Software Product Description

PRODUCT NAME: DECexpress Starterkit for VAX/VMS, Version 1.0   **SPD 35.18.00**

DESCRIPTION

EXPRESS is the first internationally standardized formal language for information modeling as defined by the International Standards Organization (ISO 10303-11). EXPRESS information modeling has its origins modeling product data information, however it is applicable to most database or information applications.

EXPRESS Language Features

- Formal Language

  The EXPRESS language is intended to support rigorous specification of data. Schemas written in EXPRESS can be processed or compiled directly.

- Object-Oriented

  The EXPRESS language can be applied to structured object-oriented data modeling.

- Enables Application Integration

  EXPRESS enables application integrations based upon common, implementation independent data models.

- Relationship to STEP

  STEP is the standardization effort underway at ISO (Technical Committee 184, Sub-Committee 4) to standardize the exchange of product definition data. STEP is an abbreviation for the **St**andard for the **E**xchange of **P**roduct definition data, often referred to as the PDES standard. EXPRESS was developed within the STEP project and is used to specify the requirements of the other parts of ISO 10303, however, EXPRESS is being applied to general information modeling applications outside of the STEP domain.

- The Information Model

  In EXPRESS, a schema provides the basis for information partitioning and inter-communication. The main objects of a schema are entities and constraints. Entities are defined in terms of attributes.

EXPRESS provides language elements for information objects to be defined simply, uniquely, and unambiguously with the constraint on the data clearly and concisely stated. The EXPRESS language is not a programming language, therefore, it does not contain language elements which allow input/output, information programming, or exception handling.

DECexpress is Digital Equipment Corporation's program to implement EXPRESS-based tools of similar or like functionality, targeted to several host systems.

DECexpress Starterkit Features

DECexpress Starterkit contains the following components:

- DECexpress Text Editing Tool, which is a VAX Language Sensitive Editor (LSE) template tailored to the EXPRESS language

- DECexpress Parser, an EXPRESS information modeling language syntax verifier

In conjunction with the VAX Language-Sensitive Editor /Source Code Analyzer, (VAX LSE/SCA) the DECexpress Text Editing Tool will assist EXPRESS modelers in debugging their EXPRESS language syntax on the basis of list and diagnostic files produced by the DECexpress Parser.

For more information on the LSE/SCA, refer to the VAX Language-Sensitive Editor/Source Code Analyzer Software Product Description (SPD 26.59.xx) or the DECset for ULTRIX Software Product Description (SPD 33.86.xx).

The DECexpress Parser contained in the Starterkit performs EXPRESS syntax checking on an input text file of EXPRESS code; no "object" or "executable" code is produced.

The DECexpress Parser checks the EXPRESS syntax for one or more independent information schemas contained in an input file. The Parser provides the following functions

- syntax checking

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- reference checking

- type checking

These functions are consistent with the grammar rules of the ISO specification, ISO TC184/SC4/WG5 N14.

The DECexpress Parser additionally provides reference checking for the following object types:

- entities

- functions

- procedures

- schemas

- types

Type checking is also performed for the following types:

- attributes

- constants

- functions

- parameters

- type labels

- variables

The following reports can be generated to provide the user with information for review purposes:

- diagnostic file

- list file

HARDWARE REQUIREMENTS

Processors and/or hardware configurations as specified in the System Support Addendum (SSA 35.18.00-x).

SOFTWARE REQUIREMENTS

For Systems Using Terminals: (No DECwindows interface):

- VMS Operating System

- VAXset for VMS

  VAX LSE/SCA is included in VAXset for VMS

For Workstations Running VWS:

- VMS Operating System

- VMS Workstation Software

- VAXset for VMS

  VAX LSE/SCA is included in VAXset for VMS

For Workstations Running DECwindows:

- VMS Operating System (and necessary components of VMS DECwindows)

- VAXset for VMS

  VAX LSE/SCA is included in VAXset for VMS

If the required VAX LSE is not installed on the system at edit-time, the DECexpress Text Editing Tool functionality will not be available. Such functionality includes the debugging aides provided by the VAX LSE/SCA by parsing (compiling) within the VAX LSE/SCA.

