



VMS Software

VSI Data Dictionary (VDD) V1.2-03

Release Notes

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Operating Systems: VSI OpenVMS x86-64 Version 9.2-3 or higher
VSI OpenVMS IA-64 Version 8.4-2L1 or higher

Software Version: VSI Data Dictionary V1.2-03

Kit Names: VSI-X86VMS-VDD-V0102-3-1.PCSI\$COMPRESSED
VSI-I64VMS-VDD-V0102-3-1.PCSI\$COMPRESSED

1. Introduction

The VSI Data Dictionary (VDD) V1.2-03 release is the first General Availability (GA) release of the VSI Data Dictionary. It follows the field-test releases beginning with Version A1.1-1D and continuing through Version X1.2-03.

VDD is a native data repository for OpenVMS designed as a replacement for the Oracle Common Data Dictionary (CDD) to support application compatibility across modern hardware platforms. Because VDD implements the same user-visible interfaces and parameters as CDD, the majority of behavior is identical by design. For a detailed comparison, refer to the [VSI Data Dictionary and Oracle CDD/Repository on OpenVMS User-Facing Differences Guide](https://docs.vmssoftware.com/vsi-data-dictionary-oracle-cdd-differences-guide/) [https://docs.vmssoftware.com/vsi-data-dictionary-oracle-cdd-differences-guide/].

This kit is provided on both x86-64 and IA-64 architectures. For information about installing VDD, refer to the [VSI Data Dictionary Installation and User Guide](https://docs.vmssoftware.com/vsi-data-dictionary-install-and-user-guide/) [https://docs.vmssoftware.com/vsi-data-dictionary-install-and-user-guide/].

Any issues regarding this release should be reported to VSI.

Repository Format Change

VDD V1.2-03 introduces a new repository database format. Repositories created by previous VDD releases, including Version X1.2-03, are not compatible with this release and must be recreated before use. This incompatibility applies to the transition to V1.2-03 and will be addressed in a future release. For additional information, see *Section 5, "Installation Considerations for V1.2-03"*.

Licensing

A license is required to use VDD on OpenVMS x86-64 and IA-64 systems.

2. VDD Tools and Library Overview

This version of VDD provides three tools (VDO, VDMU, and VMU) and a callable interface library, VDDSHR.EXE. Together, these components provide dictionary definition, management, migration, and application compatibility capabilities for VDD repositories.

VDO (VDD Operator)

A dictionary definition and management utility that provides functionality similar to Oracle CDO and CDDL.

VDMU (VSI Dictionary Management Utility)

A utility used to manage dictionary directories, repositories, and related dictionary objects.

VMU (VDD Migration Utility) – IA-64 Only

A migration utility used to convert Oracle CDD/Repository definitions for use with VDD.

VDDSHR.EXE

A compatibility library that exports the Oracle CDD callable interface. This enables applications and layered products that use CDD APIs to access VDD repositories without relinking.

For detailed information about these components, refer to the [VSI Data Dictionary Installation and User Guide](https://docs.vmssoftware.com/vsi-data-dictionary-install-and-user-guide/) [https://docs.vmssoftware.com/vsi-data-dictionary-install-and-user-guide/] or contact VSI.

3. Requirements

VSI Data Dictionary V1.2-03 can be installed by a suitably privileged user on systems running one of the following VSI OpenVMS versions:

- VSI OpenVMS x86-64 Version 9.2-3 or higher
- VSI OpenVMS IA-64 Version 8.4-2L1 or higher

In addition, IA-64 systems must have the VSI RTL V9 or higher kit installed. Note that the VDD installation procedure does not verify that an appropriate VSI RTL kit is installed.

If an appropriate VSI RTL kit is not installed, VDD images will fail to activate and messages similar to the following will be displayed:

```
%DCL-W-ACTIMAGE, error activating image CXXL$LANGRTL
-CLI-E-IMGNAME, image file SYS$COMMON:[SYSLIB]CXXL$LANGRTL.EXE
-LOADER-E-BADSVINDX, symbol vector index is too large
```

4. What's New in V1.2-03

The following features and improvements have been implemented in this release of VDD:

- Updated the repository database format and added repository compatibility checking when opening repositories.
- Added support for ACMS menu definitions stored as CDD\$MENU elements, enabling ADU **REPLACE MENU** and **BUILD MENU** operations.
- Added support for additional Oracle CDD 4GL entity and relationship types, improving compatibility with layered products and migrated applications.
- Added support for large dictionary elements exceeding 64 KB through the CDD callable interface, improving compatibility with products such as DECforms.
- Improved repository access handling for applications that use multiple VDD contexts within the same process. VDD now supports sharing a single repository connection across multiple contexts.
- Added support for single-node migrations through the VMU **MIGRATE/SINGLE** command.
- Enhanced VDO syntax diagnostics. Syntax errors now identify the location of the error within the command or script instead of reporting a generic parse error.
- Added support for command continuation prompts in VDO, allowing commands to be entered across multiple input lines.
- Improved CDDL compatibility by supporting unnamed fields in DDL mode.
- Added support for hyphens in COBOL condition names.
- Improved logical-name handling in VDO record member lists.

