DASSAULT SYSTEMES

ENOVIA

COLLABORATIVE

ENOVIA Collaborative Design for Solid Edge

ENOVIA Collaborative Design for Solid Edge provides a multi-site Solid Edge design data management solution for the extended enterprise. It allows designers to access and share each other's designs from within the native Solid Edge 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- Reduce the possibility of redundant, inaccurate, or out-of-date product information.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 Solid Edge allows designers to effortlessly access, manage, share, and store Solid Edge data without leaving their preferred environment. ENOVIA Collaborative Design for Solid Edge facilitates process workflow, increases data integrity, and improves configuration management. From Solid Edge, 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 Solid Edge connects the Solid Edge 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 Solid Edge organizes the native types of parts, assemblies, attributes, etc. in Solid Edge and maps those entities to associated items in ENOVIA that the entire corporation will understand.

Product Structure Data Integrity

The combination of ENOVIA Collaborative Design for Solid Edge and ENOVIA Designer Central provides a powerful solution in maintaining the integrity and timeliness of Solid Edge data in the ENOVIA system. ENOVIA Collaborative Design for Solid Edge controls the relationships between Solid Edge 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 Solid Edge 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. Users attempting edits to designs they have not been locked are presented with a warning message that the local file is read-only. The user may then attempt to lock the design in order to save the design to ENOVIA or continue editing to perform what-if scenarios. Additionally, if editing is continued, the user is presented with a final warning at the time of check-in to either attempt to lock the design or save the design to a new revision stream. If neither is selected, the design changes will not be stored into the ENOVIA database.

ENOVIA Collaborative Design for Solid Edge provides an auto-recognition capability that gives the user confidence that on check-in the file will be associated with the same revision/version stream 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 Solid Edge 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.

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 Solid Edge 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. Added flexibility is provided to save the active design "Save Active", or save all loaded designs "Save All". In addition, a "Quick Save" command saves all new and modified in-session designs without any further display or user interaction. Additionally, users may manually input the revision sequence for the stored designs. Opening designs is also easy. Users may search ENOVIA, and access designs from previously stored queries, workspace folders, stored collections, or from recently accessed designs directly from the "Open" dialog.

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 (ECOs).

Baseline Structures

ENOVIA Collaborative Design for Solid Edge 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 Maintenance

ENOVIA Collaborative Design for Solid Edge 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 checkout 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.

Users often utilize configurations of individual designs, assembly and component instances, in their structures. These instances of designs streamline user development processes through the reuse of similar existing geometry. Users have the flexibility to decide which instances to store. All instances, active and inactive as well as the family are listed in the dialogue. If a user only selects the instance the family is automatically saved to preserve data integrity. ENOVIA Collaborative Design for Inventor manages and tracks the associative relationships of these instance designs.

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 Solid Edge 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 Solid Edge provides the critical connection between the mechanical CAD process and effective product development. Initially by providing user driven derived output by design type, users control when and what format of generated files for downstream processing. Then by uniting the management power of ENOVIA Designer Central with the design and engineering power of ENOVIA Collaborative Design for Solid Edge, users are provided real-world control of the work-in-progress product design environment. ENOVIA Collaborative Design for Solid Edge 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.

To ensure that designers that do not overwrite each other's work, it is possible to query for the status of locally referenced designs from the context of the CAD tool. This display shows the design's type, name, current revision, current version, latest version available, and the user that has the design locked. Right mouse button commands allow users to lock, unlock and display design properties. Once this window is activated, it may stay on the desktop while the user continues to work in the CAD application. When a user changes work designs, the PLM status window may be 'refreshed" to update the display with the current active design status.

The Role of ENOVIA V6 and PLM 2.0

ENOVIA Collaborative Design for Solid Edge supports PLM 2.0, product lifecycle management online for everyone, and the ENOVIA V6 values, which are:

- Global collaboration 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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