RMS-11 Macro*, 6-65
STV field in RAB, *RMS-11 Macro*, 2-14, 4-2
CONNECT operation, *RMS-11 Macro*, 5-8
DELETE operation, *RMS-11 Macro*, 5-26
DISCONNECT operation, *RMS-11 Macro*, 5-27
FIND operation, *RMS-11 Macro*, 5-50, 5-53, 5-55
FLUSH operation, *RMS-11 Macro*, 5-56

STV field in RAB (cont'd.)
FREE operation, *RMS-11 Macro*, 5-58
GET operation, *RMS-11 Macro*, 5-62, 5-65, 5-68
NXTVOL operation, *RMS-11 Macro*, 5-70
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-93, 5-97
READ operation, *RMS-11 Macro*, 5-99, 5-101
REWIND operation, *RMS-11 Macro*, 5-115
SPACE operation, *RMS-11 Macro*, 5-120
summary, *RMS-11 Macro*, 6-142
TRUNCATE operation, *RMS-11 Macro*, 5-122
UPDATE operation, *RMS-11 Macro*, 5-125
WRITE operation, *RMS-11 Macro*, 5-128, 5-130
SU$-family symbol
declaring, *RMS-11 Macro*, C-3
value, *RMS-11 Macro*, A-1
Subconditional assembly, *MACRO-11*, 6-53, 6-54
Subcontroller device, *Writing I/O Driver*, 1-13
block, *Writing I/O Driver*, 1-13
Subexpression, parsing complex command lines, *I/O Operations*, 7-19
Subfunction (TTDRV)
allowed, *I/O Drivers*, 2-18
list
device-specific, *I/O Drivers*, 2-19
standard, *I/O Drivers*, 2-19
modifier, extended I/O, *I/O Drivers*, 2-25
Subfunction bit
half-duplex, *I/O Drivers*, 3-8, 3-9, 3-10
TTDRV, *I/O Drivers*, 2-12
/SUB keyword
SET command (MCR), *MCR*, 3-255
SET command (VMR), *System Management*, 10-76 to 10-77
SUBMIT command, *Command Language*, 9-45 *Introduction*, 4-6
Subpacket definition, *Error Logging*, 4-69
dispatch module, *Error Logging*, 4-69 to 4-71
DSP1M1, *Error Logging*, 4-72
DSP1P1, *Error Logging*, 4-72
DSP2M1, *Error Logging*, 4-73
DSP2P1, *Error Logging*, 4-73
DSP3M1, *Error Logging*, 4-73
DSP3P1, *Error Logging*, 4-73
DSP4M1, *Error Logging*, 4-74
DSP4P1, *Error Logging*, 4-74
DSP5M1, *Error Logging*, 4-74
DSP5P1, *Error Logging*, 4-74
DSP6M1, *Error Logging*, 4-74
DSP6P1, *Error Logging*, 4-74
DSP7M1, *Error Logging*, 4-75
DSP7P1, *Error Logging*, 4-75
SUBPACKET statement, *Error Logging*, 5-29
Subpartition
See also Partition
base address, *MCR*, 3-255
defining, *MCR*, 3-267
definition, *MCR*, 2-20
displaying, *MCR*, 3-256
eliminating, *MCR*, 3-256, 3-267
setting, *MCR*, 3-255
size, *MCR*, 3-255
task, *MCR*, 2-21
Subroutine, *Introduction*, 5-8
calling, *Indirect*, 2-58
high-level language, *Executive*, 1-9
error conditions, *Executive*, 1-19
optional arguments, *Executive*, 1-10
specifying task names, *Executive*, 1-11
returning from, *Indirect*, 2-79
Subroutine, synchronous (LSDRV), *I/O Drivers*, 17-10
Subroutine linkage
standard (K-series), *I/O Drivers*, 23-31
standard MACRO-11 (LADRV), *I/O Drivers*, 22-27
Subroutine linkage (K-series), *I/O Drivers*, 23-31
SUBSTITUTE command—EDT editor, *Introduction*, 2-15
Substitution format control string, *Indirect*, 2-26

Substitution mode
Indirect, *Indirect*, 1-3, 2-48
Introduction, 4-2
Substring
searching, *Indirect*, 2-85
Subtraction operator, *MACRO-11*, 3-2, 3-5
Success
handler, *RMS-11 Macro*, 2-17
Success return
LSDRV, *I/O Drivers*, 17-29
UDDRV, *I/O Drivers*, 16-31
SUM block, *RMS-11 Introduction*, 4-8
chaining to FAB, *RMS-11 Macro*, 2-12
declaring, *RMS-11 Macro*, 2-8
initializing, *RMS-11 Macro*, 2-9
summary, *RMS-11 Macro*, 6-145
.SUML1
reserved global symbol, *Task Builder*, E-2
Summary listing
RMSBCK utility, *RMS-11 Utilities*, 6-10
RMSCNV utility, *RMS-11 Utilities*, 4-12
RMSRST utility, *RMS-11 Utilities*, 7-12
Summary report
generated by PRINTSUMMARY, *System Management*, 4-49
IOX, *System Management*, 4-20
SUMMARYTIME command
IOX, *System Management*, 4-62
Summary XAB
See SUM block
SUPERSEDE attribute
RMSDES utility, *RMS-11 Utilities*, 2-35
/SUPERSEDE qualifier
BRU utility, *Utilities*, 7-21
Supersession
See also FB$SUP mask in FOP field
RMSBCK utility, *RMS-11 Utilities*, 6-7
RMSCNV utility, *RMS-11 Utilities*, 4-7, 4-13
RMSDEF utility, *RMS-11 Utilities*, A-7
RMSRST utility, *RMS-11 Utilities*, 7-8
Supervisor Call directive, *Executive*, 5-183
Supervisor library, *Debugging*, 1-4
install
READ/WRITE, *Debugging*, 1-4
Supervisor mode, *Debugging*, 1-4, 3-2
Task Builder, 2-23
command, *Debugging*, 2-12
debugging, *Debugging*, 1-4
library, *Task Builder*, 2-23
library routine, *Executive*, 3-1
calling, *Executive*, 5-183
mapping, *Task Builder*, 2-23, 2-24, 2-25
mode switching, *Task Builder*, 8-18
setting, *Debugging*, 2-12
stack, *Task Builder*, 8-19
Supervisor mode library
See also Library
description, *Task Builder*, 8-1 to 8-21
SYSGEN question, *System Generation*, 3-24
SUPLIB option, *Task Builder*, 12-37
supervisor mode library, *Task Builder*, 8-7, 8-9
use in CSM library, *Task Builder*, 8-9, 8-19
Support
of ICS11 by ICDRV, *I/O Drivers*, 19-3
of ICS11 by UDDRV, *I/O Drivers*, 19-3
Support routine
feature list (K-series), *I/O Drivers*, 23-3
generation (K-series), *I/O Drivers*, 23-4, 23-5
interface (K-series), *I/O Drivers*, 23-6
invoking (K-series), *I/O Drivers*, 23-31
MACRO-11 (LADRV), *I/O Drivers*, 22-26
program use (K-series), *I/O Drivers*, 23-5
use (K-series), *I/O Drivers*, 23-4
Suspend directive, *Executive*, 5-209
/SU switch
PIP utility, *Utilities*, 3-12
RMSBCK utility, *RMS-11 Utilities*, 6-7
RMSCNV utility, *RMS-11 Utilities*, 4-5, 4-7, 4-13, 4-15

/SU switch (cont'd.)
RMSRST utility, *RMS-11 Utilities*, 7-8
SVDB$ directive, *Executive*, 5-242
SVTK$ directive, *Executive*, 5-244
Sw1 parameter
device-specific function (VTDRV), *I/O Drivers*, 4-4
Sw2 parameter
IO.STC function (VTDRV), *I/O Drivers*, 4-6
Sweep
initiate A/D synchronous (K-series), *I/O Drivers*, 23-8
stop (K-series), *I/O Drivers*, 23-29
Switch, *Indirect*, 2-27 *MCR*, 2-5
See also individual switch entries
See also Keyword
analysis, *CDA*, 2-3 to 2-8
argument, *MCR*, 2-6
BAD utility, *Utilities*, 6-5
BRU utility, *Utilities*, 7-12
CMP utility, *Utilities*, 12-2
conflict, *Task Builder*, 10-1
CRF utility, *Utilities*, B-1
cross-reference control, *MACRO-11*, 8-16, 8-17
default
modifying, *Task Builder*, F-7 to F-11
description, *Task Builder*, 10-5 to 10-54
designation, *Task Builder*, 10-1
DMP utility, *Utilities*, 11-3
DSC utility, *Utilities*, 8-9
file specification, *MACRO-11*, 8-6, 8-7
FLX utility, *Utilities*, 4-3
FMT utility, *Utilities*, 5-7
format, *MACRO-11*, 8-5, 8-6
FTB supported, *Task Builder*, G-1
function, *CDA*, 2-9 to 2-12
function control, *MACRO-11*, 8-6, 8-7
LBR utility, *Utilities*, 10-9
listing control, *MACRO-11*, 8-6, 8-7
macro library, *MACRO-11*, 8-6, 8-7
modifying default, *Task Builder*, F-7 to F-11
overriding, *Task Builder*, 10-1
PAT utility, *Utilities*, 14-6
PIP utility, *Utilities*, 3-14
RMSBCK utility, *RMS-11 Utilities*, 6-4, 6-5
Switch (cont'd.)
RMSCNV utility, *RMS-11 Utilities*, 4-5, 4-7
RMSDSP utility, *RMS-11 Utilities*, 5-3, 5-4
RMSIFL utility, *RMS-11 Utilities*, 3-3, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-3, 7-5
SLP utility, *Utilities*, 13-14
summary, *Task Builder*, 10-2, 10-3, 10-4
BAD, *Utilities*, A-12
BRU, *Utilities*, A-13
CMP, *Utilities*, A-22
DMP, *Utilities*, A-20
DSC, *Utilities*, A-16
EDI, *Utilities*, A-1
FLX, *Utilities*, A-9
FMT, *Utilities*, A-11
LBR, *Utilities*, A-18
PAT, *Utilities*, A-24
PIP, *Utilities*, A-5
SLP, *Utilities*, A-23
VFY, *Utilities*, A-17
ZAP, *Utilities*, A-25
syntax, *Task Builder*, 10-1
VFY utility, *Utilities*, 9-4
ZAP utility, *Utilities*, 15-2
SWITCH command, *System Management*, 15-27
Switching access modes, *RMS-11 Introduction*, 3-13
SWITCH REGISTER command, *MCR*, 1-8, 3-274
examples, *MCR*, 3-274
formats, *MCR*, 3-274
keywords
/CLE, *MCR*, 3-274
/DIS, *MCR*, 3-274
/SET, *MCR*, 3-274
parameters, *MCR*, 3-274
Switch State directive, *Executive*, 5-246
Switch switch, *Error Logging*, 2-4, 2-8
Delete subswitch, *Error Logging*, 2-4, 2-9
New version subswitch, *Error Logging*, 2-4, 2-9
/SWPC keyword
SET command (MCR), *MCR*, 3-256
SET command (VMR), *System Management*, 10-77

/SWPR keyword
SET command (VMR), *System Management*, 10-77
SWR
See SWITCH REGISTER command
SWST$ directive, *Executive*, 5-246
/SW switch, *Error Logging*, 2-4, 2-8
SY:, *Command Language*, 5-7 *MCR*, 2-4, 2-7, 2-11, 3-79, 3-212
user device logical, *MCR*, 3-21
SYDISK symbol, *Indirect*, 2-21
Symbol, *Indirect*, 1-3 *RMS-11 Introduction*, 4-7
affecting search, *Task Builder*, 2-7
code and mask, *RMS-11 Introduction*, 4-7
control directive, *MACRO-11*, 6-48, 6-49
cross-reference, *Program Development*, 3-7, 3-8
cross-reference listing, *Task Builder*, 10-12, 11-23, 11-24
control of, *MACRO-11*, 6-22
declaration flag byte, *Task Builder*, A-7
defining, *Indirect*, 2-4
definition
ambiguous, *Task Builder*, 3-41
including in SYSLIB.OLB (UDDRV), *I/O Drivers*, 16-12
local (half-duplex), *I/O Drivers*, 3-13
SYSLIB.OLB, *Task Builder*, 2-7
deleting definition, *Indirect*, 2-52
directory record
declare global, *Task Builder*, A-2
end of global, *Task Builder*, A-11
internal, *Task Builder*, A-24
displaying, *Indirect*, 2-96
field-offset, *RMS-11 Introduction*, 4-7
full search in overlays
specifying, *Task Builder*, 10-19, 11-33
global, *Introduction*, 5-5, 5-9 *MACRO-11*, 1-2 *Program Development*, 1-5
address of ODT SST routine, *Task Builder*, 12-26
ambiguously defined in overlay, *Task Builder*, 3-16
Symbol
global (cont'd.)
autoloadable segment, *Task Builder*, 4-7
cross-reference listing, *Task Builder*, 10-12, 10-13, 11-23, 11-24
declaring definition in task, *Task Builder*, 12-18
default library resolution, *Task Builder*, 3-18
definition, *MACRO-11*, 3-8, 6-49
directory record, *Task Builder*, A-2
format, *Task Builder*, A-4
end of directory record, *Task Builder*, A-11
entry point, *Program Development*, 1-4
excluding in task, *Task Builder*, 12-22
from the default library, *Task Builder*, 3-18
internal, *Task Builder*, A-28
multiply defined, *Task Builder*, 3-16
name, *Task Builder*, A-6
name entry, *Task Builder*, A-6
overlaid region .STB file, *Task Builder*, 5-13, 5-14
overlay search sequence, *Task Builder*, 3-17
resolution, *Program Development*, 1-4, 1-5, 4-2 *Task Builder*, 3-16, 3-17
cotree, *Task Builder*, 3-17
resolution in multisegment task, *Task Builder*, 3-16
search sequence in overlay, *Task Builder*, 3-16
task inclusion, *Task Builder*, 12-19
internal
autoloadable library, *Task Builder*, A-26, A-27
end-of-module record format, *Task Builder*, A-32
global, *Task Builder*, A-28
line-number, *Task Builder*, A-29, A-30
literal record, *Task Builder*, A-30

Symbol
internal (cont'd.)
format, *Task Builder*, A-32
module name, *Task Builder*, A-27, A-28
name, *Task Builder*, A-30
format, *Task Builder*, A-32
item, *Task Builder*, A-30, A-31
name entry, *Task Builder*, A-5
overall format, *Task Builder*, A-24, A-25
PC correlation, *Task Builder*, A-29, A-30
program section item, *Task Builder*, A-29
record, *Task Builder*, A-30
relocatable/relocated, *Task Builder*, A-27
start-of-segment, *Task Builder*, A-25, A-26
task identification, *Task Builder*, A-26
TKB generated, *Task Builder*, A-25
local, *Introduction*, 5-5 *Program Development*, 1-4, 1-5, 2-7, 2-8
defining (TTDRV), *I/O Drivers*, 2-33
definition, *Program Development*, 2-7, 2-8
obtaining, *I/O Drivers*, 1-7
macro
definition, *Program Development*, 1-4, 1-10, 2-7, 6-4
MACRO-11 evaluation, *Program Development*, 1-4, 3-1, 3-2
marking undefined reference, *MACRO-11*, 6-21
name, *Indirect*, 2-9
number of processed for performance, *Task Builder*, F-3
reserved, *MACRO-11*, 2-3, 3-1
resolution
global, *Task Builder*, 2-7, 2-8
global in cotree, *Task Builder*, 3-17
multisegment task, *Task Builder*, 3-17
search
selective, *Task Builder*, 10-48, 10-49, 10-50, 11-61, 11-62, 11-63
Symbol (cont'd.)
substituting, *Indirect*, 2-25
table, *Indirect*, 2-4, 2-25 *MACRO-11*, 1-1, 1-2
search order, *MACRO-11*, 3-7
TKB, *Command Language*, 6-8
TKB reserved, *Task Builder*, E-1 to E-4
type, *Indirect*, 2-9
defining, *Indirect*, 2-9
logical, *Indirect*, 2-9
numeric, *Indirect*, 2-9
string, *Indirect*, 2-9
undefined, *MACRO-11*, 3-8
global, *Task Builder*, 2-7
user-defined, *MACRO-11*, 3-6, 3-7, 3-8
using, *Indirect*, 2-9
/SYMBOL_TABLE qualifier, *Task Builder*, 11-70
designation, *Task Builder*, 11-2
Symbol-declaration macro, *RMS-11 Macro*, 2-2
Symbol Definition File
/IM switch, *System Management*, 10-2
relationship to system image file, *System Management*, 10-1
specifying, *System Management*, 10-2
VMR requirements, *System Management*, 10-1
Symbol definition file
See .STB file
Symbolic offset, *Executive*, 1-7
Symbolic offsets, *Writing I/O Driver*, A-1
usage, *Writing I/O Driver*, 4-2
SYMBOLS argument, *MACRO-11*, 8-11
SYM symbolic argument, *MACRO-11*, 6-12
SYMTYP symbol, *Indirect*, 2-16
SYN argument to RAB$B macro, *RMS-11 Macro*, 2-8
RSTS/E, *RMS-11 Macro*, D-4
Sync character (communication driver), *I/O Drivers*, 12-8
specifying, *I/O Drivers*, 12-8
Synchronous
D/A sweep (K-series), *I/O Drivers*, 23-14
digital input sweep
K-series, *I/O Drivers*, 23-17

Synchronous
digital input sweep (cont'd.)
LSDRV, *I/O Drivers*, 17-15
digital output sweep (K-series), *I/O Drivers*, 23-19
process control
ICDRV/ISDRV, *I/O Drivers*, 19-35
UDDRV, *I/O Drivers*, 16-15
subroutine (LSDRV), *I/O Drivers*, 17-10
trap, *I/O Drivers*, 1-10
Synchronous operation, *RMS-11 Introduction*, 4-4
See also RB$ASY mask in ROP field
Synchronous system trap
See SST
/SYNC keyword
INSTALL command (MCR), *MCR*, 3-121
INSTALL command (VMR), *System Management*, 10-27
Syn parameter
device-specific (communication driver), *I/O Drivers*, 12-6
Syntax, *Introduction*, 1-12
element, defining, *I/O Operations*, 7-2
error
See Q error
LINK command line, *Task Builder*, 11-1, 11-2
rule
summary, *Task Builder*, 1-16 to 1-19
state table, *I/O Operations*, 7-7
Syntax elements
attributes, *System Management*, 12-26
SYS$LOGIN
user directory logical, *MCR*, 3-21
SYSDEV symbol, *Indirect*, 2-21
SYSGEN
See also Pregenerated kit
abnormal exit, *System Generation*, 3-6
adding a device section, *System Generation*, 4-8
Assembling the Executive and Drivers section, *System Generation*, 3-67 to 3-68
autoconfigure, *System Generation*, 3-6
SYSGEN (cont'd.)
baseline system, *System Generation*, 3-12
Building the Executive and Drivers section, *System Generation*, 3-69 to 3-70
Building the Nonprivileged Tasks section, *System Generation*, 3-73 to 3-76
Building the Privileged Tasks section, *System Generation*, 3-71 to 3-72
Changing system without, *System Generation*, 4-7
Choosing Executive Options section, *System Generation*, 3-21 to 3-33
Choosing Peripheral Configuration section, *System Generation*, 3-34 to 3-66
Choosing SYSGEN Options section, *System Generation*, 3-16 to 3-20
Creating Image File section, *System Generation*, 3-77 to 3-78
definition, *System Generation*, 1-4
error message, *System Generation*, 3-3
error recovery, *System Generation*, 3-3
example, *System Generation*, D-2 to D-52
features, *System Generation*, 1-4
help paragraph, *System Generation*, 3-3
invoking, *System Generation*, 3-13
making changes, *System Generation*, 3-4
media requirement, *System Generation*, 2-2
moving old system
SYSGEN question, *System Generation*, 3-69
preparation, *System Generation*, 2-1
processor support on RSX-11M-PLUS, *System Generation*, 3-21
question
format, *System Generation*, 3-1
sections, *System Generation*, 3-14
restarting, *System Generation*, 3-20
saved answer file, *System Generation*, 3-5
sections, *System Generation*, 1-5 to 1-7

