DIGITAL INDUSTRIES SOFTWARE

Solid Edge CAM Pro

Delivering CNC machine tool value

Benefits

- Get the most out of your tools using the latest manufacturing techniques
- Maximize shop floor efficiency with a single unified CAM system
- Work directly with Solid Edge parts and assemblies, maintaining associativity
- Low cost of ownership, easy to deploy, learn and use

Summary

Solid Edge® CAM Pro, a capable, proven computer-aided manufacturing (CAM) solution from Siemens, features a rich set of tools to help you finish the job right the first time. Solid Edge CAM Pro is a modular, flexible configuration of numerical control (NC) programming solutions that allows you to maximize the value of your machine tools.

Solid Edge® software, which is part of the Siemens Xcelerator portfolio, the comprehensive and integrated portfolio of software, hardware and services, provides an innovative and comprehensive approach to product development for the mainstream market.
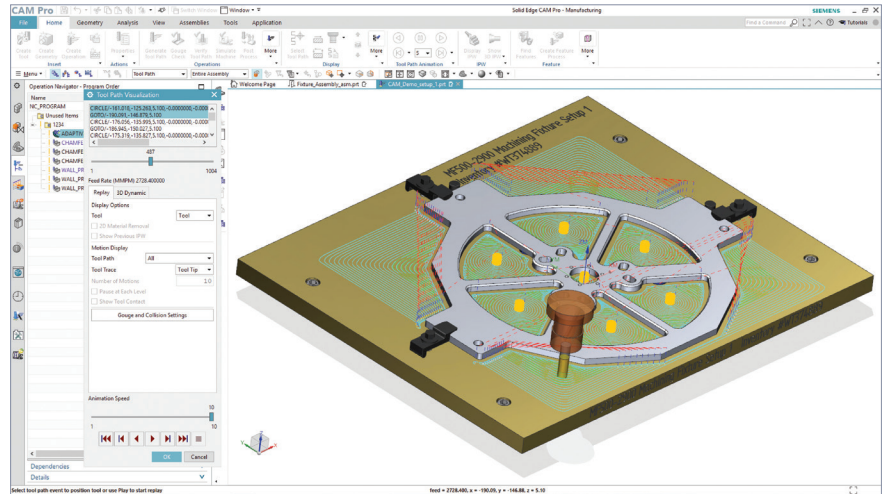
Designed with Solid Edge users in mind, CAM Pro provides powerful NC programming with a low total cost of ownership and is easy to deploy, learn and use.

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Features

- Scalable solutions offer wide-ranging capabilities, including turning, milling and feature-based machining

- Tight integration with Solid Edge Mechanical Design, launch with one click

- Postprocessing, including searchable, online database of downloadable postprocessors

- Machine simulation, featuring machine-code-driven motion

Powerful, yet easy to use

Solid Edge CAM Pro helps manufacturers define and execute a wide range of manufacturing processes, including milling, turning and feature-based machining, with comprehensive machining simulation.

CAM Pro ensures accurate and efficient manufacturing processes working directly with Solid Edge parts and assemblies. Sending files from Solid Edge to CAM Pro is as easy as one click, and the data retains associativity so that late-stage design changes can be easily incorporated into the manufacturing plan.

Consistent navigators manage key elements while dialogs provide graphical help and instant feedback in the graphics area. The intelligent machining suggestion feature automatically recommends the best operations to use for the selected model faces. Toolpaths and full machining processes can be suggested and created simply by clicking on a model face, ensuring an efficient and straightforward programming process.

Full range of capabilities

Avoid the need for, and the cost of, multiple CAM systems in the machine shop with Solid Edge CAM Pro. The scalable solution offers a wide range of in-depth NC programming capabilities, providing flexibility and maximizing the value of your investment.

CAM Pro is available in 2.5-axis, 3-axis and 5-axis bundles. These configurations along with numerous add-on functionalities allow users to customize the right-sized solution to best meet their individual manufacturing needs.

