

ENOVIA Version 5 Release 21

Product Enhancement Overview

This document lists both new and enhanced product functionality for the current release.

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3d com Administration Guide

Enhanced Functionalities

Supporting CATProduct Schematic

In order to generate CATProduct Schematic (light objects) properly at opening in the 3D viewer, the `DMU3DXMLTESSEL` variable must be created by an administrator.

Installation and Deployment Guide

New Functionality

New Licensing Middleware

Dassault Systèmes License Server (DSLS) is introduced as the new default Licensing middleware in addition to License Use Management (IBM LUM).

Supporting Platforms on Vault Server

Vault (64-bit) is supported on Windows (64-bit) and AIX (64-bit) platforms.

Supporting Windows Server 2008

ENOVIA V5 Server (32-bit) installation is also supported on Windows Server 2008 SP2 / R2 (64-bit).

Supporting DB 2 9.7

DB 2 9.7 is also supported by Vault and Windows Server.

MULTI PDM CDM VPM Plug in

New Functionalities

Working with VPM Objects

Opening a Part with Filters

You can now apply various filters before opening a Part.

Interoperability

Transferring Data to V6

You can now transfer Product Structure data from VPM NT to V6.

Data Exchange

Exporting Data in STEP Format

You can now export data in STEP format to a given file system.

Importing Data in STEP Format

You can now import data in STEP format to a given file system.

Exporting Data to 3DVIA

You can now export data from VPM NT to 3DVIA.

Customizing

Customizing 3DVIA Exporting

Some customization steps are required before using the new 3DVIA export functionality.

Enhanced Functionalities

Configuration

Resetting and Clearing Options

When defining or editing an effectivity, you can now reset or clear all options.

CES Enterprise Catalog Administration

New Functionalities

Automatically Update the CES Database

All data model changes made during any main cycle, for example a new release, a service pack, etc. are provided as CES DBLoad files. These changes are distributed with clear demarcation in the package. This process can be carried out manually, but it is difficult and time consuming. To make this process easier, an automated method is provided as a stand-alone tool, CESDBUpdate. For more information, refer to:

- **Updating the CES Database Automatically**

Customization of the Properties Window

The Properties window is used to display various tabs containing information on detailed specifications, pricing and availability, manufacturers, suppliers, etc. Not every user in a company needs to view all the available Properties information. Consequently, you can customize the tabs visible in the Properties window, based on the user group with which a user is associated.

- **Customizing the Properties Window**

CES Security Control

You want to keep the data in your CES database secure so that information is not lost or stolen. User groups and Approval Settings both provide security for your data. User groups are used to control which users can access certain material or functionality. For example, some users may need to access certain internal item information, but not pricing information. Some engineering users may only be allowed to access approved parts, while others can introduce new, unapproved parts. This can be controlled both through user groups and associated permissions.

CES Approval Settings provide another means of security. The CES Approval Settings at either the user or group level decide the behavior of certain functionalities of CES Approval, and which items are visible to which user. For more information about available security, refer to:

- **Managing User Groups**
- **Permissions Administration**
- **Approval Settings for Users and User Groups**

Enhancements

CES Data Model Changes

The CES Data Model has undergone a few changes. For more information, refer to:

- **Changes to the CES Data Model**

Installation and Deployment

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Infrastructure

Enhanced Functionality

Customizing

Document

A new option lets you load a file even if you are not authorized to access some of its sub-documents.

Product Structure

Enhanced Functionality

Defining Contextual Links

You can **reroute** broken unpublished external references using the `Reroute` button.

DMU Engineering Analysis Review

Enhanced Functionality

Color Map in the Specification Tree

The color map now appears in the Specification Tree under its corresponding image.

Image Edition

You can select an image as group, which allows you to filter entities by values.

DMU Composites Review

New Functionalities

Interactive Ply Table

Lets you visualize plies interactively

Enhanced Functionalities

Commands

They have been grouped into a single menu and a single toolbar.

Human Builder

New Functionality

XML Settings for VOA

This describes the functionalities for XML Settings for VOA.

Enhanced Functionality

Defining the Occupant Posture Prediction Dialog box

The Method section of the Occupant Posture Prediction Definition dialog box has been enhanced to reflect postures according to the J4004 reference.

ENOVIA-CATIA Interoperability

New Functionality

Saving Creation, Modification, or Deletion of Constraints to ENOVIA V5 VPM

Enables you to manage concurrent change on assembly constraints based on the P&O rules of the aggregating product reference (Part Version).

