COMPAQ

Software Product Description

PRODUCT NAME: Compaq COBOL Version 5.7A for OpenVMS VAX **SPD 25.04.33**

DESCRIPTION

Compaq COBOL for OpenVMS VAX, formerly known as VAX COBOL and DIGITAL VAX COBOL, is a high-level language for business data processing that operates on the OpenVMS VAX Operating System, taking full advantage of the system facilities. Compaq COBOL is based upon the 1985 ANSI COBOL Standard X3.23-1985 as modified by the X.23a–1989 amendment.

Compaq COBOL adheres to the high level by the National Bureau of Standards for conformance to FIPS PUB 21-3, Federal Standard COBOL.

The Compaq COBOL Data Manipulation Language (DML), which is based upon the report of the CODASYL Data Description Language Committee (1978), allows users to write programs that access databases using the Oracle DBMS database management system. Oracle DBMS must be installed to use this feature.

Compaq COBOL includes various extensions to COBOL, including screen handling at the source language level, file sharing, and record locking.

Compaq COBOL Version 5.7A for OpenVMS VAX is a documentation update release. The software product remains unchanged since the Compaq COBOL V5.7 release. The documentation set has been unified for Compaq COBOL on VAX and Alpha Systems. For recent release specific technical information, such as feature enhancements, bug fixes, restrictions and compatibility charts, please refer to the Compaq COBOL V5.7 Release Notes.

The following list of extensions to COBOL are implemented in Compaq COBOL for OpenVMS VAX:

- Screen handling is implemented using the DISPLAY and ACCEPT statements. The DISPLAY statement enables the programmer to display information or prompts anywhere on a video screen. The ACCEPT statement takes information typed anywhere on the screen and returns the value to a running Compaq COBOL program. The DISPLAY statement converts data from internal numeric format to ASCII display format, and the ACCEPT WITH CONVERSION statement converts ASCII display input characters to internal numeric formats as appropriate. The terminal-type is recognized at run time from information provided by the operating system.
- Many file capabilities are available through RMS including extensions for segmented keys, descending keys, and duplicate primary keys.
- RMS-STS and RMS-STV and RMS-FILENAME special registers may be examined to assist debugging. These registers contain status values from the Record Management System (RMS) for OpenVMS.
- File sharing and record locking features enable more than one user to access data at the same time.
- Conditional compilation serves to make debugging easier.
- The /INSTRUCTION_SET qualifier customizes object code generation to target the different classes of VAX processors, maximizing specific processor features.
- The COPY FROM DICTIONARY statement allows access to common record definitions stored in the Oracle CDD/Repository. Oracle CDD/Repository must be installed to use this feature.
- Terminal format recognition for program source files.

- Four-digit year-date support in ACCEPT format 2.
- Automatic compile-time access to SYS$CURRENCY system logical when CURRENCY SIGN clause not specified in user program.

Compaq COBOL for OpenVMS VAX implements several statements and extensions designed to make programming easier in the OpenVMS for VAX environment:

- CALL statement extensions: BY VALUE, BY DESCRIPTOR, OMITTED, and GIVING
- VALUE IS EXTERNAL — Access to link time constants
- USAGE IS POINTER — Address data type
- VALUE IS REFERENCE — Compile time address evaluation
- SET TO REFERENCE — Run time address evaluation
- SUCCESS/FAILURE — Class conditions
- Thirty-one-character user-names
- ACCEPT AT END statement
- Single-quote-delimited, non-numeric literals
- Hyphen/underscore equivalence in user-names
- Non-numeric literal argument passing

The Compaq COBOL compiler produces an object module from a source program. The compiler is capable of producing a source listing with embedded diagnostics including the line and column position in source-code, a machine language listing, a file-name map, a data-name map, a procedure-name map, an external program name map, database subschema information, and a cross-reference listing. The cross-reference listing and maps may be produced in either alphabetical order, or in order of declaration. The cross-reference listing distinguishes updating references to data from read-only references.

Compaq COBOL for OpenVMS VAX provides support for error diagnostics and cross-reference information to Language-Sensitive Editor/Source Code Analyzer. Additionally, Compaq COBOL for OpenVMS VAX provides support for the processing of pseudocode and design comments that are used by the Compaq Language-Sensitive Editor/Source Code Analyzer for low-level program design.

