ULTRIX

Reader's Guide and Master Index

Order Number: AA-ME82B-TE

June 1990

Product Version:

ULTRIX Version 4.0 or higher

This manual describes the documentation kits and documents that are available for your ULTRIX system. The master index helps you find topics in the documentation set.

Restricted Rights: Use, duplication, or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c) (1) (ii) of the Rights in Technical Data and Computer Software clause of DFARS 252.227-7013.

© Digital Equipment Corporation 1987, 1990 All rights reserved.

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 or its affiliated companies.

The following are trademarks of Digital Equipment Corporation:

digital DECUS ULTRIX Worksystem Software

DECwindows UNIBUS
CDA DTIF VAX
DDIF MASSBUS VAXstation
DDIS MicroVAX VMS

DEC Q-bus VMS/ULTRIX Connection

DECnet ULTRIX VT
DECstation ULTRIX Mail Connection XUI

Ethernet is a registered trademark of Xerox Corporation.

X/Open is a trademark of X/Open Company Ltd.

UNIX is a registered trademark of AT&T in the USA and other countries.

Contents

About This Manual

Aud	lience	v
Orga	anization	v
Con	ventions	v
1	Reader's Guide	
1.1	Online Reference Information	1–2
1.2	General Information Documentation Kit	1–2
	1.2.1 Volume 1: Product Summaries and Unsupported Software 1.2.2 Volume 2: System Use 1.2.3 Volume 3: Command Reference	1-4 1-4 1-5
1.3	System and Network Management Documentation Kit	1–5
	 1.3.1 Volume 1: System Setup 1.3.2 Volume 2: Local System Management 1.3.3 Volume 3: Problem Solving 1.3.4 Volume 4: Network Management 1.3.5 Volume 5: Server and Client Management 1.3.6 Volume 6: Device and File Reference 1.3.7 Volume 7: Maintenance Command Reference 	1-6 1-7 1-8 1-9 1-10 1-11
1.4	Software Development Tools Documentation Kit	1–11
	1.4.1 Software Development Kit	1–12
	1.4.1.1 Volume 1: General Programming 1.4.1.2 Volume 2: VAX C Programming 1.4.1.3 Volume 3: Network Programming 1.4.1.4 Volume 4: System Call Reference 1.4.1.5 Volume 5: Library Routine Reference	1–12 1–13 1–13 1–14 1–14
	1.4.2 ULTRIX/SQL Documentation Kit 1.4.3 CDA Documentation Kit 1.4.4 Supplementary Documents Kit	1-14 1-15 1-15
1.5	Ordering ULTRIX Documentation	1–16

2 About the Master Index

3 Master Index

1-1:	Organization of the Full Documentation Kit	1-1
1-2:	Documents of Interest to General Users	1-3
1-3:	Documents of Interest to System Administrators	1-6
1-4:	Documents of Interest to Programmers	1–11
Tab	les	
1-1:	ULTRIX Documentation Kit Order Numbers	1–17
1-2:	8 $^{1}/_{2} \times 11$ -Inch Binder Order Numbers	1–17
1-3:	Individual Manual Order Numbers	1–18
2-1:	Manual Title Abbreviations	2-2

About This Manual

This manual describes the documentation kits and documents that are available for your ULTRIX system. The master index helps you find topics in the ULTRIX documentation set.

Audience

You should read this manual if you use ULTRIX documentation. This manual helps you decide which manuals in the documentation are most useful to you and how you should use those manuals. The master index helps you find a specific topic in the documentation set by pointing you to the pages in the appropriate manual where the topic is discussed. The master index also helps you determine which manual is the best reference for a particular topic.

Organization

This manual contains the following chapters:

Chapter 1 Reader's Guide

Describes the audience and purpose of each documentation kit. Also describes the manuals that compose each kit and how to order

ULTRIX documentation.

Chapter 2 About the Master Index

Describes the special typographical conventions used in the master

index.

Chapter 3 Index

Provides a master index for books in the ULTRIX documentation set.

Conventions

The following list details the conventions used in this document. See Chapter 2 for information about conventions used in the master index.

% The default user prompt is your system name followed by a right

angle bracket. In this manual, a percent sign (%) is used to

represent this prompt.

user input This bold typeface is used in interactive examples to indicate

typed user input.

system output This typeface is used in interactive examples to indicate system output and also in code examples and other screen displays. In text, this typeface is used to indicate the exact name of a command, option, partition, pathname, directory, or file.

cat(1) Cross-references to the *ULTRIX Reference Pages* include the appropriate section number in parentheses. For example, a reference to cat(1) indicates that you can find the material on the cat command in Section 1 of the reference pages.

The ULTRIX Full Documentation Kit contains all the manuals in the ULTRIX documentation set, with the exception of some installation documents and informational letters. The installation documents and letters are packaged with your ULTRIX software distribution media. Use those documents when you install your ULTRIX system.

The Full Documentation Kit is divided into three smaller kits. Figure 1-1 illustrates how the documentation kit is divided.

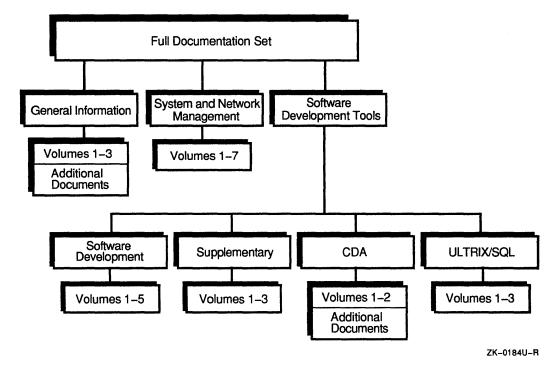


Figure 1-1: Organization of the Full Documentation Kit

The three-kit division of the Full Documentation Kit addresses the needs of three audiences:

General users

People who are general users (which includes anyone who uses an ULTRIX system) should read and refer to the manuals in the General Information Documentation Kit.

System administrators

People who are responsible for managing an ULTRIX system or network should read and refer to manuals in the System and Network Management Documentation Kit.

Programmers

People who write programs of any size should refer to the Software Development Tools Documentation Kit for information on tools and programming recommendations.

The rest of this chapter describes ULTRIX documentation. The first section describes the ULTRIX online documentation. Sections 1.2 through 1.4 describe the printed contents of the Full Documentation Kit. The last section describes how to order ULTRIX documentation.

1.1 Online Reference Information

The ULTRIX documentation set contains reference information that you can use either on line or in printed form. This reference information consists of a number of reference pages, each of which describes one topic, such as a command, function, or file.

You can read the reference pages on line (if they are installed on your system) by using the man command. This command finds, formats (if necessary), and displays the reference page you specify on the man command line.

For more information about the man command, you can read the man(1) reference page. To display this reference page, issue the following command:

% man man

If you receive an error message in response to this command, the reference pages might not be installed on your system. See your system administrator to determine whether the reference pages can be added to your system.

1.2 General Information Documentation Kit

The General Information Documentation Kit contains important information for all users of the ULTRIX operating system. This kit contains introductory information for people who are just learning the ULTRIX system and advanced user information, such as how to make your login account secure and how to use the nawk utility.

Figure 1-2 illustrates documents that are of interest to general users.

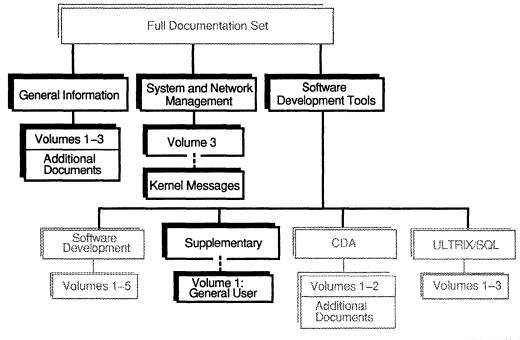


Figure 1-2: Documents of Interest to General Users

ZK-0191U-R

As the figure shows, general users might need to refer the Kernel Messages Reference Manual and the Supplementary Documents, Volume 1: General User in addition to the manuals in the General Information Documentation Kit. For a description of the Kernel Messages Reference Manual, see Section 1.3.3. For a description of the Supplementary Documents, Volume 1, see Section 1.4.4.

The following documents are part of the General Information Documentation Kit, but are not part of any volume in that kit:

Application Sources Mailer

You can return this reply card to receive the *ULTRIX Software Source Book*. The *ULTRIX Software Source Book* contains a list of products that are developed by vendors other than Digital and that run on the ULTRIX system.

• vi Beginner's Reference Card

The card lists vi editor commands and their functions and is useful as a quick reference for new users of the vi text editor.

Release Notes

This manual provides information about how the ULTRIX software has changed for this release. The *Release Notes* also describe errors in this version of the software and documentation changes. You should read the *Release Notes* because they contain information that is important to each type of ULTRIX system user and to each release of the ULTRIX software.

The rest of this section describes the volumes in the General Information Documentation Kit.

1.2.1 Volume 1: Product Summaries and Unsupported Software

Volume 1 of the General Information Documentation Kit contains this manual and the following manuals:

• Technical Summary

This manual describes the software that composes your ULTRIX system. The manual gives information about the ULTRIX system and network facilities, the standards to which the system conforms, the hardware you need to run the system, and the components of the ULTRIX documentation set. You should read the *Technical Summary* if you need a compact technical reference or if you need to develop the technical specification for a computer system purchase.

• Reference Pages for Unsupported Software

This manual contains information about the unsupported software included on your ULTRIX distribution kit. Unsupported software is not maintained by Digital. You should read these reference pages if you use unsupported software.

1.2.2 Volume 2: System Use

The second volume of the General Information Documentation Kit provides introductory information for new ULTRIX users. This volume is the best reference for information about using the text editors and text formatters available on the ULTRIX system. Using the nawk programming language and ULTRIX security features are also described in this volume, which contains the following manuals:

• The Little Gray Book: An ULTRIX Primer

This guide is an introduction to working with the ULTRIX operating system and its related tools. This manual is especially useful to new users because it provides introductory tutorials on the ULTRIX operating system, including tutorials on the file system, the C shell, commands, and the vi editor. Experienced computer users will find the appendixes useful; they describe coming to the ULTRIX system from the VMS and MS-DOS operating systems and supply a quick reference table for ULTRIX commands.

• The Big Gray Book: The Next Step with ULTRIX

This guide provides intermediate information about the ULTRIX operating system and the tools it provides. The guide provides more advanced information than *The Little Gray Book: An ULTRIX Primer*, while avoiding descriptions of every available ULTRIX tool or command. The guide introduces writing C shell, sed, and awk scripts. You should read this manual if you have read and understood the *Primer* or if you have gained some ULTRIX experience and would now like to learn more. Experienced ULTRIX users can use this manual for detailed information on specific topics.

• Guide to the nawk Utility

This guide introduces the important principles and concepts of the nawk programming language. The nawk programming language allows you to display information in files, prepare reports using information stored in a file, perform calculations using numeric information stored in a file, and analyze text for spelling and frequency of words and letters. You can combine these operations to perform complex tasks. You should read this manual if you want to learn how to use nawk.

• Security Guide for Users

This guide describes the security features available in the ULTRIX system. The manual explains how you can protect your account, files, and workstation. You should read this manual if you use an ULTRIX system and are concerned about security issues.

Reference Pages Section 7: Macro Packages and Conventions

This reference page section contains miscellaneous information. Refer to this section for descriptions of the following:

- ASCII character codes
- Mail addressing formats
- The root file system
- The time command
- The man, ms, and me macro packages for formatting text

1.2.3 Volume 3: Command Reference

Volume 3A of the General Information Documentation Kit contains the Reference Pages Section 1: Commands A - L. Volume 3B contains the Reference Pages Section 1: Commands M - Z. Refer to these reference pages for descriptions of ULTRIX commands that are available to all users. (System and network management commands are documented in the Reference Pages Section 8: Maintenance.)

1.3 System and Network Management Documentation Kit

System administrators need the System and Network Management Documentation Kit. This documentation kit contains manuals that describe how to configure systems, maintain disks, and set up and use system administration tools. Figure 1-3 illustrates the documents that are useful to system administrators.

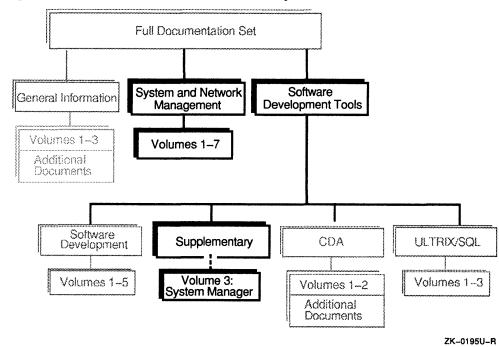


Figure 1-3: Documents of Interest to System Administrators

Notice that in addition to the books in the System and Network Management Documentation Kit, system administrators might find the Supplementary Documents, Volume 3: System Manager useful. For a description of this supplementary document, see Section 1.4.4.

1.3.1 Volume 1: System Setup

The first volume of the System and Network Management Documentation Kit contains system setup information. System administrators can use the manuals in this volume to become familiar with system administration concepts. This volume contains the following manuals:

• Guide to Software Licensing

This guide describes software licensing and the license management tools associated with the Digital Distributed Software Licensing Architecture. The guide gives information about the License Management Facility and Product Authorization Keys. You should read this manual if you are responsible for managing software licenses on ULTRIX systems.

• Guide to System Environment Setup

This guide describes how to set up and maintain a working ULTRIX environment for users at your site. The manual addresses topics such as modifying system files, adding and removing user accounts, adding devices, setting up the print system, and so on. You should read this manual if you are responsible for managing and maintaining an ULTRIX system.

• Guide to System and Network Setup

This guide identifies a series of tasks that you must perform to set up your system and establish it on a network. The guide provides step-by-step information on how to complete each task. Although the guide is primarily focused on setting up your system and network, you can use it to modify an existing system or network configuration. You should read this manual if you are a novice system or network administrator.

• Guide to the Location Broker

This guide describes the administration of the Location Broker, a component of DECrpc Version 1.0 that is based on Apollo's Network Computing System (NCS). Location Broker software provides run-time name service support for distributed application programs that use remote procedure calls. You should read this manual if you are a system administrator who sets up the Location Broker or administers systems that run distributed applications.

• Security Guide for Administrators

This guide describes the tasks and considerations associated with managing system security in an ULTRIX environment. You should read this guide if you are responsible for establishing and implementing system security policies on any machine that runs the ULTRIX operating system.

• Guide to PrintServer Clients

This guide explains how to use the PrintServer software to print files on Digital's family of network laser printers. The guide explains the commands you use to print files and manage printer queues. The manual also describes how to customize your print jobs and handle some special types of media. You should read this manual if you use the PrintServer to print files or if you set up and maintain the PrintServer environment.

1.3.2 Volume 2: Local System Management

Volume 2 of the System and Network Management Documentation Kit describes how to manage a standalone, or local, ULTRIX system. This volume contains the following manuals:

• Guide to Configuration File Maintenance

This guide contains information on how to maintain the system configuration file and how to build a new kernel, either automatically or manually. The configuration file provides you with the ability to configure your system to meet your needs. You should read this manual if you are responsible for maintaining an ULTRIX system.

• Guide to Shutdown and Startup

This guide gives information on boot commands and on shutting down and starting up your system. The manual gives the boot command for each processor ULTRIX supports. The guide also explains various ways to shut down your system and the three system startup modes: single-user, multiuser, and conversational. You should read this manual if you are responsible for managing an ULTRIX system.

• Guide to Backup and Restore

This guide describes using ULTRIX system commands and utilities to back up and restore files and file systems. The guide gives you information that helps you develop system backup strategies for local systems and network environments. You should read this manual if you are responsible for maintaining disks on an ULTRIX system.

• Guide to Disk Maintenance

This guide provides information on handling disk space. The guide presents background information on disks and file systems, describes how to manage disk space and how to partition disks, and explains bad block replacement. You should read this manual if you are responsible for maintaining disks on an ULTRIX system.

1.3.3 Volume 3: Problem Solving

Volume 3 of the System and Network Management Documentation Kit contains information on problem solving and troubleshooting your ULTRIX system. This volume contains the following manuals:

• Guide to System Crash Recovery

This guide gives information about recovering from a system crash using ULTRIX utilities. This manual also presents guidelines from which you can develop specific crash recovery procedures for your site. You should read this manual if you are responsible for rebooting your system after it crashes and controlling and preventing system crashes.

• Guide to the Error Logger

This guide contains information about the error logger and how it records and reports errors and other events that occur on your ULTRIX system. The guide gives an overview of the error logger, describes how to control error logger functions, and describes using the Error Report Formatter, uerf. You should read this manual if you manage error information on an ULTRIX system.

• Guide to System Exercisers

The guide explains how to run system exercisers to test file systems, memory, peripherals, and networks. You should read this manual if you are responsible for finding and correcting problems with your local configuration of an ULTRIX system.

• Kernel Messages Reference Manual

This manual describes the messages produced by the files in the ULTRIX kernel. You should refer to this manual if you receive a hardware-detected or software-detected message that is reported through the ULTRIX kernel software.

1.3.4 Volume 4: Network Management

Volume 4 of the System and Network Management Documentation Kit describes managing networks and distributed system services. This volume contains the following manuals:

Introduction to Networking and Distributed System Services

This guide provides an overview of basic networking concepts and the ULTRIX software's distributed system services. The distributed system services include the BIND/Hesiod and Yellow Pages (YP) naming services, the Network Time Protocol (NTP) and the Timed Synchronization Protocol (TSP) time services, and the Kerberos authentication service. The guide also provides an overview of the Simple Network Management Protocol (SNMP) and the ULTRIX implementation of the SNMP Agent. You should read this guide if you are responsible for maintaining TCP/IP networks.

Guide to Ethernet Communications Servers

This guide provides information about the tasks and procedures you use to interface the ULTRIX operating system and the communications servers in an Ethernet LAN. The guide also provides information about maintaining these interfaces. You should read this manual if you are responsible for maintaining local area networks on an ULTRIX system.

• Guide to the Network File System

This guide provides information about the Network File System (NFS). NFS is a facility for sharing files in a heterogeneous environment of different processors, operating systems, and networks. The manual provides introductory, setup, and troubleshooting information and helps you develop NFS management procedures. You should read this manual if the system you administer is an NFS server or client.

• Guide to the BIND/Hesiod Service

This guide provides introductory information about the BIND/Hesiod service. The BIND/Hesiod service allows client systems to obtain distributed database information, such as host names, host addresses, and user passwords, from a server. The guide explains how to install and troubleshoot this service. You should read this manual if you are responsible for maintaining utilities, such as the mail utility, on a number of ULTRIX systems.

• Guide to the Yellow Pages Service

This guide gives information about the Yellow Pages (YP) service. YP is a distributed database lookup service that maintains and propagates databases around a network. You should read this manual if you are responsible for managing more than one system connected by a network.

• Guide to Kerberos

This guide describes Kerberos, its setup, and the network programming connections of the kerberos daemon to a Kerberos-authenticated application. Kerberos enhances security by authenticating applications to each other across machine boundaries in a distributed network. ULTRIX Kerberos supports the authentication of commonly networked applications, such as named and auditd. You should read this manual if you are responsible for setting up a network with Kerberos authentication.

• Guide to the uucp Utility

This guide describes how to set up and maintain the ULTRIX uucp utility. The uucp utility allows you to copy files from one UNIX system to another UNIX system. You should read this manual if you manage a system that runs uucp.

• Guide to IBM Terminal Emulation for VAX Processors

This guide gives information about the IBM terminal emulator. The 2780/3780 Terminal Emulator is a software package that allows your ULTRIX operating system to emulate a 2780 or 3780 IBM terminal. This manual provides introductory, setup, maintenance, and troubleshooting information. You should read this manual if your system uses the terminal emulator software.

1.3.5 Volume 5: Server and Client Management

Volume 5 of the System and Network Management Documentation Kit addresses setting up workstation servers and workstations. This volume includes information about running diskless workstations and installing software over the network. The following manuals are included in Volume 5:

• Guide to Server Setup

This guide explains how to set up a server processor to provide services to registered clients. The guide discusses setting up Diskless Management Services (DMS) and Remote Installation Services (RIS) areas. You should read this manual if you install and maintain DMS or RIS servers.

• Guide to Diskless Management Services

This guide gives information about installing and maintaining a DMS area on a server. A DMS server area contains software that is available to registered client processors that have licenses for that software. No client has an individual copy of the software in the server area; each client uses the software that is stored in the server area. Therefore, you can perform system administration tasks on the software in the server area and simplify the task of managing a number of client systems. You should read this manual if you are responsible for setting up and maintaining a server or diskless clients.

Guide to Remote Installation Services

This guide explains how to install and maintain a Remote Installation Services (RIS) area. Once you create a RIS area, you can install ULTRIX software on RIS clients over the network, rather than using physical distribution media. You should read this manual if you are responsible for setting up a RIS area on a server.

1.3.6 Volume 6: Device and File Reference

Volume 6 of the System and Network Management Documentation Kit contains the following reference information:

• Reference Pages Section 4: Special Files

These reference pages describe the files related to device driver functions and network support. You should refer to these reference pages if you need information about devices. For example, you might refer to these reference

pages if you are a programmer who is writing a device driver or a system administrator who is partitioning a disk.

• Reference Pages Section 5: File Formats

These reference pages describe formats of various files and how the system files are used. The files described include assembler and link editor output, system accounting, and file system formats. Refer to this reference page section if you need information about file formats.

1.3.7 Volume 7: Maintenance Command Reference

Volume 7 of the System and Network Management Documentation Kit contains the Reference Pages Section 8: Maintenance. These reference pages describe commands used to create new file systems and to verify the integrity of file systems. Use these reference pages when you perform system administration tasks.

1.4 Software Development Tools Documentation Kit

Software developers need the Software Development Tools Documentation Kit. This kit contains four subkits that provide information programmers might find useful: the Software Development Documentation Kit, the ULTRIX/SQL Documentation Kit, the CDA Documentation Kit, and the Supplementary Documents Kit. Figure 1-4 shows the documents that are useful to programmers.

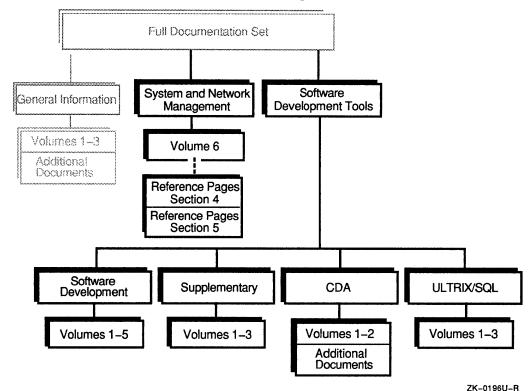


Figure 1-4: Documents of Interest to Programmers

Notice that in addition to the manuals in the Software Development Tools Kit, programmers might need the *Reference Pages Section 4: Special Files* and the

Reference Pages Section 5: File Formats. The Section 4 and Section 5 reference pages are described in Section 1.3.6.

1.4.1 Software Development Kit

The Software Development Documentation Kit contains programming information that is useful to most programmers who use the ULTRIX system. The guides in this kit describe the ULTRIX programming environment. The Software Development Documentation Kit is divided into five volumes.

- **1.4.1.1 Volume 1: General Programming –** Volume 1 of the Software Development Documentation Kit contains much of the information programmers need to develop software on an ULTRIX system. This kit contains the following manuals:
 - Guide to Languages and Programming

This guide describes the compilers and high-level languages that are part of the compiler system. The manual gives an overview of the ULTRIX driver commands and system tools that are provided for the programming environment, and it describes how to program in a POSIX environment. The manual also describes debugging programs and provides security guidelines for programmers. Although this manual discusses implementation details for the supported languages, it does not list the syntax and definition of the elements of each language. You should read this manual if you are a programmer on an ULTRIX system.

• Guide to Developing International Software

This guide contains information about the ULTRIX internationalization tools and functions. The manual describes how to design or adapt a program to meet international requirements, such as those of a local language and the character set associated with it. You should read this manual if you write programs intended for multinational or non-English language use. Translators involved in translating messages displayed by international programs might also find this guide useful.

• Guide to X/Open curses Screen Handling

This guide describes the X/Open curses library package. This manual covers the basic concepts you should understand to use the package, and it describes how to write screen-management programs using the curses routines. The manual also outlines the differences between the X/Open curses package and the BSD 4.2 curses package. You should read this manual if you are a C programmer who wants to learn about using the X/Open curses package.

• Guide to the Source Code Control System

This guide describes how to use the Source Code Control System (SCCS) and its commands and options. SCCS is a source management system that maintains a record of each set of changes made to a file, including why the changes were made, who made them, and when they were made. You should read this manual if you are working on a multi-person project or if you are responsible for archiving source files.

• Guide to Preparing Software for Distribution on ULTRIX Systems

This guide contains information about preparing software distribution kits that are compatible with the setld utility. The setld utility installs and manages ULTRIX software kits and ULTRIX layered product kits. You should read this manual if you prepare software for installation on ULTRIX systems.

• The Packet Filter: An Efficient Mechanism for User-Level Network Code

This article gives information about implementing networking protocols using the packet filter, a kernel-resident, protocol-independent packet demultiplexer. You can write user-level (as opposed to kernel-resident) protocols that use the packet filter to demultiplex received packets. When you use the packet filter, your user-level protocol performs efficiently, and you avoid the development and maintenance issues involved in writing kernel-resident protocols. You should read this article if you develop network protocols.

• POSIX Conformance Document

This manual details how Version 4.0 of the ULTRIX operating system meets the "conforming implementation" requirements for an operating system as defined in the following standards:

- IEEE 1003.1–1988 (POSIX) standard
- POSIX Federal Information Processing Standard (FIPS 151-1)
- ISO DIS 9944

You should read this manual if you want to evaluate the ULTRIX operating system for POSIX conformance.

- 1.4.1.2 Volume 2: VAX C Programming The second volume of the Software Development Documentation Kit contains the Guide to VAX C for ULTRIX. This guide contains information on how to develop and debug VAX C programs on the ULTRIX operating system. The VAX C compiler is written specifically to compile programs that run on VAX hardware. The ULTRIX system version of the VAX C compiler is similar to the VAX C compiler that runs on the VMS system. You should read this manual if you plan to use VAX C.
- **1.4.1.3** Volume 3: Network Programming Volume 3 of the Software Development Documentation Kit contains manuals that address writing programs that run over a network. This kit contains the following manuals:
 - Guide to Network Programming

This guide introduces the architectures and components of the ULTRIX network programming environment. The guide discusses how network layering schemes, the socket interface, and ULTRIX network components can help you write network applications. The manual also describes the programming interface to the Extended SNMP Agent supported by the ULTRIX operating system. You should read this manual if you write network application programs.

• Guide to the X/Open Transport Interface

This guide contains information about developing network application programs on the ULTRIX operating system. This guide also contains information about migrating from socket-based software to the X/Open Transport Interface (XTI) software. You should read this manual if you are an experienced programmer who plans to write network application programs using XTI.

• DECrpc Programming Guide

This guide provides programming information for DECrpc Version 1.0. DECrpc is based on and is compatible with Version 1.5 of the Network Computing System (NCS) that was developed by Apollo Computer Corporation. You should refer to this manual if you develop distributed applications.

• Guide to the Data Link Interface

This guide describes using the Data Link Interface (DLI) to write application programs. DLI is network software that allows programs running on an Ethernet node to communicate with other data link programs on other Ethernet nodes. DLI allows your program to interact directly with the broadcast network device drivers of an ULTRIX system. You should read this manual if you plan to use DLI.

- 1.4.1.4 Volume 4: System Call Reference Volume 4 of the Software Development Documentation Kit contains the *Reference Pages Section 2: System Calls*. System calls are the entry points to the ULTRIX kernel. This section contains descriptions of calls such as open, getpagesize, and sigvec. You should refer to these reference pages if you write software that calls the ULTRIX kernel.
- 1.4.1.5 Volume 5: Library Routine Reference The fifth volume of the Software Development Documentation Kit contains the Reference Pages Section 3: Library Routines. The ULTRIX system contains library routines for C and FORTRAN programmers. The library routines are organized into a number of libraries, including libraries for writing international software, standards-conforming software, and math software. The ULTRIX system also contains the Internet network library and various other specialized libraries. You should refer to these reference pages if you write software that calls routines in any of the ULTRIX libraries.

1.4.2 ULTRIX/SQL Documentation Kit

The ULTRIX/SQL Documentation Kit contains user and reference material that describes how to use ULTRIX/SQL. ULTRIX/SQL is a relational database management system with an SQL (Structured Query Language) interface. You can use ULTRIX/SQL through ULTRIX/SQL interactive utilities. Alternatively, you can purchase additional software, such as an ULTRIX/SQL preprocessor for application development, and use ULTRIX/SQL through that software.

The ULTRIX/SQL Documentation Kit includes the following manuals:

- Volume 1:
 - ULTRIX/SQL Operations Guide

This guide explains the initialization and operations procedure for ULTRIX/SQL installations.

ULTRIX/SQL NET User's Guide

This guide explains how to access remote ULTRIX/SQL databases and use the netu utility.

- ULTRIX/SQL Database Administrator's Guide

This guide describes how to create and maintain an ULTRIX/SQL database.

Volume 2: ULTRIX/SQL Reference Manual

This manual describes the ULTRIX/SQL relational database system and query language. The manual also explains how to define terminals to the ULTRIX/SQL, forms-based utilities.

1.4.3 CDA Documentation Kit

The CDA (Compound Document Architecture) Documentation Kit contains user and reference material that describes the CDA Services used to convert, view, and transfer CDA documents and to create CDA-conforming compound document applications and converters. The CDA Services and their documentation are intended for use by system and application programmers.

The CDA Documentation Kit consists of the following manuals:

Introduction to the CDA Services

This manual provides an overview of compound document processing terminology and the various components of CDA. The components of CDA include the CDA Toolkit; the Converter Architecture; the DDIF and DTIF interchange formats; and the command line interface to converting, viewing, and transferring CDA documents.

• Guide to Creating Compound Documents with the CDA Toolkit

This guide is a tutorial that describes how to use the CDA Toolkit to create CDA-conforming compound document applications on ULTRIX and VMS systems.

• CDA Reference Manual Volume 1 and Volume 2

This manual provides material that supplements the CDA user guides. The reference material describes the DDIF and DTIF aggregates and syntax diagrams; CDA Toolkit and user-defined routines; converter routines; callable DECwindows and character-cell CDA viewer routines; and the ULTRIX and VMS system commands used to convert, view, and transfer CDA documents.

1.4.4 Supplementary Documents Kit

The ULTRIX Supplementary Documents Kit contains three volumes. Each volume contains articles written by computer scientists and program developers at Bell Laboratories and the University of California at Berkeley. Topics range from "getting-started" procedures to the details of the operating system. The articles in the supplementary information provide some information that is unavailable elsewhere. However, you should be aware that the information in some articles is dated.

Some information in the Supplementary Documents is provided by other manuals in the ULTRIX documentation set. Where other manuals duplicate information in the

Supplementary Documents, the information in the other manuals supersede information in the Supplementary Documents.

The following list describes the Supplementary Documents:

• Supplementary Documents, Volume 1: General User

This volume contains articles written for general use. The articles address getting started with the ULTRIX operating system, using text editors and command interpreters, and formatting documents. This volume also gives information about using unsupported software. You should read this volume if you want to learn about general operating system topics, particularly unsupported software.

• Supplementary Documents, Volume 2: Programmer

This volume contains articles that deal with programming and programming tools. The articles cover topics such as program and library maintenance tools, the inner workings of the ULTRIX system, and system and kernel facilities available to programs. You should read articles in this volume if you write programs that run on the ULTRIX operating system.

• Supplementary Documents, Volume 3: System Manager

This volume is written for people responsible for the installation, administration, and daily maintenance of the ULTRIX operating system. Topics include a comparison of the fast file system with the previous UNIX file system, uucp implementation, and UNIX security. You should read this volume if you are a system administrator.

1.5 Ordering ULTRIX Documentation

To order ULTRIX documentation, refer to the page at the back of this manual entitled "How to Order Additional Documentation." This page describes a number of methods you can use to order documentation. You can also order documentation from DECdirect if you are a member of that service. For more information about ordering documentation from DECdirect, write to the following address:

Digital Equipment Corporation Software Documentation Continental Boulevard Merrimack, NH 03054

Table 1-1 details the documentation kits you can order.

Table 1-1: ULTRIX Documentation Kit Order Numbers

Documentation Kit	Order Number
Full Documentation Kit	QA-VEYAA-GZ
General Information Documentation Kit	QA-VEYAD-GZ
System and Network Management Documentation Kit	QA-VEYAE-GZ
Software Development Tools Documentation Kit	QA-VEYAB-GZ
Software Development Documentation Kit	QA-VEYAG-GZ
ULTRIX/SQL Documentation Kit	QA-YHTAA-GZ
CDA Documentation Kit	QA-VEYAH-GZ
Supplementary Documents Kit	QA-VEYAC-GZ

Each kit includes the manuals, binders to hold each volume, and spine inserts that label the binders.

You can also order individual manuals. In most cases, individual manuals come with only the manual covers and any tabbed dividers. Manuals that have an order number beginning with the letters "AI" include binders and spine inserts, even if ordered individually.

You can order binders to store individual manuals. Digital offers binders for books that are $8^{1}/2 \times 11$ inches; the binders have rings that are $1^{1}/2$, 2, or $2^{1}/2$ inches in diameter. Table 1-2 lists the order numbers for the binders.

Table 1-2: 8 1/2×11-Inch Binder Order Numbers

Binder Ring Size	Order Number
1 ¹ / ₂ -inch ring	99-07642-01
2-inch ring	99-07643-01
2 ¹ / ₂ -inch ring	99-07644-01

Table 1-3 lists the order number for each manual in the Version 4.0 ULTRIX documentation set. Individual manuals listed in this table are revised periodically. If you have a version of the ULTRIX system other than Version 4.0, the manual numbers listed in this table might be not be correct for your system. The best way to be sure that you are ordering the correct manual is to telephone Technical Support before you place your order. Technical Support can help ensure that you order the manuals that apply to your version of the operating system. (The telephone number for Technical Support is listed on the "How to Order Additional Documentation" page.)

Table 1-3: Individual Manual Order Numbers

Title	Order Number
Advanced Installation Guide	AA-ME86B-TE
Application Sources Mailer	AV-LY29B-TE
Basic Installation Guide	AA-PBL0A-TE
The Big Gray Book: The Next Step with ULTRIX	AA-PBKNA-TE
CDA Reference Manual Volume 1	AI-PBD3A-TE
CDA Reference Manual Volume 2	AI-PC02A-TE
DECrpc Programming Guide	AA-PBKYA-TE
Guide to Backup and Restore	AA-ME92B-TE
Guide to the BIND/Hesiod Service	AA-LY21B-TE
Guide to Configuration File Maintenance	AA-ME90B-TE
Guide to Creating Compound Documents with the CDA Toolkit	AA-PBOKA-TK
Guide to the Data Link Interface	AA-PBKZA-TE
Guide to Developing International Software	AA-LY26B-TE
Guide to Diskless Management Services	AA-MF01B-TE
Guide to Disk Maintenance	AA-ME93B-TE
Guide to the Error Logger	AA-ME95B-TE
Guide to Ethernet Communications Servers	AA-ME98B-TE
Guide to IBM Terminal Emulation for VAX Processors	AA-MF04B-TE
Guide to Kerberos	AA-PBKVA-TE
Guide to Languages and Programming	AA-ML94B-TE
Guide to the Location Broker	AA-PBKSA-TE
Guide to the nawk Utility	AA-PBKPA-TE
Guide to the Network File System	AA-ME99B-TE
Guide to Network Programming	AA-PBKWA-TE
Guide to Preparing Software for Distribution on ULTRIX Systems	AA-MG62B-TE
Guide to PrintServer Clients	AA-PC31A-TE
Guide to Remote Installation Services	AA-MF02C-TE
Guide to Server Setup	AA-ML74D-TE
Guide to Shutdown and Startup	AA-ME91B-TE
Guide to Software Licensing	AA-PBKRA-TE
Guide to the Source Code Control System	AA-ME84B-TE
Guide to System Crash Recovery	AA-ME94B-TE
Guide to System Environment Setup	AA-ME89B-TE
Guide to System Exercisers	AA-ME96B-TE
Guide to System and Network Setup	AA-ME88B-TE
Guide to the uucp Utility	AA-MF03B-TE

Table 1-3: (continued)

Title	Order Number
Guide to VAX C for ULTRIX	AA-ME83B-TE
Guide to X/Open curses Screen Handling	AA-LY27B-TE
Guide to the X/Open Transport Interface	AA-PBKXA-TE
Guide to the Yellow Pages Service	AA-ME00B-TE
Introduction to the CDA Services	AA-PB0JA-TK
Introduction to Networking and Distributed System Services	AA-ME97B-TE
Kernel Messages Reference Manual	AA-PBKUA-TE
The Little Gray Book: An ULTRIX Primer	AA-MG64B-TE
The Packet Filter: An Efficient Mechanism for User-Level Network Code	AA-PBM2A-TE
POSIX Conformance Document	AA-LY25C-TE
Reader's Guide and Master Index	AA-ME82B-TE
Reference Pages Section 1: Commands	AI-PC0WA-TE
Reference Pages Section 2: System Calls	AA-LY15B-TE
Reference Pages Section 3: Library Routines	AA-LY16B-TE
Reference Pages Section 4: Special Files	AA-LY17B-TE
Reference Pages Section 5: File Formats	AA-LY18B-TE
Reference Pages Section 7: Macro Packages and Conventions	AA-LY19B-TE
Reference Pages Section 8: Maintenance	AA-LY20B-TE
Reference Pages for Unsupported Software	AA-MF05B-TE
Release Notes	AA-ME85C-TE
Security Guide for Administrators	AA-PBKTA-TE
Security Guide for Users	AA-PBKQA-TE
Supplementary Documents, Volume 1: General User	AA-MF06A-TE
Supplementary Documents, Volume 2: Programmer	AA-MF07A-TE
Supplementary Documents, Volume 3: System Manager	AA-MF08A-TE
Technical Summary	AA-MG63B-TE
ULTRIX/SQL Database Administrator's Guide	AA-PBZ8A-TE
ULTRIX/SQL Installation Guide	AA-PBZBA-TE
ULTRIX/SQL NET User's Guide	AA-PBZ7A-TE
ULTRIX/SQL Operations Guide	AA-PBZ9A-TE
ULTRIX/SQL Reference Manual	AA-PBZ6A-TE
ULTRIX/SQL Release Notes	AA-PBZAA-TE
vi Beginner's Reference Card	AV-MF10A-TE

The master index helps you locate topics in the ULTRIX documentation by directing you to manuals and page numbers.

The master index entries follow these conventions:

• Each master index page reference is preceded by an abbreviated manual title that indicates which manual discusses the topic. For example, the following master index entry points to page 3–10 in the *Guide to Backup and Restore*:

fsck command

checking restored file system with, Backup 3-10

If the subject of the index entry is described in two or more manuals, the page references are alphabetized according to the abbreviated manual title.

Table 2-1 lists the abbreviated title for each manual in the master index.