SYSGEN
system
setting up, *System Generation*, 4-3 to 4-6
system generation, compared to, *System Generation*, 1-1
terminal support
SYSGEN question, *System Generation*, 3-56
terms defined, *System Generation*, 1-7 to 1-14
SYSGEN question
default response, *System Generation*, 3-2
example, *System Generation*, 3-2
number format, *System Generation*, 3-1
prompt format, *System Generation*, 3-1
SYSID symbol, *Indirect*, 2-21
SYSLIB
including contribution in map, *Task Builder*, 10-26
linking to
by supervisor mode library, *Task Builder*, 8-2, 8-18
supervisor mode library, *Task Builder*, 8-9, 8-10, 8-11, 8-14 to 8-17
replacing as default, *Task Builder*, 10-23, 11-39
SYSLIB.OLB, *Program Development*, 1-11
for symbol definition, *Task Builder*, 2-7
SYSLOGIN.CMD
on pregenerated kit, *System Generation*, 5-34
SYSLOGOUT.CMD
on pregenerated kit, *System Generation*, 5-36
/-SYS switch, *CDA*, 2-5, 2-8
SYSTB.MAC file, *Writing I/O Driver*, 1-18
System
bootstrapping, *MCR*, 3-35
restrictions, *MCR*, 3-36
unsaved, *MCR*, 3-36
with XDT, *MCR*, 3-36
valid device, *MCR*, 3-35
checkpoint file, *MCR*, 3-11
data structures
abort codes, *Writing I/O Driver*, A-3
System
data structures (cont'd.)
macro definitions, *Writing I/O Driver*, A-1 to A-71
device, *CDA*, 1-5
default, *MCR*, 3-79
switches, *CDA*, 2-6
directive, *Program Development*, 1-9, 1-10
directory, *MCR*, 3-182
displaying parameters, *Command Language*, 8-8 to 8-10
host and target, *Task Builder*, C-1, C-2
I/O data base
main thread through, *Writing I/O Driver*, 2-1, 2-3
identification, *MCR*, 3-79
information, *CDA*, 3-1
switch
See /-SYS switch
information dump, *CDA*, 1-8
library
contributions (in map), *Program Development*, 4-7
macro (RSXMAC.SML), *Program Development*, 1-5, 1-9, 1-10
contents, *Program Development*, 1-9
search, *Program Development*, 1-5, 1-10, 2-7
object (SYSLIB.OLB), *Program Development*, 1-11
contents, *Program Development*, 1-11
search, *Program Development*, 1-11, 4-2
logical assignment, *MCR*, 3-20
macro call, *Writing I/O Driver*, 4-5
macro library, *MACRO-11*, 1-1
See also .MCALL directive
maintenance commands, *MCR*, 1-8
mapped, *MCR*, 2-20, 3-164 *Task Builder*, 2-14
physical and virtual space, *Task Builder*, 2-14
task relocation, *Task Builder*, 2-16
UIC, *MCR*, 3-257
name
SYSGEN question, *System Generation*, 3-26

System (cont'd.)
object library, *I/O Drivers*, 1-37
object module library, *I/O Drivers*, 1-8 *Task Builder*, 2-7
See also Library
See also SYSLIB.OLB
option
feature symbols, *Executive*, 5-86
testing, *Executive*, 5-86
overhead (TTDRV)
IO.RPR, *I/O Drivers*, 2-40
TF.RPR, *I/O Drivers*, 2-14, 2-27
parameter
changing after SYSGEN, *System Generation*, 4-8
performance
stall I/O (disk driver), *I/O Drivers*, 5-13
pool
dump, *CDA*, 3-45
switch
See /POOL switch
powerfail
recovery (UNIBUS switch driver), *I/O Drivers*, 24-6
putting more than one on same volume, *System Generation*, 4-10 to 4-12
required files, *System Generation*, 4-3
requirements, *CDA*, 1-1
saved
installing task, *MCR*, 3-116
setting parameters, *Command Language*, 8-5 to 8-7
setup
after SYSGEN, *System Generation*, 4-3 to 4-6
stack, *Writing I/O Driver*, 6-11
target
memory management, *Task Builder*, 10-27, 11-50
task, *Program Development*, 1-1
spawning, *Executive*, 4-5
time
setting, *Executive*, 5-235
trap, *Executive*, 2-5
UIC, *MCR*, 2-3
unmapped, *MCR*, 2-20, 2-21 *Task Builder*, 2-13, 2-14
UIC, *MCR*, 3-257
System
unsaved
installing task, *MCR*, 3-116
/SYSTEM_LIBRARY_DISPLAY
qualifier, *Task Builder*, 11-71
System Account Block, *System Management*, 17-3, 17-24 *Writing I/O Driver*, A-5
System clock
SYSGEN question, *System Generation*, 3-33
System common, *CDA*, 3-6
active task, *CDA*, 3-6
alphabetized dump, *CDA*, 3-1, 3-9
boot device, *CDA*, 3-6
dump, *CDA*, 3-1, 3-9 to 3-14
stack depth indicator, *CDA*, 4-2
labels, *CDA*, 3-9 to 3-14
network UIC, *CDA*, 3-6
partition address, *CDA*, 3-6
stack depth, *CDA*, 3-6
system size, *CDA*, 3-6
TCB address, *CDA*, 3-6
UIC, *CDA*, 3-6
System-controlled partition, *System Management*, 14-1
conventions, *System Management*, 14-2
definition, *System Management*, 14-2
extending memory for task, *Task Builder*, 12-16
fragmentation
causes of, *System Management*, 14-3
subpartitions of, *System Management*, 14-2
waiting tasks, *System Management*, 14-2
System device
states, *System Management*, 15-2
System directory, *Command Language*, 7-28 to 7-32, 8-10
System disk
RMSBCK utility, *RMS-11 Utilities*, 6-1
RMSRST utility, *RMS-11 Utilities*, 7-1
System faults, *System Management*, 15-29, 15-31
System file names
conventions, *System Management*, B-4

System file types, *System Management*, B-5t to B-6t
System generation
and CDA, *CDA*, 1-1
definition, *System Generation*, 1-1
example, *System Generation*, D-2 to D-52
feature (half-duplex), *I/O Drivers*, 3-28
flow, *System Generation*, 1-2 to 1-4
glossary, *System Generation*, 1-7 to 1-14
incorporating a driver, *Writing I/O Driver*, 5-1
option (TTDRV), *I/O Drivers*, 2-17, 2-77
System image
description of, *System Generation*, 5-5
file, *System Generation*, 3-77
location, *MCR*, 3-187
saving, *MCR*, 3-187
devices, *MCR*, 3-187
size, *MCR*, 3-187
transporting, *MCR*, 3-36, 3-190
System Image File
assigning SY: and LB:, *System Management*, 10-1
bootstrap, *System Management*, 10-1
creating, *System Management*, 10-18
relationship to symbol definition file, *System Management*, 10-1
size, *System Management*, 10-18
VMR prompt, *System Management*, 10-3
/SYSTEM keyword
ASSIGN command (VMR), *System Management*, 10-10
System Macro Library, *Executive*, 1-5 *I/O Drivers*, 1-4
System reconfiguration, *System Management*, 15-1
System recovery, *System Management*, 15-31
methods, *System Management*, 15-31
SYSTEM SERVICE MESSAGE
command, *Error Logging*, 1-3 *MCR*, 1-8, 3-273
example, *MCR*, 3-273
format, *MCR*, 3-273
System-state
register convention, *Writing I/O Driver*, 7-1
System statistics
Resource Accounting, *System Management*, 17-5
System status
displaying, *Command Language*, 8-15 to 8-18
SYSTEM symbol, *Indirect*, 2-16
System Task Directory, *MCR*, 1-5, 3-116, 3-182, 3-189 *System Management*, 10-31
See also STD
dump, *CDA*, 3-44
installing task, *MCR*, 2-23, 3-179
removing task, *MCR*, 3-175
switch
See /STD switch
System Time Change Transaction Block, *System Management*, 17-29
System UFDs, *System Management*, B-3t to B-4t
example, *System Management*, B-3
System users
displaying, *Command Language*, 8-13 to 8-14
/SYSUIC keyword
SET command (MCR), *MCR*, 3-257
SET command (VMR), *System Management*, 10-77
SYSUIC symbol, *Indirect*, 2-21
SYSVMR.CMD
definition, *System Generation*, 3-77
SYTYP symbol, *Indirect*, 2-21
SYUNIT symbol, *Indirect*, 2-16
/SZ switch
LBR utility, *Utilities*, 10-30

T

T-bit trace trap, *Task Builder*, 10-51, 11-75
TA11 cassette
SYSGEN question, *System Generation*, 3-47
TA11 tape cassette, *I/O Drivers*, 9-1
TAB, *Writing I/O Driver*, A-5
Resource Accounting, *System Management*, 17-11
Tab, *Command Language*, 3-24
ignoring in command line, *I/O Operations*, 7-8
vertical, *Command Language*, 3-24

Tab character
half-duplex, *I/O Drivers*, 3-15
TTDRV, *I/O Drivers*, 2-69
vertical, *I/O Drivers*, 2-69
TAB key, *Introduction*, 5-8
Table
definition, *Error Logging*, 5-36
RPT use, *Error Logging*, 5-36
storage, *Task Builder*, F-2 to F-7
memory
improving performance, *Task Builder*, F-2
Table Driven Parse
See TPARS
Table of contents
sample listing, *MACRO-11*, 6-16
text generation, *MACRO-11*, 6-15
Table parameter (TTDRV)
general, *I/O Drivers*, 2-11
IO.RTT function, *I/O Drivers*, 2-46
TABLE statement, *Error Logging*, 5-37
TAB ON/OFF command
EDI utility, *Utilities*, 2-46
TAL
See TASKLIST-ATL command
/TAL switch, *CDA*, 2-5, 2-8
Tape
See also ANSI magnetic tape
See also Medium
ANSI file structure, *I/O Operations*, 5-1
backing up
BRU utility, *Utilities*, 7-1
comparing
DSC utility, *Utilities*, 8-14
control task, *I/O Operations*, G-11
conventional backup
BRU utility, *Utilities*, 7-4
copying
BRU utility, *Utilities*, 7-1
data format, *I/O Operations*, 1-7
density, *I/O Drivers*, 8-9
end-of-file label, *I/O Operations*, G-9
end-of-volume label, *I/O Operations*, G-8
file processing, *I/O Operations*, 5-4
fixed length records, *I/O Operations*, 1-7
formatting
FLX utility, *Utilities*, 4-4
full backup
BRU utility, *Utilities*, 7-3
Tape (cont'd.)
logical EOT (CTDRV), *I/O Drivers*, 9-8
mounting
BRU utility, *Utilities*, 7-2
nolabel, block size (tape driver), *I/O Drivers*, 8-18
owner ID field, *I/O Operations*, G-2
position (DDDRV), *I/O Drivers*, 7-4
position, file open, *I/O Operations*, 2-16
positioning, *I/O Operations*, G-17
position to next file, *I/O Operations*, 5-5
power fail, *I/O Drivers*, 1-43
processing example, *I/O Operations*, 5-8
read, indirect command file, *I/O Operations*, G-19
record format, *I/O Operations*, 5-4
restoring
BRU utility, *Utilities*, 7-1
selective backup
BRU utility, *Utilities*, 7-3
setting block size
PIP utility, *Utilities*, 3-15
structure (CTDRV), *I/O Drivers*, 9-6
transferring data
DSC utility, *Utilities*, 8-26
translation, *I/O Operations*, G-17
unlabeled, *I/O Operations*, G-16
block size, *I/O Operations*, G-16
user file label, *I/O Operations*, G-9
user volume label, *I/O Operations*, G-3
variable length record, *I/O Operations*, 1-7
verifying
VFY utility, *Utilities*, 9-1
volume access, *I/O Operations*, 5-5
volume label, *I/O Operations*, G-1
/TAPE_LABEL qualifier
BRU utility, *Utilities*, 7-21
Tape density switch
See /DENS switch
Tape driver, *I/O Drivers*, 8-1
consecutive tape mark, *I/O Drivers*, 8-17
device characteristic, *I/O Drivers*, 8-3
programming hint, *I/O Drivers*, 8-15

Tape driver (cont'd.)
resetting transport status, *I/O Drivers*, 8-17
Tape file
attributes, specifying, *I/O Operations*, G-17
header block, *I/O Operations*, G-10
header label, *I/O Operations*, G-3
header label (HDR1), *I/O Operations*, G-4
header label (HDR2), *I/O Operations*, G-5
header label (HDR3), *I/O Operations*, G-6
identifier processing, *I/O Operations*, G-7
label, *I/O Operations*, G-1
structure, *I/O Operations*, G-9
Tape handling
end-of-tape, *I/O Operations*, G-10
Tape mark, *RMS-11 Introduction*, 2-5
Tape Mass Storage Control Protocol
See TMSCP
Tape standard, ANSI, *I/O Operations*, G-1
TARGET attribute
RMSDES utility, *RMS-11 Utilities*, 2-30
Target system, *Task Builder*, C-1 to C-5
definition, *System Generation*, 1-13
description, *Task Builder*, C-1, C-2
disk
definition, *System Generation*, 2-2
types, *System Generation*, 2-2
transferring
example, *Task Builder*, C-3 to C-5
task, *Task Builder*, C-1
to host, *Task Builder*, C-2
TAS
See TASKLIST command
Task, *Command Language*, 7-1 *Introduction*, 5-1, 5-2
abort, *Program Development*, 4-8
aborted, *MCR*, 3-283
aborting, *Command Language*, 7-17 to 7-20 *Executive*, 5-8, 5-224 *MCR*, 2-24, 3-3
CRDRV, *I/O Drivers*, 11-10
DTDRV, *I/O Drivers*, 6-8
LPDRV, *I/O Drivers*, 10-7
tape driver, *I/O Drivers*, 8-16
Task
aborting (cont'd.)
VT11/GRDRV, *I/O Drivers*, 21-4
access
system-owned common or library, *Task Builder*, 12-12, 12-24
system-owned supervisor mode library, *Task Builder*, 12-37
user-owned common, *Task Builder*, 12-30
user-owned library, *Task Builder*, 12-30
user-owned supervisor mode library, *Task Builder*, 12-33
accessing, *MCR*, 3-122
access rights, *MCR*, 2-20
access to commons, *System Management*, 10-25
activating, *Executive*, 5-167
activating, unsolicited interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-24
active, *Command Language*, 7-1 to 7-2 *Introduction*, 6-5 *MCR*, 1-5, 2-23, 3-14, 3-76
displaying, *Command Language*, 7-55 to 7-60 *MCR*, 3-31
dynamic display, *Command Language*, 7-64 to 7-68
list, *MCR*, 3-31
active file
declaring number, *Task Builder*, 12-7
additional memory, *Task Builder*, 12-16
address
accessing, *MCR*, 3-166
space
allocating, *MCR*, 3-183
windows
declaring additional, *Task Builder*, 12-45
addressing, *Executive*, 3-1
after exit, *System Management*, 10-92
Ancillary Control Processor
specifying, *Task Builder*, 10-5, 11-11
assigning physical device to LUN, *Task Builder*, 12-8

Task (cont'd.)
attached, *MCR*, 1-3, 2-15, 2-19
attaching slave attribute, *Task Builder*, 10-45, 11-68
attributes
list of, *Task Builder*, 10-37, 11-41 to 11-49
blocked, *I/O Drivers*, 1-10 *MCR*, 2-21, 3-283
priority, *MCR*, 3-34
blocking, *Command Language*, 7-24 to 7-25 *Executive*, 5-270, 5-272
breakpoints
setting, *Program Development*, 5-6
building, *MCR*, 3-123 *Program Development*, 4-1, 7-6
command line, *Task Builder*, 1-2
default partition, *MCR*, 3-119
device driver, *MCR*, 3-134
for target system, *Task Builder*, C-1
header, *MCR*, 3-123
name, *MCR*, 3-121
building time, *Task Builder*, F-2
canceling, *MCR*, 3-45
canceling time-synchronized requests, *Executive*, 5-60
catchall, *MCR*, 3-179
chaining, *Executive*, 4-2, 5-195
changing
priority, *Executive*, 5-13
size, *Executive*, 5-84
state, *Executive*, 1-22, 1-24
changing name, *Task Builder*, 12-38
checkpoint (VTDRV), *I/O Drivers*, 4-5
checkpointability
disabling, *Executive*, 5-66
enabling, *Executive*, 5-77
checkpointable, *System Management*, 10-18 *Task Builder*, 10-6
specifying, *Task Builder*, 10-6, 10-10, 11-13, 11-14
checkpointing, *MCR*, 2-20, 3-33, 3-75, 3-117, 3-118, 3-182 *System Management*, 10-22, 10-28 *Writing I/O Driver*, 1-14
CLI
removing, *MCR*, 3-175
common
fixing, *MCR*, 3-75
installing, *MCR*, 3-120, 3-184

Task
common (cont'd.)
unfixing, *MCR*, 3-284
common region
mapping count, *MCR*, 3-46
synchronizing, *MCR*, 3-121
comparison
conventional and I- and D-space, *Task Builder*, 7-2
completion routine, *Task Builder*, 12-11
connecting, *Executive*, 4-1, 5-192, 5-265
continuing, *Command Language*, 7-21 to 7-22
control commands, *MCR*, 1-7
conventional
autoload vector, *Task Builder*, B-17
disk image, *Task Builder*, 7-5
mapping compared to I- and D-space task, *Task Builder*, 7-2
correcting, *Program Development*, 4-9
CPU affinity
removing, *Executive*, 5-162
creating, *MCR*, 2-21
dynamic region, *Task Builder*, 5-40 to 5-44
multiuser, *Task Builder*, 10-29, 11-67
data
needed by system to install, *Task Builder*, B-1
task image, *Task Builder*, B-4, B-5, B-6
debugging, *Executive*, 5-242 *MCR*, 3-58 *Program Development*, 4-9, 7-7, 7-8, 7-9
declaring
execution priority, *Task Builder*, 12-29
maximum stack size, *Task Builder*, 12-36
number of LUNs, *Task Builder*, 12-41
object-level patch, *Task Builder*, 12-6
ODT SST vector, *Task Builder*, 12-26
decrementing I/O count, *Writing I/O Driver*, 1-14

Task (cont'd.)
default conditions, *Program Development*, 4-4, 4-5, 4-7, 4-8
definition, *MCR*, 2-19
delaying, *Executive*, 5-125
detaching from region, *Executive*, 5-67
device independence, *MCR*, 2-12
disable offspring (VTDRV), *I/O Drivers*, 4-5
disk image, *Task Builder*, 2-8
displaying, *MCR*, 3-275
dormant, *Command Language*, 7-1 *Introduction*, 6-5 *MCR*, 2-23, 3-116
D-space
overlay structure, *Task Builder*, 3-22
dynamic memory, *MCR*, 3-183
enabling
Postmortem Dump, *Task Builder*, 10-32, 11-54
T-bit trace trapping, *Task Builder*, 10-51, 11-75
event driven, *I/O Drivers*, 1-11
event flags, *MCR*, 3-77
executing, *Command Language*, 7-5 to 7-16 *MCR*, 3-116
in parallel, *Indirect*, 2-95
resources, *MCR*, 3-117
execution termination, *System Management*, 4-24
exiting, *MCR*, 1-5
exiting, CTRL/Z (TTDRV), *I/O Drivers*, 2-70
exiting with status, *Executive*, 5-82
extending, *MCR*, 3-118
memory, *Task Builder*, 12-16
program section, *Task Builder*, 12-15
to partition length, *Task Builder*, 12-16
extension size, *System Management*, 10-24
external header
specifying, *Task Builder*, 10-53, 11-31
file
LINK command, *Task Builder*, 1-5
file identification, *System Management*, 10-32

Task (cont'd.)
fixed, *Debugging*, 5-6, 9-2 *System Management*, 10-18
fixing, *Command Language*, 7-41 to 7-42
fixing in memory, *MCR*, 3-75
restrictions, *MCR*, 3-75
floating point processor in
specifying, *Task Builder*, 10-18, 11-17
format buffer
declaring length, *Task Builder*, 12-17
frequency of accessing data areas, *Writing I/O Driver*, 1-15
getting parameters, *Executive*, 5-119
global relative patch
declaring, *Task Builder*, 12-20
global symbol
excluding, *Task Builder*, 12-22
including, *Task Builder*, 12-19
global symbol definition
declaring, *Task Builder*, 12-18
global symbol reference
declaring, *Task Builder*, 12-21
header, *Task Builder*, 2-8, 2-9
allocating additional checkpoint space, *Task Builder*, 10-6, 11-14
checkpoint area within, *Task Builder*, B-9
controlling creation, *Task Builder*, 10-20, 11-35
external, *MCR*, 3-122
fixed part, *Task Builder*, B-11, B-12
I- and D-space, *Task Builder*, 7-10
installing, *MCR*, 3-122
options, *MCR*, 3-123
space for EAE context, *Task Builder*, 10-16, 11-16
space for floating-point context, *Task Builder*, 10-18, 11-17
variable part, *Task Builder*, B-12
host to target system
transferring
example, *Task Builder*, C-3 to C-5
I- and D-space, *Task Builder*, 2-27
autoload vector, *Task Builder*, 7-8, B-17, B-18