Drilling – addresses drilling, reaming, boring, tapping, peck drilling and custom cycles. Automated hole making is available with the feature-based machining options.
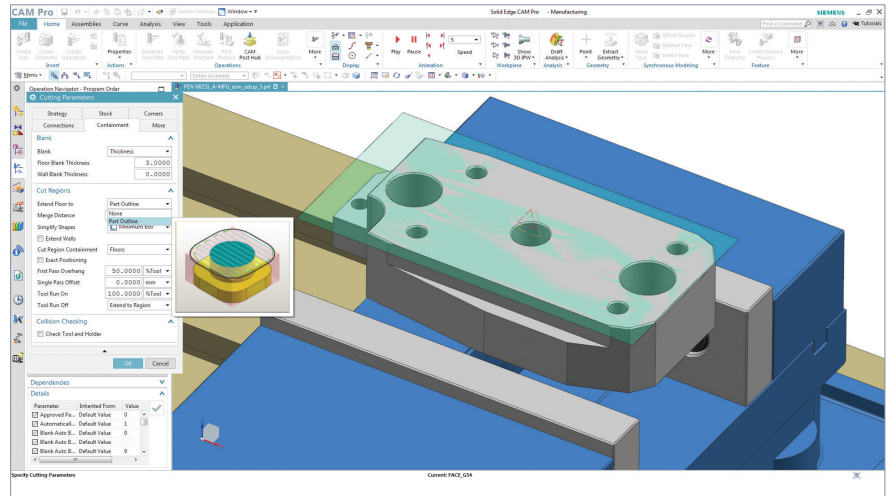
Make machining suggestion - this intelligent feature aids in decision making in the machining process. The feature automatically provides operation suggestions for selected model faces, and toolpaths can be generated by simply selecting a face. Alternate suggestions are also provided and can be used if needed.

2.5-axis milling – 2.5-axis roughing patterns can be applied based on basic boundary data or solid geometry. Zig-zag, offset, and plunge milling are examples of the toolpaths provided, and high-speed adaptive roughing toolpaths are available. Feature-based machining functions automate the identification and programming of slots and faces.

Turning – a complete solution that is easy enough to use on simple programs and capable enough to tackle your toughest geometry in multi-spindle, multi-turret applications. The system can work with solids, wireframe or 2D profiles. Advanced turning processes, including Sandvik PrimeTurning™, offer increased productivity by removing more material while also enabling faster speed, feed and increased tool life.

3-axis milling – for roughing, rest milling, semi-finishing, and finishing of contoured surfaces, with a complete set of milling strategies to address the challenges of complex geometry. 3-axis milling provides high-speed machining solutions for creating smooth cutting patterns for high-quality surfaces.

Wire EDM – a complete solution for programming 2 4-axis wire electrical discharge machining (EDM) machines. A range of wire operations is available, including multi-pass profiling, wire reversing and area removal.

Synchronization – a graphical means of displaying multiple channels, with scrolling code in a choice of formats, time displays and with functions to add wait and sync codes. The synchronization manager, very useful for today's complex mill-turn and turn-mill machines, is directly linked to the internal postprocessor and runs from posted output for the greatest accuracy.

Machining simulation – to avoid tying up a machine in unproductive prove-outs, the integrated machine tool simulation provides a more complete simulation than most systems with its machine-code-driven motion. Smart Machine Simulation Kits are available via Post Hub for a wide variety of machine tools, and custom kits can be created.

5-axis milling – CAM Pro offers highly flexible 5-axis programming functions combining highly automated elements for tedious tasks such as geometry selection and detailed user control for roughing and precise machining. 5-Axis Roughing allows for greater efficiency and longer tool life when machining complex geometry.

