DASSAULT SYSTEMES

ENOVIA

FUNCTIONAL

ENOVIA System Functional Logical Definition

With ENOVIA® System Functional Logical Definition, designers can 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.

Key Benefits

- Create product designs that meet market demands by enabling traceability from product validation to customer expectations
- Investigate more design alternatives in a given period of time for increased development agility
- Reduce integration problems in physical design with earlier validation of 3D architecture
- Enable faster and more intelligent enterprise collaboration by sharing data using the universal language of 3D
- Manage the complex relationships of the linkages between functional and logical elements of product definition

Product Overview

Product design today involves an increasingly large number of systems, components, and people that must work together effectively. Advancing technologies make it impossible for system architects alone to choreograph and validate an entire system design. For example, the close physical proximity of sub-systems requires more fail-safe and redundancy planning involving more experts. In addition, new integrations of multi-disciplinary systems means systems must be decomposed into smaller and smaller components to properly function together.

In all, technology and competitive pressures to minimize weight and maximize performance continue to drive more accurate systems optimizations in wider categories. Designers need a tool that clearly defines and navigates the functional and logical elements for precise modeling and complex systems simulation.

ENOVIA System Functional Logical Definition helps designers deal with the complexities involved in large systems design by creating the functional and logical definition of a product through a 2D diagram based editor. ENOVIA System Functional Logical Definition creates relationships between the product requirements (R), the product functions (F), logical (L) components, and detailed physical (P) components. This can be thought of as a product's "RFLP" definition. ENOVIA System Functional Logical Definition includes RFLP navigation, folder and catalog integration, function, logical and physical edition for use throughout all phases of product development.

Product Highlights

Accurate Traceability from Requirements to Design

ENOVIA System Functional Logical Definition manages the system intellectual property (IP) within the entire development lifecycle from requirements, functional, logical, and physical (RFLP) definition to simulation. In one window, the user can access the requirements of the product, its functional decomposition, its logical architecture and its physical definition. ENOVIA System Functional Logical Definition enables users to create, modify and delete functional and logical data structures and to link those elements with implement relations.

The efficient management of the relational linkage of elements is possible using the ports of each product element. A port is a feature of a functional and logical model that is used to define the input/output of functions or to provide connections between logical components. Ports enable the interaction between functions or the connection between logical components. This allows each element to be connected to its siblings' and parents' compatible ports (that have the same flow, type, or direction). The output port of a component is connected to the input port of another component to model the fact that the data generated by the first component is consumed by the second component.

Using these relations, users are able to verify later that the functional, logical and physical requirements have been well taken into account in the definition of the product through a traceability matrix available in ENOVIA® Requirements Central™, or by simply using the Product Lifecycle Management (PLM) compass and getting a complete view in 2D or 3D.

Search and Navigate Product Requirement, Functional, Logical, and Physical Definitions

ENOVIA System Functional Logical Definition enables users to easily find and reuse RFLP components in the new product definition. Its RFLP Navigator extends ENOVIA® 3DLive™ and allows users to:

- Review the state of the definition leveraging ENOVIA 3DLive collaboration capabilities such as chat, picture sharing and co-review
- Manage the lifecycle of the different entities (change maturity, versioning…)
- Attach external documents to Functional and Logical entities to further define them
- Easily retrieve RFLP data to continue his/her definition work

Ensure Reuse with Folder and Catalog Integration

Users can organize the RFLP entities in folders to make it easy to retrieve and reuse data. A simple drag-and-drop from the folder window to the editor window allows the user to insert a function or a logical component. Function, flow, logical component and system types can also be cataloged. With the catalog browser and keywords, the user can quickly find standard function and logical components and reuse them it a new RFLP definition.

Manage the RFL Definition as Part of a New Product Introduction Process

If the user of ENOVIA System Functional Logical Definition also has a license for ENOVIA® Program Experience, the tasks for specifying product requirement or functional/logical entities can be tracked as part of a project including all other activities for a successful product launch. As RFL data is defined, it can be associated to project tasks as a deliverable so progress can be easily tracked.

ENOVIA R.A.C.E. Compliancy

When ENOVIA System Functional Logical Definition is deployed along with ENOVIA VPM Team Central or ENOVIA VPM Central using the available ENOVIA R.A.C.E. setup, the applications can be used immediately in production. This eliminates the need for specific customizations and reduces the time and effort for enterprise deployments.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA System Functional Logical Definition supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values, which are:

- Global collaborative innovation
- Single PLM platform for intellectual property (IP) management
- Online creation and collaboration
- Ready to use PLM business processes
- Lower cost of ownership.

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