

Siemens Solid Edge 2020

CIMdata Highlight

On May 31, 2019, CIMdata was briefed by the Siemens Digital Industries Software marketing leadership on the latest and coming capabilities for Solid Edge—Siemens’ design focused mechanical computer-aided design (MCAD) solution. The new release, Solid Edge 2020, is scheduled for general availability in July 2019 and contains a broad suite of technology and functional enhancements. The theme for this release is enabling manufacturers to harness the power of “Digital Transformation”—namely to gain efficiencies by digitalizing more of their product development process. To that end, the Solid Edge 2020 capability set has broadened beyond its traditional strengths in mechanical design. Leveraging the recent growth of the Siemens technology portfolio, Siemens now offers a much broader set of capabilities, including more than 25 new and add-on products under the Solid Edge brand, within the following categories:

- Mechanical Design
- Electrical Design
- Simulation
- Manufacturing
- Technical Publications
- Data Management
- Cloud-based Collaboration

CIMdata welcomes this extensive list of new capabilities and improvements and believes they add significant usability for Solid Edge users.

In the mechanical design area, Solid Edge 2020 users can leverage augmented reality tools to visualize their virtual product designs in a real-world environment using the web-based Solid Edge Portal (available free to anyone). In addition, advances in model-based definition include enhanced product manufacturing information and a template-based facility for PDF generation containing multiple, diverse file items. CIMdata sees this capability as an excellent approach for technical data package creation and sharing.

Siemens has improved Solid Edge’s reverse engineering tools using technology from CD-adapco, a 2016 Siemens acquisition. The new offering provides improved performance, as well as added functions that automate section sketches for reverse engineering workflows and repair of mesh faults.

In recent years Siemens has strengthened its Solid Edge simulation capabilities, for example adding heat transfer and dynamic response. With Solid Edge 2020, Siemens introduces two new simulation packages so users can better select a solution set that meets their needs: Solid Edge Simulation Standard and Solid Edge Simulation Advanced. Building off the base package, Solid Edge Premium, the new Standard package includes normal modes and buckling. The Advanced package goes further including heat transfer (steady-state and transient) and dynamic response (harmonic).

For manufacturing, Solid Edge adds to its optimized additive and subtractive manufacturing tools with a new sheet metal 2D nesting capability.

Leveraging the Mentor acquisition software, Solid Edge 2020 supports bi-directional integration between mechanical and electrical/electronic design with five solution packages:

- Solid Edge Electrical Routing
- Solid Edge Wiring Design
- Solid Edge Harness Design
- Solid Edge Printed Circuit Board (PCB) Design
- Solid Edge PCB Collaboration.

Additionally, Siemens has leveraged technology from its Polarian acquisition to provide an integrated requirements management capability within the Solid Edge 2020 suite.

CIMdata observes that Solid Edge 2020 covers a broad spectrum of users' design and development needs including requirements management, mechanical design, electrical design, simulation, manufacturing, technical publications, data management, and collaboration. CIMdata was also pleased to see Siemens' openness and wisdom in offering their users the business flexibility of perpetual versus subscription licensing either on-site or cloud-based. The Siemens' Solid Edge team goes further in offering a free license for students and start-up companies. CIMdata recommends potential users explore the Solid Edge offering for their design needs.

About CIMdata

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