Predator *VIRTUAL CNC*™

CNC VERIFICATION & SIMULATION
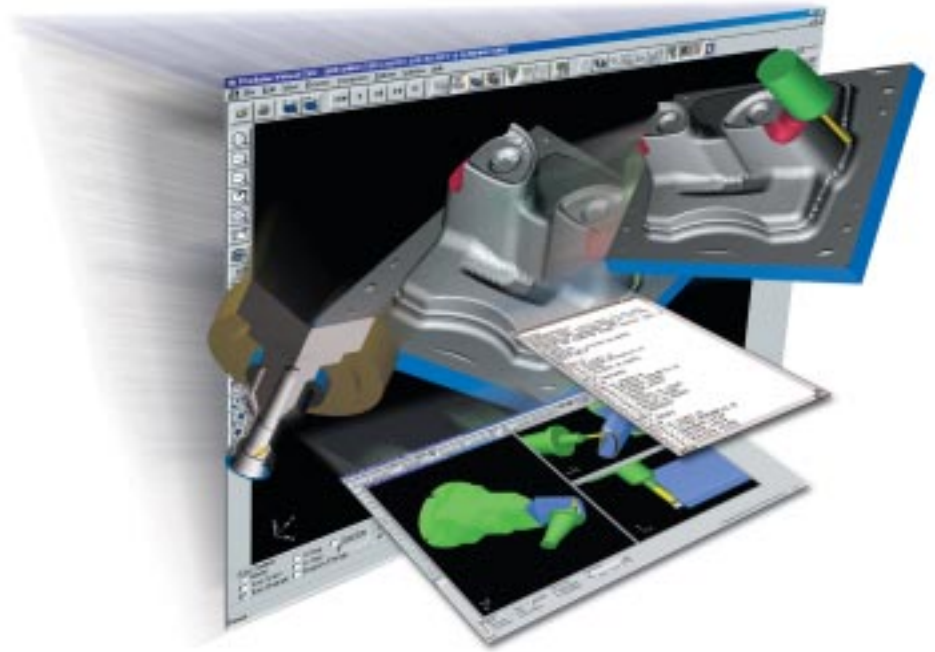
Verify
your CNC programs before making scrap

predator
SOFTWARE INC.

GEARED FOR MANUFACTURING™

Predator VIRTUAL CNC™

Verify and Simulate

Ever break a tool, scrap a part, destroy a clamp or gouge a fixture in the prove-out process? We believe the most powerful tool any discrete part manufacturer can utilize today is CNC verification and simulation. No other application can save you more money, generate better quality, or increase the overall productivity of your entire manufacturing process. To many manufacturers, this is no secret. Think about the time you waste proving out parts on your CNCs. How many tools have you gone through? How many work pieces have you had to sacrifice to prove-out bad CNC programs? Predator Virtual CNC's true solid modeling technology provides an exact representation of your "as-manufactured" part so you can quit wasting resources immediately.
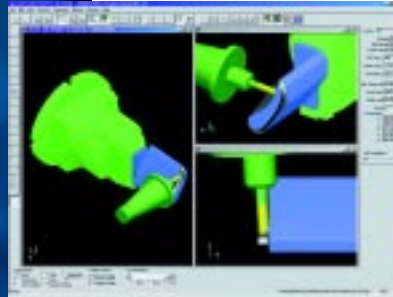
3-, 4- and 5-Axis Milling

Need full milling verification capabilities? Predator Virtual CNC supports more milling machine configurations with true 3, 4 and 5 simultaneous axes of motion. User definable Reverse Post Processor files coupled with our CNC controller specific translators allows an almost unlimited number of milling machine or machining center configurations to be supported. Unlike many systems, Predator Virtual CNC comes with a totally customizable Reverse Post Processor at no extra charge.