• Page references for some figures, tables, and notes are indicated by a letter that appears at the end of the page reference. For example, an "f" appears at the end of figure page references and a "t" appears at the end of table page references. The following example shows an index entry for a note:

passwd file

last entry in, YP 2-15n

• Each guide in the ULTRIX documentation set is focused on just a few broad topic areas. A guide that focuses on a topic area is the best one to reference for information about that topic. The master index indicates that a particular guide is the best reference for a topic as shown:

```
Shutdown command, RefPages 8-345
Best reference, Shutdown
shutting down multiuser mode, Shutdown 1-1e
```

In this example, the Guide to Shutdown and Startup is identified as the best reference for the topic of the shutdown command.

• Entries in the master index often refer to other entries. For example, the entry for the mknod system call contains this reference:

mknod system call

See also mkdir command

In general, when an entry refers to another entry, the text of the reference is identical to the other entry. In this case, you would look for the entry "mkdir command" in the index.

Some entries contain references to groups of master index entries or books that are not covered by the master index. In this case, the text of the reference is not identical to any other entries. These references appear in italics as shown:

file

See also specific file names

VAX C

See also the Guide to VAX C for ULTRIX

The first reference indicates that you should look for other page numbers that discuss the topic file under specific file names, such as rc.local, hosts, or svc.conf.

The second reference indicates that you should refer to the *Guide to VAX C for ULTRIX*, which is not indexed by the master index. Check the index in that guide for information on where it covers the topic in which you are interested.

Table 2-1 lists the abbreviation for each book that contains entries in the master index.

Table 2-1: Manual Title Abbreviations

Abbreviation	Manual Title
AdvInstall	Advanced Installation Guide
Backup	Guide to Backup and Restore
BasicInstall	Basic Installation Guide
BGB	The Big Gray Book: The Next Step with ULTRIX
BIND/Hes	Guide to the BIND/Hesiod Service
Configfile	Guide to Configuration File Maintenance
CrashRec	Guide to System Crash Recovery
CursesX	Guide to X/Open curses Screen Handling
DECrpc	DECrpc Programming Guide
DiskMaint	Guide to Disk Maintenance
DMS	Guide to Diskless Management Services
ErrorLogger	Guide to the Error Logger
Ethernet	Guide to Ethernet Communications Servers
Exercisers	Guide to System Exercisers
InterNatl	Guide to Developing International Software
Kerberos	Guide to Kerberos
LocBrok	Guide to the Location Broker
LAN	Introduction to Networking and Distributed System Services
nawk	Guide to the nawk Utility
Network_Prog	Guide to Network Programming
NFS	Guide to the Network File System
Primer	The Little Gray Book: An ULTRIX Primer
RefPages	Reference Pages Section 1: Commands Reference Pages Section 2: System Calls Reference Pages Section 3: Library Routines Reference Pages Section 4: Special Files Reference Pages Section 5: File Formats Reference Pages Section 7: Macro Packages and Conventions Reference Pages Section 8: Maintenance
RIS	Guide to Remote Installation Services

Table 2-1: (continued)

Abbreviation	Manual Title		
sccs	Guide to the Source Code Control System		
setld	Guide to Preparing Software for Distribution on ULTRIX Systems		
Shutdown	Guide to Shutdown and Startup		
SysEnviron	Guide to System Environment Setup		
SysNetSetup	Guide to System and Network Setup		
TechSumm	Technical Summary		
TermEmul	Guide to IBM Terminal Emulation for VAX Processors		
ииср	Guide to the uucp Utility		
X/OpenTransport	Guide to the X/Open Transport Interface		
YP	Guide to the Yellow Pages Service		

Master Index

Insert tabbed divider here. Then discard this sheet.

Special Characters abs subroutine (standard C), RefPages 3-7 absolute path \$status variable, BGB 9-7 explanation of, Primer 3-6 *roff absolute value function, RefPages 3-7, 3-343 to See me macro package 3-345 See ms macro package ac program, RefPages 8-4 ? command (TELNET), RefPages 1-686 accept system call, Network_Prog 2-5, RefPages ? command (tftp), RefPages 1-694 @ shell command, BGB 9-4 access system call, RefPages 2-12 `(grave accent, back accent) account command (ftp), RefPages 1-249 See grave accent accounting file, RefPages 2-14 format of, RefPages 5-9 **Numbers** maintaining, RefPages 8-326 accounting information 2780/3780 Terminal Emulator types of, SysEnviron 5-1 Best reference, TermEmul acct file features of, TermEmul 1-1 condensing, SysEnviron 5-2 hardware requirements for, TermEmul 1-2 displaying contents of, SysEnviron 5-2 setting up, TermEmul 1-4 format of, RefPages 5-8 software requirements for, TermEmul 1-3 acct system call, RefPages 2-14 using, TermEmul 2-1 to 2-6 See also acct file 2780d daemon, RefPages 8-2 acctlog file initiating communication with, TermEmul 1-7n definition of, TermEmul 1-4 **2780e/3780e emulator spooler**, *RefPages* 1–2 to 1–3 accton command, RefPages 8-326 See also 2780d daemon acos subroutine, RefPages 3-363 See also 2780e daemon acos subroutine (math), RefPages 3-364 See also 3780e emulator spooler acosh subroutine, RefPages 3-335 See also BISYNC communications interface active gateway, RefPages 8-310 See also dpv data communications device acucap file, RefPages 5-10 to 5-12 options for, TermEmul 2-3 adb debugger, RefPages 1-5 to 1-10 See also gcore command add command, LocBrok 2-2 a64l subroutine, RefPages 3-5 addbib program, RefPages 1-12 abort command (lpc), RefPages 8-188 addch macro, CursesX 1-3, RefPages 3-200 abort subroutine (standard C), RefPages 3-6 See also putchar subroutine

addch subroutine, RefPages 3-528 AF DLI addgroup command, RefPages 8-7 See socket system call invoking, SysEnviron 1-8 AF IMPLINK addnode command, RefPages 8-5 See socket system call See also getnode command AF INET See also remnode command See socket system call use of with nodes database, Ethernet 2-4 AF UNIX address, DECrpc 5-7 See socket system call See also wildcard address AF UNSPEC association in binding, Network Prog 3-1 See socket system call automatically selecting, Network Prog 2-5 agent, LAN 3-1 to 3-4 client, X/OpenTransport 2-5 Agent Error Message, LAN 3-4 destination of, Network Prog 2-9 Agent Request Message, LAN 3-4 example of obtaining for destination host, alarm subroutine (standard C), RefPages 3-8 Network Prog 3-11 See also sleep subroutine (standard C) example of returning for peer process, ali command, RefPages 1-19 Network Prog 4-10 ali command (MH), BGB 6-13t limitations of in sed editor, BGB 3-16 alias address data file entry conflicts in, RefPages 8-58 definition of, BIND/Hes 2-3 alias command (csh), RefPages 1-126 address family, DECrpc 1-4, LocBrok Glossary-1 alias command (mail), RefPages 1-394 See also unalias command (mail) See also socket system call Address Resolution Protocol, RefPages 4-6 to 4-7 alias command (pdx), RefPages 1-503 See also arp program aliases file, SysEnviron 1-15 to 1-16 See also DELQA Ethernet interface entries in, NFS 3-6 See also DEONA Ethernet interface format of, RefPages 5-13 addstr macro, RefPages 3-202 rebuilding, RefPages 1-461 addstr subroutine, RefPages 3-528 alloc command (csh), RefPages 1-126 adduser command, RefPages 8-7, SysNetSetup 1-2 alloca subroutine, RefPages 3-84 to 3-86 See also edauth editor alternate Internet address notation, LAN 1-3 See also vipw command alternates command (mail), RefPages 1-394 adjtime system call, RefPages 2-16 anno command, RefPages 1-21 admin command (sccs), RefPages 1-14 to 1-18, anno command (MH), BGB 6-13t 1-595 ANSI tape format, TechSumm 2-9 ANSI X3.27-1978 standard, RefPages 5-87 See also delta command (sccs) a.out file See also val command (sccs) See also vc command (sccs) See also stab file using, sccs 3-3 to 3-4 format of, RefPages 5-4 to 5-7 administration ap program, RefPages 8-10 See system administration Apollo system advisory lock configuring the GLB with, LocBrok 3-2 append command (ftp), RefPages 1-249 definition of, RefPages 2-64 AF DECNET Apple system, TechSumm 2-2 See socket system call

application	arp keyword
See also distributed application	See arp program
migrating, X/OpenTransport C-1	arp program, RefPages 8-18
portability rules, X/OpenTransport B-1	array, DECrpc 6-14, 7-8, nawk 6-2 to 6-3
application layer	as parameters, DECrpc 4-7, 6-10
See ISO reference model	in structures and unions, DECrpc 6-8
apply program, RefPages 1-22	multidimensional, DECrpc 6-8
apropos command, Primer 1-6, RefPages 1-23	open, DECrpc 6-7, 7-1 to 7-3
ar file	article
format of, RefPages 5-15	formatting, RefPages 7-43
ar program, RefPages 1-27 to 1-28	as assembler, RefPages 1-33
See also ar file	See also a.out file
See also nm command	as command (RISC), RefPages 1-29
See also ranlib command	ASCII character
arc subroutine, RefPages 3-559	classifying, RefPages 3-25
arccosine function, RefPages 3-364	ASCII character set
archive file	map, RefPages 7-2t
converting to portable format, RefPages 8-12	ASCII collating order, nawk 1-4
copying, RefPages 1-105, 1-107	ascii command (ftp), RefPages 1-249
maintaining, RefPages 1-27	ascii command (tftp), RefPages 1-694
ordering, RefPages 1-368	ascii keyword, RefPages 7-2
printing object files, RefPages 1-473	ASCII string
reconstructing, RefPages 1-553 to 1-554	converting long integer to, RefPages 3-5
saving on console diskette, RefPages 8-13 to 8-17	converting to, RefPages 3-34
searching, RefPages 5-15	converting to numbers, RefPages 3-10
arcsine function, RefPages 3-364	asctime subroutine (standard C), RefPages 3-20
arctangent function, RefPages 3-364	asin subroutine, RefPages 3-362
arcv command, RefPages 8-12	asin subroutine (math), RefPages 3-364
arff command, RefPages 8-13 to 8-17	asinh subroutine, RefPages 3-335
argument	ASN.1 notation, LAN 3-4
See also flag	assembler, RefPages 5-2
system call, Network_Prog 2-4 to 3-1	assert macro, RefPages 3-9
argument list	assign command (pdx), RefPages 1-502
portable procedures for variable, RefPages 3-186	asynchronous mode
argument vector	description of, X/OpenTransport 2-4, 2-13
getting option letter, RefPages 3-61	events in, X/OpenTransport 2-13
argv variable	asynchronous notification, Network_Prog 2-12
definition of, BGB 9-6	at command, RefPages 1-34 to 1-35
arithmetic language	at most once calling semantics, DECrpc 6-8
See bc language	atan subroutine, RefPages 3-363
arithmetic package	atan subroutine (math), RefPages 3-364
See dc program	atan2 subroutine, RefPages 3-363
arp command, Ethernet A-2, LAN C-1	atan2 subroutine (math), RefPages 3-364

atanh subroutine, RefPages 3-335 authentication (cont.) atof library routine, InterNatl 3-1 requirements of, Kerberos 2-1 atof subroutine (standard C), RefPages 3-10 authentication service isalpha subroutine, RefPages 3-10 See Kerberos authentication service atoi subroutine, RefPages 3-10 authenticator atol subroutine, RefPages 3-10 definition of, Kerberos 1-4 attachable address parts of, Kerberos 2-2 specifying in the configuration file, Configfile 1-6 autobinding routine, DECrpc 1-13, 7-11 to 7-12 attribute, DECrpc 6-2 to 6-4 autoconf keyword, RefPages 4-9 idempotent, DECrpc 3-2e, 4-5e automatic binding, DECrpc 7-10 to 7-14 attroff macro, CursesX 2-2, RefPages 3-203 checking UUID in, DECrpc 5-22e attron macro, CursesX 2-2, RefPages 3-203 handle attribute, DECrpc 6-5 attrset macro, RefPages 3-203 automount command, NFS 2-8, RefPages 8-28 to attrsett macro, CursesX 2-2 8-31 audentl system call, RefPages 2-19, 2-20 -m option and, NFS 2-18 steps for mounting file systems, NFS 2-8 audgen command, RefPages 8-19 audgen system call, RefPages 2-21 string substitutions and, NFS 2-15 to 2-16 audit control, RefPages 2-19 substitutions audit daemon, RefPages 8-20 using the ampersand, NFS 2-16e AUDIT file, uucp 5-2 automount error message, NFS A-3 to A-5 audit log interface, RefPages 4-8 automount map, RefPages 8-28 to 8-29 **AUDIT** option built-in, NFS 2-14 specifying in the configuration file, Configfile 1-8 changing to local and YP, NFS 2-18 audit pseudodevice definition direct map, NFS 2-10 to 2-14 specifying in the configuration file, Configfile 1-16 indirect maps, NFS 2-11 to 2-14 auditd command master map, NFS 2-9 to 2-10 options for, RefPages 8-20 YP maps and, NFS 2-8 auditlog reduction tool, RefPages 8-24 automount program auditmask command, RefPages 8-23 administration of, NFS 2-18 audit_tool command, RefPages 8-24 to 8-27 default mount point auth database, Kerberos 5-2, RefPages 1-624, 5-16 changing, NFS 2-18, 2-10 maintenance of, RefPages 8-116 server failure and, NFS 2-14 auth database (general) autounbinding routine, DECrpc 1-13 getting or setting entry in, RefPages 3-51 prototypes for, DECrpc 7-11 awk programming language, RefPages 1-36 to 1-38 auth entry editing, RefPages 8-86 See also nawk utility auth variable, Kerberos 5-4 See also sed stream editor authenticated environment awk utility processes running in, LAN 2-6t See also nawk utility authentication, Kerberos 1-1 to 1-3 description of, BGB 4-4 to 4-8 Best reference, Kerberos mutual, Kerberos 2-4 of named daemon, Kerberos 4-2 to 4-3

of network address, Kerberos 2-3

В	bessel keyword (math), Refrages 3-330
backup level, Backup 1–4	bg command, Primer 4-12
backup operation, Backup 1–1 to 1–4	bg command (csh), RefPages 1-126
Best reference, Backup	bibliography, RefPages 1-12, 1-367
backup superblock	formatting, RefPages 1-582
definition of, DiskMaint 1–2	searching, RefPages 1-563
bad block	sorting, RefPages 1-642
automatic recovery of, DiskMaint 4-1	biff command, RefPages 1-44
detecting and recovering, <i>DiskMaint</i> 4–1 to 4–3,	See also comsat program
4–9	binary command (ftp), RefPages 1-249
	binary command (tftp), RefPages 1-694
device support for, DiskMaint 4 2t	binary file
high number of, DiskMaint 4–3n	finding printable strings in, RefPages 1-652
bad block (DSA disk)	installing, RefPages 1-290
detecting and recovering, <i>DiskMaint</i> 4–6 to 4–11	sending in mail, RefPages 1-725
bad block (SCSI disk)	binary search routine, RefPages 3-13
detecting and recovering, <i>DiskMaint</i> 4–9 to 4–13	managing tree searches, RefPages 3-179
bad sector, RefPages 8-33 to 8-35	bind daemon, Kerberos 4-3
bad144 command, RefPages 8–33	BIND domain name, SysNetSetup 3-4
See also badsect program	BIND environment
badsect program, RefPages 8-35	setting up, RefPages 8-37
base.idl file, DECrpc 2-8	BIND query
basename command, BGB 9-8e, RefPages 1-39	resolving, BIND/Hes 1-7
basic installation	_bind routine, DECrpc 7-11, 7-12e
See installation	BIND server
baudrate subroutine, RefPages 3-205	preinstallation backup of, BasicInstall 1-4
be calculator	BIND service, BIND/Hes 1-1, 4-7
See calculator	See also BIND/Hesiod service
bc language, RefPages 1-40 to 1-42	bind system call, Network_Prog 2-4, RefPages 2-22
See also de program	See also listen system call
bcmp routine	BIND/Hesiod client, SysNetSetup 3-8, 3-11
See byte string	automatic setup of, BIND/Hes 3-4
bcmp subroutine, RefPages 3-14	definition of, BIND/Hes 1-7, Kerberos 4-2
bcopy routine	manual setup of, BIND/Hes A-1 to A-2
See byte string	BIND/Hesiod data file entry, BIND/Hes 2-1 to 2-10
bcopy subroutine, RefPages 3-14	BIND/Hesiod primary server
bdiff command, RefPages 1–43	auth database and, Kerberos 5-2
See also diff command	definition of, Kerberos 4-2
beep subroutine, RefPages 3-206	limiting login access with, Kerberos 5-4
BEGIN pattern, nawk 2-7	BIND/Hesiod query
bell command (ftp), RefPages 1-249	resolving, BIND/Hes 1-7 to 1-8
Berkeley Internet Name Domain	BIND/Hesiod secondary server
See BIND service	definition of, Kerberos 4-2
See BIND/Hesiod service	

BIND/Hesiod server	binop_fw application (cont.)
See also caching server	modules of, DECrpc 5-14 to 5-25
See also forwarding server	server for, DECrpc 5-22
See also master server	binop_lu application
See also root server	description of, DECrpc 3-7 to 3-10
See also slave server	biod daemon, RefPages 8-39
automatic setup of, BIND/Hes 3-6 to 3-9	getting process ID of, NFS 4-5e
creating database files for, BIND/Hes 3-6n	NFS client and, NFS 4-2n
definition of, BIND/Hes 1-3	starting, NFS 2-6
manual setup of, BIND/Hes A-1 to A-5	BISYNC data communications interface, RefPages
types of, SysNetSetup 3-8, 3-11	4–57
BIND/Hesiod service, SysNetSetup 3-4	bit
Best reference, BIND/Hes	determining setting of in byte, RefPages 3-14
configuring a BIND caching server, BIND/Hes 3-9	BITNET network
failure of, BIND/Hes 5-1	contacting, BIND/Hes 4-3
list of distributed databases for, LAN 2-1	bitset type, DECrpc 6-12
maintaining domains with, BIND/Hes 4-1	blank
making a Hesiod database, BIND/Hes 4-7	definition of, RefPages 1-613
removing with bindsetup, BIND/Hes 3-11	block, AdvInstall 2–1
security level and, LAN 2-4	definition of, RefPages 5-88
setting up, SysNetSetup 3-8	block length
setting up manually, BIND/Hes A-1 to A-5	definition of, RefPages 5-88
svc.conf file and, BIND/Hes 3-1	book
troubleshooting, BIND/Hes 5-1 to 5-6	formatting, RefPages 7-43
with no forwarder, BIND/Hes 1-6	bool type, CursesX 2-1
BIND/Hesiod slave	boolean type, DECrpc 6–12
definition of, Kerberos 4-2	boot command
binding address	building processor-specific files, Shutdown 3–23 to
required state, X/OpenTransport 2–15	3–32
binding state, DECrpc 5–7, 5–8	changing EEPROM data, Shutdown 3-27
binding technique, DECrpc 5–3	for a system disk, Shutdown 3–33 to 3–40
bindmaster alias, LAN 2–2	for a TK50 tape, <i>Shutdown</i> 3–9, 3–34 to 3–41
bindsetup command, BIND/Hes 3-4 to 3-8,	for an alternate HSC disk, Shutdown 3–16
RefPages 8-37, SysNetSetup 3-8	from the network, Shutdown 3–34 to 3–39
bindmaster alias and, LAN 2-2	procedure file, Shutdown 3–21
bindsetup script, Kerberos 4–12 to 4–13	procedure file for, Shutdown 3–11
rerunning during Kerberos setup, Kerberos 4–3	processor-specific, Shutdown 3–11 processor-specific, Shutdown 3–1 to 3–42
binmail program, RefPages 1-45 to 1-46	updating console disk, Shutdown 3–32
See also mail program	
	updating procedure file, Shutdown 3–28 to 3–32
binop application, DECrpc 3-1 to 3-7	updating processor-specific files, Shutdown 3–23 to
comparison to binop_lu and binop_fw, DECrpc	3–32
5–1	boot control flag, Shutdown B-1 boot default
binop_fw application, DECrpc 5-1	
managing RPC handles, DECrpc 5-3	updating, BasicInstall 3-5

byte, AdvInstall 2-1 setting, Shutdown 3-34, 3-37, 3-39, 3-42 swapping with PDP-11s, RefPages 3-171 boot file, BIND/Hes B-3 to B-4 editing for BIND/Hesiod, BIND/Hes A-2 to A-3 byte order specifying in the configuration file, Configfile 1-8 booting procedure byte sex, RefPages 3-58 location of, BasicInstall 2-1t byte string, Network Prog 2-17 bootstrap procedure, RefPages 8-291 byte type, DECrpc 6-12 automatic, RefPages 8-286 byteorder keyword, RefPages 3-372 bound-to-host handle, DECrpc 1-10 bzero routine **Bourne shell** See byte string See shell bzero subroutine, RefPages 3-14 sh command interpreter, RefPages 1-709 box subroutine, RefPages 3-207, 3-528 break command (csh), RefPages 1-126 C break command (sh), RefPages 1-610 C compiler break command (System V), RefPages 1-619 See cc compiler breaksw command (csh), RefPages 1-126 See VAX C compiler brk system call, RefPages 2-26 C flow graph broadcast interface See cflow command used by RPC software, LocBrok 3-1 C library broadcast message, DECrpc 1-5 See libc library sending, RefPages 1-755 C program broker, DECrpc 1-2, Network Prog 6-3 building cross-reference table, RefPages 1-155 bsc pseudodevice definition checking, RefPages 1-351 specifying in the configuration file, Configfile 1-16 creating error message file for, RefPages 1-432 BSD security level, LAN 2-4 displaying call graph profile data and, RefPages returning to, Kerberos 5-2 1-269 setting up authenticated named, Kerberos 4-3 displaying on standard output, RefPages 1-56 bsearch subroutine, RefPages 3-13 formatting, RefPages 1-287 to 1-289 tsearch subroutine, RefPages 3-13 implementing shared constant strings, RefPages bsf command (mt), RefPages 1-442 1-773 bsr command (mt), RefPages 1-442 verifying, RefPages 1-354 bstring keyword, RefPages 3-14 C shell, Primer 4-1, 7-1 bufcache parameter See also csh command interpreter specifying in the configuration file, Configfile 1-5 See also shell buffer, X/OpenTransport 2-10 to 2-19 writing scripts for, BGB 9-1 to 9-20 flags, X/OpenTransport 3-4 cabs function, RefPages 3-348 buffering cabs subroutine, RefPages 3-349 types of, RefPages 3-517 cache command (mt), RefPages 1-442 built-in map, NFS 2-14 to 2-15 cache file, BIND/Hes B-5 burst command, RefPages 1-47 caching server, SysNetSetup 3-8, 3-11 burst command (MH), BGB 6-13t definition of, BIND/Hes 1-5 BVP DEBNT/NI interface, RefPages 4-85

boot device

bye command (ftp), RefPages 1-249

cal command, RefPages 1-49 cc compiler (cont.) calculator, BGB 8-1 to 8-13 See also gprof command calendar See also ld command displaying, RefPages 1-49 See also lk command calendar command, RefPages 1-50 See also mkstr command See also leave command See also prof command call command (dbx), RefPages 1-171 See also xstr command diagnostics, RefPages 1-151 call command (pdx), RefPages 1-502 callback option, uucp 2-3n options, RefPages 1-64 to 1-66, 1-741 calloc subroutine (special library), RefPages 3-555 ccat command, RefPages 1-94 calloc subroutine (standard C), RefPages 3-84 to ccr command, Ethernet A-8, RefPages 8-43 to 8-44 3-86 cd command (csh), Primer 3-5, 3-6, RefPages 1-68, canonical name 1 - 127definition of, BIND/Hes 2-4 cd command (ftp), RefPages 1-249 capacity upgrade installation cd command (sh), RefPages 1-68, 1-610 rebuilding the kernel after, Configfile 2-9 cd command (System V), RefPages 1-68, 1-619 capsar utility, RefPages 1-51 CDA, RefPages 5-18, TechSumm 2-5 See also the CDA documentation case clause in unions, DECrpc 6-13 cdc command (sccs), RefPages 1-69 to 1-70 case command (csh), RefPages 1-127 cdoc command, RefPages 1-71 case command (ftp), RefPages 1-249 cdup command (ftp), RefPages 1-249 ceil subroutine, RefPages 3-343 to 3-345 case command (sh), RefPages 1-606 case command (System V), RefPages 1-614 ceiling function cat command, Primer 3-9, RefPages 1-54 returning integer, RefPages 3-343 to 3-345 See also more command cfb video subsystem, RefPages 4-10 catch command (dbx), RefPages 1-170 cfl keyword, RefPages 4-11 catclose library routine, InterNatl 2-1, 2-8 cflow command, RefPages 1-73 to 1-74 changequote macro, RefPages 1-388 catclose subroutine, RefPages 3-281 char type, DECrpc 6-12 catgetmsg library routine, InterNatl 2-2 to 2-6 character, DECrpc 6-12 catgetmsg subroutine, RefPages 3-279 catgets library routine, InterNatl 2-2 to 2-8 See also metacharacter See also wildcard character catgets subroutine, RefPages 3-280 echo of, CursesX 2-8, 2-10 catman command, RefPages 8-42 catopen library routine, InterNatl 2-1, 2-8 translating, RefPages 1-704 transmission of, CursesX 2-9 catopen subroutine, RefPages 3-281 chdir command (csh), RefPages 1-127 catpw command, RefPages 1-55 cb program, RefPages 1-56 chdir command (mail), RefPages 1-394 **CBREAK** mode chdir system call, RefPages 2-30 definition of, RefPages 4-181 See also chroot system call check command (sccs), RefPages 1-595 cbreak subroutine, RefPages 3-208 info command and, sccs 2-4 cc compiler, RefPages 1-64 to 1-67 checknr command, RefPages 1-75 See also ctags command See also ctrace debugger checksum use of with data encryption, Kerberos 1-4 See also exref command

checksum error	client (cont.)
SCCS and, sccs 3-3	See also diskless client
chfn command, RefPages 1-77	See also server
See also finger command	See also time client
invoking, SysEnviron 1-6	addresss of, X/OpenTransport 2-5
chgrp command, RefPages 1-78	BIND/Hesiod and, SysNetSetup 3-8
See also install command	DECrpc and, DECrpc 1-7
chmod command, Primer 3-11, RefPages 1-79 to	definition of, ErrorLogger 1-1, NFS 1-1
1–81	identification of on server side, DECrpc 5-22
See also install command	Kerberos principal, Kerberos 1-1
chmod system call, RefPages 2-32	library routines for, DECrpc 2-2 to 2-4
chown command, RefPages 8-45	NTP, SysNetSetup 3-27, 3-31
chown system call, RefPages 2-35	server and, NFS 1-2
chpt command, AdvInstall 2-1, RefPages 8-47 to	TSP, SysNetSetup 3-28, 3-32
8–49	Yellow Pages and, SysNetSetup 3-12
changing disk partitions with, DiskMaint 3-2 to	client host
3–4	See client
modifying disk partition layout with, AdvInstall	client kernel
2–16	reconfiguring, DMS A-3 to A-4
chroot system call, RefPages 2-37	client process
chsh command	See client/server model
invoking, SysEnviron 1-5	client program
chsh program, RefPages 1-82	blocking, NFS 4-4
chtype type, CursesX 2-1, 2-2	client/server model, Network_Prog 2-4
CI adapter, TechSumm 2-8	See also connection mode
specifying in the configuration file, Configfile 1-11	definition of, Network_Prog 2-1
circle subroutine, RefPages 3-559	description of, Network_Prog 4-1
Class A network, LAN 1-4, 1-11t	clock
Class B network, LAN 1-4, 1-11t	synchronizing, RefPages 2-16
Class C network, LAN 1-4, 1-11t	unsynchronized server and client, NFS 3-9 to 3-10
clean command, LocBrok 2-2	clock daemon, RefPages 8-71
clean command (lpc), RefPages 8-188	crontab file, RefPages 5-22
clean command (sccs), RefPages 1-595, sccs 3-6e	clock daemon table
cleanup handler, DECrpc 5-12	description of, SysEnviron 1-16 to 1-18
in servers, DECrpc 5-20e	clock subroutine, RefPages 3-15
clear command, RefPages 1-83	close command (ftp), RefPages 1-250
clear macro, RefPages 3-209	close command (TELNET), RefPages 1-685
clear subroutine, RefPages 3-528	close function, nawk 8-3
clearerr subroutine, RefPages 3-498	close system call, Network_Prog 2-7, RefPages 2-39
clearok subroutine, RefPages 3-210, 3-528	See also open system call
cleartext password, Kerberos 1-3	See also trace command (general)
clhrdsf command (mt), RefPages 1-442	See also trace file
client, DECrpc 1-3, Kerberos 4-2	closedir subroutine, RefPages 3-27
See also BIND/Hesiod client	

closelog subroutine, RefPages 3-175	comment card, TermEmul 2-2
closepl subroutine, RefPages 3-559	common Internet address notation, LAN 1-2
clri command, RefPages 8-50	comm_status attribute, DECrpc 4-6
See also fsck command	comm_status operation attribute, DECrpc 6-9
clrtobot macro, RefPages 3-211	comm_status parameter
cirtobot subroutine, RefPages 3-528	use of, DECrpc 5-13
cirtoeol macro, RefPages 3-212	comm_status parameter attribute, DECrpc 5-13,
cirtoeol subroutine, RefPages 3-528	6–10
clserex command (mt), RefPages 1-442	communication
clsub command (mt), RefPages 1-442	connection-oriented, Network_Prog 1-1
cmp command, RefPages 1-84	with other users, BGB 7-1 to 7-3
cmx exerciser, Exercisers 4-2, RefPages 8-51 to	communication error, DECrpc 5-10
8–52	communication path
CNAME data file entry	establishing, X/OpenTransport 1-4, 2-1
definition of, BIND/Hes 2-4	communications server
codeset definition, InterNatl 4-2	remote user and, RefPages 8-252
col command, RefPages 1-85	communications system
col postprocessor, BGB 5-2	See terminal communications system
colcrt command, RefPages 1-86	community parameter for SNMP, Network_Prog
See also ul command	7–7
collation table, InterNatl 4-5	community variable, LAN 3-2
color video subsystem, RefPages 4-135	comp command, RefPages 1-91
colrm command, RefPages 1-87	comp command (MH), BGB 6-13t
colrm command, RefPages 1–87 COLS, CursesX 2–2	comp command (MH), BGB 6-13t compact command, RefPages 1-94
	_
COLS, CursesX 2-2	compact command, RefPages 1-94
COLS, CursesX 2-2 column	compact command, RefPages 1-94 compatibility issue
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85	compact command, RefPages 1-94 compatibility issue of data types, DECrpc 5-1
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87	compact command, RefPages 1-94 compatibility issue of data types, DECrpc 5-1 when adding operations to interfaces, DECrpc
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88	compact command, RefPages 1-94 compatibility issue of data types, DECrpc 5-1 when adding operations to interfaces, DECrpc 5-10
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90	compact command, RefPages 1-94 compatibility issue of data types, DECrpc 5-1 when adding operations to interfaces, DECrpc 5-10 compiler
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6
COLS, CursesX 2-2 column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407,	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761 quick reference for, Primer A-1	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592 comsat program, RefPages 8–53
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (secs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761 quick reference for, Primer A-1 showing executed, RefPages 1-335	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592 comsat program, RefPages 8–53 config program, RefPages 8–54, 8–56
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761 quick reference for, Primer A-1 showing executed, RefPages 1-335 timing, RefPages 1-697	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592 comsat program, RefPages 8–53 config program, RefPages 8–54, 8–56 See also doconfig program
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761 quick reference for, Primer A-1 showing executed, RefPages 1-335 timing, RefPages 1-697 command language	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592 comsat program, RefPages 8–53 config program, RefPages 8–54, 8–56 See also doconfig program configuration file, BasicInstall 1–3, Kerberos 4–4
column filtering multiple, RefPages 1-85 removing from a file, RefPages 1-87 comb command (sccs), RefPages 1-88 comm command, RefPages 1-90 command applying to arguments, RefPages 1-22 continuing on the next line, Primer 7-7 executing later, RefPages 1-34 getting online information about, RefPages 1-758 locating online information, RefPages 1-407, 1-761 quick reference for, Primer A-1 showing executed, RefPages 1-335 timing, RefPages 1-697 command language See shell	compact command, RefPages 1–94 compatibility issue of data types, DECrpc 5–1 when adding operations to interfaces, DECrpc 5–10 compiler creating, RefPages 1–775 complex type, DECrpc 6–6, 7–6 Compound Document Architecture See CDA compress command, RefPages 1–96, 1–98 obtaining disk space with, DiskMaint 2–7 compressing sparse data files, RefPages 1–592 comsat program, RefPages 8–53 config program, RefPages 8–54, 8–56 See also doconfig program configuration file, BasicInstall 1–3, Kerberos 4–4 Best reference, Configfile

configuration file (cont.)	connectionless-mode, X/OpenTransport 1-8 to 1-9
editing for load host, Ethernet 2-1	description of, X/OpenTransport 1-3
editing for service node, Ethernet 2-6	when to use, X/OpenTransport 3-1
editing for terminal emulator, TermEmul 1-4	connection-mode, X/OpenTransport 1-3 to 1-4
estimating physical memory, Configfile 1-5	release connection, X/OpenTransport 1-6
format of, Configfile 1-1 to 1-16	console boot default
generic template for, Configfile 1-2	updating, BasicInstall 3-5
location of, Configfile 1-1	console carrier requester
specifying definitions in, Configfile 1-8 to 1-16	establishing remote connection with, RefPages
configuration file (error logger), RefPages 5-36	8-43 to 8-44
configuration file (sendmail)	console disk, RefPages 8-211
editing, NFS 3-6	console diskette
refreezing, NFS 3-6, uucp 2-3	building for VAX, Shutdown 3-24 to 3-26
configuration file (syslog), RefPages 4-9	copying, RefPages 8-96
building, RefPages 8-54, 8-56, 8-76	console interface, RefPages 4-12 to 4-13
format of, RefPages 8-363	See also RL02 console interface
configuration file (system)	See also RX50 console interface
adding kernel options, AdvInstall 2-14, 3-14	console media
editing, AdvInstall 2-15, 3-15	updating, BasicInstall 3-5
connect command (tftp), RefPages 1-694	console message, NFS A-5
connect indication, X/OpenTransport 2-2, 2-9, 2-15	console terminal
processing, X/OpenTransport 2-15	QVSS and, RefPages 4-106
connect request	constant
determining status of, RefPages 3-602	in interfaces with multiple versions, DECrpc 7-20
listening for, RefPages 3-590	constant declaration, DECrpc 4-4, 6-5
connect system call, Network_Prog 2-5, 2-8,	constructed type, DECrpc 6-12
RefPages 2-41	cont command (dbx), RefPages 1-170
See also shutdown system call	cont command (pdx), RefPages 1-502
connection, X/OpenTransport 1-5	cont subroutine, RefPages 3-559
aborting, X/OpenTransport 2-19	continue command (csh), RefPages 1-127
establishing, X/OpenTransport 1-4, 2-10, 2-15	continue command (sh), RefPages 1-610
multiple units in, X/OpenTransport 2-16	continue command (System V), RefPages 1-619
receiving data through, RefPages 3-600	control file, TermEmul 1-6
connection mode, Network_Prog 4-1 to 4-3	control status register addresses, BasicInstall 1-3
calling sequence, Network_Prog 2-2	controller name
connection release, X/OpenTransport 1-6	selecting, BasicInstall 3-1 to 3-2
connection stage	controller number
See also handshaking stage	selecting, BasicInstall 3-1 to 3-2
problems with, uucp 5-2	controller specification
connectionless mode	specifying in the configuration file, Configfile 1-11
calling sequence, Network_Prog 2-2	conv library routine, InterNatl 3-1
receiving data and, RefPages 3-609	conversational mode
receiving error information, RefPages 3-611	
receiving error information, Keji ages 5–011	invoking, Shutdown 2–3

conv.idl file, DECrpc 2–8	creat system call, RefPages 2–43
cooked mode	See also open system call
definition of, RefPages 4-181	create command (sccs), RefPages 1-595, sccs 3-2
copy command (mail), RefPages 1-394	creatediskbyname subroutine, RefPages 3-526
See also save command (mail)	crl keyword, RefPages 4-15
copying sparse data files, RefPages 1-592	crmode subroutine, RefPages 3-528
cord command, RefPages 1-100	cron command, RefPages 8-71
core dump	executing crontab entries, SysEnviron 1-16
saving, RefPages 8-328	crontab file, RefPages 8-71
core file	description of, SysEnviron 1-16 to 1-18
format of, RefPages 5-20	editing, YP 2–11
cos subroutine, RefPages 3-362	format of, RefPages 5-22
cos subroutine (math), RefPages 3-364	modifying, SysEnviron 1-18
cosh subroutine (math), RefPages 3-367	running the krb_push script, Kerberos 4-10
cosine function, RefPages 3-364	typical uucp entries, uucp 3-2
cp command, Primer 3-12, RefPages 1-104	crypt command
See also dd command	data encryption, RefPages 1-114
See also my command	crypt subroutine, RefPages 3-18
cpio command, RefPages 1-105 to 1-107	cs keyword, RefPages 4-16
See also cpio file	csh command interpreter, RefPages 1-116 to 1-136
cpio file	See also echo command
format of, RefPages 5-21	.cshrc file, Primer 7-1
cpp command, RefPages 1-108, 1-111	CSNET network
cpu parameter	contacting, BIND/Hes 4-3
specifying in the configuration file, Configfile 1-3	CSNET site
cr command (ftp), RefPages 1-250	sending mail to, RefPages 7-15
crash dump, TechSumm 2-10	csplit command, RefPages 1-142
Best Reference, CrashRec	CSR addresses, BasicInstall 1-3
See also crash dump space	ctags command, RefPages 1-144 to 1-145
analyzing, RefPages 8-68, 8-70	ctc command, RefPages 1-147
anyalyzing, RefPages 1-540	ctcr command, RefPages 1-147
definition of, AdvInstall 2-5	ctermid subroutine, RefPages 3-495
enabling, CrashRec 1-1 to 1-5	See also ttyname subroutine
examining, CrashRec 1-6	compared with ttyname subroutine, RefPages
forcing, CrashRec 2-1 to 2-5	3–495
process of for client, DMS 5-2	ctime subroutine (standard C), RefPages 3-20
specifying across the network, DMS 4-3	System V and, RefPages 3-23
/var area and, AdvInstall 2-7	ctod command, RefPages 1-146
crash dump space	ctrace debugger, RefPages 1-147 to 1-152
allocating, AdvInstall 3-10	ctu keyword, RefPages 4–17
requirements for, AdvInstall 2-5	cty keyword, RefPages 4-19
crash keyword, RefPages 8-67, 8-69	ctype keyword, RefPages 3-25
crash utility, RefPages 8-59	ctype library routine, InterNatl 3-1, 4-3

cu command, RefPages 1-698	data decryption, Kerberos 1-4
curses	See also data encryption
BSD 4.2 routines in, CursesX B-1	definition of, Kerberos 1-3
calling, CursesX A-1	data directory
naming conventions in, CursesX 1-3	building, setld 5-2
X/Open routines in, CursesX B-1	data encryption
curses library, RefPages 3-193	See also data decryption
curses package, RefPages 3-193, 3-528	crypt command and, RefPages 1-114
main routines in, RefPages 3-193	ex editor and, RefPages 1-221
subroutine list, RefPages 3-528	Kerberos authentication and, Kerberos 1-2 to 1-4
cursesX.h header file, CursesX 2-6	secret mail and, RefPages 1-772
cursor	using the crypt subroutine, RefPages 3-18
moving, CursesX 1-4	vi editor and, RefPages 1-745
optimizing movement, RefPages 3-193	view command and, RefPages 1-748
optimizing movement of, RefPages 3-528	Data Encryption Standard
optimizing the movement of, CursesX 1-1	See DES
cuserid subroutine, RefPages 3-496	data file
See also getlogin subroutine	format of, setld 2-3
cut command, RefPages 1-153	receiving, TermEmul 1-6
See also paste command	sending to an IBM system, TermEmul 1-5, 1-6,
options, RefPages 1-153	2-2 to 2-5
CX16 communications interface, RefPages 4-22	updating, BIND/Hes 4-4
CXA16 communications interface, RefPages 4-20	data file directory
cxref command, RefPages 1-155	default, BIND/Hes 3-6
CXY08 communications interface, RefPages 4-24	data file entry, BIND/Hes 2-3 to 2-10
	data link layer
D	See ISO reference model
	data memory
daemon, DECrpc 1-16	changing protection of, RefPages 2-118
See also lpq command	changing size of, RefPages 2-26
See also newaliases command	Data Object Transport Syntax files
See also rmail command	See DOTS file
biod, NFS 2-1	data packet
nfsd, NFS 2-1, 3-7	sending, TermEmul 2-4
sendmail, NFS 3-6	data segment
DARPA network	specifying in the configuration file, Configfile 1-5
contacting, BIND/Hes 4-3	data sink, RefPages 4-87
data	data structure
expedited, X/OpenTransport 2-16, 2-19	hostent, Network_Prog 2-13
transferring, Network_Prog 2-6	ifconf, Network_Prog 3-10
data base subroutine, RefPages 3-530	ifreq, Network Prog 3-10, 3-11
data conversion	iovec, Network_Prog 2-6
suppressing, DECrpc 6-12	msghdr, Network_Prog 2-7
	netent, Network Prog 2-14
	 •

data structure (cont.)	daylight savings time
protent, Network_Prog 2-15	specifying in the configuration file, Configfile 1-4
servent, Network_Prog 2-16	daylight savings time status
sockaddr, Network_Prog 2-9	specifying, BasicInstall 3-3
data transfer	dbm file
functions for, X/OpenTransport 1-6	storing data in, YP 1-3
number of bytes in, X/OpenTransport 2-17	dbm keyword, RefPages 3-530
terminating, X/OpenTransport 2-20	See also makedbm command
database	dbminit subroutine, RefPages 3-530
See also the ULTRIX/SQL documentation	dbx command (RISC only), RefPages 1-159
See also dms database	dbx debugger, RefPages 1-168 to 1-175
See also hosts database	See also adb debugger
See also local database	See also gcore command
See also nodes database	de calculator
See also passwd database	See calculator
See also ris database	dc program, RefPages 1-176 to 1-178
See also yp database	See also be language
creating, LocBrok 3-4	dc serial line controller, RefPages 4–26
creating and initializing, Kerberos 3-3, 4-8	dcheck program, RefPages 8-72
destroying Kerberos master, Kerberos 3-4	See also fsck command
distributed by BIND/Hesiod name service,	dd command, RefPages 1-179 to 1-181
SysNetSetup 3–4	creating sparse files with, CrashRec 1-5
distributed by Yellow Pages, SysNetSetup 3-5	DDIF
for terminals, RefPages 5-191	See the CDA documentation
propagation of to slave servers, Kerberos 4-5	DDIS, RefPages 5-25
transfer from master to slave, Kerberos 3-1	DDIS/ASN.1 encoding, RefPages 5-31
utilities for, Kerberos 3-3 to 3-5	de interface
database language source file, InterNatl 4-1	See DELUA Ethernet interface
database selection and security configuration file	See DEUNA Ethernet interface
See svc.conf file	DEBNI interface and DEMNA interface, RefPages
datagram	4–197
See also socket system call	debug command (ftp), RefPages 1-250
definition of, RefPages 2-198	debug file
sending and receiving, X/OpenTransport 3-3 to	reviewing, BIND/Hes 5-2
3-4	debugger
date	See adb debugger
converting to ASCII, RefPages 3-20	See ctrace debugger
displaying, RefPages 1-156	See dbx debugger
getting, RefPages 3–177	DECnet load host, Ethernet 2-1
setting, RefPages 1-156	DECNET option
showing, RefPages 1-752, 1-764	specifying in the configuration file, Configfile 1–7
specifying, BasicInstall 3–3	decnet pseudodevice definition
date command, RefPages 1–156 to 1–158	specifying in the configuration file, Configfile 1–16
See also relate command	1 7 5

