

NEW Over 50 New Features and Enhancements including . . .

Usability & Interface Enhancements

- CAMWorks configurations support multiple CAMWorks datasets in the same part file. Use configurations to support multiple machines and SolidWorks configurations.
- Ability to lock CAMWorks data for features, operations or the entire part model so data cannot be modified.
- Significant reduction in the time required to save files with a large amount of toolpaths. This is most noticeable in parts with 3 axis toolpaths.
- Go to commands to quickly locate instances of features and operations.
- Revised Insert Operation dialog boxes simplify user interaction and allow Mill, Turn and EDM operations to be inserted even if Setups and Features do not exist.

Milling

- Manufacturing View, a new generation of automatic feature recognition, finds additional features types and allows non-hole features to be edited.
- Ability to recognize features from a user-defined direction only.
- G-code output for ball nose, hog nose, tapered ball nose and tapered hog nose tools at the tool tip or tool center.

- Option to associate any Mill feature, not just features that do not rebuild.
- Options to reduce and eliminate unnecessary moves when Contour (finish) machining features with multiple passes and side passes.
- For 4th and 5th axis indexing, option to define a Fixture Coordinate System.
- Support for Wrapped features in Milling.
- Apply to All implemented for additional Mill operation parameters.
- Arc fitting for all 3 Axis Mill operations.

Assembly Mode

- Split instances of same part to generate separate features and operations.
- Machine multiple SolidWorks part configurations in one assembly document.

Multiaxis Machining

- Additional side tilt strategy when tool axis is tilted relative to cutting direction.
- Additional line tilt strategy when tool axis is tilted through lines.
- Roughing options to connect by shortest distance and for tangent ramping.

Turning

- Cutoff operation chamfer extension option.
- Cutoff operation spindle speed/feedrate slowdown option.
- Rough Groove cleanup pass.
- Finish Groove cutter compensation.
- Multiple groove tool driving point options.
- End length parameter to increase the length of the Thread toolpath.
- Turn thread chamfer angle parameter.
- Option to set minimum and maximum Z limits for Turn operations.

Simulation

- Reverse toolpath in Tool mode.
- Section view of simulated Mill or EDM part.
- Setup origin display during simulation.
- Simplified Turn thread simulation option.

Wire EDM

- TechDB support for features & operations.
- Support for feature attributes.
- Separate lead in/lead out for rough and skim cuts.
- Ability to output only rough cuts, only tab cuts or both.
- One Cut Punch & Die option for machining 2 axis die features.
- Option for G-code to output offset toolpath.

#1 CAM Solution for SolidWorks

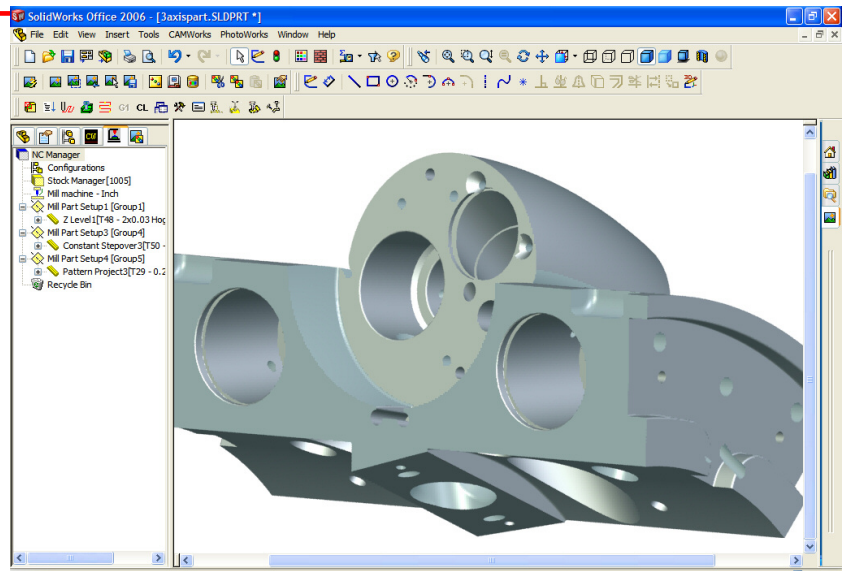
CAMWorks was the first fully integrated CAM solution designed exclusively to operate in SolidWorks.

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 IGES and SAT are eliminated.

