Software Product Description

PRODUCT NAME: VAX CDD/Plus, Version 4.3 **SPD 25.53.19**

DESCRIPTION

The VAX CDD/Plus is an active, distributed repository system that provides a single logical repository for data definitions (metadata) and descriptions shared by VAX languages, tools and information management products.

VAX CDD/Plus provides a way to define and track metadata that is to be used by more than one product and provides a mechanism for sharing, relating and reporting on the dictionary contents.

The metadata in CDD/Plus keeps track of location, type, format, size, change history, and usage of the actual data (which is stored and maintained outside the data dictionary). All changes to the metadata are controlled by the repository system. This can provide better control of the application development and repository administration processes.

With VAX CDD/Plus, repository users can:

- Allow the sharing of field, record and other data definitions among various VAX languages and VAX information management products
- Access definitions in multiple repositories (including those on other nodes.)
- Control the use of redundant and inconsistent definitions
- Protect the repository against unauthorized access
- Continue to use existing definitions set up with previous versions of VAX CDD

Utilities

VAX CDD/Plus supports metadata in two formats: metadata that users manipulate with the Common Dictionary Operator (CDO) and metadata that users manipulate with the Dictionary Management Utility (DMU).

Common Dictionary Operator (CDO)

The CDO Utility is the primary user interface to VAX CDD/Plus, where users can accomplish all of the data description, administration, and repository management functions. The CDO Utility supports the VMS style of command entry. A flexible menu-driven editor allows users to create new field and record definitions, create new versions of previous definitions and browse through the current definitions.

VAX CDD/Plus repositories created in CDO can store not only definitions, but also information about how the definitions are related. A CDO repository is created on a system when VAX CDD/Plus is first installed. Users can also read DMU dictionaries from CDO.

Dictionary Management Utility (DMU)

The DMU Utility allows the user to create and maintain existing dictionaries established with previous versions of VAX CDD. VAX CDD/Plus continues to support DMU dictionaries and the utilities that manipulate DMU dictionary definitions (CDDV and CDDL). If a DMU dictionary does not already exist on a system, CDD/Plus creates one during the installation procedure. Users manipulate DMU dictionary definitions through the DMU utility. Users can also read DMU definitions through CDO.

- CDDV - The Verify/Fix Utility (CDDV) is supplied to validate or repair DMU dictionary files.
- CDDL - The Data Definition Language Utility (CDDL) provides users with a mechanism for entering DMU dictionary record definitions directly. A text editor is used to create a CDDL source file containing record definitions and then the CDDL compiler is invoked to insert the record definition into the DMU dictionary.

Features

The following major features are utilized by only CDO (V4.x) repositories. VMS information management products that provide full support for CDO repositories are also able to utilize the capabilities associated with those repositories.

Distributed Dictionary Implementation

VAX CDD/Plus provides distributed access to CDO repository definitions and directories. Through CDO, users can access metadata in CDO repositories on different devices on a single node, on different nodes in a VAXcluster, and on nodes connected by a local or wide area network. Repositories can be organized according to the needs of a corporation and definitions can either be managed centrally or locally. Within the CDO interface, users can switch from one physical repository to another and gain access to definitions in any of the repositories the user has access to.

Field-Level Data Descriptions

A field definition is the smallest unit of metadata that can be created and accessed in the repository. Field definitions can be simple data structures or complex subscripted structures. They can be combined to form various record definitions and can be accessed individually from several of the VAX layered products. Users need store only one copy of a particular definition that is used by various sources.

Relationships

Relationships are created by VAX CDD/Plus when users connect two CDO definitions in some way. For example, users can base the definition of a new field on an existing field definition in a CDO repository. Similarly, users can relate a group of field definitions in a record definition by including the field names in the record definition. Users do not need to define these relationships - CDO automatically creates them when users create field and record definitions in CDO.

Usage Tracking

VAX CDD/Plus keeps track of all CDO repository usage. Therefore, users can find out which other repository definitions make use of a particular field definition. When users want to change a field definition, they can confirm which definitions may be affected by the change and which definitions need to be redefined before using the changed field definition.

Users can control changes to definitions in two ways: they can change the original definition to take effect immediately (change-in-place), or they can create a new version and allow other users to incorporate it over time. (DEFINE) Messages can warn users when a new version of repository definitions exists or when inconsistencies may exist between the repository and external copies.

Data Security and Integrity

VAX CDD/Plus provides the data administrator with the tools to grant or deny access rights to repository definitions. The VAX CDD/Plus protection provisions for CDO definitions are consistent with VMS protection schemes. Also, VAX CDD/Plus provides journaling capabilities that automatically protect repository sessions from system failures.

Call Interface

System programmer, software engineers, and experienced application designers can make direct calls to the VAX CDD/Plus entry points from user programs. Using the call interface allows these users to directly access CDO repositories without using the CDO utility. The call interface is documented in the *VAX CDD/Plus Call Interface Manual.*

Documentation

The VAX CDD/Plus documentation set consists of:

- *VAX CDD/Plus User's Guide* - Provides tutorial material for creating and maintaining CDD/Plus repositories
- *VAX CDD/Plus Common Dictionary Operator Reference Manual* - Provides reference material and syntax for all CDO commands
- *VAX CDD Data Definition Language Reference Manual* - Describes the VAX CDD Data Definition Language Utility (CDDL) which manipulates definitions in DMU dictionaries
- *VAX CDD Utilities Reference Manual* - Describes the Dictionary Management Utility (DMU) and the Dictionary Verify/Fix Utility (CDDV)
- *VAX CDD/Plus Call Interface Manual* - Provides reference material for the system administrator on CDO repository architecture. This manual is not part of the regular CDD/Plus documentation set, but it can be ordered separately.

HARDWARE REQUIREMENTS

VAX, MicroVAX, VAXstation, or VAXserver configuration as specified in the System Support Addendum (SSA 25.53.19-x).

SOFTWARE REQUIREMENTS*

- VMS Operating System

For Workstations Running VWS

- VMS Operating System
- VMS Workstation Software

Refer to the System Support Addendum (SSA 25.53.19-x) for availability and versions of prerequisite/optional software and for information regarding components of VMS DECwindows.

ORDERING INFORMATION

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