

ENOVIA VPM Central

Product overview

ENOVIA® VPM® Central™ provides large engineering teams with a single Product Lifecycle Management (PLM) environment to manage sophisticated product development processes and complex product design with maximum traceability and flexibility.

Key benefits

- Manage product IP within the entire development lifecycle with a high level of changes traceability and global access to stored documents
- Leverage company expertise to accelerate evaluation of alternatives and enable knowledgeable decisions
- Represent accurately product variations in engineering and the enterprise to optimize customer value in every market
- Allow concurrent definition to reduce design to manufacturing lead time and fosters search for best design alternatives
- Harness collective intelligence to produce better products, quicker
- Align engineering work-in-progress and enterprise business processes to improve communication for faster results

Product Overview

Integrated and built on a common data management architecture with the V6 authoring applications (CATIA®, DELMIA®, and SIMULIA®), ENOVIA® VPM Central helps medium to large companies take more innovative products to market faster by providing collaborative Virtual Product Management (VPM) of complex product, process, and resource information — from marketing and design to manufacturing and maintenance.

ENOVIA VPM Central manages design, manufacturing, and simulation of intellectual property (IP). Its sophisticated technology enables design reuse through a part catalog, providing design review and validation, exchange of information with partners, leverage of customers' V4 and V5 legacy data, and scalability to handle large number of users and complex products.

Users of ENOVIA VPM Central can work on predefined design tasks, subscribe to design modifications and perform design impact analyses to evaluate potential alternatives or changes. Specific add-ons allow further expansion of this scope by enabling users to work on configured products, manage and track design changes, perform complete digital validation process and execute comprehensive interferences-analysis to name a few.

ENOVIA VPM Central helps companies optimize product designs with potential variations in mind, allowing engineers to perform these advanced functionalities within a portfolio of configured products.

Product Highlights

Enable Multi-Discipline Engineering Collaboration

ENOVIA VPM Central manages all V6 authoring data in one unique environment and one single database promoting collaboration across different teams and disciplines (design, manufacturing, simulation). The product provides users with access to all data management tools (versioning, maturity, lock / unlock, etc.). ENOVIA VPM Central automatically determines assembly components that are out-of-date, delivering the right context quickly for accurate and fast updates. ENOVIA VPM Central keeps a consistent and updated view between engineering and enterprises disciplines. Throughout the design process, ENOVIA VPM Central synchronizes the product structure to the Engineering Bill of Materials (EBOM), defined using ENOVIA Engineering Central.

Access to EBOM Data from VPM

Using ENOVIA VPM Central, customers can access EBOM data from the "Search" and "Explore" windows while respecting the VPM security context. EBOM part properties can be browsed directly from the associated CATIA product properties.

Assess Impact of Design Modifications in Real-Time

Users can navigate between design components and related items such as other designs, simulations, drawings, manufacturing processes, functional and logical views, etc. Better decision-making occurs when users can anticipate the impact of design modifications.

Follow Design Modifications in Real-Time

Users can subscribe via emails and pop-ups to modification warnings delivered on any object (design, manufacturing, simulation) in the database. Product development enhancements occur more quickly as concurrent engineering intensifies.

Manage Engineering Task

ENOVIA VPM Central helps companies become more agile because changes are executed faster when tasks are defined explicitly, fully-documented, and all affected-components are attached. Accurate progress assessment occurs because tasks are linked directly to projects and programs, which makes design activity directly visible to the project leader. Leaders can assign tasks to different designers, reviewers, etc. as project responsibilities change.

Collaborate with Cross-Functional Enterprise Users

Designers in CATIA V6 often need to work closely with cross-functional users throughout the extended enterprise. This includes working together in a product launch project from ENOVIA Program Central or sharing ideas in a team workspace from ENOVIA Live Collaboration. From the VPM working environment, designers can easily work with these other users by uploading and downloading documents and completing their assigned project tasks. If necessary, the full project management or workspace management functionality can be launched from the CATIA V6 user interface. In addition, if the user is also licensed ENOVIA Requirements Central, full requirements authoring and edit capabilities can be performed to understand/define the requirements influencing the design activities.

Access Design Components Catalog for Quick Reuse

Users can create and reuse catalogs of any objects and disciplines. Catalog creators can add keywords enabling users to find and retrieve information quickly. The VPM design components catalog is synchronized with the enterprise libraries from ENOVIA® Library Central™ to ensure company-wide consistency.

Perform Digital Review

ENOVIA VPM Central provides 3D digital review tools with annotations, markup, etc., so users can collaborate more efficiently.

Tailor Your Environment to Fit Business Process Practices

Customers can configure their existing VPM data model to better fit their business processes. They can also define specific roles with different access rules to further protect their IP further.

Support a Single CAD Structure of CATIA V6, CATIA V5, and SolidWorks

CATIA V5 and SolidWorks data that is managed in V6 with ENOVIA Designer Central can be searched and navigated seamlessly in read only mode directly in ENOVIA VPM Central. As a result, all VPM supported capabilities such as comprehensive review and analysis and EBOM synchronization is possible regardless of the native authoring tool.

