

# SMART MANUFACTURING

WHAT'S NEW IN SOLIDWORKS 2018



## FEATURES FOR THE USERS, REQUESTED BY THE USERS

Great products begin with great designs—from concepts to manufactured parts and assemblies. SOLIDWORKS 2018 provides new tools and enhancements to help you get your design to manufacturing faster, with higher quality and at lower costs. From a more intuitive user interface to improved sheet metal design tools, many of the new enhancements and improvements were added based on your requests. Take a look at some of the new features and discover how SOLIDWORKS 2018 can help accelerate innovation and grow your business.

## FEATURE HIGHLIGHTS IN SOLIDWORKS 2018

### SOLIDWORKS CAM FOR CNC MACHINING

Users can now seamlessly integrate design and manufacturing with easy-to-use, world class CAM technology. Powered by CAMWorks™, SOLIDWORKS® CAM is production-proven, seamlessly integrated CAM for SOLIDWORKS that provides rules-based machining and automatic feature recognition to dramatically streamline, and even automate, CNC manufacturing operations.

### FASTER LARGE ASSEMBLY DESIGN

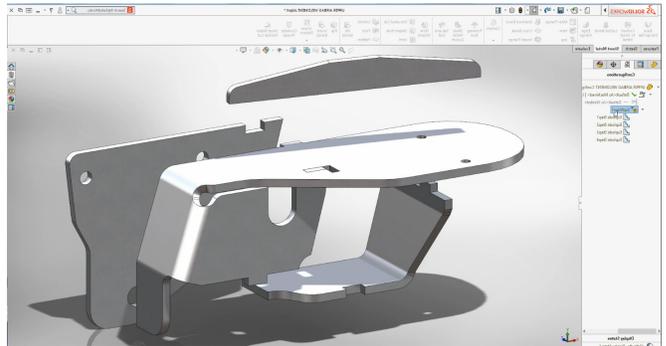
Large Design Review (LDR) now provides mixed-mode capabilities. Work with any combination of graphics-only, lightweight, and fully resolved models. This is the fastest way to open and view the entire assembly, but still allow editing and mating of any components.

### WORK DIRECTLY WITH MESH DATA

Work with mesh data similar to surface or solid geometry. Combine, intersect, split, move/copy, cut with surface, and check for interference. In addition, quickly fit surface bodies to regions of mesh models.

### MORE FLEXIBILITY WITH 3D INTERCONNECT

Seamlessly work with more file formats including JT, ACIS, STEP and IGES, and automatically update your design whenever new files are received. In addition, 3D Interconnect now supports internal file information like custom properties, materials properties and reference axes.



### NEW, MORE INTUITIVE USER EXPERIENCE

SOLIDWORKS 2018 supports freehand sketching with pen or touch on compatible devices. Enhancements to mouse gestures and user interface customization also help speed product development.

### REFINED SHEET METAL DESIGN TOOLS

SOLIDWORKS 2018 includes tab and slot features for self-fixturing of parts for welding, a normal cut feature to ensure clearances are included for manufacturing, and tools to easily create or flatten corners that include three bends.

### STRONGER SUPPORT FOR 3D PRINTING

Design and order 3D printed parts faster with direct integration to the 3DEXPERIENCE® 3D Printing Marketplace. Print STL graphics data and add 3D textures to models to be 3D printed directly from SOLIDWORKS.



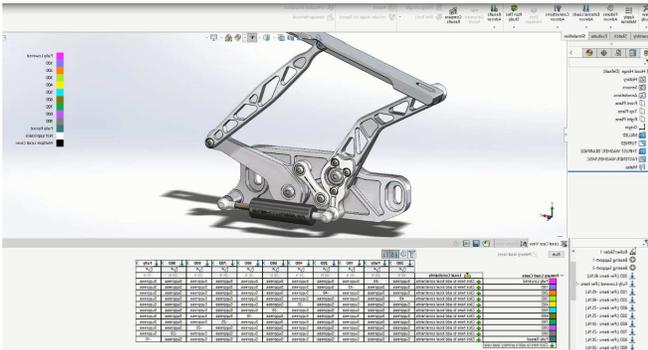
**SOLIDWORKS 2018 provides new tools and enhancements to help you get your design to manufacturing faster, with higher quality and at lower costs.**

## POWERFUL USABILITY ENHANCEMENTS FOR ELECTRICAL ROUTING

Routing is faster and easier with more detail than ever before. New features include drag and drop of in-line connectors and support for shrink-wraps and boots. Users can also now flatten a route in drawing with support for clips and disjointed routes.

