Software Product Description

PRODUCT NAME: KMV1A MicroVAX Driver, Version 2.6 (Formerly KMV1A MicroVMS Driver) **SPD 28.23.05**

DESCRIPTION

The KMV1A MicroVAX Driver provides a mechanism for communications between a MicroVAX host and the KMV1A Programmable Communications Controller. The driver controls this communication by providing an interface between MicroVAX application programs and microcode being executed in the KMV1A Controller's microprocessor. The communication includes data transfer; and the transfer of command, control, and status information to and from the KMV1A Controller. The driver also provides the mechanism to load microcode from the MicroVAX host into the KMV1A Controller, and to initialize the microcode.

Note: The KMV1A MicroVAX Driver software product consists of three major components: the KMV1A driver, an installation verification program, and a demonstration program.

Features:

The KMV1A driver provides the following features:

- Loading of microcode into the KMV1A Controller. (For X.25 applications, microcode is available from Digital as part of an optional software product described below. For other applications, custom microcode is developed by the customer.)
- Initialization of KMV1A microcode
- Capability to up-line dump the memory contents of the KMV1A Controller RAM to host memory
- QIO based interface for communications between the MicroVAX host and KMV1A Controller
- Memory mapped control of host area for DMA data transfer to and from the KMV1A Controller
- Full duplex data transmission between the host and the KMV1A Controller at up to 64K bps. Note that the KMV1A microcode may limit throughput to less than 64K bps in certain applications. For example, the microcode included in the KMV1A MicroVAX X.25 Link Level product supports full duplex data transmission at up to 19.2K bps
- Host error logging of detected KMV1A errors

The installation verification program verifies that the KMV1A MicroVAX Driver has been installed properly. The program performs basic driver functions and verifies that files are resident in the correct locations. The installation verification program also verifies that the KMV1A Controller is functioning at a basic level by transmitting data to and from the KMV1A Controller.

The host demonstration program is a compilable FORTRAN program which provides an example of basic commands which would be used by MicroVAX application programs to interface to the KMV1A Controller through the KMV1A driver. The demonstration program loads and initializes test KMV1A microcode, and then performs several transmit and receive commands.

The demonstration program is included in this software product for instructional purposes only; it is meant to serve as an example of effective use of the KMV1A driver. Digital does not provide the demonstration program for use, as is, by customers in functional host communications applications. Digital will not support such use of the demonstration program.

HARDWARE REQUIREMENTS

Processor and/or hardware configuration as specified in the System Support Addendum (SSA 28.23.05-x).

SOFTWARE REQUIREMENTS

For Systems Using Terminals (No DECwindows Interface):

OpenVMS Operating System

Refer to the System Support Addendum for the availability and required versions of prerequisite software (SSA 28.23.05-x).

ORDERING INFORMATION

Software Licenses: QL-VCPA*-**
Software Media: QA-VCPA*-**
Software Documentation: QA-VCPA*-GZ
Software Product Services: QT-VCPA*-**

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

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 OpenVMS License Management Facility.

License units for this product are allocated on a CPU-capacity basis. For more information on the License Management Facility, refer to the OpenVMS Operating System Software Product Description (SPD 25.01.xx) or the OpenVMS Operating System documentation set.

For more information about Digital's licensing terms and policies, contact your local Digital office.

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.

System Support Addendum

PRODUCT NAME: KMV1A MicroVAX Driver, Version 2.6 **SSA 28.23.05-A**

HARDWARE REQUIREMENTS

Processors Supported

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

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

VAXstation: VAXstation II

Processors Not Supported

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

VAX 4000 Model 100

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–11/725, VAX–11/730,
VAX–11/750, VAX–11/780,
VAX–11/782, VAX–11/785

MicroVAX: MicroVAX I, MicroVAX 2000,
MicroVAX 3100 Model 10/10E, 20/20E,
Model 30/40, Model 80, Model 90

VAXstation: VAXstation I, VAXstation 2000,
VAXstation 3100 Model 30/40, Model 38
/48, Model 76,
VAXstation 3200,VAXstation 3500, VAXsta-
tion 3520,
VAXstation 3540, VAXstation 4000 VLC,
VAXstation 4000 Model 60, VAXstation
4000 Model 90,
VAXstation 8000

VAXserver: VAXserver 3100 Model 10/10E, 20/20E,
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 210/220, VAXserver
6000 Model 310/320,
VAXserver 6000 Model 410/420,VAXserver
6000 Model 510/520,
VAXserver 6000 Model 610, VAXserver
6000 Model 620,
VAXserver 6000 Model 630

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Other Hardware Required

The following information applies to MicroVAX II configurations. One KMV communications module is required.