- Expanded the VDO Help information for DDL-related commands and operating modes.

5. Installation Considerations for V1.2-03

Important

VDD V1.2-03 introduces significant changes to repository handling and installation procedures. VSI strongly recommends reviewing the *VSI Data Dictionary Installation and User Guide* [<https://docs.vmssoftware.com/vsi-data-dictionary-install-and-user-guide/>] before proceeding with an installation or upgrade.

The following sections summarize the most important installation and upgrade considerations specific to VDD V1.2-03.

5.1. Repository Format Changes

VDD V1.2-03 introduces a new repository database format. Repositories created by earlier VDD releases, including VDD Version X1.2-03, are not compatible with this release and must be recreated before use.

When upgrading an existing installation, the installation procedure can preserve the previous system repository as REPOSITORY.DB_OLD. VSI recommends retaining this file until compatibility with earlier repository formats becomes available in a future release.

5.2. Repository Access During Installation

Before installing or upgrading VDD, stop all processes that access VDD repositories, including VDO, VDMU, Datatrieve, ACMS, and user applications. Accessing a repository during installation or upgrade may result in repository corruption.

5.3. Cluster Configuration Requirement

VDD V1.2-03 introduces the SQLITE3_NEXUS_FILE system logical name, which is defined by VDD\$STARTUP.COM and is used to coordinate repository locking.

In an OpenVMS Cluster environment, ensure that **@SYS\$STARTUP:VDD\$STARTUP.COM** has been executed on every node that accesses VDD repositories. This ensures that all nodes use the same repository locking configuration.

6. Fixed Issues

The following issues have been fixed in the VDD V1.2-03 release:

- Operations that did not specify an explicit version now correctly use the latest version instead of Version 1.
- Corrected issues affecting CDD\$SET_DEFAULT and CDD\$SET_ANCHOR, improving support for nested dictionary paths and ensuring consistent use of CDD\$TOP.
- Fixed several issues in CDD\$GET_ELEMENT, including output-length reporting, memory handling, and the retrieval of large dictionary elements.

- Corrected ACL handling for empty access control lists, resolving access issues affecting some Datatrieve operations for non-privileged users.
- Fixed repository access and locking issues that could result in duplicate element identifiers, repository access errors, or failures when multiple VDD contexts were used within the same process.
- Corrected issues affecting Datatrieve **SHOW DOMAINS**, **SHOW ALL**, and records that contain nested **STRUCTURE** definitions.
- Corrected VDD\$ANCHOR handling used by Datatrieve and related applications.
- Fixed an issue in COBOL record generation where fields containing both **COMPUTED BY IF** and **BASED ON** clauses could be generated incorrectly.
- Corrected several VDO issues affecting record version selection, unnamed DDL fields, COBOL condition names containing hyphens, logical-name translation, and **HELP** command processing.
- Improved VDO error reporting by providing detailed syntax diagnostics instead of generic parse errors.
- Fixed an issue that prevented VDMU from correctly deleting CDD\$MENU elements.
- Corrected issues affecting ACMS menu creation, menu processing, and task definition operations.
- Corrected DECforms extraction issues affecting large record definitions.
- Improved VMU migration processing and corrected issues affecting **/RESUME** operations during large migrations.
- Corrected an issue where installing over an earlier version of VDD with ACMS installed would cause the installation to fail.

7. Known Issues and Limitations

- Repositories created by earlier VDD releases cannot currently be opened or upgraded by VDD V1.2-03. Existing repositories must be recreated before use.
- VDO does not currently support command abbreviations. Commands must be entered in their full form.
- The VDO **HELP** system lists the **SHOW ALL** command despite this command not currently being supported.
- The VDO **DEFINE RECORD** command does not support explicit member version references (for example, field;4). Record definitions always use the latest version of each member at the time the record is defined.
- During COBOL generation, a field that has no **COMPUTED BY IF** clause of its own and is **BASED ON** a field defined with **COMPUTED BY IF** is generated as **PIC X**.
- The CDD\$DATABASE and DBM\$SCHEMA generic entity types are not currently supported.
- Concurrent write access to a repository remains limited. When multiple processes attempt to update the same repository simultaneously, database locking errors may occur. Retrying the operation after the conflicting update has completed typically resolves the issue.

- When one VDD context has uncommitted updates to a repository, other contexts within the same process may receive access-denied errors when reading from that repository.
- To use VDD, you will need to implement some changes into the scripts that were used with other dictionary management tools.
- VSI Data Management Utility (VDMU) currently lacks some verbs that may be necessary for complete integration.