DECrpc runtime library, DECrpc 1-1,	delta command (sccs) (cont.)
Network_Prog 6-2	See also rmdel command (sccs)
DECrpc software, DECrpc 2-1 to 2-9, LocBrok 1-1	cdc command (sccs) and, RefPages 1-69
Best reference, DECrpc	using, sccs 2-3
restarting services of, LocBrok 3-1	DELUA Ethernet interface, RefPages 4-27
terminating services of, LocBrok 3-5	See also Address Resolution Protocol
DECstation processor	delwin subroutine, RefPages 3-217, 3-528
booting, BasicInstall 2-3 to 2-6, Shutdown 3-33 to	DEQNA Ethernet interface, RefPages 4-105
3–40	deroff interpreter, RefPages 1-185
completing advanced installation on, AdvInstall	DES, Kerberos 1-3, RefPages 3-18
4–3	key to, Kerberos 2-2, 4-11
DECsystem processor	DEUNA Ethernet interface, RefPages 4-27
booting, BasicInstall 2-3 to 2-8, Shutdown 3-40	See also Address Resolution Protocol
completing advanced installation on, AdvInstall	device
4–3	adding, SysEnviron 2-1 to 2-5
DECwindows, TechSumm 2-2, 2-6 to 2-7	for paging, RefPages 2-208, 8-360
default security level	for swapping, RefPages 2-208, 8-360
See BSD security level	device driver
define macro, RefPages 1-388	adding, SysEnviron 2-1
def_prog_mode subroutine, RefPages 3-213	SCSI, RefPages 4-130
See also reset_prog_mode subroutine	sp, RefPages 4-139
def_shell_mode subroutine, RefPages 3-213	device interface, RefPages 4-29
See also reset_shell_mode subroutine	device mnemonic
delay_output subroutine, RefPages 3-214	reference list of, DiskMaint A-2t to A-3t
delch subroutine, RefPages 3-215, 3-528	using with MAKEDEV, DiskMaint A-1
deledit command (sccs), RefPages 1-596, sccs 3-5e	using with the man command, DiskMaint A-1
using, sccs 2-7	device name
delete command, LocBrok 2-2, 2-3	selecting, BasicInstall 3-1 to 3-2
delete command (dbx), RefPages 1-170	device number
delete command (ftp), RefPages 1-250	selecting, BasicInstall 3-1 to 3-2
delete command (mail), RefPages 1-394	device profile
See also undelete command (mail)	definition of, uucp 4-2
delete command (pdx), RefPages 1-502	device special file
delete subroutine, RefPages 3-530	creating, SysEnviron 3-1
deleteln subroutine, RefPages 3-216, 3-528	device special file name, DMS 2-5, RIS 2-3
delget command (sccs), RefPages 1-596	devio file
using, sccs 2–7	See device interface
DELQA Ethernet interface, RefPages 4-105	df command, AdvInstall 2-1
delta, sccs 2-6	See dumpfs command
creating, sccs 2-2 to 2-5	using to check free disk space, DiskMaint 2-1
definition of, RefPages 1-594, sccs 1-2	dfa interface
replacing, sccs 2-8	See DFA01 communications interface
delta command (sccs), RefPages 1-182 to 1-184,	DFA01 communications interface, RefPages 4-3
1-595, sccs 3-5e	

dgate command, RefPages 1-188	direct backup method
See also dgateway file	See also staging area backup method
dgated daemon, RefPages 8-73	definition of, Backup 4-3
dgateway file	description of, Backup 4-11
format of, RefPages 5-26	prerequisites to, Backup 4-11
dhb interface	direct map
See DHB32 communications interface	See also automount map
DHB32 communications interface, RefPages 4-33	multiple mounts, NFS 2-13
dhq keyword	replicated file systems, NFS 2-14
See DHQ11 communications interface	directional attribute, DECrpc 6-10
DHQ11 communications interface, RefPages 4-35	directory
DHT32 serial line interface, RefPages 4-136	See also working directory
dhu interface	comparing, RefPages 1-190
See DHQ11 communications interface	creating, RefPages 1-430, 2-108, 2-110
See DHU11 communications interface	definition of, Primer 2-5, 3-1
See DHV11 communications interface	descending tree, RefPages 3-49
DHU11 communications interface, RefPages 4-36	file format of, RefPages 5-28
dhv keyword	getting entries in, RefPages 2-69 to 2-70
See DHV11 communications interface	limiting to specific clients, NFS 1-2
DHV11 communications interface, RefPages 4-37	listing, RefPages 1-380
diagnostic	operations on, RefPages 3-27
explanation of, RefPages 1-1	removing, RefPages 1-576, 2-155
handling, RefPages 1-754	renaming, RefPages 2-153
dial code	requirements for uucp, uucp 1-3
file set-up for, uucp 2-8	restoring, Backup 3-1
specifying, RefPages 5-73	root, Primer 3–1
dialing stage	scanning, RefPages 3-120
problems with, uucp 5-1	directory keyword, RefPages 3-27
diction program, RefPages 1-189	dirname command, BGB 9-9e, RefPages 1-197
diff command, RefPages 1-190 to 1-192	disable command (lpc), RefPages 8-188
diff3 command, RefPages 1-193 to 1-194	disconnect command (ftp), RefPages 1-250
diffmk command, RefPages 1-195	discriminator
diffs command (sccs), RefPages 1-596	in unions, DECrpc 6-13
Digital Data Interchange Syntax	disk
See DDIS	See also system disk
Digital Document Interchange Format	allocating for diskless server, DMS 2-2
See the CDA documentation	checking use of, DiskMaint 2-1 to 2-3
Digital Storage Architecture Disk	compressing files on, DiskMaint 2-7
See DSA disk	displaying use of, RefPages 1-186, 1-205, 1-552
dir command (csh), RefPages 1-127	getting additional space on, DiskMaint 2-6
dir command (ftp), RefPages 1-250	getting description, RefPages 3-533
dir keyword, RefPages 5-28	getting description of, RefPages 3-526
dircmp command, RefPages 1-196	hard error on, DiskMaint 4-2
	organization of, DiskMaint 1-1

disk (cont.)	diskless client (cont.)
reallocating space on, DiskMaint 3-1	definition of, DMS 1-1
reporting statistics for, RefPages 1-293, 1-751	listing registered clients, DMS 4-6
support for, TechSumm 2-10	modifying the registration of, DMS 4-4 to 4-5
testing, RefPages 8-79 to 8-80	preparing to setup, DMS 2-7
disk drive	registering, DMS 2-6
adding, SysEnviron 2-4 to 2-5	removing, DMS 4-5 to 4-6
testing, Exercisers 3-1	rwhod daemon and, DMS A-1
disk interface	shutting down, Shutdown 1-3
See also dkio file	troubleshooting, DMS 5-1
DIOGETPT and, RefPages 4-40e, 4-42e	diskless server
ioctl codes, RefPages 4-39, 4-41	configuring, DMS 3-1 to 3-5
restricted, RefPages 4-40, 4-43	maintaining, DMS 4-1 to 4-11
disk pack	preparing to configure, DMS 2-2 to 2-6
formatting, RefPages 8-97 to 8-99	software installation and, DMS 2-3
disk partition, DiskMaint 1-1	diskless server area
Best reference, DiskMaint	installing software on, DMS 3-2 to 3-5
allocating with dms, DMS 2-2, 3-1 to 3-2	maintaining, DMS 4-11
changing the parameters of, DiskMaint 3-5e	overview of, DMS 1-1 to 1-2
changing the size of, DiskMaint 3-1 to 3-4	preparing for setup, DMS 2-1 to 2-7
overview of, DiskMaint 3-1	disktab file
disk partition layout	format of, RefPages 5-30
choosing, AdvInstall 3-1	display command (TELNET), RefPages 1-686
deciding whether to accept the default, AdvInstall	display folder
2–15	pathname for, RefPages 1-428
modifying, AdvInstall 2-16	Display PostScript, TechSumm 2-7
specifying default, AdvInstall 3-6	See also printer for
specifying existing, AdvInstall 3-3	dist command, RefPages 1-199
disk partition table, DiskMaint 3-2	dist command (MH), BGB 6-13t
changing, RefPages 8-47 to 8-49	distributed application
disk quota, DiskMaint 2-4 to 2-6, SysNetSetup 1-16	binding, DECrpc 5-1 to 5-3, 5-17
to 1–17	building and running, DECrpc 3-1, 3-6, 5-26
checking, RefPages 8-280	communication in, DECrpc 5-11 to 5-18
displaying, RefPages 1-552	registering objects, DECrpc 5-22
editing, RefPages 8–88	writing, DECrpc 3–1 to 3–6
enabling, RefPages 2–170, 8–281	distributed environment
manipulating, RefPages 2-143	network setup for, Kerberos 4-1
setting automatic, DiskMaint 2-6n	planning and configuring, LAN 2-1 to 2-6
summarizing by file system, RefPages 8–294	distributed naming service, LAN 2–1
diskless client	See also BIND/Hesiod service
adding, DMS 4-1 to 4-3	See also YP service
booting, DMS 4–4, RefPages 8–40	distributed programming with DECrpc,
crash process for, DMS 5-2	Network Prog 6–1
customizing the setup of, <i>DMS</i> A-1 to A-4	
the comments are composited in a second .	

distributed system service	DMC11 communications interface, RefPages 4-47
adding users in a distributed environment,	dmf interface
SysNetSetup 3–34	See DMF32 communications interface
authentication service, LAN 2-4	See DMF32 serial printer interface
configurable security levels, LAN 2-4	DMF32 communications interface, RefPages 4-49
naming services, LAN 2-1 to 2-2	See also DMF32 serial printer interface
selecting a name service, SysNetSetup 3-4	DMF32 serial printer interface, RefPages 4-51
setting up BIND/Hesiod, SysNetSetup 3-8	dmfsp keyword
setting up the network time services, SysNetSetup	DMF32 serial printer interface, RefPages 4-51
3–22	DMR11 communications interface, RefPages 4-47
setting up the svc.conf file, SysNetSetup 3-18	dms database, DMS 4-9 to 4-10
setting up YP, SysNetSetup 3-12	dms program (DMS), RefPages 8-74
time services, LAN 2-2 to 2-4	dms utility
distribution device	Best reference, DMS
selecting, BasicInstall 3-1	database for, DMS 4-9
distribution kit, TechSumm 2-8	definition of, DMS 1-2
distribution kit component, setld 1-2	dmv interface
distribution media	See DMV11 communications interface
making, setld 5-7	DMV11 communications interface, RefPages 4-52
div subroutine (ANSI C), RefPages 3-30	dmz interface
divert macro, RefPages 1-388	See DMZ32 communications interface
divnum macro, RefPages 1-389	DMZ32 communications interface, RefPages 4-54
dkio file	dnl macro, RefPages 1-389
ioctl codes, RefPages 4-39, 4-41	doconfig command, Ethernet 2-1
dlclient file system	building the kernel automatically, Configfile 2-1
estimating disk space for, DMS 2-4	doconfig program, RefPages 8-76
dlenv file system	See also sizer program
estimating disk space for, DMS 2-3	domain, RefPages 1-202
DLI option	See also YP domain
specifying in the configuration file, Configfile 1-8	getting name, RefPages 2-71
dli pseudodevice definition	maintaining, BIND/Hes 4-1 to 4-2
specifying in the configuration file, Configfile 1-16	setting name, RefPages 2-71
dmb interface	domain administrator, BIND/Hes 4-1
See DMB32 communications interface	domain hierarchy, BIND/Hes 1-1 to 1-3
See DMB32 serial printer interface	domain name, BIND/Hes 3-5
DMB32 communications interface, RefPages 4-44	in BIND/Hesiod, SysNetSetup 3-4, 3-8
See also DMB32 serial printer interface	in YP, SysNetSetup 3-5
DMB32 serial printer interface, RefPages 4-46	setting, YP 4–2
dmbsp keyword	domainname command, RefPages 1-202
See DMB32 serial printer interface	DOTS file, RefPages 5-31
dmc interface	double type, DECrpc 6-11
See DMC11 communications interface	doupdate subroutine, RefPages 3-275
See DMR11 communications interface	downline-load listener, RefPages 8-218

dp command (mail), RefPages 1-394	dumpdef macro, RefPages 1-390
dp program, RefPages 8-78	dumpfs command, RefPages 8-85
dpv data communications interface, RefPages 4-55	dumprestor file
draino subroutine, RefPages 3-218	format of, RefPages 5-33 to 5-35
drand48 subroutine, RefPages 3-31	dup interface, RefPages 4-57
drtest program, RefPages 8-79	dup system call, RefPages 2-45
drum keyword, RefPages 4-56	dup2 system call, RefPages 2-45
DSA disk	dynamic assignment of ports, DECrpc 1-5
error report for, DiskMaint 4-4 to 4-6	dynamic regular expression, nawk 3-4
handling bad blocks on, DiskMaint 4-1	dz interface
managing, RefPages 8-282	See DZ11 communications interface
using the radisk utility, DiskMaint 4-10	See DZ32 communications interface
dskx exerciser, Exercisers 3-1 to 3-2, RefPages 8-80	See DZQ11 communications interface
to 8–81	See DZV11 communications interface
dsvconfig script	DZ11 communications interface, RefPages 4-58
use of with nodes database, Ethernet 2-4	DZ32 communications interface, RefPages 4-58
DTIF	dzą keyword
See the CDA documentation	See DZQ11 communications interface
dtoc command, RefPages 1-203	DZQ11 communications interface, RefPages 4-59
du command, RefPages 1-205	See also DFA01 communications interface
See also quot command	dzv keyword
reporting blocks used with, DiskMaint 2-2	See DZV11 communications interface
dump command, RefPages 8-82 to 8-83	DZV11 communications interface, RefPages 4-60
See also dump file	
See also fstab file	E
See also rdump command	_
See also restore command	ECC scheme
specifying dump frequency with, SysEnviron 1-13	description of, DiskMaint 4-2
using, Backup 1-1, 2-1 to 2-2	echo argument, RefPages 1-207
dump command (pdx), RefPages 1-503	echo command (csh), RefPages 1-127
dump device	echo command (general), RefPages 1-206
specifying in the configuration file, Configfile 1-10	echo command (System V), RefPages 1-619
dump file, RefPages 5-34	echo subroutine, RefPages 3-219, 3-528
copying, CrashRec 1-5e	ecvt library routine, InterNatl 3-1
examining, CrashRec 1-6	ecvt subroutine, RefPages 3-34
generating, CrashRec 1-4 to 1-6	ed editor, RefPages 1-208 to 1-216
removing from the file system, CrashRec 1-6e	using, BGB 3-2 to 3-14
dump keyword, RefPages 5-33	edata subroutine, RefPages 3-37 to 3-38
dump process, CrashRec 1-1	edauth editor, RefPages 8–86
dump program	edit command (mail), RefPages 1-394
See restore command	edit command (pdx), RefPages 1-503
dumpdates file	edit command (sccs), RefPages 1-595
field reference list, RefPages 5-34	See also unedit command
	get command and, sccs 2-2n

edit command (sccs) (cont.)	end command (csh), RefPages 1-128, 1-133
using, sccs 2-2	END pattern, nawk 2-7
editor	end subroutine, RefPages 3-37, 3-38
ed, RefPages 1-208	endauthent subroutine, RefPages 3-51
edit, RefPages 1-221	endfsent subroutine, RefPages 3-534
edquota, DiskMaint 2-5	endgrent subroutine, RefPages 3-56
ex, RefPages 1-221	endhostent procedure, Network_Prog 2-13, 2-14
line-oriented, BGB 3-1	endhostent subroutine, RefPages 3-373
red, RefPages 1-208	endif command (csh), RefPages 1-129
sed, RefPages 1-600	endnetent procedure, Network_Prog 2-14
vi, RefPages 1-745	endnetent subroutine, RefPages 3-375
edquota command, SysNetSetup 1-16	endnetgrent subroutine, RefPages 3-626
edquota editor, RefPages 8-88	endnote
activating, DiskMaint 2-5	formatting, RefPages 1-563
effective group ID	endprotoent procedure, Network_Prog 2-15
getting, RefPages 2-73, 2-98	endprotoent subroutine, RefPages 3-377
setting, RefPages 2-172, 3-129	endpwent subroutine, RefPages 3-65
effective user ID	endrpcent subroutine, RefPages 3-67
getting, RefPages 2-98	endservent procedure, Network_Prog 2-16
setting, RefPages 2-173, 3-129	endservent subroutine, RefPages 3-379
egrep command, RefPages 1-274	endttyent subroutine, RefPages 3-71
See also grep utility	$\textbf{endwin subroutine}, \textit{CursesX} \ 28, \textit{RefPages} \ 3220,$
egrep utility, BGB 4-2t	3–528
See also grep utility	ENHANCED security level, LAN 2-4, 2-5
elcsd daemon, RefPages 8-89	transition to, Kerberos 5-4
See also elcsd.conf file	entry point vector
See also errlog file	See EPV
See also uerf command	enum type, DECrpc 6–12
rc file entry, ErrorLogger 2-1	enumeration, DECrpc 6-12
elcsd.conf file, ErrorLogger 2-3 to 2-5	environ global variable, RefPages 7-3
changing entries in, ErrorLogger 3-2	See also printenv command
for client system, ErrorLogger 2-6e	environ subroutine, RefPages 3-39 to 3-41
for server system, ErrorLogger 2-5e	environment
format of, RefPages 5-36	See also user environment
eli command, RefPages 8-90	See also YP environment
See also errlog file	changing, RefPages 3-109
options for, ErrorLogger 3–1 to 3–2	customizing, Primer 7-1 to 7-10
else command (csh), RefPages 1-128	displaying variable values, RefPages 1-526
else statement, nawk 4–1	getting variable values for, RefPages 3-55
EMULFLT option	strings, RefPages 7-3
specifying in the configuration file, Configfile 1-7	environment (POSIX)
enable command (lpc), RefPages 8-188	See POSIX environment
encryption key	environment (System V)
generating, RefPages 8-207	See System V environment

environment variable, NFS 2–16, RefPages 5–38	error logging daemon (cont.)
PATH, Kerberos 4–8	See also error logging interface
eof command (mt), RefPages 1-442	See also error report formatter
eotdis command (mt), RefPages 1-442	error logging subsystem, ErrorLogger 3-1
eoten command (mt), RefPages 1-442	error message, NFS A-1 to A-7, X/OpenTransport
EPV	2-5, 4-4
defining for manager, DECrpc 5-21	See also Kernel Messages Reference Manual
in manager module, DECrpc 7-19	ACU, uucp 5–1
in server module, DECrpc 7-18	ASSERT, uucp 5-6 to 5-7
with multiple managers, DECrpc 7-26	causes of in distributed application, DECrpc 5-10
erand48 subroutine, RefPages 3-31	EADDRINUSE, Network_Prog 3-4
erase macro (curses), RefPages 3-221	EWOULDBLOCK, Network_Prog 3-8
erase subroutine (curses), RefPages 3-528	for the terminal emulator, TermEmul 2-6, 2-9 to
erase subroutine (plot), RefPages 3-559	2–13
erasechar subroutine, RefPages 3-222	getting system, RefPages 3-105
erf function, RefPages 3-337	logging and reporting, TechSumm 2-10
erf subroutine, RefPages 3-338	producing, RefPages 1-206
erfc function, RefPages 3-337	recovering from, TechSumm 2-10
erfc subroutine, RefPages 3-338	SO_ERROR, Network_Prog 2-9
ERR, CursesX 2-2	transport function and, RefPages 3-581
ERRLOG file, uucp 5-5 to 5-7	viewing in source code, RefPages 1-218 to 1-220
See also error message	error report, DiskMaint 4-3
errlog interface, RefPages 4-61	disk error messages in, DiskMaint 4-5
errno error list, RefPages 2-46	for error type, ErrorLogger 4-5 to 4-7
errno variable, RefPages 2-46	for specific errors, ErrorLogger 4-7 to 4-10
error command, RefPages 1-218 to 1-220	generating, ErrorLogger 4-1 to 4-4
error correction code scheme	error report formatter, RefPages 8-383, 8-387
See ECC scheme	See uerf command
error function, RefPages 3-338	error_\$ library routine, DECrpc 2-7
System V and, RefPages 3-360	<pre>error_c_get_text, RefPages 3-399</pre>
error handling, DECrpc 5-9 to 5-11, 5-17	error_c_text, RefPages 3-400
error log file	errorlog buffer
specifying size limit for, ErrorLogger 2-2	clearing, ErrorLogger 3-2
error logger	errorlog file, ErrorLogger 2-4
components of, ErrorLogger 1-1 to 1-3	examining, DiskMaint 4-3
controlling manually, ErrorLogger 3-1 to 3-2	logging message to, ErrorLogger 3-2
description of, ErrorLogger 2-1 to 2-5	remote systems and, ErrorLogger 2-3
error message types, ErrorLogger 2-3	use of in crash dump, CrashRec 1-5
events reported by, ErrorLogger 4-1	errprint macro, RefPages 1-390
remote system and, ErrorLogger 1-2 to 1-3	escape sequence, nawk 2-5
error logger file	/etc/crontab file
space requirements for, AdvInstall 2-7	See crontab file
error logging daemon, RefPages 8-89	/etc/exports file
See also elcsd.conf file	See exports file

/etc/fstab file eval macro, RefPages 1-389 See fstab file event /etc/hosts file asynchronous, X/OpenTransport 1-2, 4-4 See hosts file disabling, X/OpenTransport 2-20, 3-5 /etc/kitcap file incoming, X/OpenTransport A-4 See kitcap file event file /etc.krb.conf file See errorlog file See krb.conf file event handling /etc/krb.slaves file disabling, X/OpenTransport 1-7 See krb.slaves file events /etc/passwd file outgoing, X/OpenTransport A-2 See passwd file ex editor, BGB 3-2, RefPages 1-221 /etc/rc file description of, BGB 3-15 See rc file exec command (csh), RefPages 1-127 /etc/rc.local file exec command (sh), RefPages 1-610 See rc.local file exec command (System V), RefPages 1-619 /etc/srvtab file execl subroutine, RefPages 3-39 to 3-41 See srvtab file execle subroutine, RefPages 3-39 to 3-41 /etc/svc.conf file execlp subroutine, RefPages 3-39 to 3-41 See svc.conf file exect subroutine, RefPages 3-39 to 3-41 /etc/ttys file executable object file See ttys file definition of, RefPages 2-52 etext subroutine, RefPages 3-37, 3-38 execution time ether pseudodevice definition profiling, RefPages 2-137 specifying in the configuration file, Configfile 1-16 execv subroutine, RefPages 3-39 to 3-41 Ethernet address, Ethernet 2-4, 2-5 execve system call, RefPages 2-52 mapping to Internet address, RefPages 4-6, 4-85, See execl subroutine 4-197 See also environ global variable obtaining, Ethernet A-2 See also execl subroutine Ethernet board, NFS 4-6 execvp subroutine, RefPages 3-39 to 3-41 Ethernet interface EXINIT string, RefPages 7-3 See DELQA Ethernet interface exit code, RefPages 1-1 See DELUA Ethernet interface exit command (csh), RefPages 1-127 See DEONA Ethernet interface exit command (lpc), RefPages 8-188 See DEUNA Ethernet interface exit command (mail), RefPages 1-394 See Lance Ethernet interface exit command (sh), RefPages 1-610 Ethernet remote node exit command (System V), RefPages 1-620 maintenance of, Ethernet A-1 exit statement, nawk 4-7 ethers file, RefPages 5-42 exit status Euclidean distance, RefPages 3-349 definition of, RefPages 1-1 eval command (csh), RefPages 1-127 exit subroutine, RefPages 3-43 eval command (sh), RefPages 1-610 exit subroutine (standard C), RefPages 3-43 eval command (System V), RefPages 1-619 exit system call, RefPages 2-55

exp function, RefPages 3-339	F
exp subroutine (math), RefPages 3-341 to 3-342	f77 compiler
expand command, RefPages 1-223	See ctags command
See also fold command	See gprof command
explain program, RefPages 1-189	See prof command
explicit handle	f77 program, RefPages 1–269
as operation parameter, DECrpc 4-3	fabs subroutine, RefPages 3–343 to 3–345
definition of, DECrpc 1-11	facility
in operation declaration, DECrpc 4-6, 6-4, 6-10	See utility
expm1 function, RefPages 3-339	FALSE, CursesX 2–2
expm1 subroutine (math), RefPages 3-341	false command, RefPages 1–709
exponential function, RefPages 3-341	fault management routine, DECrpc 2-7
exponential notation, nawk 1-4	fchmod system call, RefPages 2–32
export	fchown system call, RefPages 2-35
definition of, NFS 1-1	fclose subroutine, RefPages 3-497
export command (sh), RefPages 1-610	fcntl system call, RefPages 2-57 to 2-62
export command (System V), RefPages 1-620	See also lockf subroutine
exportfs system call, RefPages 2-56	NFS locking and, NFS 1-3
exports file, NFS 2-3	fcvt subroutine, RefPages 3-34
See also hosts file	fdopen subroutine, RefPages 3-500
See also netgroup file	feof subroutine, RefPages 3-498
adding entries to, NFS 2-2	ferror subroutine, RefPages 3-498
entries in, NFS 2-3e, 3-7e	fetch subroutine, RefPages 3-530
format of, RefPages 5-43	fexp function, RefPages 3-339
system security and, NFS 3-7	fexpm1 function, RefPages 3-339
using to restrict access to exported file systems,	fflush subroutine, RefPages 3-497
SysNetSetup 26	ffs subroutine, RefPages 3-14
expr command, RefPages 1-224	fg command, Primer 4-12
expression	fg command (csh), RefPages 1-127
taking arguments as, RefPages 1-224	fgetc subroutine (standard I/O), RefPages 3-504
testing, BGB 9–9 to 9–10	fgets subroutine, RefPages 3-505
extended agent, LAN 3-1 to 3-4	fgrep command, RefPages 1-274
Extended SNMP Agent	See also grep utility
MIB organization, Network_Prog 7-1 to 7-11	fgrep utility, BGB 4-2t
external variable	See also grep utility
uuid_\$nil variable, DECrpc 1-3	fhandle, NFS 4-3
extract command, InterNatl 2-2, 2-8	definition of, NFS 3-2
extract utility, RefPages 1–226	field
ext_srvtab command, Kerberos 4-7, 4-12	definition of, nawk 1-2
eyacc compiler, RefPages 1-230	field attribute, DECrpc 7-1 to 7-3
	in interface definition, DECrpc 4-7
	in operation declarations, DECrpc 6-10
	in structures, DECrpc 6-13

field attribute (cont.)	file (cont.)
in type declarations, DECrpc 6-7	merging, RefPages 1-499, 1-637, 5-15
last_is, DECrpc 4-5, 6-7, 6-10	moving, DiskMaint 2-9, RefPages 1-444
max_is, DECrpc 4-5, 6-7, 6-10	opening, RefPages 2-128
file	overwriting, RefPages 1-684
See also specific types of files	permissions for, Primer 3-9, 3-10
See also the names of specific files	printing, RefPages 1-372, 1-525, SysEnviron 3-13
See also rmdel command (sccs)	processing matching text in, RefPages 1-36
See also sccsdiff command	reading, RefPages 2-145
appending, RefPages 1-684	reading symbolic link of, RefPages 2-148
applying advisory lock to, RefPages 2-64	redirecting print output to, nawk 8-3
backing up, RefPages 1-676 to 1-679	removing, RefPages 1-576, 3-116
backing up multiple, RefPages 1-416	removing directoryless, RefPages 8-50
breaking into pieces, RefPages 1-648	renaming, RefPages 1-444, 2-153
changing group of, RefPages 2-35	requirements for uucp, uucp 1-3
changing mode of, RefPages 2-32	resolver configuration and, RefPages 5-143
changing owner of, RefPages 2-35, 8-45	restoring, Backup 3-1 to 3-9
changing tabs to blanks in, RefPages 1-223	reversing lines in, RefPages 1-573
checking accessibility of, RefPages 2-12	sending to remote host, RefPages 1-728
combining, RefPages 1-298	setting access time for, RefPages 2-221, 3-183
comparing, RefPages 1-43, 1-84, 1-90, 1-190 to	setting mode mask on, RefPages 2-216
1–195, 1–298, 1–637, 1–720	setting modification time for, RefPages 2-221,
compressing, RefPages 1-94	3–183
controlling for a multiperson project, sccs 3-1	setting protection of, RefPages 2-32
converting, RefPages 1-179, 1-594e	sharing executable, RefPages 8-355 to 8-356
copying, RefPages 1-104, 1-555, 1-673	sorting, RefPages 1-637
creating, RefPages 2-43, 2-110	specifying line width in, RefPages 1-237
creating hard link to, RefPages 2-103	synchronizing buffers with disk, RefPages 2-67
creating symbolic link to, RefPages 2-209	terminal, SysEnviron 1-8
cutting fields from, RefPages 1-153	transferring, Backup 2-2, RefPages 1-249, 1-694,
determining extension of, RefPages 1-231	ииср 1–1
displaying, RefPages 1-54, 1-94, 1-277	truncating to specified length, RefPages 2-214
DOTS in, RefPages 5-31	types of, Primer 3–7
dumping, RefPages 1-488	unlinking, RefPages 2-218
executing, RefPages 2-52, 3-39 to 3-41	updating, RefPages 1-400, 1-703
finding, RefPages 1-232, 1-274, 1-763	file command
finding pattern, RefPages 1-366	magic file and, RefPages 5-95
format of, RefPages 5-46	file command (general), RefPages 1-231
getting size of, RefPages 1-669, 1-756	file command (mail), RefPages 1-394
getting statistics for, RefPages 2-220	See also folders command (mail)
getting status of, RefPages 2-204	file command (pdx), RefPages 1-503
hidden, Primer 3-8	file descriptor
listing information about, RefPages 1-380	See also process reference table and
locking region, RefPages 3-80	controlling, RefPages 2-57, 2-99

nie descriptor (cont.)	file system (cont.)
deleting, RefPages 2-39	monitoring use of, DiskMaint 2-1
duplicating, RefPages 2-45	mounting, RefPages 2-112 to 2-114, 8-220
process reference table and, RefPages 2-45	moving, DiskMaint 2-7
file name	moving files to, DiskMaint 2-9
making unique, RefPages 3-92	removing, RefPages 2-112 to 2-114
stripping affixes from, RefPages 1-39	reorganized, RefPages 5-215
file pointer	repairing interactively, RefPages 8-100 to 8-102
moving, RefPages 2-106	restoring, Backup 3-9 to 3-10
file system, RefPages 8-222	restoring incremental dumps of, RefPages 8-295,
Best reference, DiskMaint	8–313
See also NFS file system	reviewing assignments of, DiskMaint 3-3
See also remote file system	specifying default partitions for, AdvInstall 3-6
See also target file system	specifying existing partitions for, AdvInstall 3-3
See also UFS file system	system crashes and, CrashRec 1-3
See also /usr file system	testing, Exercisers 2-1, RefPages 8-104
backing up, Backup 2-1 to 2-8	unmounting, Shutdown 2-2
changing layout policy of, RefPages 8-381	unmounting manually, NFS 2-19, Shutdown 1-1
checking directory consistency of, RefPages 8-72	unmounting restored, Backup 3-10
checking restored, Backup 3-10	volume for, RefPages 5-46
checking the consistency of, RefPages 8-100 to	file system table
8-102, 8-127, Shutdown 2-2	description of, SysEnviron 1-12 to 1-15
compared to remote file system, NFS 3-9 to 3-10	file system worksheet, AdvInstall 2-16
constructing prototype of, RefPages 8-212, 8-216	file transfer
copying across the network, RefPages 8-288,	uucico, RefPages 8-395
8–305	file transfer program
creating, RefPages 8-240, 8-242	See ftp program
creating and maintaining, DiskMaint 1-1 to 1-6	fileno subroutine, RefPages 3-498
disk quota for, DiskMaint 2-4	filter
displaying blocks per user in, RefPages 8-279	See printer
displaying disk use by, RefPages 8-294	find command, RefPages 1-232
displaying information about, RefPages 8-85	See also test command
displaying setup of, DiskMaint 3-3	finger command, RefPages 1-234
examining, RefPages 2-211	fingerd program, RefPages 8-93
exporting, RefPages 2-56	firstkey subroutine, RefPages 3-530
format of, RefPages 5-46	fix command (sccs), RefPages 1-596
getting information about, RefPages 5-50	using, sccs 2-8
getting information on mounted, RefPages 2-79,	fl keyword, RefPages 4–11
3–60	flag
incremental dumps of, RefPages 8-82	See also interface flag
limiting to specific clients, NFS 1-2	MSG_DONTROUTE, Network_Prog 2-7
listing file names in, RefPages 8-236	MSG_OOB, Network_Prog 2-7, 3-8
maintaining, RefPages 3-79	MSG_PEEK, Network_Prog 2-7, 3-7
maintaining consistency in, CrashRec 1-2 to 1-4	