Task
I- and D-space (cont'd.)
description, *Task Builder*, 7-1 to 7-15
differing from conventional task, *Task Builder*, 2-27
manual load calling sequence, *Task Builder*, 4-8, 4-9, 4-11
map, *Task Builder*, 7-8
mapping, *Task Builder*, 7-3, 7-4
compared with conventional mapping, *Task Builder*, 7-2
mapping summary, *Task Builder*, 7-2
memory allocation, *Task Builder*, 7-8, 7-9, 7-10
overlaid, *Task Builder*, 7-5
overlay region vector, *Task Builder*, 5-13, 5-14
overlay structure, *Task Builder*, 3-21, 3-22
program section in overlay, *Task Builder*, 7-5, 7-6
simplified mapping, *Task Builder*, 2-28
specifying, *Task Builder*, 10-21, 11-15
.STB file, *Task Builder*, 7-8
up-tree segment, *Task Builder*, 3-22
identification
for I- and D-space, *Task Builder*, 7-1
identification change, *Task Builder*, 12-23
identifying partition, *Task Builder*, 12-27
image, *Introduction*, 5-3 *Program Development*, 1-6, 4-1, 7-6 *Task Builder*, B-1, B-14
creating, *Program Development*, 4-1, 4-2, 7-5, 7-6
file structure description, *Task Builder*, B-1 to B-22
on disk
linked to overlaid library, *Task Builder*, B-2
nonoverlaid, *Task Builder*, B-2
overlaid, *Task Builder*, B-3
overlaid I- and D-space, *Task Builder*, B-4

Task (cont'd.)
image file, *Introduction*, 5-6 *MCR*, 3-35, 3-116, 3-175, 3-179, 3-182, 3-187
creating, *MCR*, 2-21
installing, *MCR*, 2-21
patching
ZAP utility, *Utilities*, 15-1
STD entry, *MCR*, 1-5
including debugging aid (ODT), *Task Builder*, 10-14, 11-25, 11-26
inhibiting queuing message, *Task Builder*, 10-35, 11-57
initiation
IOX
EXECUTE command, *System Management*, 4-37
installation, *Command Language*, 7-28 to 7-38
installed, *Command Language*, 7-1 to 7-2, 7-3, 7-12 to 7-16 *MCR*, 1-5
blocking, *MCR*, 3-34
displaying, *Command Language*, 7-60 to 7-63 *MCR*, 3-276
removing, *Executive*, 1-24
installed name
declaring, *Task Builder*, 12-38
installing, *MCR*, 1-5, 2-23, 3-116, 3-120 *System Generation*, 4-6
on pregenerated kit, *System Generation*, 5-40
time limit, *MCR*, 3-121
install options, *System Management*, 10-29
label block, *Task Builder*, 2-8
label block 0, *Task Builder*, B-7
label block 1, *Task Builder*, B-9
label block 2, *Task Builder*, B-9
label block 3, *Task Builder*, B-9
linking
counter interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-26
digital interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-25
error interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-27
ICS/ICR common block, *I/O Drivers*, 19-76
supervisor mode library, *Task Builder*, 8-14, 8-15, 8-16

Task
linking (cont'd.)
terminal interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-27
to interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-64, 19-66
to region, *Task Builder*, 5-15
to region in I- and D-space system, *Task Builder*, 7-3
to several libraries, *Task Builder*, 12-9, 12-10
loading, *MCR*, 3-75
partition, *MCR*, 3-133
logical assignment, *MCR*, 3-20
logical unit number (LUN), *Task Builder*, 12-41
macro calls, *Program Development*, 6-3, 6-4
map, *Program Development*, 4-5
full, *Program Development*, 4-7
linked to a common, *Task Builder*, 5-25
standard, *Program Development*, 4-5, 4-6
mapping, *MCR*, 3-118, 3-183 *Task Builder*, 2-14, 2-18, 2-19, 2-20 to 2-23
maximum record buffer size
declaring, *Task Builder*, 12-25
memory, *Task Builder*, 2-9
memory allocation, *Task Builder*, 2-6
memory management
use of, *Task Builder*, 2-15
memory management support, *System Management*, 10-18
memory-resident overlay operator
enabling, *Task Builder*, 10-34, 11-58
memory-resident overlay segment
changing alignment, *Task Builder*, 10-8, 11-20
multisegment
See also Overlay
global symbol resolution, *Task Builder*, 3-17
overlay, *Task Builder*, 3-5
multiuser, *Task Builder*, 2-26
See also Multiuser task
declaring read-only partition, *Task Builder*, 12-35
specifying, *Task Builder*, 10-29, 11-67

Task (cont'd.)
name, *Introduction*, 5-11
CLI, *System Management*, 11-4
naming, *MCR*, 1-5, 2-14, 2-21, 2-22, 2-24, 3-121, 3-185
nonprivileged, *MCR*, 2-20
definition, *System Generation*, 3-73
directive restrictions, *Executive*, 1-25
list, *System Generation*, 3-74
SYSGEN question, *System Generation*, 3-74
object file, *MCR*, 2-21
object library routines, *Program Development*, 6-6
ODT vector, *Task Builder*, 12-26
offspring, *Executive*, 4-1
offspring (VTDRV), *I/O Drivers*, 4-1
overlaid, *Task Builder*, 3-7
global cross-reference, *Task Builder*, 4-12, 4-13
I- and D-space
disk image, *Task Builder*, 7-7
map, *Task Builder*, 7-11 to 7-15
tree, *Task Builder*, 7-6
virtual address, *Task Builder*, 7-6
memory resident, *Task Builder*, 3-9
memory saving, *Task Builder*, 3-9, 3-10
segment call, *Task Builder*, 3-10
virtual address space, *Task Builder*, 3-10
overlay, *MCR*, 3-118
introduction, *Task Builder*, 2-9
overlaying, *Executive*, 3-1
parent, *Executive*, 4-1
parent (VTDRV), *I/O Drivers*, 4-1
partition, *MCR*, 2-20
declaring, *Task Builder*, 12-27
installing, *MCR*, 3-183, 3-267
specifying size, *MCR*, 3-118, 3-183
system-controlled, *MCR*, 3-118
patching
D-space, *Task Builder*, 12-14
I- space, *Task Builder*, 12-6
with object code, *Task Builder*, 12-6

Task (cont'd.)
Postmortem Dump, *Task Builder*, D-1
priority, *MCR*, 2-21, 3-257
altering, *MCR*, 3-3, 3-19
base, *MCR*, 3-243
running, *MCR*, 3-3, 3-19
setting, *Command Language*, 7-71 to 7-72
specifying, *MCR*, 3-119, 3-184
static, *MCR*, 3-19
privileged, *Debugging*, 9-1 *MCR*, 2-20, 3-183
See also Privileged task
break through (TTDRV), *I/O Drivers*, 2-16
break-through write (TTDRV), *I/O Drivers*, 2-17
debugging with ZAP, *Debugging*, 8-8
mapping, *Executive*, 3-19, 5-246
Processor Status Word, *MCR*, 3-58
program section order
effect in creating, *Task Builder*, 10-36, 10-47, 11-60, 11-64
prompt, *MCR*, 1-3, 2-14
proper state to initiate buffered I/O, *Writing I/O Driver*, 1-14
protecting, *MCR*, 3-122, 3-185
prototype
installing, *MCR*, 3-121
read activating data (ICDRV/ISDRV), *I/O Drivers*, 19-28
reassigning, *MCR*, 3-172
receiving next CLI command, *Executive*, 5-205
reexecuting, *System Management*, 10-18
relocation, *Task Builder*, 2-2
mapped system, *Task Builder*, 2-16
remove interrupt link (ICDRV/ISDRV), *I/O Drivers*, 19-68
example, *I/O Drivers*, 19-69
removing, *Command Language*, 7-39 to 7-40 *MCR*, 3-175 *System Management*, 10-18
requesting, *Executive*, 5-167, 5-192, 5-195, 5-212, 5-265
resident, *Introduction*, 6-5 *MCR*, 3-75

Task
resident common
system-owned, *Task Builder*, 12-12, 12-24
resident library
system-owned, *Task Builder*, 12-12, 12-24
restrictions for fixing, *System Management*, 10-18
resuming, *Executive*, 5-176 *MCR*, 3-177
returning status, *Executive*, 4-3, 5-75
running, *Executive*, 5-177 *Introduction*, 5-2 *MCR*, 1-5, 2-11, 2-20, 2-24, 3-178 to 3-186 *Program Development*, 4-7, 4-8, 7-6
options
immediate, *MCR*, 3-186
install-run-remove, *MCR*, 3-186
reschedule interval, *MCR*, 3-180
UIC, *MCR*, 3-185
uninstalled, *MCR*, 3-179
single segment
overlay, *Task Builder*, 3-4, 3-8
size, *MCR*, 3-118 *RMS-11 User's Guide*, 2-5 *System Management*, 10-63
slaved, *MCR*, 3-120, 3-184
specifying, *Task Builder*, 10-45, 11-68
spawning, *Executive*, 4-1, 4-5 *MCR*, 2-23, 3-183, 3-186
specifications
multiple, *Task Builder*, 1-11
specifying
data space in I- and D-space, *Task Builder*, 7-4
KE11-A, *Task Builder*, 10-16, 11-16
spooling print job, *I/O Operations*, 8-1
SST, *Program Development*, 4-8
SST vector address
declaring, *Task Builder*, 12-39
stack size
declaring, *Task Builder*, 12-36
starting, *Command Language*, 7-26
status flags
displaying, *MCR*, 3-31
list of, *MCR*, 3-32 to 3-33

Task (cont'd.)
stopping, *Executive*, 5-238, 5-240, 5-241
structure, *RMS-11 User's Guide*, 1-13 *Task Builder*, 2-8
label block, *Task Builder*, 2-8
subpartition, *MCR*, 2-21
supervisor mode library, *Task Builder*, 12-33, 12-37
suspending, *Executive*, 5-209, 5-268, 5-270, 5-272
system, *MCR*, 3-257 *Program Development*, 1-1
library contributions, *Program Development*, 4-7
mapping statusof of, *Task Builder*, 10-26
system size, *System Management*, 10-18
terminal
attached, *MCR*, 2-19
slave, *MCR*, 2-19
terminating, *Executive*, 5-78, 5-80
termination, *Program Development*, 4-8
testing, *Indirect*, 2-61, 2-62
time-based schedule request
declaring UIC, *Task Builder*, 12-40
time limit
specifying, *MCR*, 3-185
traceable
specifying, *Task Builder*, 10-51, 11-75
transfer (starting) address
default, *Program Development*, 4-3, 4-8
defining, *Program Development*, 2-7
transferring command line, *Executive*, 5-106
UIC, *MCR*, 3-263
declaring, *Task Builder*, 12-40
specifying, *MCR*, 3-122
unblocked, *MCR*, 3-283
unblocking, *Command Language*, 7-27
unfixing, *MCR*, 3-284
unfixing from memory, *System Management*, 10-92
unlinking (ICDRV/ISDRV)
from all digital interrupt, *I/O Drivers*, 19-30
Task
unlinking (ICDRV/ISDRV) (cont'd.)
from all interrupt, *I/O Drivers*, 19-30
from counter interrupt, *I/O Drivers*, 19-30
from error interrupt, *I/O Drivers*, 19-31
from interrupt, *I/O Drivers*, 19-29
from terminal interrupt, *I/O Drivers*, 19-31
unloading, *MCR*, 3-75
unstopping, *Executive*, 5-256
user
data space definition, *Task Builder*, 7-1
vector address
declaring system SST trap, *Task Builder*, 12-39
virtual program section
specifying, *Task Builder*, 12-44
window, *Task Builder*, 2-19 to 2-23
I- and D-space, *Task Builder*, 7-4
with external headers, *System Management*, 10-28
with resident headers, *System Management*, 10-28
XEDRV connection, *I/O Drivers*, 13-22
Task/File Patch Program
See ZAP utility
Task Account Block, *System Management*, 17-3, 17-22 *Writing I/O Driver*, A-5
Task accounting
Resource Accounting, *System Management*, 17-6
Task buffer descriptor, *I/O Operations*, 3-10
Task build
See TKB
Task Builder, *Introduction*, 5-6 to 5-7 *RMS-11 User's Guide*, 1-13
Best reference, *Task Builder*
See also Linker
See also TKB
and remote access code, *RMS-11 User's Guide*, B-1
fast
See FTB

Task-build file
location of IOX, *System Management*, 4-22
Task Control Block, *System Management*, 10-31
See also TCB
Task Control Block switch
See /ACT switch
See /ATL switch
Task data space
dump, *CDA*, 3-53
switch
See /TDS switch
Task dump, *CDA*, 3-48
window blocks, *CDA*, 3-48
Task execution
aborting, *Debugging*, 1-5
beginning, *Debugging*, 2-9, 3-2, 9-12
continuing, *Debugging*, 2-10, 3-3
resuming, *Debugging*, 1-5, 3-4
Task Exit directive, *Executive*, 5-80
Task header, *Writing I/O Driver*, 6-9
composite arrangement, *Writing I/O Driver*, 2-13
dump, *CDA*, 3-28
Directive Status Word, *CDA*, 3-28
File Control Block, *CDA*, 3-29
Logical Unit Table, *CDA*, 3-28
Page Description Register, *CDA*, 3-29
swapping priority, *CDA*, 3-28
window blocks, *CDA*, 3-29
out-of-pool
SYSGEN question, *System Generation*, 3-23
pointers, *Writing I/O Driver*, 6-8
pointer to, *CDA*, 3-20
switch
See /HDR switch
Task identification symbol, *Task Builder*, A-26
Task image file (.TSK), *Command Language*, 6-1, 6-3, 6-10, 7-8 to 7-12
Task instruction space
dump, *CDA*, 3-53
switch
See /TIS switch
/TASK keyword
INSTALL command (MCR), *MCR*, 3-121
/TASK keyword (cont'd.)
INSTALL command (VMR), *System Management*, 10-27
RUN command (MCR), *MCR*, 3-184
TASKLIST-ATL command, *MCR*, 1-7, 3-275
examples, *MCR*, 3-275
format, *MCR*, 3-275
parameters, *MCR*, 3-275
TASKLIST command (MCR), *MCR*, 1-7, 3-276
error messages, *MCR*, 3-277
examples, *MCR*, 3-276
format, *MCR*, 3-276
parameters, *MCR*, 3-276
TASKLIST command (VMR), *System Management*, 10-88
definition, *System Management*, 10-88
display contents, *System Management*, 10-88
examples, *System Management*, 10-88 to 10-89
format, *System Management*, 10-88
parameter, *System Management*, 10-88
Task map, *Debugging*, 1-2, 1-3, 5-6
Task name, *Command Language*, 7-2 to 7-5
TASK option, *Task Builder*, 12-38
Task option
list, *Executive*, 5-248
testing, *Executive*, 5-248
/TASK qualifier, *Task Builder*, 11-72 to 11-73
designation, *Task Builder*, 11-2
Task record buffer, *I/O Operations*, 3-23
Task region, *Executive*, 3-4
/TASKS keyword
COMMON BLOCK DIRECTORY command, *MCR*, 3-46
Task status flags, *Command Language*, 7-57 to 7-59
/TASK subkeyword, *MCR*, 3-52
/TASK switch, *CDA*, 2-5, 2-8
Task termination message, *Command Language*, 10-18 to 10-20
Task Termination Notification program
See TKTN
Task virtual address space switch, *CDA*, 2-8
/TAS switch, *CDA*, 2-5, 2-8

/TB switch
CMP utility, *Utilities*, 12-3
PIP utility, *Utilities*, 3-26
TC.8BC characteristic (TTDRV), *I/O Drivers*, 2-55
TC.ABD characteristic (TTDRV), *I/O Drivers*, 2-52
TC.ACD characteristic (TTDRV), *I/O Drivers*, 2-52
TC.ACR characteristic (TTDRV), *I/O Drivers*, 2-52
TC.ANI characteristic (TTDRV), *I/O Drivers*, 2-52
TC.ASP characteristic (TTDRV), *I/O Drivers*, 2-52, 2-56
baud rate, modem support, *I/O Drivers*, 2-83
TC.AVO characteristic (TTDRV), *I/O Drivers*, 2-52
TC.BIN characteristic (TTDRV), *I/O Drivers*, 2-52
TC.BLK characteristic (TTDRV), *I/O Drivers*, 2-52
TC.CTS characteristic (TTDRV), *I/O Drivers*, 2-52, 2-57
TC.DEC characteristic (TTDRV), *I/O Drivers*, 2-52
TC.DLU characteristic (TTDRV), *I/O Drivers*, 2-52
modem support, *I/O Drivers*, 2-83
TC.EDT characteristic (TTDRV), *I/O Drivers*, 2-52
TC.EPA characteristic (TTDRV), *I/O Drivers*, 2-53
TC.ESQ characteristic (TTDRV), *I/O Drivers*, 2-53
TC.FDX characteristic
TTDRV, *I/O Drivers*, 2-53
VTDRV, *I/O Drivers*, 4-7
TC.HFF characteristic (TTDRV), *I/O Drivers*, 2-53
TC.HFL characteristic (TTDRV), *I/O Drivers*, 2-53
TC.HHT characteristic (TTDRV), *I/O Drivers*, 2-53
TC.HLD characteristic
half-duplex, *I/O Drivers*, 3-33
TTDRV, *I/O Drivers*, 2-53, 2-56
side effect, *I/O Drivers*, 2-62
TC.HSY characteristic (TTDRV), *I/O Drivers*, 2-53
TC.ICS characteristic (TTDRV), *I/O Drivers*, 2-53
TC.ISL characteristic (TTDRV), *I/O Drivers*, 2-53
TC.LPP characteristic (TTDRV), *I/O Drivers*, 2-53
TC.MHU characteristic (TTDRV), *I/O Drivers*, 2-53
buffer, *I/O Drivers*, 2-60
processing, *I/O Drivers*, 2-60
TC.NBR characteristic (TTDRV), *I/O Drivers*, 2-53
TC.NEC characteristic
half-duplex
echo, solicited input, *I/O Drivers*, 3-14
TTDRV, *I/O Drivers*, 2-54
TC.OOB characteristic (TTDRV), *I/O Drivers*, 2-54
buffer, *I/O Drivers*, 2-62
processing, *I/O Drivers*, 2-60, 2-61
TC.PAR characteristic (TTDRV), *I/O Drivers*, 2-54
TC.PPT characteristic (TTDRV), *I/O Drivers*, 2-54
TC.PRI characteristic (TTDRV), *I/O Drivers*, 2-54
TC.PTH characteristic (TTDRV), *I/O Drivers*, 2-54
TC.RAT characteristic (TTDRV), *I/O Drivers*, 2-54
TC.RGS characteristic (TTDRV), *I/O Drivers*, 2-54
TC.RSP characteristic (TTDRV), *I/O Drivers*, 2-54, 2-56
TC.SCP characteristic
TTDRV, *I/O Drivers*, 2-54
VTDRV, *I/O Drivers*, 4-7
TC.SFC characteristic (TTDRV), *I/O Drivers*, 2-54
TC.SLV characteristic (TTDRV), *I/O Drivers*, 2-54
TC.SMR characteristic
TTDRV, *I/O Drivers*, 2-54
side effect, *I/O Drivers*, 2-62
VTDRV, *I/O Drivers*, 4-7
TC.SMR characteristic (half-duplex), *I/O Drivers*, 3-33
TC.SSC characteristic (TTDRV), *I/O Drivers*, 2-54
buffer, *I/O Drivers*, 2-61
processing, *I/O Drivers*, 2-60
side effect, *I/O Drivers*, 2-62
TC.TBF characteristic (TTDRV), *I/O Drivers*, 2-54, 2-58

