Software Product Description

PRODUCT NAME: IXV11/VMS Driver, Version 2.0 **SPD 28.28.01**

DESCRIPTION

The IXV11/VMS Driver allows programs written in any language supporting the MicroVAX/VMS $QIO System Service to communicate with user devices connected to the IXV11/IXV1S modules.

The IXV11/IXV1S Module Family is a group of industrial digital input/output, analogue input/output, and counter interfaces for DIGITAL's Q-bus machines.

These interfaces are:

- Digital Input Module supported:

IDV11-A/	16-bit opto-coupler	(M5026)
IDV1S-A	isolated digital input	(M5026-P0)

- Digital Output Modules supported:

IDV11-B/	16-bit opto-coupler	(M6029)
IDV1S-B	isolated digital output	(M6029-P0)
IDV11-C/	16-bit relay output	(M8005)
IDV1S-C	16-bit relay output	(M8005-P0)

- Analog Input Modules supported:

IAV11-A/	Isolated multi-channel	(A410)
IAV1S-A	A/D converter	(A410-P0)
IAV11-AA/	16 channel A/D converter	(A410-YA)
IAV1S-AA		(A410-PA)
IAV11-C/	16 channel flying capacity	(A029)
IAV1S-C	multiplexer for	(A029-P0)
IAV1S-CA	IAV11-A/IAV11-AA	(A029-YA)
IAV11-CA/	16 channel semiconductor multiplexer for IAV11-A/IAV11-AA	(A029-PA)

- Analog Output Module supported:

IAV11-B/	4 channel group	(A6007)
IAV1S-B	isolated D/A converter	(A6007-P0)

- Counter Module supported:

IDV11-D/	Opto-coupler isolated	(M7197)
IDV1S-D	5 channel counter	(M7197-P0)

The following driver software functionality is available for control of the IXV1x interfaces. The driver allows any of the IXV1x interfaces to be either allocated by a single process or shared between several processes.

- Digital Input/Output requests support the following modes of operation:
  - Read data from one or several IDV1x-A modules
  - Write data to one or several IDV1x-B or IDV1x-C modules
  - Read or write fractions of a 16 bit value
  - Interrupts can be handled in a user process by AST routines
- Analog Input/Output requests support the following modes of operation:
  - Read data from one or several (up to 128 different) channels on IAV1x-A, -AA and IAV1x-C, -CA modules
  - Write data to one or several (up to 4 different) channels on IAV1x-B modules
  - Automatic gain selection can be enabled
  - Multiple reads on one channel can be initiated with one request
  - Conversion can be started internally or externally

Although the number of different channels is limited to 128, it is possible to read each channel more than once with one request. Therefore the actual number of values which can be read is limited only by the length of the control buffer.

- The Counter functions support the following modes of operation:
  - Start or stop of one or more (up to 5) counter channels simultaneously on one IDV1x-D module
  - Counting upwards or downwards may be selected per channel
  - Every channel may be preset with an initial value
  - A counter overflow and/or underflow may be handled in an user AST routine

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— Count of external events controlled by internal or external start signal

— Count of selectable internal time intervals upon external control signal (time measurements)

— Concatenating consecutive counter channels

HARDWARE REQUIREMENTS

MicroVAX or VAXstation configuration as specified in the System Support Addendum (SSA 28.28.01-x)

- One IxV11 interface
- Hardware capable of reading one of the distribution media upon which the product is offered

SOFTWARE REQUIREMENTS*

- VMS Operating System

OPTIONAL SOFTWARE*

- VAXlab Software Library (SPD 28.30.xx)
- VAX Language-Sensitive Editor
- Any programming language supporting VMS $QIO System Service, such as:
  - — VAX ADA
  - — VAX BASIC
  - — VAX C
  - — VAX FORTRAN
  - — VAX PASCAL

* Refer to the System Support Addendum for availability and required versions of Prerequisite/Optional Software (SSA 28.28.01-x)

ORDERING INFORMATION

Software Licenses: QL-VHZA*-**
Software Media: QA-VHZA*-**
Software Documentation: QA-VHZAA-GZ

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

This layered product is supported in Europe only

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