

This manual documents UNICOS release 10.0.0.2 running on Cray Research systems. It contains information needed in the administration of various UNICOS features available to all UNICOS systems.

Note: Previously in the UNICOS operating system documentation, the term *Trusted UNICOS* was used to refer to the configuration that most closely approximated the B1 evaluated configuration of UNICOS release 8.0.2. In the current UNICOS release, this configuration is referred to as the *Cray ML-Safe configuration* of the UNICOS operating system. Although the Cray ML-Safe configuration of the UNICOS operating system is not an evaluated product, this configuration fully supports all functionality described in the B1 evaluation criteria.

UNICOS System Administration Publications

This guide is one of a set of related manuals that cover information on the structure and operation of a Cray Research computer system running the UNICOS operating system, as well as information on administering various products that run under the UNICOS operating system. This set includes the following documents:

- *General UNICOS System Administration*, publication SG-2301
- *UNICOS Resource Administration*, publication SG-2302
- *UNICOS Configuration Administrator's Guide*, publication SG-2303
- *UNICOS Networking Facilities Administrator's Guide*, publication SG-2304
- *UNICOS NQS and NQE Administrator's Guide*, publication SG-2305
- *Kerberos Administrator's Guide*, publication SG-2306
- *Tape Subsystem Administration*, publication SG-2307

General UNICOS System Administration, publication SG-2301, contains information on performing basic administration tasks as well as information about system and security administration using the UNICOS multilevel (MLS) feature. This publication contains chapters documenting file system planning, UNICOS startup and shutdown procedures, file system maintenance, basic administration tools, crash and dump analysis, the UNICOS multilevel security (MLS) feature, and administration of online features.

UNICOS Resource Administration, publication SG-2302, contains information on the administration of various UNICOS features available to all UNICOS systems. This publication contains chapters documenting accounting, automatic incident reporting (AIR), the fair-share scheduler, file system quotas, file system space monitoring, system activity and performance monitoring, and the Unified Resource Manager (URM).

UNICOS Configuration Administrator's Guide, publication SG-2303, provides details about UNICOS configuration files created when the UNICOS operating system is installed and configured.

UNICOS Networking Facilities Administrator's Guide, publication SG-2304, contains information on administration of networking facilities supported by the UNICOS operating system. This publication contains chapters documenting TCP/IP for the UNICOS operating system, the UNICOS network file system (NFS) feature, the network information system (NIS) feature, and the Cray-based network monitor.

UNICOS NQS and NQE Administrator's Guide, publication SG-2305, contains information on administration of the Network Queuing System (NQS) and the Network Queuing Environment (NQE) features.

Kerberos Administrator's Guide, publication SG-2306, contains information on administration of the Kerberos feature, a set of programs and libraries that provide distributed authentication over an open network. This publication contains chapters documenting Kerberos implementation, configuration, and troubleshooting.

Tape Subsystem Administration, publication SG-2307, contains information on administration of UNICOS and UNICOS/mk tape subsystems. This publication contains chapters documenting tape subsystem administration commands, tape configuration, and tape troubleshooting.

Related Publications

For detailed information on UNICOS installation procedures, see the following Cray Research, Inc. (CRI) publications:

- *UNICOS Installation Guide for CRAY J90se GigaRing based Systems*, publication SG-5296
- *UNICOS Installation Guide for CRAY C90, CRAY T90, and CRAY T90 IEEE Model E based Systems*, publication SG-5297
- *UNICOS Installation Guide for the CRAY EL Series*, publication SG-5201

- *UNICOS Installation Guide for CRAY J90 Model V based Systems*, publication SG-5271
- *UNICOS Installation Guide for CRAY T90 and CRAY T90 IEEE GigaRing based Systems*, publication SG-5298
- *UNICOS System Configuration Using ICMS*, publication SG-2412

For additional information about the UNICOS operating system and its features, see the following Cray Research publications:

- *UNICOS Administrator Commands Reference Manual*, publication SR-2022
- *UNICOS User Commands Reference Manual*, publication SR-2011
- *Application Programmer's I/O Guide*, publication SG-2168
- *UNICOS Basic Administration Guide for CRAY J90 Model V based Systems*, publication SG-2416
- *Tape Subsystem User's Guide*, publication SG-2051
- *UNICOS Source Manager (USM) User's Guide*, publication SG-2097
- *UNICOS Multilevel Security (MLS) Feature User's Guide*, publication SG-2111
- *Cray Message System Programmer's Guide*, publication SG-2121
- *Cray/REELlibrarian (CRL) Administrator's Guide*, publication SG-2127
- *Cray Data Migration Facility (DMF) Administrator's Guide*, publication SG-2135
- *Cray Data Migration Facility (DMF) Release and Installation Guide*, publication SG-5166
- *Cray Data Migration Facility (DMF) MSP Writer's Guide*, publication SN-2098
- *FTA User and Administrator Manual*, publication SG-2144
- *OLNET Online Diagnostic Network Communications Program Maintenance Manual for UNICOS*, publication SD-1021. CRAY RESEARCH PRIVATE. This document contains information private to Cray Research, Inc. It can be distributed to non-CRI personnel only with approval of the appropriate Cray manager.