TC.TBM characteristic (TTDRV), *I/O Drivers*, 2-55
TC.TBS characteristic (TTDRV), *I/O Drivers*, 2-55
TC.TLC characteristic (TTDRV), *I/O Drivers*, 2-55
TC.TMM characteristic (TTDRV), *I/O Drivers*, 2-55
TC.TPP characteristic
  terminal type value (TTDRV), *I/O Drivers*, 2-56
TC.TSY characteristic (TTDRV), *I/O Drivers*, 2-55
TC.TTP characteristic
  half-duplex, *I/O Drivers*, 3-12, 3-16
  TTDRV, *I/O Drivers*, 2-55, 2-57
  VTDRV, *I/O Drivers*, 4-7
TC.VFL characteristic (TTDRV), *I/O Drivers*, 2-55
TC.WID characteristic (TTDRV), *I/O Drivers*, 2-55
TC.XSP characteristic (TTDRV), *I/O Drivers*, 2-55, 2-56
TC11 controller
  SYSGEN question, *System Generation*, 3-48
TC11 magnetic tape unit, *I/O Drivers*, 6-1
TCB, *MCR*, 3-31, 3-34 *Writing I/O Driver*, 1-14
  address of, *CDA*, 3-21, 3-24
  composite arrangement, *Writing I/O Driver*, 2-11
  creating, *MCR*, 3-116
  installing, *MCR*, 3-120
  pointer to current, *CDA*, 3-20
  removing, *MCR*, 3-116
  saving, *MCR*, 3-189
TCBDF$, *CDA*, B-41, C-71 *Writing I/O Driver*, A-60 to A-63
/TCB switch, *CDA*, 2-5, 2-8
/TDS switch, *CDA*, 2-5, 2-8
/TD switch
  PIP utility, *Utilities*, 3-40
TDX, *Indirect*, 2-2
TE10 magnetic tape unit, *I/O Drivers*, 8-1
TE16 magnetic tape
  SYSGEN question, *System Generation*, 3-38
TE16 magnetic tape unit, *I/O Drivers*, 8-1
Tef parameter
  device-specific function
    receive (LRDRV), *I/O Drivers*, 14-9
Telephone
  dial command string, *System Management*, 9-4
Teleprinter listing format, *MACRO-11*, 6-7, 6-8
  See also Listing control
Teletypewriter, *I/O Drivers*, 2-3
Temporary file
  See FB$TMP mask in FOP field
TEMPORARYFILE command
  IOX, *System Management*, 4-63
Term
  definition of, *MACRO-11*, 3-15, 3-16
Terminal, *Command Language*, 3-1 to 3-13 *Introduction*, 1-1, 1-5 *RMS-11 Macro*, 3-1, 5-20, 5-37, 5-42, 5-77, 5-88, 5-104, 5-111, 5-117
  attached, *Command Language*, 3-2
    MCR, 2-19
    half-duplex, *I/O Drivers*, 3-11
    several (half-duplex), *I/O Drivers*, 3-34
    VTDRV, *I/O Drivers*, 4-4
  baud rate, *Indirect*, 2-16 *System Management*, 9-2
    setting, *MCR*, 3-254
  buffer, *MCR*, 3-261
    read character (ICDRV/ISDRV), *I/O Drivers*, 19-61
  characteristic
    setting, *Command Language*, 3-38
    showing, *Command Language*, 3-53
  characteristics
    get multiple
      TTDRV, *I/O Drivers*, 2-51
      VTDRV, *I/O Drivers*, 4-6
    implicit (TTDRV), *I/O Drivers*, 2-57
    return (half-duplex), *I/O Drivers*, 3-11
    set
      TTDRV, *I/O Drivers*, 2-59
      VTDRV, *I/O Drivers*, 4-7
    setting, *Command Language*, 9-33 *MCR*, 3-197, 3-202 to 3-267

Terminal
characteristics (cont'd.)
showing, *Command Language*, 9-41
VTDRV, *I/O Drivers*, 4-6
characteristic table
half-duplex, *I/O Drivers*, 3-12
TTDRV, *I/O Drivers*, 2-52
VTDRV, *I/O Drivers*, 4-7
CLI
default, *MCR*, 3-79
cursor control (TTDRV), *I/O Drivers*, 2-80
definition of, *MCR*, 2-14
detach (VTDRV), *I/O Drivers*, 4-4
directory
default, *MCR*, 2-7
disconnect (TTDRV), *I/O Drivers*, 2-35
disconnect input (ICDRV/ISDRV), *I/O Drivers*, 19-24
displaying, *MCR*, 3-60
driver
extended I/O
SYSGEN question, *System Generation*, 3-30
full-duplex, *MCR*, 3-219
half-duplex, *MCR*, 3-258
emulation, *System Management*, 9-1 to 9-5
examining a listing, *Program Development*, 3-6, 3-7
full-duplex operation (TTDRV), *I/O Drivers*, 2-79
function code list, *I/O Drivers*, B-13
get support
half-duplex, *I/O Drivers*, 3-13
TTDRV, *I/O Drivers*, 2-18, 2-33
return, *I/O Drivers*, 2-34
hardcopy, *Introduction*, 1-1
input
checkpointing
half-duplex, *I/O Drivers*, 3-32, 3-35
TTDRV, *I/O Drivers*, 2-82
line length (half-duplex), *I/O Drivers*, 3-2
interface
See also Line interface
half-duplex, *I/O Drivers*, 3-30
support, *I/O Drivers*, 2-3
TTDRV, *I/O Drivers*, 2-81
Terminal (cont'd.)
line truncation (half-duplex), *I/O Drivers*, 3-31
monitoring many (TTDRV), *I/O Drivers*, 2-13
multiplexer
See Multiplexer
mute, *System Management*, 9-4
nonprivileged, *MCR*, 2-19
nonslaved, *MCR*, 3-253 *System Management*, 10-50
numbers, *MCR*, 2-22
output
controlling, *Program Development*, 3-7
output (ICDRV/ISDRV), *I/O Drivers*, 19-32
A/D controller restriction, *I/O Drivers*, 19-32
port, *System Management*, 9-1
privilege status, *MCR*, 2-19, 3-80
programming hint (TTDRV), *I/O Drivers*, 2-82
prompt, *MCR*, 1-3
read-pass-all, *MCR*, 3-250
remote, *MCR*, 3-202
displaying, *MCR*, 3-247
setting, *MCR*, 3-247
remote (ICDRV/ISDRV)
monitor example, *I/O Drivers*, 19-62
output, *I/O Drivers*, 19-50
session
accounting, *MCR*, 3-79
slave, *MCR*, 2-19
slaved, *Command Language*, 3-2 *MCR*, 3-80 *System Management*, 10-50
displaying, *MCR*, 3-253
setting, *MCR*, 3-252
speed
setting, *MCR*, 3-254
status return (TTDRV), *I/O Drivers*, 2-63
support, *I/O Drivers*, 3-13
ICDRV/ISDRV, *I/O Drivers*, 19-6
TTDRV, *I/O Drivers*, 2-2
VTDRV, *I/O Drivers*, 4-6
suppressing output (TTDRV), *I/O Drivers*, 2-69
synchronization
disabling, *MCR*, 3-261
setting, *MCR*, 3-261

Terminal (cont'd.)
system generation feature (half-duplex), *I/O Drivers*, 3-28
task
attaching, *MCR*, 2-15, 2-19
displaying, *MCR*, 3-60
name, *MCR*, 2-21, 2-22
running, *MCR*, 1-5, 2-14
type, *Indirect*, 2-17 *Program Development*, 1-12
setting, *MCR*, 3-258
SYSGEN question, *System Generation*, 3-56, 3-58, 3-60, 3-61, 3-62
typeahead, *System Management*, 9-5
type value (TTDRV), *I/O Drivers*, 2-56
UIC, *MCR*, 2-6
unattached, *MCR*, 2-19
video, *Introduction*, 1-1
virtual, *I/O Drivers*, 4-1
creating, *Executive*, 5-54
deallocating, *Executive*, 5-73
function code list, *I/O Drivers*, B-15
VT100, *Introduction*, 1-1, 1-2, 1-2 fig.
VT100-series, *Command Language*, 3-18
special keys, *Command Language*, 3-19
VT200-series, *Command Language*, 3-19
special keys, *Command Language*, 3-19
VT220, *Introduction*, 1-1, 1-3, 1-3 fig.
VT52, *Command Language*, 3-19
special keys, *Command Language*, 3-19
write (half-duplex), *I/O Drivers*, 3-11
Terminal argument indicator, *MACRO-11*, 3-2
Terminal device
See FB$TRM mask in DEV field
Terminal driver, *I/O Drivers*, 3-1
full-duplex
See TTDRV
half-duplex
supported devices, *I/O Drivers*, 3-1
supported interface, *I/O Drivers*, 3-2
Terminal driver (cont'd.)
virtual, *I/O Drivers*, 4-1
Terminal emulation, *System Management*, 1-3
establishing, *System Management*, 9-3
terminating, *System Management*, 9-3
Terminal expression indicator, *MACRO-11*, 3-2
Terminal Operations commands, *Command Language*, 1-3
Terminal register indicator, *MACRO-11*, 3-2
Terminating
RMSBCK utility, *RMS-11 Utilities*, 6-2
RMSCNV utility, *RMS-11 Utilities*, 4-4
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Utilities*, 2-2, 2-9, 2-12
RMSDSP utility, *RMS-11 Utilities*, 5-2
RMSIFL utility, *RMS-11 Utilities*, 3-2
processing, *RMS-11 Utilities*, 3-12
RMSRST utility, *RMS-11 Utilities*, 7-2
Terminating directive
See .END directive
Terminator
stream records, *RMS-11 Introduction*, 3-4 *RMS-11 User's Guide*, 2-16
/TERM keyword
ABORT command (MCR), *MCR*, 3-4
ACTIVE command, *MCR*, 3-14
ALLOCATE command (MCR), *MCR*, 3-16
ALTER command (MCR), *MCR*, 3-19
ASSIGN command (MCR), *MCR*, 3-28, 3-29
BLOCK command, *MCR*, 3-34
DEFINE LOGICALS command (MCR), *MCR*, 3-67, 3-68
DISMOUNT command (MCR), *MCR*, 3-71
RESUME command, *MCR*, 3-177
SET command (MCR), *MCR*, 3-258

/TERM keyword (cont'd.)
SET command (VMR), *System Management*, 10-78 to 10-79
UNBLOCK command, *MCR*, 3-283
UNSTOP command, *MCR*, 3-287
T error, *MACRO-11*, 3-15, 5-10, 6-23
summary, *MACRO-11*, D-4
$TESTBITS macro, *RMS-11 Macro*, 2-17
Test configuration
IOX
pattern altering, *System Management*, 4-48
pattern displaying, *System Management*, 4-48
setup, *System Management*, 4-6
.TESTDEVICE directive, *Indirect*, 2-87
.TEST directive, *Indirect*, 2-85
.TESTFILE directive, *Indirect*, 2-89
Test for Specified System Feature directive, *Executive*, 5-86
Test for Specified Task Feature directive, *Executive*, 5-248
.TESTPARTITION directive, *Indirect*, 2-91
TE trap, *Debugging*, 1-5
Tevf parameter
device-specific function (UDDRV), *I/O Drivers*, 16-4
ICDRV/ISDRV, *I/O Drivers*, 19-11
IO.CCI function, *I/O Drivers*, 19-19
IO.CTI function, *I/O Drivers*, 19-21
IO.CTY function, *I/O Drivers*, 19-23
IO.LDI function, *I/O Drivers*, 19-25
IO.LKE function, *I/O Drivers*, 19-28
IO.LTI function, *I/O Drivers*, 19-26
IO.LTY function, *I/O Drivers*, 19-27
Text
buffer, *Program Development*, 1-3
displaying on terminal, *Indirect*, 2-33, 2-35, 2-38
editor, *Program Development*, 1-3, 1-4
See also EDI utility
See also EDT editor
information record, *Task Builder*, A-11, A-12
Text
information record (cont'd.)
format, *Task Builder*, A-12
TF.AST subfunction (TTDRV), *I/O Drivers*, 2-12
TF.BIN subfunction (TTDRV), *I/O Drivers*, 2-12
IO.EIO function, *I/O Drivers*, 2-26
IO.RPR function, *I/O Drivers*, 2-41
TF.CCO subfunction (TTDRV), *I/O Drivers*, 2-12
IO.EIO function, *I/O Drivers*, 2-26
IO.WAL function, *I/O Drivers*, 2-48
IO.WBT function, *I/O Drivers*, 2-50
TF.ESQ subfunction (TTDRV), *I/O Drivers*, 2-12
IO.ATA function, *I/O Drivers*, 2-22
TF.NOT subfunction (TTDRV), *I/O Drivers*, 2-13
IO.ATA function, *I/O Drivers*, 2-20, 2-22
TF.RAL subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-26
IO.RNE function, *I/O Drivers*, 2-39
IO.RPR function, *I/O Drivers*, 2-42
IO.RST function, *I/O Drivers*, 2-44
IO.RTT function, *I/O Drivers*, 2-46
TF.RCU subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-27
IO.RTT function, *I/O Drivers*, 2-46
IO.WAL function, *I/O Drivers*, 2-48
IO.WBT function, *I/O Drivers*, 2-50
TF.RDI subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-27
TF.RES subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-27
TF.RLB subfunction (TTDRV), *I/O Drivers*, 2-13
TF.RLU subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-27
TF.RNE subfunction (TTDRV), *I/O Drivers*, 2-13
IO.EIO function, *I/O Drivers*, 2-27
IO.RAL function, *I/O Drivers*, 2-37
IO.RPR function, *I/O Drivers*, 2-42
IO.RST function, *I/O Drivers*, 2-44
IO.RTT function, *I/O Drivers*, 2-46

TF.RNF subfunction (TTDRV), *I/O Drivers*, 2-14
IO.EIO function, *I/O Drivers*, 2-27
TF.RPR subfunction (TTDRV), *I/O Drivers*, 2-14
ignore prompt, *I/O Drivers*, 2-27
IO.EIO function, *I/O Drivers*, 2-27
TF.RPT subfunction (TTDRV), *I/O Drivers*, 2-14
IO.EIO function, *I/O Drivers*, 2-28
TF.RST subfunction (TTDRV), *I/O Drivers*, 2-14
IO.EIO function, *I/O Drivers*, 2-28
IO.RAL function, *I/O Drivers*, 2-37
IO.RNE function, *I/O Drivers*, 2-39
IO.RPR function, *I/O Drivers*, 2-42
set TF.RNE subfunction, *I/O Drivers*, 2-14
TF.RTT subfunction (TTDRV), *I/O Drivers*, 2-15
IO.EIO function, *I/O Drivers*, 2-28
with TF.RAL subfunction, *I/O Drivers*, 2-15
with TF.RNF subfunction, *I/O Drivers*, 2-15
with TF.TNE subfunction, *I/O Drivers*, 2-15
TF.TMO subfunction (TTDRV), *I/O Drivers*, 2-15
IO.EIO function, *I/O Drivers*, 2-28
IO.RAL function, *I/O Drivers*, 2-37
IO.RNE function, *I/O Drivers*, 2-37, 2-39
IO.RPR function, *I/O Drivers*, 2-42
IO.RST function, *I/O Drivers*, 2-44
IO.RTT function, *I/O Drivers*, 2-46
TF.TNE subfunction (TTDRV), *I/O Drivers*, 2-15
IO.EIO function, *I/O Drivers*, 2-29
TF.WAL subfunction (TTDRV), *I/O Drivers*, 2-15
IO.CCO function, *I/O Drivers*, 2-24
IO.EIO function, *I/O Drivers*, 2-29
IO.WBT function, *I/O Drivers*, 2-50
TF.WBT subfunction (TTDRV), *I/O Drivers*, 2-16
break-through write, *I/O Drivers*, 2-17, 2-24
IO.CCO function, *I/O Drivers*, 2-24
IO.EIO function, *I/O Drivers*, 2-29
IO.WAL function, *I/O Drivers*, 2-48
TF.WIR subfunction (TTDRV), *I/O Drivers*, 2-16
IO.EIO function, *I/O Drivers*, 2-29
TF.WLB subfunction (TTDRV), *I/O Drivers*, 2-16
TF.XCC subfunction (TTDRV), *I/O Drivers*, 2-16
IO.ATA function, *I/O Drivers*, 2-20, 2-22
TF.XOF subfunction (TTDRV), *I/O Drivers*, 2-16
IO.EIO function, *I/O Drivers*, 2-29
IO.RNE function, *I/O Drivers*, 2-39
IO.RPR function, *I/O Drivers*, 2-42
IO.RST function, *I/O Drivers*, 2-44
TFEA$ directive, *Executive*, 5-248
Throughput
improving TKB, *Task Builder*, F-1 to F-11
overlay
high-level language, *Task Builder*, 3-40
TI:, *Command Language*, 3-2, 5-7, 5-8
MCR, 2-11
Ticks parameter
synchronous QIO$ function (LSDRV), *I/O Drivers*, 17-5
TICLPP symbol, *Indirect*, 2-16
TICWID symbol, *Indirect*, 2-16
%TIM, *Error Logging*, 5-25
TIM
See TIME command
$TIM (Time conversion), *System Library*, 6-3
Time
displaying, *Command Language*, 8-4 *System Management*, 10-90
getting parameters, *Executive*, 5-117
setting, *Command Language*, 8-2 *Executive*, 5-235 *System Management*, 10-90
TIME command (MCR), *MCR*, 1-6, 3-278
examples, *MCR*, 3-279
format, *MCR*, 3-278
parameters, *MCR*, 3-278
TIME command (VMR), *System Management*, 10-90
definition, *System Management*, 10-90
examples, *System Management*, 10-90

TIME command (VMR) (cont'd.)
formats, *System Management*, 10-90
notes, *System Management*, 10-91
parameters, *System Management*, 10-90
Time conversion
time ($TIM), *System Library*, 6-3
Time handling function, *Error Logging*, 5-25
/TIME keyword
INSTALL command (MCR), *MCR*, 3-121
RUN command (MCR), *MCR*, 3-185
Time out
count (TTDRV), *I/O Drivers*, 2-15
LADRV, *I/O Drivers*, 22-35
parameter (UNIBUS switch driver)
IO.DPT function, *I/O Drivers*, 24-5
read (TTDRV), *I/O Drivers*, 2-28
unsolicited input (TTDRV), *I/O Drivers*, 2-17
Time-out
count, *Writing I/O Driver*, 4-40
entry point, *Writing I/O Driver*, 2-5
Timeout mode, *Indirect*, 2-49
Time parameter
RCLOKB: subroutine (K-series), *I/O Drivers*, 23-25
Timesharing, *Introduction*, 6-3
TIMOUT symbol, *Indirect*, 2-11
TISPED symbol, *Indirect*, 2-16
/TIS switch, *CDA*, 2-5, 2-8
.TITLE directive, *MACRO-11*, 6-15 *Program Development*, 2-3, 2-5, 6-7
TITYPE symbol, *Indirect*, 2-17
TK25 magnetic tape
SYSGEN question, *System Generation*, 3-48
TK25 magnetic tape unit, *I/O Drivers*, 8-2
TK50 kit
contents, *System Generation*, 2-5
TK50 magnetic tape
SYSGEN question, *System Generation*, 3-46
TK50 magnetic tape unit, *I/O Drivers*, 8-2
TKB, *Command Language*, 6-1, 6-6 to 6-9, 9-22 to 9-23 *MCR*, 2-20, 3-3, 3-122, 3-183 *Program Development*, 1-5, 1-6

TKB (cont'd.)
command line, *Task Builder*, 1-2
/CR, *Program Development*, 1-8, 4-6, 5-2
/CROSS_REFERENCE, *Program Development*, 1-8, 4-5, 5-1
/DA, *Program Development*, 5-2
/DA switch, *Debugging*, 10-1
/DEBUG, *Program Development*, 5-1
debugger
specifying, *Debugging*, 10-1
error, *Program Development*, 4-2, 4-8, 4-9
/FAST, *Program Development*, 4-4
fast version, *Program Development*, 4-4
function, *Task Builder*, 2-1 to 2-28
GBLPAT option, *Debugging*, 10-3
generating
cross-reference listing, *Program Development*, 4-5, 4-6
map
full, *Program Development*, 4-7
standard, *Program Development*, 4-5, 4-6
/INCLUDE, *Program Development*, 6-7, 6-8, 6-9
input, *Program Development*, 1-5, 1-6
input file, *Command Language*, 6-3 to 6-6
command, *Command Language*, 6-6
library, *Command Language*, 6-4 to 6-5
object, *Command Language*, 6-4, 6-10
overlay, *Command Language*, 6-5 to 6-6
/LB, *Program Development*, 6-7, 6-8, 6-9, 7-8
/LIBRARY, *Program Development*, 6-8, 6-9, 7-8
LINK command
DCL, *Program Development*, 1-5, 4-1, 5-1, 5-9, 6-7
linking
ODT, *Debugging*, 1-2
ODTID, *Debugging*, 1-3
supervisor libraries, *Debugging*, 1-4