Turbo Mode – Mill

Need to get quick results? The technology behind Predator's Turbo Mode is unmatched in both speed and accuracy. Turbo Mode – Mill is a verification technology that is optimized for 3-axis surface milling. Thousands of NC blocks per second are possible with a wide range of tools. Processing times are often many times quicker than competitive technologies, while retaining the accuracy that you would expect from the leading verification product.
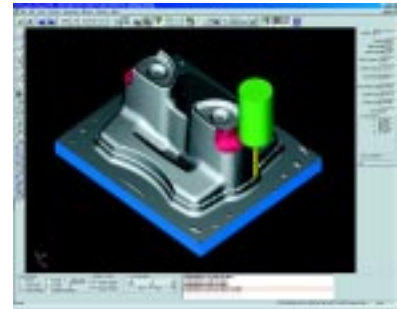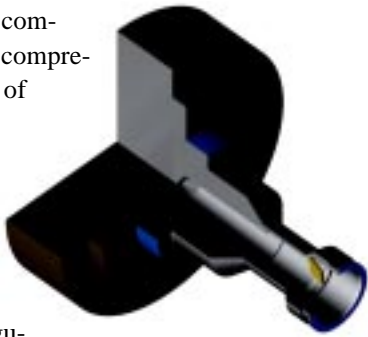
2-Axis Turning

Need to verify turned parts? Predator Virtual CNC supports standard turning application, including: OD and ID roughing, finishing, facing, grooving, threading, and drilling. User-definable Reverse Post
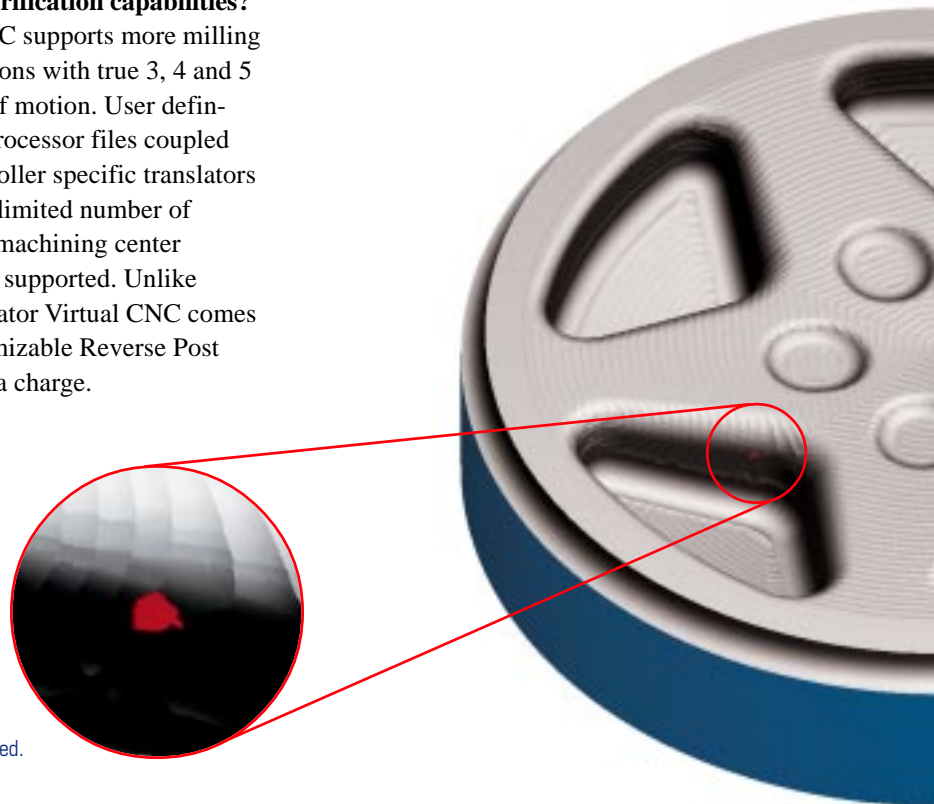
Even subtle tool collisions are automatically detected.

CNC VERIFICATION & SIMULATION

Processor files combined with our comprehensive library of standard CNC controller specific translators allows most turning machine configurations to be supported.

Turbo Mode – Lathe

Want quick turn for your turning verification? Turbo Mode – Lathe is a fast 2-axis turning module that allows 2-D, 3-D and 3/4 sectioned views of 2-axis turned parts. Turbo Mode – Lathe processes turn parts with all the speed and accuracy of non-turbo mode, while maintaining support for features like threading.

150-Plus CNC Translators

Want immediate support for your CNCs? Predator Virtual CNC includes more than 150 CNC translators. These components have a ten year history and are used by thousands of customers every day.