For more information about the system workstation (SWS), see the following Cray Research publications:

- *SWS-ION Administration and Operations Guide*, publication SG-2204

- *SWS Operating System and Devices Installation Guide*, publication SG-5293
- *SWS-ION Release Overview*, publication RO-5292

For more information about the I/O subsystem model E (IOS-E) and the support system (OWS-E and OWS-T), see the following Cray Research publications:

- *I/O Subsystem Model E (IOS-E) Support Guide*, publication SD-2107. CRAY RESEARCH PRIVATE. This document contains information private to Cray Research, Inc. It can be distributed to non-CRI personnel only with approval of the appropriate Cray manager.
- *Support System Reference Manual*, publication SR-3077
- *Support System Operator's Guide*, publication SG-3078
- *Support System Administrator's Guide*, publication SG-3079
- *Support System Ready Reference*, publication SQ-3080
- *Support System and IOS-E Release Overview*, publication RO-5060

For more information about the networking and communications software supported under the UNICOS operating system (and referenced in this manual), see the following Cray Research publications:

- *TCP/IP Network User's Guide*, publication SG-2009
- *Network Queuing System (NQS) User's Guide*, publication SG-2105
- *OSI Administrator's Guide*, publication SG-2142
- *Kerberos User's Guide*, publication SG-2409
- *Remote Procedure Call (RPC) Reference Manual*, publication SR-2089

Design specifications for the UNICOS multilevel security (MLS) feature are based on the trusted computer system evaluation criteria developed by the U. S. Department of Defense (DoD). If you require more information about multilevel security on UNICOS, you may find the following sources helpful:

- DoD Computer Security Center. *A Guide to Understanding Trusted Facility Management* (DoD NCSC-TG-015). Fort George G. Meade, Maryland: 1989.
- DoD Computer Security Center. *Department of Defense Trusted Computer System Evaluation Criteria* (DoD 5200.28-STD). Fort George G. Meade, Maryland: 1985. (Also known as the *Orange book*.)

- DoD Computer Security Center. *Trusted Network Interpretation of the Trusted Computer System Evaluation Criteria* (DoD NCSC-TG-005-STD). Fort George G. Meade, Maryland: 1987. (Also known as the *Red book*.)
- DoD Computer Security Center. *Summary of Changes, Memorandum for the Record* (DoD 5200.28-STD). Fort George G. Meade, Maryland: 1986.
- DoD Computer Security Center. *Password Management Guidelines* (CSC-STD-002-85). Fort George G. Meade, Maryland: 1985.
- Wood, Patrick H. and Stephen G. Kochan. *UNIX System Security*. Hasbrouck Heights, N.J.: Hayden Book Company, 1985.

Note: If your site wants to purchase the optional SecurID card used with UNICOS MLS network security, the necessary hardware, software, and user publications can be obtained from Security Dynamics, Inc., 2067 Massachusetts Avenue, Cambridge, MA, 02140, (617) 547-7820.

Ordering Cray Research Publications

The *User Publications Catalog*, publication CP-0099, describes the availability and content of all Cray Research hardware and software documents that are available to customers. Cray Research customers who subscribe to the Cray Inform (CRInform) program can access this information on the CRInform system.

To order a document, either call the Distribution Center in Mendota Heights, Minnesota, at +1-612-683-5907, or send a facsimile of your request to fax number +1-612-452-0141. Cray Research employees may send electronic mail to `orderdsk` (UNIX system users).

Customers who subscribe to the CRInform program can order software release packages electronically by using the `Order Cray Software` option.

Customers outside of the United States and Canada should contact their local service organization for ordering and documentation information.

Conventions

The following conventions are used throughout this document:

<u>Convention</u>	<u>Meaning</u>																				
command	This fixed-space font denotes literal items such as commands, files, routines, path names, signals, messages, and programming language structures.																				
manpage(x)	Man page section identifiers appear in parentheses after man page names. The following list describes the identifiers: <table> <tbody> <tr> <td>1</td> <td>User commands</td> </tr> <tr> <td>1B</td> <td>User commands ported from BSD</td> </tr> <tr> <td>2</td> <td>System calls</td> </tr> <tr> <td>3</td> <td>Library routines, macros, and opdefs</td> </tr> <tr> <td>4</td> <td>Devices (special files)</td> </tr> <tr> <td>4P</td> <td>Protocols</td> </tr> <tr> <td>5</td> <td>File formats</td> </tr> <tr> <td>7</td> <td>Miscellaneous topics</td> </tr> <tr> <td>7D</td> <td>DWB-related information</td> </tr> <tr> <td>8</td> <td>Administrator commands</td> </tr> </tbody> </table>	1	User commands	1B	User commands ported from BSD	2	System calls	3	Library routines, macros, and opdefs	4	Devices (special files)	4P	Protocols	5	File formats	7	Miscellaneous topics	7D	DWB-related information	8	Administrator commands
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	Some internal routines (for example, the <code>_assign_asgcmd_info()</code> routine) do not have man pages associated with them.																				
<i>variable</i>	Italic typeface denotes variable entries and words or concepts being defined.																				
user input	This bold, fixed-space font denotes literal items that the user enters in interactive sessions. Output is shown in nonbold, fixed-space font.																				
[]	Brackets enclose optional portions of a command or directive line.																				
...	Ellipses indicate that a preceding element can be repeated.																				

The following machine naming conventions may be used throughout this document:

<u>Term</u>	<u>Definition</u>
Cray PVP systems	All configurations of Cray parallel vector processing (PVP) systems.

The default shell in the UNICOS and UNICOS/mk operating systems, referred to in Cray Research documentation as the *standard shell*, is a version of the Korn shell that conforms to the following standards:

- Institute of Electrical and Electronics Engineers (IEEE) Portable Operating System Interface (POSIX) Standard 1003.2-1992
- X/Open Portability Guide, Issue 4 (XPG4)

The UNICOS and UNICOS/mk operating systems also support the optional use of the C shell.

Cray UNICOS Version 10.0 is an X/Open Base 95 branded product.

Reader Comments

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