TKB (cont'd.)
/LONG, *Program Development*, 4-7
/MA, *Program Development*, 4-7
/MAP, *Program Development*, 4-5, 4-7, 5-1, 5-9, 6-7, 6-8, 6-9
/NOTASK, *Program Development*, 4-5
/NOWIDE, *Program Development*, 4-5
object library
designation, *Program Development*, 6-4, 6-5
use, *Program Development*, 6-8, 6-9
option, *Task Builder*, 1-9
restarting, *Task Builder*, 12-5
output, *Program Development*, 1-6
output file
task image, *Command Language*, 6-10
PAT utility, *Utilities*, 14-4
/PM, *Program Development*, 5-9
/POSTMORTEM, *Program Development*, 5-9
qualifiers, *Task Builder*, 11-74
search of system library
default, *Program Development*, 1-11
/-SH, *Program Development*, 4-7
slow
specifying, *Task Builder*, 11-69
to improve performance, *Task Builder*, F-11
switch, *Task Builder*, 10-1
/CP, *MCR*, 3-117
/DA, *MCR*, 3-59
/IP, *MCR*, 3-118, 3-183
/XH, *MCR*, 3-123
symbol, *Command Language*, 6-8
undefined, *Program Development*, 4-2
/SYSTEM_LIBRARY_DISPLAY, *Program Development*, 4-7
/TASK, *Program Development*, 5-1, 6-7, 6-8, 6-9
task
object file, *MCR*, 2-9, 2-21
priority, *MCR*, 2-21
task creation, *Command Language*, 6-7
TKB command
MCR, *Program Development*, 1-5, 4-1, 5-2, 5-9, 6-7
TKB
transfer (starting) address
default, *Program Development*, 4-3
UNITS option, *Debugging*, 6-2
/-WI, *Program Development*, 4-6
TKB command
MCR, *Program Development*, 1-5, 4-1, 5-2, 5-9, 6-7
See also TKB
TKS field in KEY block
DISPLAY operation, *RMS-11 Macro*, 5-31
offset, *RMS-11 Macro*, 6-68
OPEN operation, *RMS-11 Macro*, 5-81
summary, *RMS-11 Macro*, 6-93
$TKTCB
pointer to current TCB, *Writing I/O Driver*, 6-7
TKTN, *MCR*, 3-3
abort message, *Program Development*, 4-8
messages, *MCR*, 3-5 to 3-8, A-1 to A-35
format, *MCR*, 3-5
using with PMD, *Program Development*, 1-7
TKTN message, *Command Language*, 10-18 to 10-20
TLOG$ directive, *Executive*, 5-250
TLON$ directive, *Executive*, 5-250
TM/TMA/TMB11 controller
SYSGEN question, *System Generation*, 3-53
TM02/03 formatter
SYSGEN question, *System Generation*, 3-38
TM02 formatter, *I/O Drivers*, 8-1
/TM02 switch
DSC utility, *Utilities*, 8-22
TM03 formatter, *I/O Drivers*, 8-1
Tmo parameter
device-specific function
half-duplex, *I/O Drivers*, 3-8
VTDRV, *I/O Drivers*, 4-4
TTDRV, *I/O Drivers*, 2-11
IO.RAL function, *I/O Drivers*, 2-36
IO.RNE function, *I/O Drivers*, 2-38
IO.RPR function, *I/O Drivers*, 2-41

Tmo parameter
TTDRV (cont'd.)
IO.RST function, *I/O Drivers*, 2-44
IO.RTT function, *I/O Drivers*, 2-46
VTDRV, *I/O Drivers*, 4-4
TMSCP controller
SYSGEN question, *System Generation*, 3-46
Tname parameter (ICDRV/ISDRV), *I/O Drivers*, 19-11
IO.LDI function, *I/O Drivers*, 19-25
IO.LKE function, *I/O Drivers*, 19-27
IO.LTI function, *I/O Drivers*, 19-26
IO.LTY function, *I/O Drivers*, 19-27
IO.NLK function, *I/O Drivers*, 19-30
IO.UDI function, *I/O Drivers*, 19-30
IO.UER function, *I/O Drivers*, 19-31
IO.UTI function, *I/O Drivers*, 19-30
TOC symbolic argument, *MACRO-11*, 6-12
TOF command
EDI utility, *Utilities*, 2-19, 2-47
TOP command
EDI utility, *Utilities*, 2-20, 2-47
TOP key (EDT), *Introduction*, 2-6
/TOP keyword
SET command (MCR), *MCR*, 3-259
SET command (VMR), *System Management*, 10-79 to 10-80
TOP OF FILE command
EDI utility, *Utilities*, 2-19, 2-47
Tout parameter
device-specific (UNIBUS switch driver), *I/O Drivers*, 24-4
TPARS
built-in variable, *I/O Operations*, 7-5
coding, *I/O Operations*, 7-1, 7-7
command line parsing, *I/O Operations*, 7-1
creating parser program, *I/O Operations*, 7-12
invoking, *I/O Operations*, 7-11
macro, *I/O Operations*, 7-1
options word, *I/O Operations*, 7-11
programming examples, *I/O Operations*, 7-14
TPARS (cont'd.)
program section, *I/O Operations*, 7-10
register usage, *I/O Operations*, 7-11
state table, *I/O Operations*, 7-1
subexpression, *I/O Operations*, 7-7
transition, *I/O Operations*, 7-1
Trace mode, *Indirect*, 2-49
Trace program, *Debugging*, 10-2
listing, *Debugging*, 10-2
format, *Debugging*, 10-2
/TRACE qualifier, *Task Builder*, 11-75
Tracing fault, *Writing I/O Driver*, 6-8, 6-12, 6-13
Track, *RMS-11 Introduction*, 2-1
See also Placement control
Track, bad sector (disk driver), *I/O Drivers*, 5-12
TRAN$ macro, *I/O Operations*, 7-1, 7-3
Transaction Account Block, *System Management*, 17-3
Transaction file
account block linkages, *System Management*, 17-38
account blocks, *System Management*, 17-11, 17-20
system account block (SAB), *System Management*, 17-11
task account block (TAB), *System Management*, 17-11
transaction account blocks, *System Management*, 17-11
user account block (UAB), *System Management*, 17-11
accumulation fields, *System Management*, 17-33
block diagrams, *System Management*, 17-22
card reader job data, *System Management*, 17-3
card reader spooling block, *System Management*, 17-36
crash recovery block, *System Management*, 17-35
DATATRIEVE-11, *System Management*, 17-16
device allocation, deallocation, or dismount data, *System Management*, 17-2
device mount data, *System Management*, 17-2
device statistics block, *System Management*, 17-37

Transaction file (cont'd.)
device usage data, *System Management*, 17-3
disk accounting block, *System Management*, 17-36
example, *System Management*, 17-12
header area, *System Management*, 17-32
invalid login block, *System Management*, 17-36
login data, *System Management*, 17-2
offset definitions, *System Management*, 17-32
print despooler block, *System Management*, 17-36
print job data, *System Management*, 17-2
SAB, *Writing I/O Driver*, A-5
set accounting block, *System Management*, 17-35
size, *System Management*, 17-5
system account block (SAB), *System Management*, 17-35
system data, *System Management*, 17-2
system time change, *System Management*, 17-3
system time change block, *System Management*, 17-36
TAB, *Writing I/O Driver*, A-5
task data, *System Management*, 17-1
UAB, *Writing I/O Driver*, A-5
user account block, *System Management*, 17-33
user data, *System Management*, 17-1
Transfer (starting) address
defining, *Program Development*, 2-7
system treatment of default, *Program Development*, 4-3, 4-8
Transfer address, program, *MACRO-11*, 6-39
Transfer address entry, *Task Builder*, A-6
Transient failures, *System Management*, 15-29
Transition table
recognition of keyword, *I/O Operations*, 7-9
.TRANSLATE directive (RSX-11M-PLUS only), *Indirect*, 2-92
Translate Logical Name String directive, *Executive*, 5-250
Translator processing, *System Management*, 12-19
Transmission, validation (communication driver), *I/O Drivers*, 12-11
Transmit
auxilliary buffer (XEDRV), *I/O Drivers*, 13-12
line message (XEDRV), *I/O Drivers*, 13-11
message (LRDRV), *I/O Drivers*, 14-5
pad enable bit (XEDRV), *I/O Drivers*, 13-20
requirement (XEDRV), *I/O Drivers*, 13-13
set protocol type (XEDRV), *I/O Drivers*, 13-12
speed (TTDRV), *I/O Drivers*, 2-56
standard function (LRDRV), *I/O Drivers*, 14-3
timeslice constraints (LRDRV), *I/O Drivers*, 14-6
XEDRV, Ethernet, *I/O Drivers*, 13-3
Transparent spooling, *System Management*, 7-1
Trap, *Debugging*, 1-5, 2-11, 5-5, 8-4, A-2
See also SST
entry codes, *Debugging*, 8-5
handling, *Debugging*, 2-11, 5-5
instruction
BPT, *Debugging*, 8-5
EMT, *Debugging*, 8-5, 9-5
IOT, *Debugging*, 8-5, 9-4
TRAP, *Debugging*, 8-5
SST vector register, *Debugging*, 5-5
system, *I/O Drivers*, 1-10
asynchronous, *I/O Drivers*, 1-10, 1-11
synchronous, *I/O Drivers*, 1-10
TRAP trap instruction, *Debugging*, 8-5
Tree
applying autoload indicator, *Task Builder*, 4-2
calling up-tree segments, *Task Builder*, 4-4
multiple
defined, *Task Builder*, 3-30 to 3-35
defining, *Task Builder*, 3-31, 3-32

Tree
multiple (cont'd.)
example, *Task Builder*, 3-32
structure, *Task Builder*, 3-18, 3-32
overlay diagram
virtual address space, *Task Builder*, 3-24
structure
defining, *Task Builder*, 3-49
defining multiple, *Task Builder*, 3-31
multiple, *Task Builder*, 3-31
Tree structure
indexed file organization, *RMS-11 Introduction*, 3-7
/TR keyword
MOUNT command (MCR), *MCR*, 3-152
.TRLUN
reserved global symbol, *Task Builder*, E-2
.TRNCL routine, truncate file, *I/O Operations*, 4-29
/TR switch, *Task Builder*, 10-51
Indirect, *Indirect*, 2-27
PIP utility, *Utilities*, 3-40
RMSCNV utility, *RMS-11 Utilities*, 4-13
RMSIFL utility, *RMS-11 Utilities*, 3-7, 3-11
SLP utility, *Utilities*, 13-15
TRUE symbol, *Indirect*, 2-11
$TRUNCATE macro, *RMS-11 Macro*, 5-122
Truncate mode, *Indirect*, 2-49
TRUNCATE operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-11 *RMS-11 User's Guide*, 1-15
and shared access, *RMS-11 User's Guide*, 2-6
sequential files, *RMS-11 User's Guide*, 3-12
$TRUNCATE macro, *RMS-11 Macro*, 5-122
Truncation
byte storage, *MACRO-11*, 6-23
floating-point, *MACRO-11*, 6-34
print line (LPDRV), *I/O Drivers*, 10-7
RMSCNV utility, *RMS-11 Utilities*, 4-13
RMSIFL utility, *RMS-11 Utilities*, 3-7
Truncation (cont'd.)
terminal line (half-duplex), *I/O Drivers*, 3-31
TRUNCATION argument, *MACRO-11*, 8-10
TS03 magnetic tape unit, *I/O Drivers*, 8-1
TS11 magnetic tape
SYSGEN question, *System Generation*, 3-48
TS11 magnetic tape unit, *I/O Drivers*, 8-1
.TSK file type, *Program Development*, 4-1
$$TSKP program section
reserved name, *Task Builder*, E-4
/TSK switch, *CDA*, 2-8
TSKV option, *Task Builder*, 12-39
$TSPAR routine, *Writing I/O Driver*, 7-39
TST attribute, *System Management*, 12-39
$TSTBF routine, *Writing I/O Driver*, 1-14, 7-40
TSV05 magnetic tape
SYSGEN question, *System Generation*, 3-48
TSV05 magnetic tape unit, *I/O Drivers*, 8-2
/T switch, *Error Logging*, 3-7, 3-9
TTDRV, *I/O Drivers*, 2-1
features, *I/O Drivers*, 2-1
input line length, *I/O Drivers*, 2-3
interface support, *I/O Drivers*, 2-3
programming hint, *I/O Drivers*, 2-82
subfunction bit, *I/O Drivers*, 2-12
terminal support, *I/O Drivers*, 2-2
TTM symbolic argument, *MACRO-11*, 6-12
TTSYM
half-duplex, *I/O Drivers*, 3-8, 3-13
system module (TTDRV), *I/O Drivers*, 2-33
TTSYNC (TTDRV), *I/O Drivers*, 2-70
/TTSYNC keyword
SET command (MCR), *MCR*, 3-261
SET command (VMR), *System Management*, 10-80
TT-type line interface
SYSGEN question, *System Generation*, 3-56
TU10 magnetic tape unit, *I/O Drivers*, 8-1

TU16/45/77 magnetic tape
SYSGEN question, *System Generation*, 3-38
TU16 magnetic tape unit, *I/O Drivers*, 8-1
TU45 magnetic tape unit, *I/O Drivers*, 8-1
TU58 controller
SYSGEN question, *System Generation*, 3-50
TU58 DECTAPE II, *I/O Drivers*, 7-1
TU58 magnetic tape
SYSGEN question, *System Generation*, 3-50
TU60 dual cassette transport, *I/O Drivers*, 9-1
TU77 magnetic tape unit, *I/O Drivers*, 8-1
TU80 magnetic tape
SYSGEN question, *System Generation*, 3-48
TU80 magnetic tape unit, *I/O Drivers*, 8-1
TU81 magnetic tape
SYSGEN question, *System Generation*, 3-46
TU81 magnetic tape unit, *I/O Drivers*, 8-2
Two's complement operator, *MACRO-11*, 3-4
Two-byte signed integer key, *RMS-11 User's Guide*, 6-3
Two-byte unsigned binary key, *RMS-11 User's Guide*, 6-5
Typeahead buffer, *System Management*, 9-5
Typeahead buffer (TTDRV), *I/O Drivers*, 2-78
/TYPEAHEAD keyword
SET command (MCR), *MCR*, 3-261
SET command (VMR), *System Management*, 10-80 to 10-81
TYPE attribute
RMSDES utility, *RMS-11 Utilities*, 2-38
TYPE command, *Command Language*, 4-62 to 4-64, 9-46 *Introduction*, 1-12, 3-8
DCL, *Program Development*, 3-6, 4-6, 7-4
EDI utility, *Program Development*, 2-13, 2-14, 2-17 *Utilities*, 2-47
/TYPE keyword
ALLOCATE command (MCR), *MCR*, 3-16
Type switch, *Error Logging*, 3-7, 3-9

U

U.ST2, *Writing I/O Driver*, 4-32
U.STS, *Writing I/O Driver*, 4-31
U.xpxx offsets
in UCB, *Writing I/O Driver*, 4-27 to 4-37
U$$NCT parameter (XEDRV), *I/O Drivers*, 13-2
U$$NPC parameter (XEDRV), *I/O Drivers*, 13-2
U$$NRS parameter (XEDRV), *I/O Drivers*, 13-2
U$$NTS parameter (XEDRV), *I/O Drivers*, 13-2
UAB, *Writing I/O Driver*, A-5
Resource Accounting, *System Management*, 17-11
UBF field in RAB, *RMS-11 Macro*, 4-7, 4-13
CONNECT operation, *RMS-11 Macro*, 5-6
GET operation, *RMS-11 Macro*, 5-61, 5-64, 5-67
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-92, 5-96
READ operation, *RMS-11 Macro*, 5-98, 5-100
summary, *RMS-11 Macro*, 6-143
UC.CON, contiguous file
user-controlled file characteristic, *I/O Operations*, F-4
UC.DLK, file improperly closed
user-controlled file characteristic, *I/O Operations*, F-4
UCB, *MCR*, 3-116 *Writing I/O Driver*, 1-13, 1-14
association with SCB, *Writing I/O Driver*, 2-7
composite arrangement, *Writing I/O Driver*, 2-13
details, *Writing I/O Driver*, 4-27 to 4-37
device-dependent values, *Writing I/O Driver*, 4-29
device-specific characteristics, *Writing I/O Driver*, 4-32 to 4-35

UCB (cont'd.)
disk geometry calculations, *Writing I/O Driver*, B-2
enabling driver to access data structures, *Writing I/O Driver*, 2-3
fields, *Writing I/O Driver*, 4-27
format, *Writing I/O Driver*, 4-27 to 4-37
layout, *Writing I/O Driver*, 4-28
length, *Writing I/O Driver*, 4-3
stored in DCB, *Writing I/O Driver*, 2-3
ordering, *Writing I/O Driver*, 4-3
overview, *Writing I/O Driver*, 2-3
pointer
to associated DCB, *Writing I/O Driver*, 4-29
to I/O structures, *Writing I/O Driver*, 2-3
to start of this UCB, *Writing I/O Driver*, 4-29
table
composite arrangement, *Writing I/O Driver*, 2-15
validation during LOAD, *Writing I/O Driver*, 5-13
UCBDF$, *CDA*, B-45, C-75 *Writing I/O Driver*, A-64 to A-71
UCBSV
usage in macro calls, *Writing I/O Driver*, 4-8
/UCB switch, *CDA*, 2-5, 2-6
U command, *Debugging*, 2-11
UC ON/OFF command
EDI utility, *Utilities*, 2-48
UDA50 disk controller, *I/O Drivers*, 5-4
UDC
function code list, *I/O Drivers*, B-15
UDC11, *I/O Drivers*, 16-1
compatibility (ICDRV/ISDRV), *I/O Drivers*, 19-6
creating driver, *I/O Drivers*, 16-1
defining configuration (UDDRV), *I/O Drivers*, 16-10
UDCOM.MAC
defining configuration (UDDRV), *I/O Drivers*, 16-10
UDDRV, *I/O Drivers*, 16-1
numbering convention, *I/O Drivers*, 16-34
UDDRV (cont'd.)
programming hint, *I/O Drivers*, 16-34
U error, *MACRO-11*, 3-8, 3-9, 3-15, 6-20, 6-21, 7-20
marking undefined symbol, *MACRO-11*, 6-21
summary, *MACRO-11*, D-4
UFD, *I/O Operations*, 5-2 *MCR*, 2-2, 3-1 *System Management*, B-1
See also Directory
See also USER FILE DIRECTORY command
and UIC, *MCR*, 2-2
command, *MCR*, 2-2
contents, *MCR*, 2-2
conventions, *System Management*, 1-6
command line, *Task Builder*, 1-15, 1-16
creating, *MCR*, 2-2
PIP utility, *Utilities*, 3-41
default, *MCR*, 2-2
deleting, *MCR*, 2-2
format, *MCR*, 2-2
group number, *MCR*, 2-2 *System Management*, B-1
Accounting tasks, *System Management*, B-2
DCL files, *System Management*, B-1
Executive files, *System Management*, B-1
FCP files, *System Management*, B-1
FCS files, *System Management*, B-2
K-Series files, *System Management*, B-2
Line printer despooler, *System Management*, B-2
MCR files, *System Management*, B-1
On-line configuration, *System Management*, B-2
Privileged utility tasks, *System Management*, B-1
Queue Manager files, *System Management*, B-2
RMD files, *System Management*, B-1
Shadow Recording, *System Management*, B-2

UFD
group number (cont'd.)
SYSGEN Indirect command files, *System Management*, B-2
listing file
PIP utility, *Utilities*, 3-24
member number, *MCR*, 2-2 *System Management*, B-2
object modules, *System Management*, B-2
SLP correction files, *System Management*, B-2
Source modules, *System Management*, B-2
validating, *Utilities*, 9-5
UFD Group Number Identification Table, *System Management*, B-1t to B-2t
UFD Member Number Identification Table, *System Management*, B-2t to B-3t
/UFD qualifier
BRU utility, *Utilities*, 7-21
/UF switch
PIP utility, *Utilities*, 3-41
UIC, *Command Language*, 4-2, 4-108 to 4-110 *Introduction*, 3-10 *I/O Operations*, 5-2 *MCR*, 2-2, 2-6, 3-1, 3-81 *System Management*, 10-25
and UFD, *MCR*, 2-2, 3-212, 3-280
ASCII-binary conversion, *I/O Operations*, 4-7, 4-8
authorized, *System Management*, 2-1
contained in account entry, *System Management*, 2-1, 2-7, 2-9
declaring in task, *Task Builder*, 12-40
default, *MCR*, 2-6
displaying, *System Management*, 2-5, 2-8
distinction by password, *System Management*, 2-1
event flags, *MCR*, 3-77
group
access count, *MCR*, 3-77
login, *MCR*, 2-6
option, *Task Builder*, 12-40
password, *MCR*, 3-79
privilege status, *MCR*, 2-6
protection, *MCR*, 2-6
read/write defaults, *I/O Operations*, 4-3, 4-4
UIC (cont'd.)
running tasks, *MCR*, 3-178
symbol, *Indirect*, 2-21
system task, *MCR*, 3-257
task
specifying, *MCR*, 3-122
terminal, *MCR*, 2-6
setting, *MCR*, 3-263
user categories
group, *MCR*, 2-3
owner, *MCR*, 2-3
system, *MCR*, 2-3
world, *MCR*, 2-3
volume
specifying, *MCR*, 3-153
[uic] switch
QUE /LI command, *Batch and Queue*, 2-16
/UIC keyword
HOME command, *MCR*, 3-96
INITVOLUME command, *MCR*, 3-107
INSTALL command (MCR), *MCR*, 3-121
INSTALL command (VMR), *System Management*, 10-28
MOUNT command (MCR), *MCR*, 3-153
RUN command (MCR), *MCR*, 3-178, 3-180, 3-185
RUN command (VMR), *System Management*, 10-44
SET command (MCR), *MCR*, 3-263
SET command (VMR), *System Management*, 10-81
/UI switch
FLX utility, *Utilities*, 4-8
$ULA (Universal library), *System Library*, B-1
ULGF$S directive, *Executive*, 5-253
UMAP$ directive, *Executive*, 5-254
UMDIO$ diagnostic function, *I/O Drivers*, 1-34
UMR, *Writing I/O Driver*, 7-3, 7-5
programming procedures, *Writing I/O Driver*, 7-2 to 7-5
SYSGEN question, *System Generation*, 3-55
Unary operator, *MACRO-11*, 3-4
binary radix control, *MACRO-11*, 3-5
decimal radix control, *MACRO-11*, 3-5

