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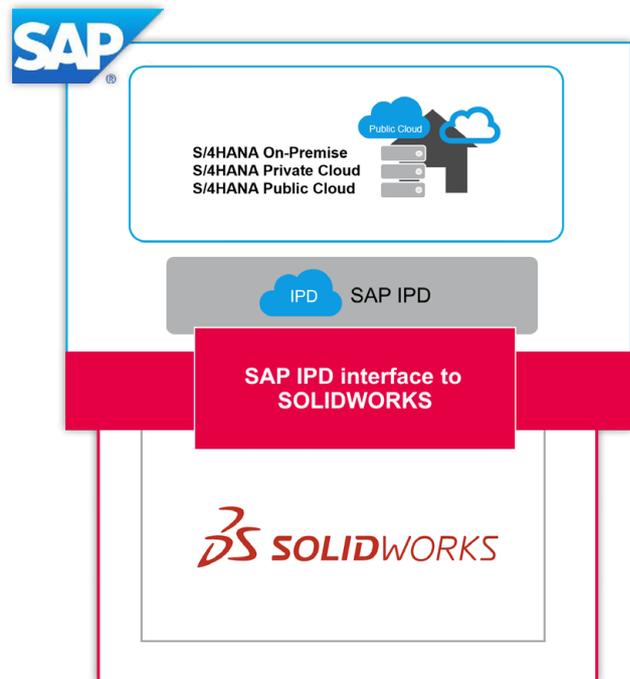
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SAP IPD interface to SOLIDWORKS

Innovative SAP PLM Solutions: Seamless Integration of CAD Systems into the SAP Cloud

With its new cloud-based PLM solutions, SAP provides a modern platform for managing product data consistently across all engineering disciplines.

SAP Product Data Integration (PDI) enables the direct integration of CAD systems and the transfer of their product and structure data into SAP Integrated Product Development (IPD) – the central engineering environment in the SAP Cloud. SAP IPD delivers software-as-a-service applications for product data, product structures, and change management, ensuring that engineering information is always current, consistent, and accessible across the organization.

Cideon specializes in integrating CAD systems into this SAP environment and develops dedicated interfaces, such as the **SAP IPD interface to SOLIDWORKS.** This interface transfers product structures from SOLIDWORKS into SAP IPD and links them with the relevant SAP objects, ensuring data availability for downstream processes throughout the SAP landscape.

Cideon develops the SAP IPD interface to SOLID-WORKS exclusively for SAP SE and supports you in seamlessly integrating the solution into your development and business processes.