Custom Reverse Posts

Have unique CNC requirements? Predator Virtual CNC supports easy customization for a wide range of unique CNC applications. A library of custom reverse posts are included to get you started.

Complete Error Detection

Tired of wondering if last minute changes are going to work? Predator Virtual CNC detects numerous errors before they can cause problems on the shop floor, including:
• Errors within the CNC program
• Rapiding into stock and fixtures
• Short flute lengths
• Tool holders colliding with stock and fixtures
• Tools colliding with fixtures
• Collisions during tool changes
• Errors with fixture, diameter and length offset values, and usage
• Exceeding the machine's travel limits

Visual Inspection

Need to visually monitor how your code will actually cut? Predator Virtual CNC provides fully animated simulation of the machining process. Seeing how the tool will behave with Predator Virtual CNC ensures there are no unexpected errors. Even subtle and hidden errors inside the part are easily identified by using dynamic rotate, zoom, pan and cross sectioning of your solid model. Deep Zoom allows you to create a separate solid model of a specific section of your part for closer inspection.

Feature Inspection

Wish you could measure your verified model? Predator Virtual CNC includes feature based inspection and virtual CMM (Coordinate Measuring Machine) inspection capability. Feature-based inspection uses the accuracy of solid models to measure feature dimensions and the relationship between separate features. Predator Virtual CNC recognizes edges, arcs, cylinders, spheres, planes and cones. To select a feature, just click on the feature and the appropriate information is displayed.

Advanced Tooling

Have complex tooling requirements? Predator Virtual CNC's tool library includes more than 1,100 fully defined tools and tool holders. Over 25 standard tool and tool holder shapes, including user-definable tool shapes, are supported. Tool kits can also be used for specific part families. Tooling information can also be automatically extracted from comments within the CNC program. Dynamic tooling previews show the exact tool shape and orientation for every tool.
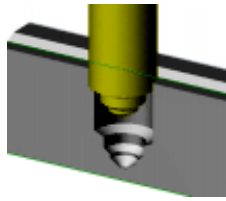
Stock and Fixtures

Have specific stock and fixture setups? Predator Virtual CNC includes a stock and fixture library. Over a dozen standard stock and fixture shapes, including custom shapes that can be imported from every major CAD system, can be combined to create complex material shapes, pallets, chucks and fixtures. Stock and fixture information can also be automatically extracted from comments within the CNC program. Dynamic stock and fixture previews show the exact setup prior to simulation.

Predator CNC Editor™

Need to edit errors found within the CNC code? Predator Virtual CNC automatically identifies the specific lines that contain errors, and the integrated Predator Editor includes numerous editing features to fix each error and reprocess the simulation.

On-line Help

Need help and don't have time to read the manual? Predator Virtual CNC includes on-line help providing concise and up to date documentation.
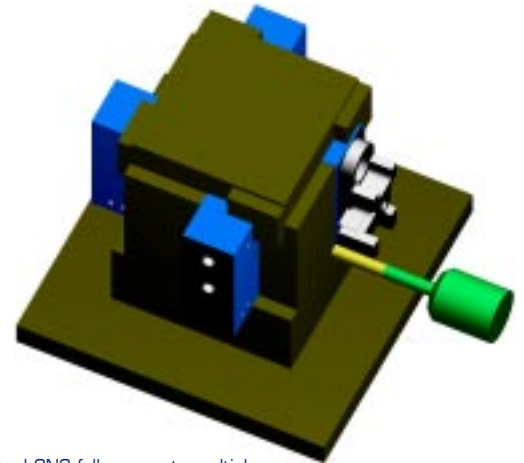
Service and Support

Who will provide the help I need to get started and stay running? Predator Software products and services are available through a global network of 100 value-added resellers. As part of the Predator family, they can provide the expertise necessary to maximize your productivity with Predator Virtual CNC.

System Requirements

Windows® 95/98/2000 and NT
- Intel® Pentium®-based processor or equivalent
- 64 MB RAM
- 40 MB hard disk space

Virtual CNC fully supports multiple parts, fixtures, offsets, rotary tables and operations with automatic in-process stock.

CONTACT INFORMATION

Local Authorized Sales and Service:

For more information, or for the name of a Predator Reseller near you, contact us at:

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