KMV1A-M	KMV1A-M Module

One of the following cabinet kits must be ordered:

CK-KMV1A-AA	RS-232 for BA123 cabinet
CK-KMV1A-AB	RS-232 for BA23 cabinet
CK-KMV1A-AF	RS-232 for H9642 cabinet
CK-KMV1A-EA	RS-422 for BA123 cabinet
CK-KMV1A-EB	RS-422 for BA23 cabinet
CK-KMV1A-EF	RS-422 for H9642 cabinet
CK-KMV1A-FA	RS-423 for BA123 cabinet
CK-KMV1A-FB	RS-423 for BA23 cabinet
CK-KMV1A-FF	RS-423 for H9642 cabinet

The following information applies to MicroVAX supported configurations. One of the following KMV modules is required, but no cabinet kit is needed.

KMV1A-SA	RS-232 KMV module for BA213, factory integrated
KMV1A-SB	RS-422 KMV module for BA213, factory integrated
KMV1A-SC	RS-423 KMV module for BA213, factory integrated
KMV1A-SF	RS-232 KMV module for BA213, field installed
KMV1A-SG	RS-422 KMV module for BA213, field installed
KMV1A-SH	RS-423 KMV module for BA213, field installed

Disk Space Requirements (Block Cluster Size = 1)

Disk space required for installation:	1,000 blocks (512K bytes)
Disk space required for use (permanent):	600 blocks (307K 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.

OPTIONAL HARDWARE

Up to seven additional KMV1A Programmable Communications Controllers may be added to the host system to form a maximum of eight KMV1A hardware units per system.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed VAXcluster* configuration. It must be installed once on each VAX, MicroVAX, or VAXstation processor from which usage is planned.

In order to configure some product-specific attributes that must remain unique to each system, certain components of the product are stored in the system-specific environment, SYS_$SPECIFIC:[SYSxxx] of the VAX, MicroVAX or VAXstation processor on which the installation is performed. The remaining components of the product, including some or all of the executable images will be installed common to all accessing systems.

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 Systems Using Terminals (No DECwindows Interface):

VMS Operating System V5.4 - OpenVMS V5.5 or V6.0

OpenVMS Tailoring

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

- VMS Required Saveset
- Programming Support
- System Programming Support

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

OPTIONAL SOFTWARE

There are two optional software products which are dependent on the KMV1A MicroVAX Driver.

- KMV1A MicroVAX Driver and Development Tools V2.3 (Refer to SPD 28.26.xx)
- KMV1A MicroVAX Driver and X.25 Link Level Software V2.3 (Refer to SPD 28.27.xx)

Customers with a KMV1A Programmable Communications Controller and the KMV1A MicroVAX Driver may choose between the Driver and Tools and Driver and X.25 software products depending upon their intended communications application.

The KMV1A MicroVAX Driver and Development Tools software product is intended for customers that plan to develop custom communications protocol applications. The Driver and Tools software product provides utilities which facilitate the customer's development of communications protocol microcode to run on the microprocessor of the KMV1A Programmable Communications Controller.

The KMV1A MicroVAX Driver and X.25 Link Level Software product is intended for customers with X.25-based communications protocol applications. The Driver and X.25 product includes microcode which is down-line loaded into the KMV1A microprocessor.

The microcode can be configured at the user's option to execute the data link level of the X.25 protocol, or to provide HDLC framing capability. The Driver and X.25 product conforms to the 1980 CCITT X.25 Recommendation pertaining to Link Access Procedure (LAP-B).

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

ORDERING INFORMATION

Software Licenses: QL-VCPA*-**
Software Media: QA-VCPA*-**
Software Documentation: QA-VCPAA-GZ
Software Product Services: QT-VCPA*-**

* 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. Contact your local Digital office for the most up-to-date information.