Object modules produced by the compiler can be linked with other object modules produced by many other OpenVMS VAX languages, including Compaq's BASIC and Fortran. Compaq COBOL for OpenVMS VAX is supported by both the OpenVMS VAX Common Run Time Library (RTL) and the Symbolic Debugger for OpenVMS VAX.

The Compaq COBOL for OpenVMS VAX product includes a COBOL compiler and the REFORMAT utility. The REFORMAT utility converts source programs from DIGITAL terminal format to ANSI-standard COBOL format and vice versa.

HARDWARE REQUIREMENTS

Any VAX system that is capable of running OpenVMS VAX V6.2 or higher.

Disk Space Requirements (Block Cluster Size = 1)

Disk space required during installation:	12,000 blocks (6.3 Mbytes)
Disk space required for use (permanent):	4,000 blocks (2.0 Mbytes)

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

A VT100 family, VT200 family, VT300 family, or VT400 family terminal is required for the screen handling extensions to the ACCEPT and DISPLAY statements.

SOFTWARE REQUIREMENTS

OpenVMS VAX Operating System Version 6.2—Version 7.3 (SPD 25.01.xx)

SOFTWARE LICENSING

This software is furnished only under a license. For more information about licensing terms and policies of Compaq, contact your local Compaq office.

License Management Facility Support

This layered product supports the OpenVMS License Management Facility. License units for this product are allocated on an Unlimited System Use and Personal and Concurrent Use basis.

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

For more information on the *License Management Facility*, refer to the *OpenVMS Operating System for VAX and Alpha* Software Product Description (SPD 25.01.xx) or the *OpenVMS Alpha Operating System* documentation.

CLUSTER ENVIRONMENT

This layered product is fully supported when installed on any valid and licensed OpenVMS Cluster configuration without restrictions. The *HARDWARE REQUIREMENTS* section of this product's Software Product Description detail any special hardware required by this product.

OpenVMS Cluster configurations are fully described in the Compaq OpenVMS Cluster Software Product Description (SPD 29.78.xx) and include CI, Ethernet, DSSI, FDDI, SCSI, and Mixed Interconnect configurations.

OpenVMS Tailoring:

For OpenVMS VAX systems, the following OpenVMS classes are required for the full use of the features of this layered product:

- OpenVMS Required Save Set
- Programming Support

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

OPTIONAL SOFTWARE

In order to use the following Compaq COBOL for OpenVMS VAX features, the use of the Compaq Language-Sensitive Editor/Source Code Analyzer is required:

- /DESIGN qualifier
- /ANALYSIS_DATA qualifier
- Compaq Language-Sensitive Editor component

Note: The Compaq Language-Sensitive Editor/Source Code Analyzer is available separately or in Compaq DECset. Please refer to SPD 27.07.xx for ordering information.

Compaq COBOL for OpenVMS VAX Data Manipulation Language Features Require:

- Oracle CODASYL DBMS
- Oracle CDD/Repository

Compaq COBOL for OpenVMS VAX COPY FROM DICTIONARY Feature Requires:

- Oracle CDD/Repository

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

The software binaries and documentation are available on various CD–ROM distributions:

- *OpenVMS VAX Software Layered Products Library*—This offering includes the OpenVMS VAX Layered Product software binaries. (QA–5FW8A–A8)
- *OpenVMS VAX Online Documentation Library*—This offering includes the documentation for the OpenVMS VAX Layered Products. (QA–VYR8A–G8)
- *OpenVMS VAX Software Layered Products Library Package* – This offering contains both the software binaries and documentation for the OpenVMS VAX Layered Products. (QA–5G88A–H8)

SOFTWARE WARRANTY

This software is provided by Compaq with a 90 day conformance warranty in accordance with Compaq warranty terms applicable to the license purchase.

ORDERING INFORMATION

Compaq COBOL for OpenVMS VAX Systems

Software Licenses: QL-099A*-**
Software Documentation (Hard Copy): QA-099AA-GZ
Software Product Services: QT-099A*-**

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

SOFTWARE PRODUCT SERVICES

A variety of service options are available from Compaq. For more information, contact your local Compaq office.

The previous information is valid at time of release. Please contact your local Compaq office for the most up-to-date information.

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