

SOLIDWORKS

SOLIDWORKS 2022 ENHANCEMENTS

Improving Efficiency, Accuracy
and Collaboration Capabilities

WORK SMARTER

WORK FASTER

WORK TOGETHER

CONCLUSION



Technologies change. Competition increases. The need for fast, nimble and error-free product development steadily grows. These factors all place growing demands upon designers, who are continually confronted with the need to deliver more work product in shorter time frames in order to accommodate exacting development timelines and a competitive marketplace.

To succeed in the face of these challenges, designers need the ability to work smarter and faster—together. SOLIDWORKS® 2022 builds upon prior innovations and improvements to maximize the speed, accuracy and efficacy of designers' efforts while optimizing collaborative capabilities. New, user-driven enhancements help streamline and accelerate product development from concept to manufacturing.

WORK SMARTER

Many of the 2022 SOLIDWORKS enhancements have been developed to let designers work smarter by focusing on high-value activities while letting the system handle more repetitive, routine and time-consuming tasks. At the same time, SOLIDWORKS incorporates a range of specialized new improvements that make it easier than ever to execute sophisticated designs, such as configuration tables, part modeling enhancements and hybrid modeling.

SOLIDWORKS 2022 gives designers a significant advantage in the face of aggressive timelines and growing competition. SOLIDWORKS 2022 features improved workflows and powerful enhancements in assembly and part design, drawing detailing, simulation and product data management, as well as dozens of user interface enhancements to the shortcut bar, configuration management, geometric tolerancing and more. New features in parts, such as hybrid modeling and standardized external threads, make processes more efficient, comprehensive and intuitive.

The result: An optimized product development process that lets designers get more done in less time, with the ability to freely iterate and enhance designs, enabling the creation of high-performing, high-quality designs refined to the highest possible degree.

Part Modeling Enhancements

SOLIDWORKS' legendary modeling capabilities have been further refined to make it faster and easier than ever to create part geometries. These enhancements let you:

- **Use the Stud Wizard to create external threaded stud features quickly and easily**
- **Create Draft on both sides of parting lines simultaneously**
- **Mirror geometry of two planes at once, rather than having to mirror twice**
- **Benefit from improved appearance and ease of use of cosmetic threads**

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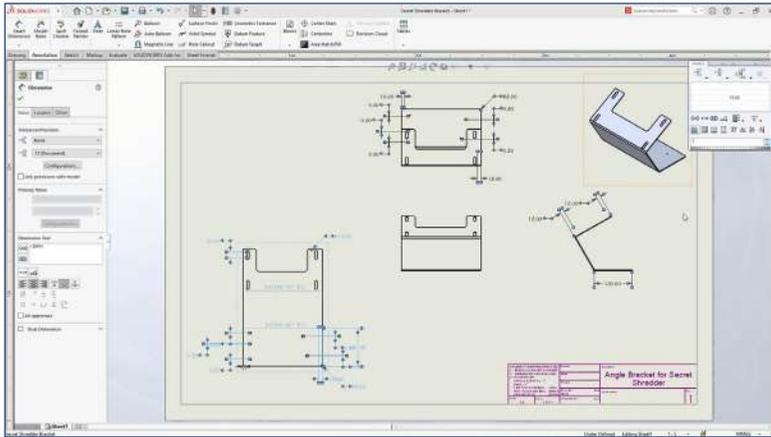
Hybrid Modeling

By enabling designers to work with mesh geometry more efficiently, Hybrid Modeling accelerates the design process and shortens design times. Hybrid Modeling lets you:

- Create a hybrid solid or surface body that includes mesh BREP geometry as well as classic BREP geometry
- Combine the speed advantages of using mesh data with the accuracy and parametric features offered by solid modeling

More Efficient Geometric Dimensioning and Tolerancing

A dramatically improved workflow and user interface for Geometric Dimensioning and tolerancing let designers work directly in the graphics area and build feature control frames cell by cell. Improved ISO support means that it's faster and easier to ensure standards adherence. The result is faster, more intuitive tolerancing of designs.