Unary operator (cont'd.)
evalutation of multiple, *MACRO-11*, 3-4
macro call use, *MACRO-11*, 7-5
octal radix control, *MACRO-11*, 3-5
one's complement, *MACRO-11*, 3-5, 6-35, 6-36
one-word floating-point, *MACRO-11*, 3-5, 6-35, 6-36
precedence over binary, *MACRO-11*, 3-16
Radix-50 control, *MACRO-11*, 3-5, 6-30
radix control, *MACRO-11*, 6-31, 6-32, 6-33
universal, *MACRO-11*, 3-3, 3-5
UNB
See UNBLOCK command
UNBLOCK command, *MCR*, 1-8, 3-283
examples, *MCR*, 3-283
format, *MCR*, 3-283
keyword
/TERM, *MCR*, 3-283
parameters, *MCR*, 3-283
Unconditional assembly, *MACRO-11*, 6-53
UND C key (EDT), *Introduction*, 2-7
Undefined record format, *RMS-11 Introduction*, 3-4 *RMS-11 User's Guide*, 1-11, 2-17
See also FB$UDF code in RFM field
Undefined symbol
See also U error
Undeleting text (EDT), *Introduction*, 2-7
Underline (_)
ODT, *Program Development*, 5-2
Underscore (_), *Command Language*, 1-14
Underscore command (_), *Debugging*, 2-5, 4-4, 9-9
UND L key (EDT), *Introduction*, 2-7
UND W key (EDT), *Introduction*, 2-7
Unexpected traps or interrupts, *Error Logging*, 1-6
UNF
See UNFIX command
UNFIX command, *Command Language*, 7-43, 9-46
UNFIX command (MCR), *MCR*, 1-8, 3-284
error messages, *MCR*, 3-284
examples, *MCR*, 3-284
UNFIX command (MCR) (cont'd.)
formats, *MCR*, 3-284
keywords
/REG, *MCR*, 3-284
/RON, *MCR*, 3-284
parameters, *MCR*, 3-284
UNFIX command (VMR), *System Management*, 10-92
definition, *System Management*, 10-92
example, *System Management*, 10-92
format, *System Management*, 10-92
keywords
/REG, *System Management*, 10-92
/RON, *System Management*, 10-92
parameters, *System Management*, 10-92
UNIBUS
run specifications, *MCR*, 3-117
switched bus, *Writing I/O Driver*, 1-16
UNIBUS Mapping Register
See UMR
UNIBUS Run Mask
See URM
UNIBUS switch driver, *I/O Drivers*, 24-1
AST
CPU disconnect, *I/O Drivers*, 24-3
failed CPU response, *I/O Drivers*, 24-3
other CPU connect, *I/O Drivers*, 24-3
power failure, *I/O Drivers*, 24-3
switched to other CPU, *I/O Drivers*, 24-3
attaching task, *I/O Drivers*, 24-2
error return, *I/O Drivers*, 24-7
FORTRAN usage, *I/O Drivers*, 24-8
function code list, *I/O Drivers*, B-15
power-fail recovery, *I/O Drivers*, 24-6
standard functions, *I/O Drivers*, 24-2
status return, *I/O Drivers*, 24-7
system power-fail recovery, *I/O Drivers*, 24-6

UNIBUS switch driver (cont'd.)
use, *I/O Drivers*, 24-1
Unit
assignment
improving performance, *Task Builder*, F-2, F-3
making accessible, *Writing I/O Driver*, 5-6
placing on line, *Writing I/O Driver*, 5-7
Unit Control Block
See UCB
Unit information
.PRSDV routine, *I/O Operations*, 4-16
Unit number field, *I/O Operations*, 2-34
Unit off-line (ICDRV/ISDRV), *I/O Drivers*, 19-72
Unit-record device, *RMS-11 Introduction*, 3-5 *RMS-11 Macro*, 3-2, 5-20, 5-37, 5-43, 5-77, 5-88, 5-104, 5-111, 5-117
RMSCNV utility, *RMS-11 Utilities*, 4-5
UNITS option, *Task Builder*, 12-41
Unit status
byte, *Writing I/O Driver*, 4-31
change
entry point, *Writing I/O Driver*, 4-68, 4-69
overview, *Writing I/O Driver*, 2-6
extension 2, *Writing I/O Driver*, 4-32
/UNIT switch
DSC utility, *Utilities*, 8-22
Universal library, *Command Language*, 6-40
command procedure, *Indirect*, 2-28
creating, *System Library*, B-1
file
inserting module
LBR utility, *Utilities*, 10-20
replacing module
LBR utility, *Utilities*, 10-27
Universal unary operator
See Unary operator
UNL
See UNLOAD command
Unlabeled tape, *I/O Operations*, G-16
Unlabeled tape, end-of-volume (tape driver), *I/O Drivers*, 8-16
Unlabeled tape block size, *I/O Operations*, G-16
UNLINK command, *System Management*, 15-28
/UNL keyword
MOUNT command (MCR), *MCR*, 3-153
UNLNK:
remove task interrupt link (ICDRV/ISDRV), *I/O Drivers*, 19-68
example, *I/O Drivers*, 19-69
UNLOAD command (MCR), *MCR*, 1-8, 3-285
error messages, *MCR*, 3-285
example, *MCR*, 3-285
format, *MCR*, 3-285
keyword
/VEC, *MCR*, 3-285
parameter, *MCR*, 3-285
UNLOAD command (VMR), *System Management*, 10-93
definition, *System Management*, 10-93
example, *System Management*, 10-93
format, *System Management*, 10-93
keyword
/VEC, *System Management*, 10-93
parameter, *System Management*, 10-93
restrictions, *System Management*, 10-93
Unloading
LADRV, *I/O Drivers*, 22-35
tape driver, *I/O Drivers*, 8-7
UNLOCK command, *Command Language*, 4-74 to 4-75, 9-47
Unlock Group Global Event Flags directive, *Executive*, 5-253
$UNLPG (unlock page), *System Library*, 8-31
Unmap Address Window directive, *Executive*, 5-254
Unmapped system, *Task Builder*, 2-13, 2-14
Unowned device, *Command Language*, 5-10 to 5-11
UNS
See UNSTOP command
UNSAVE command
EDI utility, *Utilities*, 2-48

Unsaved system
bootstrapping and saving, *System Generation*, 4-1 to 4-2
definition, *System Generation*, 1-13
saving with /WB switch, *System Generation*, 4-2
Unsolicited input time-out
SYSGEN question, *System Generation*, 3-30
Unsolicited interrupt (ICDRV/ISDRV), *I/O Drivers*, 19-6
data, continual monitoring, *I/O Drivers*, 19-51
processing, *I/O Drivers*, 19-17, 19-18, 19-64
UNSTOP command, *MCR*, 1-8, 3-287
examples, *MCR*, 3-287
format, *MCR*, 3-287
keywords
/TERM, *MCR*, 3-287
parameter, *MCR*, 3-287
Unstop Task directive, *Executive*, 5-256
/UN switch
PIP utility, *Utilities*, 3-42
Unt parameter
ALUN$ macro, *I/O Drivers*, 1-17
UPD argument to ORG$ macro, *RMS-11 Macro*, 2-3
Update, *System Generation*, 2-26 to 2-39, 3-13
applying, *System Generation*, 2-29 to 2-36
on VAX/VMS host running VAX-11 RSX, *System Generation*, 2-30
contents, *System Generation*, 2-27
copying distribution kit, *System Generation*, 2-29
definition, *System Generation*, 1-13
errors during, *System Generation*, 2-36
functions, *System Generation*, 2-27 to 2-28
hardware requirement, *System Generation*, 2-28
kit, *System Generation*, 2-26
layered product files, *System Generation*, 2-38
magnetic tape kit
applying, *System Generation*, 2-32
Update (cont'd.)
preparation, *System Generation*, 2-28
RK07 disk kit
applying, *System Generation*, 2-35
RL02 disk kit, *System Generation*, 2-38
types, *System Generation*, 2-26
$UPDATE macro, *RMS-11 Macro*, 5-124
UPDATE operation, *RMS-11 Introduction*, 4-4 *RMS-11 Macro*, 4-11 *RMS-11 User's Guide*, 1-15
and record size, *RMS-11 User's Guide*, 2-16
and shared access, *RMS-11 User's Guide*, 2-6, 2-10
and stream records, *RMS-11 User's Guide*, 2-17
changeable keys, *RMS-11 User's Guide*, 6-10
declaring with ORG$ macro, *RMS-11 Macro*, 2-3
deferred write, *RMS-11 User's Guide*, 7-9
duplicate keys, *RMS-11 User's Guide*, 6-9
indexed files, *RMS-11 User's Guide*, 5-14, 7-6, 7-9
move mode, *RMS-11 User's Guide*, 3-14
indexed files, *RMS-11 User's Guide*, 7-7, 7-8
relative files, *RMS-11 User's Guide*, 4-12, 4-13
sequential files, *RMS-11 User's Guide*, 3-13
relative files, *RMS-11 User's Guide*, 4-12
sequential files, *RMS-11 User's Guide*, 3-12
$UPDATE macro, *RMS-11 Macro*, 5-124
/UPDATE switch
BAD utility, *Utilities*, 6-6
Uppercase conversion (half-duplex), *I/O Drivers*, 3-15
UPPERCASE ON/OFF command
EDI utility, *Utilities*, 2-48
/UPPERCASE qualifier
PRINT command, *Batch and Queue*, 2-4

/UPPERCASE qualifier (cont'd.)
SET QUEUE command, *Batch and Queue*, 2-21
/UP switch
PIP utility, *Utilities*, 3-42
VFY utility, *Utilities*, 9-8
URM, *Writing I/O Driver*, 1-16, 4-39
User-mode I- and D-space
description, *Task Builder*, 7-1 to 7-15
User Account Block, *System Management*, 17-3, 17-23 *Writing I/O Driver*, A-5
User buffer, *RMS-11 User's Guide*, 1-14
address
See UBF field in RAB
size
See USZ field in RAB
USERCM, *Error Logging*, 3-2
User-controlled partition, *System Management*, 14-1
User data space
SYSGEN question, *System Generation*, 3-23
User-defined switch string, *Error Logging*, 3-21
User-defined symbol, *MACRO-11*, 3-6, 3-7, 3-8
table, *MACRO-11*, 2-2, 3-6, 3-7, 3-8, 3-15
User file attributes
header area
file characteristics, *I/O Operations*, F-4
User File Directory, *I/O Operations*, 5-2
See also Directory
See also UFD
User File Directory (UFD)
See Directory
USER FILE DIRECTORY command, *MCR*, 1-7, 3-280
error messages, *MCR*, 3-281
example, *MCR*, 3-281
format, *MCR*, 3-280
keywords
/ALLOC, *MCR*, 3-280
/PRO, *MCR*, 3-281
parameters, *MCR*, 3-280
USER FILE DIRECTORY command (MCR)
creating UFD, *MCR*, 2-3
User file label (tape), *I/O Operations*, G-9
User groups, *System Management*, 10-26
User I/O function, *Error Logging*, 5-25
User Identification Code
See UIC
Userid parameter
IO.STP function (LADRV), *I/O Drivers*, 22-30
/USER keyword
DISMOUNT command (MCR), *MCR*, 3-71
User mode, *Debugging*, 3-2
command, *Debugging*, 2-11
setting, *Debugging*, 2-11
User-supplied driver
definition, *System Generation*, 1-13
SYSGEN question, *System Generation*, 3-65
User-tailored Executive, *System Generation*, 1-13
User volume label
tape, *I/O Operations*, G-3
User-written encryption routines
support, *System Management*, 2-1
.USLU1
reserved global symbol, *Task Builder*, E-2
.USLU2
reserved global symbol, *Task Builder*, E-2
%USR, *Error Logging*, 5-25
$USRTB global label, *Writing I/O Driver*, 4-3
USTP$ directive, *Executive*, 5-256
USZ field in RAB, *RMS-11 Macro*, 4-7, 4-13
CONNECT operation, *RMS-11 Macro*, 5-6
GET operation, *RMS-11 Macro*, 5-61, 5-64, 5-67
offset, *RMS-11 Macro*, 6-115
PUT operation, *RMS-11 Macro*, 5-92, 5-96
READ operation, *RMS-11 Macro*, 5-98, 5-100
summary, *RMS-11 Macro*, 6-144
Utilities, *Command Language*, 1-22
Utility, *Introduction*, 5-1 *RMS-11 Introduction*, 5-1
command line format, *Utilities*, 1-4

Utility
editing
EDI utility, *Utilities*, 1-2
file manipulation
FLX utility, *Utilities*, 1-2
PIP utility, *Utilities*, 1-2
file specification
default, *Utilities*, 1-4
format, *Utilities*, 1-4
indirect command file, *Utilities*, 1-9
invoking, *Utilities*, 1-6
DCL, *Utilities*, 1-6
installed, *Utilities*, 1-7
MCR, *Utilities*, 1-6
uninstalled, *Utilities*, 1-9
listed, *Utilities*, 1-1
program maintenance, *Utilities*, 15-1
CMP utility, *Utilities*, 1-3
PAT utility, *Utilities*, 1-3
SLP utility, *Utilities*, 1-3
ZAP utility, *Utilities*, 1-4
programming
DMP utility, *Utilities*, 1-3
LBR utility, *Utilities*, 1-3
spawning, *Executive*, 4-5
volume maintenance
BAD utility, *Utilities*, 1-2
BRU utility, *Utilities*, 1-3
DSC utility, *Utilities*, 1-3
FMT utility, *Utilities*, 1-2
VFY utility, *Utilities*, 1-3
Utility, RMS-11
Best reference, *RMS-11 Utilities*
Utility programs, *Program Development*, 1-8, 1-9

V

Val parameter
CVADF: subroutine
K-series, *I/O Drivers*, 23-13
LADRV, *I/O Drivers*, 22-9
FLT16: subroutine
K-series, *I/O Drivers*, 23-21
LADRV, *I/O Drivers*, 22-17
Value parameter
IO.SMC function (TTDRV), *I/O Drivers*, 2-60
Variable, *Debugging*, 2-1
testing, *Indirect*, 2-85
Variable-length record
block boundary
PUT$ macro, *I/O Operations*, 3-29
Variable-length record format, *RMS-11 Introduction*, 3-2 *RMS-11 User's Guide*, 1-11, 2-15
See also FB$VAR code in RFM field and medium, *RMS-11 User's Guide*, 2-15
Variable Receive Data directive, *Executive*, 5-257
Variable Receive Data or Exit directive, *Executive*, 5-261
Variable Receive Data or Stop directive, *Executive*, 5-259
Variable Send, Request, and Connect directive, *Executive*, 5-265
Variable Send Data directive, *Executive*, 5-263
Variable with fixed control
See VFC
Var parameter
ADC: subroutine (LSDRV), *I/O Drivers*, 17-12
VARRAY option, *Task Builder*, 12-42, 12-43
VAX/VMS
remote access, *RMS-11 User's Guide*, B-1, B-3
VAX/VMS DCL, *Command Language*, 1-23
VAX/VMS file transfer, *System Management*, 9-1, 9-5
VAX-11 RSX file transfer, *System Management*, 9-1, 9-5
VBN, *RMS-11 Introduction*, 2-4 *RMS-11 User's Guide*, 8-2
See also BKT field in RAB
areas, *RMS-11 User's Guide*, 6-10
VBN access, *RMS-11 Introduction*, 3-12, 4-7 *RMS-11 User's Guide*, 1-20
See also BKT field in RAB
/VB switch
CMP utility, *Utilities*, 12-3
VCB
composite arrangement, *Writing I/O Driver*, 2-15
V command, *Debugging*, 2-11
ZAP utility, *Utilities*, 15-17
/VEC keyword
LOAD command (MCR), *MCR*, 3-133

/VEC keyword (cont'd.)
LOAD command (VMR), *System Management*, 10-34
UNLOAD command (MCR), *MCR*, 3-285
UNLOAD command (VMR), *System Management*, 10-93
/VEC switch
BAD utility, *Utilities*, 6-9
DSC utility, *Utilities*, 8-23
Vector, *Writing I/O Driver*, 1-1
addresses
definition of in Driver Dispatch Table, *Writing I/O Driver*, 2-6
assignment
error, *Writing I/O Driver*, 5-8
setting, *Writing I/O Driver*, 5-6
autoload, *Task Builder*, 4-4, 4-5, B-15, B-16
conventional task, *Task Builder*, B-17
eliminating unnecessary, *Task Builder*, 4-6
I- and D-space, *Task Builder*, 7-10
I- and D-space format, *Task Builder*, 4-5
I- and D-space task, *Task Builder*, 7-8, B-17
overlay, *Task Builder*, 3-21
region, *Task Builder*, 5-14
definition, *System Generation*, 1-14
determining, *System Generation*, 2-1
floating
assignment algorithm, *System Generation*, E-1
interrupt, *Writing I/O Driver*, 1-1, 1-12
mode switching
supervisor mode library, *Task Builder*, 8-1, 8-19
ODT, *Task Builder*, 12-26
overlaid region
I- and D-space task, *Task Builder*, 5-13, 5-14
reentry register, *Debugging*, 5-3, 5-6
SST address, *Task Builder*, 12-29
task header
extension area format, *Task Builder*, B-13
Vector address
BRUSYS default, *System Generation*, 2-8
Verification
device
BAD utility, *Utilities*, 6-3
file structure
VFY utility, *Utilities*, 9-1
task image file content
See ZAP utility
VERIFY command
IOX, *System Management*, 4-64
effect on NFS volume, *System Management*, 4-8
VERIFY ON/OFF command
EDI utility, *Utilities*, 2-49
/VERIFY qualifier
BRU utility, *Utilities*, 7-22
/VERIFY switch
DSC utility, *Utilities*, 8-18
FMT utility, *Utilities*, 5-9
Version identifier
See also .IDENT directive
assembler, *MACRO-11*, 6-4
standard, *MACRO-11*, E-14
Version number
decimal
SYSGEN question, *System Generation*, 3-29
file, *Command Language*, 4-3
default, *Command Language*, 4-4
RMSBCK utility, *RMS-11 Utilities*, 6-5
RMSCNV utility, *RMS-11 Utilities*, 4-9
RMSDEF utility, *RMS-11 Utilities*, A-5
RMSDES utility, *RMS-11 Utilities*, 2-16
RMSDSP utility, *RMS-11 Utilities*, 5-5
RMSIFL utility, *RMS-11 Utilities*, 3-5
RMSRST utility, *RMS-11 Utilities*, 7-5
Version number directive, *MACRO-11*, 6-16, 6-17
VERSN symbol, *Indirect*, 2-22
Vertical format control
See VFC
See Vfc parameter
Vertical tab, *Command Language*, 3-24
/VE switch
FLX utility, *Utilities*, 4-8

$VEXT
low-memory context, *Task Builder*, B-10
reserved global symbol, *Task Builder*, E-2
VFC
half-duplex, *I/O Drivers*, 3-27
double space, *I/O Drivers*, 3-27
format
internal vertical, *I/O Drivers*, 3-28
overprint, *I/O Drivers*, 3-28
page eject, *I/O Drivers*, 3-27
prompting output, *I/O Drivers*, 3-28
single-space, *I/O Drivers*, 3-27
LPDRV, *I/O Drivers*, 10-6
character, *I/O Drivers*, 10-6
double space, *I/O Drivers*, 10-6
format, internal vertical, *I/O Drivers*, 10-7
internal, *I/O Drivers*, 10-7
overprint, *I/O Drivers*, 10-7
page eject, *I/O Drivers*, 10-6
prompting output, *I/O Drivers*, 10-7
single space, *I/O Drivers*, 10-6
TTDRV, *I/O Drivers*, 2-75
character table, *I/O Drivers*, 2-75
VFC carriage control
See FB$PRN mask in RAT field
VFC header buffer address
See RHB field in RAB
Vfc parameter
device-specific (half-duplex), *I/O Drivers*, 3-8
QIO$ macro (VTDRV), *I/O Drivers*, 4-4
standard function (LPDRV), *I/O Drivers*, 10-4
TTDRV
general, *I/O Drivers*, 2-11
IO.CCO function, *I/O Drivers*, 2-23
IO.RPR function, *I/O Drivers*, 2-41
IO.WAL function, *I/O Drivers*, 2-47
IO.WBT function, *I/O Drivers*, 2-50
VFC record format, *RMS-11 Introduction*, 3-2 *RMS-11 User's Guide*, 1-11, 2-16
VFC record format (cont'd.)
See also FB$VFC code in RFM field
/VFILL keyword
SET command (MCR), *MCR*, 3-264
SET command (VMR), *System Management*, 10-81
VFY utility
command line, *Utilities*, 9-2
error message, *Utilities*, 9-11
file error reporting, *Utilities*, 9-8
operation mode, *Utilities*, 9-3
switch, *Utilities*, 9-4
summary, *Utilities*, 9-4
validity check, *Utilities*, 9-3
/VI keyword
HOME command, *MCR*, 3-96
MOUNT command (MCR), *MCR*, 3-153
$VIRT, *Task Builder*, 12-42, 12-43
Virtual array, *Task Builder*, 12-42, 12-43
example, *Task Builder*, 12-42, 12-43
Virtual block, *RMS-11 Introduction*, 2-3
file device, *I/O Operations*, 1-7
file extension, *I/O Operations*, 2-9
Virtual block number
See also BKT field in RAB
See also VBN
READ$ macro, *I/O Operations*, 3-34
WRITE$ macro, *I/O Operations*, 3-38
Virtual I/O, *I/O Drivers*, 1-2
Virtual MCR
See VMR
Virtual memory management, *System Library*, 8-1
See also Memory management
address conversion ($CVRL), *System Library*, 8-24
$ALBLK routine, *System Library*, 8-10
allocate ($ALVRT), *System Library*, 8-16
allocate small virtual block ($ALSVB), *System Library*, 8-18
$ALSVB routine, *System Library*, 8-19
$ALVRT routine, *System Library*, 8-17
core allocation, *System Library*, 8-8