flash subroutine, RefPages 3-206 formatted output (cont.) flcopy command, RefPages 8-96 printing from argument list, RefPages 3-523 float type, DECrpc 6-11 FORTRAN program float.h, RefPages 5-82 to 5-85 See f77 program floating address space forw command, RefPages 1-243 hardware devices and, AdvInstall 3-15 forw command (MH), BGB 6-13t floating point remainder, RefPages 3-343 to 3-345 forwarding agent flock primitive See LLB Forwarding Agent remote files and, NFS 3-9 forwarding server flock system call, RefPages 2-64 definition of, BIND/Hes 1-5 flog function, RefPages 3-339 fpathconf subroutine, RefPages 3-102 flog1p function, RefPages 3-339 fp class routine, RefPages 3-45 flog10 function, RefPages 3-339 fprintf function, RefPages 3-506 floor function fprintf subroutine, RefPages 3-288 returning integer, RefPages 3-343 to 3-345 fputc subroutine, RefPages 3-510 floor subroutine, RefPages 3-345 fputs subroutine, RefPages 3-511 flushinp subroutine, RefPages 3-223 fread subroutine, RefPages 3-502 fmt text formatter, RefPages 1-236 free routine, *DECrpc* 7–5, 7–8e, 7–10e See also pr command free subroutine (special library), RefPages 3-555 fold command, RefPages 1-237 free subroutine (standard C), RefPages 3-84 to 3-86 See also expand command folder free xmit rep routine, DECrpc 7-5, 7-8e, 7-10e removing, RefPages 1-580 freopen subroutine, RefPages 3-500 folder command in MH, BGB 6-13t frexp subroutine, RefPages 3-46 folders command, RefPages 1-238, 1-241 from command (mail), RefPages 1-247, 1-395 folders command (mail), RefPages 1-395 from xmit rep routine, DECrpc 7-5, 7-8e, 7-10e folders command in MH, BGB 6-13t fs, RefPages 5-46 footnote fs file formatting, RefPages 1-563 See fsck command fopen subroutine, RefPages 3-500 to 3-501 fscanf function, RefPages 3-512 fscanf subroutine, RefPages 3-290 for command (sh), RefPages 1-606 for command (System V), RefPages 1-613 fsck command, CrashRec 1-3 to 1-4, DiskMaint 1-5 for loop, nawk 4-5, 6-2 to 1-6, RefPages 8-100 to 8-102 foreach command (csh), RefPages 1-128 See also fstab file fork checking restored file system with, Backup 3-10 reporting, RefPages 1-751 processing file systems with, SysEnviron 1-13 fork system call, RefPages 2-66 root partition and, Backup 3-10n fseek subroutine (standard I/O), RefPages 3-503 See also vfork system call form command (ftp), RefPages 1-250 fsf command (mt), RefPages 1-443 format program, RefPages 8-97 to 8-99 fsirand command, RefPages 8-103 formatted input system security and, NFS 3-8 fsplit program, RefPages 1-248 converting, RefPages 3-512 formatted output fsr command (mt), RefPages 1-443

printing, RefPages 3-506

fstab file, NFS 2-7, RefPages 5-50 to 5-51	G
See also getfsent subroutine	gamma function, RefPages 3-346, 3-347
bg option and, NFS 2-7n, 3-2n, 4-5	gamma subroutine, RefPages 3–346 to 3–347
closing, RefPages 3-534	gateway
description of, SysEnviron 1-12 to 1-15	See router
disk quotas and, SysNetSetup 1-16	gateway service, Ethernet 5-1
entry in, NFS 1-2e, 3-2, 4-5e	sample program, Ethernet C-1
getting entry from, RefPages 3-534	gateways file
getting file system name from, RefPages 3-534	creating, RefPages 8–126
getting file system type from, RefPages 3-534	entry format of, RefPages 8–310
getting special file name from, RefPages 3-534	gcore command, RefPages 1–258
setting, RefPages 3-534	gevt subroutine, RefPages 3–34
fstat system call, RefPages 2-204	gencat command, InterNatl 2-3 to 2-6
fsx exerciser, Exercisers 2-1, RefPages 8-104	creating, InterNatl 2–1
fsync system call, RefPages 2-67	gencat utility, RefPages 1–259
ftell subroutine (standard I/O), RefPages 3-503	Generic File System Interface, RefPages 5–56
ftime subroutine, RefPages 3-177	generic handle
ftok subroutine, RefPages 3-48	definition of, <i>DECrpc</i> 1–13
ftp command, BIND/Hes D-1e	handle attribute in, DECrpc 6-5
ftp program, RefPages 1-249 to 1-256	with automatic binding, DECrpc 7–10
See also rcp command	geographic area
ftpd server, RefPages 8-106 to 8-108	specifying, BasicInstall 3–3
See also ftp program	get command (ftp), RefPages 1–250
ftruncate system call, RefPages 2-214	get command (sccs), RefPages 1–261 to 1–266,
ftw subroutine, RefPages 3-49	1–595, sccs 2–2n, 3–3e to 3–4e
full backup, Backup 1-3	See also delta command (sccs)
FULLDUMPS option	See also rmdel command (sccs)
specifying in the configuration file, Configfile 1-7	See also unget command (sccs)
fully qualified name	See also what command (sccs)
definition of, BIND/Hes 1–3	getting latest file version with, sccs 2-2
function, nawk 7–1 to 7–4	get command (tftp), RefPages 1-694
calling, X/OpenTransport 1–10	getauth command, RefPages 8-116
initialization of, X/OpenTransport 1-4	getauth script, Kerberos 5–2
function key	getauthuid subroutine, RefPages 3-51
on virtual keypad, CursesX 2-3	getc subroutine (standard I/O), RefPages 3-504
return value of, CursesX 2-3	See also unget subroutine
fverify command, RefPages 8–109	getcap subroutine, RefPages 3-528
fwrite subroutine, RefPages 3-502	getch macro, CursesX 2-2, RefPages 3-224
	getch subroutine, RefPages 3-528
	See also nodelay subroutine
	getchar subroutine, RefPages 3-504
	getcwd subroutine (standard C), RefPages 3-53

getdirentries system call, RefPages 2-69 to 2-70 getnode command, RefPages 8-118 getdiskbyname subroutine, RefPages 3-533 getopt command, RefPages 1-267 getdomainname system call, RefPages 2-71 getopt subroutine, RefPages 3-61 See also domainname command getpagesize system call, RefPages 2-81 getdtablesize system call, RefPages 2-72 See also pagesize command getegid system call, RefPages 2-73 getpass subroutine, RefPages 3-63 getenv subroutine (standard C), RefPages 3-55 See also crypt subroutine See also putenv subroutine getpeername system call, Network Prog 2-9, geteuid system call, RefPages 2-98 RefPages 2-82 getfsent subroutine, RefPages 3-534 getpgrp system call, RefPages 2-83 getfsfile subroutine, RefPages 3-534 See also setpgrp system call getfsspec subroutine, RefPages 3-534 See also tty interface getfstype subroutine, RefPages 3-534 getpid system call, RefPages 2-84 getgid system call, RefPages 2-73 getppid system call, RefPages 2-84 getgrent subroutine, RefPages 3-56 getpriority system call, RefPages 2-85 getgrgid subroutine, RefPages 3-56 See also renice command getgrnam subroutine, RefPages 3-56 getprotobyname procedure, Network Prog 2-15 getgroups system call, RefPages 2-74 getprotobyname subroutine, RefPages 3-377 gethostbyaddr procedure, Network_Prog 2-13 getprotoent procedure, Network Prog 2-15 getprotoent subroutine, RefPages 3-377 to 3-378 gethostbyaddr subroutine, RefPages 3-373 gethostbyname procedure, Network_Prog 2-13 See also protocols file gethostbyname routine getpw subroutine, RefPages 3-64 with BIND, BIND/Hes 1-7 getpwent subroutine, RefPages 3-65 to 3-66 gethostbyname subroutine, RefPages 3-373 See also putpwent subroutine gethostent procedure, Network Prog 2-13 getpwnam subroutine, RefPages 3-65 getpwuid subroutine, RefPages 3-66 gethostent subroutine, RefPages 3-373 to 3-374 gethostid system call, RefPages 2-75 getrlimit system call, RefPages 2-87 See also getpid system call getrpcbyname subroutine, RefPages 3-67 gethostname system call, RefPages 2-76 getrpcbynumber subroutine, RefPages 3-67 gethostsex(3) reference page, RefPages 3-58 getrpcent subroutine, RefPages 3-67 getitimer system call, RefPages 2-77 getrusage system call, RefPages 2-89 to 2-91 getline function, nawk 8-1 gets subroutine, RefPages 3-505 getlogin subroutine, RefPages 3-59 getserbyport procedure, Network Prog 2-16 getmnt system call, RefPages 2-79 getservbyname subroutine, RefPages 3-379 getmountent subroutine, RefPages 3-60 getservbyport subroutine, RefPages 3-379 See also statfs subroutine getservent subroutine, RefPages 3-379 getnetbyaddr procedure, Network Prog 2-14 See also services file restrictions, RefPages 3-380 getnetbyaddr subroutine, RefPages 3-375 getnetbyname subroutine, RefPages 3-375 getsockname system call, Network Prog 2-9, getnetbynamr procedure, Network Prog 2-14 RefPages 2-92 getnetent procedure, Network_Prog 2-14 getsockopt system call, Network Prog 2-10, getnetent subroutine, RefPages 3-375 to 3-376 RefPages 2-93 getnetgrent subroutine, RefPages 3-626 getstr macro, RefPages 3-226

getstr subroutine, RefPages 3-528	goto command (csh), RefPages 1-128
getsvc call, RefPages 3-69	gprof command, RefPages 1-269 to 1-270
getsysinfo system call, RefPages 2-95	kgmon command and, RefPages 8-150
gettable program, RefPages 8-119	graph
See also htable program	drawing, RefPages 1-272
gettimeofday system call, RefPages 2-97	graph command, RefPages 1-272 to 1-273
See also adjtime system call	See also plot command
See also stime system call	See also spline command
gettmode subroutine, RefPages 3-528	Graphical Kernel System
getttyent subroutine, RefPages 3-71 to 3-72	See GKS
getttynam subroutine, RefPages 3-71	graphics, TechSumm 2-7
getty program, RefPages 8-120 to 8-121	graphics file
See also gettytab file	format of, RefPages 5-130
gettytab file	graphics filter, RefPages 1-519
format of, RefPages 5-52 to 5-55	graphics interface, RefPages 3-559
getuid system call, RefPages 2-98	Graphics Subsystem, RefPages 4-101
getw subroutine, RefPages 3-504	grave accent
getwd subroutine, RefPages 3-73	substituting command output with, BGB 9-7
getyx macro, RefPages 3-228	grep command, Primer 4-14, RefPages 1-274 to
getyx subroutine, RefPages 3-528	1–275
gfsi file, RefPages 5-56	See also cut command
See also getdirentries system call	See also grep utility
See also getmnt system call	See also look command
See also NFS file	See also sed stream editor
See also UFS file	grep utility
GKS, TechSumm 2-7	using, BGB 4-1 to 4-4
GLB, DECrpc 1-16 to 1-18, Network_Prog 6-4	gripe command (pdx), RefPages 1-503
configuring, LocBrok 3-1	group
definition of, LocBrok 1-6	displaying memberships in, RefPages 1-276
description of, DECrpc 1-2	group access list
managing information with, LocBrok 1-6	getting, RefPages 2-74
off-line host and, LocBrok 3-1	initializing, RefPages 3-536
registering a server for, LocBrok 1-4	setting, RefPages 2-168
starting, LocBrok 3-3	group file, SysNetSetup 1-3
GLB Daemon	adding groups to, RefPages 8-7
See Non-Replicatable GLB Daemon	editing for YP, YP 2–15
glb.idl file, DECrpc 2-8	format of, SysEnviron 1-6 to 1-7
glob command (csh), RefPages 1-128	modifying, SysEnviron 1-7 to 1-8
glob command (ftp), RefPages 1-250	pulling entries from YP, YP 3-2
Global Location Broker	YP and, YP 1–5
See GLB	group file (general), RefPages 5-57
globaldef declaration, DECrpc 5-25	getting entry from, RefPages 3-56, 3-67
gmtime subroutine (standard C), RefPages 3-20	group file (YP), RefPages 5-58

group ID	has_il subroutine, RefPages 3-230
changing, RefPages 1-78	See also deleteln subroutine
definition of, SysEnviron 1-2	See also insertln macro
group identification number	hcreate subroutine, RefPages 3-76
See group ID	hdestroy subroutine, RefPages 3-76
group name	head command, RefPages 1-277
restrictions on, SysNetSetup 1-3	See also tail command
groups command, RefPages 1-276	header file, DECrpc 2-9
gsub string function, nawk 5-4 to 5-5	headers command (mail), RefPages 1-395
gtty subroutine, RefPages 3-170	help command (lpc), RefPages 8-188
	help command (mail), RefPages 1-395
Н	help command (pdx), RefPages 1-503
	hes_error routine, RefPages 3-74
halt command, RefPages 8-123 to 8-124	hes_init routine, RefPages 3-74
handle	hesiod, RefPages 3-74
as parameter, DECrpc 6–10	Hesiod
binding of, DECrpc 1–10, 5–7	adding as a principal, Kerberos 4-11
generic, DECrpc 1-13, 7-10	information distributed by the named daemon,
handle attribute in, DECrpc 6–5	Kerberos 4–3
in operation declarations, DECrpc 6–10	making a Hesiod database, BIND/Hes 4-7
management of, DECrpc 5-3	principal Kerberos database entry for, Kerberos
RPC type of, <i>DECrpc</i> 1–13, 6–14	4–10
server side of, DECrpc 1–12	with authenticated and unauthenticated named,
handle binding technique, DECrpc 5-3	Kerberos 4–13
handle parameter, DECrpc 4-6	Hesiod configuration file, RefPages 5-59
handle type attribute	Hesiod name service
description of, DECrpc 4-4	relationship to BIND, BIND/Hes 1-1
syntax for, DECrpc 6–5	Hesiod password update daemon, LAN 2-2
handshaking stage	Hesiod query
problems with, <i>uucp</i> 5–1	resolving, BIND/Hes 1-8
hard link	Hesiod Text Entry, BIND/Hes 2-9 to 2-10
definition of, RefPages 1-360	hesiod.conf file
hardware	creating, BIND/Hes A-2
CSR addresses of, BasicInstall 1–3	hes_resolve routine, RefPages 3-74
requirements for installation, BasicInstall 1-2	hes_to_bind routine, RefPages 3-74
requirements for uucp, uucp 1–2	hesupd daemon, LAN 2-2, RefPages 8-125
hardware register, BasicInstall 1-3	heterogenous environment, SysNetSetup 3-5 to 3-6,
hash command (ftp), RefPages 1–250	3–18
hash command (System V), RefPages 1-620	distributing the passwd database, LAN 2-2
hash table search routine, RefPages 3-76	hier keyword, RefPages 7-4, 7-9
hashstat command (csh), RefPages 1–128	hierarchical mount, NFS 2-13
has_ic subroutine, RefPages 3-229	HINFO data file entry
See also delch subroutine	definition of, BIND/Hes 2-4
See also insch subroutine	

history command (csh), RefPages 1-128	host-initiated connection (cont.)
hk interface	setting up, Ethernet 4-1
See RK07 disk interface	host-initiated service
See RK711 disk interface	sample program, Ethernet B-1
hold command (mail), RefPages 1-395	hostname command, RefPages 1-279
home directory	See also gethostname system call
creating, YP 2-23	See also sethostname system call
HOME string, RefPages 7-3	hosts database
homogenous environment, SysNetSetup 3-5 to 3-6,	location of, LAN 2-2n
3–18	hosts directory, LAN A-6
host	hosts file
See also load host	See also hosts.byaddr file
changing for GLB, LocBrok 3-3	See also hosts.equiv file
definition of, LAN 1-1	See also hosts.name file
displaying, RefPages 1-279	adding a host system to, LAN A-2
listing trusted, RefPages 5-61	adding client host name to, DMS 2-6, RIS 2-3
naming, BIND/Hes 4-2	creating, RefPages 8-126
obtaining information about, Network_Prog 2-13	editing for BIND/Hesiod, BIND/Hes A-2
recovering from crash of, LocBrok 3-4	editing for YP, YP 2-14
host ID	format of, RefPages 5-60
See also host name	getting entry from, RefPages 3-373
displaying in hexadecimal, RefPages 1-278	network backup and, Backup 4-2
getting, RefPages 2-75	removing a host system from, LAN A-2
setting, RefPages 2-75	YP and, YP 1–4
setting in hexadecimal, RefPages 1-278	-hosts map, NFS 2-14
host name	hosts.byaddr file, YP 1-4
See also host ID	hosts.byname file, YP 1-4
DARPA Internet and, RefPages 5-60	hosts.db file
getting, RefPages 2-76	definition of, BIND/Hes A-3
obtaining, BIND/Hes 4-5	hosts.equiv file, RefPages 5-61
setting, RefPages 1-279, 2-76	See also .rhosts file
host node	description of, LAN A-2
definition of, Ethernet A-1	editing for YP, YP 2-13
functions of, Ethernet A-1	referring to YP, YP 3-2
host number	.rhosts file and, RefPages 5-61
definition of, LAN 1-2	YP and, YP 3-2
subnet routing and, LAN 1-7	hp interface, RefPages 4-62
hostent structure	HSC, TechSumm 2–8
See data structure	HSC configuration
hostid command, RefPages 1-278	booting, Shutdown 3-10, 3-14
See also gethostid system call	hsearch subroutine, RefPages 3-76
See also sethostid system call	ht keyword
host-initiated connection	See TM03 magnetic tape interface
program interface, Ethernet 4-1	

htable program, RefPages 8-126 ifconf structure See also getetable program See data structure htonl routine ifconfig command, LAN C-1, RefPages 8-129 to 8-130 See network byte order htonl subroutine, RefPages 3-372 ifdef macro, RefPages 1-388 htons routine ifelse macro, RefPages 1-389 See network byte order ifreq structure htons subroutine, RefPages 3-372 See data structure hyperbolic function, RefPages 3-367 ifrequest structure inverse, RefPages 3-335 form, RefPages 4-4e hypot function, RefPages 3-348 ignore command (dbx), RefPages 1-170 hypot subroutine, RefPages 3-349 ignore command (mail), RefPages 1-395 IMP log interpreter See implog program implicit handle IBM 2780/3780 Terminal Emulator attribute syntax, DECrpc 6-3 See 2780/3780 Terminal Emulator definition of, DECrpc 1-11 IBM system, TechSumm 2-2 implog file reestablishing connection with, TermEmul 2-7 entry format of, RefPages 8-132 **IBUS** adapter implog program, RefPages 8-131 specifying in the configuration file, Configfile 1-11 implogd program, RefPages 8-132 ic command, InterNatl 4-1 to 4-7 See also implog program ic utility, RefPages 1-280 import declaration, DECrpc 4-3 to 4-4, 6-4 icheck command, RefPages 8-127 to 8-128 in parameter attribute, DECrpc 6-10 See also fsck command inc command, RefPages 1-285 ICMP, RefPages 4-65 inc command (MH), BGB 6-13t See also IP transport protocol inch macro, RefPages 3-232 ICMP ECHO REQUEST, RefPages 8-268 inch subroutine, RefPages 3-528 id command, RefPages 1-284 include data file entry ID keyword, sccs 1-3, 2-4 to 2-5 definition of, BIND/Hes 2-3 IDC disk interface, RefPages 4-116 include macro, RefPages 1-389 idempotent operation attribute, DECrpc 3-2e, 4-5 incr macro, RefPages 1-389 to 4-6, 6-8 incremental backup, Backup 1-3 idempotent semantics, DECrpc 5-9 indent command, RefPages 1-287 to 1-289 ident parameter index command, RefPages 1-545 specifying in the configuration file, Configfile 1-4 index macro, RefPages 1-389 idl base.h file index string function, nawk 5-5 NDR scalar types, DECrpc 5-2, 2-9 index subroutine (standard C), RefPages 3-147 idlok subroutine, RefPages 3-231 indirect map if command (csh), RefPages 1-128 See automount map if command (sh), RefPages 1-606 indxbib command, RefPages 1-367 if command (System V), RefPages 1-614 inet keyword, RefPages 3-381, 4-65 if statement, nawk 4-1 **INET** option specifying in the configuration file, Configfile 1-7

inet pseudodevice definition	installation (cont.)
specifying in the configuration file, Configfile 1-16	generic configuration file and, Configfile 1-2
inet_addr subroutine, RefPages 3-381	of software, TechSumm 2-7 to 2-8
inetd daemon, Network_Prog 4-9	tasks to be performed after, AdvInstall 4-26
inetd server daemon, RefPages 8-133	install-mh program, RefPages 8-138
See also comsat program	int function
See also inetd.conf file	explanation of, nawk 2-12
See also miscd daemon	int type, DECrpc 6–11
inetd.conf file, LAN A-3	interface attribute, DECrpc 4-2, 6-2
format of, RefPages 5-63	interface configuration
inet_Inaof subroutine, RefPages 3-381	example of obtaining, Network_Prog 3-10
inet_makeaddr subroutine, RefPages 3-381	interface definition, Network_Prog 6-3
inet_netof subroutine, RefPages 3-381	definition of, DECrpc 1-2
inet_network subroutine, RefPages 3-381	description of, DECrpc 6-1 to 6-5
inet_ntoa subroutine, RefPages 3-381	writing, DECrpc 4-1 to 4-7
info command (sccs), RefPages 1-595, sccs 3-5e	interface definition file
using, sccs 2-4	for DECrpc, DECrpc 2-8
init program, RefPages 8-134 to 8-137	interface flag, Network_Prog 3-11
See also reboot command	interface mismatch, DECrpc 5-10
diagnostics, RefPages 8-137	interface UUID, LocBrok 1-1, 2-4
initgroups subroutine, RefPages 3-536	definition of, DECrpc 1-3
initscr subroutine, CursesX 2-2, 2-6, RefPages	generation of, DECrpc 4-1e
3–233, 3–528	international subroutine
See also newterm subroutine	introduction to, RefPages 3-277
See also refresh macro	internationalization
initstate subroutine, RefPages 3-113	definition of, InterNatl 1-1
innetgr subroutine, RefPages 3-626	Internet, LocBrok 3-1
inode	specifying networks with, RefPages 5-117
clearing, RefPages 8-50	specifying protocols with, RefPages 5-138, 5-148
definition of, DiskMaint 1-2	Internet address, LAN A-2, RefPages 4-65
input directory tree	alternate notation for, LAN 1-3
creating, setld 5-1	common notation for, LAN 1-2 to 1-4
transferring files with, setld 5-1	definition of, LAN 1-2
insch macro, RefPages 3-234	manipulation routines, RefPages 3-381
insch subroutine, RefPages 3-528	mapping to Ethernet address, RefPages 4-6, 4-85
INSECURE file, uucp 3–6	4–197
insertln macro, RefPages 3-235	network class and, LAN 1-2 to 1-3
insertln subroutine, RefPages 3-528	obtaining a network number, LAN 1-1n
insque subroutine, RefPages 3-77	specifying, RefPages 3-381
install command, RefPages 1-290	subnet routing and, LAN 1-7, 1-11t
installation	Internet Control Message Protocol
Best reference, AdvInstall	See ICMP
completing, AdvInstall 4-1 to 4-26	Internet File Transfer Protocol, RefPages 5-138,
description of, BasicInstall 1-1 to 1-2	5–148, 5–154

Internet File Transfer Protocol (cont.)	iostat command (cont.)
interface for, RefPages 1-249	See also vmstat command
server, RefPages 8-106	iovec
Internet load host, Ethernet 2-1	See data structure
Internet network	IP address
definition of, LAN 1-1	obtaining, BIND/Hes 4-5
Internet protocol, DECrpc 1-3	IP network
Internet Protocol	testing, RefPages 8-238 to 8-239
broadcast address, LAN 1-9 to 1-11	IP transport protocol, RefPages 4-66
Internet protocol	IPC
socket address structure for, DECrpc 1-4	library functions for, RefPages 3-369
Internet Protocol broadcast address, SysNetSetup	IPC Facility, SysEnviron 5-4
2-2, 2-4	checking status of, SysEnviron 5-4
Internet protocol family	ipcrm command, RefPages 1-294
See ICMP	See also msgctl system call
Internet service daemon, RefPages 8-133	See also semctl system call
interpreter file	using, SysEnviron 5-4
definition of, RefPages 2-52	ipcs command, RefPages 1-295
interprocess communication, DECrpc 1-3, RefPages	using, SysEnviron 5-4e
3–48	isalnum subroutine, RefPages 3-25
interprocess communication facility	isalpha subroutine, RefPages 3-25
See IPC	atof subroutine (standard C), RefPages 3-10
interprocess communication package	isascii subroutine, RefPages 3-25
reporting status of, RefPages 1-295	isatty subroutine (standard C), RefPages 3-181
Interprocess Communications Facility	iscntrl subroutine, RefPages 3-25
See IPC Facility	isdigit subroutine, RefPages 3-25
interval timer, RefPages 2-77	isgraph subroutine, RefPages 3-25
intrflush subroutine, RefPages 3-236	islower subroutine, RefPages 3-25
invcutter command, RefPages 1-291	ISO ASN.1 (DDIS/ASN.1) files, RefPages 5-25
I/O operation	ISO reference model, Network_Prog 1-2 to 1-4
multiple buffers and, RefPages 4-83	isprint subroutine, RefPages 3-25
I/O request	ispunct subroutine, RefPages 3-25
example of asynchronous notification for,	isspace subroutine, RefPages 3-25
Network_Prog 3-5	isupper subroutine, RefPages 3-25
notifying a process of, Network_Prog 3-5	
I/O statistic	J
See also disk	
See also terminal	j0 subroutine, RefPages 3–336
reporting, RefPages 1-293	j1 subroutine, RefPages 3–336
ioctl system call, RefPages 2-99	JCL statement, TermEmul 1-5, 2-1e
See trace command (general)	comment card, TermEmul 2–2
See also trace file	jn subroutine, RefPages 3–336
iostat command, RefPages 1-293	job
See also netstat command	See process

jobs command (csn), RefPages 1–129	key (cont.)
join command, RefPages 1-298 to 1-299	encryption of, Kerberos 1-3
jrand48 subroutine, RefPages 3-31	fetching the master, Kerberos 4-10
	for creating a new data encryption algorithm,
K	Kerberos 1–2
	master, Kerberos 4-10
kdb_destroy utility, Kerberos 3-4	of the principal, Kerberos 1-3
kdb_edit utility, Kerberos 3–3 to 4–11	session, Kerberos 1-4, 2-1
kdb_init utility, Kerberos 3–3 to 3–5, 4–4	storage of master, Kerberos 4-4
kdb_util utility, Kerberos 3–3 to 3–5	use of with data encryption algorithm, Kerberos
KDC, Kerberos 3–3	1–2
kdestroy utility, Kerberos 3–5	key distribution center
Kerberos authentication service, BIND/Hes 3-8,	See KDC
SysNetSetup 3-1, 3-1, 3-4	key file
See also the names of specific Kerberos files	creating, setld 5-3
BIND/Hesiod caching server and, BIND/Hes 3-10	keypad
BIND/Hesiod primary server and, BIND/Hes 3-7	virtual, CursesX 2-3
named daemon and, LAN 2-4	keypad subroutine, CursesX 2-2, RefPages 3-237
principal, Kerberos 1-1	kgmon command, RefPages 8-150
starting up, Kerberos 4-5 to 4-10	kill command, Primer 4-11
kerberos daemon, Kerberos 4-3 to 4-4	kill command (csh), RefPages 1-129
Kerberos file	kill command (general), RefPages 1-301
intro.3krb, RefPages 3-295	See also kill system call
Kerberos routine, RefPages 3-299, 8-139 to 8-159	kill system call, RefPages 2–100
ext_srvtab, RefPages 8-92	See also pause subroutine
Kerberos software	killchar subroutine, RefPages 3–238
LAN security and, Kerberos 1-1	killpg system call, RefPages 2-102
libraries for, Kerberos 6-1	kilobyte, AdvInstall 2–1
network connections with ULTRIX, Kerberos 1-1,	kit
3–2	manufacturing key file format, RefPages 5-168
kerberos.log file, Kerberos 4-5	master inventory file format, RefPages 5-171
kernel, Configfile 2-1	reproducing, setld 6–1 to 6–3
See also client kernel	setId format, RefPages 1–302
building, Configfile 1-1, 2-1 to 2-10	updating master inventory for, RefPages 1–462
rebuilding or copying, DMS 4-8	kit image
kernel error logging	generating, setld 5–6
components of, ErrorLogger 2-1	kitcap file
kernel image, CrashRec 1-5	building, setld 5–7
kernel option	kits utility, setld 2–3
specifying during installation, AdvInstall 3-14	kmem special file, RefPages 4-67
key	Korn shell
definition of, Kerberos 1–2	See shell
DES, Kerberos 2-2, 4-11	kprop daemon, Kerberos 4–3 to 4–10
distribution center for, Kerberos 3-3	ap. op unemon, axeroeres a site a to

krb.conf file, Kerberos 4-4, RefPages 5-68	LAT protocol, RefPages 8-164
krb_dbase file, RefPages 5-69	lat pseudodevice definition
krb.slaves file, Kerberos 4-7, RefPages 5-71	specifying in the configuration file, Configfile 1-16
krbtkt service, Kerberos 3-3	LAT service, RefPages 4-76 to 4-77
kstash utility, Kerberos 3-5, 4-4, 4-9	LAT special file
kUmem special character file, RefPages 4-68	creating, RefPages 4-77
	LAT/Telnet gateway
L	setting up, Ethernet 5-1
	lb_\$ library routine, DECrpc 2-6
13tol subroutine, RefPages 3–79	lb_admin administrative tool, LocBrok 1-2
164a subroutine, RefPages 3-5	Best reference, LocBrok
label subroutine, RefPages 3-559	command line interface, LocBrok 2-1
labeled tape facility	NCK version, LocBrok 2-1
See ltf file	lb.idl file, DECrpc 2-8
labs subroutine (ANSI C), RefPages 3-7	lb_lookup_object, RefPages 3-401 to 3-405
LAN	lb_lookup_object_local, RefPages 3-408
Best reference, LAN	lb_lookup_range, RefPages 3-411
common interfaces and controllers for, LAN 1-2t	lb_lookup_type, RefPages 3-414
definition of, LAN 1-1, SysNetSetup 2-2	LBN
diskless server and, DMS 2-2	definition of, DiskMaint 1-1
files related to, LAN A-1 to A-6	interpreting in error report, DiskMaint 4-3
ris server and, RIS 2-2	lcd command (ftp), RefPages 1-250
routing decisions, LAN 1-7	LCK file
setting up, RefPages 8-237, SysNetSetup 2-2	creating, uucp 1-2
subnet routing and, SysNetSetup 2-2 to 2-3	L.cmds file, RefPages 5-74
Lance Ethernet interface, RefPages 4-69	entry format for, uucp 2-9
lang, RefPages 5–78	lcong48 subroutine, RefPages 3-31
language names, RefPages 5-78	lcp command, RefPages 8-164 to 8-167
last command, RefPages 1-334	See also lta pseudoterminal driver
See also lastcomm command	ld command, RefPages 1-345 to 1-347
lastcomm command, RefPages 1-335	See also a out file
See also last command	See also ar file
last_is field attribute	See also lk command
description of, DECrpc 4-5	See also ranlib command
for arrays, DECrpc 6-7, 7-1	See also strip command
in parameter list, DECrpc 6-10	L-devices file
syntax for, DECrpc 6-7	editing, uucp 4-4
use with max_is, DECrpc 7-3e	format of, RefPages 5–72, uucp 2–8 to 2–9
LAT device	ldexp subroutine, RefPages 3-46
adding, SysNetSetup 1-8	L-dialcodes file, RefPages 5-73
setting up printers and, SysNetSetup 1-8, 1-13	format of, uucp 2–8
LAT interface, RefPages 4-76	ldiv subroutine (ANSI C), RefPages 3–30
LAT option	leave command, RefPages 1–348
specifying in the configuration file, Configfile 1-7	, , , , , , , , , , , , , , , , , , , ,

leaveok subroutine, CursesX 2-8, RefPages 3-239,	link, RefPages 1–360
3–528	link editor, RefPages 5-2
len macro, RefPages 1-389	link editor (general)
length string function, nawk 5-4	See ld command
lex program generator, RefPages 1-349	link editor (VAX FORTRAN)
lexical analysis program, RefPages 1-349	See lk command
lfind subroutine, RefPages 3-82	link system call, RefPages 2-103
libe library	See also symlink system call
contents of, RefPages 3-1	See also unlink system call
libm library	lint command, RefPages 1-354 to 1-355
contents of, RefPages 3-2	list command (pdx), RefPages 1-503
diagnostics and, RefPages 3-4	listen system call, Network_Prog 2-5, RefPages
introduction, RefPages 3-333	2–105
library	lk command, RefPages 1-357 to 1-359
for Kerberos software, Kerberos 6-1	See also a.out file
maintaining for source files, sccs 3-7	See also ar file
library file	See also ranlib command
See archive file	See also strip command
library function, RefPages 3-1	LLB, DECrpc 1-16 to 1-18, Network_Prog 6-4
miscellaneous, RefPages 3-525	description of, DECrpc 1-2, LocBrok 1-1
library routine, DECrpc 2-2 to 2-6	functions of, LocBrok 1-5
limit command (csh), RefPages 1-129	restarting a host for, LocBrok 3-4
limits.h, RefPages 5-82 to 5-84	starting, LocBrok 3-2
line	LLB Daemon, RefPages 8-172, 8-251
adding direct-connect, uucp 3-7	LLB Forwarding agent, LocBrok 1-5
line command, RefPages 1-350	llbd daemon, DECrpc 1-16, LocBrok 1-1
line editor	configuring, LocBrok 1-5, 3-1
ed, BGB 3-1	starting, LocBrok 3-2
ex, <i>BGB</i> 3–2	llb.idl file, DECrpc 2-9
red, BGB 3-1	LMF
sed, <i>BGB</i> 3–2	See also the Guide to Software Licensing
line feed	LMF command, RefPages 8-173 to 8-178
reversing, RefPages 1-85	In command, RefPages 1-360
line printer	See also link system call
See printer	See also lstat system call
line printer control program	See also readlink system call
See lpc program	See also symlink system call
line printer daemon	In interface, RefPages 4-69
See lpd daemon	lo keyword, RefPages 4-71
line subroutine (plot), RefPages 3-559	load command, Ethernet 2-3, RefPages 8-186
linear search routine, RefPages 3–82	See also addnode command
linemod subroutine, RefPages 3-559	using, Ethernet A-4
LINES, CursesX 2–2	load host
	network interface, Ethernet 2-2
	· · · · · · · · · · · · · · · · · · ·

load host (cont.)	lock file (cont.)
requirements for, Ethernet 2-1	disabling the Emulator with, TermEmul 2-9, 2-11
local area network	lock recovery, NFS 3-4
See LAN	lockf
Local Area Transport device	NFS locking and, NFS 1-3
See LAT device	lockf subroutine, RefPages 3-80 to 3-81
Local Area Transport protocol	log file
See LAT protocol	for kerberos, Kerberos 4-5 to 4-9, 4-15
local attribute, DECrpc 6-4	log function, RefPages 3-339
local database, LocBrok 1-5	log subroutine (math), RefPages 3-341
Local Location Broker	log1p function, RefPages 3-339
See LLB	log1p subroutine (math), RefPages 3-341
local port number	log10 function, RefPages 3-339
unspecified, Network_Prog 3-2	log10 subroutine (math), RefPages 3-341
local reference clock	logarithm function, RefPages 3-341
setting up, SysNetSetup 3-29	LOGFILE, uucp 5-1 to 5-5
localtime subroutine (standard C), RefPages 3-20	logical block number
Location Broker, DECrpc 1-16, 2-2, Network_Prog	See LBN
6-3, RefPages 1-336	.login file, Primer 7–2
calling with library routines, DECrpc 2-6	login
database entries in, LocBrok 1-2	accounting, RefPages 8-4
introduction to, DECrpc 1-2	displaying last, RefPages 1-334
registering multiple interface versions, DECrpc	recording, RefPages 5-218
7–17	login command
registering objects with, DECrpc 1-17, 5-22	See also ac command
Location Broker administrative tool	login command (csh), RefPages 1-130
See lb_admin administrative tool	login command (general), RefPages 1-362
Location Broker Client Agent, DECrpc 1-16 to	dgate command, RefPages 1-188
1-17, Network Prog 6-4	diagnostics, RefPages 1-363
adding registration information to database with,	login command (sh), RefPages 1-610
LocBrok 1–6	login history, SysEnviron 5–2
calling from the Location Broker, LocBrok 1-3	login name
description of, DECrpc 1-2, LocBrok 1-2	getting, RefPages 3-59
Location Broker lookup	getting character-string representation of, RefPages
binop_lu application, DECrpc 3-7	3–496
for unknown host, DECrpc 1–17	in passwd file, SysEnviron 1-2
interface definition for, DECrpc 3-7	restrictions on, SysNetSetup 1-3
lb_\$lookup_interface call, DECrpc 5-5	login procedure, Primer 1-2, RefPages 1-362
Location Broker routine, RefPages 3-417 to 3-418	See also password
lock, NFS 3-3	for remote system, RefPages 1-698
lock command, RefPages 1-361	problems with, <i>uucp</i> 5–1
lock daemon, RefPages 8–187	to remote system, RefPages 1-574
lock file	login shell
creating, TermEmul 2-7, 2-9	changing in the passwd file, RefPages 1–82,
	SysEnviron 1–5

login time	lpr command (cont.)
showing, RefPages 1-764	using, SysEnviron 3-13
logname command, RefPages 1-365	lprm command, Primer 2-10, RefPages 1-377 to
logout command, Primer 1-9, 7-3	1–378
logout command (csh), RefPages 1-130	using, SysEnviron 3-14e
long type, DECrpc 6-11	lprsetup command, RefPages 8-199, SysNetSetup
longjmp subroutine, RefPages 3-123	1–12
longname subroutine, RefPages 3-240, 3-528	lpstat command, RefPages 1-379
look command, RefPages 1-366	lpx exerciser, Exercisers 3-8 to 3-9, RefPages 8-200
lookbib command, RefPages 1-367	to 8–201
lookup command, LocBrok 2-2	Irand48 subroutine, RefPages 3-31
with unknown host, LocBrok 1-4	Is command, Primer 2-5, 3-3
loop network interface, RefPages 4-71	ls command (ftp), RefPages 1-250
loop pseudodevice definition	ls command (general), RefPages 1-380 to 1-381
specifying in the configuration file, Configfile 1-16	Isearch subroutine, RefPages 3-82
loopback address	lseek system call, RefPages 2-106
reserved, LAN 1-4	Istat system call, RefPages 2-204
lorder command, RefPages 1-368	L.sys file
See also ranlib command	See also L-devices file
See also tsort command	See also L-dialcodes file
lost+found directory	editing, uucp 2-8n, 4-4
creating, RefPages 8-213	format of, RefPages 5-75 to 5-77
unlinked files in, CrashRec 1-3	setting up, uucp 2-5 to 2-8
lp command, RefPages 1-369	Ita device
lp interface	making, Ethernet 2-6
See LP11 line printer interface	lta pseudodevice definition
LP11 line printer interface, RefPages 4-72	specifying in the configuration file, Configfile 1-16
lpc command	Ita pseudoterminal interface, RefPages 4-76
using, SysEnviron 3-13	ltf command, Backup 3-14, RefPages 1-382 to 1-385
lpc program, RefPages 8-188	See also ltf file
See also lpq program	Itf file
lpd daemon, RefPages 8-190	format of, RefPages 5-87 to 5-94
See also lpc program	Itol3 subroutine, RefPages 3-79
description of, SysEnviron 3-12	
functions of, SysEnviron 3-12	M
lpq command, Primer 2-10, RefPages 1-370	
using, SysEnviron 3-14	m4 macro processor, RefPages 1-387 to 1-388
lpq program	macdef command (ftp), RefPages 1-251
diagnostics, RefPages 8-189	machine command, RefPages 1-391
lpr command, Primer 2-9, RefPages 1-372	machine parameter
See also lpd daemon	specifying in the configuration file, Configfile 1-3
See also lpq command	magic file, RefPages 5-95
See also lprm command	magic number, BGB 9-2
See also print command (general)	

magnetic tape	make command (System V), RefPages 1-400
labeling, RefPages 1-382, 5-87 to 5-94	make keyword, RefPages 1-400
manipulating, RefPages 1-442	makedbm command, RefPages 8-202
testing data, RefPages 8-229	See also dbm file
magnetic tape drive, Backup 4-1	See also yppush command
adding, SysEnviron 2-4 to 2-5	definition of, YP A-1
testing, Exercisers 3-2 to 3-3	MAKEDEV command, Ethernet 2-6
magnetic tape interface, RefPages 4-79	creating device special files with, RefPages 8-204
See also interfaces for specific devices	to 8–205, SysEnviron 3–1
mail, Primer 2-1, RefPages 7-14 to 7-15	makefile, sccs 3-6e to 3-9e
aliasing root with, NFS 3-5	makekey command, RefPages 8-207
folders in, Primer 5-3	maketemp macro, RefPages 1-389
formatting, RefPages 1-236	mallinfo subroutine, RefPages 3-555 to 3-556
listing header lines in mailbox file, RefPages 1-247	malloc subroutine (special library), RefPages 3-555
printing, RefPages 1-527	to 3-557
processing for sendmail daemon, RefPages 1-578	malloc subroutine (standard C), RefPages 3-84 to
reporting incoming, RefPages 1-44, 8-53	3–87
requesting messages from, TermEmul 2-3	See also malloc subroutine (special library)
sending, RefPages 1-45	mallop subroutine, RefPages 3-555
sending binary file in, RefPages 1-725	man command, Primer 1-7, RefPages 1-407 to
sending to remote superusers, NFS 3-5 to 3-7	1–408
the mail facility, BGB 6-1 to 6-12	See also apropos command
the MH System, BGB 6-12 to 6-14	See also catman command
using, RefPages 1-392 to 1-399	See also man macro package
mail aliases	See also man.nopage macro package
listing, RefPages 1-19	See also man.repro macro package
mail command (mail), RefPages 1-395	See also ul command
mail program, RefPages 1-392 to 1-399	See also whatis command (general)
See also biff command	man macro package, RefPages 7-16 to 7-23
See also fmt text formatter	Management Information Base
See also from command (mail)	See MIB
See also prmail command	manager module
See also talk program	defining EPVs for, DECrpc 5-21
See also uuencode command	identifying an object in, DECrpc 5-21
See also write command	registering multiple versions of, DECrpc 7-17
mailaddr keyword, RefPages 7-14	using multiple for interface, DECrpc 7-21 to 7-27
main memory	man.nopage macro package, RefPages 7-24 to 7-31
crash dump of, CrashRec 1-5	man.repro macro package, RefPages 7-32 to 7-36
Maintenance Operation Protocol	manual page
See MOP	See reference page
make command, RefPages 1-400, sccs 3-7e	mark command, RefPages 1-413
make command (general)	mark command (MH), BGB 6-13t
See ypmake command	Mass Storage Control Protocol disk
	See DSA disk

