



WHAT'S NEW IN SOLIDWORKS® 2023—3D CAD



Assembly

- Optimize resolved mode automatically by selectively using lightweight technology when you load components in resolved mode.
- Be more productive with the ability to save large assemblies faster.
- Speed up your downstream processes by exporting assembly components as separate STEP files.

Benefits

Work faster with large assemblies through automated, smarter assembly management.



Assembly Workflows

- Ensure design integrity by automatically replacing lost mate references with alternative mate references including faces, edges, planes, axes, and points.
- Speed up assembly feature creation with new end conditions, including Up To Next, Up To Vertex, and more.
- Save more time when designing assemblies with the ability to suppress unneeded Magnetic Mates and Connection Points.

Benefits

Speed up assembly design with streamlined assembly workflows.

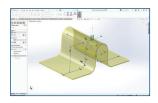


Parts and Features

- Turbocharge the copying of bodies by controlling translation and rotation values with equations.
- Speed up part modeling by referencing coordinate systems in 3D sketches, 2D sketch dimensions, and mirroring.
- Create wrap features from sketches that use single-line fonts, also known as stick fonts.

Benefits

Create part geometry faster with multi-body modeling improvements and more extensive use of coordinate systems.



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Sheet Metal

- Equalize bend radius values more easily by applying symmetric thickness with the Base Flange or Lofted Bend features.
- Include the sheet metal gauge value in annotations and cut lists.
- Receive automatic sensor alerts when you exceed the sheet metal bounding box size limits.

Benefits

Speed up sheet metal design while improving communication with manufacturing.





Drawings and Detailing

- Ensure standardization by limiting geometric tolerances to a specific standard with the Enable/Disable options.
- Identify overridden values in a BOM table more easily with values turning blue when overridden.
- Display transparent models in drawings with Hidden Lines Removed (HLR) and Hidden Lines Visible (HLV) modes.

Benefits

Create drawings that represent designs more accurately, and ensure standardization by limiting geometric tolerances to a specific standard.



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Structure Design

- Group similar corners and apply trimming, then automatically apply connection plates, with the new Pattern feature.
- Select a set of weldment members of the same size and type, and change their size for specific configurations.
- Zoom to a selected corner from the FeatureManager® design tree or the Corner Management PropertyManager.

Benefits

Build and modify more complex structures easily with the streamlined user experience.



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Electrical Routing

- Create splices with multiple circuits to which wires or cable cores are connected.
- Visualize your harnesses segment clearly by viewing its graphical cross section.
- Improve electrical routing design by reorienting the connectors to be parallel to a selected plane.

Benefits

Handle more complex electrical routing scenarios with new options for flattening, reorienting, and displaying wires and connectors.



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Electrical Design

- Include report tables such as BOM and wire lists in any electrical project drawing.
- Display connection information about a component in a label that you can dynamically insert into schematics.
- Create better schematics automatically from electrical data in MS® Excel spreadsheets.

Benefits

Create more informative electrical documentation faster while reducing errors.





Model-Based Definition (MBD)*

- View component dimensions in 3D PDF files, including feature dimensions, reference dimensions, and DimXpert™ annotations.
- Detail wedge-shaped features faster with expanded feature recognition.

Benefits

Communicate your design more clearly in 3D with the ability to view all dimensions in the assembly.



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SOLIDWORKS Visualize*

- Produce photo-realistic renderings with the Stellar Physically Correct renderer, providing Deep Learning AI Denoiser for optimal rendering performance.
- Define colors in more ways with the Color Picker and the color swatch palettes.
- In Preview render mode, see the display improvements of Physically Based Rendering (PBR) materials and more.

*This is a separate product.

Benefits

Experience better real-life rendering in Preview render mode, as well as improved rendering performance and easier ways to define colors.

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