The DECexpress Parser will be able to perform standalone EXPRESS parsing functions, as described, even if the VAX LSE/SCA is not installed on the system.

Refer to the System Support Addendum (SSA 36.09.02-x) for availability and required versions of prerequisite /optional software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

Software Licenses: QL-MMMA*-**

Software Media: QA-MMMA*-**

Software Documentation: QA-MMMA*-GZ

Software Product Services: QT-MMMA*-**

* 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 VMS License Management Facility.

License units for this product are allocated on an Unlimited System Use plus Personal Use and Concurrent Use basis.

Each Personal Use license allows one identified individual to use the layered product.

Each Concurrent Use license allows any one individual at a time to use the layered product.

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: **DECexpress Starterkit for VAX/VMS,** **SSA 35.18.00-B**
Version 1.0

HARDWARE REQUIREMENTS

Processors Supported

VAX: VAX 4000 Model 200,
VAX 4000 Model 300,
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 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 Model 10/10E,
MicroVAX 3100 Model 20/20E,
MicroVAX 3100 Model 30,
MicroVAX 3100 Model 40,
MicroVAX 3100 Model 80,
MicroVAX 3300, MicroVAX 3400,
MicroVAX 3500, MicroVAX 3600,
MicroVAX 3602, MicroVAX 3800,
MicroVAX 3900

VAXstation: VAXstation II, VAXstation 2000,
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 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

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

Processor Restrictions

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

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Disk Space Requirements (Block Cluster Size = 1):

Disk space required for installation:	5,500 blocks (2,800,000 bytes)
Disk space required for use (permanent):	475 blocks (243,200 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.

Memory Requirements for DECwindows Support:

The minimum supported memory for this application running in a standalone DECwindows environment with both the client and server executing on that same system is 8 Mbytes.

The performance and memory usage of DECwindows applications are particularly sensitive to system configuration. Less memory may be required on the client system (the system where the software is installed and executed) if the server (the component that displays the application) resides on another system. More memory may be required on a system with several applications running, or where it may be desirable to improve the performance of an application.

Compilation performance is highly dependent upon the amount of physical memory present. At least 2 Mbytes of physical memory is recommended for each concurrent EXPRESS parsing operation. A minimum working set of 1.25 Mbytes is recommended.

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 Systems Using Terminals: (No DECwindows Interface):

• VMS Operating System V5.4 or higher

• VAXset Package, Release 10

  VAX LSE/SCA is included in VAXset for VMS

For Workstations Running VWS:

• VMS Operating System V5.4 or higher

• VMS Workstation Software V4.4

• VAXset Package, Release 10

  VAX LSE/SCA is included in VAXset for VMS

For Workstations Running DECwindows:

• VMS Operating System V5.4 or higher (and necessary components of VMS DECwindows)

• VAXset Package, Release 10

  VAX LSE/SCA is included in VAXset for VMS

If the required VAX LSE is not installed on the system at edit-time, the DECexpress Text Editing Tool functionality will not be available. Such functionality includes the debugging aides provided by the VAX LSE/SCA by parsing (compiling) within the VAX LSE/SCA.

The DECexpress Parser will be able to perform standalone EXPRESS parsing functions, as described, even if the VAX LSE/SCA is not installed on the system.

VMS DECwindows is part of the VMS Operating System but must be installed separately. Installation of VMS DECwindows gives users the option to install any or all of the following three components:

• VMS DECwindows Compute Server (Base kit; includes runtime support)

• VMS DECwindows Device Support

• VMS DECwindows Programming Support

For stand-alone execution, the following DECwindows components must be installed on the machine:

• VMS DECwindows Compute Server

• VMS DECwindows Device Support

For remote execution, the following DECwindows components must be installed on the machine:

Server Machine

• VMS DECwindows Compute Server

• VMS DECwindows Device Support

Client Machine

• VMS DECwindows Device Support

VMS Tailoring

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

• VMS Required Saveset

• Utilities

For more information on VMS classes and tailoring, refer to the VMS 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

9-track 1600 BPI Magtape, TK50 Streaming Tape

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

ORDERING INFORMATION

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

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

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