Preface

The OLNET online network communications program detects and isolates problems in networks associated with Cray Research computer systems. This manual describes the online environment for OLNET under the Cray Research UNICOS operating system, release 10.0 on Cray PVP (except for the CRAY J90 series and CRAY EL series) and CRAY T3D computer systems; the IBM MVS and VM operating systems; and the UNIX System V operating system on a Sun MWS, OWS, or Sun Workstation, and an OWS-E.

Note: The OLNET program is not supported on GigaRing based systems. On these systems, use the `vht`(8), `vst`(8), and `mnet`(8) commands to test ANSI High Performance Parallel Interface (HIPPI) and Fiber Distributed Data Interface (FDDI) communications links.

This manual was written for Cray Research, Inc. personnel and customer analysts or administrators who maintain Cray Research systems. Readers should have a working knowledge of the operating system appropriate to their test environment (MVS, UNICOS, UNIX, or VM).

Manual organization

This manual is organized as follows:

Chapter 1 provides an overview of OLNET program execution. It describes how to initialize OLNET under the MVS, UNICOS, UNIX, or VM systems, access the Main menu, and enter OLNET commands.

Chapter 2 explains how to execute the FEI test. It describes how to get started with the test, test menus, and test commands, and provides step-by-step execution procedures for each test mode.

Chapter 3 explains how to execute the NSC test. It describes how to get started with the test and provides an execution example. It also describes the NSC network message format and test menus, test commands, and test modes, and provides step-by-step execution procedures for each test mode.

Chapter 4 explains how to execute the VME test. It describes how to get started with the test and provides an execution example. It also describes VME testing using the fy driver, the VME network message format and test menus, test commands, and test modes, and provides step-by-step execution procedures for each test mode.

Chapter 5 explains how to execute the HIPPI tests. It describes how to get started with each test and provides an execution example. It also describes test menus, test commands, DFS command output, edit mode, and test configurations.

Chapter 6 explains how to execute the FDDI test. It describes how to get started with the test, test menus, and test commands, and provides step-by-step execution procedures for each test mode.

Chapter 7 explains how to execute the MPP test. It describes how to get started with the test, test menus, and test commands, and provides step-by-step execution procedures for each test mode.

Chapter 8 explains how to execute the FDR-4 test. It describes how to get started with the test, test menus, test commands, and test modes.

Appendix A describes alternatives to menu execution. It covers MVS command-mode job execution, UNICOS and UNIX shell script and command-line execution, and VM EXEC procedure execution.

Appendix B describes the configurations in which the OLNET program is supported and provides a table of networks supported by OLNET.

Appendix C describes the theory of operation for the following OLNET test modes: synchronous active-and-passive mode, loopback mode, and asynchronous active-and-passive mode.

Appendix D describes front-end build procedures for OLNET.

Appendix E describes the use of edit mode.

Related publications

The following documents contain additional information that may be helpful:

- *System Library Reference Manual*, publication SM-0114
- *Software Problem Report (SPR) User's Guide*, publication SD-0235
- *I/O Subsystem (IOS) Administrator's Guide*, publication SG-0307
- *Online Maintenance Tools Guide for Cray PVP Systems*, Cray Research publication SD–1012
- *UNICOS User Commands Reference Manual*, Cray Research publication SR–2011

- *UNICOS System Calls Reference Manual*, Cray Research publication SR–2012
- *UNICOS File Formats and Special Files Reference Manual*, Cray Research publication SR–2014
- *UNICOS Administrator Commands Reference Manual*, Cray Research publication SR–2022

Cray Research hardware publications that may be of interest are as follows:

- *I/O Subsystem Hardware Reference Manual*, publication HR-0030
- *Cray Data-streaming Interface Reference manual*, publication HR-0079
- *CRAY T3D System Architecture Overview*, publication HR-04033
- *IBM System 360 /370 Interface Reference Manual Channel to Control Unit Original Equipment Manufacturers Information*, publication HO-00079
- *CRAY Y-MP C90 System Programmer Reference Manual*, publication CSM-0500-0A0
- *CRAY Y-MP System Programmer Reference Manual*, publication CSM-0400-0A0
- *IOS Model E System Programmer Reference Manual*, publication CSM-1010-000
- *FEI-3 (VMEbus Interface) Installation and Maintenance Manual*, publication CMM-1100-0A0
- *FOL-3 Maintenance Manual*, publication CMM1102000
- *Cray Data-streaming Interface Maintenance Manual*, publication CMM-1107-000
- *CRAY Y-MP and CRAY X-MP EA Maintenance Workstation User Guide*, publication CDM-1115-0B0
- *Disk Systems Programmer Reference Manual*, publication CSM-1118-000
- *Remote Support System Guide (Version 3.0)*, publication CDM-1125-000
- *FDR-4/MPX-24 Engineering Note*, publication PRN-0917

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The *User Publications Catalog*, Cray Research 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

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Conventions

The following conventions are used throughout this document:

Convention	Meaning
`command`	This fixed-space font denotes literal items such as commands, files, routines, path names, signals, messages, and programming language structures.
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.
O′*x*	Indicates that *x* is an octal (O′) value. Input values are assumed to be in decimal format unless otherwise indicated.

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, including the following: CRAY C90 series

	CRAY C90D series
	CRAY EL series (including CRAY Y-MP EL systems)
	CRAY J90 series
	CRAY T90 series
	CRAY Y-MP E series
	CRAY Y-MP M90 series
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.

Software problem reporting

Online diagnostic tests are released as part of the operating system software. To report problems with or request changes to online diagnostic software, submit a Software Problem Report (SPR) on the CCN `hydra` system.

The `hydra` system is administred by CCN (Corporate Computing and Networks). Please contact the CCN Help Desk if you need validation assistance. For additional information, refer to the *Software Problem Report (SPR) User's Guide*, publication SD-0235.

Reader comments

If you have comments about the technical accuracy, content, or organization of this document, please tell us. You can contact us in any of the following ways:

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