Virtual memory management (cont'd.)
core blocks request ($RQVCB), *System Library*, 8-20
$CVLOK routine, *System Library*, 8-24
$CVRL routine, *System Library*, 8-25
error handling, *System Library*, 8-2
$EXTSK routine, *System Library*, 8-14
find page ($FNDPG), *System Library*, 8-27
$FNDPG routine, *System Library*, 8-28
$GTCOR routine, *System Library*, 8-12
initialize ($INIVM), *System Library*, 8-5
$IVIVM routine, *System Library*, 8-7
$LCKPG routine, *System Library*, 8-31
library, *Program Development*, 1-11
library file, *System Library*, 8-4
lock page ($LCKPG), *System Library*, 8-30
memory storage
allocate block ($ALBLK), *System Library*, 8-9
extend task ($EXTSK), *System Library*, 8-13
get core ($GTCOR), *System Library*, 8-11
page lock ($CVLOK), *System Library*, 8-22
$RDPAG routine, *System Library*, 8-27
read page ($RDPAG), *System Library*, 8-26
$RQVCB routine, *System Library*, 8-21
task builder requirements, *System Library*, 8-3
unlock page ($UNLPG), *System Library*, 8-31
$UNLPG routine, *System Library*, 8-32
write marked page ($WRMPG), *System Library*, 8-28
write page ($WRPAG), *System Library*, 8-14
$WRMPG routine, *System Library*, 8-29
$WRPAG routine, *System Library*, 8-15
Virtual Monitor Console Routine
See VMR
Virtual terminal
creating, *Executive*, 5-54
deallocating, *Executive*, 5-73
default buffer
SYSGEN question, *System Generation*, 3-29
SYSGEN question, *System Generation*, 3-29
Virtual-to-logical block mapping
optimizations, *RMS-11 User's Guide*, 8-2
VMLIB.OLB (Virtual memory management library), *Program Development*, 1-11
VMR, *System Management*, 1-3
changing system parameters, *System Generation*, 4-8
command
abbreviations, *System Management*, 10-4
descriptions, *System Management*, 10-7 to 10-93
format, *System Management*, 10-7
format, *System Management*, 10-4
keywords, *System Management*, 10-4
keyword values, *System Management*, 10-5
names, *System Management*, 10-4
parameters, *System Management*, 10-4
syntax, *System Management*, 10-4
types, *System Management*, 10-1
comments, *System Management*, 10-5
definition, *System Management*, 10-1
diagnostic messages, *System Generation*, 3-78
error messages, *System Management*, 10-94 to 10-112
exiting, *System Management*, 10-3
file specifications
components, *System Management*, 10-5

VMR
file specifications
device, *System Management*, 10-5
directory, *System Management*, 10-6
file name, *System Management*, 10-6
file types, *System Management*, 10-6
version number, *System Management*, 10-6
device name, *System Management*, 10-5
directory, *System Management*, 10-6
file names, *System Management*, 10-6
file type, *System Management*, 10-6
format, *System Management*, 10-5
/IM switch, *System Management*, 10-7
specifying, *System Management*, 10-5
version number, *System Management*, 10-6
version number range, *System Management*, 10-6
indirect command file, *System Management*, 10-3
installing from LB:, *System Management*, 10-3
introduction, *System Management*, 10-1
prompt, *System Management*, 10-3
relationship to MCR, *System Management*, 10-1
running, *System Management*, 10-2
starting, *System Management*, 10-1, 10-2 to 10-4
system image file
assigning SY: and LB:, *System Management*, 10-1
bootstrap, *System Management*, 10-1
relationship to symbol definition file, *System Management*, 10-1
VMR commands
ALTER, *System Management*, 10-8
ASSIGN, *System Management*, 10-9
VMR commands (cont'd.)
CANCEL, *System Management*, 10-11
CONFIGURATION, *System Management*, 10-12
DEVICES, *System Management*, 10-16
FIX, *System Management*, 10-18
INSTALL, *System Management*, 10-21
LOAD, *System Management*, 10-33
LUNS, *System Management*, 10-35
PARTITION DEFINITIONS, *System Management*, 10-36
REASSIGN, *System Management*, 10-38
REDIRECT, *System Management*, 10-39
REMOVE, *System Management*, 10-40
RUN, *System Management*, 10-42
SAVE, *System Management*, 10-47
SET, *System Management*, 10-50
TASKLIST, *System Management*, 10-88
TIME, *System Management*, 10-90
UNFIX, *System Management*, 10-92
UNLOAD, *System Management*, 10-93
VMSTIME, *Error Logging*, 5-7
Volatile registers, *CDA*, 3-1
dump, *CDA*, 3-2 to 3-4
/VOL keyword
MOUNT command (MCR), *MCR*, 3-154
Volume, *Command Language*, 4-1, 5-1 to 5-11
accessing
dismounted, *MCR*, 3-142
advancing to next
See NXTVOL operation
allocating, *MCR*, 3-152
backing up
BRU utility, *Utilities*, 7-1
bit density, *MCR*, 3-147
compressing
DSC utility, *Utilities*, 8-3
DECtape
initializing, *MCR*, 3-99
default extend size, *I/O Operations*, 2-9
directories, *MCR*, 3-150
directory listing
FLX utility, *Utilities*, 4-7

Volume (cont'd.)
dismounting, *MCR*, 3-70
displaying free space
PIP utility, *Utilities*, 3-23
VFY utility, *Utilities*, 9-5
displaying information, *MCR*, 3-153
examining data
DMP utility, *Utilities*, 11-1
file
deleting
FLX utility, *Utilities*, 4-7
recovering lost
VFY utility, *Utilities*, 9-6
transferring
FLX utility, *Utilities*, 4-4
Files-11, *Command Language*, 5-4
MCR, 2-1, 3-35
home block, *MCR*, 3-93
initializing, *MCR*, 3-99 to 3-116
protecting with TEMPORARYFILE, *System Management*, 4-63
foreign, *MCR*, 2-1
accessing, *MCR*, 2-2
displaying information, *MCR*, 3-153
mounting, *MCR*, 2-2, 3-148, 3-151
formatting
FLX utility, *Utilities*, 4-4
FMT utility, *Utilities*, 5-1
home block, *MCR*, 3-149
identifier, *MCR*, 3-144, 3-154
index file
unlocking, *MCR*, 3-153
initializing, *MCR*, 2-1
BRU utility, *Utilities*, 7-17
FLX utility, *Utilities*, 4-2
label, *MCR*, 3-70, 3-100, 3-150
listing file-ID
VFY utility, *Utilities*, 9-6
locating bad block
BAD utility, *Utilities*, 6-1
FMT utility, *Utilities*, 5-1
VFY utility, *Utilities*, 9-7
locking, *MCR*, 3-149
magnetic tape, *RMS-11 Introduction*, 2-5
labelling, *MCR*, 3-147, 3-149
protecting, *MCR*, 3-151
record, *MCR*, 3-152
mounted, *Command Language*, 5-10 to 5-11

Volume (cont'd.)
mounting, *Command Language*, 5-50 to 5-67 *MCR*, 2-3, 3-141
Files-11, *MCR*, 3-142
foreign, *MCR*, 3-148
magnetic tape, *MCR*, 3-142, 3-143
nonprivileged, *MCR*, 3-142
shared, *MCR*, 3-152
mounting with ACP, *MCR*, 3-148, 3-149
NFS
altering block range, *System Management*, 4-52
displaying block range, *System Management*, 4-52
error retries, *System Management*, 4-56
list of parameter commands for, *System Management*, 4-9
selecting
with IOX, *System Management*, 4-58
with VERIFY, *System Management*, 4-64
nonshared, *MCR*, 3-142
private, *Command Language*, 5-10 to 5-11, 5-45 to 5-49
mounting, *MCR*, 3-148
protecting, *MCR*, 3-102, 3-151
protection, *Command Language*, 4-13 to 4-14
public, *Command Language*, 5-10 to 5-11 *MCR*, 3-142, 3-152
dismounting, *MCR*, 3-71
mounting, *MCR*, 3-152
setting, *MCR*, 3-152
record type, *MCR*, 3-147
recovering
lost block
VFY utility, *Utilities*, 9-7
lost file
VFY utility, *Utilities*, 9-6
space
DSC utility, *Utilities*, 8-3
restoring
BRU utility, *Utilities*, 7-1
selecting
Files-11 for IOX, *System Management*, 4-8
NFS for IOX, *System Management*, 4-8
shareable, *Command Language*, 5-10 to 5-11

Volume (cont'd.)
shared, *MCR*, 3-142
UIC
specifying, *MCR*, 3-153
unloading, *MCR*, 3-149
unmounted attach (DTDRV), *I/O Drivers*, 6-2
verifying, *Utilities*, 9-1
block
VFY utility, *Utilities*, 9-7
virtual, *MCR*, 3-149
VOLUMECHECK command
IOX, *System Management*, 4-65
Volume Control Block
See VCB
Volume label
tape, *I/O Operations*, G-1
user, *I/O Operations*, G-3
Volume label switch, *Error Logging*, 3-7
Volume rewind, *I/O Operations*, 5-5
Volume valid processing, *Writing I/O Driver*, 4-70
Vout parameter (ICDRV/ISDRV), *I/O Drivers*, 19-11
IO.SAO function, *I/O Drivers*, 19-16
VRCD$ directive, *Executive*, 5-257
VRCD$ directive summary, *I/O Operations*, C-5
VRCS$ directive, *Executive*, 5-259
VRCS$ directive summary, *I/O Operations*, C-5
VRCX$ directive, *Executive*, 5-261
VRCX$ directive summary, *I/O Operations*, C-5
V register, *Debugging*, 2-7, 5-5
VS60 graphic display, *I/O Drivers*, 21-1
VS60 Graphics Display
See GRDRV
VSDA$ directive, *Executive*, 5-263
VSDA$ directive summary, *I/O Operations*, C-6
VSECT option, *Task Builder*, 12-44
VSRC$ directive, *Executive*, 5-265
VSRC$ directive summary, *I/O Operations*, C-6
/V switch, *Error Logging*, 3-7
VT05B terminal, *I/O Drivers*, 2-5, 3-3
VT100 DECscope, *I/O Drivers*, 2-6, 3-4
VT100-series terminal, *Command Language*, 3-18
VT100 terminal, *Introduction*, 1-1, 1-2, 1-2 fig.
VT101 DECscope, *I/O Drivers*, 2-6
VT102 DECscope, *I/O Drivers*, 2-6
VT105 DECscope, *I/O Drivers*, 2-6
VT11 graphic display, *I/O Drivers*, 21-1
VT11 Graphics Display
See GRDRV
VT131 DECscope, *I/O Drivers*, 2-6
VT200-series terminal, *Command Language*, 3-19
keyboard, *Command Language*, 3-1
VT220 terminal, *Introduction*, 1-1, 1-3, 1-3 fig. *I/O Drivers*, 2-6
VT240 terminal, *I/O Drivers*, 2-6
VT241 terminal, *I/O Drivers*, 2-7
VT50H terminal, *I/O Drivers*, 2-5, 3-3
VT50 terminal, *I/O Drivers*, 2-5, 3-3
VT52 terminal, *Command Language*, 3-19 *I/O Drivers*, 2-5, 3-4
VT55 terminal, *I/O Drivers*, 2-5, 3-4
VT61 terminal, *I/O Drivers*, 2-6, 3-4
VT: pseudo device, *Command Language*, 5-7, 5-8
VTDRV, *I/O Drivers*, 4-1

W

WAIT$ macro
file processing, *I/O Operations*, 3-1
block I/O completion, *I/O Operations*, 3-40
format
file operations, *I/O Operations*, 3-40
with READ$ and WRITE$, *I/O Operations*, 3-40
with READ$ or WRITE$, *I/O Operations*, 3-33
WAIT command
IOX, *System Management*, 4-66
.WAIT directive, *Indirect*, 2-94
Wait for buffer (K-series), *I/O Drivers*, 23-25
Wait for Logical OR of Event Flags directive, *Executive*, 5-270
Wait for Significant Event directive, *Executive*, 5-268
Wait for Single Event Flag directive, *Executive*, 5-272
/WAIT keyword
MOUNT command (MCR), *MCR*, 3-154

$WAIT macro, *RMS-11 Macro*, 5-126
RSTS/E, *RMS-11 Macro*, D-4
WAIT operation, *RMS-11 Introduction*, 4-4
block stream, *RMS-11 Macro*, 4-14
record stream, *RMS-11 Macro*, 4-9
$WAIT macro, *RMS-11 Macro*, 5-126
/WARNINGS qualifier, *Task Builder*, 11-76
/WB keyword
INSTALL command (MCR), *MCR*, 3-118, 3-122
INSTALL command (VMR), *System Management*, 10-28
SAVE command (MCR), *MCR*, 3-190
WCC field in NAM block
offset, *RMS-11 Macro*, 6-94
PARSE operation, *RMS-11 Macro*, 5-87
SEARCH operation, *RMS-11 Macro*, 5-116, 5-118
summary, *RMS-11 Macro*, 6-106
/WCHK keyword
SET command (MCR), *MCR*, 3-265
SET command (VMR), *System Management*, 10-81
/WCHK switch
BAD utility, *Utilities*, 6-9
W command, *Debugging*, 2-11, 6-2, 6-3
WDB, *Executive*, 3-11, 5-108
assigning values, *Executive*, 3-19
format, *Executive*, 3-16
generating, *Executive*, 3-17, 3-18
WDBBK$, *Executive*, 3-17
WDBDF$, *Executive*, 3-17
.WDFPP routine, write $$FSR2 default file protection word, *I/O Operations*, 4-5
.WDFR routine, write $$FSR2 default directory string, *I/O Operations*, 4-3
.WDFUI routine, write default UIC, *I/O Operations*, 4-3, 4-4
WDI field in NAM block
offset, *RMS-11 Macro*, 6-94
PARSE operation, *RMS-11 Macro*, 5-87
SEARCH operation, *RMS-11 Macro*, 5-116, 5-118
summary, *RMS-11 Macro*, 6-107
/WD switch
DMP utility, *Utilities*, 11-8
.WFOWN routine, write $$FSR2 file owner word, *I/O Operations*, 4-7
/WF switch
RMSCNV utility, *RMS-11 Utilities*, 4-14
WHILE/UNTIL/DO statement, *Error Logging*, 5-35
WIDE argument, *MACRO-11*, 8-11, 8-12
/WIDE qualifier, *Task Builder*, 11-77
Width switch, *Error Logging*, 3-7, 3-21
Wildcard, *Command Language*, 4-6 to 4-8 *Introduction*, 3-1 to 3-3 *RMS-11 Introduction*, 4-1
character, *MCR*, 2-7
directory context
See WDI field in NAM block
file context
See WCC field in NAM block
file name, *I/O Operations*, 4-19
file specification
BRU utility, *Utilities*, 7-7
FLX utility, *Utilities*, 4-3
PIP utility, *Utilities*, 3-7
file type, *I/O Operations*, 4-19
operation
See NB$WCH mask in FNB field
Wildcard context (F11ACP)
FNB, *I/O Drivers*, C-7
Wildcard loop, *RMS-11 Macro*, 3-8
Window, *RMS-11 User's Guide*, 8-2 *Task Builder*, 2-19 to 2-23
block, *Task Builder*, 2-19
composite arrangement, *Writing I/O Driver*, 2-14
for a region, *Task Builder*, 5-18
overlay, *Task Builder*, 3-48
definition block, *Task Builder*, 2-21
descriptor, *Task Builder*, B-15, B-17, B-20, B-21
overlay, *Task Builder*, 3-20, 3-21
I- and D-space task, *Task Builder*, 7-4
option, *Task Builder*, 12-45
region, *Task Builder*, 5-17, 5-26
task, *Task Builder*, 2-19 to 2-23
turning, *RMS-11 User's Guide*, 8-2
optimizations, *RMS-11 User's Guide*, 8-3

Window
wrap around
virtual section, *Task Builder*, 5-60
Window Definition Block
See WDB
Window pointer
number, *I/O Operations*, 2-16
Window size parameter (F11ACP), *I/O Drivers*, C-6
/WINDOWS qualifier
BRU utility, *Utilities*, 7-22
/WIN keyword
HOME command, *MCR*, 3-97
INITVOLUME command, *MCR*, 3-107
MOUNT command (MCR), *MCR*, 3-155
/WI switch, *Task Builder*, 10-52
WK: pseudo device, *Command Language*, 5-7, 5-8
/WLT switch
FMT utility, *Utilities*, 5-9
$$WNDS program section
reserved name, *Task Builder*, E-4
WNDWS option, *Task Builder*, 12-45
Word, *RMS-11 Introduction*, 2-1
location
displaying, *Debugging*, 4-2, 4-3
opening, *Debugging*, 4-2, 4-3
underscore command (_), *Debugging*, 4-5
.WORD directive, *MACRO-11*, 6-24, 6-25
implicit, *MACRO-11*, 2-1, 2-4, 6-25
WORD key (EDT), *Introduction*, 2-6
Word mode
changing to byte mode, *Debugging*, 4-3
operator
ASCII, *Debugging*, 2-7, 9-10
octal, *Debugging*, 2-7, 4-2, 9-11
Radix-50, *Debugging*, 2-7, 9-11
Work file
access
system overhead, *Task Builder*, F-2, F-5 to F-7
assembler, *MACRO-11*, F-1
contiguity, *Task Builder*, F-3
parameters, *Task Builder*, F-2
performance, *Task Builder*, F-2
changing device to improve, *Task Builder*, F-2, F-5
reads, *Task Builder*, F-2
Work file (cont'd.)
reducing size, *Task Builder*, F-5, F-6
reference, *Task Builder*, F-2
improving performance, *Task Builder*, F-6
size, *Task Builder*, F-2
writes, *Task Builder*, F-2
Wraparound
automatic, remote line (TTDRV), *I/O Drivers*, 2-83
half-duplex, *I/O Drivers*, 3-29
output line, *I/O Drivers*, 3-29
/WRAP keyword
SET command (MCR), *MCR*, 3-266
SET command (VMR), *System Management*, 10-82 to 10-83
W register, *Debugging*, 2-6, 5-3
Writable-block context, *RMS-11 Macro*, 4-12
Write
all character
half-duplex, *I/O Drivers*, 3-16
TTDRV, *I/O Drivers*, 2-15, 2-24, 2-29, 2-50
block transfer length (DTDRV), *I/O Drivers*, 6-7
break-through
half-duplex, *I/O Drivers*, 3-16
multi-echo (half-duplex), *I/O Drivers*, 3-16
privileged (TTDRV), *I/O Drivers*, 2-16
TF.WBT (TTDRV), *I/O Drivers*, 2-24, 2-29
TTDRV, *I/O Drivers*, 2-16, 2-17, 2-24, 2-48, 2-49
DDDRV, *I/O Drivers*, 7-4
error (tape driver), *I/O Drivers*, 8-14
file owner word, *I/O Operations*, 4-7
logical block, *I/O Drivers*, 1-31, 1-32
TTDRV, *I/O Drivers*, 2-16, 2-47
no sync (communication driver), *I/O Drivers*, 12-8
NRZI (tape driver), *I/O Drivers*, 8-16
pass all (TTDRV), *I/O Drivers*, 2-29, 2-47
redisplay input (TTDRV), *I/O Drivers*, 2-16, 2-29
reverse (DTDRV), *I/O Drivers*, 6-7