Ease of Use

CAMWorks uses the SolidWorks interface, so it is easy to learn and easy to use. CAMWorks trees are similar and items in the tree can be suppressed, expanded, renamed and moved using the same procedures as SolidWorks. Online help and tutorials help you generate toolpaths and code quickly.



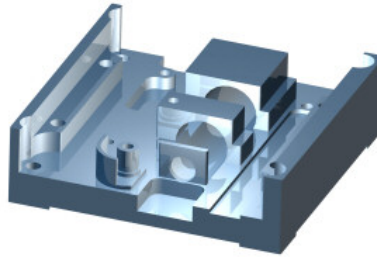
Best-in-Class Choice

The latest innovations in CAMWorks together with SolidWorks excellence in design allow manufacturers to engineer, design and build better products faster and more accurately. This new generation CAM software has automatic feature recognition, automatic operations planning and a knowledge-based Technology Database.



Automatic Feature Recognition

CAMWorks is a feature-based CAM system. To make feature-based machining even more powerful, CAMWorks provides the ability to automatically recognize many prismatic features including tapers. Manufacturing View, a new generation of AFR, finds additional features types and allows non-hole features to be edited.



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 knowledge-based Technology Database (TechDB) is the intelligence behind the machining automation in CAMWorks. The TechDB is shipped with data that is generally applicable to most machining environments. You can modify the data to represent the processes for your recognizable machinable features including tools, standard feeds, speeds and cut depths that you use. CAMWorks will automatically use the processes that you have set up in the TechDB. The machining information in the database is divided into these categories:

- Machine - "Virtual" machines for all the CNC machines in your facility and the associated controller and tool crib.
- Tools - The tool library can contain all the tools in your facility.
- Cutting Parameters - Information for calculating feed rates and spindle speeds, stock materials and tool materials.
- Feature and Operations - The machining sequences and operations for each combination of feature type, end condition, and size.

Machining Operations

After machinable features have been defined, it is time to take advantage of CAMWorks machining automation to generate operations to machine the features. Operations include roughing, finishing, drilling, etc. The TechDB associates operation parameters to the machinable features. When you generate operations, CAMWorks applies these settings automatically and the operations display in the tree. Before or after generating toolpaths, operations can be modified including:

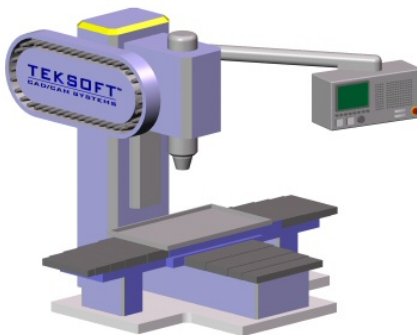
- Suppress, delete, rename and copy
- Combine similar operations
- Change machining parameters
- Add machinable features
- Change the machining order
- Insert additional operations
- Copy features, avoids, contains (Mill)

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.

Some of the key benefits include:

- The entire machining environment can be modeled including clamps, fixtures, components, parts, stock.
- Multiple copies of a part can be positioned in the assembly document and machined with CAMWorks.
- Option for sub-programs.
- The same part can be machined with multiple different machine tools.
- Multiple SolidWorks part configurations can be machined in one assembly document.
- Split instances of same part to generate separate features and operations.



Machining Modules

CAMWorks is available in a variety of configurations, so you can purchase what you need now and add to your system as your business grows.

- ▶ **2½ Axis Milling**
- ▶ **3 Axis Milling**
- ▶ **Multiaxis Machining (Simultaneous 4/5 Axis)**
- ▶ **2 and 4 Axis Turning**
- ▶ **Mill-Turn**
- ▶ **2 and 4 Axis Wire EDM**

Additional Features and Tools

CAMWorks provides numerous integrated features and visual tools to improve productivity including:

- Drag and drop to reorder operations.
- Graphical toolpath generation display.
- Mill and EDM stock shapes can be defined as a bounding box, extruded sketch, STL file or SolidWorks part document. Turning stock can be defined as a bounding box or revolved sketch.
- 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.
- Universal Post Generator can be used to customize G-code output.
- API's to customize CAMWorks.

System Requirements

- Platform: Intel® Pentium® / AMD Athlon™
- RAM: 256MB (512MB recommended)
- SolidWorks:
 - 32-bit SolidWorks 2006 on Windows® 2000 or 32-bit Windows® XP or
 - 32-bit SolidWorks 2007 on 32-bit or 64-bit Windows® XP
- Microsoft Access 2000, 2002, 2003



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