

# SE MCAD Connector

CAD Systems Integration

**Share Design Information and Improve Collaboration Between Engineering and Manufacturing**

## ► Overview

Manufacturers face challenges of unprecedented complexity as collaboration with customers, suppliers, and partners worldwide has become a standard business practice in the manufacturing industry. Moreover, stringent quality requirements, accelerated development schedules, and these distributed teams across the supply chain and around the world, requires companies to manage this complexity by centralizing the product data created and used by these extended teams. Consequently, reliable data exchange automation has never been more critical, yet more complex, prone to human error and delays.

SoftExpert Mechanical Computer Aided Design Connector (SE MCAD Connector) enables accurate access of CAD data to all team members throughout the extended enterprise, by integrating MCAD applications with both SoftExpert PDM and SoftExpert Document.

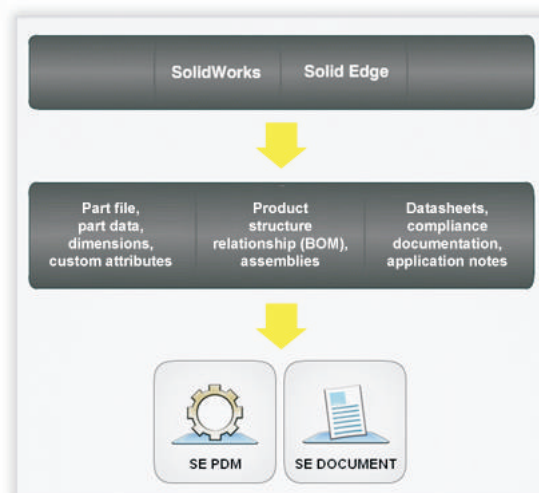
SE MCAD Connector empowers design engineers using MCAD applications to enable joint product and process design, and interdisciplinary collaboration throughout multiple product life-cycles.

SE MCAD Connector manages and secures CAD design objects and tracks engineering changes, maintaining the proper relationship between CAD objects and the SoftExpert applications product structure relationships. It also manages and integrates all part file, metadata, their controlled characteristics and dimensions.

Both systems manage synchronized sets of metadata, where the MCAD system maintains “ownership” of the vaulted data files. However, the lifecycle of the CAD object is managed by SoftExpert applications.

With synchronized processes and information, and regular, repeatable data exchanges, SE MCAD Connector enables organizations to optimize product development while minimizing risk and total cost of ownership.

Industry-leading companies including SolidWorks® and Solid Edge® are among the first applications to integrate with SoftExpert. Other MCAD connectors are under development and will be available soon.



## Features



### Part File Integration

- Import current MCAD assemblies and parts into SoftExpert Document or SoftExpert PDM. All links between parts and assemblies will be copied and maintained in the secure document vault.
- Create system objects (parts/documents) for each CAD object (3D model, 2D drawing, item). SoftExpert system objects have a reference to at least one CAD file that can be stored in a dedicated vault or locally in the network.
- Publish 3D CAD models using PDF3D® from imported 3D MCAD application models. PDF3D® is an innovative interactive 3D technical publishing technology for PDF documents.

### Metadata Integration

- Manage both data and the product development process by keeping track of the masses of data and information required to design, manufacture, support and maintain products.
- Easily integrate product metadata, such as, its definition, physical characteristics, and other attributes, helping in the identification, discovery, assessment, and management of product data.
- Reduce design time and accelerate product release and change cycles by avoiding wasted design effort through immediate, managed simultaneous access to all design data and collaborative engineering.
- Rotate, zoom, select and explore CAD models, all in the context of a technical report, using PDF3D®.

### Structure Integration

- Maintain the proper relationship between the CAD object's assembly structures and the PDM's product structure. Non-MCAD users have complete access to assembly structure breakdowns and 'where-used' lists for components.
- Allow users to select which assembly parts they are going import to the system.
- Synchronize Bill of Materials in real time, in a centralized, revision-controlled environment, ensuring information accuracy and productivity.
- View item level and Bill of Material level discrepancies between the information in the MCAD application and SoftExpert applications.
- Maintain and display the status of each part, including active, in progress, and retired parts.

### Dimension Integration \*

- Easily capture CAD object dimensions (such as length, radius, width and so on) and also, specific data regarding each dimension (such as nominal value, unit of measurement, limits and precision).
- Selectively import only those characteristics that follow pre-defined specific criteria.

### Revision and Change Management

- Recognize any information added, or modified in the CAD drawings, and automatically update this information to the system.
- Automatically import changed controlled characteristics, which may be used for inspection, quality control planning, statistical process control, etc.
- Automatically publish 2D drawings whenever a revision is completed.
- Keep track of each modified document, managing the full lifecycle. When modifying a part/assembly within the MCAD application, all documents that reference that document will automatically be updated to reflect that change.
- Securely update documents using the concept of check-in and check-out. Either create a copy of a document with a reference to the original document, or create a new version of a document while keeping the previous revision online.
- Update Bills of Materials after parametrically changing a CAD model.
- Control item revisions from the MCAD application directly into SoftExpert applications, enabling easy processes audits.

\* Dimension Integration is not available for SoftExpert Document.