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Cut List Support in BOM Tables

An updated user interface and expanded functionality for detailed cut lists in Bill of Materials tables make BOM functionality more user-friendly and useful. In addition,

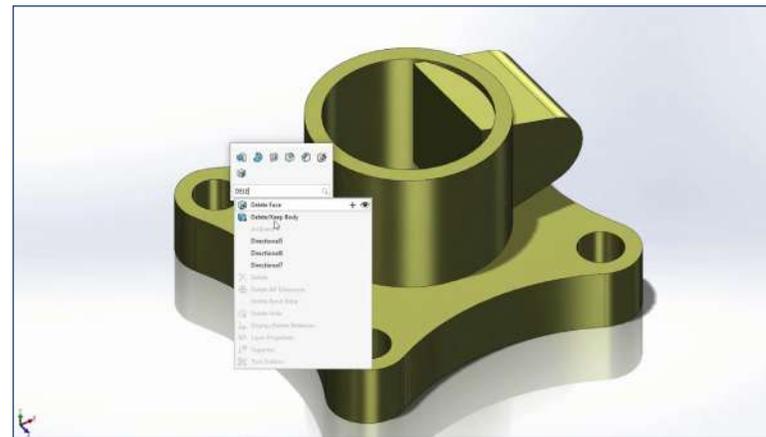
- **Table icons match those used in the FeatureManager design tree**
- **You can now dissolve components in indented BOMs either automatically or manually**
- **Balloon properties correspond to the linked BOM**
- **Detailed cut lists are available for all BOM types**

Configuration Tables

Configuration tables eliminate the need for Excel or similar applications to store configuration parameters. Created automatically when a part or assembly has multiple configurations, configuration tables make it easy to quickly modify configuration parameters for parts and assemblies.

- **Enable “real-time” updates**
- **Check inputs instantaneously**
- **Modify configuration parameters as an integral part of the design process without leaving the SOLIDWORKS environment**

The result is a smoother workflow and better integration when creating configurations.



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An optimal product development process is one that allows the creation of better products in fewer steps. The 2022 SOLIDWORKS makes it possible, with efficient new workflows and powerful enhancements in assembly and part design, drawing detailing, simulation and product data management. SOLIDWORKS even enables automatic assembly optimization without the need to change settings.

Assembly Performance and Workflow

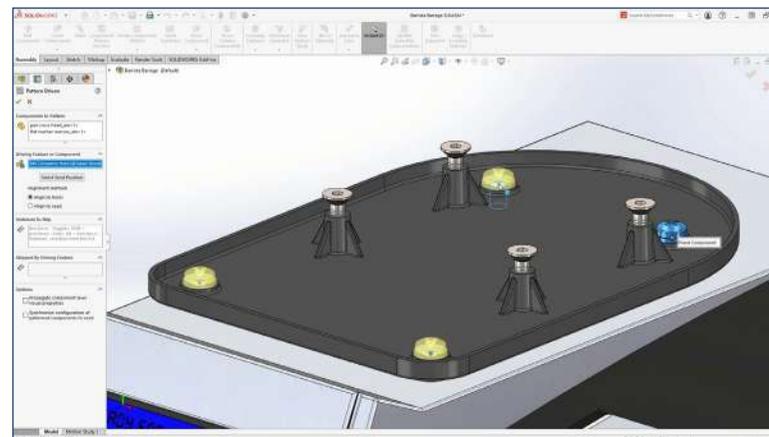
The 2022 SOLIDWORKS makes it faster and easier than ever to manage large, complex assemblies through improved workflows and smarter mode management, minimizing wasted time and maximizing productivity. Features include:

- **Dramatically improved performance when opening, closing and saving assemblies**
- **Users can open a subassembly in either Large Design Review or resolved mode from within Large Design Review mode**
- **Components resolve automatically when selected in the Feature Manager design tree**

Expanded Use of Detailing Mode

Detailing mode is the fastest way to open and detail a SOLIDWORKS drawing. These speed and efficiency gains are now available for an expanded range of functions within the mode. Users can:

- **Access all drawings, regardless of the SOLIDWORKS version it was saved in or whether the drawing had been saved in detailing mode previously**
- **Open drawings in Detailing Mode directly from an assembly in Large Design Review mode**