MASSBUS adapter	maxtsiz parameter
specifying in the configuration file, Configfile 1-11	specifying in the configuration file, Configfile 1-5
MASSBUS controller	maxuprc parameter
specifying in the configuration file, Configfile 1-11	specifying in the configuration file, Configfile 1-4
MASSBUS disk interface, RefPages 4-62 to 4-64	maxusers parameter
master directory hierarchy, setld 5-1	specifying in the configuration file, Configfile 1-4
master inventory	maxuva parameter
generating, setld 5-2	specifying in the configuration file, Configfile 1-4
master inventory file	maybe operation attribute
format of, setld 2-1, 2-2t	definition of, DECrpc 4-6
master key	syntax for, DECrpc 6-9
fetching, Kerberos 4-7, 4-12	MB data file entry
file for, Kerberos 4-4, 4-10	definition of, BIND/Hes 2-5
storing, Kerberos 4–9	mbox file, Primer 5-3
master map	mdelete command (ftp), RefPages 1-251
See automount map	mdir command (ftp), RefPages 1-251
master pseudoterminal	mdtar command, RefPages 1-416 to 1-418
definition of, RefPages 4-102	See also tar command
master server, Kerberos 3-1, SysNetSetup 3-12 to	restoring files with, Backup 3-13
3–13	using, Backup 1-2, 2-2
See also YP master server	mdtar file
definition of, BIND/Hes 1-4, Kerberos 4-1	format of, RefPages 5-176
destroying Kerberos database on, Kerberos 3-4	me macro package, RefPages 7-40
within configuration file, Kerberos 4-4	megabyte, AdvInstall 2–1
master system, Backup 4-1	mem memory file, RefPages 4-78
match string function, nawk 5-5	memccpy subroutine, RefPages 3-88 to 3-89
math library	memchr subroutine, RefPages 3-88
See libm library	memcmp subroutine, RefPages 3-88
matherr subroutine, RefPages 3-360 to 3-361	memcpy subroutine, RefPages 3-88
error-handling procedures, RefPages 3-361t	memmove subroutine, RefPages 3-88
using, RefPages 3-360e	memory
maxdsiz parameter	allocating, RefPages 3-84 to 3-86, 3-185, 3-555,
specifying in the configuration file, Configfile 1-5	3–572
maximum processes	freeing, RefPages 3-583
specifying in the configuration file, Configfile 1-4	operations on, RefPages 3-88
maximum users	reporting statistics for, RefPages 1-750
specifying in the configuration file, Configfile 1-4	shared, RefPages 3-86
max_is field attribute, DECrpc 7-1	testing, Exercisers 2-2 to 2-3, RefPages 8-208
description of, DECrpc 4-5	memory area
use of with last_is, DECrpc 7-3e	definition of, RefPages 3-88
using, DECrpc 6-7 to 6-10	memory keyword, RefPages 3-88
maxssiz parameter	memory resource
specifying in the configuration file, Configfile 1-6	managing, X/OpenTransport 4-3

memset subroutine, RefPages 3-88 mh-alias file, RefPages 5-98 memx exerciser, Exercisers 2-2 to 2-3, RefPages mh-format formatter, RefPages 5-101 8-208 to 8-209 mhl command, RefPages 1-423 mesg command, BGB 7-3, RefPages 1-419 mhl command (MH), BGB 6-13t mhmail command, RefPages 1-427 See also talk program mhmail command (MH), BGB 6-13t message broadcast type, DECrpc 1-5 mh-mail formatter, RefPages 5-104 checking for, RefPages 1-439 mhpath command, RefPages 1-428 control operations for, RefPages 2-120 mh profile file, RefPages 5-106 copying to another user, RefPages 1-768 MIB, LAN 3-1 to 3-4 filing in folders, RefPages 1-566 objects in, LAN B-1 to B-6 getting queue identifier, RefPages 2-122 organization of, Network Prog 7-4 inhibiting output of to the terminal, BGB 7-3 MICOM PAD, uucp 4-1 to 4-2 interactive, RefPages 1-674 MicroVAX processor operations, RefPages 2-124 to 2-126 booting, BasicInstall 2-9 to 2-15, Shutdown 3-1 to prohibiting, RefPages 1-419 replying to, RefPages 1-568 completing advanced installation on, AdvInstall 4-4 to 4-9 selecting by content, RefPages 1-511 showing next, RefPages 1-464 MINFO data file entry showing previous, RefPages 1-524 definition of, BIND/Hes 2-6 message catalog miscd daemon, RefPages 8-210 creating, InterNatl 2-1 mkconsole program, RefPages 8-211 mkdir command, Primer 3-3, RefPages 1-430 message queue removing, RefPages 1-294 See also rmdir command reporting status of, RefPages 1-295 mkdir command (ftp), RefPages 1-251 message sequence, RefPages 1-413 mkdir system call, RefPages 2-108 message text source file mkfifo function, RefPages 3-90 modifying, InterNatl 2-3 to 2-5 mkfs command, RefPages 8-212 message-of-the-day file See also mklost+found command See motd file See also newfs command See also tunefs command meta subroutine, RefPages 3-241 metacharacter, Primer 4-5 mklost+found command, RefPages 8-213 preventing interpretation of by the shell, Primer mknod command, RefPages 8-214 See also mknod system call MG data file entry mknod system call, RefPages 2-110 definition of, BIND/Hes 2-5 See also mkdir command mget command (ftp), RefPages 1-251 mkpasswd command, RefPages 8-215, SysNetSetup MH environment 3-35 mkproto command, RefPages 8-216 initialization of, RefPages 8-138 mkstr command, RefPages 1-432 MH message handling system, BGB 6-12 to 6-14 MH overview, RefPages 1-420 See also xstr command mh summary, RefPages 1-420 mktemp subroutine, RefPages 3-92 mls command (ftp), RefPages 1-251 MH system, RefPages 5-98 to 5-112

mode	mount point
asynchronous, X/OpenTransport 4-4	definition of, DMS 2-5, RIS 2-3
changing, RefPages 1-79	mount system call (general), RefPages 2-112 to
synchronous, X/OpenTransport 4-4	2–114
mode command (ftp), RefPages 1-251	See also mount command (general)
mode command (TELNET), RefPages 1-685	mount system call (NFS), RefPages 2-115 to 2-117
mode command (tftp), RefPages 1-694	mountd daemon, RefPages 8-222, 8-228
modem, uucp 3-6 to 3-7	See also exports file
autodial, RefPages 5-10	See also showmount command
controlling, RefPages 4-186	starting, NFS 2-4
setting up, RefPages 4-187e	move macro, CursesX 1-3
tip utility and, uucp 1-3n, 2-1n	move macro (curses), RefPages 3-242
uucp utility and, uucp 2-2n	move subroutine (curses), RefPages 3-528
modem line	move subroutine (plot), RefPages 3-559
configuring manually, uucp 2-4	mprotect system call, RefPages 2-118
modf subroutine, RefPages 3-46	mput command (ftp), RefPages 1-251
moncontrol subroutine, RefPages 3-95	mqueue directory, LAN A-6
monitor subroutine, RefPages 3-95	MR data file entry
See gprof command	definition of, BIND/Hes 2-6
See prof command	mrand48 subroutine, RefPages 3-31
monochrone video subsystem, RefPages 4-137	ms macro package, RefPages 7-43 to 7-45
monstartup subroutine, RefPages 3-95	MSCP disk controller
MOP, RefPages 8-218	specifying in the configuration file, Configfile
installing on a server, DMS 2-1, RIS 2-2	1–12e
mop_dumpload loader	MSCP disk interface, RefPages 4-108 to 4-115
prerequisites for load request, RefPages 8-218	MS-DOS operating system, Primer C-1
mop_mom command, RefPages 8-218	msgcheck command (MH), BGB 6-13t
See also load command	msgchk command, RefPages 1-439
more command, Primer 2-9, RefPages 1-436 to	msgctl system call, RefPages 2-120
1–438	MSG_DONTROUTE flag, Network_Prog 2-7
motd file, SysEnviron 1–18	msgget system call, RefPages 2-122
mount command, RefPages 8-226	See also ftok subroutine
fstab file and, NFS A-1	See also msgsnd system call
mount command (general), RefPages 8-220 to	msghdr structure
8–221	See data structure
See also fstab file	MSG_OOB flag, Network_Prog 2-7, 3-8
See also mount command (NFS)	msgop keyword, RefPages 2-124 to 2-126
See also ufs_mount command	MSG_PEEK flag, Network_Prog 2-7, 3-7
mounting a file system with, DiskMaint 1-4	msgrcv system call
mount command (NFS), RefPages 8-222 to 8-224	See msgctl system call
See also portmap daemon	See msgget system call
See also rmtab file	msgsnd system call, RefPages 2-124 to 2-126
See also ypserv daemon	msh command, RefPages 1-440
failure of, NFS 4-3	

MSI adapter name list specifying in the configuration file, Configfile 1-11 definition of, RefPages 3-100, 3-101 mt program, RefPages 1-442 to 1-443 name service, DECrpc 1-18 mtio keyword, RefPages 4-79 BIND/Hesiod, SysNetSetup 3-4 mtstailor file, RefPages 5-112 criteria for selecting, SysNetSetup 3-6t mtx exerciser, Exercisers 3-2 to 3-3, RefPages 8-229 YP, SysNetSetup 3-4 to 8-230 name service configuration file multidimensional array, DECrpc 6-8 See svc.conf file multiuser mode named configuration file booting from, Shutdown 2-1 to 2-3 description of, RefPages 5-120 shutdown procedure for, Shutdown 1-1 to 1-2 named daemon shutdown with reboot, Shutdown 1-3 adding as a principal, Kerberos 4-10 to 4-11 shutdown with system halt, Shutdown 1-2 authentication of, Kerberos 4-2 to 4-3 mv command, Primer 3-4, RefPages 1-444 inetd, BIND/Hes 5-2n mvaddch macro, RefPages 3-200 obtaining PID for, BIND/Hes 5-5 mvaddstr macro, RefPages 3-202 rc.local entry, BIND/Hes A-4 mvcur subroutine, RefPages 3-243, 3-528 for Kerberos, BIND/Hes A-4 mvdelch subroutine, RefPages 3-215 sending signals to, BIND/Hes 5-5 to 5-6 mvgetch macro, RefPages 3-224 terminating unauthenticated version of, Kerberos mvgetstr macro, RefPages 3-226 mvinch macro, RefPages 3-232 named type, DECrpc 6-5, 6-14 mvinsch macro, RefPages 3-234 named.boot file mvprintw subroutine, RefPages 3-253 definition of, BIND/Hes B-3 mvscanw subroutine, RefPages 3-260 named.ca file mvwaddch macro, RefPages 3-200 definition of, BIND/Hes A-3 mvwaddstr macro, RefPages 3-202 named dump file mvwdelch subroutine, RefPages 3-215 reviewing, BIND/Hes 5-3 mvwgetch macro, RefPages 3-224 named.local file mvwgetstr macro, RefPages 3-226 definition of, BIND/Hes A-3 mvwin subroutine, RefPages 3-244 named.rev file mvwinch macro, RefPages 3-232 definition of, BIND/Hes A-3 mvwinsch macro, RefPages 3-234 named.run file mywprintw subroutine, RefPages 3-253 reviewing, BIND/Hes 5-4 mvwscanw subroutine, RefPages 3-260 named.stats file MX data file entry reviewing, BIND/Hes 5-4 definition of, BIND/Hes 2-7 named-xfer daemon, RefPages 8-234 invalid name in, BIND/Hes 4-5 napms subroutine, RefPages 3-245 Natural Language Support environment See NLS environment N nawk utility, RefPages 1-445 to 1-453 name Best reference, nawk definition of, RefPages 1-613 calculating with, nawk 2-1 name daemon, RefPages 8-231 running, nawk 1-6

nbase.idl file, DECrpc 2-8	network (cont.)
NBS data encryption standard, RefPages 3-18	See also Ethernet network
nbuf keyword, RefPages 4-83	See also LAN
ncastat.idl file, DECrpc 2-8	See also TCP/IP network
ncheck command, RefPages 8-236	See also uucp utility
See also fsck command	definition of, Network_Prog 1-1
ncp program, Ethernet A-2	lock daemon and, RefPages 8-187
NCS	obtaining information about, Network_Prog 2-14
definition of, DECrpc 1-1	transparency of, TechSumm 2-2
NCS commands and library routines, RefPages	network address, DECrpc 1-4
3–387	authentication of, Kerberos 2-3
NDR	network architecture
scalar types in, DECrpc 5-1	definition of, Network_Prog 1-1
ndr_\$ type, DECrpc 5-1	network byte order
netbuf structure, X/OpenTransport 2-9	converting, Network_Prog 2-16 to 2-17
netent structure	network class, LAN 1–11t
See data structure	binary and decimal range of, LAN 1-3t
netgroup database, SysNetSetup 3-6t	bit positions and decimal ranges for, LAN 1-4f
netgroup file	Network Computing System
See also getnetgrent subroutine	See NCS
See also innetgr subroutine	network configuration
format of, RefPages 5-114, YP 3-5	retrieving information about, Network_Prog 3-10
getting member entry from, RefPages 3-626	network connection
YP and, YP 1-5, 2-13, 3-5	between Kerberos and ULTRIX, Kerberos 3-2,
netgroup.byhost, YP 3-5	6–1
netgroup.byuser, YP 3-5	network controller, LAN 1-2t
netgroups	Network Data Representation
definition of, YP 3-5	See NDR
netmask	network entity
Class A network and, LAN 1-10	defining site specific, LAN 3-1
Class B network and, LAN 1-11	Extended Agents and site specific, LAN 3-1
common values in, LAN 1-9t	network facility, DMS 2-2, RefPages 4-2 to 4-5
definition of, LAN 1-8	See also DELUA Ethernet interface
subnet routing and, LAN 1-7, 1-11t	See also DEUNA Ethernet interface
.netrc file	See also scs interface
format of, RefPages 5-116	Network File System
netsetup command, RefPages 8-237, SysNetSetup	See NFS
2–2, 2–6	network file transfer, RefPages 8-395
netstat command, LAN C-1, RefPages 1-459 to	network group
1–460	defining, RefPages 5-114
See also iostat command	Network Information Center
See also vmstat command	See NIC
network, RefPages 1-459	network interface, LAN 1-2t, RefPages 4-4 to 4-5
See also DECNET option	See also XTI

network interface (cont.)	newaliases command, RefPages 1-461
configuring parameters for, RefPages 8-129	See also aliases file
definition of, Network_Prog 1-1, RefPages 4-2	newfs command, RefPages 8-240 to 8-242
load host, Ethernet 2-2	See also mkproto command
setting up, Ethernet 2-2	creating a file system with, Backup 3-9e,
Network Interface Definition Language	DiskMaint 1-3
See NIDL	using, Backup 3-9
Network Interface Definition Language compiler	newinv utility, RefPages 1-462, setld 2-1
See NIDL compiler	new-line character, nawk 1-2
network layer	newpad subroutine, RefPages 3-246
See ISO reference model	new-srvtab file, Kerberos 4–12
network maintenance command, LAN C-1	creation of, Kerberos 4-7
network management, LAN 3-1 to 3-5	newsyslog program, LAN A-6
See also SNMP	newterm subroutine, RefPages 3-247
Network Management Station	newwin subroutine, CursesX 1-3, RefPages 3-248,
See NMS	3–528
network number, LAN 1-3	next command, RefPages 1-464
network protocol	next command (dbx), RefPages 1-171
See IP transport protocol	next command (mail), RefPages 1-395
definition of, Network_Prog 1-1	next command (MH), BGB 6-13t
TCP, Network_Prog 5-1	next command (pdx), RefPages 1-502
UDP, Network_Prog 5-1	next statement, nawk 4-6
network service	nextkey subroutine, RefPages 3-530
obtaining information about, Network_Prog 2-15	NFS
transport provider, Network_Prog 5-1	Best reference, NFS
network setup	definition of, NFS 1-1
NFS setup and, SysNetSetup 2-6	diskless server and, DMS 2-2
performing, SysNetSetup 2-2	displaying statistics for, RefPages 8-248
router setup and, SysNetSetup 2-14	exports file and, SysNetSetup 2-6
SNMP setup and, SysNetSetup 2-10	modifying environment with, NFS 2-19
network status daemon, RefPages 8-354	setting up, RefPages 8-247
Network Time Protocol	setup preparation, NFS 2-1 to 2-2
See NTP	troubleshooting, NFS 4-1 to A-7
network time service	NFS asynchronous block I/0 daemon
setting up, SysNetSetup 3-22	starting, RefPages 8-39
networks file, LAN A-3, SysNetSetup 2-16	NFS client, NFS 2-6
creating, RefPages 8-126	NFS daemon
format of, RefPages 5-117	YP daemons and, NFS 2-4n, 2-6n
getting entry from, RefPages 3-375	NFS file system, RefPages 5-118, 8-222
YP and, YP 1-5, 2-13	accessing remotely, RefPages 5-43
netx exerciser, Exercisers 4-1 to 4-2, RefPages	format of, RefPages 5-118
8–238 to 8–239	mounting remote, RefPages 2-115 to 2-117
new process file	showing remotely mounted, RefPages 8-344
definition of, RefPages 2-52	

NFS lock, NFS 1-3	NIDL, Network_Prog 6-3
Best reference, NFS	definition of, DECrpc 1-2
programming with, NFS 3-2 to 3-3	interface definition in, DECrpc 4-1
recovering, NFS 3-4	NIDL compiler, DECrpc 1-2, 2-2, Network_Prog
turning off, RefPages 8-246	6-3, RefPages 1-466
turning on, RefPages 8-246	nl command, RefPages 1-469
NFS mount request server, RefPages 8-228	nl macro, RefPages 3-249
NFS option	nl subroutine, RefPages 3-528
specifying in the configuration file, Configfile 1-8	nl_fprintf subroutine, RefPages 3-284
NFS protocol	nl_fscanf subroutine, RefPages 3-286
remote hosts and, RefPages 5-147	nlist subroutine, RefPages 3-100 to 3-101
nfs pseudodevice definition	nl_langinfo library routine, InterNatl 3-1
specifying in the configuration file, Configfile 1-16	nl_langinfo subroutine, RefPages 3-282
NFS server	nl_printf subroutine, RefPages 3-284
recovering, NFS 4-4	NLS environment
nfs_biod system call, RefPages 2-127	variables, RefPages 5-38
nfsd daemon, RefPages 8-244	nl_scanf subroutine, RefPages 3-286
See also nfs_svc system call	nl_sprintf subroutine, RefPages 3-284
See also rpc file	nl_sscanf subroutine, RefPages 3-286
invoking, RefPages 2-127	nl_types files, RefPages 5-119
starting, NFS 2-4	nm command, RefPages 1-473
nfsportmon command, RefPages 8-245	nmap command (ftp), RefPages 1-251
nfssetlock command, RefPages 8-246	NMS, Network_Prog 7-1
nfssetup command, RefPages 8-247	definition of, LAN 3-1
diskless client and, DMS 2-2	requesting information from agent, LAN 3-2
nfsstat command, RefPages 8-248	no wait lock
nfs_svc system call, RefPages 2-127	See lock
ni interface	nocache command (mt), RefPages 1-443
See BVP DEBNT/NI interface	nocbreak subroutine, RefPages 3-208
NIC	nocrmode subroutine, RefPages 3-528
address of, BIND/Hes 1-4	node
BIND domain name and, SysNetSetup 3-4, 3-8	changing data base entry for, RefPages 8-5 to 8-6
obtaining a network number from, SysNetSetup 2-2	displaying data base entry for, RefPages 8-118
phone number of, BIND/Hes 1-4	downline loading, RefPages 8-186
NIC standard host table	host node (Ethernet), Ethernet A-1
getting, RefPages 8-119	removing from data base, RefPages 8-292
NIC standard host tables	target node, Ethernet A-1
converting, RefPages 8-126	triggering downline load request for, RefPages
NIC whois service	8–378
See whois service	nodelay subroutine, RefPages 3-250
nice command (csh), RefPages 1-130	nodes database, Ethernet 2-2
nice command (sh), RefPages 1-465	noecho subroutine, RefPages 3-219, 3-528
nice subroutine, RefPages 3-99	nohup command (csh), RefPages 1-130

nohup command (sh), RefPages 1-465 ntohl subroutine, RefPages 3-372 nologin file ntohs routine contents of, RefPages 8-345 See network byte order nonblocking socket, Network Prog 2-4, 3-4 ntohs subroutine, RefPages 3-372 nonl subroutine, CursesX 2-8, RefPages 3-249, NTP, LAN 2-3 3 - 528NTP client, SysNetSetup 3-27, 3-31 Non-Replicatable GLB Daemon, RefPages 8-251 ntp command, RefPages 1-485 to 1-486 nonsystem disk NTP server definition of, BasicInstall 1-2 primary, SysNetSetup 3-24, 3-30 noraw subroutine, RefPages 3-255, 3-528 secondary, SysNetSetup 3-26 notify command (csh), RefPages 1-130 ntp.conf file -nq option, LocBrok 2-1 description of, RefPages 5-120 nrand48 subroutine, RefPages 3-31 ntpd daemon, Kerberos 1-5, 4-2 to 4-3, RefPages nrglbd daemon 8-253 configuring, LocBrok 3-1 ntpdc command, RefPages 8-257 starting, LocBrok 3-3 ntrans command (ftp), RefPages 1-252 nroff text processor, Primer 6-13 to 6-21, RefPages NULL, CursesX 2-2 1-475 null file, RefPages 4-87 See also checknr command -null map, NFS 2-15 See also colort command null pointer, DECrpc 6-14 See also man macro package null string, nawk 1-4 See also man.nopage macro package See also man.repro macro package 0 See also me macro package object, DECrpc 1-2, Network Prog 6-3 See also ms macro package multiple managers for, DECrpc 7-21e See also roffbib text processor object file See also soelim command combining, RefPages 1-345, 1-357 See also tbl preprocessor displaying the size of, RefPages 1-630 See also term file finding printable strings in, RefPages 1-652 See also tk command ordering, RefPages 1-368, 1-714 previewing output from, RefPages 1-86 object instance, Network Prog 7-9 refer preprocessor, RefPages 1-563 object orientation, DECrpc 1-2 NS data file entry object UUID, DECrpc 1-3, LocBrok 1-3, 2-4 definition of, BIND/Hes 2-7 od command, RefPages 1-488 nslookup command, BIND/Hes C-1 to C-7, See also strings command Kerberos 5-3, RefPages 1-477 offline command (mt), RefPages 1-443 obtaining host information with, BIND/Hes 4-5 offset obtaining IP information with, BIND/Hes 4-5 definition of, DiskMaint 3-2 nsquery command, RefPages 1-483 OK, CursesX 2-2 obtaining host information with, BIND/Hes 4-5 onintr command (csh), RefPages 1-130 obtaining IP information with, BIND/Hes 4-5 online information ntalkd command, RefPages 8-252 accessing, RefPages 1-23 ntohl routine See network byte order

definition of, DECrpc 1–5 use of with last is and max_is, DECrpc 7–3e open command (ftp), RefPages 1–252 open command (TELNET), RefPages 1–685 open system definition of, Rerwork_Prog 1–3 open system call, RefPages 2–128 See also close system call See also trace command (general) See also trace of lie opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–175 openpl subroutine, RefPages 3–251, 3–528 See also plot command See also plot file opendir subroutine, RefPages 3–259 See also plot command See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 8–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 8–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 8–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 8–8 operation declaration, DECrpc 4–6 syntax for, DECrpc 8–8 operation declaration, DECrpc 8–1 operation declaration, DECrpc 8–1 operation declaration, DECrpc 8–1 operation declaratio	opaque port, LocBrok 1-5	orderly release
use of with last_is and max_is, DECrpc 7-3e open command (Rtp), RefPages 1-252 open command (TELNET), RefPages 1-685 open system definition of, Network_Prog 1-3 open system call, RefPages 2-128 See also close system call See also trace command (general) See also trace file opendir subroutine, RefPages 3-27 to 3-28 openpl subroutine, RefPages 3-559 See also plot command See also plot command See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-9 parameters for, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation order, nawk 2-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 operation glocal backup 8-412 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 definition of, BIND/IHes 2-3 orphan process definition of, RefPages 4-186 OSI architecture See ISO reference model otalk program, RefPages 4-186 OSI architecture See ISO reference model otalk program, RefPages 4-186 Ost architecture See ISO reference model otalk program, RefPages 4-186 Ost architecture See ISO reference model otalk program, RefPages 4-186 Ost architecture See ISO reference model otalk program, RefPages 3-610 out-of-band data, Network_Prog 3-6 to 3-7 output directory building, setid 5-6 overlay subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 8-262 using, SysEmiton 3-14, 5-3 pack command, RefPages 8-262 using, SysEmiton 3-14, 5-3 pack command, RefPages 8-263 pfoconig command and, RefPages 3-251, 3-528 overwrite subroutine, RefPages 3-251, 3-528 overwrite subr	definition of, DECrpc 1-5	acknowledging receipt of, RefPages 3-607
open command (ftp), RefPages 1–252 open command (TELNET), RefPages 1–685 open system definition of, Nerwork_Prog 1–3 open system call, RefPages 2–128 See also close system call See also trace command (general) See also trace file opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–259 See also plot ocmmand See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 operation refer, nawk 2–2, A–1 operator, nawk 2–8 operation gelactupe 4–12 halting slave system, Backup 4–12 halting slave system, Backup 4–12 halting slave system, Backup 4–12 halting fle local processor, Backup 4–3 to 4–12 restarting multiuser mode, Backup 4–7 using, Backup 1–2 vising, Backup 1–2 orphan process definition of, RefPages 4–186 OSI architecture See ISO reference model out-of-band data, Network_Prog 3–6 to 3–7 output directory building, setld 5–6 overlay subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 3–261 s	open array, DECrpc 6-7 to 6-8, 7-1	origin data file entry
open command (TELNET), RefPages 1–685 open system definition of, Network_Prog 1–3 open system call, RefPages 2–128 See also close system call See also trace command (general) See also trace file opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–3-175 openpl subroutine, RefPages 3–559 See also plot command See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 6–8 operation declaration, DECrpc 6–8 operation declaration, DECrpc 6–8 operation for, DECrpc 6–8 operation general declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation of, DECrpc 6–8 operation of	use of with last_is and max_is, DECrpc 7-3e	definition of, BIND/Hes 2-3
open system definition of, Network Prog 1–3 open system call, RefPages 2–128 See also close system call See also trace command (general) See also trace file opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–3–579 See also plot command See also plot command See also plot file operation, DECrpc 1–2 adding to interface compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2 operator, nawk 2–8 oper utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 enetwork options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2	open command (ftp), RefPages 1-252	orphan process
definition of, Network_Prog 1-3 open system call, RefPages 2-128 See also close system call See also trace file opendir subroutine, RefPages 3-27 to 3-28 openlog subroutine, RefPages 3-275 openpl subroutine, RefPages 3-175 openpl subroutine, RefPages 3-175 openpl subroutine, RefPages 3-599 See also plot file operation, DECrpc 1-2 adding to interface compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 oper utility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing remote backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 2-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 See ISO reference model out parameter attribute, DECrpc 6-10 out parameter attribute, DECrpc 6-10 out parameter attribute, DECrpc 6-0 overlay subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 3-251, 3-528 overwite subroutine, RefPages 3-251, 3-528 overwite subroutine, RefPages 3-251, 3-528 overlay subroutine, RefPages 3-251, 3-528 overlay subroutine, RefPages 3-251, 3-528 overlay subroutine, RefPages 3-262 using, SysEnviron 3-14, 5-3 pack command, RefPages 1-492 packet filter, Network Prog 3-9 packet filter, Network Prog 3-9 packet filter, Network Prog 3-106 pfstat command and, RefPages 8-263 pfconfig command and, RefPages 1-495 packet filter, RefPages 1-495 packet filter, RefPages 1-494 packet filter, RefPages 1-494 packet filt	open command (TELNET), RefPages 1-685	definition of, RefPages 4-186
open system call, RefPages 2–128 See also close system call See also trace command (general) See also trace file opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–175 openpl subroutine, RefPages 3–175 openpl subroutine, RefPages 3–559 See also plot command See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 operation attribute description of, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2 operator, nawk 2–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 operation declaration, DECrpc 4–6, alting slave system, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 restarting multiuser mode, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 otalk program, RefPages 1–674 out parameter attribute, DECrpc 6–10 out-of-band data, Network Prog 3–6 to 3–7 output directory building, setld 5–6 overlay subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 8–262 using, SysEnviron 3–14, 5–3 pack command, RefPages 8–262 using, Network Prog 3–9 packet filter, Network Prog 3–10 packet produced filter of the pages 8–263 pfooning command and, RefPages 3–106 pfstat command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for,	open system	OSI architecture
See also trace command (general) See also trace file opendir subroutine, RefPages 3-27 to 3-28 openlog subroutine, RefPages 3-175 openpl subroutine, RefPages 3-175 openpl subroutine, RefPages 3-559 See also plot command See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 operation granting the local processor, Backup 4-6 halting slave system, Backup 4-5 performing remote backups with, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5 performing remote backups with, Backup 2-7 using, Backup 1-2 uutof-band data, Network Prog 3-6 to 3-7 output directory building, setld 5-6 overlay subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 3-251, 3-528 overlay subroutine, RefPages 3-262 using, SysEnviron 3-14, 5-3 pack command, RefPages 8-262 using, SysEnviron 3-14, 5-3 pack et ommand, RefPages 1-492 packet array, DECrpc 7-8 packet broadcasting, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 1-494 packf command and, RefPages 8-263 pfoonig command and, RefPages 8-263 pfoonig command and, RefPages 1-494 packet command and, RefPages 1-494 packet ommand	definition of, Network_Prog 1-3	See ISO reference model
See also trace command (general) See also trace file opendir subroutine, RefPages 3-27 to 3-28 openlog subroutine, RefPages 3-175 openpl subroutine, RefPages 3-259 See also plot command See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 2-1 using, Backup 1-2 out-of-band data, Network Prog 3-6 to 3-7 output directory building, setld 5-6 overlay subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 3-251, 3-528 overwrite subroutine, RefPages 8-262 using, SysEnviron 3-14, 5-3 pack command, RefPages 1-492 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfooning command and, RefPages 8-263 pfooning command and, RefPages 8-265 packetfilter, RefPages 4-88 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfooning command and, RefPages 1-494 packf command, RefPages 1-494 packf command, RefPages 1-495 packet filter, Network Prog	open system call, RefPages 2-128	otalk program, RefPages 1-674
output directory pendir subroutine, RefPages 3-27 to 3-28 openlg subroutine, RefPages 3-175 openpl subroutine, RefPages 3-175 openpl subroutine, RefPages 3-559 See also plot command See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing remote backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 2-7 using, Backup 1-2 using, SysEnviron 3-14, 5-3 pack command, RefPages 8-262 using, SysEnviron 3-14, 5-3 pack command, RefPages 1-492 packed array, DECrpc 7-8 packet broadcasting, Network Prog 3-9 packet filter, Ne	See also close system call	out parameter attribute, DECrpc 6-10
opendir subroutine, RefPages 3–27 to 3–28 openlog subroutine, RefPages 3–175 openpl subroutine, RefPages 3–159 See also plot command See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 halting the local processor, Backup 4–12 halting the local processor, Backup 4–12 halting the local processor, Backup 4–5e performing remote backups with, Backup 4–5e performing remote backups with, Backup 4–5 eperforming remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 building, setld 5–6 overlay subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 3–262 using, SysEnviron 3–14, 5–3 pack command, RefPages 8–262 using, SysEnviron 3–14, 5–3 pack command and, RefPages 8–265 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Lev	See also trace command (general)	out-of-band data, Network_Prog 3-6 to 3-7
openlog subroutine, RefPages 3–175 openpl subroutine, RefPages 3–559 See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 6–8 operation declaration, DECrpc 6–8 operation declaration, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 halting the local processor, Backup 4–12 halting the local processor, Backup 4–12 halting the local processor, Backup 4–5e performing local backups with, Backup 4–5 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 overvite subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 3–251, 3–528 overwrite subroutine, RefPages 8–262 using, SysEnviron 3–14, 5–3 pack command, RefPages 1–492 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 8–263 pfconfig command and, RefPages 8–263 pfconfig command and, RefPages 8–262 using, SysEnviron 3–14, 5–3 pack command, RefPages 1–492 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 8–263 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, Re	See also trace file	output directory
openpl subroutine, RefPages 3–259 See also plot command See also plot file operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–8 operation attribute description of, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 operation glackup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 overwrite subroutine, RefPages 3–251, 3–528 pac command, RefPages 8–262 using, SysEnviron 3–14, 5–3 pack command, RefPages 1–492 packet array, DECrpc 7–8 packet liter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfoonfig command and, RefPages 8–263 pfopen subroutine, RefPages 1–494 packet ommand, RefPages 1–492 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfopen subroutine, RefPages 1–494 packet ommand, RefPages 1–492 packet broadcasting, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfopen subroutine, RefPages 1–494 packf command and, RefPages 1–494 packf command, RefPages 1–494 packet broadcasting, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPa	opendir subroutine, RefPages 3-27 to 3-28	building, setld 5-6
See also plot command See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 4-6 syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 page command, RefPages 8-262 using, SysEnviron 3-14, 5-3 pack command, RefPages 1-492 packet array, DECrpc 7-8 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfoon subroutine, RefPages 3-263 pfoon subroutine, RefPages 3-263 pfoon subroutine, RefPages 1-494 packf command, RefPages 1-494 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfoon subroutine, RefPages 1-495 packf command, RefPages 1-495 packet broadcasting, Network Prog 3-9 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Prog 8-1 S	openlog subroutine, RefPages 3-175	overlay subroutine, RefPages 3-251, 3-528
See also plot file operation, DECrpc 1-2 adding to interfaces compatibly, DECrpc 5-10 calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 6-8 operation declaration, DECrpc 6-8 operation declaration, DECrpc 6-8 operation declaration, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 escaping to command processor, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 packed array, DECrpc 7-8 packet array, DECrpc 7-8 packet array, DECrpc 7-8 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfoopen subroutine, RefPages 3-106 pfstat command, RefPages 1-492 packet array, DECrpc 7-8 packet filter, Network Prog 3-9 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfoopen subroutine, RefPages 3-106 pfstat command, RefPages 1-492 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfooming command and, RefPages 8-263 pfoopen subroutine, RefPages 3-106 pfstat command, RefPages 1-492 packet filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 8-263 pfoopen subroutine, RefPages 1-494 packf command, RefPages 1-494 pack filter, Network Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263	openpl subroutine, RefPages 3-559	overwrite subroutine, RefPages 3-251, 3-528
operation, DECrpc 1–2 adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 parameters for, DECrpc 6–9 operation attribute description of, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 pack command, RefPages 1–492 packet filter, Network_Prog 3–9 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 3–263 pfopen subroutine, RefPages 3–106 pfstat command, RefPages 4–88 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 3–263 pfopen subroutine, RefPages 3–106 pfstat command, RefPages 1–494 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 3–263 pfopen subroutine, RefPages 1–494 packf command, RefPages 1–492 packet broadcasting, Network_Prog 3–9 packet broadcasting, Network_Prog 3–9 packet broadcasting, Network_Prog 3–9 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 3–263 pfopen subroutine, RefPages 1–494 packf command, RefPages 1–494 packf command, RefPages 1–495 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mec	See also plot command	
adding to interfaces compatibly, DECrpc 5–10 calling semantics for, DECrpc 6–8 changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 4–6 syntax for, DECrpc 6–8 operation order, nawk 2–8 operation order, nawk 2–8 operation order, nawk 2–8 operation order, nawk 2–8 operation grameters for, DECrpc 6–8 operation order, nawk 2–8 operation order, nawk 2–12 escaping to command shell, Backup 4–12 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 packet filter, Network Prog 3–9 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 8–263 pfconfig command and, RefPages 8–263 packet filter, Network Prog 3–9 packet filter, Network Prog 3–9 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 8–263 pfconfig command and, RefPages 8–265 packet filter, Network Prog 8–6 packet filter, Network Prog 8–6 packet filter, Network Prog 8–6 pa	See also plot file	P
calling semantics for, DECrpc 6-8 changing with interface versions, DECrpc 7-19 declarators of, DECrpc 6-9 parameters for, DECrpc 6-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 4-6 syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 using, SysEnviron 3-14, 5-3 pack command, RefPages 1-492 packet broadcasting, Network_Prog 3-9 packet filter, Network_Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 3-106 pfstat command and, RefPages 1-492 packet broadcasting, Network_Prog 3-9 packet ibroadcasting, Network_Prog 3-9 packet broadcasting, Network_Prog 3-9 packet ibroadcasting, Network_Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 8-265 packetfilter, Network_Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 8-263 pfopen subroutine, RefPages 1-494 packf command, RefPages 1-492 packet broadcasting, Network_Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 8-263 pfconfig command and, RefPages 1-494 packf command, RefPages 1-	operation, DECrpc 1-2	
changing with interface versions, DECrpc 7–19 declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 operation attribute description of, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 pack command, RefPages 1–492 packet broadcasting, Network_Prog 3–9 packet broadcasting, Perpages 1–492 packet broadcasting, Perpages 1–492 packet broadcasting, Decket broadcasting, Decket	adding to interfaces compatibly, DECrpc 5-10	-
declarators of, DECrpc 6–9 parameters for, DECrpc 6–9 parameters for, DECrpc 6–9 parameters for, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 packet filter, Network_Prog 3–9 packet filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 3–106 pfstat command and, RefPages 8–265 packetfilter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 1–405 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 1–406 pfstat command and, RefPages 1–496 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 1–406 pfstat command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–436 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 1–495 getting, RefPages 2–81 pages in a specific command and RefPages 1–495 getting, RefPages 2–81	calling semantics for, DECrpc 6-8	
parameters for, DECrpc 6–9 operation attribute description of, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 operator, nawk 2–8 operatoring, Backup 4–12 halting the local processor, Backup 4–5e performing local backups with, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 1–2 packet broadcasting, Network_Prog 3–9 packet broadcasting, Network_Prog 3–9 packet filter, Network_Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfopens ubroutine, RefPages 8–263 pfopens ubroutine, RefPages 3–106 pfstat command and, RefPages 8–265 packetfilter, Network_Prog 3–9 packet broadcasting, Network_Prog 3–9 packet filter, Network_Prog 3–9 packet broadcasting, Network_Prog 3–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfopens ubroutine, RefPages 3–106 pfstat command and, RefPages 1–494 packet configuration parameters for, RefPages 1–495 packet in the declaration, DECrpc 4–5 packet in the local processor, Backup 2–7 belp menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 packet in the local processor, Pages 8–263 pfooning command and, RefPages 1–495 packet configuration parameters for, RefPages 8–263 pfooning command and, RefPages 8–263 pfooning command and, RefPages 1–494 packf command, RefPages 1–494 packf command, RefPages 1–494 packf command, RefPages 1–494 packet configuration parameters for, RefPages 8–263 pfooning command and, RefPages 8	changing with interface versions, DECrpc 7-19	
broadcasting, Network_Prog 3-9 parameters for, DECrpc 6-9 operation attribute description of, DECrpc 4-6 syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 operation, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 1-2 broadcasting, Network_Prog 3-9 packet filter, Network_Prog 8-1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 3-106 pfstat command and, RefPages 1-494 packf command, RefPages 1-494 packf command (MH), BGB 6-13t PAD See MICOM PAD page reporting statistics for, RefPages 1-436 page size displaying, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	declarators of, DECrpc 6-9	
description of, DECrpc 4–6 syntax for, DECrpc 6–8 operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 operatility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 3–106 pfstat command and, RefPages 4–88 packet filter, Network Prog 8–1 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 3–106 pfstat command and, RefPages 1–494 packf command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–436 page size displaying, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	parameters for, DECrpc 6-9	-
syntax for, DECrpc 6-8 operation declaration, DECrpc 4-5, 6-10e syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 operatility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 See also The Packet Filter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 3-106 pfstat command and, RefPages 4-88 packetfilter, RefPages 4-88 packetfilter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 3-106 pfstat command and, RefPages 1-494 packetfilter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 3-106 pfstat command, RefPages 1-494 packetfilter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfopen subroutine, RefPages 3-106 pfstat command and, RefPages 1-494 packetfilter: An Efficient Mechanism for User-Level Network Code configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 8-263 pfopen subroutine, RefPages 3-106 pfstat command (MH), BGB 6-13t PAD See MICOM PAD page reporting statistics for, RefPages 1-436 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	operation attribute	- -
operation declaration, DECrpc 4–5, 6–10e syntax for, DECrpc 6–8 operation order, nawk 2–2, A–1 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 for User-Level Network Code configuration parameters for, RefPages 8–263 pfconfig command and, RefPages 3–106 pfstat command and, RefPages 4–88 packetfilter, RefPages 4–88 packf command, RefPages 1–494 packf command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	description of, DECrpc 4-6	- '
syntax for, DECrpc 6-8 operation order, nawk 2-2, A-1 operator, nawk 2-8 opser utility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 configuration parameters for, RefPages 8-263 pfconfig command and, RefPages 3-106 pfstat command and, RefPages 8-265 packetfilter, RefPages 4-88 packf command, RefPages 1-494 packf command (MH), BGB 6-13t PAD See MICOM PAD page reporting statistics for, RefPages 1-751 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	syntax for, DECrpc 6-8	
operation order, nawk 2-2, A-1 operator, nawk 2-8 operator, nawk 2-8 oper utility, RefPages 8-261 aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 pfconfig command and, RefPages 3-263 pfopen subroutine, RefPages 3-106 pfstat command and, RefPages 8-265 packetfilter, RefPages 4-88 packf command, RefPages 1-494 packf command (MH), BGB 6-13t PAD See MICOM PAD page reporting statistics for, RefPages 1-751 page command, RefPages 1-436 page size displaying, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	operation declaration, DECrpc 4-5, 6-10e	
operator, nawk 2–8 operator, nawk 2–8 opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 pfopen subroutine, RefPages 3–106 pfstat command and, RefPages 4–88 packf command, RefPages 1–494 packf command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	syntax for, DECrpc 6-8	-
opser utility, RefPages 8–261 aborting, Backup 4–12 escaping to command shell, Backup 4–6 halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 pfstat command and, RefPages 8–265 packetfilter, RefPages 4–88 packf command, RefPages 1–494 packf command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	operation order, nawk 2-2, A-1	
aborting, Backup 4-12 escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 packetfilter, RefPages 4-88 packet command, RefPages 1-494 packf command (MH), BGB 6-13t PAD See MICOM PAD page reporting statistics for, RefPages 1-751 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	operator, nawk 2-8	
escaping to command shell, Backup 4-6 halting slave system, Backup 4-12 halting the local processor, Backup 2-7 help menu for, Backup 2-4e, 4-4e network options help menu, Backup 4-5e performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 packf command, RefPages 1-494 packf command, RefPages 1-495 packf command, RefPages 1	opser utility, RefPages 8-261	•
halting slave system, Backup 4–12 halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 packf command (MH), BGB 6–13t PAD See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	aborting, Backup 4-12	•
halting the local processor, Backup 2–7 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 PAD See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	escaping to command shell, Backup 4-6	, , ,
halting the local processor, Backup 2–1 help menu for, Backup 2–4e, 4–4e network options help menu, Backup 4–5e performing local backups with, Backup 2–3 to 2–8 performing remote backups with, Backup 4–3 to 4–12 restarting multiuser mode, Backup 2–7 using, Backup 1–2 See MICOM PAD page reporting statistics for, RefPages 1–751 page command, RefPages 1–436 page size displaying, RefPages 1–495 getting, RefPages 2–81	halting slave system, Backup 4-12	•
network options help menu, Backup 4-5e performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 page reporting statistics for, RefPages 1-751 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	halting the local processor, Backup 2-7	
performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 reporting statistics for, RefPages 1-751 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	help menu for, Backup 2-4e, 4-4e	
performing local backups with, Backup 2-3 to 2-8 performing remote backups with, Backup 4-3 to 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 page command, RefPages 1-436 page size displaying, RefPages 1-495 getting, RefPages 2-81	network options help menu, Backup 4-5e	
page size 4-12 restarting multiuser mode, Backup 2-7 using, Backup 1-2 page size displaying, RefPages 1-495 getting, RefPages 2-81 pagesize command PafPages 1, 495	performing local backups with, Backup 2-3 to 2-8	
restarting multiuser mode, Backup 2–7 using, Backup 1–2 displaying, RefPages 1–495 getting, RefPages 2–81 pagesign command PefPages 1, 405	performing remote backups with, Backup 4-3 to	
using, Backup 1-2 getting, RefPages 2-81 pagesize command. PefPages 1, 405	4–12	
using, Backup 1-2	restarting multiuser mode, Backup 2-7	
ord string function, nawk 5-6 pagesize command, Ref Pages 1-495	using, Backup 1-2	•
ord string function, name 5	ord string function, nawk 5-6	pagesize command, KejYages 1-495