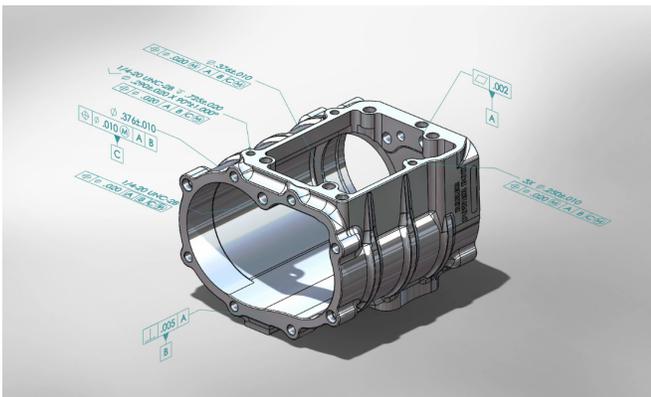
## GENERATIVE DESIGN FOR BETTER PART GEOMETRY

Utilize the SOLIDWORKS Simulation Topology Study tool to automatically optimize the shape of a design based on weight, function, and manufacturing criteria. Improve performance or reduce product weight based on simulation and manufacturing constraints.



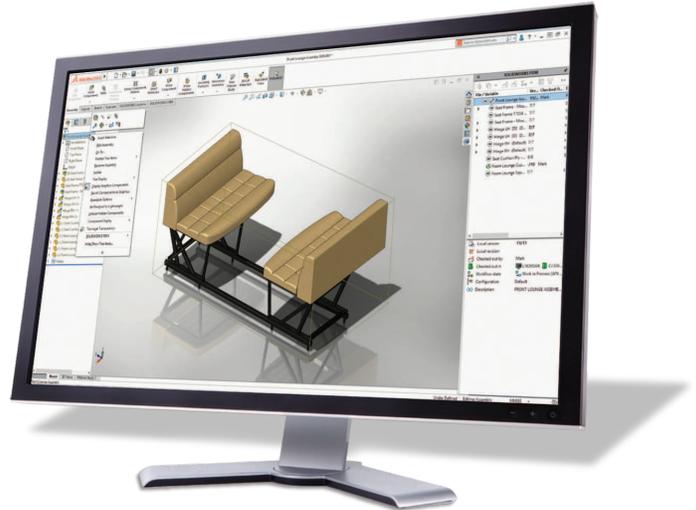
## SOLIDWORKS INSPECTION SUPPORT FOR MBD

With the enhancements in SOLIDWORKS 2018, you can now create inspection documentation directly from 3D models with Production Manufacturing Information, as well as from 2D drawings, PDFs, and TIFFs. SOLIDWORKS Inspection is now integrated with SOLIDWORKS PDM, and supports SOLIDWORKS part and assembly files (\*.sldprt, \*.sldasm), as well as non-native 3D CAD formats.



## SOLIDWORKS MANAGE FOR PROJECT AND PROCESS MANAGEMENT

SOLIDWORKS Manage provides data management, project management, and process management all in one familiar package. It adds powerful project, process, and item management capabilities to SOLIDWORKS PDM Professional.



## DESIGN BRANCHING AND MERGING

Users are able to investigate different design approaches without affecting approved files with the new features in SOLIDWORKS PDM. The software also helps to streamline the process of working with external users.

## AUTOMATED PDF CREATION FOR SOLIDWORKS DRAWINGS

SOLIDWORKS PDM Standard can automatically create PDFs from SOLIDWORKS drawings via workflow transitions. The new features eliminate the manual creation of PDFs to enable better collaboration and help the migration from Workgroup PDM.

## AUTOMATIC REVISION TABLE UPDATE

SOLIDWORKS PDM can now manage and automatically update SOLIDWORKS revision tables, allowing users to streamline their engineering change processes by reducing manual data entry and drawing updating.

## CLOUD-CONNECTED SOLIDWORKS

Empower desktop computers with cloud convenience through online licensing. SOLIDWORKS Online Licensing makes using your license on multiple machines effortless. The SOLIDWORKS login moves customized content and settings to any machine on which SOLIDWORKS is installed. The SOLIDWORKS Admin Portal allows easier management of SOLIDWORKS products and services.

## IT'S A SMARTER WAY TO GO

The new features and enhancements in SOLIDWORKS 2018 enable designers and engineering teams to work faster than ever before. With 3D design data at the center of the process, SOLIDWORKS allows changes from design or manufacturing to flow automatically to all related CAD models, CAM programs, drawings, and documentation. Managing changes has never been easier.



Learn more about SOLIDWORKS 2018 and related solutions at <http://launch.solidworks.com/2018>.

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