Import and Display Performance Improvements

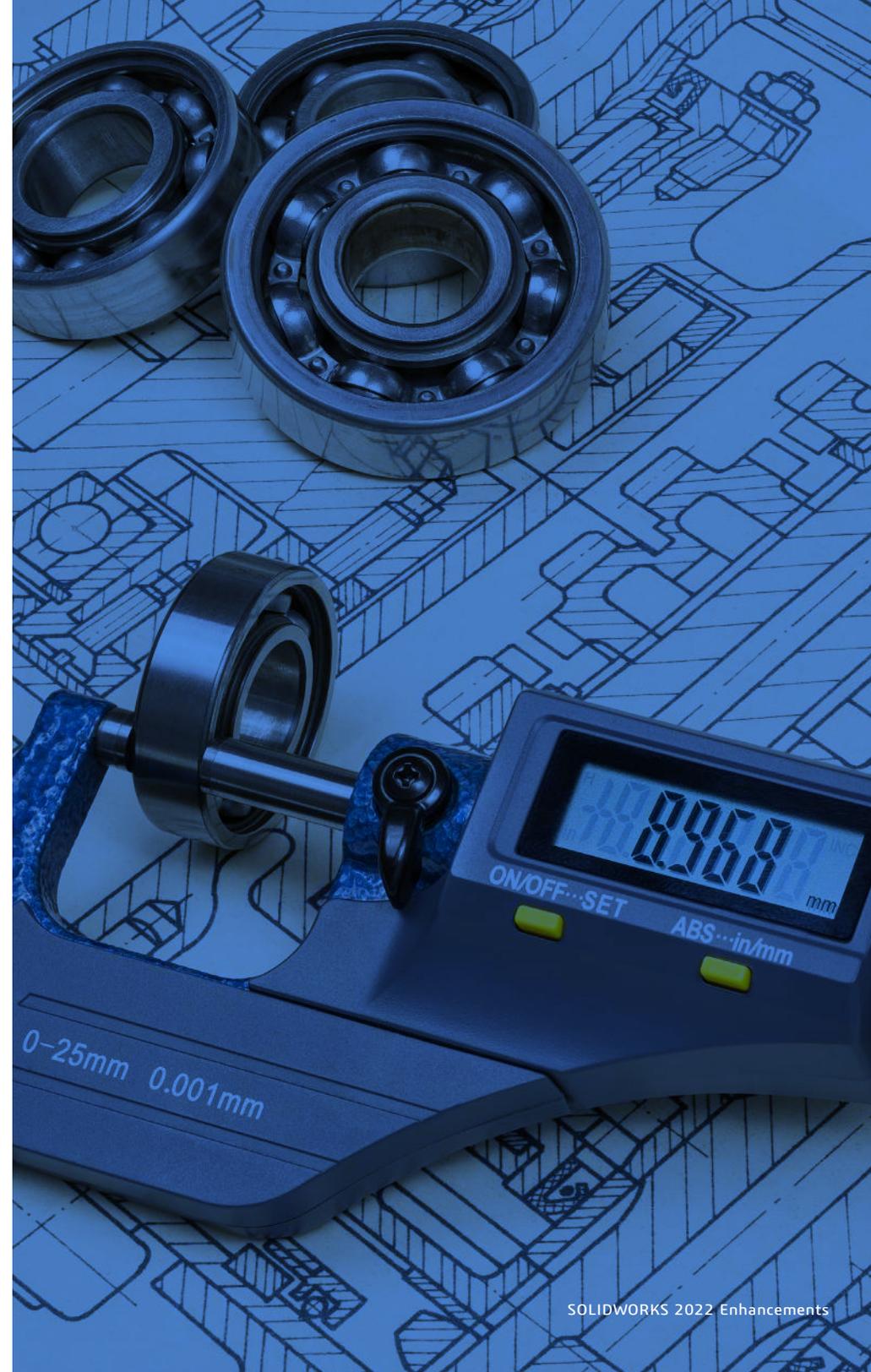
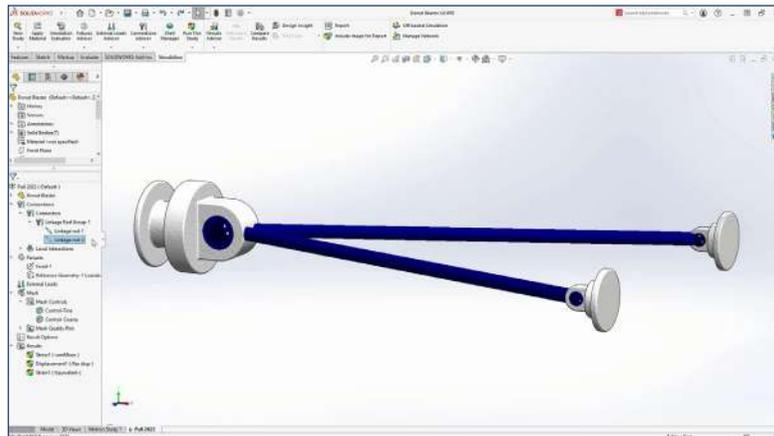
Performance improvements in import and model display accelerate and streamline the design process in several ways:

