Software Product Description

PRODUCT NAME: OpenVMS/Thai VAX Operating System, Version 7.1 SPD 26.C7.09

DESCRIPTION

OpenVMS/Thai VAX operating system Version 7.1 is an extension to OpenVMS operating system Version 7.1 to provide a computing environment in both English and Thai languages. While keeping full compatibility with OpenVMS, OpenVMS/Thai VAX extends and enhances the system utilities and environment of OpenVMS to process Thai characters. Thai language specific utilities are included to address special requirements which are not provided in OpenVMS VAX. In addition, OpenVMS/Thai VAX forms the base platform for Thai language application development.

OpenVMS/Thai VAX supports Thai data representation that conforms to the Thai Industrial Standard 620-2533 (TIS 620-2533) of the Thai Industrial Standards Institute, Ministry of Industry, defined in 2533 (1990).

This document describes only the components of OpenVMS/Thai VAX which has been extended, enhanced or added to OpenVMS. For further details of general components of OpenVMS V7.1, refer to SPD (25.01.xx).

FEATURES

OpenVMS/Thai VAX provides the following Thai processing features in addition to the base functionality of OpenVMS.

User Environment

OpenVMS/Thai VAX provides the following features for general users:

Thai Character I/O Support

Input/Output of Thai and ASCII characters are supported on Thai terminals/printers. The Thai terminal driver provides advanced line editing support for Thai and ASCII characters.

DCL Command Language Support

OpenVMS/Thai VAX extends DCL to support Thai processing in the following:

- Command line arguments
- Parameters in command procedure
- Equivalence names
- Labels in GOTO and GOSUB statements
- SUBROUTINE names and CALL statements
- INQUIRE statements
- READ/WRITE statements
- MESSAGE/REPLY commands

Thai Date and Time Display

Utilities such as DIRECTORY and MAIL in OpenVMS/Thai can display date and time in Thai format.

Utilities

OpenVMS/Thai VAX provides the following utilities to support Thai processing in addition to the OpenVMS utilities:

digital™ software

April 1998
AE-NX26K-TE
DIGITAL EQUIPMENT CORPORATION
ASIA REGION

- Thai SORT/MERGE in addition to SORT /MERGE
- Thai EDT in addition to EDT
- Thai Print Symbiont in addition to Print Symbiont

In addition to the above, Thai characters are also supported in the following utilities:

- DEC TPU and EVE Editor
- Mail
- Phone
- Reply

Thai SORT/MERGE

Thai SORT/MERGE is the Thai extended version of the OpenVMS SORT/MERGE utility. Word ordering rules defined by the Thai Dictionary, the Royal Insititute edition, B.E. 2525 (1982) are supported.

Thai EDT

Thai EDT is an interactive Thai text editor that provides many text processing enhancements to EDT for Thai text processing. A callable interface is also provided for applications that require Thai text editing capabilities.

Thai Print Symbionts

Thai print symbionts support Thai combined character code TIS 988-2533 (1990) extension to Thai character code TIS 620-2533 (1990) and printer Identification Number scheme proposed by the NECTEC/TAPIC's "WTT Common Specifications for Thai Application Development". It provides the following features:

- Automatic print-line adjustment
- Space compensation
- Run-time character set conversion between TIS 620 character as used by applications software and non-TIS 620 character sets as might be used in the printers

Programming Run-Time Libraries

OpenVMS/Thai VAX provides the following run-time libraries to facilitate development of Thai applications:

Character Translation Run-time Library Tables

The following OpenVMS character translation run-time library tables have been enhanced to provide full compliance with the TIS 620-2533 character code environment.

- LIB$AB_ASC_EBC
- LIB$AB_ASC_EBC_REV
- LIB$AB_EBC_ASC
- LIB$AB_EBC_ASC_REV
- LIB$AB_UPCASE
- LIB$AB_LOWERCASE

Thai Processing Run-time library

OpenVMS/Thai VAX provides a run-time library for program and application development involving Thai processing. The run-time library routines perform a variety of Thai processing functions such as string manipulation, read/write operations, character conversion and other Thai processing operations. These routines can be called from programs written in any of the supported programming languages.

INSTALLATION

DIGITAL requires that a customer's first purchase of this software product includes DIGITAL Installation Services. These services provide for 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

Minimum Hardware Required

Processors Supported:

Q-bus Based Systems

- MicroVAX II
- VAXstation II/GPX[1], VAXstation II/QVSS[2]
- MicroVAX 3200, VAXserver 3200, VAXstation 3200
- MicroVAX 3300, VAXserver 3300
- MicroVAX 3400, VAXserver 3400
- MicroVAX 3500, VAXserver 3500, VAXstation 3500, VAXstation 3520, VAXstation 3540
- MicroVAX 3600, VAXserver 3600
- MicroVAX 3800, VAXserver 3800
- MicroVAX 3900, VAXserver 3900
- VAX 4000, Models 100, 200, 300, 500, 600
- VAX 4000, Models 50, 100A, 105A, 106A, 108, 500A, 505A, 600A, 700A, 705A
- VAXserver 4000, Models 200, 300, 400, 500, 600

NMI Bus Based Systems

- VAX 8530, VAXserver 8530, VAX 8550, VAXserver 8550
- VAX 8700, VAXserver 8700
- VAX 8800, VAX 8810, VAX 8820, VAX 8830, VAX 8840
- VAXserver 8800, VAXserver 8810, VAXserver 8820, VAXserver 8830, VAXserver 8840