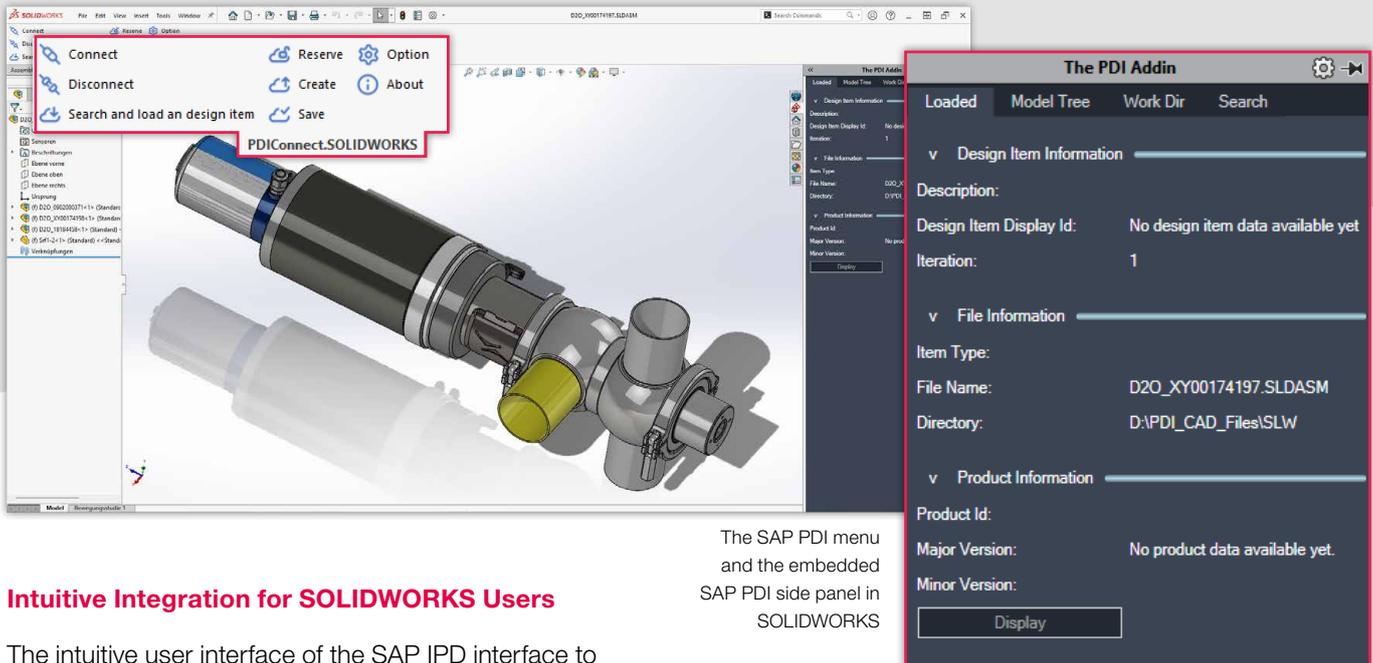PROCESS CONSULTING   ENGINEERING SOFTWARE   IMPLEMENTATION   GLOBAL SUPPORT

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SAP IPD interface to SOLIDWORKS

User Interface and Features

The SAP PDI menu and the embedded SAP PDI side panel in SOLIDWORKS

Intuitive Integration for SOLIDWORKS Users

The intuitive user interface of the SAP IPD interface to SOLIDWORKS provides design engineers with an optimized working environment — created by engineers, for engineers. SOLIDWORKS users can continue working in their familiar CAD environment while opening, editing, or viewing original files directly from SAP through the integrated SAP ribbon menu.

Efficient file management and the seamless transfer of product structures into SAP ensure consistent and reliable design data for everyone involved in the development process, significantly increasing overall productivity.

Functions

- Direct connection with SAP Integrated Product Development (IPD)
- Check-in and check-out of complete SOLIDWORKS assemblies
- Create and version SAP IPD design items
- Search for SOLIDWORKS files and load into CAD
- Create SAP IPD products
- Derive SOLIDWORKS assembly structures into SAP IPD product structures
- Display design items and product data for selected SOLIDWORKS elements
- Manage SOLIDWORKS configurations
- Mapping of SOLIDWORKS file properties to SAP metadata
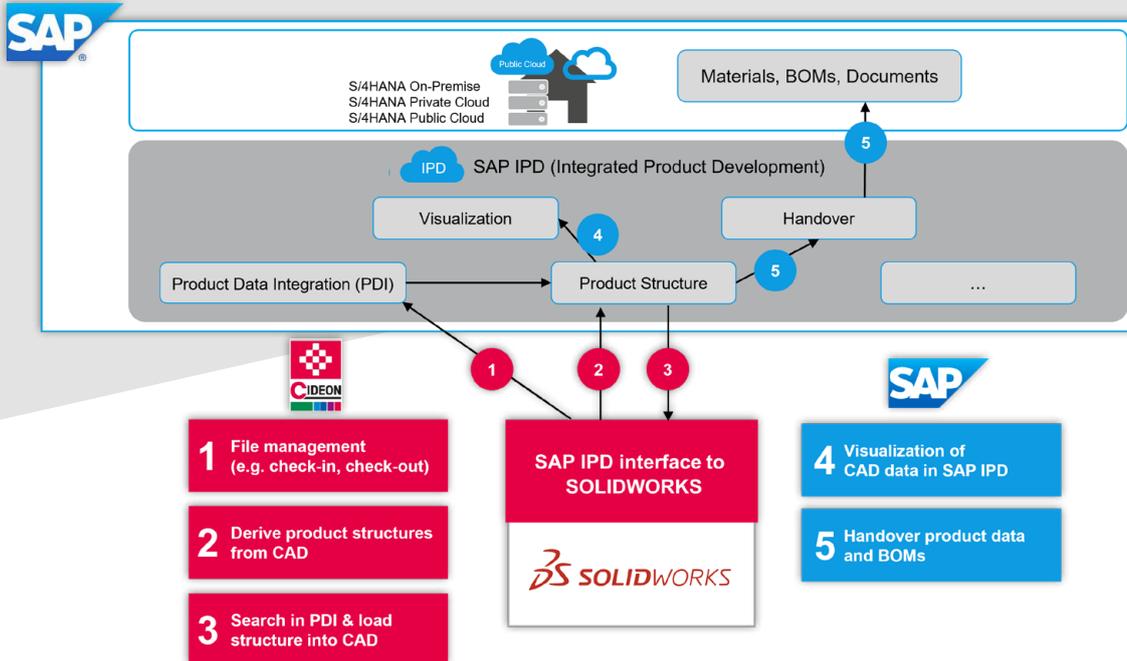- Automatic generation of previews

