Solid Edge, the leading mid-range CAD software from UGS, gives engineers and designers comprehensive computer-aided tools tailored for mechanical design problems. With industrial-strength 3D modeling, assembly design, engineering aids, and 2D drafting, Solid Edge has everything you need for mechanical design.

With extensive enhancements for designers of machinery, electromechanical products, and automotive/aerospace tooling and fixtures, Version 10 continues Solid Edge’s innovation for large-assembly design and drafting. The new high-performance modeling functions incorporate the proven usability features that extend Solid Edge’s lead as the easiest-to-use MCAD package available.

Assembly design enhancements

Version 10 streamlines assembly modeling and management with new tools for designing families of assemblies and alternate position assemblies. With family of assemblies, designers can rapidly create assembly variations with different parts and subassemblies, reducing design cycles for products built on related assembly structures but offering varied components, options, trim, or accessories.

With new alternate position capabilities in Version 10, designers can quickly model and evaluate assembly variations in which part positions change during operation of the assembly. Examples include assemblies containing linkages, actuators, and other moving parts. Solid Edge makes assembly family or alternate position variations readily accessible from a single file for display, analysis, or creation of drawings and Bills of Material.

Assembly restructuring tools in Solid Edge enable designers to readily change assembly structures without remodeling. Engineers can quickly create subassemblies, disperse subassembly components to higher-level assemblies, and change the order of parts while automatically maintaining position and relationships.

Version 10 enhances design visualization and communication with new part and assembly color controls. Designers can tailor assembly color assignments or use color as assigned in individual part styles. At the part level, users can assign separate colors to faces and edges to accentuate design features.

Improved part modeling

Solid Edge Version 10 adds curve and surface commands that aid in modeling parts with complex geometries. A new curve creation function creates curves automatically from external 3D point coordinate data tabulated in Microsoft Excel spreadsheets. Curve creation parameters enable designers to control fit and placement. The resulting curves can be used as construction geometry to guide feature-based solid modeling commands. Version 10 also adds surface stitching that designers can use to join multiple construction surfaces into a single surface.

The new release supports modeling of cutouts and protrusions normal to curved faces. With these new feature-based modeling commands, designers can quickly emboss text and create other features on curved part surfaces.

Faster, more accurate drawing production

Solid Edge Version 10 speeds drawing production and helps ensure model-to-drawing integrity with a unique drawing view tracker. This innovation provides designers with clear, detailed feedback on drawing views and annotations that change when the model is modified. Prominent visual cues around affected views in the drawing file signal out-of-date and other conditions that must be addressed to ensure drawing accuracy. Instructions for updating the drawing links and the model are also provided to direct designers in finding and amending potential drawing errors. The direct benefit is quicker detection and correction of drawing errors without manual checking.
New in Solid Edge Version 10

A new drawing view creation wizard simplifies and accelerates the placement of views in drawing files. Solid Edge Version 10 automatically starts the wizard and tailors the interface to the type of model and drawing. The wizard supports the full range of Solid Edge models, including assemblies and assembly variations, as-designed or simplified parts, as-designed or flattened sheet metal components, and weldments in pre- and post-weld states. The step-by-step interface prompts the user for required input and speeds selection of options for placing views within the drawing.

Designers can provide more accurate and complete information for manufacturing with an enhanced hole table capability in Version 10. A Smart Depth feature automatically extracts hole depth information from the design model and provides flexible options for formatting hole thread attributes and depth information within the table.

Version 10 also includes a new text alignment function that helps improve drawing clarity and appearance. Designers can automatically align multiple dimensions, balloons, and callouts to reduce clutter and improve readability.

Enhanced interoperability

With new data translation tools, Solid Edge interoperates more smoothly with a broader range of CAD/CAM/CAE applications. Version 10 introduces a built-in, two-way Parasolid-ACIS translator that improves data sharing with software packages built on the ACIS solid modeling kernel. The new converter supports part and assembly models, and can be used in conjunction with Solid Edge Feature Recognizer to enhance feature-based modeling intelligence of imported data.

Solid Edge translators in Version 10 take advantage of Parasolid healing technology that improves success rates when importing 3D data from other systems. The healing technology automatically detects and corrects faults and inconsistencies caused by varying levels of precision among CAD systems. Solid Edge translators now identify problems such as overlaps, gaps, self-intersections and other geometric anomalies that cause translation problems, then stitches surfaces and fills gaps or holes to fix the problematic geometry.

To further enhance AutoCAD data translation capabilities, OLE objects such as Microsoft Excel and Microsoft Word files placed as embedded or linked objects in Solid Edge drawings can be saved to AutoCAD formats. To address needs in the automotive and aerospace supply chain, V10 enhances Solid Edge’s interoperability with Unigraphics, UGS’ high-end CAD system. Solid Edge can now directly open multi-body Unigraphics files that remain dynamically associative with the Unigraphics model.

System Requirements

Minimum System Configuration:
- Intel Pentium or AMD Athlon processor-based PC
- 128 MB RAM
- 420 MB of disk space for installation
- Minimum Resolution: 1024x768, 65K colors
- CD-ROM (local or network) for installation

Recommended System Configuration:
- Windows 2000, Pentium III or Pentium 4 or AMD Athlon, 256 MB or more RAM, OpenGL accelerator with 65K colors.

For additional information, contact your Solid Edge Reseller.