Key Feature/Function	Solid Edge CAM Pro 2.5-Axis Bundle SE425	Solid Edge CAM Pro 3-Axis Bundle SE430	Solid Edge CAM Pro 5-Axis Bundle SE445	Solid Edge CAM Pro Total Machining SE480
Solid Edge Foundation	X	X	X	X
3D Printing Preparation	X	X	X	X
STL, 3MF and OBJ Export	X	X	X	X
Gateway and CAM Base	X	X	X	X
Industry Translators	X	X	X	X
Assemblies	X	X	X	X
Toolpath Visualization and Material Removal	X	X	X	X
Graphical Toolpath Editing	X	X	X	X
Post Processing	X	X	X	X
Post Builder and Post Configurator (Basic License)	X	X	X	X
Post Hub	X	X	X	X
Shop Documentation	X	X	X	X
Work Instruction Authoring	X	X	X	X
Planar Milling	X	X	X	X
Automatic Tool Path Generation	X	X	X	X
Adaptive Cut Pattern 2.5 Axis	X	X	X	X
Face Milling	X	X	X	X
Hole Making	X	X	X	X
Feature Based Machining	X	X	X	X
Cavity Milling	X	X	X	X
Z-level Profiling	X	X	X	X
3+2 Axis Positioning	X	X	X	X
Fixed Axis Area Milling	Add-on	X	X	X
Face Mill Mid-Pass	Add-on	X	X	X
Flow Cut for Valley Rest Milling	Add-on	X	X	X
Streamline Milling	Add-on	X	X	X
Cut Between Levels for Semi finishing	Add-on	X	X	X
Nurbs and Spline Output	Add-on	X	X	X
Facet Machining	Add-on	X	X	X
Adaptive Roughing	Add-on	X	X	X
Sequential Milling for User Control	Add-on	Add-on	X	X
Variable Axis Surface Milling	Add-on	Add-on	X	X
Contour Profiling for Swarf Cutting	Add-on	Add-on	X	X
3-to-5 Axis Milling (Tilt-Tool)	Add-on	Add-on	X	X
Turning	Add-on	Add-on	Add-on	X
Prime Turning@	Add-on	Add-on	Add-on	X
Integrated Simulation and Verification	Add-on	Add-on	Add-on	X
ISV: Tool Path Driven	Add-on	Add-on	Add-on	X
ISV: G-Code Driven	Add-on	Add-on	Add-on	X
Multi-channel Synchronization	Add-on	Add-on	Add-on	X
Machine Tool Builder	Add-on	Add-on	Add-on	X
Machine Knowledge Editor	Add-on	Add-on	Add-on	X
Turbomachinery Miling	Add-on	Add-on	Add-on	Add-on
Wire EDM	Add-on	Add-on	Add-on	Add-on
Smart Machining Kit Simulation (SMKS)	Add-on	Add-on	Add-on	Add-on

Tool path visualization and editing

You can stay confident with built-in tool path visualization and material removal verification tools. Integrated collision checking identifies any possible problems. You can also make fast changes to tool path results with graphical editing tools and protect your edits by locking tool paths from future re-calculations. No need for third-party visualization or machining simulation software.

Postprocessing

CAM Pro has a comprehensive postprocessing capability that allows posts to be handled easily. You can edit and fine tune existing postprocessors with our included interactive post builder application or even build a post-processor from scratch using post builder templates. In addition, you can use included sample posts or download posts from Post Hub, a searchable, online database of postprocessors.

Included with Solid Edge CAM Pro, the Post Hub library enables a streamlined process to generate production-ready CNC programs for your applications. Post Hub lets you access more than 1,250 postprocessors directly from CAM Pro and download them to your worksta-tion. The extensive online postprocessor library enables you to program a wide range of milling, turning and multi-function machines. It includes postprocessors for many machines and controllers, including DMG MORI, Haas, Makino, Mazak, and Okuma.

Shop documentation

You can produce html setup documents with the included shop doc capability. Product manufacturing information (PMI) is transferred along with geometry data from Solid Edge to Solid Edge CAM Pro. That makes it easy for the NC Programmer to design the manufacturing plan according to the engineer's specifications.

Optimized with Solid Edge, CAD neutral

Optimized when integrated with Solid Edge Mechanical Design, CAM Pro can also be used independently of any specific CAD system. Key industry translators can read data from practi-cally any CAD system, including Siemens Parasolid® software, IGES, DXF and STEP and JT formats. In addition, you can save data in all these formats, plus STL, and maintain a high level of associativity regardless of the geome-try source. Last minute revisions are easily accounted for, in many cases, only requiring tool paths be regenerated.

Extending value

The Solid Edge portfolio is an integrated set of powerful, comprehensive and accessible tools that advance all aspects of the product devel-opment process. Solid Edge addresses today's complexity challenges with automated digital solutions that cultivate creativity and collaboration.

By harnessing the latest innovative technolo-gies in mechanical and electrical design, simulation, manufacturing, publications, data management and cloud-based collaboration, Solid Edge dramatically shortens time-to-mar-ket, provides greater production flexibility and significantly reduces costs with its collabora-tive and scalable solutions.

Minimum system requirements

- Windows 10 Enterprise or Professional (64-bit only) version 1809 or later
- 16 GB RAM
- 65K colors
- Screen resolution: 1920 x 1080
- 8.5 GB of disk space required for installation