- Improved performance when importing a DXF or DWG file into a part sketch
- Improved performance when importing STEP files in SOLIDWORKS
- Improved performance for 3D textures and silhouette edges

Structure System and Weldment Improvements

New Structure System improvements make weldment creation faster and easier than ever before. You can now:

- Add end caps to structure system bodies with closed profiles, like tubes, squares and rectangular tubes
- Upgrade the custom properties of files created in SOLIDWORKS 2017 or earlier
- Enjoy a more intuitive workflow when using Corner Management functionality
- You can create multiple secondary members using Between Points Member for the selected pair and create secondary members with the Up to Members method



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In today's fast-paced environment, optimized product development process is seldom strictly linear. Efficient product development depends upon efficient, effective collaboration—between teams, across borders and across all strata of the product development chain. The 2022 SOLIDWORKS maximizes the value of connection to the 3DEXPERIENCE platform to leverage its collaborative capabilities, accelerate innovation and improve decision making, and the 3DEXPERIENCE Works portfolio powerfully enhances your competitive advantage.

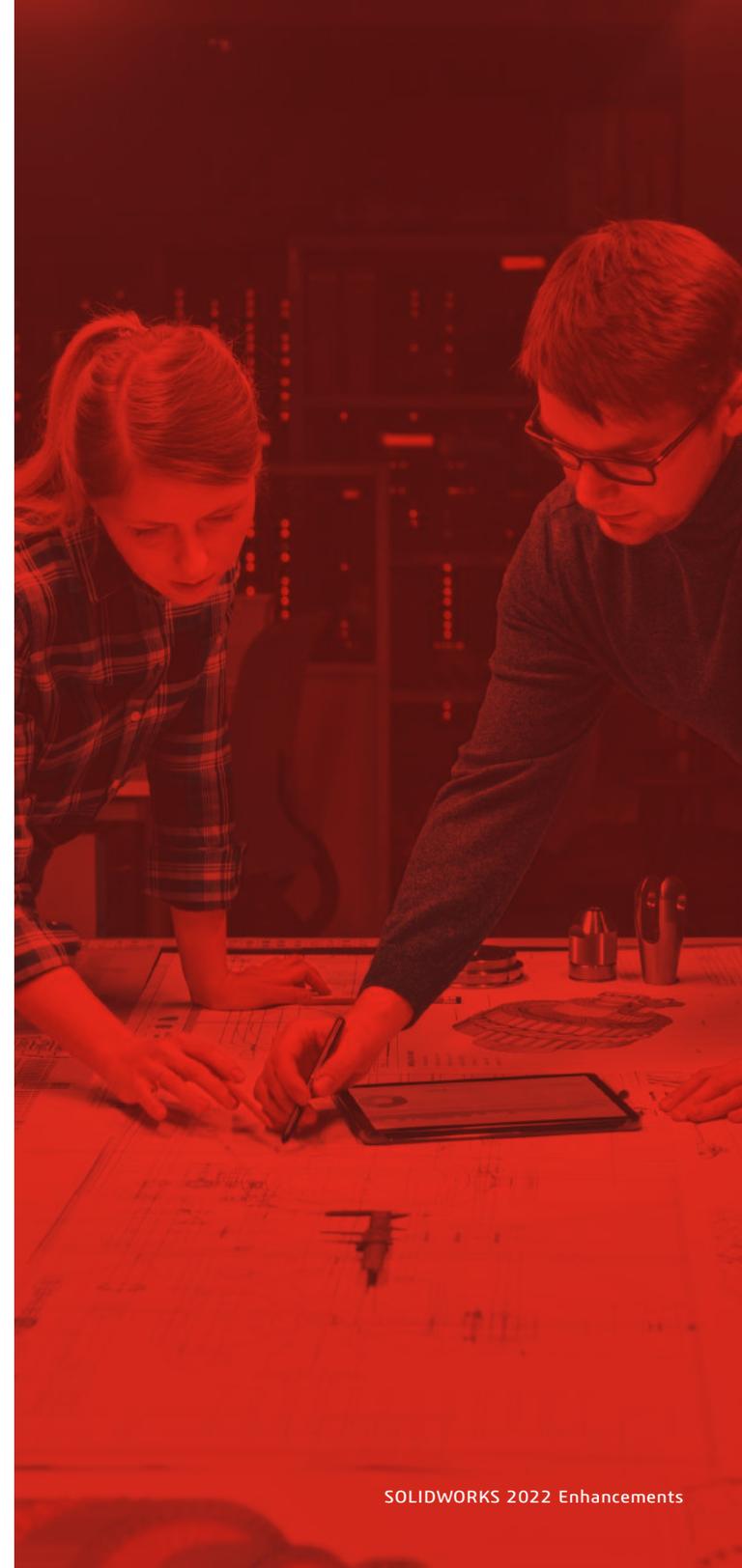
3DEXPERIENCE Improvements

- **Boost user productivity with support for additional languages (Traditional Chinese, Czech and Polish) in Collaborative Designer for SOLIDWORKS**
- **Using 3DEXPERIENCE SOLIDWORKS, access your favorite 3DEXPERIENCE commands from multiple places within SOLIDWORKS including the File Menu, Command Manager, and Context menu with support for all 3DEXPERIENCE operations**

Extending Your Reach with Collaborative Business Innovator

Adding Collaborative Business Innovator to your SOLIDWORKS portfolio unlocks a broad range of capabilities to powerfully expand collaborative capabilities through dashboards and communities, increasing the speed and quality of the development process and accelerating innovation. Features include:

