Software Product Description

PRODUCT NAME: DEC Remote Operation Service Development Kit for VMS, Version 4.0 **SPD 32.90.00**

DESCRIPTION

DEC Remote Operation Service Development Kit for VMS is a software package that facilitates the development of applications using DEC Remote Operation Service (DECros) for VMS (SPD 32.89.xx). The DECros Development Kit comprises an Abstract Syntax Notation 1 (ASN.1) cross-compiler called PLC409, Version 4.0. PLC409 is a product developed by MARBEN, S.A., and is distributed under a Digital Distributed Software (DDS) agreement.

PLC409 allows the cross-compilation of ASN.1 macros and data descriptions into "C" Programming Language, according to the International Standard Organization (ISO) standard IS 8824. PLC409 further allows the encoding/decoding of the resulting application variables according to Basic Encoding Rules (BER) defined in the ISO standard IS 8825. PLC409 is also compatible with the equivalent X.208 and X.209 International Telegraph and Telephone Consultative Committee (CCITT) Recommendations.

Features

The major features of PLC409 are:

- ASN.1 macro and data description cross-compiler

  The PLC409 cross-compiler allows the expansion of ASN.1 macro notations, analyses, and verifies the ASN.1 data types, allows the merging of several ASN.1 descriptions compiled separately, and generates the corresponding "C" Programming Language data structures as well as the corresponding BER encoding/decoding routine. More specifically, the ASN.1 cross-compiler is composed of the following components:

  — ASN.1 Macro Preprocessor

    The Macro Preprocessor performs lexical and syntactical analysis of ASN.1 macro definitions and references to macros. The preprocessor then expands the macros into ASN.1 data structures, while signaling possible errors and warnings.

  — ASN.1 Data Structure Analyzer

    The Data Structure Analyzer performs lexical and syntactical analysis of ASN.1 data structures. After a full semantical analysis to ensure ASN.1 tag consistency, the analyzer outputs an Intermediate Form file, and eventual error and warning messages.

  — Linker

    The Linker produces a single Intermediate Form file out of several such files, resolving external references.

  — "C" Programming Language Generator

    The C Language Generator translates an Intermediate Form file with no external references into the corresponding C data structures.

- ASN.1 Data Encoding/Decoding Environment

  The Data Encoding/Decoding Environment provides facilities to encode and decode actual data according to the Basic Encoding Rules (BER), and includes a memory management system.

  — The general encoding/decoding engines allow efficient and safe encoding and decoding of actual data according to BER, while providing verification and debugging facilities.

    The engines are configured using the encoding/decoding matrixes output by the compiler's C Generator and are totally independent from the ASN.1 data structures.

  — The Memory Management System allows for efficient use of a memory section, broken down into buffers. The Memory Management System allows the following operations:

    Allocate/Release Buffer
    Read/Write Byte
    Assemble/Fragment Buffer
    Extend/Truncate Buffer

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXstation, or VAXserver configuration as specified in the System Support Addendum (SSA 32.90.00-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 32.90.00-x) for availability and required versions of prerequisite/optional software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

Software Licenses: QL-YU3A*-**
Software Media: QA-YU3A*-**
Software Documentation: QA-YU3AA-GZ
Software Product Services: QT-YU3A*-**

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This 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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