Write (cont'd.)
verify (CTDRV), *I/O Drivers*, 9-8
Write $$FSR2
default directory string, *I/O Operations*, 4-3
WRITE$ macro, *I/O Operations*, 1-7, 3-1
block access, *I/O Operations*, 2-12
example, *I/O Operations*, 3-39
extending file, *I/O Operations*, 3-39
FD.RWM parameter
block I/O, *I/O Operations*, 2-10
FDB, *I/O Operations*, 3-39
file processing, *I/O Operations*, 3-37
write virtual block, *I/O Operations*, 3-37
format, *I/O Operations*, 3-37
virtual block number, *I/O Operations*, 3-38
Write access, *MCR*, 2-3
common region, *MCR*, 3-119
file, *MCR*, 3-148, 3-213
file open, *I/O Operations*, 2-15
shared, *I/O Operations*, 1-12
UFD, *MCR*, 3-281
volume, *MCR*, 3-94, 3-96, 3-106, 3-151
Write access (F11ACP), *I/O Drivers*, C-8
Write-back cache data
preventing loss, *System Management*, 5-5
Write-behind file processing, *I/O Operations*, 2-19
Write-behind operation, FD.WBH parameter, *I/O Operations*, 3-12
Write-check
enabling in IOX, *System Management*, 4-67
WRITECHECK command
IOX, *System Management*, 4-67
WRITE command
EDI utility, *Utilities*, 2-49
EDT editor, *Introduction*, 2-16
Write data
into output register (LSDRV), *I/O Drivers*, 17-4
timed intervals, *I/O Drivers*, 17-8
to D/A converter
timed intervals (LSDRV), *I/O Drivers*, 17-8
Write default UIC, *I/O Operations*, 4-4
Write digital output (LSDRV), *I/O Drivers*, 17-20
Write file protection word
default, *I/O Operations*, 4-5
WRITE GROUP statement, *Error Logging*, 5-31
Write image
clock control register (LADRV), *I/O Drivers*, 22-29
/WRITE keyword
MOUNT command (MCR), *MCR*, 3-155
Write logical record
file processing, *I/O Operations*, 3-26
random mode, *I/O Operations*, 3-30
sequential mode, *I/O Operations*, 3-33
$WRITE macro
sequential access, *RMS-11 Macro*, 5-127
VBN access, *RMS-11 Macro*, 5-129
WRITE operation, *RMS-11 Introduction*, 4-7 *RMS-11 Macro*, 4-14
access modes, *RMS-11 Introduction*, 4-7
and shared access, *RMS-11 User's Guide*, 2-6
$WRITE macro
sequential access, *RMS-11 Macro*, 5-127
VBN access, *RMS-11 Macro*, 5-129
WRITE statement, *Error Logging*, 4-30, 5-31
Write virtual block
file processing, *I/O Operations*, 3-37
$WRMPG (Write marked page), *System Library*, 8-28
$WRPAG (Write page), *System Library*, 8-14
WSIG$S directive, *Executive*, 5-268
/W switch, *Error Logging*, 3-7, 3-21
WTLO$ directive, *Executive*, 5-270
WTSE$ directive, *Executive*, 5-272 *I/O Drivers*, 1-4, 1-10
WTSE$ macro, *I/O Drivers*, 1-14, 1-15, 1-24
example, *I/O Drivers*, 1-25

X

X$-family macro, *RMS-11 Macro*, 2-9
  declaring
    ALL block, *RMS-11 Macro*, C-3
    DAT block, *RMS-11 Macro*, C-3
    KEY block, *RMS-11 Macro*, C-3
    PRO block, *RMS-11 Macro*, C-3
    SUM block, *RMS-11 Macro*, C-3
XAB
  See also ALL block
  See also DAT block
  See also KEY block
  See also PRO block
  See also SUM block
  chaining to FAB, *RMS-11 Macro*, 2-12
XAB$B macro, *RMS-11 Macro*, 2-8, C-3
XAB$BT macro, *RMS-11 Macro*, C-4
XAB$E macro, *RMS-11 Macro*, 2-9
  declaring, *RMS-11 Macro*, C-3
XAB field in FAB
  chaining XABs to FAB, *RMS-11 Macro*, 2-12
  CLOSE operation, *RMS-11 Macro*, 5-3
  CREATE operation, *RMS-11 Macro*, 5-9
  DISPLAY operation, *RMS-11 Macro*, 5-29
  ENTER operation, *RMS-11 Macro*, 5-35
  ERASE operation, *RMS-11 Macro*, 5-40
  EXTEND operation, *RMS-11 Macro*, 5-46
  offset, *RMS-11 Macro*, 6-24
  OPEN operation, *RMS-11 Macro*, 5-73
  PARSE operation, *RMS-11 Macro*, 5-86
  REMOVE operation, *RMS-11 Macro*, 5-102
  RENAME operation, *RMS-11 Macro*, 5-108
  SEARCH operation, *RMS-11 Macro*, 5-116
  summary, *RMS-11 Macro*, 6-66
XABOF$ macro, *RMS-11 Macro*, C-4
XB$ALL code in COD field, *RMS-11 Macro*, 2-8
  summary, *RMS-11 Macro*, 6-10
XB$ALL code in COD field (cont'd.)
  value, *RMS-11 Macro*, 6-2
XB$BN2 code in DTP field
  CREATE operation, *RMS-11 Macro*, 5-18
  DISPLAY operation, *RMS-11 Macro*, 5-31
  OPEN operation, *RMS-11 Macro*, 5-80
  value, *RMS-11 Macro*, 6-67
XB$BN4 code in DTP field
  CREATE operation, *RMS-11 Macro*, 5-18
  DISPLAY operation, *RMS-11 Macro*, 5-31
  OPEN operation, *RMS-11 Macro*, 5-80
  value, *RMS-11 Macro*, 6-67
XB$CHG mask in FLG field
  CREATE operation, *RMS-11 Macro*, 5-19
  DISPLAY operation, *RMS-11 Macro*, 5-31
  OPEN operation, *RMS-11 Macro*, 5-80
  summary, *RMS-11 Macro*, 6-76
  value, *RMS-11 Macro*, 6-67
XB$CTG mask in AOP field
  CREATE operation, *RMS-11 Macro*, 5-18
  EXTEND operation, *RMS-11 Macro*, 5-47
  OPEN operation, *RMS-11 Macro*, 5-79
  RSTS/E, *RMS-11 Macro*, D-4
  summary, *RMS-11 Macro*, 6-6
  value, *RMS-11 Macro*, 6-2
XB$CYL mask in ALN field
  RSTS/E, *RMS-11 Macro*, D-3, D-4
XB$DAT code in COD field, *RMS-11 Macro*, 2-8
  summary, *RMS-11 Macro*, 6-17
  value, *RMS-11 Macro*, 6-14
XB$DTL code in BLN field
  summary, *RMS-11 Macro*, 6-15
  value, *RMS-11 Macro*, 6-14
XB$DUP mask in FLG field
  CREATE operation, *RMS-11 Macro*, 5-19
  DISPLAY operation, *RMS-11 Macro*, 5-31
  OPEN operation, *RMS-11 Macro*, 5-80
  summary, *RMS-11 Macro*, 6-77

XB$DUP mask in FLG field (cont'd.)
value, *RMS-11 Macro*, 6-67
XB$-family symbol
declaring
ALL block, *RMS-11 Macro*, C-3, C-4
DAT block, *RMS-11 Macro*, C-3, C-4
KEY block, *RMS-11 Macro*, C-3, C-4
PRO block, *RMS-11 Macro*, C-3, C-4
SUM block, *RMS-11 Macro*, C-3, C-4
XAB, *RMS-11 Macro*, C-4
XB$HRD mask in AOP field
CREATE operation, *RMS-11 Macro*, 5-17
EXTEND operation, *RMS-11 Macro*, 5-47
OPEN operation, *RMS-11 Macro*, 5-79
RSTS/E, *RMS-11 Macro*, D-4
RSX-11, *RMS-11 Macro*, D-4
summary, *RMS-11 Macro*, 6-7
value, *RMS-11 Macro*, 6-2
XB$IN2 code in DTP field
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
value, *RMS-11 Macro*, 6-67
XB$IN4 code in DTP field
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
value, *RMS-11 Macro*, 6-67
XB$INI mask in FLG field
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
value, *RMS-11 Macro*, 6-67
XB$KEY code in COD field, *RMS-11 Macro*, 2-8
summary, *RMS-11 Macro*, 6-70
value, *RMS-11 Macro*, 6-67
XB$KYL code in BLN field
summary, *RMS-11 Macro*, 6-69
XB$KYL code in BLN field (cont'd.)
value, *RMS-11 Macro*, 6-67
XB$LAL code in BLN field
summary, *RMS-11 Macro*, 6-9
value, *RMS-11 Macro*, 6-2
XB$LBN mask in ALN field
CREATE operation, *RMS-11 Macro*, 5-17
EXTEND operation, *RMS-11 Macro*, 5-47
RSTS/E, *RMS-11 Macro*, D-3, D-4
value, *RMS-11 Macro*, 6-2
XB$NUL mask in FLG field
CREATE operation, *RMS-11 Macro*, 5-19
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
summary, *RMS-11 Macro*, 6-78
value, *RMS-11 Macro*, 6-67
XB$PAC code in DTP field
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
value, *RMS-11 Macro*, 6-67
XB$PRL code in BLN field
summary, *RMS-11 Macro*, 6-109
value, *RMS-11 Macro*, 6-108
XB$PRO code in COD field, *RMS-11 Macro*, 2-8
summary, *RMS-11 Macro*, 6-110
value, *RMS-11 Macro*, 6-108
XB$SML code in BLN field
summary, *RMS-11 Macro*, 6-146
value, *RMS-11 Macro*, 6-145
XB$STG code in DTP field
CREATE operation, *RMS-11 Macro*, 5-18
DISPLAY operation, *RMS-11 Macro*, 5-31
OPEN operation, *RMS-11 Macro*, 5-80
value, *RMS-11 Macro*, 6-67
XB$SUM code in COD field, *RMS-11 Macro*, 2-8
summary, *RMS-11 Macro*, 6-147
value, *RMS-11 Macro*, 6-145
XB$VBN mask in ALN field
CREATE operation, *RMS-11 Macro*, 5-17

XB$VBN mask in ALN field (cont'd.)
EXTEND operation, *RMS-11 Macro*, 5-47
RSTS/E, *RMS-11 Macro*, D-3, D-4
value, *RMS-11 Macro*, 6-2
XBAOF$ macro, *RMS-11 Macro*, C-4
XBDOF$ macro, *RMS-11 Macro*, C-4
XBKOF$ macro, *RMS-11 Macro*, C-4
XBPOF$ macro, *RMS-11 Macro*, C-4
XBSOF$ macro, *RMS-11 Macro*, C-4
X command
ODT, *Debugging*, 1-4, 2-12 *Program Development*, 5-8
XDT, *Debugging*, 9-1, 9-14
ZAP utility, *Utilities*, 15-16
XDT, *CDA*, 1-2, 1-3, 1-6, 1-7 *Debugging*, 8-1 *Writing I/O Driver*, 6-1, 6-2, 6-3, 6-5
See also Executive Debugging Tool
BPT
inserting with OPEN, *Debugging*, 8-7
restoring instruction, *Debugging*, 8-8
setting, *Debugging*, 8-7
bug check, *Debugging*, 9-4
commands, *Debugging*, 9-8 *Writing I/O Driver*, 6-2
debugging
driver, *Debugging*, 9-2 *Writing I/O Driver*, 6-2, 6-4, 6-5
privileged task, *Debugging*, 9-1
entering, *Debugging*, 8-4
BPT instruction, *Debugging*, 8-7
BRK command, *Debugging*, 8-7
from hung system, *Debugging*, 8-9
virgin system boot, *Debugging*, 8-6
examining memory location, *Debugging*, 9-3
general operation, *Writing I/O Driver*, 6-4
including in system, *Debugging*, 8-1
loadable, *Debugging*, 8-2
error code, *Debugging*, 9-5
facility code, *Debugging*, 9-5
operators, *Debugging*, 9-8
restrictions, *Writing I/O Driver*, 6-3
SST, *Debugging*, 8-4
startup, *Writing I/O Driver*, 6-2
SYSGEN question, *System Generation*, 3-31
trap entry codes, *Debugging*, 8-5

XEDRV
address pairs, Ethernet, *I/O Drivers*, 13-3
asynchronous I/O, *I/O Drivers*, 13-21
buffer
diagnostic, *I/O Drivers*, 13-19
maximum size, *I/O Drivers*, 13-21
minimum size, *I/O Drivers*, 13-21
protocol address pair, *I/O Drivers*, 13-8
read destination address, *I/O Drivers*, 13-16
read Ethernet address, *I/O Drivers*, 13-14
read protocol type, *I/O Drivers*, 13-15
set characteristic, *I/O Drivers*, 13-7
set destination address, *I/O Drivers*, 13-12
set multicast address, *I/O Drivers*, 13-9
set protocol type, *I/O Drivers*, 13-12
change mode, *I/O Drivers*, 13-20
connecting to task, *I/O Drivers*, 13-22
default mode bit, *I/O Drivers*, 13-21
definition, *I/O Drivers*, 13-1
definition macro
DLXDF$, *I/O Drivers*, 13-4
EPMDF$, *I/O Drivers*, 13-4
diagnostic
buffer, *I/O Drivers*, 13-19
no data transfer, *I/O Drivers*, 13-21
DLX incompatibility, *I/O Drivers*, 13-21
driver installation, *I/O Drivers*, 13-5
error return
IO.XIN function, *I/O Drivers*, 13-11
IO.XRC function, *I/O Drivers*, 13-16
IO.XTM function, *I/O Drivers*, 13-13
Ethernet
address pairs, *I/O Drivers*, 13-3

XEDRV
Ethernet (cont'd.)
device consideration, *I/O Drivers*, 13-2
LF$DEF protocol, *I/O Drivers*, 13-3
LF$EXC protocol, *I/O Drivers*, 13-3
message, *I/O Drivers*, 13-2
message padding, *I/O Drivers*, 13-3
protocol, *I/O Drivers*, 13-3
receive, *I/O Drivers*, 13-3
set characteristic, *I/O Drivers*, 13-7
transmit, *I/O Drivers*, 13-3
function code, *I/O Drivers*, 13-4
glossary, *I/O Drivers*, 13-23
IO.XCL function, *I/O Drivers*, 13-4
IO.XIN function, *I/O Drivers*, 13-4
IO.XOP function, *I/O Drivers*, 13-4, 13-6
IO.XRC function, *I/O Drivers*, 13-4, 13-13
IO.XSC function, *I/O Drivers*, 13-4
IO.XTL function, *I/O Drivers*, 13-18
microcode, *I/O Drivers*, 13-4
IO.XTM function, *I/O Drivers*, 13-4
load, *I/O Drivers*, 13-5
macro library
DEUNA.MLB, *I/O Drivers*, 13-4
microcode loader
UML..., *I/O Drivers*, 13-5
multicast address mode, *I/O Drivers*, 13-2
open line, *I/O Drivers*, 13-6
pad enable bit, transmit, *I/O Drivers*, 13-20
physical adddress mode, *I/O Drivers*, 13-2
programming hint, *I/O Drivers*, 13-20
programming sequence, *I/O Drivers*, 13-4
protocol, Ethernet, *I/O Drivers*, 13-3
protocol/address pair
buffer, *I/O Drivers*, 13-8
protocol address pair
buffer, *I/O Drivers*, 13-8
QIO$ macro, *I/O Drivers*, 13-3
general, *I/O Drivers*, 13-4
XEDRV (cont'd.)
QIO$ macro libary
EXEMC.MLB, *I/O Drivers*, 13-4
read destination address
buffer, *I/O Drivers*, 13-16
read Ethernet address
buffer, *I/O Drivers*, 13-14
read protocol type
buffer, *I/O Drivers*, 13-15
receive, Ethernet, *I/O Drivers*, 13-3
receive message, *I/O Drivers*, 13-13
set characteristic
buffer, *I/O Drivers*, 13-7
Ethernet, *I/O Drivers*, 13-7
set destination address
buffer, *I/O Drivers*, 13-12
set multicast address
buffer, *I/O Drivers*, 13-9
set protocol type
buffer, *I/O Drivers*, 13-12
status return, *I/O Drivers*, 13-5
IO.XIN function, *I/O Drivers*, 13-11
IO.XRC function, *I/O Drivers*, 13-16
IO.XTM function, *I/O Drivers*, 13-13
task requirement, *I/O Drivers*, 13-2
transmit, Ethernet, *I/O Drivers*, 13-3
transmit line message
IO.XTM function, *I/O Drivers*, 13-11
U$$NCT parameter, *I/O Drivers*, 13-2
U$$NPC parameter, *I/O Drivers*, 13-2
U$$NRS parameter, *I/O Drivers*, 13-2
U$$NTS parameter, *I/O Drivers*, 13-2
use, *I/O Drivers*, 13-1
/XHR keyword
INSTALL command (MCR), *MCR*, 3-122
INSTALL command (VMR), *System Management*, 10-28
/XH switch, *Task Builder*, 10-53
XOFF, *I/O Drivers*, 3-15
send (TTDRV), *I/O Drivers*, 2-16, 2-29, 2-37, 2-42, 2-44
XOFF bit (TTDRV), *I/O Drivers*, 2-70
XON/XOFF protocol, *System Management*, 9-2

XON bit (TTDRV), *I/O Drivers*, 2-70
.XQIO routine, execute QIO, *I/O Operations*, 4-26
.XQT directive, *Indirect*, 2-95
XRATE: subroutine
  compute clock rate and preset
    K-series, *I/O Drivers*, 23-30
    LADRV, *I/O Drivers*, 22-25
X register, *Debugging*, 2-6, 5-3, 5-6
x symbol, *Debugging*, 2-1
/XT switch, *Task Builder*, 10-54
xxCTB label, *Writing I/O Driver*, 4-60
$xxDCB
  global label, *Writing I/O Driver*, 4-3
xxDRV.MAC file, *Writing I/O Driver*, 5-2
xxDRVASM.CMD file, *Writing I/O Driver*, 5-3
$xxLOA label, *Writing I/O Driver*, 4-9, 4-61
xxTAB.MAC file, *Writing I/O Driver*, 1-18, 5-2
$xxTBE label, *Writing I/O Driver*, 4-60
$xxTBL label, *Writing I/O Driver*, 4-60
$xxUNL label, *Writing I/O Driver*, 4-9, 4-61

Y

/@Y switch
  FMT utility, *Utilities*, 5-9

Z

ZAP utility
  address boundary
    displaying, *Utilities*, 15-3
  addressing mode, *Utilities*, 15-4
  command
    carriage return, *Utilities*, 15-7
    general purpose, *Utilities*, 15-7
      summary, *Utilities*, 15-15
    open/close location, *Utilities*, 15-7
      summary, *Utilities*, 15-11
  command line, *Utilities*, 15-6
    element, *Utilities*, 15-8
  debugging privileged task, *Debugging*, 8-8
  error message, *Utilities*, 15-23
  example, *Utilities*, 15-18
  indirect command file, *Utilities*, 15-6
  initiating (invoking), *Utilities*, 15-5
ZAP utility (cont'd.)
  inserting breakpoint, *Debugging*, 8-8
  location
    addressing, *Utilities*, 15-4
    closing, *Utilities*, 15-13
    contents
      changing, *Utilities*, 15-13
      displaying, *Utilities*, 15-12
      verifying, *Utilities*, 15-18
    opening, *Utilities*, 15-12
    specifying, *Utilities*, 15-10
  modifying system image, *Debugging*, 8-8
  ODT on-line debugger, *Utilities*, 15-1
  operating mode, *Utilities*, 15-2
  register
    setting value, *Utilities*, 15-18
  relocation biases, *Utilities*, 15-4
  switch, *Utilities*, 15-2
  task image file, *Utilities*, 15-3
    I- and D-space, *Utilities*, 15-3
    multiuser, *Utilities*, 15-3
    resident library, *Utilities*, 15-3
  terminating, *Utilities*, 15-5
Z command, *Debugging*, 2-12
Zero byte, appending to character string, *MACRO-11*, 6-28
Z error, *MACRO-11*, 5-4
  summary, *MACRO-11*, D-5
/ZE switch
  FLX utility, *Utilities*, 4-8

READER'S COMMENTS

Your comments and suggestions are welcome and will help us in our continuous effort to improve the quality and usefulness of our documentation and software.

Remember, the system includes information that you read on your terminal: help files, error messages, prompts, and so on. Please let us know if you have comments about this information, too.

Did you find this manual understandable, usable, and well organized? Please make suggestions for improvement.

_____

_____

_____

_____

_____

_____

Did you find errors in this manual? If so, specify the error and the page number.

_____

_____

_____

_____

_____

_____

What kind of user are you? ___ Programmer ___ Nonprogrammer

What do you use the system for? _____

Years of experience as a computer programmer/user: _____

Name _____ Date _____

Organization _____

Street _____

City _____ State _____ Zip Code _____
or Country

Do Not Tear - Fold Here and Tape

digital

No Postage Necessary if Mailed in the United States

BUSINESS REPLY MAIL
FIRST CLASS PERMIT NO.33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

SSG PUBLICATIONS ZK1-3/J35
DIGITAL EQUIPMENT CORPORATION
110 SPIT BROOK ROAD
NASHUA, NEW HAMPSHIRE 03062-2698

Do Not Tear - Fold Here

Cut Along Dotted Line