Discard Save

Enables you to select or reject specific data to ENOVIA V5 VPM from the group of data you have modified in your CATIA session.

Alternative Save

Enables you to save a modified document in ENOVIA V5 VPM as a new document while leaving the source object unmodified.

Enhanced Functionality

Sorting data in the Set PDM Properties dialog box

You can sort the data alphabetically in all the columns of the Set PDM Properties dialog box.

Viewing details of an object in the Save in ENOVIA V5 VPM dialog box

In the Save in ENOVIA V5 VPM dialog box, you can view the other details related to the objects while saving. This information helps you understand details related to which objects are really modified and will be part of the actual save process.

Installation and Deployment

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Roles Guide

Consult the Licensing Matrix **spreadsheet** for new licensing information.

LifeCycle Administration Guide

New Functionality

Identifying Un-Synchronized Objects after ApplyPackage

The `ENORepXMLManager` enables you to compare and filter the XML Capture file with XML Acknowledgement file, and to retrieve the lists of RBOs that have not been successfully imported in the form of newly generated xml capture file.

Propagating Bounding Volume after Replication Synchronization

The `ENORepPropagateBoundingVolume` utility enables you to update Bounding volume propagation from 3D representation (Document Revision) to its associated Part Version and as well as from Part Version to Item Instance.

Supporting 3D Live Navigation for ENOVIA V5 Multi-site replication

Enables you to integrate **NavRep** extraction along with the assembly RBO extraction.

Launching CATDMUUtility 64bits from File Introspection 32bits

The File Introspection 32 bits enables you to generate derived formats as CGR and JPEG formats (for CATPart and CATProduct Documents stored in ENOVIA Database) by launching CATDMUUtility 64 bits with ENOVIA V5 VPM connection.

Enhanced Functionality

Managing Replication Package Using Batch

The `TransferOwnershipPending` enables you to generate list of replication package whose Site Ownership Transfer is pending.

Enhancing Data Extraction for Preferred Document Iteration

This enhancement enables you to reduce the amount of data to be extracted by defining the partial view of Document RBO for extracting the only preferred document iteration. It replaces the filtering solution proposed in the past with `CaptureFilter` utility.

Partial Replication Data Extraction

The `-packageSearch` keyword enables you to define a set of replication package for extracting data with a search string (in `ExtractForSite` utility).

ForceReturnCodeOn for ExtractForSite, ApplyPackage and ReceiveAck utilities

This new keyword enables administrator to define the return code to be generated in case those operations raise errors or warnings.

Engineering LifeCycle

New Functionality

Disable Bounding Box

To remove the overhead of updating the bounding volume attributes, disable the bounding box propagation. For more information, refer to **Defining a Volume Filter by Bounding Box**

Expand Filter Optimization

For more information, refer to **Defining a Volume Filter**

Additional Icons

This functionality provides a way to manage the rules through dynamic attributes panel and gives an intuitive way to fill the attributes. Depending on the status of the attributes, icons (icon required, icon warning, icon mandatory, icon update etc.) appear in front of the attributes in Product editor. For more information, refer to **Attribute View**.

Send To 3DVIA Composer

3DVIA Composer, uses 3D digital product definition for creation of product deliverables. For more information, refer to **Send To 3DVIA Composer**.

Understanding AR to PV Link

You can create a link either on newly created ARs or existing ARs if the following commands such as Synchronize, Replace, Delete, Insert New, Insert Existing are applied. For more information, see **Understanding AR to PV Link**.

Part Compare

This functionality provides an ability to compare two part references. For more information, refer to **Part Compare**.

Enhancements

Keeping Substitute During New Version

This functionality allows the substitutes to be carried over from the old version to the new version assembly. For more information refer to **Keeping Substitutes during New Version**.

Content Management

New Functionality

Using 3DVia Composer

The **3DVIA Composer**, enables you to generate 3D design data by converting 3D CATIA Documents such as CATProduct, CATPart, CGR and model into .smgXml and .smgGeom format.

ENOVIA V5 VPM Supply Chain Engineering Exchange

New Functionality

Selecting Magic Reconciliation

The Magic Reconciliation provides the Global set in interactive mode and in batch mode (both in ENOVIA V5 and VPMV4) to manage persistency, mapping and automatic choices of reconciliation rules. The Magic Reconciliation button in Reconciliator Toolbar is integrated with Global Set to customize the reconciliation UI.