paging area	passwd command, Primer 1-5, RefPages 1-496
specifying in the configuration file, Configfile 1-9	See also passwd file
paging device, RefPages 4-56	See also yppasswd command
paging space	invoking, SysEnviron 1-5
allocating disk space for, DiskMaint 1-2	passwd database, LAN 2-2, SysNetSetup 3-6t
parameter	lookup switches for, Kerberos 5-3
default for USERFILE, uucp 3-6	updating remotely, SysNetSetup 3-12
definition of, RefPages 1-607, 1-613	passwd file
for profile, uucp 4-2	See also passwd.byname file
of an operation, DECrpc 6-9	See also passwd.byuid file
specifying in the configuration file, Configfile 1-3	See also vipw command
to 1–7	adding users to, RefPages 8-7
use of, DECrpc 5-13	conflicts in, RefPages 8-58
parameter attribute, DECrpc 6-10	editing, RefPages 8-400, 8-406, SysEnviron 1-3 to
of interface definition, DECrpc 4-7	1–6
use of comm_status, DECrpc 5-13e	editing after ypsetup completes, SysNetSetup 3-17
parameter declarator, DECrpc 6-10	editing for YP, YP 2-14
partition	editing master server's, YP 2-22
See disk partition	format of, RefPages 5-122 to 5-124, SysEnviron
Pascal compiler, RefPages 1-230	1–1 to 1–3
Pascal execution profiler	getting entry from, RefPages 3-64 to 3-65
See pxp command	last entry in, YP 2-15n
Pascal interpreter	network security level and, SysNetSetup 3-34n
See px command	pulling entries from YP, YP 3-2
Pascal interpreter and executer	removing users from, RefPages 8-7
See pix command	restrictions when specifying passwords in,
Pascal interpreter code translator	SysNetSetup 1–5
See pi code translator	setting up, uucp 2-5
See pix command	user ID in, uucp 2-5n, YP 2-23n
Pascal program	username and, RefPages 1-77
creating line-numbered listing for, RefPages 1-551	writing entry in, RefPages 3-110
debugging, RefPages 1-501	YP special characters and, YP 1-4
displaying call graph profile data and, RefPages	-passwd map, NFS 2-15
1–269	passwd variable, Kerberos 5-4
interpreting, RefPages 1-509, 1-515, 1-548	passwd.byname file, YP 1-4
listing cross-references in, RefPages 1-551	passwd.byuid file, YP 1-4
merging compiled modules, RefPages 1-521	password, SysEnviron 1-2
profiling, RefPages 1-549	See also superuser password
pass number	changing, RefPages 1-496
definition of, SysEnviron 1–13	changing in YP, RefPages 1-779, YP 3-4
passive gateway, RefPages 8-310	creating, RefPages 1-496
passive verb	displaying with catpw, RefPages 1-55
finding, RefPages 1-666	distribution of, Kerberos 5–1
<u>.</u>	hesupd daemon and, LAN 2-2
	•

password (cont.)	physical memory
hiding for master database, Kerberos 3-5	specifying in the configuration file, Configfile 1-5
in cleartext, Kerberos 1-3	physmem parameter
logging into remote system without, YP 3-2	specifying in the configuration file, Configfile 1-5
of the principal, Kerberos 1-3	pi code translator, RefPages 1-509 to 1-510
reading, RefPages 3-63	See also pix command
setting, SysNetSetup 3-36	See also pmerge command
updating in YP map, RefPages 3-632	See also px command
YP and, YP 1-5	pi command (pdx), RefPages 1-503
paste command, RefPages 1-499 to 1-500	pick command, RefPages 1-511
path, Primer 3-2 to 3-6	pick command (MH), BGB 6-13t
PATH environment variable, Kerberos 4-8	ping command, RefPages 8-268
PATH string, RefPages 7-3	pipe system call, RefPages 2-133
pathconf subroutine, RefPages 3-102	pipeline, BGB 1-1, Primer 4-14
pattern	creating, RefPages 2-133
matching, BGB 4-1, 4-4, RefPages 1-608	definition of, RefPages 1-606, 1-613
pattern file, BGB 4-3, RefPages 5-126	lists of, RefPages 1-606, 1-613
pause subroutine, RefPages 3-104	redirecting print output to, nawk 8-3
PC	pix command, RefPages 1-515
integration with, TechSumm 2-2	See also px command
pc compiler	placeholder, nawk 2-4
See gprof command	plock system call, RefPages 2-135
See pdx debugger	plot command, RefPages 1-519
See pmerge command	See also graphics file
See pxref program	See also plot keyword
pclose subroutine, RefPages 3-107	See also prof command
pdx debugger, RefPages 1-501 to 1-504	See also spline command
See also pi code translator	See also term command
permission	plot keyword, RefPages 3-559, 5-130
for files, Primer 3-10	plotter
perror subroutine (standard C), RefPages 3-105	getting statistics for, RefPages 8-262
personal computer	pmerge command, RefPages 1-521
See PC	pnoutrefresh subroutine, RefPages 3-252
pfconfig command, RefPages 8-263 to 8-264	point subroutine, RefPages 3-559
pfm_\$ library routine, DECrpc 2-7	pointer, DECrpc 4-7, 6-7 to 6-14
pfopen subroutine, RefPages 3-106	pointer operator, DECrpc 6-10
pfstat command, RefPages 8-265	popd command (csh), RefPages 1-130
pg command, RefPages 1-505	popen subroutine, RefPages 3-107
pgm \$ library routine, DECrpc 2-7	port, DECrpc 1–4
Phase IV load host, Ethernet 2–1	See also privileged port
phones file	attribute, DECrpc 6-3
format of, RefPages 5-129	definition of types, DECrpc 1-5
	• •
physical main memory image, RefPages 4-78	dynamic assignment of, DECrpc 1-5

port (cont.)	prefresh subroutine, RefPages 3-252
privileged, NFS 3-7	presentation layer
port allocation	See ISO reference model
restricting, Network_Prog 3-3	presented type
port mapper	routines for conversion of, DECrpc 7-5
definition of, NFS 1-2	storage for, DECrpc 7-5
starting, NFS 2-4 to 2-6, YP 2-4, 2-10 to 2-12	preserve command (mail), RefPages 1-395
port monitor	See also hold command (mail)
turning off, RefPages 8-245	prev command, RefPages 1-524
turning on, RefPages 8-245	prev command (MH), BGB 6-13t
port name	primary name
defining, Ethernet 3–2	as part of principal name, Kerberos 3-2
port number, Network_Prog 3-3 to 3-4	primary server, SysNetSetup 3-8, 3-10
relationship to socket address, LocBrok Glossary-3	primitive
portability issue	for testing conditions, BGB 9-9
of cleanup handlers, DECrpc 5-12	principal, Kerberos 1-1 to 1-3
of data types, DECrpc 5-1	adding, Kerberos 4-7
portability requirement, X/OpenTransport 1-1	creating or modifying, Kerberos 3-3
portmap daemon, RefPages 8-270	entry for, Kerberos 4-6
See also rpcinfo command	primary name for, Kerberos 3-2
POSIX environment	selection of random DES key for, Kerberos 4-6
See the Guide to Languages and Programming	print command, RefPages 1-522
specifying, RefPages 3-2	print command (general), RefPages 1-525
POSIX standard	print command (mail), RefPages 1-392 to 1-395
See also the Guide to Languages and	See also ignore command (mail)
Programming	print command (pdx), RefPages 1-502
See also the POSIX Conformance Document	print queue
USTAR tape format and, TechSumm 2-9	removing jobs from, RefPages 1-377
post program, RefPages 8-271	using, SysEnviron 3-14
post-installation procedure, AdvInstall 4-26,	print system
BasicInstall 3–7	setting up, SysEnviron 3-1 to 3-14
postmaster	using, SysEnviron 3-12 to 3-14
definition of, RefPages 7-15	printcap database, TechSumm 2-2
PostScript	printcap file, SysEnviron 3-3 to 3-12
See Display PostScript	See also lprsetup command
PostScript translator	editing, Ethernet 3–3
datatypes and, RefPages 8-8	format of, RefPages 5-132
pow function, RefPages 3-340	testing, Ethernet 3-4
pow subroutine, RefPages 3-341	printenv command, RefPages 1-526
power function, RefPages 3-341	printer, RefPages 5-132, TechSumm 2-2 to 2-3
pr command	See also the Guide to PrintServer Clients
See print command (general)	See also printer queue
precision	adding, SysEnviron 3-1 to 3-14
of numbers, nawk 2-5	changing tabs to blanks for, RefPages 1-223

printer (cont.)	process (cont.)
control and monitoring, TechSumm 2-2 to 2-3, 2-8	creating, RefPages 2-66, 2-223
filters for, TechSumm 2-2	displaying the status of, RefPages 1-540, 1-752,
folding text lines for, RefPages 1-237	1–764
getting statistics for, RefPages 8-262	getting core image, RefPages 1-258
PostScript, TechSumm 2-2	getting information about resource use by,
reporting use of, SysEnviron 3-14, 5-3	RefPages 2–89
setting up, RefPages 8-199	getting process group of, RefPages 2-83
setting up on terminal servers, Ethernet 3-1	getting resource accounting, RefPages 3-190
specifying the line width of, Configfile 1-14	getting time-accounting information, RefPages
status information for, RefPages 1-379	3–178
testing, Exercisers 3-8, RefPages 8-200	initializing control of, RefPages 8-134 to 8-136
unfiltered access to, TechSumm 2-2	initiating I/O in, RefPages 3-107
printer capability database	limiting resource consumption by, RefPages 3-188
setting up, SysEnviron 3-2	reporting statistics for, RefPages 1-750
printer hardware characteristic, Ethernet 3-1	requesting priority for, TermEmul 2-4
printer queue	scheduling priority and, RefPages 2-85
displaying, RefPages 1-370	setting limits on, RefPages 3-182
printer spool directory, Ethernet 3-4	signaling, RefPages 2-100
PRINTER string, RefPages 7-3	suspending, RefPages 1-631, 3-104, 3-146
printer symbol	suspending transmission of, TermEmul 2-4
specifying, SysEnviron 3-3 to 3-12	terminating, RefPages 1-301, 2-55
printf action, nawk 2-3	terminating after flushing pending output, RefPages
printf function, RefPages 3-506	3–43
printf library routine, InterNatl 3-1	terminating with core dump, RefPages 3-6
printf subroutine, RefPages 3-288	tracing, RefPages 2-141 to 2-142
See also printw subroutine	waiting for termination of, RefPages 2-225
See also vprintf subroutine	process accounting
conversion specification list, RefPages 3-506	controlling, SysEnviron 5-2 to 5-3
printing date with, RefPages 3-509	process group
restrictions, RefPages 3-508	associating with terminal, RefPages 4-181
System V and, RefPages 3-289, 3-509	definition of, RefPages 2-83
printw subroutine, RefPages 3-253, 3-528	setting, RefPages 2-169, 3-127
priority	signaling, RefPages 2-102
setting, RefPages 1-465, 3-99	process ID
private MIB, <i>LAN</i> 3-1, 3-2	getting, RefPages 1-540, 2-84
privileged port	process number, Network_Prog 3-6
other operating systems and, NFS 3-7n	process reference table
prmail command, RefPages 1-527	getting size from, RefPages 2-72
process	processor
changing the priority of, SysEnviron 5-1	defining in the configuration file, Configfile 1-3
changing the priority of running, RefPages 8-293	halting, RefPages 8-123, 8-124
controlling resource consumption by, RefPages 2-87	initializing, CrashRec 2-3 to 2-4

processors parameter	protocol family, DECrpc 1–4
specifying in the configuration file, Configfile 1-7	address format list, RefPages 4-2
product output directory, setld 6-3	definition of, RefPages 4-2
prof command, RefPages 1-528 to 1-532	protocol option
See also gprof command	negotiating, X/OpenTransport 2-2 to 2-10
profil system call, RefPages 2-137	specifying, X/OpenTransport 3-3
See also gprof command	protocol type, Network_Prog 3-1
profile	protocols file, LAN A-3
See parameter	See also inetd.conf file
profile buffer	See also remote file
dumping, RefPages 8-150	format of, RefPages 5-138, 5-148
profile data	getting entry from, RefPages 3-377
analyzing, RefPages 1-528	YP and, YP 1-5, 2-13
profile file	proxy command (ftp), RefPages 1-252
displaying data in, RefPages 1-532	prs command, RefPages 1-539e
program	prs command (sccs), RefPages 1-537
debugging, RefPages 3-123, 3-142	using, sccs 2-6
executing later, RefPages 1-34	ps command, RefPages 1-540 to 1-541
form of, nawk 1-2	See also pstat command
locating, RefPages 1-761	See also w command
profiling, RefPages 3-95	pseudodevice definition
specifying addresses in, RefPages 3-37 to 3-38	specifying in the configuration file, Configfile 1-15
updating, RefPages 1-400	to 1–16
verifying, RefPages 3-9	pseudo-hostname
Program Management	definition of, SysNetSetup 2-15
pgm_exit, RefPages 3-431	pseudorandom number
program management routine, DECrpc 2-7	generating, RefPages 3-31
programming language, TechSumm 2-3t to 2-4t	pseudoterminal, CrashRec 1-4
project librarian	adding, SysEnviron 2-3
responsibilities of, sccs 3-1	definition of, RefPages 4-102
prompt command (ftp), RefPages 1-252	description of, Network_Prog 3-12
prompter command (MH), BGB 6-13t	example of creating, Network_Prog 3-13
prompter editor front-end, RefPages 1-534	initializing, CrashRec 2-3 to 2-4
protection	pseudoterminal interface, RefPages 4-102
See permission	psignal subroutine, RefPages 3-108
protent structure	pstat command, RefPages 8-273 to 8-278
See data structure	restricted, RefPages 8-278
protocol	pstat program
See network protocol	options, RefPages 8-273
definition of, RefPages 4-2	PTR data file entry
IP, <i>DECrpc</i> 1–3 to 1–4	definition of, BIND/Hes 2–8
obtaining information about, Network_Prog 2-15	ptrace system call, RefPages 2-141 to 2-142
supported by DECrpc, DECrpc 1-3	See also exect subroutine

ptx command, RefPages 1-545 to 1-546	quit command, LocBrok 2-2
pty interface, RefPages 4-102	quit command (lpc), RefPages 8-188
pty pseudodevice definition	quit command (mail), RefPages 1-395
specifying in the configuration file, Configfile 1-16	quit command (nfs), RefPages 1-253
public network	quit command (pdx), RefPages 1-503
registering with, BIND/Hes 4-3 to 4-4	quit command (TELNET), RefPages 1-685
pushd command (csh), RefPages 1-130	quit command (tftp), RefPages 1-695
put command (ftp), RefPages 1-253	quot command, DiskMaint 2-3, RefPages 8-279
put command (tftp), RefPages 1-695	quota
putc subroutine, RefPages 3-510	See disk quota
putchar subroutine, RefPages 3-510	quota command, DiskMaint 2-6, RefPages 1-552
putenv subroutine, RefPages 3-109	QUOTA option
putp subroutine, RefPages 3-254	specifying in the configuration file, Configfile 1-7
putpwent subroutine, RefPages 3-110	quota system call, RefPages 2-143
puts subroutine, RefPages 3-511	See also quotacheck command
putw subroutine, RefPages 3-510	quotacheck command, DiskMaint 2-6, RefPages
pwd command, Primer 3-2	8-280, SysNetSetup 1-17
pwd command (general), RefPages 1-547	See also edquota editor
See also dirs command (csh)	See also fstab file
pwd command (nfs), RefPages 1-253	See also quota system call
pwd command (System V), RefPages 1-620	See also quotaon command
px command, RefPages 1-548	See also repquota command
See also pi code translator	See also setquota system call
See also pix command	quotaoff command, DiskMaint 2-6, RefPages 8-281
pxp command, RefPages 1-549 to 1-550	quotaon command, DiskMaint 2-6, RefPages 8-281
pxref program, RefPages 1-551	quotas file, SysNetSetup 1-17
	quotacheck command and, RefPages 8-280
Q	quote command (ftp), RefPages 1-253
4	qv interface
Q-bus adapter	See VCB01 video subsystem
specifying in the configuration file, Configfile 1-11	QVSS
Q-bus virtual memory image, RefPages 4-68	See VCB01 video subsystem
qd interface	
See VCB03 video subsystem	R
QDSS	**
See VCB02 video subsystem	ra interface
qe interface	See MSCP disk interface
See DELQA Ethernet interface	RA60 disk media
See DEQNA Ethernet interface	making, setld 5-7
qsort subroutine (standard C), RefPages 3-111	Radial Serial Protocol
queue	See RSP
listing, Primer 2-10	radisk utility, RefPages 8-282
removing elements from, RefPages 3-77	using, DiskMaint 4-9 to 4-11

rand function	rd keyword
explanation of, nawk 2-12	See RD31 disk interface
rand subroutine (standard C), RefPages 3-112	See RD32 disk interface
See also random subroutine	See RD53 disk interface
random inode generation number	See RD54 disk interface
installing, RefPages 8-103	RD31 disk interface, RefPages 4-132
random number, RefPages 3-112 to 3-113	RD32 disk interface, RefPages 4-132
See also pseudorandom number	RD53 disk interface, RefPages 4-132
random number generator, RefPages 3-112 to	RD54 disk interface, RefPages 4-132
3–113	rdate command, RefPages 8-287
random subroutine, RefPages 3-113	rdump command, RefPages 8-288
ranlib command, RefPages 1-553 to 1-554	See also rmt program
See also lorder command	using, Backup 1-1
rarpd program, RefPages 8-284	read command (sh), RefPages 1-610
raw	read command (System V), RefPages 1-620
See socket	read lock
RAW mode	See lock
definition of, RefPages 4-181	read system call, Network_Prog 2-6, RefPages 2-145
raw subroutine, RefPages 3-255, 3-528	to 2–147
rb interface	See also trace command (general)
See IDC disk interface	See also trace file
See RL02 disk interface	readability
rc command, RefPages 8-286	analyzing, RefPages 1-666
rc file, CrashRec 1-3, LAN A-4 to A-5	readdir subroutine, RefPages 3-27
See also rc.local file	readlink system call, RefPages 2-148
rc.local file, Kerberos 4-5 to 4-13, LAN A-4 to A-5	readonly command (sh), RefPages 1-610
See also rc file	readonly command (System V), RefPages 1-620
contents of, RefPages 8-286	readv system call, Network_Prog 2-6, RefPages
default savecore entry in, CrashRec 1-5	2–145
editing, Ethernet 2-2, 2-7	real group ID
editing for printers, Ethernet 3-2	getting, RefPages 2-73, 2-98
entry order for, YP 2-6n, 2-10n, 2-12n	setting, RefPages 2-172, 3-129
modifying for 2780/3780 Terminal Emulator,	real user ID
TermEmul 1–5	getting, RefPages 2-98
NFS entries in, NFS 2-4 to 2-6	setting, RefPages 2-173, 3-129
psuedoterminal permissions and ownership in,	realloc subroutine (special library), RefPages 3-555
CrashRec 1-4	realloc subroutine (standard C), RefPages 3-84,
with YP and NFS entries, NFS 4-5n	3–86
rcmd subroutine, RefPages 3-562	realm
See also rshd server	part of principal name, Kerberos 3-2
rcp command, RefPages 1-555, YP 4-6	within configuration file, Kerberos 4-4
rcvstore command, RefPages 1-557	reauthentication
rcvstore command (MH), BGB 6-13t	of Kerberos principal, Kerberos 1-3

reboot command, RefPages 8-291 relocation bit See also rc command removing, RefPages 1-654 reboot system call, RefPages 2-149 reminder service, RefPages 1-348 rebooting procedure, BasicInstall 3-3, 3-6 creating a calendar, RefPages 1-50 remnode command, RefPages 8-292 re_comp subroutine, RefPages 3-115 record See also addnode command definition of, nawk 1-2, RefPages 5-88 remote directory recovery See remote file system remote distribution service, TechSumm 2-9 during a system crash, CrashRec 2-1 to 2-5 recursion, nawk 7-3 remote error logging, ErrorLogger 2-2 recv command (ftp), RefPages 1-253 remote file recv system call, Network_Prog 2-6, RefPages 2-151 See also tip command See also send system call format of, RefPages 5-141 recvfrom system call, Network Prog 2-8, RefPages locking, NFS 3-3 2 - 151restoring, Backup 5-1 to 5-8 recvmsg system call, Network Prog 2-7 to 2-9, remote file system RefPages 2-151 backing up, Backup 4-1 to 4-12 red editor, BGB 3-1, RefPages 1-208 displaying mounted, NFS 3-2 re exec subroutine, RefPages 3-115 hard-mounted, NFS 4-1 refer preprocessor, RefPages 1-563 to 1-564 interrupt option and, NFS 3-2 See also indxbib command mounting, NFS 3-1 to 3-2, 4-3 See also lookbib command soft-mounted, NFS 4-1 reference page troubleshooting slow access, NFS 4-5 remote host See formatting accessing on line, RefPages 1-407 format file for, RefPages 5-141 formatting, RefPages 7-16, 7-24, 7-32 logging into, LAN A-6 printing, RefPages 1-407 remote installation environment refile command, RefPages 1-566 overview of, RIS 1-1 to 1-3 refile command (MH), BGB 6-13t preparing for the setup of, RIS 2-1 to 2-4 refresh macro, CursesX 1-3, 2-8, RefPages 3-256 remote installation services client refresh subroutine, RefPages 3-528 adding, RIS 3-3 to 3-5 regex keyword, RefPages 3-115 definition of, RIS 1-1 register command, LocBrok 2-2 modifying the registration of, RIS 3-6 regular expression, BGB 2-1 to 2-9, 4-1 removing, RIS 3-5 dynamic, nawk 3-4 remote installation services server rules for forming, BGB 2-2t maintaining, RIS 3-3 to 3-8 regular expression handler, RefPages 3-115 preparing to configure, RIS 2-1 to 2-4 rehash command (csh), RefPages 1-131 remote installation services server area relational data base operator, RefPages 1-298 installing software on, RIS 3-1 to 3-3 relational operator remote installation services utility in the shell, BGB 9-10 See ris utility relative path remote login server explanation of, Primer 3-5 See rlogind server

entries in, BIND/Hes A-1 See rmt program Remote Procedure Call reviewing, BIND/Hes 5-2 See RPC resolver configuration file remote shell server See resolv.conf file resolver routine, RefPages 3-117 See rshd server remote superuser resource record access privileges of, NFS 2-2n, 3-5 See also data file allowing NFS access, NFS 3-5, 3-5n, 3-8 See also data file entry definition of, BIND/Hes 2-1 remote system executing commands on, RefPages 5-74 respond command (mail), RefPages 1-396 logging into, RefPages 1-188 See also reply command (mail) specifying, RefPages 5-75 restart command (lpc), RefPages 8-188 restartterm subroutine, RefPages 3-259 specifying access to, RefPages 5-216 specifying devices for connecting to, RefPages restore command, Backup 1-2, RefPages 8-295 to See also rrestore command remote system file See L.sys file restoring file system with, Backup 3-10 remotehelp command (ftp), RefPages 1-253 restricted, RefPages 8-315 using, Backup 3-1 to 3-9 removeuser command, RefPages 8-7 invoking, SysEnviron 1-4 restore operation remque subroutine, RefPages 3-77 selecting a method for, Backup 1-2 rename command (ftp), RefPages 1-253 restoresymtable file rename system call, RefPages 2-153 removing, Backup 3-10 renice command, RefPages 8-293 return code using, SysEnviron 5-1 exit status, RefPages 1-1 repeat command (csh), RefPages 1-131 return command (dbx), RefPages 1-171 repl command, RefPages 1-568 return command (System V), RefPages 1-620 replay rev command, RefPages 1-573 **Reverse Address Resolution Protocol Daemon** protection against, Kerberos 1-4, 2-3 reply command (mail), RefPages 1-396 See rarpd program reply command (MH), BGB 6-13t reverse LAT, Ethernet B-1 repquota command, RefPages 8-294 reverse LAT connection **Request for Comments** See host-initiated connection See RFC reverse Polish notation rerun command (dbx), RefPages 1-169 explanation of, BGB 8-9 reset command, RefPages 1-572 rewind command (mt), RefPages 1-443 See also tset command rewind subroutine, RefPages 3-503 rewinddir subroutine, RefPages 3-27 reset command (ftp), RefPages 1-253 reset prog mode subroutine, RefPages 3-258 rewolffl command (mt), RefPages 1-443 rexec subroutine, RefPages 3-564 reset shell mode subroutine, RefPages 3-258 See rexecd server resetty subroutine, RefPages 3-257, 3-528 resolv.conf file, RefPages 5-143 rexecd server, RefPages 8-299 to 8-300 creating, BIND/Hes A-1

resolv.conf file (cont.)

remote mass storage protocol module

rexmt command (tftp), RefPages 1-695 RL02 console interface, RefPages 4-15 RL02 disk RFC, Network Prog 7-1 **RFC 822** pseudodisk partitions on, RefPages 4-121 address parsing of by MH system, RefPages 8-10 RL02 disk interface, RefPages 4-116, 4-121 date parsing and, RefPages 8-78 RL211 disk interface, RefPages 4-121 .rhosts file, RefPages 5-145, YP 3-2 rlogin command, RefPages 1-574 See also dgate command See also hosts.equiv file creating, LAN A-1 See also rcp command See also rlogind server network backup and, Backup 4-2 remote system superuser and, LAN A-2n See also tip command rlogind server, RefPages 8-303 restricting access to, YP 2-14 rindex subroutine (standard C), RefPages 3-147 rm command, Primer 2-10, 3-13, RefPages 1-580 to rint subroutine, RefPages 3-345 1-581 RM0X disk ris database adding multiple clients to, RIS 3-7 formatting, RefPages 8-99 removing multiple clients from, RIS 3-8 RM03 disk partitions on, RefPages 4-62 ris directory RM03 disk interface, RefPages 4-62 space requirements for, AdvInstall 2-8 RM05 disk ris utility, RefPages 8-301 partitions on, RefPages 4-62 Best reference, RIS RM05 disk interface, RefPages 4-62 database for, RIS 3-7 RM80 disk definition of, RIS 1-2 using from the command line, RIS 3-6 to 3-7 partitions on, RefPages 4-63 RM80 disk interface, RefPages 4-62 RISC processor rmail command, RefPages 1-578 forcing a crash dump on, CrashRec 2-4 to 2-5 rmauth command, RefPages 8-116 risn.mips area showing products in, RIS 3-5 rmdel command (sccs), RefPages 1-579 using, sccs 2-6 .rjed file rmdir command, Primer 3-13 definition of, TermEmul 1-4 rmdir command (ftp), RefPages 1-253 rjelog file rmdir command (general), RefPages 1-576 definition of, TermEmul 1-4 rmdir system call, RefPages 2-155 monitoring, TermEmul 2-8 rmf command, RefPages 1-580 rk interface See RK07 disk interface rmf command (MH), BGB 6-13t rmm command, RefPages 1-581 See RK711 disk interface rmm command (MH), BGB 6-13t RK07 disk rmt program, RefPages 8-305 to 8-306 formatting, RefPages 8-99 pseudodisk partitions on, RefPages 4-119 See also rcmd subroutine See also rexec subroutine RK07 disk interface, RefPages 4-119 RK711 disk interface, RefPages 4-119 rmtab file, RefPages 5-147 roffbib text processor, RefPages 1-582 rl interface root See RL02 disk interface See remote superuser See RL211 disk interface

root device **RPC** option specifying in the configuration file, Configfile 1-9 specifying in the configuration file, Configfile 18 **RPC** port mapper root directory changing, RefPages 2-37 See port mapper explanation of, Primer 3-1 RPC program number converting to DARPA protocol number, RefPages root file system controlling growth of, DMS 4-11 8-270 fsck and, Backup 4-7c rpc pseudodevice definition hierarchy of, RefPages 7-4 to 7-5, 7-9 specifying in the configuration file, Configfile 1-16 restoring, Backup 3-11 to 3-13 RPC routine, RefPages 3-432 to 3-471 root server RPC runtime library, DECrpc 1-3 **RPC** server definition of, BIND/Hes 1-4 list of, BIND/Hes 1-4 reporting information about, RefPages 8-312 setting up, BIND/Hes B-1n restarting services of, LocBrok 3-4 rootn.mips area, DMS 4-6 to 4-7 terminating services of, LocBrok 3-5 round-to-nearest function, RefPages 3-343, 3-345 rpc \$ status code route command, SysNetSetup 2-17 rpc_\$op_rng_error, DECrpc 5-10 route program, RefPages 8-307 to 8-308 rpc_allow_remote_shutdown, RefPages 3-434 See also routed program rpc.idl file, DECrpc 2-8 rpcinfo command, RefPages 8-312 routed daemon, SysNetSetup 2-16 NFS and, NFS 4-2 routed program, RefPages 8-309 to 8-311 See also route program rrestore command, Backup 1-2, RefPages 8-313 to 8-316 router, LAN 1-1 to 1-8, SysNetSetup 2-14 to 2-16 routing table, LAN 1-5 to 1-6, RefPages 4-3 See also rmt program managing, RefPages 8-309 to 8-311 using, Backup 5-1 to 5-7 RP0X disk rrestore program formatting, RefPages 8-99 command menu, Backup 5-3e RP05 disk list command, Backup 5-3e partitions on, RefPages 4-63 verbose command, Backup 5-4e RP05 disk interface, RefPages 4-62 rresvport subroutine, RefPages 3-562 RP06 disk rrpc \$ library routine, DECrpc 2-5 rrpc.idl file, DECrpc 2-9 partitions on, RefPages 4-62 RP06 disk interface, RefPages 4-62 rrpc inq interface, RefPages 3-473 RS-232 standard RP07 disk modems and, RefPages 4-186 partitions on, RefPages 4-63 RP07 disk interface, RefPages 4-62 RS422A standard, RefPages 4-22 RPC, Network Prog 6-1, 6-1 RS423A standard, RefPages 4-20 displaying statistics for, RefPages 8-248 rsh program, RefPages 1-584 RPC definition, DECrpc 1-3 See also rcp command rpc file See also rlogin command YP and, YP 1-5, 2-13 See also rshd server RPC handle rsh5 program, RefPages 1-613 to 1-622 definition of, DECrpc 1-13 rshd server, RefPages 8-317 to 8-318 types of, DECrpc 6-14