XMI Bus Based Systems

- VAX 6000 Series, Models 210, 220, 230, 240
- VAX 6000 Series, Models 310, 320, 330, 340, 360
- VAX 6000 Series, Models 410, 420, 430, 440, 450, 460
- VAX 6000 Series, Models 510, 520, 530, 540, 550, 560
- VAX 6000 Series, Models 610, 620, 630, 640, 650, 660
- VAXserver 6000, Models 210, 220, 310, 320, 410, 420, 510, 520
- VAX 8530, VAX 8550, VAXserver 8530, VAXserver 8550
- VAX 8700, VAXserver 8700
- VAX 8800, VAX 8810, VAX 8820, VAX 8830, VAX 8840
- VAXserver 8800, VAXserver 8810, VAXserver 8820, VAXserver 8830, VAXserver 8840
- VAX 7000, Models 610, 620, 630, 640, 650, 660, 710, 720, 730, 740, 750, 760
- VAX 10000, MODELS 610, 620, 630, 640, 650, 660

VAXBI Bus Based Systems

- VAX 8200, VAX 8250, VAXserver 8200, VAXserver 8250
- VAX 8300, VAX 8350, VAXserver 8300, VAXserver 8350

SBI Bus Based Systems

- VAX 8600, VAX 8650, VAXserver 8600, VAXserver 8650

Special System Specific Internal Bus

- MicroVAX 2000, VAXstation 2000, VAXstation 2000/GPX, VAXstation 2000/MFB[3]
- VAXft 3000, Models 110, 310, 410, 610, 612
- MicroVAX 3100, Models 10, 10E, 20, 20E, 30, 40, 80, 85, 90, 95, 96, 98
- VAXserver 3100, Models 10, 10E, 20, 20E
- VAXstation 3100, Models 30, 38, 40, 48, 76
- VAXstation 3100/GPX, Models 38, 48, 76
- VAXstation 3100/SPX[4], Models 38, 48, 76
- VAXstation 4000, Models 60, 90, 95, 96

1 Graphics Processing Accelerator (GPX)
2 Q-Bus Video Sub System (QVSS)
3 Monochrome Frame Buffer (MFB)
4 2D Scanline Processor Accelerator Graphics System (SPX)

- VAXstation 4000-VLC
- VAX 9000, Models 110, 110VP[5], 210, 210VP, 310, 310VP
- VAX 9000, Models 320, 320VP, 330, 330VP, 340, 340VP
- VAX 9000, Models 410, 410VP, 420, 420VP, 430, 430VP
- VAX 9000, Models 440, 440VP

VAXstations are supported in conjunction with DECwindows Motif /Thai for OpenVMS. Please refer to SPD 53.52.xx. for a detailed description.

Processors Not Supported:

VAX-11/725, VAX-11/730,VAX-11/750,

VAX-11/751, VAX-11/780, VAX-11/782,

VAX-11/785, MicroVAX I, VAXstation I

Processor Restrictions:

Refer to OpenVMS Operating System for Alpha and VAX V7.1 SPD (25.01.xx) for restrictions on the unsupported processors.

Other Hardware Required:

Thai terminals are required for Thai input and output operations.

- Thai Terminals Supported:
  VT382-TB

Disk Space Requirements:
(Block Cluster Size = 1)

The following OpenVMS/Thai VAX block space requirements are additional to the OpenVMS VAX block space requirements stated in OpenVMS Operating System for Alpha and VAX V7.1 SPD (SPD 25.01.xx).

- Disk space required for installation:
  6,000 blocks (3,000K bytes)
- Disk space required for use (permanent):
  2,000 blocks (1,000K bytes)

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.

5 Vector Processor (VP)

VAXCLUSTER ENVIRONMENT

This 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 (29.78.xx) and include CI, Ethernet and MIXED Interconnect configurations.

VMSCLUSTER ENVIRONMENT

VMScluster configurations are supported and fully described in VAXcluster Software Product Description (29.78.xx), OpenVMS Operating System for Alpha and VAX V7.1 Software Product Description (25.01.xx) and VMScluster for OpenVMS AXP Software Product Description (42.18.xx).

SOFTWARE REQUIREMENTS

OpenVMS/Thai VAX V7.1 is based on OpenVMS VAX Operating System for VAX V7.1.

OpenVMS Tailoring

The following OpenVMS VAX classes are required for full functionality of OpenVMS/Thai VAX:

- OpenVMS VAX Required Saveset
- Utilities

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

OPTIONAL THAI SOFTWARE

For information on other available optional Thai software products, contact your local DIGITAL office.

GROWTH CONSIDERATIONS

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

DISTRIBUTION MEDIA

- Tape: TK50 Streaming Tape

ORDERING INFORMATION

- Software Licenses:
  - VAX VMS/Thai : QL-0015*-**
  - OpenVMS/Thai VAX Base : QL-0055*-**
- Software Media (with OpenVMS Extended Documentation Set): QA-0015*-H*
- Software Documentation (with OpenVMS Extended Documentation Set): QA-0015A-GZ
- Software Media (with OpenVMS Base Documentation Set): QA-09S5*-H*
- Software Documentation (with OpenVMS Base Documentation Set): QA-09S5A-GZ
- Software Product Services: QT-0015*-**

* Denotes variant fields.

For additional information on available licenses, services and media options, refer to the appropriate price book.

SOFTWARE LICENSING

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

LICENSE MANAGEMENT FACILITY SUPPORT

This product requires the use of the License Management Facility. License units for this product are allocated on a CPU-capacity plus User/Activity basis.

For more information on the License Management Facility, refer to OpenVMS Operating System Software for Alpha and VAX Product Description (SPD 25.01.xx) or License Management Facility Manual of the OpenVMS documentation set.

SOFTWARE PRODUCT SERVICES

A variety of service options are available from DIGITAL. Contact your local DIGITAL office for more information.

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 attached to this SPD.