

NEW Over 100 New Features and Enhancements including . . .

▶ **CAM data reusability**

All users can take advantage of advancements in CAM data reusability to improve their overall efficiency. While the CAMWorks Technology Database has always provided the ability to capture and reuse a facility's manufacturing best practices, data reusability has been extended to importing CAM data from CAD part models into assembly models. This allows parts to be programmed once and applied to different jobs with other parts. In addition, library features can be created where only select CAM data needs to be reused in other jobs.

▶ **Multiple process support**

Mold and die users will immediately notice performance increases due to multiple process support, which provides the ability to generate 3 - 5 axis toolpaths as separate threads and in separate processes. Multiple toolpaths will generate simultaneously and at the same time the user can continue working in other areas or on other CAM models.

▶ **Viewing & reporting toolpath data**

Viewing and reporting toolpath data generated by CAMWorks is faster, easier and more customizable. Graphic display performance has been improved, part and machine simulation has been expanded and a new XML-based user defined setup sheet allows machining information to be viewed in a web browser.

▶ **AFR improvements and User Interface enhancements**

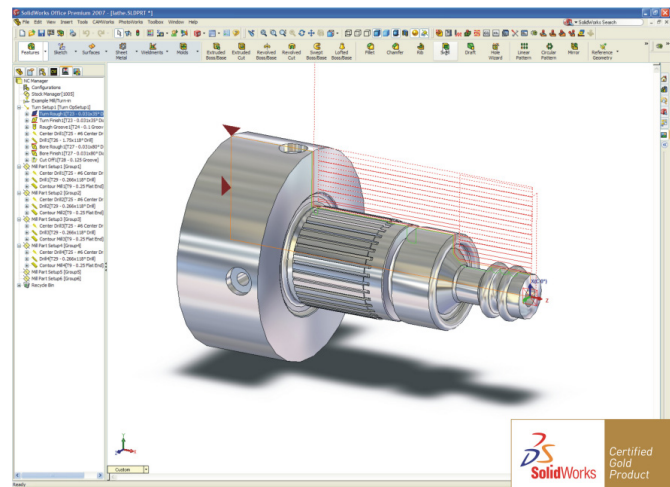
The market leading automatic feature recognition of CAMWorks has been improved and numerous enhancements to the intuitive user interface continue to make CAMWorks even easier to use.

▶ **Machining options**

Users will find many new machining options in CAMWorks 2009.

- 3 Axis Milling and Multiaxis milling enhancements include faster creation of multi surface features and new controls for more accurate toolpath generation.
- Turning features and toolpaths have become more intelligent resulting in safer and more simplified programming of turn and mill/turn parts.
- Wire EDM users will benefit from new and easy creation of multiple glue stops and a more powerful post processing environment.
- Simultaneous 4/5 axis improvements include enhanced toolpath control, expanded collision avoidance and creation of multiple toolpaths using rotate and copy options.

#1 CAM Solution for SolidWorks



CAMWorks was the first fully integrated CAM solution designed exclusively to operate in SolidWorks. This close integration means:

- CAMWorks machining trees and commands are available in SolidWorks with the click of a button. You never have to leave SolidWorks to generate toolpaths.
- CAMWorks uses the same SolidWorks geometry to generate toolpaths to ensure the part you machine is the same part you have modeled.
- Time-consuming file transfers using standard file formats such as STL, STEP, TIFF, AutoCAD, Parasolid, ACIS, and JPG are eliminated.

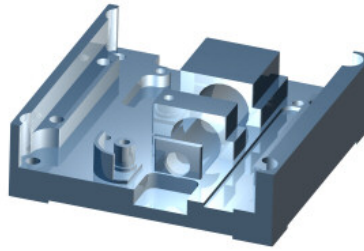
CAMWorks runs in SolidWorks or as part of a cost-effective package that includes CAMWorks Solids, an integrated solid modeler.

"As an innovator, I was looking for a CAM application which I could use to bring my ideas to reality. CAMWorks did just that for me. It was very easy to learn and has really helped me machine parts that were not feasible with other CAM software."

Chris Gamble
Owner, SunTech Innovations

▶ Automatic Feature Recognition

AFR analyzes the solid model geometry and identifies mill features such as holes, slots, pockets, and bosses; turning features such as outside and inside profiles, faces, grooves and cutoffs; and wire EDM features such as die openings. AFR recognizes features regardless of the CAD system used to create them.



