

CONNECTOR FOR INVENTOR

OBJECTIVE

Connector for Inventor provides a collaborative, design data management solution when combined with **Collaborative Innovation**. It allows designers to access and share each other's designs from within the native computer-aided design (CAD) user interface.

OVERVIEW

Connector for Inventor allows designers to effortlessly access, manage, share, and store Inventor data without leaving their preferred environment. **Connector for Inventor** facilitates the process workflow, increases data integrity and improves configuration management. Users can search and browse the **3DEXPERIENCE**® platform from within the Inventor application or Windows Explorer environment. They can checkout and check in their designs on their local drives for better performance. The checkout process automatically caches the necessary files locally and checking in automatically uploads the files to the **3DEXPERIENCE** platform server.

The combination of **Connector for Inventor** and **Collaborative Innovation** provides a powerful solution to maintain the integrity and availability of Inventor data in the **3DEXPERIENCE** platform. Users can search and browse the **3DEXPERIENCE** platform from within the Inventor application. Performance is optimized for checkout and check-in operations through understanding design structure requirements and accessing only required data.

HIGHLIGHTS

Key features and capabilities include:

Work-in-Process Design Integrity

Working in conjunction with the CAD application, design permissions are assigned through the locking mechanism in the **3DEXPERIENCE** platform and are managed at the local disk level. When users lock a design, they are assigned read/write access permissions; if not locked, they are assigned "read only" on the local disk. Any attempt to edit non-locked designs warns users that edits will potentially not be stored while also providing a mechanism to lock designs for edit. As a result, ENOVIA maintains data integrity for non-intended design edits, while also providing the flexibility to lock in-session designs that require editing.

Quick Access to Data

Connector for Inventor 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 the **3DEXPERIENCE** platform. 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 the active in-session design without any further display or user interaction. In order to match revision processes users may manually input the revision sequence for the stored designs. Opening designs is also easy. Users may search the **3DEXPERIENCE** platform, access designs from previously stored queries, workspace folders, saved collections or from recently accessed designs directly from the "Open" dialog.

Exploring Data

Users may quickly review related parts and associated drawings, perform "where used" and "lifecycle" operations, and interrogate associated Engineering Change Orders (ECO).

Collaborative Design Status

Users may query the status of in-session designs against what is stored in the **3DEXPERIENCE** platform without leaving the CAD design application. Users can see if any design updates have occurred and lock designs for editing, or unlock designs so others can make modifications. If new designs are loaded in session, a refresh provides immediate design status updates.

Baseline Structures

Connector for Inventor provides a baseline capability that permits users to preserve a specific configuration of a structure. Baselines can be created from the CAD application or the **3DEXPERIENCE** platform 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

Connector for Inventor controls the relationships between Inventor entities and how they are presented in the **3DEXPERIENCE** platform so that they are available to the entire organization. It manages the relationships between Inventor entities in the **3DEXPERIENCE** platform to ensure the proper data is loaded upon checkout.

Product-Driven Designs

Connector for Inventor can provide automatic synchronization of a CAD structure to an engineering bill-of-material (EBOM). This link is critical to the correct representation of the intended design. Users may at any point in the design's maturity automatically create a corresponding engineering part structure. In addition, during this EBOM synchronization process, users may also transfer associated drawing balloon numbers to the corresponding EBOM. The CAD design is available immediately to the engineering community as a specification to the engineering part.

Maintaining Graphical Design Representations

The graphical representations stored with the 3D model may be of many different formats. The "derived output" formats are stored when the design is saved and are controlled by the user. For example, PDF files may be generated for drawings, while IGES or STEP files for 3D models could be generated for broader access to the design data without the CAD application.

Product Structure Maintenance

Connector for Inventor maps and maintains relationships among assemblies, parts, and other application-specific items as users check-in and check-out items, or users browse vault contents. In addition, previous iterations are stored to permit baselines and rollbacks. This also allows for virtual structure management through direct access to previous revisions/iterations stored in the database. An important aspect of structure maintenance is the synchronization of required attributes between the CAD files and the metadata stored in the **3DEXPERIENCE** platform. Bi-directional updates are automatically initiated by **Connector for Inventor** during "Open" and "Save" operations ensuring no metadata loss and immediate access by users.

Key Benefits:

- Maintain accurate representations of the intended design in the **3DEXPERIENCE** platform
- 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

Designers often utilize configurations of individual designs, iPart Factory items, and/or assembly designs (Assembly designs) 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. **Connector for Inventor** manages and tracks the associative relationships of these instance designs.

Design Recognition

Connector for Inventor provides an auto-recognition capability that gives the user confidence that on check-in, the file will be associated with the same revision stream from which it was checked out. This is valuable when design is performed externally, such as suppliers developing supporting systems.

Revision Control

Organizations can maintain multiple revision trees of designs without manually creating new subdirectories or changing filenames. When **Connector for Inventor** users create a new revision, it is automatically saved as a new business object. The sequential revision code is added to the item name and it is related 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

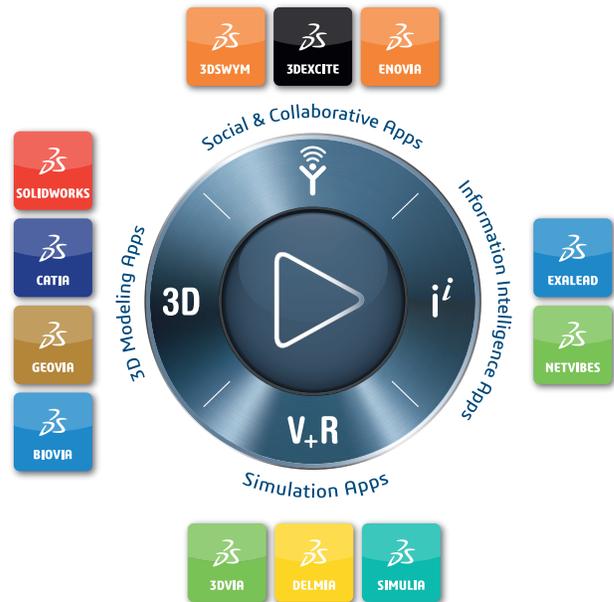
Connector for Inventor provides the critical connection between the mechanical CAD process and effective product development, and benefits from the following collaboration features in **Collaborative Innovation**:

- CAD structure and EBOM synchronization validation
- Advanced CAD structure management in the **3DEXPERIENCE** platform
- Design data workspaces
- Quick access to most-recently used design data
- Notification of design modifications of interest
- Update in-session reference designs as needed
- Derived output of multiple formats by design type for downstream processing

To ensure that designers 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.

Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 190,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.



©2015 Dassault Systèmes. All rights reserved. 3DEXPERIENCE®, the Compass icon and the 3DS logo, CATIA, SOLIDWORKS, ENOVIA, DELMIA, SIMULIA, GEOVIA, EXALEAD, 3DVIA, 3DSWYM, BIOVIA, NETVIBES, and 3DXCITE are commercial trademarks or registered trademarks of Dassault Systèmes or its subsidiaries in the U.S. and/or other countries. All other trademarks are owned by their respective owners. Use of any Dassault Systèmes or its subsidiaries trademarks is subject to their express written approval. DE_1201 Ex