

Software Product Description

PRODUCT NAME: VAXELN KAV Toolkit Extensions
for VMS, Version 1.1

SPD 34.18.01

DESCRIPTION

The VAXELN KAV Toolkit Extensions for VMS is a VMS layered product that can be used in conjunction with the VAXELN Toolkit to develop dedicated realtime systems to run on the KAV30 module.

The KAV30 is a VMEbus-based, VAX realtime single-board computer that runs a user's VAXELN system. It is based on the rtVAX300 processor daughter module, which contains a 2.7 VUP CMOS processor, a CMOS VAX floating-point coprocessor, a CMOS second-generation Ethernet coprocessor, VSB, optional SCSI controller, and 4 MB or 16 MB of memory.

With the KAV30, a user can put a VAX on the VMEbus, integrating the application into Digital Equipment Corporation's extensive computing and networking environment. Data can be communicated to and from devices on a DECnet or TCP/IP network, providing a means of total integration from the realtime device to the data center.

For the KAV30, the user develops the application on a VAX/VMS Host Development System using the VAXELN Toolkit and the VAXELN KAV Toolkit Extensions. The application can then be built into a VAXELN Target System, which can be down-line loaded into a KAV30 over an Ethernet, booted from SCSI disk, or booted from EPROM.

Since the VAXELN KAV30 Toolkit Extensions are an extension to the VAXELN Toolkit, users have the features and benefits standard with VAXELN. In addition, the VAXELN KAV30 Toolkit Extensions provides software to simplify the programming of the KAV30 module. It provides kernel procedures to initialize the KAV30 module, set up and control access to VME and VSB devices, set up and control communication FIFOs, write and read Nonvolatile RAM, utilize ASTs in user-written device drivers, and initialize the KAV30 module. The KAV30 software also includes asynchronous event notification (ASTs) for the realtime clock and timers.

HARDWARE REQUIREMENTS

For the Host Development System

Processors and/or hardware configurations as specified in the System Support Addendum (SSA 34.18.01-x).

For the Target System

KAV30-xx as specified in the System Support Addendum (SSA 34.18.01-x).

SOFTWARE REQUIREMENTS

For the Host Development System

- VMS Operating System
- VAXELN Toolkit

Refer to the System Support Addendum (SSA 34.18.01-x) for availability and required versions of prerequisite /optional software.

ORDERING INFORMATION

Software Licenses:

QL-GESA*-** (Host Development System)

QL-GETA*-** (Target System)

Software Media: QA-GESA*-**

Software Documentation: QA-GESA*-GZ

Software Product Services: QT-GESA*-**

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

SOFTWARE LICENSING

The VAXELN KAV Toolkit Extensions Development License (QL-GESA*~**) is required for each CPU that will be using the VAXELN KAV Toolkit Extensions to support development of VAXELN systems.

This KAV Toolkit License is the user's right to use the VAXELN KAV30 Toolkit Extensions on a single CPU.

KAV30 Target Systems

Single-Use License Option (QL-GETA*~**). This license is included with the KAV30 hardware.

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 VMS License Management Facility.

License units for this product are allocated on an Unlimited System Use basis.

For more information on the License Management Facility, refer to the VMS Operating System Software Product Description (SPD 25.01.xx) or the *License Management Facility* manual of the VMS Operating System documentation set.

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.

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System Support Addendum

PRODUCT NAME: VAXELN KAV Toolkit Extensions
for VMS, Version 1.1

SSA 34.18.01-A

HARDWARE REQUIREMENTS

Host Processors Supported

VAX: VAX 4000 Model 200,
VAX 4000 Model 300,
VAX 4000 Model 500

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 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

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

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

MicroVAX: MicroVAX II, MicroVAX 2000,
MicroVAX 3100, MicroVAX 3300,
MicroVAX 3400, MicroVAX 3500,
MicroVAX 3600, MicroVAX 3800,
MicroVAX 3900

VAXstation: VAXstation II, VAXstation 2000,
VAXstation 3100 Series, VAXstation 3200,
VAXstation 3500, VAXstation 3520,
VAXstation 3540

VAXstation 4000 VLC,
VAXstation 4000 Model 60

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

Host Processors Not Supported

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

Processor Restrictions

A TK50 Tape Drive is required for standalone MicroVAX
2000 and VAXstation 2000 systems.

Disk Space Requirements (Block Cluster Size = 1):

For the Host Development System

Disk space required for installation: 2,500 blocks
(1.3 Mbytes)

Disk space required for use (permanent): 2,500 blocks
(1.3 Mbytes)

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.

Target Processors Supported

VAX KAV30 Series

The memory requirements for a KAV30 target system are consistent with those of other VAXELN target systems. A VAXELN target system typically requires a memory configuration of 1 MB, and a ROM-based application could have as little as 256 Kbytes of physical memory on the target system, depending on the size of the user's programs and the VAXELN Toolkit components included.

The KAV30 target system must have a load device for loading the VAXELN system image. The load devices can be an RZ22, RZ23, RZ23L, RZ24, RZ25, RZ55, RZ56, RZ57 hard disk, an Ethernet adapter (for down-line loading), or an EPROM.

OPTIONAL HARDWARE

Supported VMEbus and VSB Devices

VMEbus and VSB devices are supported through user-written applications and device drivers.

Supported SCSI Devices

A disk class driver is included in the VAXELN Toolkit which works with the KAV30 SCSI Port Driver to support the RZ22, RZ23, RZ23L, RZ24, RZ25, RZ55, RZ56, RZ57 hard disks, the RX23 and RX26 diskette drives, and the RRD40 and RRD42 compact disks.

CLUSTER ENVIRONMENT

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

- * V5.x VAXcluster configurations are fully described in the VAXcluster Software Product Description (29.78.xx) and include CI, Ethernet, and Mixed Interconnect configurations.

SOFTWARE REQUIREMENTS

For the Host Development System

- VMS Operating System V5.0 - V5.5
- VAXELN Toolkit V4.3

VMS Tailoring

For VMS V5.x systems, the following VMS classes are required for full functionality of this layered product:

- VMS Required Saveset
- Network Support
(If using the VAXELN Remote Debugger feature.)

- Programming Support
(Required if VAX C, VAX Ada, VAX FORTRAN, or VAX Rdb/ELN are installed.)
- Utilities

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

OPTIONAL SOFTWARE

The optional software for the VAXELN KAV30 Toolkit Extensions is software required for support of the VAXELN Toolkit. For additional information and details, refer to the VAXELN Toolkit System Support Addendum (SSA 28.02.xx-x).

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

9-track 1600 BPI Magtape (PE), TK50 Streaming Tape

This product is also available as part of the VMS Consolidated Software Distribution on CDROM.

The software documentation for this product is also available as part of the VMS Online Documentation Library on CDROM.

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

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