- **Secure connection of all users in the value stream, eliminating silos and uniting design, engineering, manufacturing, sourcing, sales, marketing and supply chain partners within a secure collaborative environment**
- **Empower users to create personalized user experiences for maximum efficiency and productivity**
- **Immediate deployment and flexible scaling through cloud deployment, enabling scalability without the need for costly IT support**
- **Enhanced multimedia collaboration with support for multiple media types and voice/video calls**
- **Access and interact with 3D assemblies without the need for a CAD license**
- **Quickly access any product-related information, from any device at any time**



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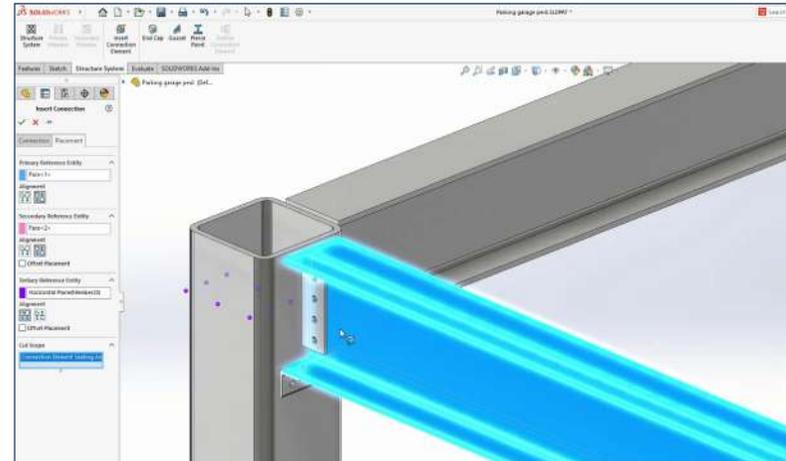
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Today's changing technological landscape and competitive market environment mandate new levels of efficiency, accuracy, quality and cost-effectiveness in the realm of product design. Today's designers can't afford to work within siloed, sub-optimal environments which slow their progress or compromise their efficiency—and the need for barrier-free communication and collaboration across all strata of the design-to-manufacturing process is absolutely critical.

SOLIDWORKS 2022 addresses these needs with enhancements expressly created to enable designers to work faster, work smarter and work together. User-driven enhancements designed to speed workflows, expand access to usable data and facilitate seamless collaboration add up to an optimized design environment that lets designers put their focus squarely upon innovation, producing high-performing designs that improve product quality while accelerating the product development process.



To learn more about how integrated SOLIDWORKS Simulation solutions can improve your development of industrial equipment, visit www.solidworks.com, or call 1 800 693 9000 or +1 781 810 5011.

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