ENOVIA® Collaborative Design for SolidWorks® provides a multi-site SolidWorks design data management solution for the extended enterprise. It allows designers to access and share each other’s designs from within the native SolidWorks user interface by leveraging the design team collaboration capabilities of ENOVIA® Designer Central™.

**Key Benefits**

- Maintain accurate representations of the intended design in the PLM database
- Achieve centralized management of all CAD files
- Control work-in-process, engineering changes, data, documents, and dynamic configurations
- Give non-engineering personnel direct, task-specific access to current CAD data
- Reduce the possibility of redundant, inaccurate, or out-of-date product information
- Increase information sharing while protecting intellectual property from unauthorized access
- Achieve ISO compliance
- Improve design control and business process management to realize truly functional product development and delivery
Product Overview

ENOVIA Collaborative Design for SolidWorks allows designers to effortlessly access, manage, share, and store SolidWorks data without leaving their preferred environment. ENOVIA Collaborative Design for SolidWorks facilitates process workflow, increases data integrity, and improves configuration management. From SolidWorks, users can search and browse the ENOVIA system, and lock and checkout design or drawings to their local drives. After modification, users can upload changes to ENOVIA.

Product Highlights

ENOVIA Collaborative Design for SolidWorks is the connector between the SolidWorks application and ENOVIA Designer Central. It provides the CAD user with a rich set of design data management tools accessible from within the CAD application. ENOVIA Collaborative Design for SolidWorks organizes the native types of parts, assemblies, attributes, etc. in SolidWorks and maps those entities to associated items in ENOVIA that the entire corporation will understand.

Microsoft Windows Explorer-based Interface for Workspace Management

A Microsoft Windows Explorer-based interface lets users access their local workspaces to perform lock/unlock, open and refresh operations. Access is also available to ENOVIA workspaces and folder content, “My Locked Objects,” “Collections,” and “Recently Checked in Files.” All ENOVIA managed data is represented to the user as if it is stored locally on the client. Users are able to utilize standard Explorer user interaction techniques to perform lock/unlock and open designs operations.

Quick Access

ENOVIA Collaborative Design for SolidWorks has been designed to allow users to manage their CAD files with minimal effort. The User Interface allows users to remain in the context of the CAD application while performing daily routine tasks that interface with ENOVIA. During a save operation, the user is presented with only preselected new and modified designs, which eliminates the need to traverse the structure to locate the desired items. Additionally, users may manually input the revision sequence for the stored designs. Opening designs is also easy. Users may search ENOVIA, access designs from previously stored queries, workspace folders, and stored collections directly from the “Open” dialog. In order to encourage users to frequently update the system with their latest design versions, ENOVIA Collaborative Design for SolidWorks maintains a list of recently accessed designs that users can quickly reference from the “Open” dialog for future download.

Exploring in ENOVIA

With the “Explore in ENOVIA” command, users may quickly review related Parts and associated drawings, perform “Where Used” and “Lifecycle” operations, and interrogate associated Engineering Change Orders.

Baseline Structures

ENOVIA Collaborative Design for SolidWorks provides a “Baseline” capability that permits users to preserve a specific configuration of a structure. Baselines can be created from the CAD application or ENOVIA for any stored configuration of a design. A Baseline may be retrieved at any time for further investigation or used as the design’s final representation for release.

Product Structure Data Integrity

The combination of ENOVIA Collaborative Design for SolidWorks and ENOVIA Designer Central provides a powerful solution in maintaining the integrity and timeliness of SolidWorks data in the ENOVIA system. ENOVIA Collaborative Design for SolidWorks controls the
relationships between SolidWorks entities and how they are presented in the database. When a drawing is created, it becomes the parent by the very nature of the internal reference to the part. Another example is when a structure is being checked out for loading in the CAD application. ENOVIA Collaborative Design for SolidWorks controls what must be checked out for proper assembly in the CAD application while ENOVIA Designer Central capabilities provide the user interface and business process accesses for the operation to be performed. Once files are checked out, data integrity issues may occur prior to checking the file back in to ENOVIA. ENOVIA Collaborative Design for SolidWorks provides an auto-recognition capability that gives the user confidence that on checkin the file will be associated with the proper revision/version stream in from which it was checked out. Another aspect of maintaining data integrity is the synchronization between the CAD designs and the objects stored in the PLM database.

Product Driven Designs
Utilization of ENOVIA Collaborative Design for SolidWorks and ENOVIA® Engineering Central™ allows the automatic synchronization of a CAD design structure to an engineering bill-of-material (EBOM). This link is critical to the correct representation of the intended design. While saving designs to ENOVIA, there is an option for users to automatically create and associate an engineering part to the corresponding CAD design. The CAD design is available immediately to the engineering community as a specification to the engineering part. Engineers may view a graphical representation of the associated specification.

Product Structure Maintenance
ENOVIA Collaborative Design for SolidWorks represents and maintains accurate, complex product structures throughout the product’s lifecycle. The product maps and maintains relationships among assemblies, parts, and other application-specific items as users check-in and check-out items, or users browse the ENOVIA Designer Central vault contents. In addition, ENOVIA Designer Central can store previous configurations to permit baselines and rollbacks. This also allows for virtual structure management through direct access to previous revisions/version combinations stored in the database.

Revision Control
Organizations can maintain multiple revision trees of designs within ENOVIA Designer Central without manually creating new subdirectories or changing filenames. When ENOVIA Collaborative Design for SolidWorks users create a new revision, ENOVIA Designer Central automatically saves it as a new business object, adds the sequential revision code to the item name, and relates it to the previous release. There is no need to propagate name changes interactively in the CAD application across files that reference the revised item.

Design Team Collaboration
ENOVIA Collaborative Design for SolidWorks provides the critical connection between the mechanical CAD process and effective product development. By uniting the management power of ENOVIA Designer Central with the design and engineering power of ENOVIA Collaborative Design for SolidWorks, users are provided real-world control of the work-in-process product design environment. ENOVIA Collaborative Design for SolidWorks benefits from the following collaboration features in ENOVIA Designer Central:

- CAD structure and EBOM synchronization validation
- Advanced CAD structure management in ENOVIA
- Design data workspaces
- Notification of design modifications of interest
- Online collaboration meetings
- Web based design visualization without native CAD tool

The role of ENOVIA V6 and PLM 2.0
ENOVIA Collaborative Design for SolidWorks 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 100,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes develops and markets PLM application software and services that support industrial processes and provide a 3D vision of the entire lifecycle of products from conception to maintenance. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product—SolidWorks for 3D mechanical design—DELMIA for virtual production—SIMULIA for virtual testing—ENOVIA for global collaborative lifecycle management, and 3DVIA for online 3D lifelike experiences. For additional information, contact us at: Dassault Systèmes ENOVIA Corp., 900 Chelmsford Street, Lowell, MA, USA 01851, +1 978 442 2500

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