Product data management with SAP PLM

Product Lifecycle Management is crucial and begins early in the product development phase. In this process the direct connection of MCAD and ECAD with SAP allows for convenient management of data generated in CAD systems and makes all this information consistently available in the SAP ERP/PLM system to all users. Users and departments such as procurement, production and manufacturing benefit extensively by having access to this information early on in the process.

SAP SE provides with SAP Product Lifecycle Management (PLM) the option to directly link from engineering & CAD to SAP PLM using integrated management of all information created over the life cycle of a product.

The link between SOLIDWORKS and the SAP system allows for administration of all components which have been designed. Users have access to CAD data which is coordinated through versioning and status administration with SAP PLM. This process allows users to work on one component at the same time without data loss by avoiding inconsistencies (concurrent engineering). This translates into efficient engineering and speeds up the product development process while ensuring timely completion of the design, engineering & downstream tasks.

Simple management of CAD structures

SOLIDWORKS assemblies and drawings including all related documents are managed as structures in SAP PLM. This process ensures that appropriate original files are directly linked from SOLIDWORKS to SAP. All authorized users have access to the original documents stored in a central database - one single source of truth - which allows for companywide collaboration.

Users can track the development process and apply their appropriate change which reduces the number of redundant operations. With the integrated SAP change management, a change history is always available for the documents.

SAP PLM integration to SOLIDWORKS

As SAP’s long-term development partner, CIDEON exclusively develops the SAP PLM integration to SOLIDWORKS. This integration enables the efficient management of all data that is created during the engineering process with SOLIDWORKS in SAP.

The SAP PLM integration to SOLIDWORKS makes design data available to the company at the early stages in the life cycle while keeping the engineers in their familiar design environment.

Increase efficiency in engineering through a single, intuitive direct integration between SOLIDWORKS and SAP.
Ensure accurate and timely data exchange throughout the product development process.
Enable collaboration of engineering, procurement, production, manufacturing, marketing & sales.
Reduce operating and maintenance cost by integrating CAD tools with SAP Business Suite. This reduces the number of interface and steps between engineering and ERP processes. No costs for additional Product Data Management Systems (PDM), since it is fully integrated.
SAP PLM interface to SOLIDWORKS

**Highlights**

**Ideal interface for SOLIDWORKS users**
- Comfortably operating with SAP directly in SOLIDWORKS – the familiar work environment for design engineers
- Easy UI and navigation with a comprehensive overview of all required SAP information
- Direct access to SAP objects, e.g., Material Master, Bill of Material, Change Master, …
- Integrated Viewing

**Functional Overview**

**Document Management (DMS)**
- Routine activities, such as creating and updating SAP Document Info Records, are automated
- Comprehensive version control functionality in DMS, including digital signature
- Content server for all SOLIDWORKS files and other design formats
- All related CAD & non-CAD files are stored with the original in SAP Document Management System (DMS)

**Document structure function**
- Generate and update SAP document structures from SOLIDWORKS assemblies
- Check-In / Check-Out of all assembly original/additional files
- Block editing of checked-out documents

**Text field maintenance**
- Automatically via material master, document info record, change history, classification and other information from SAP

**Parts lists and BOMs**
- Automatic generation of SAP Material Masters using information from SOLIDWORKS, e.g., file properties
- Assignment of parts to associated documents
- Automatic derivation of parts lists from SOLIDWORKS structures

**Search capabilities**
- Search by match-code, object links, where-used reports, classification, queries or in folder structures, assemblies, BOMs, …
- Search result as preview or list with Excel-like filtering in all columns

**Versions and system requirements**

System requirements and additional information, as well as registration to participate in our webinars at no cost, can be found at www.cideon-america.com

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Fig.: SOLIDWORKS Integration with SAP CAD Desktop

Fig.: SAP CAD Desktop with SOLIDWORKS assembly structure.