RSP	savecore command, RefPages 8-328
VAX-11/750 and, RefPages 4-17	generating crash dumps with, CrashRec 1-4 to 1-5
RT-11 format device	savetty subroutine, RefPages 3-257, 3-528
archiving, RefPages 8-13 to 8-17	sbrk system call, RefPages 2-26
rule	scan command, RefPages 1-590
definition of, nawk 1-2	scan command (MH), BGB 6-13t
syntax of, nawk 1-3	scandir subroutine, RefPages 3-120
run command (dbx), RefPages 1-169	scanf function, RefPages 3-512 to 3-515
run command (pdx), RefPages 1-501	scanf library routine, InterNatl 3-1
run queue	scanf subroutine, RefPages 3-290
showing average, RefPages 1-764	restrictions, RefPages 3-515
runique command (ftp), RefPages 1-253	scanw subroutine, RefPages 3-260, 3-528
runtime library, DECrpc 1-3	scat command, RefPages 1-592
ruptime command, RefPages 1-586	sccs command
rwhod server and, RefPages 8-320	modified version, sccs 3-2
ruserok subroutine, RefPages 3-562	SCCS directory
rwalld daemon, RefPages 8-319	setting up for a project, sccs 3-1 to 3-2
starting, NFS 2-7	SCCS file
rwho command	auditing changes in, sccs 2-6 to 2-7
rwhod server and, RefPages 8-320	changing parameters of, RefPages 1-14 to 1-18
rwho directory	changing the delta commentary of, RefPages 1-69
contents of, LAN A-6	checking for files being edited, sccs 2-4
rwho service	comparing, RefPages 1-597
description of, Network_Prog 4-5 to 4-7	creating, RefPages 1-14 to 1-18, sccs 2-1, 3-4
rwhod server, RefPages 8-320	data keywords and, RefPages 1-537
rx keyword	definition of, sccs 1-2
See RX33 disk interface	editing, sccs 2–2
RX01 console interface, RefPages 4-11	format of, RefPages 5-149 to 5-151
RX02 floppy disk	getting, RefPages 1-261 to 1-266, sccs 2-2, 2-5,
formatting, RefPages 8-322	3-4
RX33 disk interface, RefPages 4-132	getting version number of, sccs 2-4
RX50 console interface, RefPages 4-16	identifying, RefPages 1-757
rxformat program, RefPages 8-322	maintaining branches in, sccs 3-4 to 3-5
rz interface, RefPages 4-125	merging a branch in, sccs 3-4
rzdisk utility, RefPages 8-323	merging changes in, sccs 2-3
using, DiskMaint 4-9 to 4-13	operations on, sccs 1-1
	printing, RefPages 1-537, 1-589
S	reconstructing, RefPages 1-88
	recording changes to, RefPages 1-593
sa command, RefPages 8-326	removing a delta, RefPages 1-579
See also ac command	restoring old version of, sccs 2-5 to 2-6
sact command (sccs), RefPages 1-589	specifying release number of, sccs 2-5
save command (mail), RefPages 1-396	ungetting, RefPages 1-719
	validating, RefPages 1-733

SCCS file (cont.)	SCSI disk interface, RefPages 4-125 to 4-126
version control and, RefPages 1-735	scsi keyword, RefPages 4-195
SCCS identification string	SCSI magnetic tape interface
See SID	nbuf keyword, RefPages 4-195
sccs keyword, RefPages 5-149	scsnet pseudodevice definition
sccs preprocessor, RefPages 1-593 to 1-596, sccs	specifying in the configuration file, Configfile 1-16
1–1	scs_sysid parameter
Best reference, sccs	specifying in the configuration file, Configfile 1-7
See also get command (sccs)	sdc interface
See also SCCS file	See RD31 disk interface
See also sccshelp command	See RD32 disk interface
changing file with, RefPages 1-182 to 1-184	See RD53 disk interface
commands for, sccs 2-8 to 2-10	See RD54 disk interface
for multiperson project, sccs 3-1	See RX33 disk interface
restoring lost file with, sccs 3-3	secondary server, SysNetSetup 3-8 to 3-10
shorthand notation for, sccs 2-7	secsetup command, RefPages 8-330
terminology for, sccs 1-2 to 1-3	secsetup script, Kerberos 5–2
using make command with, sccs 3-5 to 3-9	sector, AdvInstall 2-1
using shell alias with, sccs 2-8	definition of, DiskMaint 1-1
sccsdiff command, RefPages 1-596, 1-597	security
comparing two deltas with, sccs 2-7	See system security
sccsfile	security level, LAN 2-4 to 2-6
See SCCS file	changing from BSD to ENHANCED, LAN 2-5
sccshelp command, RefPages 1-596 to 1-598	sed command, RefPages 1-600
scientific notation, nawk 1-4	sed editor, BGB 3-2
screen	using, BGB 3-15 to 3-22
updating, RefPages 3-193, 3-528	seed48 subroutine, RefPages 3-31
updating with user input, CursesX 1-2	seekdir subroutine, RefPages 3-27
SCREEN type, CursesX 2-1	segmentation fault
script, Primer 7–8	forcing (VAX), CrashRec 2-2 to 2-3
script command, RefPages 1-599	select system call, Network_Prog 2-10, RefPages
scroll subroutine, RefPages 3-261, 3-528	2–157
scrollok subroutine, RefPages 3-262, 3-528	See also trace command (general)
scs interface, RefPages 4-129	See also trace file
SCSI controller	semaphore
specifying in the configuration file, Configfile	getting, RefPages 2-161
1–13e	operations for, RefPages 2-159, 2-163 to 2-165
SCSI device driver, RefPages 4-130	semaphore set
SCSI disk, RefPages 4-130	removing, RefPages 1-294
Additional Sense Code and, DiskMaint 4-7	reporting the status of, RefPages 1-295
formatting, DiskMaint 4-12	semctl system call, RefPages 2-159 to 2-160
handling bad blocks on, DiskMaint 4-1	semget system call, RefPages 2-161
managing, RefPages 8-323	See also ftok subroutine
recovering from errors on, DiskMaint 4-7 to 4-9	See also semctl system call

semget system call (cont.) server (cont.) See also semop system call registering with the RPC runtime library, DECrpc semop system call, RefPages 2-163 to 2-165 5-19 See also semctl system call RPC server, DECrpc 1-7 See also semget system call spoofing, SysNetSetup 3-4 send command, RefPages 1-603 using library routines in, DECrpc 2-3 to 2-4 send command (ftp), RefPages 1-253 writing, DECrpc 5-10 to 5-21 send command (MH), BGB 6-13t YP name service and, SysNetSetup 3-12 send command (TELNET), RefPages 1-686 server name send system call, Network Prog 2-6, RefPages 2-166 defining, Ethernet 3-2 See also recv system call server process sendmail aliases, SysEnviron 1-15 to 1-16 See client/server model sendmail command service processing aliases for, SysEnviron 1-16 advertising, X/OpenTransport 1-5 sendmail daemon service node, Ethernet 2-1 See also uuencode command requirements for, Ethernet 2-5 restarting, NFS 3-6 service node circuit ID, Ethernet 2-5 terminating, NFS 3-6 service order file sendmail program, RefPages 8-331 See svc.conf file See also aliases file services file, LAN A-5 sendmsg system call, RefPages 2-166 See also inetd.conf file sendo system call, Network_Prog 2-8 format of, RefPages 5-154 sendport command (ftp), RefPages 1-254 getting entry from, RefPages 3-379 sendto system call, RefPages 2-166 specifying port in, BIND/Hes 1-1 YP and, YP 1-5, 2-13 sequenced packet services order file See socket system call serial line controller See svc.conf file dc, RefPages 4-26 session serial line interface creating, RefPages 2-174 adding, RefPages 4-19 session key, Kerberos 2-1 servent structure definition of, Kerberos 1-4 See data structure session layer server, X/OpenTransport 1-5 to 1-6 See ISO reference model See also client set, DECrpc 6-12 BIND/Hesiod, Kerberos 4-2, 5-2 set command (csh), RefPages 1-131 BIND/Hesiod and, SysNetSetup 3-8 set command (mail), RefPages 1-396 to 1-398 client and, NFS 1-2 See also unset command (mail) definition of, DECrpc 1-3, DMS 1-1, ErrorLogger set command (sh), RefPages 1-610 1-1, NFS 1-1, RIS 1-1 set command (System V), RefPages 1-620 identifying, DECrpc 5-9 set command (TELNET), RefPages 1-687 Kerberos, Kerberos 3-1, 4-1 to 4-3 setauth command, RefPages 8-116 looking up by interface, DECrpc 5-5 setauthfile subroutine, RefPages 3-51 manager code for, DECrpc 5-21 set_broker command, LocBrok 2-3 registering with the Location Broker, DECrpc 5-20

setbuf subroutine, RefPages 3-517 setpgid function, RefPages 3-127 setbuffer subroutine, RefPages 3-517 setpgrp system call, RefPages 2-169 setdomainname system call, RefPages 2-71 See also getpgrp system call setegid subroutine, RefPages 3-129 setpriority system call, RefPages 2-85 setenv command (csh), RefPages 1-131 setprotoent procedure, Network Prog 2-15 seteuid subroutine, RefPages 3-129 setprotoent subroutine, RefPages 3-377 setpwent subroutine, RefPages 3-65 setfsent subroutine, RefPages 3-534 setgid subroutine, RefPages 3-129 setpwfile subroutine, RefPages 3-65 setgrent subroutine, RefPages 3-56 setquota system call, RefPages 2-170 setgroups system call, RefPages 2-168 See also quota system call See also groups command See also quotacheck command sethostent procedure, Network Prog 2-13 See also quotaon command sethostent subroutine, RefPages 3-373 setregid system call, RefPages 2-172 sethostid system call, RefPages 2-75 setreuid system call, RefPages 2-173 sethostname system call, RefPages 2-76 setrgid subroutine, RefPages 3-129 setitimer system call, RefPages 2-77 setrlimit system call, RefPages 2-87 See pause subroutine setrpcent subroutine, RefPages 3-67 setimp subroutine, RefPages 3-123 setruid subroutine, RefPages 3-129 setld command setscrreg subroutine, RefPages 3-263 using, SysEnviron 4-1 to 4-2 setservent procedure, Network Prog 2-16 setId utility, RefPages 8-337 setservent subroutine, RefPages 3-379 Best reference, setld setsid system call, RefPages 2-174 benefits of using, setld 1-2 setsockopt system call, Network Prog 2-10, command options for, setld 7-1 to 7-4 RefPages 2-93 files used in, setld 3-1 to 3-6 See also trpt command files used with, RefPages 5-168 to 5-171 setstate subroutine, RefPages 3-113 setsysinfo system call, RefPages 2-175 formating distribution kits with, RefPages 1-302 kit production requirements for, setld 1-2 set term subroutine, RefPages 3-265 newinv utility and, RefPages 1-462 setterm subroutine, RefPages 3-528 operation of, setld 2-1 settimeofday system call, RefPages 2-97 overview of, setld 1-1 set timeout command, LocBrok 2-3 producting kits with, setld 1-3 settyent subroutine, RefPages 3-71 reproducing kits with, setld 6-1 to 6-3 setuid subroutine, RefPages 3-129 specifying compressed format for files, RefPages setupterm subroutine, RefPages 3-264 5-165 setvbuf subroutine, RefPages 3-517 subset size, RefPages 8-94 s-file verifying software subsets with, RefPages 8-109 See SCCS file setlinebuf subroutine, RefPages 3-517 sg interface setlocale library routine, InterNatl 3-1 to 3-4 See color video subsystem setlocale subroutine, RefPages 3-124 sgttyb file, RefPages 4-187 to 4-188 setnetent procedure, Network Prog 2-14 sh command (pdx), RefPages 1-503 setnetent subroutine, RefPages 3-375 sh command interpreter, RefPages 1-606 to 1-612 setnetgrent subroutine, RefPages 3-626 See also echo command See also false command

sh command interpreter (cont.)	showmount command, RefPages 8–344
See also wait command (general)	See also rmtab file
sh interface	-e option and, NFS 2-3
See DHT32 serial line interface	system security and, NFS 3-7
sh5 command interpreter, RefPages 1-613 to 1-623	shutdown command, RefPages 8-345
shared memory	Best reference, Shutdown
control operations for, RefPages 2-177	shutting down multiuser mode, Shutdown 1-1e
exercising, RefPages 8-342	shutdown system call, Network_Prog 2-8, RefPages
getting, RefPages 2-179	2–183
reporting status of, RefPages 1-295	SID
shared memory ID	definition of, RefPages 1-594, sccs 1-3
removing, RefPages 1-294	sigaction system call, RefPages 3-131
shared memory operation, RefPages 2-181	sigaddset subroutine, RefPages 3-143
shared memory segment	sigblock system call, RefPages 2-184
specifying in the configuration file, Configfile 1-6	See also sigpause system call
shell, Primer 4-1 to 4-17, 7-1, TechSumm 2-1 to 2-3	See also sigsetmask system call
issuing commands in, RefPages 3-176	See also sigsuspend system call
writing scripts for, BGB 9-1 to 9-7	SIGCHLD signal
shell command (mail), RefPages 1-396	See signal
shell script, BGB 9-1 to 9-3	sigdelset subroutine, RefPages 3-143
mkconsole, RefPages 8-211	sigemptyset subroutine, RefPages 3-143
SHELL string, RefPages 7-3	sigfillset subroutine, RefPages 3-143
shexp command, RefPages 1-624	siginterrupt, RefPages 3–132
shift command (csh), RefPages 1-131	SIGIO signal
shift command (sh), RefPages 1-611	See signal
shift command (System V), RefPages 1-621	sigismember subroutine, RefPages 3-143
shift macro, RefPages 1-389	siglongjmp subroutine, RefPages 3-142
shmat system call, RefPages 2-181	signal, Network_Prog 3-6, RefPages 2-184 to 2-186,
See also shmctl system call	3–143
shmctl system call, RefPages 2-177 to 2-178	See also signal mask
shmdt system call, RefPages 2-181	blocking, RefPages 3-140
See also shmget system call	changing action, RefPages 3-137
shmget system call, RefPages 2-179	changing action for, RefPages 3-133
See also ftok subroutine	releasing blocked, RefPages 3-145
See also shmctl system call	signal handler
See also shmop system call	assigning, RefPages 2-189 to 2-194, 3-131
shmop system call, RefPages 2-181	signal mask
shmx exerciser, Exercisers 2-3, RefPages 8-342	setting, RefPages 2-187
short bitset type, DECrpc 6-12	signal message
short enum type, DECrpc 6–12	getting, RefPages 3-108
short type, DECrpc 6-11	signal stack
show command, RefPages 1-626	getting context of, RefPages 2-188
show command (MH), BGB 6-13t	setting context of, RefPages 2-188

signal subroutine (standard C), RefPages 3-133, slave server (cont.) 3-137 See also YP slave server mapping hardware traps to, RefPages 3-139 definition of, BIND/Hes 1-6 return value, RefPages 3-136, 3-138 slave system signal list, RefPages 3-133, 3-137 definition of, Backup 4-1 signature of operation sleep command, RefPages 1-631 handles parameters in, DECrpc 6-4 sleep subroutine (standard C), RefPages 3-146 restrictions to, DECrpc 6-4 slocal command, RefPages 1-632 sign-on card, TermEmul 2-1, 2-1e sm interface creating default, TermEmul 2-6 See monochrone video subsystem specifying unique, TermEmul 2-5 **Small Computer System Interconnect** signon file, TermEmul 2-1 See SCSI disk sigpause system call, RefPages 2-185 small type, DECrpc 6-11 sigpending system call, RefPages 2-186 small VAX serial line interface, RefPages 4-140 sigprocmask system call, RefPages 3-140 smbrk parameter sigsetimp subroutine, RefPages 3-142 specifying in the configuration file, Configfile 1-6 sigsetmask system call, RefPages 2-187 smmax parameter sigstack system call, RefPages 2-188 specifying in the configuration file, Configfile 1-6 **SMP** sigsuspend system call, RefPages 3-145 SIGURG signal kgconv, RefPages 8-149 startcpu, RefPages 2-203, 8-353 See signal sigvec system call, RefPages 2-189 to 2-196 stopcpu, RefPages 2-207, 8-357 See also signal subroutine (standard C) tools for controlling, TechSumm 2-9 simple command **SMP** option definition of, RefPages 1-606, 1-613 specifying in the configuration file, Configfile 1-8 Simple Network Management Protocol smseg parameter See SNMP specifying in the configuration file, Configfile 1-6 simple type, DECrpc 6-11 smsmat parameter sin subroutine, RefPages 3-362 specifying in the configuration file, Configfile 1-6 sin subroutine (math), RefPages 3-364 snapcopy command, RefPages 8-349 sinclude macro, RefPages 1-389 snapshot file, RefPages 8-349 sine function, RefPages 3-364 sndmsg system call, Network Prog 2-7, 2-9 single-user mode SNMP, Network Prog 7-1, SysNetSetup 2-10n booting from, Shutdown 2-1 community variable in, LAN 3-2 configuring network interfaces for, SysNetSetup ending, Shutdown 2-3 sinh subroutine (math), RefPages 3-367 2 - 11size command (general), RefPages 1-630 overview of, LAN 3-1 to 3-2 size command (mail), RefPages 1-396 relationship between components of, LAN 3-4f sizer program, RefPages 8-347 retrieving MIB variables from, LAN 3-4 setting up, LAN 3-5, RefPages 8-352 slave pseudoterminal **ULTRIX** implementation definition of, RefPages 4-102 slave server, Kerberos 3-1, 4-2 to 4-8, SysNetSetup restriction in, LAN 3-1n 3-8 to 3-15 **SNMP Agent** See also BIND/Hesiod slave See agent

SNMP community	socket (cont.)
definition of, LAN 3-2	obtaining type of, Network_Prog 2-10
SNMP Extended Agent	queuing connections to, RefPages 2-105
See extended agent	raw, Network_Prog 3-1
snmpd, RefPages 8-350 to 8-351	reading data from, Network_Prog 2-11, RefPages
snmpd daemon, SysNetSetup 2-10	2–145
See also agent	receiving message from, RefPages 2-151
snmpd.conf file, LAN 3-2 to 3-5, Network_Prog 7-7,	sending message from, RefPages 2-166
SysNetSetup 2-10	setting options for, RefPages 2-93
definition of, RefPages 5-155	shutting down full-duplex connection, RefPages
parameters in, RefPages 5-155 to 5-156, 5-156	2–183
snmpext routine, RefPages 3-383	stream, Network_Prog 2-3
snmpexterror routine, Network_Prog 7-6	unsuccessful connection to, Network_Prog 2-5
snmpextgetregister routine, Network_Prog 7-6	writing, RefPages 2-228
snmpextgetreq routine, Network_Prog 7-6	socket abstraction, DECrpc 1-3, LocBrok Glossary-1
snmpextrespond routine, Network_Prog 7-6	socket address, DECrpc 1-3
snmpsetup command, RefPages 8-352	data structure for, DECrpc 1-4
definition of, LAN 3-5	relationship to port numbers, DECrpc 1-4,
SOA data file entry	LocBrok Glossary-3
definition of, BIND/Hes 2-8	socket option
sockaddr	obtaining information about, Network_Prog 2-10
See data structure	SO_LINGER, Network_Prog 2-7
SOCK_DGRAM	SOL_SOCKET, Network_Prog 2-10
See socket type	SO_OOBINLINE, Network_Prog 3-9
SOCK_DGRAM socket type, RefPages 2-199	SO_TYPE, Network_Prog 2-10
socket	socket routine, RefPages 3-477 to 3-487
See also nonblocking socket	socket system call, Network_Prog 2-3 to 2-8,
See also socket option	RefPages 2-198 to 2-200
See also socket type	socket type
accepting connection to, RefPages 2-10	defining, Network_Prog 2-10
binding an address to, Network_Prog 2-4	SOCK_DGRAM, Network_Prog 2-10
binding to a name, RefPages 2-22	socket_\$ library routine, DECrpc 2-5
creating, Network_Prog 2-3, RefPages 2-198	socket.idl file, DECrpc 2-8
creating connected pair of, RefPages 2-202	socketpair system call, RefPages 2-202
datagram for, Network_Prog 2-3	See also getpeername system call
defined types of, RefPages 2-198	See also pipe system call
getting name of, RefPages 2-92	SOCK_RAW socket type, RefPages 2-199
getting options for, RefPages 2-93	SOCK_SEQPACKET socket type
getting peer name of, RefPages 2-82	definition of, RefPages 2-199
how to obtain, DECrpc 5-19	SOCK_STREAM socket type
initiating a connection with, RefPages 2-41	definition of, RefPages 2-199
lingering, Network_Prog 2-7	soelim command, RefPages 1-636
listening on, Network_Prog 2-5	SO_ERROR
multiplexing synchronous I/O, RefPages 2-157	See error message

software	source command (mail), RefPages 1-396
addition of by users, TechSumm 2-10 to 2-11	source command (pdx), RefPages 1-503
backing up, Backup 1-1 to 1-3	source language file, InterNatl B-1e
software distribution device	sp driver, RefPages 4-139
description of, BasicInstall 1-2	SPACE file
software distribution kit	creating, setld 5-6
components of, BasicInstall 1-3	space subroutine, RefPages 3-559
producing inventory records for, RefPages 1-291	sparse array, DECrpc 7-8e to 7-9e
subset control files for, RefPages 5-166	sparse file, RefPages 1-592
software distrubtion kit	creating, CrashRec 1-5
producing, RefPages 1-680	special file, Ethernet 3-2
software subset, SysEnviron 4-1	building, RefPages 8-214
definition of, AdvInstall 2-10	creating, RefPages 2-110, 3-90, SysEnviron 3-1
description of, AdvInstall A-1 to B-4	terminal, Ethernet 2-6, SysEnviron 1-8
installing, BasicInstall 3-4, RefPages 8-337	spell command, RefPages 1-645 to 1-646
listing and removing, DMS 4-11	spellin command, RefPages 1-645
listing and selecting, DMS 3-3 to 3-4	spellout command, RefPages 1-645
RISC unsupported, AdvInstall C-1	spline command, RefPages 1-647
selecting, AdvInstall 3-12	split command, RefPages 1-648
space requirements for, AdvInstall 2-10 to 2-13	spool directory
VAX unsupported, AdvInstall C-2	cleaning, TermEmul 2-8
verifying, RefPages 8-109	requirements for uucp, uucp 2-10 to 2-12
software subset compression file, RefPages 5-165	setting up, Ethernet 3-4
software subset control file, RefPages 5-166	spooler, TechSumm 2-1
SO_LINGER	sprintf function, nawk 5-5, RefPages 3-506
See socket option	sprintf subroutine, RefPages 3-288
SOL_SOCKET	SQL, TechSumm 2-5
See socket option	See also the ULTRIX/SQL documentation
SO_OOBINLINE option	sqrt subroutine (math), RefPages 3-341
See socket option	square root function, RefPages 3-341
sort command, RefPages 1-637 to 1-638	srand subroutine, RefPages 3-112
See also look command	srand48 subroutine, RefPages 3-31
See also uniq command	srandom subroutine, RefPages 3-113
sort routine, RefPages 3–111	srvtab file, Kerberos 4–12
sort5 command, RefPages 1-639	adding kprop to, Kerberos 4-7
sortbib command, RefPages 1-642	ss interface
sortm command, RefPages 1-643	See small VAX serial line interface
sortm command (MH), BGB 6-13t	sscanf function, RefPages 3-512
SO_TYPE	sscanf subroutine, RefPages 3-290
See socket option	ssmin parameter
source code control system preprocessor	specifying in the configuration file, Configfile 1-6
See sccs preprocessor	stab file
source command (csh), RefPages 1-131	See also nm command
	format of, RefPages 5-160 to 5-163

stack segment	step command (dbx), RefPages 1-170
specifying in the configuration file, Configfile 1-6	step command (pdx), RefPages 1-502
staging area	sticky file, RefPages 8-355 to 8-356
definition of, Backup 4-3	removing, RefPages 8-356
staging area backup method	stime system call, RefPages 3-160
See also direct backup method	See also gettimeofday system call
definition of, Backup 4-3	stl_comp file, RefPages 5-165
description of, Backup 4-9 to 4-11	stl_ctrl file, RefPages 5-166
staging area file, Backup 4-9	stop command (csh), RefPages 1-132
standalone environment, Shutdown 4-1 to 4-3	stop command (dbx), RefPages 1-170
standard buffered input/output package	stop command (lpc), RefPages 8-189
See stdio macro package	stop command (pdx), RefPages 1-502
standard input	stopi command (pdx), RefPages 1-503
reading from, BGB 9-7	store subroutine, RefPages 3-530
standard I/O	storeauthent subroutine, RefPages 3-51
subroutines for, RefPages 3-510	strcat subroutine, RefPages 3-147
standard time status	See also bcopy subroutine
specifying, BasicInstall 3-3	strchr subroutine, RefPages 3-147
standend subroutine, RefPages 3-203, 3-528	strcmp subroutine, RefPages 3-147
standout subroutine, RefPages 3-203, 3-528	strcoll library routine, InterNatl 3-1
start command (lpc), RefPages 8-189	strcoll subroutine, RefPages 3-163
stat system call, RefPages 2-204 to 2-205	strcpy subroutine, RefPages 3-147
See also ustat system call	strcspn subroutine, RefPages 3-147
statd	stream
directory, RefPages 5-164	See socket
file structures, RefPages 5-164	appending, RefPages 3-502
statd daemon, RefPages 8-354	assigning buffering to, RefPages 3-517
statmon, RefPages 5-164	closing, RefPages 3-497
status command (dbx), RefPages 1-170	definition of, RefPages 3-493
status command (ftp), RefPages 1-254	flushing, RefPages 3-497
status command (lpc), RefPages 8-189	getting data from, RefPages 3-504 to 3-505
status command (mt), RefPages 1-443	opening, RefPages 3-500
status command (pdx), RefPages 1-502	pushing character back, RefPages 3-522
status command (TELNET), RefPages 1-685	putting data on, RefPages 3-510 to 3-511
status command (tftp), RefPages 1-695	reading, RefPages 3-502
status parameter	repositioning, RefPages 3-503
checking, DECrpc 5-13e	returning to remote command, RefPages 3-562
in interface definitions, DECrpc 5-13, 6-10	3–564
initializing, DECrpc 5-14e, 5-22	status queries for, RefPages 3-498
use of, DECrpc 5-13	stream text editor, RefPages 1-600
stc interface	streaming mode
See TZK50 magnetic tape interface	definition of, Backup 4-3
stdio macro package, RefPages 3-493 to 3-494	strextract command, InterNatl 2-2, 2-8

strextract utility, RefPages 1-650 su command, RefPages 1-667 strftime library routine, InterNatl 3-1 sub function, nawk 5-4 to 5-5 strftime subroutine, RefPages 3-164 subnet routing, LAN 1-7 to 1-10, SysNetSetup 2-2 to string concatenating, nawk 5-3 subroutine definition of, nawk 1-4, RefPages 1-652 See also specific subroutines matching expressions with, nawk 3-4 executing at a specified time, RefPages 3-8 operations on null-terminated, RefPages 3-147 subroutines operations on variable-length, RefPages 3-14 international, RefPages 3-277 types of, DECrpc 6-13 subscript string extraction using strings as, nawk 6-2 description of, InterNatl 2-2 subset string keyword, RefPages 3-147 See software subset string substitution, NFS 2-15 substr function, nawk 5-5 string terminator, DECrpc 6-13 substr macro, RefPages 1-389 strings command, RefPages 1-652 subwin subroutine, RefPages 3-266, 3-528 strip command, RefPages 1-654 sum command, RefPages 1-669 strlen subroutine, RefPages 3-147 See also wc command strmerge command, InterNatl 2-2, 2-8 sunique command (ftp), RefPages 1-254 strmerge utility, RefPages 1-655 superblock, DiskMaint 1-2 strncat subroutine, RefPages 3-147 updating, RefPages 1-671, 8-392 strncmp subroutine, RefPages 3-147 superuser password strncpy subroutine, RefPages 3-147 See also password strpbrk subroutine, RefPages 3-147 logging in with, BasicInstall 3-7 strrchr subroutine, RefPages 3-147 specifying, AdvInstall 3-4, BasicInstall 3-3 strspn subroutine, RefPages 3-147 suspend command (csh), RefPages 1-132 strtod subroutine, RefPages 3-10 svc.conf command strtok subroutine, RefPages 3-147 options, RefPages 8-358 strtol subroutine, RefPages 3-10 svc.conf file, Kerberos 5-2, LAN A-5, RefPages struct command (ftp), RefPages 1-254 5-173 definition of, LAN 2-1 structure, DECrpc 6-13 open arrays in, DECrpc 6-8 editing manually, BIND/Hes 3-4 Structured Query Language incorrect, YP 4-4 See SQL modifying, YP 2-6 strxfrm library routine, InterNatl 3-1 service order in, BIND/Hes 3-4, SysNetSetup 3-18, YP 2-8 strxfrm subroutine, RefPages 3-169 stty command, RefPages 1-658 setting up, BIND/Hes 3-2, SysNetSetup 3-18 See also tset command svcsetup command, RefPages 8-358, SysNetSetup See also tty command 3 - 18definition of, BIND/Hes 3-2, YP 2-6 stty subroutine, RefPages 3-170 See also ioctl system call svcsetup script, Kerberos 5-3 SVID, TechSumm 2-2 stub, DECrpc 1-2 style program, RefPages 1-666 swab subroutine, RefPages 3-171 See also diction program

swap area	sysconf subroutine, RefPages 3-174
specifying in the configuration file, Configfile 1-9	syscript command, RefPages 8-361
swap file	See also cmx exerciser
estimating disk space for, DMS 2-4	See also dskx exerciser
specifying a location for, DMS 4-3	See also fsx exerciser
specifying the size of, DMS 4-3e	See also lpx exerciser
swap space	See also memx exerciser
See also swap1 space	See also mtx exerciser
See also swap2 space	See also netx exerciser
allocating, DiskMaint 1-7	See also shmx exerciser
crash dump space and, AdvInstall 2-3	testsuite file and, Exercisers 1-2
definition of, AdvInstall 2-3	sys_errlist subroutine, RefPages 3-105
establishing size of, DiskMaint 1-2	syslog command, RefPages 8-362 to 8-363
requirements for, AdvInstall 2-3	syslog file, LAN A-6
swap1 space	entry format for, uucp 3-5
allocating, AdvInstall 3-8	reviewing, BIND/Hes 5-3
swap2 space	syslog subroutine, RefPages 3-175
allocating, AdvInstall 3-9	See syslog command
swapfrag parameter	sys_nerr subroutine, RefPages 3-105
specifying in the configuration file, Configfile 1-5	sys_siglist subroutine, RefPages 3-108
swapon command, RefPages 8-360	system
See also fstab file	See also host ID
swapon system call, RefPages 2-208	See also host name
switch command (csh), RefPages 1-132	backing up, Backup 2-1 to 2-8, BasicInstall 1-4,
symbol table, RefPages 5-175	RefPages 8-261
displaying, RefPages 1-473	booting, Shutdown 2-1 to 2-4
removing, RefPages 1-654	changing user information for, RefPages 1-77
updating, RefPages 1-670	displaying statistics for, RefPages 8-273
symbol type	getting name of, RefPages 2-217
reference list of, RefPages 1-473	getting version number of, RefPages 2-217
symbolic link, RefPages 1-360	halting, Shutdown 1-2
symlink system call, RefPages 2-209	hanging during boot, NFS 4-5
See also readlink system call	identifying machine type of, RefPages 2-217
See also stat system call	listing user information on, RefPages 1-234
symmetrical multiprocessing	logging message on, RefPages 8-362
See SMP	managing performance of, SysEnviron 5-1 to 5-4
symorder command, RefPages 1-670	rebooting, AdvInstall 3-3, Ethernet 2-3, RefPages
sync command, RefPages 1-671	2–149
See also sync system call	reporting statistics for, RefPages 1-750
sync system call, RefPages 2-211	resetting date on, RefPages 8-287
See also update program	resetting time on, RefPages 8-287
syscall system call, RefPages 2-212 to 2-213	setting up after installation, AdvInstall 4-26
syscmd macro, RefPages 1-389	showing login time on, RefPages 1-752
	showing run queue average, RefPages 1-721,
	1–752

system (cont.)	system disk (cont.)
showing uptime, RefPages 1-721, 1-752, 1-764	selecting, AdvInstall 3-1
showing user activity, RefPages 1-752, 1-764	system disk drive
showing users, RefPages 1-722, 1-764	definition of, BasicInstall 1-2
showing users on, RefPages 1-752	selecting, BasicInstall 3-2
shutting down, RefPages 8-345, Shutdown 1-1 to	system disk partition
1–3	changing the disk partition table, BasicInstall 3-2
sizing, RefPages 8-347	system environment
specfying information about, AdvInstall 3-4	establishing, SysEnviron 1-1 to 1-18
syscript command, Exercisers 1-2	modifying system files, SysEnviron 1-1
testing, Exercisers 1-2	system error logger
system accounting	automount error messages and, NFS A-3
space requirements for, AdvInstall 2-7	system error report
system administration, TechSumm 2–8 to 2–9	producing without superuser privileges,
system call	ErrorLogger 4–1
See also specific system calls	system exerciser
See also specific system commands	Best reference, Exercisers
definition of, Network_Prog 2-1	description of, Exercisers 1-1 to 1-3
introduction to, RefPages 2-1	disk drive, Exercisers 3-1
performing indirect, RefPages 2-212 to 2-213	file system, Exercisers 2-1
POSIX environment and, RefPages 2-1	help facility for, Exercisers 1-1
System V environment and, RefPages 2-1	in a diskless environment, Exercisers 1-1n
system call tracer, RefPages 1-705	line printers, Exercisers 3-8
See also system call tracer device	memory, Exercisers 2-2
system call tracer device, RefPages 5-207	network, Exercisers 4-1
system call tracing interface, RefPages 4-177	running, RefPages 8-361
system clock daemon, SysEnviron 1–16	tape drives, Exercisers 3-2
system configuration, TechSumm 2–8	terminal communications, Exercisers 4-2
system configuration file, Ethernet 2–1, 2–6	system file
See configuration file (system)	group, SysEnviron 1-6
system console	modifying, SysEnviron 1-1
setting up, SysEnviron 2-5	passwd, SysEnviron 1-1
system crash, RefPages 8-67 to 8-69	terminal, SysEnviron 1-8
forcing a crash dump, CrashRec 2-1 to 2-5	system function, nawk 8-3
recovering from, CrashRec 2-1 to 2-5	system generation, TechSumm 2-8
system data types	system idl directory, DECrpc 2–8
accessible, RefPages 5-211	system image definition
system date	specifying in the configuration file, Configfile 1-8
setting, LAN A-4	to 1–10
system disk, AdvInstall 2-2	system information
Best reference, DiskMaint	specifying, AdvInstall 3-4, BasicInstall 3-3
files on that are overwritten during installation,	system log
BasicInstall 1-4	controlling, RefPages 3-175
partitions of, DiskMaint 1–7	

system management, TechSumm 2-7 to 2-10	SYS_TRACE option
system modification, TechSumm 2-8	specifying in the configuration file, Configfile 1-7
system name	sys_trace pseudodevice definition
choosing, AdvInstall 3-4	specifying in the configuration file, Configfile 1-16
specifying during basic installation, BasicInstall	
3-3	Т
specifying in the configuration file, Configfile 1-4	
system reboot	TA90 magnetic tape interface, RefPages 4-175
effect of on file system, CrashRec 1-2	tab character
system security, SysNetSetup 3-6t	changing to spaces, RefPages 1-223
See also the Guide to Languages and	table
Programming	creating with tbl, BGB 5-1
See also the Security Guide for Administrators	formatting, RefPages 1-682
See also the Security Guide for Users	table column
BSD level, Kerberos 5-2	See field
ENHANCED level, Kerberos 5-4	tabs command, RefPages 1-672
NFS and, NFS 3-4 to 3-8	See also term command
of reusable ticket, Kerberos 2-3	t_accept system call, RefPages 3-569
UPGRADE level, Kerberos 5-1 to 5-3	t_accept(), X/OpenTransport 2-10, 2-15
uucp and, <i>uucp</i> 3–8 to 3–12	tag
YP and, YP 3–1 to 3–3	in unions, DECrpc 6-13, 6-14
system security level, LAN 2-4 to 2-6	tags file
system setup	See ctags command
adding LAT devices, SysNetSetup 1–8	tail command, RefPages 1-673
adding printers, SysNetSetup 1–12	talk command, BGB 7-2
adding users, SysNetSetup 1–2	talk program, RefPages 1-674
establishing disk quotas, SysNetSetup 1–16	See also mesg command
system status server	See also talkd server
rwhod server, RefPages 8–320	See also write command
system subroutine (standard C), RefPages 3–176	talkd server, RefPages 8-365
system time	t_alloc system call, RefPages 3-572
setting, LAN A-4	t_alloc(), X/OpenTransport 2-10, 2-15 to 2-16, 4-3
specifying, BasicInstall 3–3	tan subroutine, RefPages 3-362
System V environment	tan subroutine (math), RefPages 3-364
specifying, RefPages 3–2	tanh subroutine (math), RefPages 3-367
SYSTEM V shell	tape drive
See shell	See magnetic tape drive
system verification, TechSumm 2-8	tape mark
Systems Communications Services interface	definition of, RefPages 5-88
See scs interface	Tape Mass Storage Control Protocol
SYS TPATH option	TMSCP magnetic tape interface, RefPages 4-175
specifying in the configuration file, Configfile 1–8	tape media
sys_tpath pseudodevice definition	making, setld 5-7
specifying in the configuration file. Configlie 1–16	

tapex exerciser, Exercisers 3-3 to 3-8 **TELNET** protocol server tapex program, RefPages 8-366 to 8-367 See telnetd server tar command, RefPages 1-676 to 1-679 telnet user interface, RefPages 1-685 See also ar program telnetd server, RefPages 8-372 See also mdtar command tempnam subroutine, RefPages 3-520 See also tar file temporary file using, Backup 1-2, 2-2, 3-13 creating, RefPages 3-519 tar file naming, RefPages 3-520 format of, RefPages 5-176 term command, RefPages 7-47 target file system, Backup 3-9 to 3-10 term file format of, RefPages 5-178 to 5-179 target node definition of, Ethernet A-2 TERM string, RefPages 7-3 tarsets command, RefPages 1-680 TERM variable, CursesX 2-5 t bind system call, RefPages 3-574 termcap database, TechSumm 2-2 t bind(), X/OpenTransport 1-4 to 1-9, 2-10, 3-1 termcap file tbl preprocessor, BGB 5-1 to 5-11, RefPages 1-682 See also gettytab file to 1-683 See also printcap file t_call structure, X/OpenTransport 2-12, 2-15 format of, RefPages 5-182 to 5-190 t close system call, RefPages 3-577 termcap keyword, RefPages 3-565 See also t_open system call TERMCAP string, RefPages 7-3 t close(), X/OpenTransport 1-7, 1-10, 2-20, 3-5 terminal, RefPages 4-181 to 4-187, TechSumm 2-1 t connect system call, RefPages 3-578 to 2-2 t connect(), X/OpenTransport 1-5, 2-10, 2-12 to See also Hazeltine terminal 2-13 adding, SysEnviron 2-1 to 2-3 TCP network adding a line for, SysEnviron 1-11 testing, RefPages 8-238 to 8-239 allowing modify access to, SysEnviron 1-12 TCP protocol, RefPages 4-145, X/OpenTransport 4-2 capturing session in a file, RefPages 1-599 TCP/IP network clearing screen, RefPages 1-83 testing, Exercisers 4-1 conventional names for, RefPages 7-47t tcp options structure, X/OpenTransport 4-2 creating capability data base for, RefPages 5-182 tdelete subroutine, RefPages 3-179 to 5-190 TE16 magnetic tape interface, RefPages 4-194 enabling root login, SysEnviron 1-11 technical and zone contact finding name of, RefPages 3-181 definition of, BIND/Hes 4-2 generating file name for, RefPages 3-495 technical paper getting pathname of, RefPages 1-715 formatting, RefPages 7-40 independent operation routines for, RefPages tee command, RefPages 1-684 3-565 tell command (sccs), RefPages 1-595 initializing, RefPages 5-208 to 5-210 info command and, sccs 2-4 locking, RefPages 1-361 using, sccs 2-4 modifying configured, SysEnviron 1-11 to 1-12 tell system call, RefPages 2-106 reporting I/O statistics for, RefPages 1-293 telldir subroutine, RefPages 3-27 resetting, RefPages 1-572 **TELNET** protocol restrictions on use of, CursesX 2-9 See telnet user interface revoking access to, RefPages 2-224