Supporting CGR in Reconciliation

The Reconciliator enables you to re-integrate the received CATIA data as CGR documents (where CGR documents can be either standalone or alternate representation in Structure or Publication Exposed assembly). This sort of CGR documents are supported for reconciliation in ENOVIA V5 VPM and ENOVIA VPM V4.

Enhanced Functionality

Importing a sub-assembly with assembly drawing

The `-importInAssembly` command in ENOVIA V5 VPM reconciliation batch utility enables you to define the name of the product to be used to import sub-assembly and to reroute the assembly drawing links on Product Root Class.

Improving Reconciliator Usability

The `Calendar` enables you to select the creation or modification date from which the product needs to be searched in `Easy Query` and `Query only last Version or Revision` mode. The `Calendar` is so designed to avert the iteration for identifying the right format while selecting a date.

The `3D Viewer Toolbar` enables you to define the different viewpoints and visualization modes. These visualization modes allows you to perform an efficient visual comparison of the mapped object.

The `Ambiguities` tab enables you to identify the types of ambiguities occurred while reconciling an object and review and confirm the automatic choice of rules.

Electrical Cable Route Management

Enhanced Functionality

Impacts of Configuration Support on Routing Cables

Configuration Support for cable routes has impact on following functionalities:

- Import work package
 - Management of work package effectivity
 - Management of cable route status on affected cable routes
 - Import new work package and existing work packages
- Cable routing facility
 - Context setting
 - Route cable
 - Validate cable route
- Electrical database checker
 - Check for effectivity inconsistencies
- Roll cable routes
 - General roll cable functionality
 - Roll operation P&O management
 - Roll operation execution modes
- Reporting cable route information
 - Standard reports

VPM Navigator

New Functionality

Multi-Domain Filtering capability

You can use attribute criteria from two or more domains. Multi-domain Attribute filtering will be available on the Root level Attribute Container node and will be allowed only on OR condition between the child nodes of the Root level node.

Easy Lock/Unlock

Easy Lock/Unlock is a single command to perform lock or unlock operations on a node, without an intermediate dialog appearing.

Instance graphical attributes management

You can store Color, Transparency and Hide/Show information for the Part and Product Instances into database and it provides persistency of these information in database by default, without applying any customization or activating attribute mapping. The Color, Transparency and Hide/Show property information will be mapped with a standard metadata attributed defined in database.

Select Under improvement

For Select under command, both Part instances and Document Revisions can be selected as you choose both as object.

Manage Alternate Representation from Session

You can associate alternate representations to Part/Product instances by selecting representation loaded in session from Associate From Session button. Associate From Session allows selecting only in-session representations which is either file based or PDM based ones.

VPM Navigator Preview

You can load the preview of Part Instance under PRC in VPM Navigator window which enables you to see the geometry of CATProduct and CATPart documents before opening them in CATIA.

Expand without PVR Documents

User can expand the product structure with or without displaying PVR nodes.

Enhanced Functionality

Multi-Valuated Attributes

You can assign and modify values to multi-valuated attributes with an intermediate help window from Sheet Editor and Properties panel.

Attach Document options in CATPreferences

The last selected Attach document options (Link Type, Parent Type, and Document Role) are kept from one session to another.

Stopping Bounding Volume Propagation

Disabling the bounding box propagation improves the performance and reduces the save time.

Expand Filtering Optimization

Using Configuration filter before Volume filter improves the performance of filtering mechanism as the Configuration filter will filter out some of the instances and hence Volume filter with accuracy selected will be applied on less number of instances.

Hide Load CGR Option in Open command

By default, the Load CGR option is not available with Open Modes window. You can make this option available using Options window.

Improve lock strategy

Smart Instances Lock is added to the lock options. Smart Instances Lock when checked, locks the root node instance of newly inserted sub assembly and unlocks all child instances of newly inserted sub assembly.

Warning when a used PVS is deleted

When you delete a PVS which has impact on PVR, Delete warning dialog appears which gives the list of PVR impacted by PVS.

Keep Open With Children Function

By default With Children at all levels and Apply Filter options will be selected when using open In Context command.

Creating PVR on Non-filtered Intermediate PV Node

Allows you to create a PVR on a non-filtered subassembly using Item Instance model

PVR Usability

Allows you to open a Product Structure from PVR window as well as from the VPM Navigator windows (VPM Navigator, Search Results, and Impact Graph).

ENOVIA-CATIA Interoperability

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