



Software Product Description

PRODUCT NAME: DIGITAL Parallel Software Environment for DIGITAL UNIX
Version 1.8

SPD 51.09.07

DESCRIPTION

The DIGITAL Parallel Software Environment (PSE) provides components necessary for the development and execution on DIGITAL Alpha systems of parallel programs written to use Parallel Virtual Machine (PVM) or Message Passing Interface (MPI) software.

DIGITAL Parallel Software Environment (PSE) comprises two components in one product:

- DIGITAL MPI
- DIGITAL PVM

These components are distinct and are not integrated. Each component can be installed and operated independently.

Both the DIGITAL PVM and the DIGITAL MPI facilities provide low-latency message passing between user processes, using shared memory or the MEMORY CHANNEL™ interconnect as a medium. Both DIGITAL PVM and DIGITAL MPI are optimized for DIGITAL Alpha servers, and for Alpha systems connected by MEMORY CHANNEL™.

DIGITAL PVM is nearly fully functionally compatible with Version 3.3.9 of the PVM message-passing system from Oak Ridge National Laboratory (ORNL). There are minor differences which are documented in the product documentation. DIGITAL PVM does not interoperate with the ORNL PVM implementation. Standard network interconnects are not supported.

DIGITAL MPI is an implementation of the Message Passing Interface (MPI) specification based on MPICH Version 1.1.1 from Argonne National Laboratory and Mississippi State University. Differences between DIGITAL MPI and MPICH are described in the product documentation. Standard network interconnects are not supported.

A modified version of the MPICH upshot message profiling tool is provided. This modified version has improved time resolution, and an improved user interface that can show relationships between non-blocking events. This tool is provided for evaluation only and is not supported.

CONFORMANCE TO STANDARDS

- MPI: A Message-Passing Interface Standard, June 5, 1995. A de facto standard from the Message Passing Interface Forum.

SOURCE CODE INFORMATION

- Source code for this product is not available

INSTALLATION REQUIREMENTS

Disk Space Requirements (PVM)

Disk space required for use (permanent):

Root file system	none
Other file systems:	/usr 9 MB

Disk Space Requirements (MPI)

Disk space required for use (permanent):

Root file system	none
Other file systems:	/usr 6 MB

These counts refer to the disk space required on the system disk. The sizes are approximate; actual sizes may vary depending on the user's system environment, configuration, and software options.

HARDWARE REQUIREMENTS

Processors Supported

- All DIGITAL Alpha systems running DIGITAL UNIX are supported.
- DIGITAL MPI and DIGITAL PVM are designed to run on MEMORY CHANNEL™ clusters of DIGITAL Alpha servers, or on stand-alone DIGITAL Alpha servers.

SOFTWARE REQUIREMENTS

DIGITAL PVM or DIGITAL MPI:

- DIGITAL UNIX Operating System V4.0a or greater.
- TruCluster Production Server Software, Version 1.4 or greater (SPD 36.92.xx) or TruCluster MEMORY CHANNEL™ Software, Version 1.4 or greater (SPD 60.55.xx) are required to use MEMORY CHANNEL™ as a message passing medium.
- MPI only: The DIGITAL Fortran for DIGITAL UNIX Alpha Runtime Support subset (DFARTL). This subset is distributed with DIGITAL UNIX.

SOFTWARE LICENSING

This software is furnished under the licensing provisions of Digital Equipment Corporation's Standard Terms and Conditions. For more information about DIGITAL's licensing terms and policies, contact your local DIGITAL office.

LICENSE MANAGEMENT FACILITY SUPPORT

This layered product supports the DIGITAL UNIX License Management Facility (LMF). License units for this product are allocated on a capacity basis. For more information on the License Management Facility, refer to the DIGITAL UNIX Operating System Software Product Description (SPD 41.61.xx) or the License Management Facility manual of the DIGITAL UNIX Operating System documentation set.

GROWTH CONSIDERATIONS

The minimum hardware/software requirements for any future version of this product may be different from the requirements for the current version.

DISTRIBUTION MEDIA

This product is available as part of the DIGITAL UNIX Alpha Consolidated Distribution on CD-ROM.

The software documentation for this product is also available as part of the UNIX Online Documentation Library on CD-ROM.

YEAR 2000 READY

This product is Year 2000 ready.

SOFTWARE WARRANTY

This software is provided by DIGITAL with a 90 day conformance warranty in accordance with the DIGITAL warranty terms applicable to the license purchase.

ORDERING INFORMATION

DIGITAL Parallel Software Environment Version 1.8 for DIGITAL UNIX Alpha Systems

Software License: QL-2ATA*-AA
Software Media: QA-054AA-H8 (ConDist)
Software Product Services: QT-2ATA*-**

* Denotes variant fields. For additional information on available licenses, services, and media, refer to the appropriate price book.

The above information is valid at time of release. Please contact your local DIGITAL office for the most up-to-date information.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from DIGITAL. For more information, contact your local DIGITAL Services Representative.

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