

# Software Product Description

**PRODUCT NAME:** DEC Library Server for OpenVMS AXP/VAX,  
Version 2.0

**SPD 63.29.00**

## DESCRIPTION

Digital Library Server (DECLS) is an OpenVMS software package providing generic robotic control and management functions for tape cartridge library systems. DECLS supports multiple and heterogeneous library systems by offering services to client applications running on any host within an OpenVMS cluster. It translates client requests to commands specific to the target library systems. DECLS interfaces with client applications through a sharable C library to perform automatic and scheduled archives.

The components of DECLS are: a library server which processes tape command requests to control the cartridge robotics and manage tape resources, a library client which can be installed on other members of the cluster to provide the services of DECLS to cluster members, a programmatic interface object library which is linked with the users application, and a set of utilities which performs system managements functions. DECLS also performs error and trace logging for maintenance and diagnostics purposes.

Functions performed by the server include the loading and unloading of volumes to drives, setting of volume characteristics; allocation of scratch volumes, and queries to obtain library and device information. DECLS maintains resource information in a relational database (Rdb) where tape volume labels, with bin and module locations, device status, and configuration data are stored.

The Digital TL820 Digital Linear Tape (DLT) Library and Odetics ATL5480 3480 Library are currently supported by DECLS. Through the multi-unit controller, the libraries can support up to 5 library storage modules (LSM) with 2 (3480) or 3 DLT drives per module, comprising an automated cartridge system (ACS). The robotic control path between the host and the controller is via RS232. The library controller can be connected to a LAT port on a terminal server. The data path connecting the tapes drives to the host I/O port is differential SCSI-2.

The DECLS kit includes the following:

- DECLS Run-Time Library (RTL) routines - A set of tools that let programmers design applications specific to their system and users.
- DECLS System Management Interface - A set of command procedures and utility programs that allow the system manager to operate the server, create and configure the database.
- DECLS Server - Consisting of separate library control processes, one for each library system and device interface processes for each type of supported device.
- DECLS Client - Consisting of a command line user interface, an application programmatic interface and an operator request handler.

The following documentation is available:

- *Digital Library Server Installation Guide*
  - Explains how to install the DECLS using VMSINSTAL and provides a sample installation log file
- *Digital Library Server System Manager's Guide*
  - Describes the DECLS, how it works with the ACS, the configuration tasks, the command language syntax used to maintain the device and volume records from the database, and DECLS-specific system maintenance tasks
- *Digital Library Server Programmer's Reference Guide*
  - Describes the DECLS RTL routines and describes how to use them by providing examples of VAX C code fragments

## INSTALLATION

Digital recommends that a customer's first purchase of this software include Digital Installation Services. These services provide installation of the software product by an experienced Digital Software Specialist.

For subsequent purchases of this product, only experienced customers should attempt installation. Digital recommends that all other customers purchase Digital's Installation Services.

## HARDWARE REQUIREMENTS

### *Alpha AXP Processors Supported*

Alpha AXP:      DEC 3000 Model 400 AXP Workstation,  
                    DEC 3000 Model 400 AXP Server,  
                    DEC 3000 Model 500 AXP Workstation,  
                    DEC 3000 Model 500 AXP Server

                    DEC 4000 Model 610 AXP System

                    DEC 7000 Model 610 AXP System

                    DEC 10000 Model 610 AXP System

### *VAX Processors Supported*

VAX:              VAXft Model 110,  
                    VAXft Model 310,  
                    VAXft Model 410,  
                    VAXft Model 610,  
                    VAXft Model 612

                    VAX 4000 Model 100,  
                    VAX 4000 Model 200,  
                    VAX 4000 Model 300,  
                    VAX 4000 Model 400,  
                    VAX 4000 Model 500,  
                    VAX 4000 Model 600

                    VAX 6000 Model 200 Series,  
                    VAX 6000 Model 300 Series,  
                    VAX 6000 Model 400 Series,  
                    VAX 6000 Model 500 Series,  
                    VAX 6000 Model 600 Series

                    VAX 7000 Model 600 Series

                    VAX 8200, VAX 8250, VAX 8300,  
                    VAX 8350, VAX 8500, VAX 8530,  
                    VAX 8550, VAX 8600, VAX 8650,  
                    VAX 8700, VAX 8800, VAX 8810,  
                    VAX 8820, VAX 8830, VAX 8840

VAX 9000 Model 110,  
VAX 9000 Model 210,  
VAX 9000 Model 300 Series,  
VAX 9000 Model 400 Series

VAX 10000 Model 600 Series

VAX-11/730, VAX-11/750,  
VAX-11/780, VAX-11/785

MicroVAX 3100 Model 10/10E,  
MicroVAX 3100 Model 20/20E,  
MicroVAX 3100 Model 30,  
MicroVAX 3100 Model 40,  
MicroVAX 3100 Model 80,  
MicroVAX 3100 Model 90,  
MicroVAX 3300, MicroVAX 3400,  
MicroVAX 3500, MicroVAX 3600,  
MicroVAX 3800, MicroVAX 3900

