

Software Product Description

PRODUCT NAME: DECexpress Starterkit for RISC/ULTRIX, Version 1.0

SPD 35.19.00

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 **Standard for the Exchange of Product 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 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 further information on the VAX LSE/SCA, refer to Language-Sensitive Editor Software Product Description (SPD 26.59.xx) or DECset for ULTRIX (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
- 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

Processor and/or hardware configurations as specified in the System Support Addendum (SSA 35.19.00-x).

SOFTWARE REQUIREMENTS

For Systems Using Terminals:

- ULTRIX Operating System
- DECset for ULTRIX

VAX LSE/SCA is included in DECset for ULTRIX

For Workstations:

- ULTRIX Worksystem Software
- DECset for ULTRIX

VAX LSE/SCA is included in DECset for ULTRIX

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 35.19.00-x) for availability and required versions of prerequisite /optional software.

For information on country-specific modifications to this product, refer to the System Support Addendum (SSA 35.19.00-x)

ORDERING INFORMATION

Software Licenses: QL-MMNA*^{-**}

Software Media: QA-MMNA*^{-**}

Software Documentation: QA-MMNAA-GZ

Software Product Services: QT-MMNA*^{-**}

* 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 ULTRIX 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 ULTRIX Operating System Software

Product Description (SPD 26.40.xx) or the Guide to Software Licensing in the ULTRIX 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.

- ™ CADDETC and CAD/CAM Data Exchange Technical Center are trademarks of the University of Leeds Industrial Services, Ltd., Leeds, United Kingdom
- ™ The DIGITAL Logo, DEC, DECexpress, DECset, CI, DECstation, DECsystem, MicroVAX, ULTRIX, VAX, VAXcluster, VAXserver, VAXstation, and VMS are trademarks of Digital Equipment Corporation.

System Support Addendum

PRODUCT NAME: DECexpress Starterkit for RISC/ULTRIX, Version 1.0

SSA 35.19.00-B

HARDWARE REQUIREMENTS

Processors Supported

RISC-Based Processors:

DECstation: DECstation 2100,
DECstation 3100,
DECstation 3100s

Personal DECstation 5000 Model 20/25 HX,
Personal DECstation 5000 Model 20/25 MX,
Personal DECstation 5000 Model 20/25 TX,
Personal DECstation 5000 Model 20/25
PXG+,
Personal DECstation 5000 Model 20/25 PXG
Turbo+

DECstation 5000 Model 120/125/133 CX,
DECstation 5000 Model 120/125/133 HX,
DECstation 5000 Model 120/125/133 MX,
DECstation 5000 Model 120/125/133 PX,
DECstation 5000 Model 120/125/133 TX,
DECstation 5000 Model 120/125/133 PXG,
DECstation 5000 Model 120/125/133 PXG+,
DECstation 5000 Model 120/125/133 PXG
Turbo,
DECstation 5000 Model 120/125/133 PXG
Turbo+

DECstation 5000 Model 200 CX,
DECstation 5000 Model 200 HX,
DECstation 5000 Model 200 MX,
DECstation 5000 Model 200 PX,
DECstation 5000 Model 200 TX,
DECstation 5000 Model 200 PXG,
DECstation 5000 Model 200 PXG+,
DECstation 5000 Model 200 PXG Turbo,
DECstation 5000 Model 200 PXG Turbo+

DECstation 5000 Model 240 HX,
DECstation 5000 Model 240 MX,
DECstation 5000 Model 240 TX,
DECstation 5000 Model 240 PXG+,
DECstation 5000 Model 240 PXG Turbo+

DECsystem: DECsystem 3100,
DECsystem 5000 Model 25,
DECsystem 5000 Model 200,
DECsystem 5000 Model 240,
DECsystem 5100, DECsystem 5400,
DECsystem 5500, DECsystem 5810,
DECsystem 5820, DECsystem 5830,
DECsystem 5840, DECsystem 5900

Processors Not Supported

VAX, MicroVAX, VAXserver, and VAXstation processors

Disk Space Requirements

Disk space required for installation:

Root file system:	0 Kbytes
Other file systems:	usr 3,375 Kbytes

Disk space required for use (permanent):

Root file system:	0 Kbytes
Other file systems:	usr 2,500 Kbytes

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.

SOFTWARE REQUIREMENTS

For Systems Using Terminals:

- ULTRIX Operating System V4.2A
 - DECset for ULTRIX, Release 11
- VAX LSE/SCA is included in DECset for ULTRIX

For Workstations:

- ULTRIX Worksystem Software V4.2A
 - DECset for ULTRIX, Release 11
- VAX LSE/SCA is included in DECset for ULTRIX

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.

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

ORDERING INFORMATION

Software Licenses: QL-MMNA*^{-**}
 Software Media: QA-MMNA*^{-**}
 Software Documentation: QA-MMNAA-GZ
 Software Product Services: QT-MMNA*^{-**}

* 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.

TM CADDETC and CAD/CAM Data Exchange Technical Center are trademarks of the University of Leeds Industrial Services, Ltd., Leeds, United Kingdom

TM The DIGITAL Logo, DEC, DECset, DECstation, DECsystem, DECwindows, MicroVAX, TK, ULTRIX, VAX, VAXserver, VAXstation, and VMS are trademarks of Digital Equipment Corporation.