▶ Interactive Feature Recognition

Interactive Feature wizards are used for defining features that are not recognized automatically or features that need to be defined for your facility's machining requirements. Similar 2½ Axis and Multi Surface features can be created quickly using the Copy command. Existing features can be modified easily.

▶ Knowledge-Based Machining

The Technology Database (TechDB) is the intelligence behind the machining automation in CAMWorks. The database associates tooling, operation strategies and machining parameters to the features. When operations are generated, CAMWorks applies these settings automatically. Operation parameters can be modified before or after generating toolpaths. To further enhance the automation process, the knowledge-based rules in the TechTB are fully customizable to apply your company's best practices. The machining information in the database includes:

- "Virtual" machines for all your CNC machines and the associated controller and tool crib
- The tool library that can contain all the tools in your facility
- Data for calculating feed rates, spindle speed, stock materials, tool materials
- Machining sequences and operations for each combination of feature type, end condition and size.

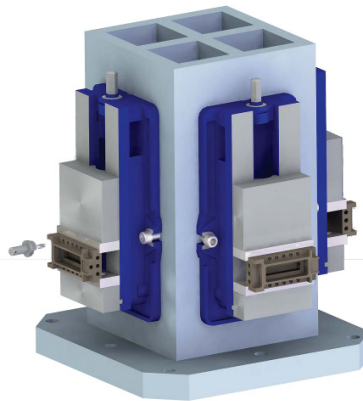
▶ High Speed Machining

The powerful integrated strategies that are included in every milling module generate efficient, smooth, gouge-free toolpaths that maintain continuous machine tool motion for higher feedrates, improved surface finish, reduced wear on cutters and longer life for machine tools. These strategies deliver advanced machining and linking solutions for your molds, tools, dies and complex multi-axis parts.

▶ Assembly Mode for Milling

CAMWorks leverages the power and flexibility of SolidWorks Assembly mode to support NC programming of multiple parts for production machining and to more accurately represent the machining environment.

- Model the machining environment (clamps, fixtures, parts, stock, etc.).
- Machine multiple copies of a part or different parts in the assembly.
- Output code in subprogram format.
- Machine the same part with multiple different machine tools.
- Machine multiple SolidWorks part configurations in one assembly.
- Split instances of a part to generate separate features and operations.
- Import CAMWorks data from a part into an assembly document.



▶ Additional Features and Tools

Numerous integrated features and visual tools improve productivity:

- Graphical toolpath generation display.
- Configurations can be used to program families of parts quickly and to store CAM data for multiple different machines in one file.
- Material removal simulation can reduce the need for dry runs at the machine tool.
- Step Thru Toolpath command to view toolpath movements.
- Reorder Tool command assigns tool numbers sequentially based on user-defined settings.
- Integrated post processor supports virtually any CNC machine tool. Use the Universal Post Generator to customize G-code output.
- Optionally output an enhanced CL file to use with external third party post processing programs.
- API's to customize CAMWorks.

▶ System Requirements

- Platform: Intel® Pentium® / AMD Athlon™
- Min. RAM: SolidWorks & CAMWorks Solids 2008: 512MB; SolidWorks & CAMWorks Solids 2009: 1GB
- Solid Modeler: SolidWorks or CAMWorks Solids 2008 or 2009
- OS: 32- or 64-bit Windows XP Professional®, Windows Vista® (Ultimate, Business and Enterprise)
- Microsoft Access 2000, 2002, 2003, 2007

Machining Modules

CAMWorks is available in a variety of bundles or combinations.

- **2½ Axis, 3 Axis, 4 and 5 Axis Preposition Milling**
- **4 and 5 Axis Simultaneous Milling**
- **2 and 4 Axis Turning**
- **Rotary Milling**
- **2 and 4 Axis Wire EDM**

Add-ons: Machine Simulator, CAMWorks Utilities, SolidProfessor Multimedia Training Course- SolidWorks Core Concepts & CAMWorks Mill Fundamentals.

CAMWorks Solids, an integrated solid modeler, can be packaged with CAMWorks. This combination allows CAMWorks to function as a standalone product without the need to purchase an additional solid modeler.



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Authorized Reseller

Geometric Technologies sells CAMWorks through a worldwide network of VAR's. You can find your local CAMWorks reseller on camworks.com.