Software Product Description

PRODUCT NAME: VAXset Package, Release 10 **SPD 27.07.09**

DESCRIPTION

The VAXset (Software Engineering Tools) Package is comprised of five component products:

- VAX Language-Sensitive Editor/Source Code Analyzer
- VAX Performance and Coverage Analyzer
- VAX DEC/CMS
- VAX DEC/MMS
- VAX DEC/Test Manager

These products provide a set of software engineering tools for the development, testing, and maintenance of application programs. Four products (VAX Language-Sensitive Editor/Source Code Analyzer editor component, VAX Performance and Coverage Analyzer, VAX DEC/CMS, VAX DEC/Test Manager) support the DECwindows software environment, and provide either a DECwindows or a command line user interface.

Certain features of these products are not available when using language preprocessors such as those supplied for VAX Rdb/VMS and VAX DBMS. Please consult your local Digital Equipment Corporation representative for additional information.

Descriptions of the component products of the VAXset Package follow:

VAX Language-Sensitive Editor/Source Code Analyzer

The VAX Language-Sensitive Editor/Source Code Analyzer is an integrated environment that provides software professionals with editing, cross-reference, and static analysis capabilities. It is a multi-language, multi-module, and multi-window tool that is useful for program design, development and maintenance.

The two main components of this product are the Language-Sensitive Editor component and the Source Code Analyzer component. The Language-Sensitive Editor component provides the following capabilities: source code templates, the ability to do low level program design by embedding pseudocode in source code, the ability to view source code at various levels of detail by replacing a sequence of source lines with a single overview line, and access to on-line language-specific help. Together, this support enables new and experienced progammers to develop programs faster through VAX language-specific construct completion and error detection and correction facilities.

The Source Code Analyzer component aids developers in understanding the complexities of software systems. Since it allows a developer to analyze an entire system as opposed to individual modules, and helps the developer understand unfamiliar systems, the Source Code Analyzer component is extremely useful during the implementation and maintenance phases of a project. The Source Code Analyzer component provides source code navigation, cross-reference, and static analysis for compile-time source code information generated by supported VAX languages. Additionally, the Analyzer provides design cross-reference, analysis, and reports for pseudocode and specialized comment processing information generated by supported VAX languages.

The VAX Language-Sensitive Editor/Source Code Analyzer works in concert with supported VAX languages and the VAX Symbolic Debugger to provide a highly interactive, on-line environment that facilitates the EDIT-COMPILE-DEBUG-NAVIGATE-ANALYZE portion of the program development cycle. Within a single editing session, users can write, edit, compile, review compile-time errors, correct errors, navigate, and analyze their source code. The Language-Sensitive Editor component can be invoked directly from the VAX Symbolic Debugger to correct source code errors found during a debugging session.

For more information on the VAX Language-Sensitive Editor/Source Code Analyzer, the languages it supports, and its support for vector software development, refer to the Software Product Description (SPD 26.59.xx).

VAX Performance and Coverage Analyzer

The VAX Performance and Coverage Analyzer is a tool to help VMS users analyze the execution behavior of their application programs. The VAX Performance and Coverage Analyzer has two functions. First, it can pinpoint execution bottlenecks and other performance problems in application programs. Second, it provides test coverage analysis by measuring what parts of a user program are executed or not executed by a given set of test data.

The VAX Performance and Coverage Analyzer is an aid in tuning the performance and testing of application programs. It is not a tool for the analysis of operating system performance or for use as an aid in hardware resource planning.

The VAX Performance and Coverage Analyzer consists of two parts: the Collector which gathers performance or test coverage data on the running user program and the Analyzer which later processes and displays the collected data. The Collector gathers the performance data and writes that information to a data file. Once the data has been collected into a data file, the Analyzer can be run using that data file as input. The Analyzer is a separate program which reads the data file produced by the Collector and presents the results as performance histograms or other displays.

Both the Collector and the Analyzer are fully symbolic and use the Debug Symbol Table (DST) information in the user program to access the symbolic names of program locations. Applications written in any of the VMS languages which produce DST information can be analyzed using the VAX Performance and Coverage Analyzer.

For more information on the VAX Performance and Coverage Analyzer, including support for vector software development, refer to the Software Product Description (SPD 26.76.xx).

VAX DEC/CMS

VAX DEC/CMS (Code Management System) is a library system that facilitates the development and maintenance of software systems. Software systems are divided into different functional components that are, in turn, organized into sets of one or more files. During development, one or more programmers continually make changes to these files. VAX DEC/CMS helps manage the files during development (and later during maintenance) by storing the files in a project library, tracking changes, and monitoring access to the library.

VAX DEC/CMS also supplies a means of manipulating different combinations of files within a library and across libraries. The ability to formalize these combinations provides a focus for system design and a means of organizing the files within a library.

For more information on VAX DEC/CMS, refer to the Software Product Description (SPD 25.52.xx).

VAX DEC/MMS

VAX DEC/MMS (Module Management System) is a software tool designed to enhance programmer productivity. It determines that components in a described software system have changed, and rebuilds the system in an optimal way.

When some modules of a software system are modified, dependent modules may need to be recompiled. VAX DEC/MMS determines which modules need to be recompiled, and performs the appropriate actions to insure that the software system is recompiled and linked with all the latest changes.

Note: Installations utilizing VAX Ada should note that many of the features of VAX DEC/MMS are duplicated by the ACS library manager subsystem for Ada-encoded programs. VAX DEC/MMS retains its benefits as a productivity aide for such installations primarily for non-Ada programming.

For more information on VAX DEC/MMS, refer to the Software Product Description (SPD 26.03.xx).

VAX DEC/Test Manager

VAX DEC/Test Manager automates regression testing by executing user-supplied tests and automatically comparing the results with the expected test results. VAX DEC/Test Manager gives the software engineer flexibility in organizing tests and in selecting tests for execution, and in verifying and reviewing test results.

VAX DEC/Test Manager lets the user create a library area for test result storage. It allows users to:

- Create descriptions of their software tests
- Group these test descriptions into meaningful combinations for later runs
- Modify or display the test descriptions or groups
- Execute specific tests, groups of tests or combinations of groups of tests
- Record and replay interactive terminal and interactive DECwindows sessions

- Compare the results of the executed tests with benchmark test results to determine differences
- View test results interactively
- Update benchmarks as needed
- Edit interactive terminal sessions and interactive DECwindows sessions to alter the tests exercise of an application
- Filter test results from non-interactive and interactive terminal tests
- Mask screen output results for DECwindows tests to ignore areas of screens when results of executed tests are compared against benchmark tests results

For more information on the VAX DEC/Test Manager, refer to the Software Product Description (SPD 26.68.xx).

HARDWARE REQUIREMENTS

VAX, MicroVAX, or VAXstation configuration as specified in the System Support Addendum (SSA 27.07.09-x).

SOFTWARE REQUIREMENTS

For systems using terminals: (No DECwindows interface)

- VMS Operating System

For workstations running VWS:

- VMS Operating System
- VMS Workstation Software

For workstations running DECwindows:

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

Refer to the System Support Addendum (SSA 27.07.09-x) for availability and required versions of prerequisite software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

Software Licenses: QL-965A*-**
Software Media: QA-965A*-**
Software Documentation: QA-965AA-GZ
Software Product Services: QT-965A*-**

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

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LICENSE MANAGEMENT FACILITY SUPPORT

This layered product supports the VMS 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 VMS Operating System Software Product Description (SPD 25.01.xx) or the License Management Facility manual of the VMS Operating System documentation set.

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SOFTWARE PRODUCT SERVICES

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SOFTWARE WARRANTY

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