terminal (cont.)	t_error(), X/OpenTransport 2-5
setting, RefPages 1-710 to 1-713	test command, RefPages 1-690 to 1-692
setting characteristics of, RefPages 5-52	See also find command
setting input/output characteristics, RefPages 1-658	test command (System V), RefPages 1-621
setting mode of, RefPages 8-120	text processor
setting state of, RefPages 3-170	for monospace output, RefPages 1-475
setting tabs for, RefPages 1-672	text segment
showing name of, RefPages 1-752, 1-764	specifying in the configuration file, Configfile 1-5
synchronous networked asynchronous, CursesX	tfind subroutine, RefPages 3-179
2–9	t_free system call, RefPages 3-583
underlining and, RefPages 1-717	See also t_alloc system call
updating screen, RefPages 3-193, 3-528	t_free(), X/OpenTransport 4-3
viewing one screenful at a time, RefPages 1-436 to	tftp program, RefPages 1-694 to 1-695
1–438	tftpd server, RefPages 8-373
terminal communications system	See also tftpd program
testing, Exercisers 4-2, RefPages 8-51	tgetent subroutine, RefPages 3-267, 3-565
Terminal Emulator	See also curses package
See 2780/3780 Terminal Emulator	See also termcap file
terminal initialization file, SysEnviron 1-8	tgetflag subroutine, RefPages 3-267, 3-565
format of, SysEnviron 1-8 to 1-10	t_getinfo(), X/OpenTransport 2-5, 4-1
modifying, SysEnviron 1-11 to 1-12	tgetnum subroutine, RefPages 3-267, 3-565
modifying print system, SysEnviron 3-2	t_getstate system call, RefPages 3-588
terminal interface, RefPages 4-155, 4-180 to 4-192	tgetstr subroutine, RefPages 3-267, 3-565
See also bk line discipline	tgoto subroutine, RefPages 3-267, 3-565
terminal line	thesis
adding, SysEnviron 2-1 to 2-2	formatting, RefPages 7-43
terminal multiplexer	tic command, RefPages 1-696
adding, SysEnviron 2-1 to 2-2	ticket, Kerberos 1-4
terminal server	definition of, Kerberos 1-3
capabilities of, Ethernet 1-1	destroying, Kerberos 3-5
downline loading, Ethernet 2-3	lifespan of, Kerberos 2-2
setting up, Ethernet 2-1	ticket-granting service, Kerberos 1-4, 3-3
terminal server load image	ticket-granting ticket, Kerberos 1-4, 6-7
installing, Ethernet 2-3	time
terminal server name	converting to ASCII, RefPages 3-20
obtaining, Ethernet 3-3	for client, Kerberos 4-2
terminal server port settings, Ethernet 3-1	for master, Kerberos 4-2
terminals, TechSumm 2-1 to 2-2	getting, RefPages 2-97, 3-177
terminals database, RefPages 5-191	reporting, RefPages 3-15
terminfo compiler	setting, RefPages 1-156, 2-97, 3-160
tic, RefPages 1-696	showing, RefPages 1-752, 1-764
TERMINFO variable, CursesX 2-5	time command, RefPages 1-697
t_error system function, RefPages 3-581	displaying, RefPages 1-156

time command (csh), RefPages 1-132 tmpfile subroutine (cont.) time services See also tmpname subroutine Kerberos and, LAN 2-4 tmpnam subroutine, RefPages 3-520 NTP, LAN 2-3 See also mktemp subroutine TSP, LAN 2-3 See also tmpfile subroutine time subroutine (standard C), RefPages 3-177 tms interface, RefPages 4-175 time synchronization, Kerberos 1-5 TMSCP magnetic tape interface dependencies of daemons, Kerberos 4-3 nbuf keyword, RefPages 4-175 Time Synchronization Protocol, LAN 2-3 TMSCP tape controller time zone specifying in the configuration file, Configfile specifying, BasicInstall 3-3 1-12e specifying in the configuration file, Configfile 1-4 toacsii subroutine, RefPages 3-16 toggle command (TELNET), RefPages 1-687 timed daemon, Kerberos 1-5, 4-3, RefPages 8-374 run as a client. Kerberos 4-2 tolower function, nawk 5-6 timedc, RefPages 8-376 to 8-377 _tolower subroutine, RefPages 3-16 timeout command (tftp), RefPages 1-695 tolower subroutine (standard C), RefPages 3-16 times command (sh), RefPages 1-611 tool See utility times command (System V), RefPages 1-621 times subroutine, RefPages 3-178 tools timestamp system administration, TechSumm 2-8 to 2-9 of ticket, Kerberos 2-2 system maintenance, TechSumm 2-10 timezone parameter system management, TechSumm 2-7 to 2-10 specifying in the configuration file, Configfile 1-4 top command (mail), RefPages 1-396 timezone subroutine, RefPages 3-20 t open system call, RefPages 3-596 t info structure, X/OpenTransport 4-1 t open(), X/OpenTransport 1-4 to 1-8, 2-1, 3-1, 4-1 tip command, RefPages 1-698 to 1-702 t_open_info structure, X/OpenTransport 2-4 See also phones file top-level domain See also remote file country, BIND/Hes 4-2 See also rlogin command registering, BIND/Hes 4-2 acucap file and, RefPages 5-10 topq printer command (lpc), RefPages 8-189 enabling, uucp 3–6 t optmgmt system call, RefPages 3-598 setting up for PAD, uucp 4-5 to 4-7 t_optmgmt(), X/OpenTransport 2-2, 2-5, 4-1 TK50 magnetic tape interface, RefPages 4-143, touch command, RefPages 1-703 4-175, 4-195 touchwin subroutine, RefPages 3-268, 3-528 See TZK50 magnetic tape interface toupper function, nawk 5-6 TK70 magnetical tape interface, RefPages 4-175 toupper subroutine, RefPages 3-16 t_listen sytem call, RefPages 3-590 toupper subroutine, RefPages 3-16 t listen(), X/OpenTransport 1-6, 2-10, 2-15 to xmit rep routine, DECrpc 7-5, 7-9e t look system call, RefPages 3-592 tparm subroutine, RefPages 3-269 t look(), X/OpenTransport 4-4 tputs subroutine, RefPages 3-270, 3-565 TM03 magnetic tape interface, RefPages 4-194 tr command, RefPages 1-704 See also TU58 console cassette interface trace command tmpfile subroutine, RefPages 3-519 See system call tracing interface See also mktemp subroutine

trace command (dbx), RefPages 1-169 transport endpoint (cont.) trace command (ftp), RefPages 1-254 initializing, RefPages 3-596 trace command (general), RefPages 1-705 manipulating, X/OpenTransport 1-3 trace command (pdx), RefPages 1-501 polling for asynchronous events, RefPages 3-592 trace command (tftp), RefPages 1-695 protocol address of, RefPages 3-574 trace file, RefPages 5-207 returning current event from, RefPages 3-592 trace keyword synchronizing, X/OpenTransport 2-16 See system call tracing interface used for connection, X/OpenTransport 2-15 tracei command (pdx), RefPages 1-503 transport layer traceon subroutine, RefPages 3-271 See ISO reference model trans command, InterNatl 2-2, 2-8 to 2-9 transport library trans utility, RefPages 1-707 synchronizing, RefPages 3-622 transfer stage transport protocol problems with, uucp 5-4 characteristics of, X/OpenTransport 2-1, 2-4, 3-3 translation filters, RefPages 8-184 returning characteristics of, RefPages 3-587 translator transport provider PostScript, RefPages 8-8 accepting connection to, X/OpenTransport 2-2 translit macro, RefPages 1-389 address of, X/OpenTransport 1-4, 1-8 transliterate protocol trace characteristics of, X/OpenTransport 2-2, 4-1 See trpt command description of, X/OpenTransport 1-1 transmission log establishing communication path with, obtaining, uucp 5-2 to 5-5 X/OpenTransport 2-1 transmit as type attribute, DECrpc 7-6e to 7-8e establishing connection with, X/OpenTransport 1-4 description of, DECrpc 4-4 functions of, X/OpenTransport A-2 restrictions in use of, DECrpc 7-10 identifying, X/OpenTransport 2-4, 2-12, 3-3 identity, X/OpenTransport 1-4, 1-8, 3-1 syntax for, DECrpc 6-6 transmitted type, DECrpc 7-8e passing data to, X/OpenTransport 2-12 routines for conversion of, DECrpc 7-5 protocol options for, X/OpenTransport 4-1 storage for, DECrpc 7-5 quality of service and, X/OpenTransport 1-3 transport address, X/OpenTransport 3-3 returning current state from, RefPages 3-588 transport connection returning information from, X/OpenTransport 2-1, abortive release, RefPages 3-616 2-12 orderly release, RefPages 3-618 service types, X/OpenTransport 2-2 transport endpoint state tables and, X/OpenTransport A-5 to A-6 associated address, X/OpenTransport 1-4, 2-2, 2-5 urgent condition and, X/OpenTransport 2-16 binding address, X/OpenTransport 2-9, 2-15 transport service interface binding to, X/OpenTransport 2-2 BSD IPC enhancements to, X/OpenTransport 1-2 closing, RefPages 3-577, X/OpenTransport 2-20 characteristics of, X/OpenTransport 1-2 description of, X/OpenTransport 1-3 components of, X/OpenTransport 1-10 disabling, RefPages 3-624, X/OpenTransport 1-7, event handling, X/OpenTransport 1-2 2-20, 3-5 transport user establishing, X/OpenTransport 1-4, 1-8, 2-8, 3-3 accepting connection with, RefPages 3-569 identifying, X/OpenTransport 2-1, 2-13, 2-17, actions of, X/OpenTransport A-5 2-19 protocol options and, RefPages 3-598

transport user (cont.) t snd(), X/OpenTransport 1-6, 2-16 to 2-17 requesting a connection with, RefPages 3-578 t snddis system call, RefPages 3-616 trap, RefPages 5-156, 8-350 t snddis(), X/OpenTransport 1-6, 2-10, 2-19 trap command (sh), RefPages 1-611 t sndrel system call, RefPages 3-618 trap command (System V), RefPages 1-621 t sndrel(), X/OpenTransport 1-7, 2-20 t_rcv system call, RefPages 3-600 t sndudata system call, RefPages 3-620 t_rcv(), X/OpenTransport 1-6, 2-16 to 2-17, 2-19 t_sndudata(), X/OpenTransport 1-9 t revenuect system call, RefPages 3-602 tsort command, RefPages 1-714 t_rcvconnect(), X/OpenTransport 2-13 TSP, LAN 2-3 t rcvdata(), X/OpenTransport 3-4 TSP client, SysNetSetup 3-28, 3-32 t rcvdis, X/OpenTransport 2-19 t sync system call, RefPages 3-622 t rcvdis system call, RefPages 3-605 t sync(), X/OpenTransport 2-16 t rcvdis(), X/OpenTransport 1-6, 1-7 t tcvuderr system call, RefPages 3-611 t revrel system call, RefPages 3-607 tty command, RefPages 1-715 t rcvrel(), X/OpenTransport 1-7, 2-20 ttv kevword t revudata system call, RefPages 3-609 See also terminal interface t rcvudata(), X/OpenTransport 1-9, 3-4 ttyname subroutine, RefPages 3-181 trigger command, Ethernet 2-3, A-5, RefPages See also ctermid subroutine 8-378 ttvs file initiating downline load with, Ethernet A-5 See also tset command prerequisites to, Ethernet A-5 accessing data in, RefPages 3-71 **Trivial File Transfer Protocol** editing, Ethernet 2-7, uucp 4-6 field definitions in, RefPages 3-71 See tftp program Trivial File Transfer Protocol server format of, RefPages 5-208 to 5-210, SysEnviron See tftpd server 1-8 to 1-10 trpt command, RefPages 8-379 modifying, SysEnviron 1-11 to 1-12 TRUE, CursesX 2-2 ttyslot subroutine, RefPages 3-181 true command, RefPages 1-709 tu interface truncate system call, RefPages 2-214 See TE16 magnetic tape interface trunk See TM03 magnetic tape interface See X.25 access line See TU45 magnetic tape interface ts interface See TU77 magnetic tape interface See TS05 magnetic tape interface TU45 magnetic tape interface, RefPages 4-194 See TS11 magnetic tape interface TU58 console interface, RefPages 4-17 See TU80 magnetic tape interface TU77 magnetic tape interface, RefPages 4-194 TS05 magnetic tape interface, RefPages 4-178 TU80 magnetic tape interface, RefPages 4-178 TS11 magnetic tape interface, RefPages 4-178 TU81 magnetic tape interface, RefPages 4-175 tsearch subroutine, RefPages 3-179 TU81E magnetic tape interface, RefPages 4-175 diagnostics, RefPages 3-180 t_unbind system call, RefPages 3-624 restrictions, RefPages 3-180 t unbind(), X/OpenTransport 1-7 to 1-10, 2-20, 3-5 tset command, RefPages 1-710 to 1-713 tunefs command, RefPages 8-381 to 8-382 See also term command twalk subroutine, RefPages 3-179 t snd system call, RefPages 3-613 **type**, *DECrpc* 6–6 to 6–7 See also specific types of data

type (cont.)	uerf command, RefPages 8-383 to 8-391			
definition of, DECrpc 1-2	using, ErrorLogger 4-1 to 4-12			
in interfaces with multiple versions, DECrpc 7-20	UFS, DiskMaint 1-1			
in NDR, DECrpc 5-1	mounting, RefPages 8-226			
multiple managers for, DECrpc 7-21e	UFS file, RefPages 5-215			
portability issues with, DECrpc 5-1	UFS option			
specifiers, DECrpc 6-6, 6-9 to 6-10	specifying in the configuration file, Configfile 1-8			
type attribute	ufs pseudodevice definition			
handle, DECrpc 4-4	specifying in the configuration file, Configfile 1-16			
restrictions in use of, DECrpc 7-10	ufs_mount command, RefPages 8-226			
syntax for, DECrpc 6-5	UID			
transmit_as, DECrpc 4-4, 6-6, 7-6e	importing file systems with NFS and, SysNetSetup			
type command (ftp), RefPages 1-254	2–6n			
type command (mail), RefPages 1-396	specifying in a networked environment,			
See also print command (mail)	SysNetSetup 1–2			
type command (System V), RefPages 1-621	uid field			
type conversion, DECrpc 7-5 to 7-10	in auth database, Kerberos 5-2			
type declaration, DECrpc 4-5e	ul command, RefPages 1-717			
description of, DECrpc 4-4	ulimit command (System V), RefPages 1-621			
syntax for, DECrpc 6-5	ulimit system call, RefPages 3-182			
type file	ULTRIX File System			
format of, RefPages 5-211	See UFS			
type specifier, DECrpc 6-11	ULTRIX Software Source Book, TechSumm 2-4			
type UUID, DECrpc 1-3, LocBrok 1-1, 2-4	ULTRIX Worksystem Software, TechSumm 2-2 to			
typeahead subroutine, RefPages 3-272	2–7			
typedef declaration, DECrpc 6-5	umask command (csh), RefPages 1-132			
typescript file	umask command (sh), RefPages 1-611			
creating, RefPages 1-599	umask command (System V), RefPages 1-621			
tz interface	umask system call, RefPages 2-216			
See TZ30 magnetic tape interface	umount command (general), RefPages 8-220			
TZ30 magnetic tape interface, RefPages 4-195	unmounting a file system with, DiskMaint 1-4			
tzet subroutine, RefPages 3-20	umount command (NFS), RefPages 8-222			
	umount system call (general), RefPages 2-112			
U	umount system call (NFS), RefPages 2-115			
•	unalias command (csh), RefPages 1-132			
uac command, RefPages 1-716	unalias command (mail), RefPages 1-396			
uda interface	uname system call, RefPages 2-217			
See MSCP disk interface	unbind routine, DECrpc 7-11 to 7-13			
SCSI disk interface, RefPages 4-125	unbound handle, DECrpc 1-10			
UDP, RefPages 4-196	creation of, DECrpc 5-4			
See also ICMP	deciding whether to use, DECrpc 5-8			
TCP and, RefPages 4-196	uncompact command, RefPages 1-94			
UDP protocol, X/OpenTransport 4-3	unctrl macro, RefPages 3-273			

unctrl subroutine, RefPages 3-528 upline-load listener, RefPages 8-218 undefine macro, RefPages 1-388 uptime command, RefPages 1-721 undelete command (mail), RefPages 1-396 See also w command undivert macro, RefPages 1-388 use broker command, LocBrok 2-4 unedit command (sccs), RefPages 1-595 user using, sccs 2-8 adding in a distributed environment, SysNetSetup unexpand command, RefPages 1-223 3 - 34unget command (sccs), RefPages 1-719 adding to the local system, SysNetSetup 1-2 ungetc subroutine, RefPages 3-522 user command (ftp), RefPages 1-254 unhash command (csh), RefPages 1-132 **User Datagram Protocol UNIBUS** adapter See UDP specifying in the configuration file, Configfile 1-11 user environment setting up, YP 2-24 UNIBUS virtual memory image, RefPages 4-68 union, DECrpc 6-13 to 6-14 user ID open arrays in, DECrpc 6-8 changing temporarily, RefPages 1-667 uniq command, RefPages 1-720 definition of, SysEnviron 1-2 See also cmp command showing, RefPages 1-764 to 1-765 See also comm command user identification number See also diff command See UID See also diff3 command See user ID See also diffmk command user interface, TechSumm 2-1 See also join command user space, AdvInstall 2-13 See also sccsdiff command USER string, RefPages 7-3 Universal Unique Identifier user virtual address See UUID specifying size of in the configuration file, **UNIX V7** Configfile 1-4 plot library, TechSumm 2-7 user-created LAN service unlimit command (csh), RefPages 1-132 programming, Ethernet 6-1 unlink system call, RefPages 2-218 setting up, Ethernet 6-2 user-defined service unregister command, LocBrok 2-3 unregistering, DECrpc 5-20 example program, Ethernet C-1 unset command (csh), RefPages 1-133 USERFILE file, uucp 3-8 to 3-12 format of, RefPages 5-216 unset command (mail), RefPages 1-396 unset command (System V), RefPages 1-621 users command, RefPages 1-722 unsetenv command (csh), RefPages 1-133 See also finger command unsigned integer type, DECrpc 6-11 See also who command /usr directory unsupported software subset description of, AdvInstall C-3 to C-5 specifying size of, DMS 3-2 installing, AdvInstall 3-13 /usr file system allocating, AdvInstall 3-6, 3-7 update program, RefPages 8-392 hierarchy of, RefPages 7-5 to 7-8, 7-10 UPGRADE security level, LAN 2-4 to 2-5 transition to, Kerberos 5-1 to 5-3 planning, AdvInstall 2-9 to 2-10 upline dump, Ethernet 2-1, A-6 restoring, Backup 3-11 to 3-13 space requirements for, AdvInstall 2-13

/usr/users directory uuencode command, RefPages 1-725 changing distribution of, DiskMaint 1-9 See also uuencode file ustat system call, RefPages 2-220 uuencode file See also fs file format of, RefPages 5-219 utility UUID, RefPages 1-726 overview of, TechSumm 2-5 to 2-10 as an RPC handle, DECrpc 4-8e software development, TechSumm 2-3 to 2-7 definition of, DECrpc 1-3, LocBrok 1-1 system, TechSumm 2-1 to 2-11 generation of, DECrpc 1-3, 2-1 utime function, RefPages 3-183 generation of for interface, DECrpc 4-1e utimes system call, RefPages 2-221 in interface definition, DECrpc 4-3 utmp file, SysEnviron 5-2 nil UUID, DECrpc 1-3 format of, RefPages 5-218 routines argument, DECrpc 5-4 uuaids keyword, RefPages 8-393 routines for manipulating, DECrpc 2-6 uucico daemon, RefPages 8-395 string representation in, DECrpc 1-3 uucico program use in Location Broker database, LocBrok 1-3 **UUID** attribute definition of, uucp 1-1 troubleshooting a connection, uucp 5-1 in interface definition, DECrpc 6-2 uuclean program, RefPages 8-397 UUID data structure, DECrpc 1-3 uucompact utility, RefPages 8-393 UUID routines, RefPages 3-488 to 3-491 uucp file uuid \$ library routine, DECrpc 2-6 setting up, RefPages 8-398 uuid \$nil external variable, DECrpc 1-3 uucp utility, RefPages 1-723 to 1-729 uuid gen utility, LocBrok 1-1 See also L-devices file description of, DECrpc 1-3 See also L-dialcodes file output from, DECrpc 2-1 See also rmail command uuid.idl file, DECrpc 2-8 See also USERFILE file uumkspool utility, RefPages 8-393 See also uuclean program uumonitor program, RefPages 8-399, uucp 3-3 to See also uucompact utility See also uumonitor program uupoll utility, RefPages 8-393 See also uusend command uurespool utility, RefPages 8-393 See also uustat program uusend command, RefPages 1-728 acucap file and, RefPages 5-10 uustat program, uucp 3-4 to 3-5 options, RefPages 1-729 definition of, uucp 1-1 L.sys file and, RefPages 5-75 uux command, RefPages 1-731 maintaining, uucp 3-1 to 3-12 uux program setting up, uucp 2-1 to 2-12 See also L.cmds file definition of, uucp 1-1 setting up for PAD, uucp 4-2 to 4-4 spool directories and, RefPages 8-393 to 8-397 uuxqt program troubleshooting, uucp 5-1 to 5-7 functions of, uucp 1-2 YP domain and, YP 2-15n uucpsetup command, RefPages 8-398 running, uucp 2-1 to 2-3 uudecode command, RefPages 1-725

V	VCB01 video subsystem, RefPages 4-106
val command (sccs), RefPages 1-733 to 1-734	VCB02 video subsystem, RefPages 4-104
valloc subroutine, RefPages 3–185	VCB03 video subsystem, RefPages 4-104
value	vcc compiler, RefPages 1-738 to 1-742
definition of numeric, nawk 1-4	vdoc command, RefPages 1-743
truncation of, BGB 8–12, nawk 2–12	verbose command (ftp), RefPages 1-254
/var area, Advinstall 2–13	verbose command (tftp), RefPages 1-695
allocating, AdvInstall 3–11	version attribute, DECrpc 6-2
definition of, AdvInstall 2–6	version control statement, RefPages 1-735
space requirements for, AdvInstall 2-6	-version option, LocBrok 2-1
varargs subroutine, RefPages 3–186 to 3–187	vfork
See also vprintf subroutine	reporting, RefPages 1-751
variable	vfork system call, RefPages 2-223
See environment variable	See also fork system call
command line and, BGB 9-6	vfprintf subroutine, RefPages 3-292, 3-523
using in shell scripts, BGB 9-3 to 9-7	vhangup system call, RefPages 2-224
/var/uucp/uumonitor file	vi editor, Primer 2-6, 6-1 to 6-13, RefPages 1-745
See uumonitor program	See also fmt text formatter
VAX BI adapter	vidattr subroutine, RefPages 3–274
specifying in the configuration file, Configfile 1–10	video attribute, CursesX 2-2
VAX C	video subsystem
See vcc compiler	cfb, RefPages 4-10
See also the Guide to VAX C	vidputs subroutine, RefPages 3-274
globaldef declaration in, DECrpc 5-25	view command, RefPages 1-748
VAX processor	vipw command, RefPages 8-400
booting, BasicInstall 2-23 to 2-29, Shutdown 3-3	invoking, SysEnviron 1-3
to 3–21	virtual keypad, CursesX 2-3
completing advanced installation on, AdvInstall	virtual main memory image, RefPages 4-67
4–14 to 4–18	virtual memory
forcing a crash dump on, CrashRec 2-1 to 2-4	allocating in the configuration file, Configfile 1-5
VAX-11 assembler	reporting statistics for, RefPages 1-750
See as assembler	specifying in the configuration file, Configfile 1-6
VAXserver processor	virtual memory block
booting, BasicInstall 2-9 to 2-24, Shutdown 3-1	specifying in the configuration file, Configfile 1-6
completing advanced installation on, AdvInstall	visual command (mail), RefPages 1-396
4–5 to 4–9, 4–16	vlimit subroutine, RefPages 3–188 to 3–189
VAXstation processor	See also getrlimit system call
booting, BasicInstall 2-9 to 2-18, Shutdown 3-1 to	VMB program
3–7	GPRs and, Shutdown B-1
completing advanced installation on, <i>AdvInstall</i> 4-5 to 4-7	VMS operating system, Primer B-1 to B-2, TechSumm 2-2
vc command (sccs), RefPages 1-735 to 1-737	vmstat command, RefPages 1-750
	See also iostat command
	Saa also netstat command

/vmunix file	weof command (mt), RefPages 1-442			
examining name list, RefPages 3-101	werase subroutine, RefPages 3-221, 3-528			
examining name list for, RefPages 3-100	wgetch subroutine, RefPages 3-224, 3-528			
void type, DECrpc 6-12	wgetstr subroutine, RefPages 3-226, 3-528			
for operations, DECrpc 6-9	what command (sccs), RefPages 1-595, 1-757			
Volatile macro, DECrpc 5-12	using, sccs 2-4			
volatile option, DECrpc 5-12	whatis command (general), RefPages 1-758			
vprintf subroutine, RefPages 3-292, 3-523	See also catman command			
vsprintf subroutine, RefPages 3-292	whatis command (pdx), RefPages 1-502			
vtimes subroutine, RefPages 3-190	whatnow command, RefPages 1-759			
See also getrusage system call	whatnow command (MH), BGB 6-13t			
	where command (pdx), RefPages 1-503			
W	whereis command, RefPages 1-761, 1-761			
	which command, Primer 4-2			
w command, RefPages 1-752	which command (csh), RefPages 1-763			
waddch subroutine, RefPages 3-200, 3-528	which command (pdx), RefPages 1-502			
waddstr subroutine, RefPages 3-202, 3-528	while command (csh), RefPages 1-133			
wait command (csh), RefPages 1-133	while command (sh), RefPages 1-607			
wait command (general), RefPages 1-754	while command (SystemV), RefPages 1-614			
wait command (sh), RefPages 1-611	while loop, nawk 4-4			
wait command (System V), RefPages 1-621	white space, nawk 1-2			
wait lock	who command, Primer 4-13, RefPages 1-764			
See lock	See also finger command			
wait system call, RefPages 2-225 to 2-227	See also users command			
See also exit system call	See also whoami command			
wait3 system call, RefPages 2-225	whoami command, RefPages 1-765			
waitpid system call, RefPages 2-225	whois service			
wall command, RefPages 1-755	using, BIND/Hes 4-6			
See also mesg command	whom command (MH), BGB 6-13t			
See also write command (general)	wildcard address, Network_Prog 3-2			
wattroff subroutine, RefPages 3-203	definition of, RefPages 4-145			
wattron subroutine, RefPages 3-203	wildcard character			
wattrset subroutine, RefPages 3-203	See also character			
wc command, RefPages 1-756	See also metacharacter			
See also sum command	definition of, Primer 4-4			
wclear subroutine, RefPages 3-209, 3-528	using in file names, Primer 4-4			
wclrtobot subroutine, RefPages 3-211, 3-528	winch macro, RefPages 3-232			
wclrtoeol subroutine, RefPages 3-212, 3-528	winch subroutine, RefPages 3-528			
wdelch subroutine, RefPages 3-215, 3-528	window			
wdeleteln subroutine, RefPages 3-216, 3-528	creating and using, CursesX 1-3			
well-known port, LocBrok 1-5	definition of, RefPages 3-193			
definition of, DECrpc 1-5	WINDOW type, CursesX 2-1			
using LB instead of, DECrpc 1-17	windowing application			
	portability of, TechSumm 2-5			

X windowing environment portability of, TechSumm 2-2 X server, TechSumm 2-2 to 2-6 winsch macro, RefPages 3-234 X User Interface winsch subroutine, RefPages 3-528 See XUI winsertln subroutine, RefPages 3-235, 3-528 X Window System, TechSumm 2-2 to 2-7 WKS data file entry X.25 access line definition of, BIND/Hes 2-10 connecting to, uucp 4-1 wmove subroutine, RefPages 3-242, 3-528 xargs command, RefPages 1-769 wnoutrefresh subroutine, RefPages 3-275 xcpp file, RefPages 1-155 word server, Kerberos 4-4 xd command (pdx), RefPages 1-504 working directory **Xerox NS Routing Information Protocol** changing, RefPages 1-68, 2-30 See routed program displaying pathname of, RefPages 1-547 xi command (pdx), RefPages 1-504 getting pathname, RefPages 3-73 xit command (mail), RefPages 1-397 getting pathname for, RefPages 3-53 See also exit command (mail) workstation, TechSumm 2-1 to 2-2 xna interface wprintw subroutine, RefPages 3-253, 3-528 See DEBNI interface and DEMNA interface wrefresh subroutine, RefPages 3-256, 3-528 X/Open curses library, CursesX 1-1 See also wnoutrefresh subroutine X/Open Transport Interface write command, BGB 7-1 See XTI See also mesg command xsend command, RefPages 1-772 write command (general), RefPages 1-768 xstr command, RefPages 1-773 to 1-774 See also talk program See also mkstr command See also wall command XTI, Network Prog 5-1 write command (mail), RefPages 1-396 introduction to, RefPages 3-567 See also save command (mail) XUI, TechSumm 2-5 to 2-7 write lock See lock Y write system call, Network Prog 2-6, RefPages 2-228 to 2-230 y0 subroutine, RefPages 3-336 See also read system call y1 subroutine, RefPages 3-336 See also send system call yacc compiler, RefPages 1-775 writev system call, Network Prog 2-6, RefPages See also eyacc compiler 2-228 See also lex program generator wscanw subroutine, RefPages 3-260, 3-528 **Yellow Pages** wsetscrreg subroutine, RefPages 3-263 See YP service wstandend subroutine, RefPages 3-203, 3-528 Yellow Pages database lookup service wstandout subroutine, RefPages 3-203, 3-528 See YP service wtmp file yes command, RefPages 1-776 See also ac command yn subroutine, RefPages 3-336 format of, RefPages 5-218 YP binder, RefPages 8-409 login accounting and, RefPages 8-4 YP client, SysNetSetup 3-12, 3-16 using, SysEnviron 5-2 adding users to, YP 2-22

YP client (cont.)	YP password server daemon		
definition of, YP 1-2	starting, YP 2-5		
setting up, YP 2-11 to 2-15	YP server, RefPages 1-781, 8-409		
troubleshooting, YP 4-1 to 4-5	See also YP master server		
YP client interface, RefPages 3-628	See also YP slave server		
YP database	adding to domain, YP 2-20		
changes to, YP 1-2	as YP client, YP 2-1		
updating, YP 4-7	preinstallation backup of, BasicInstall 1-4		
YP domain	setting up, YP 2-1 to 2-2		
definition of, RefPages 5-222, YP 1-1 to 1-3	troubleshooting, YP 4-5 to 4-7		
establishing, YP 2-4 to 2-11	types of, SysNetSetup 3-12 to 3-15		
getting name of, YP 1-3	YP server map		
setting default, YP 2-10	creating, YP 2-6		
setting default name of, YP 2-5, 2-12	YP service		
YP environment	Best reference, YP		
modifying, YP 2-20 to 2-24	automounted file systems and, NFS 2-18		
setting up, RefPages 8-411	changing password in, RefPages 1-779		
YP map	command reference list, YP A-1 to A-2		
See also YP server map	default database files for, YP 1-3 to 1-5		
access policies for, YP 3-3	description of, YP 1-2 to 1-5		
building default, YP 2-4	hanging system and, NFS 4-5		
copying, YP 2–9	library function for, RefPages 3-625		
copying to slave servers, RefPages 8-408	list of distributed databases for, LAN 2-2		
definition of, RefPages 5-222	managing, YP 3-1 to 3-6		
determining version of, RefPages 8-407	network and, YP 4-1n		
displaying values, RefPages 1-777 to 1-778	prerequisites for setup, YP 2-2		
format of, RefPages 5-222	rebuilding data base for, RefPages 8-404		
global file types in, YP 3-1	setting up, SysNetSetup 3-12, YP 2-1 to 2-24		
library routines and, YP 1-4n	svcorder file and, RefPages 8-411		
local file pointers in, YP 3-2	troubleshooting, YP 4-1 to 4-7		
local file types in, YP 3-1	unavailable to client, YP 4-3 to 4-4		
modifying, YP 2-15 to 2-17	uucp utility and, uucp 2-1n		
propagating, YP 2-17 to 2-18	uucpsetup command and, uucp 3-1n		
transferring, RefPages 8-412	YP slave server		
updating, YP 2-23	definition of, YP 1-2		
YP master server and, YP 2-15	removing from domain, YP 2-21		
YP master server	setting up, YP 2-9 to 2-11		
as YP client, YP 2-4	updating YP maps for, YP 2-11		
changing, YP 2-21 to 2-22	yp_all subroutine, RefPages 3-628		
definition of, YP 1-2	ypbind command		
modifying database files on, YP 2-5n	definition of, YP A-1		
required database files for, YP 2-3	and the -S option, YP 3-1		
setting up, YP 2-3	ypbind daemon, RefPages 8-409		
	See also ypwhich command		

```
ypbind daemon (cont.)
   starting, YP 2-5
ypbind process, YP 4-4
yp_bind subroutine, RefPages 3-628
ypcat command, RefPages 1-777
   definition of, YP A-1
ypcint keyword, RefPages 3-628
yperr_string subroutine, RefPages 3-628
ypfiles file
  See also yppoll command
ypfiles keyword, RefPages 5-222
yp_first subroutine, RefPages 3-628
yp get default domain subroutine, RefPages 3-628
ypmake command, RefPages 8-404
  definition of, YP A-1
yp_master subroutine, RefPages 3-628
ypmatch command, RefPages 1-778
  definition of, YP A-1
yp_match subroutine, RefPages 3-628
yp next subroutine, RefPages 3-628
yp_order subroutine, RefPages 3-628
yppasswd command, Primer 1-5, RefPages 1-779
yppasswd subroutine, RefPages 3-632
  See also yppasswdd daemon
yppasswdd daemon, RefPages 8-406, SysNetSetup
     3-12
yppoll command, RefPages 8-407
  definition of, YP A-1
ypprot_err subroutine, RefPages 3-628
yppush command, RefPages 8-408
  See also ypxfr command
  definition of, YP A-1
ypserv command, RefPages 8-409
  running, YP 2-4, 2-10
ypserv daemon
  See also yppush command
  See also ypwhich command
  definition of, YP A-2
ypserv process
  exiting, YP 4-7
ypsetup command, RefPages 8-411, SysNetSetup
  definition of, YP A-2
```

yp_unbind subroutine, RefPages 3-628
ypwhich command, RefPages 1-781
definition of, YP A-2
inconsistent responses to, YP 4-5
ypxfr command, RefPages 8-412
definition of, YP A-2
running, YP 2-9, 2-18 to 2-19
troubleshooting YP server and, YP 4-5

Z

z command (mail), RefPages 1-397 z command (TELNET), RefPages 1-685 zone definition of, BIND/Hes 1-2, 4-2

How to Order Additional Documentation

Technical Support

If you need help deciding which documentation best meets your needs, call 800-343-4040 before placing your electronic, telephone, or direct mail order.

Electronic Orders

To place an order at the Electronic Store, dial 800-234-1998 using a 1200- or 2400-baud modern from anywhere in the USA, Canada, or Puerto Rico. If you need assistance using the Electronic Store, call 800-DIGITAL (800-344-4825).

Telephone and Direct Mail Orders

Your Location	Call	Contact
Continental USA, Alaska, or Hawaii	800-DIGITAL	Digital Equipment Corporation P.O. Box CS2008 Nashua, New Hampshire 03061
Puerto Rico	809-754-7575	Local Digital Subsidiary
Canada	800-267-6215	Digital Equipment of Canada Attn: DECdirect Operations KAO2/2 P.O. Box 13000 100 Herzberg Road Kanata, Ontario, Canada K2K 2A6
International		Local Digital subsidiary or approved distributor
Internal*		SSB Order Processing - WMO/E15 or Software Supply Business Digital Equipment Corporation Westminster, Massachusetts 01473

^{*} For internal orders, you must submit an Internal Software Order Form (EN-01740-07).

Reader's Comments

ULTRIX
Reader's Guide and Master Index
AA-ME82B-TE

Please use this postage-paid form to comment on this manual. If you require a written reply to a software problem and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form. Thank you for your assistance. Excellent Please rate this manual: Good Fair **Poor** Accuracy (software works as manual says) Completeness (enough information) Clarity (easy to understand) Organization (structure of subject matter) Figures (useful) Examples (useful) Index (ability to find topic) Page layout (easy to find information) What would you like to see more/less of? What do you like best about this manual? What do you like least about this manual? Please list errors you have found in this manual: Page Description Additional comments or suggestions to improve this manual: What version of the software described by this manual are you using? Name/Title ____ Company _____ _____ Date _____ Mailing Address _____

______ Email ______ Phone ______





NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 33 MAYNARD MA

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION
OPEN SOFTWARE PUBLICATIONS MANAGER
ZKO3-2/Z04
110 SPIT BROOK ROAD
NASHUA NH 03062-9987

Illinoillellerellerelellelelelelelelelelel

Do Not Tear - Fold Here ----

Cut Along Dotted Line

Reader's Comments

ULTRIX
Reader's Guide and Master Index
AA-ME82B-TE

Please use this postage-paid form to comment on this manual. If you require a written reply to a software problem and are eligible to receive one under Software Performance Report (SPR) service, submit your comments on an SPR form. Thank you for your assistance. Please rate this manual: Excellent Good Fair **Poor** Accuracy (software works as manual says) Completeness (enough information) Clarity (easy to understand) Organization (structure of subject matter) Figures (useful) Examples (useful) Index (ability to find topic) П Page layout (easy to find information) What would you like to see more/less of? What do you like best about this manual? What do you like least about this manual? Please list errors you have found in this manual: Page Description Additional comments or suggestions to improve this manual: What version of the software described by this manual are you using? Name/Title ______ Dept. _____ _____ Date ____ Company ____ Mailing Address _____ Email Phone Phone





NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 33 MAYNARD MA

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION
OPEN SOFTWARE PUBLICATIONS MANAGER
ZKO3-2/Z04
110 SPIT BROOK ROAD
NASHUA NH 03062-9987

Do Not Tear - Fold Here ·--

Cut Along Dotted Line