

CONFIGURED

ENOVIA VPM Configured Structure Definition



ENOVIA® VPM Configured Structure Definition allows users to manipulate and review product data in the engineering work-in-progress (WIP) environment.

Key Benefits

- Create, modify, manipulate and review product data created with Dassault Systèmes' authoring products
- Associate and position 3D representations into product assemblies to support relational design and associated PLM operations
- Effectively manage links while performing replace, cut and delete to ensure product integrity
- Open the right 3D representation with optimized loading for fast performance
- Directly integrate web-based configuration definition into CATIA navigation and authoring
- Navigate and filter on any configuration to establish an accurate 3D representation and identify commonality among different variants and evolution states
- Align the business strategy with the correct product configurations by defining the appropriate variants on the product structure components

Product Overview

Global organizations, more complex products, information silos—all these challenges interfere with effective collaboration among engineers. Without sufficient tools, it is difficult to communicate and share in the development of complex designs. Further difficulties are added when companies strive for market diversification with multiple product variants, making it even more complicated to collaborate and share in the design process.

ENOVIA VPM Configured Structure Definition delivers a common environment to collaborate on product structure data when using the V6 authoring products (CATIA®, DELMIA®, and SIMULIA®). The product enables users to convey complex design ideas readily by building and manipulating product structures quickly and easily. To address complex product engineering, ENOVIA VPM Configured Structure Definition enables engineers to navigate on product configurations in real time, author in a configured context and define specific configuration effectivities on any product structure updates within the Engineering Work in Progress (WIP) environment.

Product Highlights

Build, Manipulate and Collaborate on Product Structures

ENOVIA VPM Configured Structure Definition enables users to convey complex design ideas readily by building and manipulating product structures quickly and easily, using, among others, the following methods:

- Associate and position 3D representations into product assemblies and manage the publication of 3D component and assembly features to support relational design and associated PLM operations
- Effectively manage links while performing replace, cut, and delete to ensure product integrity
- View and save multiple or overloaded positions of moveable parts within an assembly depicted as a single product to evaluate early alternatives quickly
- Optimize loading of the right 3D representation speeds data open performance

Design in Configured Context

ENOVIA VPM Configured Environment is used to deliver on-time and accurate product variants to the market by enabling design in a configured context. When used with its optional co-requisite ENOVIA® Variant Configuration Central™, engineers can select and filter a configured context based on specified criteria. In the same environment, engineers can define the validity condition of configured objects (variability, evolution and applied changes) by applying specific effectivity.

ENOVIA VPM Configured Environment includes the ability to select an authoring mode to work with or without configuration management. When working with configuration management, the user has two options:

- Select a specific configuration for each modification performed on the product
- Define one configuration for all the incoming changes to be performed in the session

The effectivity definition on a product's components can be either manual or automatic with a full set of authoring commands such as cut, paste, replace, etc. Users can define, edit, and expose the different configurations of a given product. The configurations can be either actual products for manufacture or a partial or a mix of multi-configurations for design or analysis purpose (example: a car with all possible engine configurations).

Multi Model Configuration Context

Product managers can finely define the models to be used as configuration context in order to drive the available criteria to be used for product component effectivity values. This enables sharing of a single configured structure across multiple models and optimizes configured product structure reuse.

Evaluate Product Configuration Alternatives

ENOVIA VPM Configured Structure Definition evaluates product configuration alternatives and enables design change traceability. For any configured product, a finalized configuration view can be computed dynamically for browsing by a product manager, engineer, or approver/reviewer. The configuration capability is defined and stored in the ENOVIA® V6 database and is available through searches or by directly selecting configuration criteria (variants and evolution). The ability for a user to create, display, edit and delete product configurations adds value to their day-to-day design tasks by enabling them to define and display different configurations of a product, thus minimizing the time for analysis of many configurations.

By associating ENOVIA VPM Configured Structure Definition with ENOVIA® VPM™ Change Tracking, a product manager can create different actions to modify the design and specify which configurations are impacted. By defining planned effectivity, product engineers can see the product components before changes are validated, and browse a product as if all the current changes were validated. ENOVIA VPM Configured Structure Definition saves time and money by letting users analyze and anticipate the impact of modifications of global product development (design, manufacturing, etc).

Illustrate Business Concepts With A 3D Shape

ENOVIA VPM Configured Structure Definition lets users give a 3D shape to the business concepts of product variant, configuration, and portfolio planning for clear understanding with these features:

- Directly integrate web-based feature configuration diversity and configuration management into CATIA® navigation and authoring.
- Navigate and filter on the latest configuration to establish an accurate 3D representation and identify variant commonality among parts.
- Define appropriate variants on product structure components to correctly define product configurations that align to business intent.
- Powerful configuration editors provide flexibility in variant edition, variability space claim, and product duplication to study alternatives.
- Define products with multiple variants, and also to keep the different stages defined during the evolution of the product. This is performed by defining component effectivity based on the criteria defined by a product manager in ENOVIA® Variant Configuration Central™.

Analyze Product Configurations

ENOVIA VPM Configured Structure Definition provides quick product configuration analysis for project tracking and decision making. The PLM compass and the property panel enable users to visualize quickly the effectivity of each product component and available pre-defined configurations. Additional advanced analysis tools are available for highlighting components with the same effectivity or a compatible effectivity. All these tools are available when authoring or navigating configurations.

Manage Product Evolution

ENOVIA VPM Configured Structure Definition enables the management of the evolution of a product by defining and keeping the different definition states and manufacturing builds of the product. This allows product engineers to browse and analyze any stage of the product's evolution. The definition states of a given product can be defined as a composition of the states of sub-components. This allows users to manage independent products or components with their own evolution stages. It is also possible to define for each manufacturing build of the product which definition state has been used. As a result, a product engineer can browse a composite product just by selecting a given manufacturing build that determines the definition state for each involved components.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA VPM Configured Structure Definition 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.



Delivering Best-in-Class Products



Virtual Product



Information Intelligence



3D Design



Virtual Planet



Realistic Simulation



Dashboard Intelligence



Digital Manufacturing



Social Innovation



Collaborative Innovation



3D Communication

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