Migrate Data From Legacy Dassault Systèmes PLM Systems

Using ENOVIA VPM Central, customers can import and export CATIA® V4 and V5 files as well as ENOVIA® VPM® V4, and ENOVIA® Designer Central™, ENOVIA SmartTeam data and metadata into V6 so existing IP is efficiently leveraged.

Accommodate Various Dassault Systèmes V4 and V5 Environments

Engineering teams can collaborate on product designs efficiently using various versions of CATIA. Designers using CATIA V6 and CATIA® V4/V5 can exchange design data to modify their design, and eventually update the whole product design accordingly. In addition to design collaboration scenarios, ENOVIA VPM Central also enables CATIA V4 and CATIA V5 users to share design data with downstream PLM processes such as manufacturing, simulation, and design review in a V6 environment.

ENOVIA VPM Central also enables CATIA V4 and CATIA V5 users to share design data with downstream PLM processes such as manufacturing, simulation, and design review in a V6 environment.

Administrate Resources of CATIA Applications and Business Logic Rules

Design experts can use the “Project Resource Management” workbench to associate resources to design projects in order to tailor how the CATIA designers’ work is done to meet company standards. Resources like PLM Templates, PLM Rule Sets, PLM Documents, Catalogs and Chapters can be accessed easily and quickly by designers based on their currently worked on project.

Stereoscopic Viewing

ENOVIA VPM Central users benefit from stereoscopic viewing to deliver the most realistic visual representation possible of complex digital models, giving engineers, architects and scientists the best possible understanding of three-dimensional information, and yielding levels of technical proficiency not possible using a regular 3D viewer. Stereoscopic viewing is delivered into two different ways:

- High-end realistic visual representation needs specific stereoscopic equipment with quad buffer OpenGL compatibility like the popular Nvidia 3D Vision technology, or 3D TV
- Entry-range realistic visual representation can be used by: anybody with only a pair of “blue/red” paper glasses

Extend Capabilities With Dedicated Virtual Product Management Add-Ons

- ENOVIA® Designer Workspace enables designers to pursue complex design activities while controlling when changes are propagated between team members to avoid unnecessary interruptions
- ENOVIA® VPM Knowledge Standardization allows design domain experts to institutionalize how conceptual part features are defined and guarantees established rules are followed to avoid mistakes and rework
- ENOVIA® VPM Configured Structure Definition provides the manipulation and review of product data in the engineering work in process environment

- ENOVIA® VPM Configured Environment enables engineers to filter and navigate on product configurations, design in a configured context and define specific effectivity values for added and modified product components
- ENOVIA® VPM Change Tracking provides engineers with full control and traceability of design modifications through the various stages of the product development cycle (design, manufacturing, maintenance, etc)
- ENOVIA® System Functional Logical Definition helps designers define the functional and logical aspects of a product and link them to the physical definition of a product, ensuring a full traceability from product specifications to the actual 3D design
- ENOVIA® VPM Interference Check helps companies increase product design quality by enabling designers to detect product interferences and correct errors earlier in the product development process
- ENOVIA® VPM Interference Manager improves design quality, enhances time to market, and keeps costs in control by detecting, tracking, and managing interferences on complex and large digital mockups
- ENOVIA® VPM Digital Validation enables engineering managers and project leaders to oversee and participate in collaborative digital mockup reviews, packaging, and pre-assembly analyses
- ENOVIA® Live Validation enables engineering managers, project leaders, and designers to oversee and participate in collaborative digital mockup reviews, packaging, and pre-assembly analyses within ENOVIA® 3DLive™ and CATIA V6
- ENOVIA® VPM Volume Computation provides the ability to create alternate representations of products or assemblies for size reduction or for specific contexts
- ENOVIA® VPM CATIA V4 & V5 Coexistence enables CATIA/ ENOVIA V4/V5 customers to work on CATIA®V6 projects while leveraging existing investments and IP
- ENOVIA® VPM Configured STEP Interface imports large STEP files into V6

ENOVIA VPM Central and ENOVIA® VPM Team Central™ are both used to manage IP work-in-progress from the V6 authoring tools. However, ENOVIA VPM Central provides the following additional capabilities:

- Configure existing VPM data to better fit your business processes by adding additional information such as specific attributes, specific rights and more.
- Follow design modifications in real-time through a subscribe mechanism.
- Assign and manage engineering tasks to better organize activities.
- Better understand all relationships between objects, using the impact analysis tool.
- Enhance your PLM environment with a large set of ENOVIA add-on products.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA VPM Central supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values: global collaboration innovation, single PLM platform for intellectual property (IP) management, online creation and collaboration, ready to use PLM business processes, and lower cost of ownership.



As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 130,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes applications provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product - DELMIA for virtual production - SIMULIA for virtual testing - ENOVIA for global collaborative lifecycle management, EXALEAD for search-based applications- SolidWorks for 3D mechanical design and 3DVIA for online 3D lifelike experiences. For more information, visit <http://www.3ds.com>.

Visit us at
3ds.com