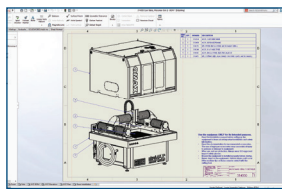# **DS SOLID**WORKS

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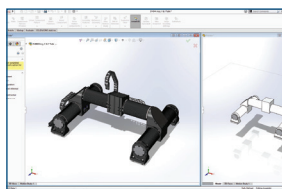
WHAT'S NEW IN SOLIDWORKS 2020—3D CAD

1 Large Assembly Drawings for Working Faster

- Detailing Mode: Open drawings in a matter of seconds while maintaining the ability to add and edit annotations.
- Graphics Acceleration for Drawings: Improve frame rates when panning and zooming within drawings with hardware-accelerated rendering.

Benefits

Work faster on drawings with many sheets, configurations, and resource-intensive views.
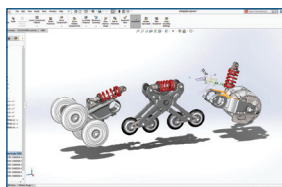
2 Faster Assembly Design

- Envelope Publisher: Include components from a top-level assembly as envelopes in a subassembly.
- Large Design Review: Create mates to the reference geometry of components, create and edit linear and circular component patterns, edit pattern-driven and sketch-driven component patterns.

Benefits
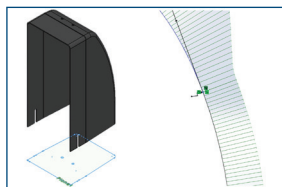
Speed up assembly design and reduce visual clutter.

3 Flexible Components

Make Part Flexible: Display the same part in different conditions in the same assembly. For example, show a spring compressed and at full length in the same assembly.

Benefits

Create assembly designs faster while maintaining an accurate bill of materials.
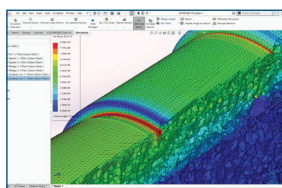
4 Faster Sketching

- Silhouette Entities: Create multiple sketch entities by projecting the outline of component bodies onto a parallel sketch plane.
- Torsion Continuity Relation: Achieve G3 curvature between sketched curves, thereby allowing a seamless transition.
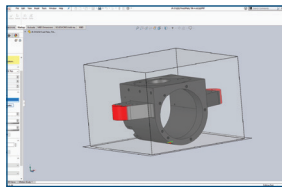
Benefits

Create robust sketches faster.

5 Faster Calculations and Improved Accuracy for Simulation

- Speed and Accuracy: Speed up analysis and improve accuracy by combining linear and quadratic elements in the same simulation study.
- Pin and Bolt Connectors: Deform faces attached to Pin and Bolt connectors.
- Beam Models: Import temperatures to perform a stress analysis after running a thermal analysis on a model with beams.

Benefits

Run faster calculations and better simulation of real-world behavior.
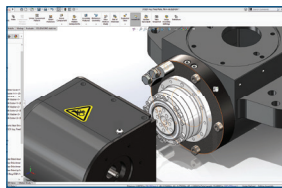
DS DASSAULT SYSTEMES

6 Improved Design Experience

- 3D Printing: Access an extensive list of commercially available 3D printer volumes and create slices for 3D printing directly from SOLIDWORKS® geometry.

Benefits
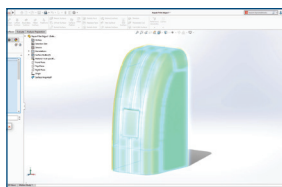
Save time and simplify design tasks.

7 Expanded Interoperability with 3D Interconnect

- Drag and Drop into SOLIDWORKS: Drag a non-native SOLIDWORKS file into an active part or assembly.
- New File Types: Work with BREP data from DXF™/DWG files and IFC files.

Benefits

Collaborate with more data sources easily.

8 More Flexibility for Surfacing

- Offset Surface: Identify faces on a surface that cannot be offset, and create an offset surface without them.
- Thicken: Specify more types of surface direction vectors (other than normal) to a face.

Benefits

Simplify and speed up your design with more robust, flexible surface options.
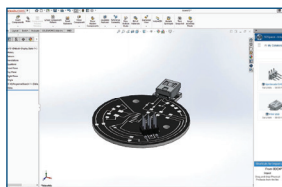
9 Improvements to SOLIDWORKS Visualize

- XR Exporter: Easily convert your Visualize files to AR/VR experiences.
- PDM Integration: Manage your files more easily with SOLIDWORKS PDM integration.

Benefits

Enhance flexibility with support of new file formats and customizable materials.

10 Connected Design-to-Manufacturing Ecosystem in the Cloud

- Direct Connection: Easily connect SOLIDWORKS 2020 with key tools through the cloud-based **3D**EXPERIENCE® platform.
- Data Sharing and Collaboration: Share models back and forth between SOLIDWORKS and **3D**EXPERIENCE tools. Collaborate in real time from anywhere and on any device.
- Extended Workflows: Easily extend your design ecosystem with new capabilities such as subdivisional modeling, conceptual design, and product lifecycle and project management in the cloud.

Benefits

Enable seamless product development workflows and easily extend them with new tools as your business needs evolve.

Our **3D**EXPERIENCE® platform powers our brand applications, serving 11 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 250,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.

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