VAXstation 3100 Model 30,  
VAXstation 3100 Model 38,  
VAXstation 3100 Model 40,  
VAXstation 3100 Model 48,  
VAXstation 3100 Model 76,  
VAXstation 3200, VAXstation 3500,  
VAXstation 3520, VAXstation 3540

VAXstation 4000 Model 60,  
VAXstation 4000 Model 90,  
VAXstation 4000 VLC

VAXserver:      VAXserver 3100, VAXserver 3300,  
                    VAXserver 3400, VAXserver 3500,  
                    VAXserver 3600, VAXserver 3602,  
                    VAXserver 3800, VAXserver 3900

VAXserver 4000 Model 200,  
VAXserver 4000 Model 300,  
VAXserver 4000 Model 500

VAXserver 6000 Model 210,  
VAXserver 6000 Model 220,  
VAXserver 6000 Model 310,  
VAXserver 6000 Model 320,  
VAXserver 6000 Model 410,  
VAXserver 6000 Model 420,  
VAXserver 6000 Model 510,  
VAXserver 6000 Model 520,  
VAXserver 6000 Model 610,  
VAXserver 6000 Model 620,  
VAXserver 6000 Model 630

### *Processors Not Supported*

VAX-11/725, VAX-11/782, MicroVAX I,  
MicroVAX II, MicroVAX 2000, VAXstation I,  
VAXstation II, VAXstation 2000, VAXstation 8000

*Other Hardware Required*

DSRVG-AA, or equivalent, DECserver and TL820 or TL3VA Automated Tape Library

**Disk Space Requirements (Block Cluster Size = 1)**

*For Alpha AXP Systems*

Disk space required for installation: 50,000 blocks

Disk space required for use (permanent): 30,000 blocks

*For VAX Systems*

Disk space required for installation: 25,000 blocks

Disk space required for use (permanent): 15,000 blocks

sizes are approximate; actual sizes may vary depending on the user's The system environment, configuration, and software options. Additional disk space is required for the log files that are generated during DECLS operation if logging is enabled.

**CLUSTER ENVIRONMENT**

This layered product is fully supported when installed on any valid and licensed VAXcluster\* configuration without restrictions. The *HARDWARE REQUIREMENTS* section of this product's Software Product Description details any special hardware required by this product.

\* VAXcluster configurations are fully described in the VAXcluster Software Product Description (SPD 29.78.xx) and include CI, Ethernet, and Mixed Interconnect configurations.

**SOFTWARE REQUIREMENTS**

*For AXP Systems*

*For Systems Using Terminals (No DECwindows Interface):*

OpenVMS AXP Operating System V1.5 - V6.1  
DEC Rdb for OpenVMS AXP V6.0

*For VAX Systems*

*For Systems Using Terminals (No DECwindows Interface):*

OpenVMS VAX Operating System V5.5-2 - V6.1  
DEC Rdb for OpenVMS VAX V6.0

A DECwindows interface is not supported.

*OpenVMS Tailoring*

The following OpenVMS classes are required for full functionality of this layered product:

- OpenVMS Required Saveset
- Network Support
- Programming Support
- System Programming Support
- Secure User's Environment
- Utilities
- RMS Journaling Files
- Miscellaneous Files
- Example Files

For more information on OpenVMS classes and tailoring, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx)

**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**

TK50 Streaming Tape

CD-ROM

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

**ORDERING INFORMATION**

***For Alpha AXP and VAX Systems:***

Software Licenses: Q2-TL3A9-AA

Software Media and Documentation: Q2-TL3AA-H5

Software Media (CD-ROM): Q2-TL3AA-H8

Software Product Services: YR-TL820-\*A

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

## **SOFTWARE LICENSING**

This software is only furnished under a license. For more information about Digital's licensing terms and policies, contact your local Digital office.

### *License Management Facility Support:*

This layered product supports the OpenVMS License Management Facility.

This layered product offers a Concurrent Use license.

For more information on the OpenVMS License Management Facility, refer to the appropriate OpenVMS Operating System SPD or documentation.

## **SOFTWARE PRODUCT SERVICES**

A variety of service options are available from Digital. For more information, contact your local Digital office.

## **SOFTWARE WARRANTY**

Warranty for this software product is provided by Digital with the purchase of a license for the product as defined in the Software Warranty Addendum of this SPD.

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

® Motif is a registered trademark of Open Software Foundation, Inc.

® ATL is a registered trademark of Odetics Corporation

™ The DIGITAL Logo, Alpha AXP, AXP, CI, DEC, DECserver, DECstation, DECsystem, DECwindows, Digital, MicroVAX, OpenVMS, TK, VAX, VAXcluster, VAXft, VAXserver, and VAXstation are trademarks of Digital Equipment Corporation.

© 1994 Digital Equipment Corporation. All rights reserved.