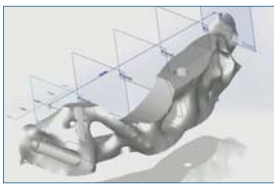


## WHAT'S NEW IN SOLIDWORKS 2019—DESIGN TO MANUFACTURE



### 1 MESH MODELING IMPROVEMENTS SPEED REVERSE ENGINEERING, TOPOLOGY OPTIMIZATION AND 3D PRINTING

- Easily create complex textures by converting 2D appearances into real 3D geometry
- Use mesh files like they are solids using the new Segment Mesh
- Automatically create 2D sketches at intersections of geometry and a plane with the slicing command

#### Benefits

Increased capabilities for mesh geometry, streamlining reverse engineering and topology optimization.



### 2 SMARTER MACHINING WITH SOLIDWORKS CAM/ MACHINIST

- Corner Slow Down and Arc Feedrate allow slowdown when approaching sharp corners and arcs
- Create machine-specific machining strategies
- Tooling improved with support for tapered shanks and more parameters

#### Benefits

Enhanced user control and automation for each operation and machining strategy.



### 3 INCREASED PRODUCTIVITY AND FLEXIBILITY WITH SOLIDWORKS INSPECTION

- Improved Bill of Characteristics with new grid layout and group/ungroup
- Additional extraction options to include hole tables for use on complex parts
- Integration with SOLIDWORKS® PDM to manage and organize inspection projects and deliverables

#### Benefits

Increased productivity when creating quality control documentation.



### 4 IMPROVED WORKFLOWS WITH SOLIDWORKS COMPOSER FOR TECHNICAL DOCUMENTATION

- SOLIDWORKS PDM integration enables access to PDM functionality directly from the ribbon within SOLIDWORKS Composer
- Import Product Manufacturing Information (PMI) data directly from SOLIDWORKS models into SOLIDWORKS Composer
- New icons, new commands and support for five new languages

#### Benefits

Improved workflow integration with SOLIDWORKS, productivity improvements and enhanced user experience.



### 5 VISUALIZATION AND RENDERING—MAKING THE DIGITAL WORLD MORE REAL... FASTER

- AI (Artificial Intelligence) Denoiser—Uses AI to decipher and eliminate noise from your renders
- Integrated Physics Engine & Vehicle Driving Simulator for faster scene setup and real-time design review
- Enhanced Decal features and support for Video Decals

#### Benefits

Set up your projects and instantly render them 10x faster with real-world physics and advanced measured materials.



## 6 CONFIGURE AND RENDER PRODUCTS ON THE FLY AND ONLINE WITH SOLIDWORKS SELL

- Click to add SOLIDWORKS designs to a SOLIDWORKS Sell cloud-based configurator
- Use on any device to share concepts and configurations of designs quickly
- Use Augmented Reality (AR) to show products in their actual environment

### Benefits

Unlock the value of your design data and leverage it with your teams and your customers.



## 7 FROM CAD MODEL TO REAL PARTS IN RECORD TIME WITH 3DEXPERIENCE MARKETPLACE|MAKE

- On-demand manufacturing across all manufacturing processes
- Place orders, track communications and collaborate with leading manufacturers worldwide
- Seamless integration between SOLIDWORKS and your favorite manufacturers

### Benefits

Streamline interactions with manufacturers such as quoting and ordering parts.



## 8 ENHANCED MBD (MODEL BASED DEFINITION) CAPABILITIES FOR FASTER 3D ANNOTATION OF MODELS

- DimXpert renamed to MBD Dimension and now available in Assembly mode
- Create bend tables, bend notes and flat views automatically for sheet metal parts
- 3D annotations passed to derived and mirrored parts
- Enhanced security controls for 3D PDF outputs

### Benefits

Speed up downstream manufacturing with more intuitive and actionable 3D annotations.

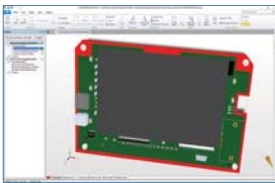


## 9 MORE POWERFUL SIMULATION CAPABILITIES

- Topology Optimization with Stress and Frequency constraints/goals for optimum parts
- Enhanced non-linear pin connector for accurate pin and clevis analysis
- Easy data reuse with drag-and-drop connectors/contacts into Non-Linear Dynamic studies

### Benefits

Set up and perform complex simulation studies easier and with greater accuracy.



## 10 SOLIDWORKS ELECTRICAL AND PCB IMPROVED FOR FASTER MECHATRONIC DESIGN

- Drive mechanically-oriented PCB placement barriers for SOLIDWORKS PCB
- Auto-generate flattened route drawings and related tables in SOLIDWORKS Electrical
- Use splices from SOLIDWORKS Electrical schematics utilizing passing circuit symbols in 3D

### Benefits

Improved capabilities for designing mechatronics products with SOLIDWORKS.

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