SIEMENS
Ingenuity for life

What's new in Solid Edge 2021

All the features you want.
All the value you need.

www.acad.com.sg/solid−edge

The latest version of Solid Edge® software from Siemens Digital Industries provides the speed you need to get the most out of your entire engineering process – maximizing your productivity while decreasing your costs. With an emphasis on usability enhancements, Solid Edge 2021 users experience productivity gains with Solid Edge 3D CAD and Solid Edge CAM Pro. New capabilities in Solid Edge Wiring Design enable users to prepare the layout of industrial control panels, and new shape search and concept modeling capabilities make finding existing components and developing new ideas faster and easier than ever before.

Mechanical design

Design at the speed of creative thought with new subdivision modeling, lightning-fast reverse engineering, a new user interface powered by artificial intelligence (AI) and an intelligent 3D model search engine.

Subdivision modeling
- Develop unique products based on organic shapes without the need for expert knowledge
- Accelerate concepts using stylized design to create distinctive products

Adaptive user interface
- Improve productivity with new adaptive user interface (UI) capabilities that harness artificial intelligence to predict next steps based on user behavior

- Enable novice users to experience command predictions based on use by experts

Reverse engineering
- Speed forward in capturing a comprehensive digital twin of your product's design with lightning-fast performance improvements and deviation analysis
- Compare 3D scanned data to existing or other scanned data to detect deviations in individual components
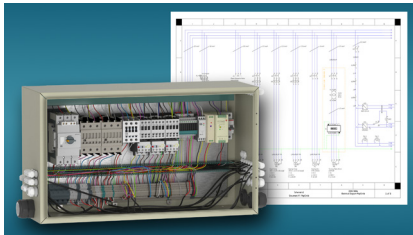
Core CAD enhancements
- Deliver productivity gains in areas such as large assembly, sheet metal, parts, frames, drafting, translation of internal components, model-based definition and support for decals
- Realize significant performance productivity in the development of large assemblies with lightweight mode for part location and copy/paste functionality
- Speed translation efforts by an order of magnitude
- Create multi-edge flanges in a single operation, then automatically trim them

Vendor catalog integration

- Streamline and simplify the process for finding 3D models using a unique visual search engine, 3Dfindit.com

- Search for parts using sketch and shape search abilities on visual search engine for 3D models

Electrical design

Prepare layout of industrial control panels with new cabinet layout capabilities that enable fast and accurate 2D panel assembly.

Solid Edge Wiring and Harness Design

- Prepare customizable table-based view of a terminal strip for electrical panel development

- Automate the complete design-to-production flow to achieve greater wire harness manufacturing efficiencies

- Automatically route full signal paths, including junctions

- Integrate electrical design efforts into Teamcenter® software and/or Capital™ software environments
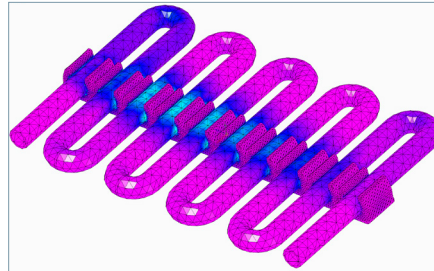
Solid Edge Electrical Routing

- Route wiring along irregular continuous geometric bodies

- Import files into any electrical computer-aided design (ECAD) software using design interface file (DSI) format export

Solid Edge PCB Collaboration

- Import third-party IDX files into Solid Edge

- Automatically align and map 3D models from any Mentor® software printed circuit board (PCB) product

Simulation

Optimize and validate designs digitally with tighter integration between flow and structural simulation.
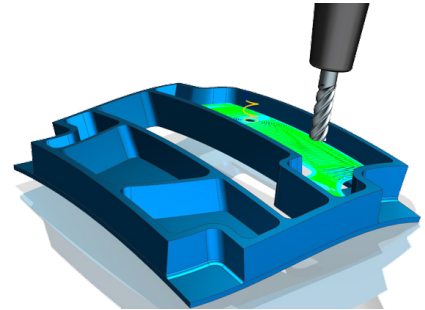

