

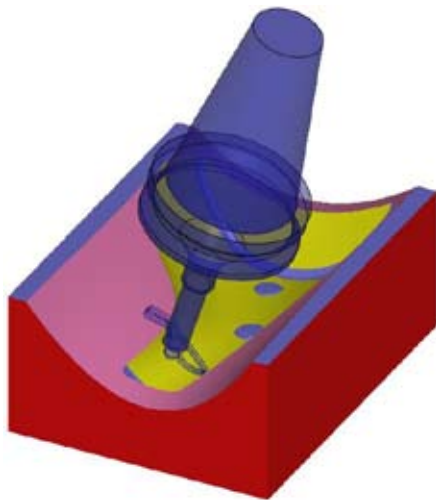
Pro/TOOLMAKER™ 5-Axis Option

EASILY LEVERAGE 5-AXIS POWER FOR COMPLEX GEOMETRIES

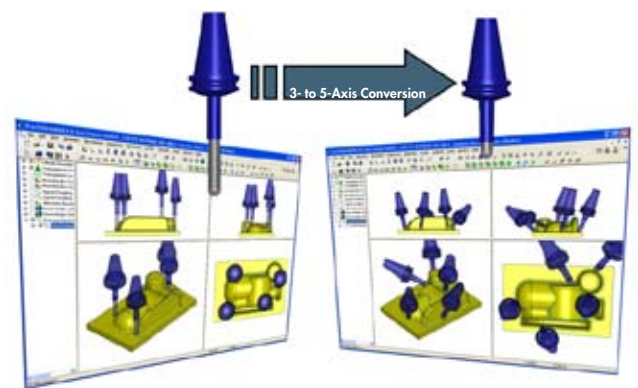
Today's toolmakers are facing tremendous pressure to produce increasingly complex, higher-quality products, while reducing costs and production times.

Pro/TOOLMAKER 5-Axis Option is the ideal solution because it provides mold and die manufacturers with industry leading, high-speed precision machining for complex geometries. And, since it's fully integrated with PTC's Pro/TOOLMAKER software, you can be assured of its compatibility, reliability and ease-of-use.

Now you can take advantage of today's innovative, 5-axis CNC machines with Pro/TOOLMAKER 5-Axis Option—an advanced, yet easy-to-use application that lets you deliver higher-quality, highly complex parts faster. Pro/TOOLMAKER 5-Axis Option—a powerful add-on to Pro/TOOLMAKER—offers simultaneous 5-axis high-speed machining to help you optimize your tooling design and Manufacturing processes.



Leverage the power and flexibility of Pro/TOOLMAKER 5-Axis down milling to improve machining quality.



Pro/TOOLMAKER 5-Axis Option helps you automatically convert 3-axis to 5-axis programs and machine complex geometries with ease.

Key Benefits

- Leverage high-speed machining—for even the most complex geometries
- Deliver products to market faster by reducing the number of machining operations and decreasing machining times
- Use shorter, more rigid cutters for higher feed-rates and optimized machining time
- Improve product quality through enhanced surface finishing capabilities
- Save valuable programming and machining time by automatically converting 3-axis toolpath programs into 5-axis toolpath programs
- Improve quality by using Pro/TOOLMAKER down milling, converted to 5-axis, to minimize 'C-axis' motion
- Further reduces costs and increases profitability by extending machine tool life

Pro/TOOLMAKER 5-Axis Option

Key Capabilities

Simultaneous 5-Axis Milling

Simplify designs using these highly automated toolpath creation processes:

- Automatic 3 to 5-axis conversion of existing Pro/TOOLMAKER toolpaths
- Use Pro/TOOLMAKER down milling and rest milling converted to 5-Axis
- Automatic collision management
- Complete control over entry/exit, cut-to-cut, and between cut moves
- Full set of specialized surface machining strategies
 - Swarf milling
 - Electrode
 - Morph
 - Deep cavity/core machining
- Toolpath containment
 - 3, 4 or 5-axis
 - Thru curve tool axis option
 - Attraction vectors
 - Normal to surface
 - Tilt/lead axis control
- Undercut milling with lollipop cutters

Post-processing

- Complete 5-axis post-processing solution with GPOST
- GPOST post-processor provides graphic NC post-processor generator, as well as interactive, online, context-sensitive help, and an extensive library of machine tools and CNC controls
- Standard APT output for existing post-processor system

Data Interoperability

- Supports IGES, VDA-fs, STL, RAW, CLD
- SolidWorks® and Parasolid® (optionally available)
- CATIA® v4 and CATIA v5 (optionally available)
- Pro/ENGINEER® with GRANITE® kernel integrated in Pro/TOOLMAKER
- Model associativity for Pro/ENGINEER and SolidWorks models

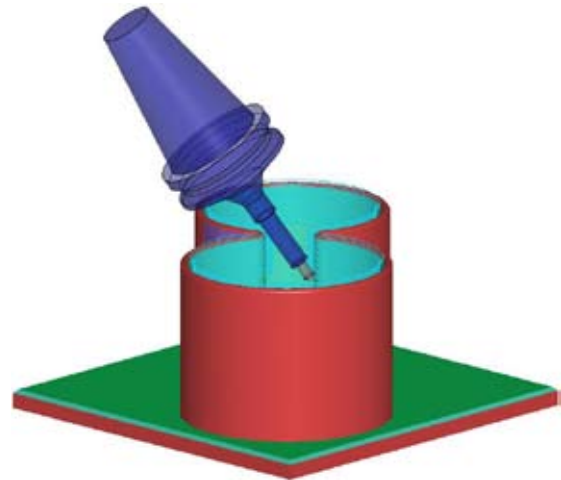
Language Support

- English, German, French, Italian, Spanish, Japanese, Chinese (Simplified and Traditional), Korean

Platform Requirements

- Microsoft Windows (XP, 2000)
- 32-bit and 64-bit platforms supported

For more information, visit: www.ptc.com/products/protoolmaker



Tilt capabilities give you better control of your toolpaths.

The Pro/ENGINEER® Advantage

Pro/TOOLMAKER, a stand-alone solution that's ideal for shop floor programming, is part of the Pro/ENGINEER product family. Pro/ENGINEER's integrated 3D CAD/CAM/CAE solutions deliver a distinct advantage for engineers and designers because every Pro/ENGINEER module is fully associative. That means any change made to the design is automatically reflected in all downstream deliverables—without any translation of model information. By eliminating data translation, you not only save time, but you also avoid the possibility of translation errors in your design.

Pro/ENGINEER packages are the first choice of engineers and designers because no other product development package offers more power and speed in a single, fully scalable platform.

Pro/TOOLMAKER 5-Axis and other Pro/ENGINEER NC and Tooling solutions enable designers to work side-by-side with manufacturing engineers, making real-time changes to designs and collaboratively arriving at the optimal product design created for manufacturability. Concurrent engineering enables product development teams to arrive at the best possible designs in the fastest time possible.

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