

UNICOS[®] System Calls Reference
Manual

SR-2012 10.0

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The UNICOS operating system is derived from UNIX® System V. The UNICOS operating system is also based in part on the Fourth Berkeley Software Distribution (BSD) under license from The Regents of the University of California.

New Features

UNICOS® System Calls Reference Manual

SR–2012 10.0

The *UNICOS System Calls Reference Manual*, Cray Research publication SR–2012, incorporates the following technical changes for the UNICOS 10.0 release. In addition, miscellaneous technical, editorial, and formatting changes have been made throughout the manual.

The following system calls are new:

<code>getash(2)</code>	Gets an array session handle
<code>newarraysess(2)</code>	Starts a new array session
<code>setash(2)</code>	Sets an array session handle
<code>statvfs(2)</code>	Gets file system information
<code>syssgi(2)</code>	Provides a system interface to Silicon Graphics workstations

The following system calls have been updated:

<code>acctctl(2)</code>	Supports the socket accounting feature, which tracks network usage from the perspective of sockets
<code>limit(2)</code>	Contains a new limit value of <code>NO_CORE_FILES</code> for the <code>L_CORE</code> resource to disable core file creation
<code>quotactl(2)</code>	Supports the optional aggregate quota feature.

Record of Revision

<i>Version</i>	<i>Description</i>
1.0	March 1986 Original Printing. Documentation to support the UNICOS release 1.0 running on Cray computer systems.
1.1	June 1986 Online documentation only to support the UNICOS release 1.1 running on Cray computer systems.
2.0	September 1986 Documentation to support the UNICOS release 2.0 running on Cray computer systems.
3.0	July 1987 Documentation to support the UNICOS release 3.0 running on Cray computer systems.
4.0	July 1988 Documentation to support the UNICOS release 4.0 running on Cray computer systems.
5.0	January 1989 Documentation to support the UNICOS release 5.0 running on Cray computer systems.
6.0	February 1991 Documentation to support the UNICOS 6.0 release running on all Cray Research systems.
7.0	September 1992 Documentation to support the UNICOS 7.0 release running on all Cray Research systems.
8.0	January 1994 Documentation to support the UNICOS 8.0 release running on all Cray Research systems.
9.0	August 1995 Documentation to support the UNICOS 9.0 release running on all Cray Research systems.

- 9.3 August 1997
Documentation to support the UNICOS 9.3 release running on all Cray Research systems.

- 10.0 November 1997
Documentation to support the UNICOS 10.0 release running on Cray Research systems. The New Features page provides detailed information about the system call changes documented in this manual.

Preface

This publication documents the UNICOS 10.0 release running on Cray Research systems and supplements the information contained in the other manuals in the UNICOS documentation set. It describes the UNICOS system calls, which access the services provided by the system kernel.

This is a reference manual for UNICOS programmers. Readers should have a working knowledge of either the UNICOS or the UNIX operating system.

Related publications

The following man page manuals contain additional information that may be helpful.

Note: For the UNICOS 10.0 release, man page reference manuals are not orderable in printed book form. Instead, they are available as printable PostScript files provided on the same DynaWeb CD as the rest of the supporting documents for this release. Individual man pages are still available online and can be accessed by using the `man(1)` command.

- *UNICOS User Commands Reference Manual*, Cray Research publication SR-2011
- *UNICOS File Formats and Special Files Reference Manual*, Cray Research publication SR-2014
- *UNICOS Administrator Commands Reference Manual*, Cray Research publication SR-2022
- *UNICOS System Libraries Reference Manual*, Cray Research publication SR-2080

The following ready references are available in printed form from the Distribution Center:

- *UNICOS User Commands Ready Reference*, Cray Research publication SQ-2056
- *UNICOS System Libraries Ready Reference*, Cray Research publication SQ-2147
- *UNICOS System Calls Ready Reference*, Cray Research publication SQ-2215
- *UNICOS Administrator Commands Ready Reference*, Cray Research publication SQ-2413

The following manuals are also referenced on man pages in this document:

- *Tape Subsystem User's Guide*, Cray Research publication SG-2051
- *Application Programmer's Library Reference Manual*, Cray Research publication SR-2165
- *General UNICOS System Administration*, Cray Research publication SG-2301
- *UNICOS Networking Facilities Administrator's Guide*, Cray Research publication SG-2304

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

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Conventions

The following conventions are used throughout this document:

<u>Convention</u>	<u>Meaning</u>
<code>command</code>	This fixed-space font denotes literal items such as commands, files, routines, path names, signals, messages, and programming language structures.
<code>manpage(x)</code>	Man page section identifiers appear in parentheses after man page names. The following list describes the identifiers:

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

Some internal routines (for example, the `_assign_asgcmd_info()` routine) do not have man pages associated with them.

variable

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:

Term

Definition

Cray PVP systems

All configurations of Cray parallel vector processing (PVP) systems.

Cray MPP systems

All configurations of the CRAY T3D series. The UNICOS operating system is not supported on CRAY T3E systems. CRAY T3E systems run the UNICOS/mk operating system.

All Cray Research systems

All configurations of Cray PVP and Cray MPP systems that support this release.

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.

Man page sections

The entries in this document are based on a common format. The following list shows the order of sections in an entry and describes each section. Most entries contain only a subset of these sections.

<u>Section heading</u>	<u>Description</u>
NAME	Specifies the name of the entry and briefly states its function.
SYNOPSIS	Presents the syntax of the entry.
IMPLEMENTATION	Identifies the Cray Research systems to which the entry applies.
STANDARDS	Provides information about the portability of a utility or routine.
DESCRIPTION	Discusses the entry in detail.
NOTES	Presents items of particular importance.
CAUTIONS	Describes actions that can destroy data or produce undesired results.
WARNINGS	Describes actions that can harm people, equipment, or system software.
ENVIRONMENT VARIABLES	Describes predefined shell variables that determine some characteristics of the shell or that

	affect the behavior of some programs, commands, or utilities.
RETURN VALUES	Describes possible return values that indicate a library or system call executed successfully, or identifies the error condition under which it failed.
EXIT STATUS	Describes possible exit status values that indicate whether the command or utility executed successfully.
MESSAGES	Describes informational, diagnostic, and error messages that may appear. Self-explanatory messages are not listed.
ERRORS	Documents error codes. Applies only to system calls.
FORTRAN EXTENSIONS	Describes how to call a system call from Fortran. Applies only to system calls.
BUGS	Indicates known bugs and deficiencies.
EXAMPLES	Shows examples of usage.
FILES	Lists files that are either part of the entry or are related to it.
SEE ALSO	Lists entries and publications that contain related information.

Reader comments

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