Highlights

- **Reduce effort**
  by eliminating redundant data entry
- **All relevant information available**
  – centrally to all users
- **High data quality**
  and always up-to-date engineering information
- **Secure and transparent processes**
  across teams and departments
- **Direct and secure connection**
  between SOLIDWORKS and SAP
- **Reliable file management**
  (check-in/check-out)
- **Efficient CAD collaboration**
  with external partners and suppliers

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SAP IPD interface to SOLIDWORKS

Interaction of the Integration with SAP

1 File management (e.g. check-in, check-out)

2 Derive product structures from CAD

3 Search in PDI & load structure into CAD

4 Visualization of CAD data in SAP IPD

5 Handover product data and BOMs

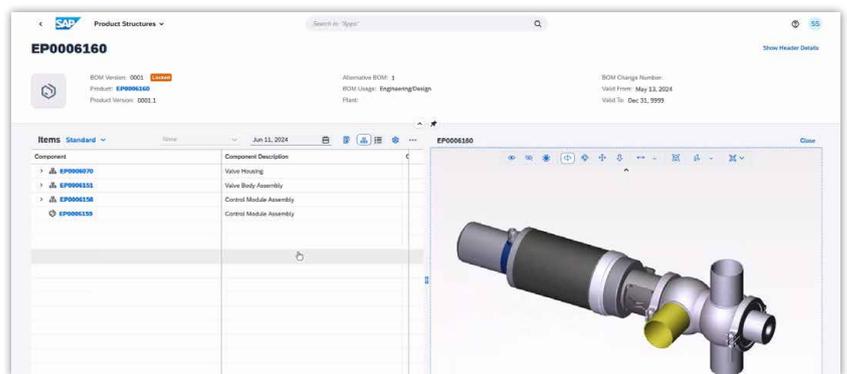## Connect SOLIDWORKS to Business Processes

The SAP IPD interface to SOLIDWORKS uses the SAP applications **Product Data Integration** and **Product Structure** to efficiently manage SOLIDWORKS data within SAP IPD. Features such as Design Item Versioning make it easy to track design changes and iteration statuses throughout the development process.

The seamless integration with other SAP IPD applications ensures consistent and reliable data handling across all engineering activities.

Visualization supports a 3D digital mockup directly within the product structure through the integrated SAP Viewer, providing clear insight into assemblies and design relationships. With **Intelligent Handover**, product structures created in SOLIDWORKS can be transferred from SAP IPD to downstream SAP systems such as SAP S/4HANA Cloud or

SAP S/4HANA On-Premise, where they can be processed further as documents, materials, or bill of materials.

The integration between SAP IPD and SAP ERP systems ensures that engineering data is transferred centrally, consistently, and securely into production-related processes. This reduces errors and accelerates time to market, enabling companies to benefit from streamlined workflows and high data consistency throughout the entire product lifecycle.

SOLIDWORKS assembly shown as an SAP Product Structure with integrated visualization

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