- Add fluid pressure and temperatures to your design for a more accurate and comprehensive digital twin with even better integration between flow simulation and structural simulation

- Digitally validate and optimize parts, assemblies and complete systems early in the design process, reducing the need for physical prototypes while saving time and costs

- Select the best simulation tools for your individual requirements with powerful, scalable solution offerings

- Remove components from simulation analysis with easy-to-use commands to speed testing

"Solid Edge 2021 is, in my opinion, the best Solid Edge release in years! There are a lot of things that will make the design process easier for our engineers. It's a major update."

Ricardo Espinosa
R&D Engineering Manager
Kimball International, Inc.

Manufacturing

Speed up computer numerical control (CNC) programming with a searchable postprocessor database, new fast roughing and adaptive milling.

- Maximize machine-floor investments by getting the most out of manufacturing equipment with a new searchable online database of postprocessors

- Remove material more quickly and increase tool life with new fast roughing, leveraging high-speed machining with 5-axis adaptive milling

- Think outside the box and nest your designs on surfaces of any shape with 2D Nesting, allowing for printing on organic materials such as leather and rough-cut wood. Maximize your nesting capabilities with new job-cost calculator and job multiplier

- Deploy and learn the powerful manufacturing solutions quickly and easily with built-in tutorials, templates and wizards

Technical publications

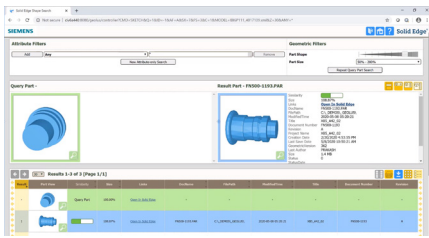More rapidly create high-quality documents and illustrations directly from your 3D models.

- Open, save and revise data from Teamcenter, Siemens' powerful product lifecycle management (PLM) solution, with tight integration between Solid Edge

and Teamcenter to ensure you're working with the right data every time

- Go from engineering to documentation quickly and seamlessly working directly with Solid Edge 3D models
- Import or export Solid Edge section views, including support for legacy weldment files (PWD)
- Leverage the digital twin to ensure all changes to the original design are easily incorporated into existing publications
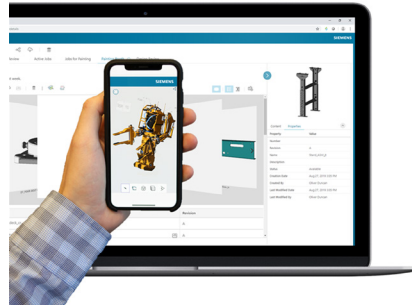
Data management

Take control of your data, saving time and money with new rapid concept modeling and shape search capabilities.

- Rapidly create and evaluate multiple design scenarios with the concept modeling capabilities of Teamcenter as the backbone
- Easily search, manage and share product data efficiently and securely with Solid Edge data management solutions
- Find the data management tools that fit you, from built-in solutions to Teamcenter integration. The scalable set of Solid Edge tools can meet the varying needs of all manufacturers
- Search for parts based on shape, eliminate redesign and remanufacturing costs of an existing part

Cloud-based collaboration

Expand your options with new tools for cloud-based collaboration.

- Synchronize files with the cloud while you work
- Improve communication with colleagues, customers and suppliers, in turn accelerating decision-making
- View, measure and mark up any CAD file on any device
- Review designs in augmented reality (AR) on phones and tablets

Solid Edge is a portfolio of affordable, easy-to-deploy, maintain and use software tools that advance all aspects of the product development process – mechanical and electrical design, simulation, manufacturing, technical documentation, data management and cloud-based collaboration.

Solid Edge, which is part of Xcelerator, a comprehensive and integrated portfolio of software and services from Siemens Digital Industries Software, provides an innovative and comprehensive approach to product development for the mainstream market. For more information, visit solidedge.siemens.com

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