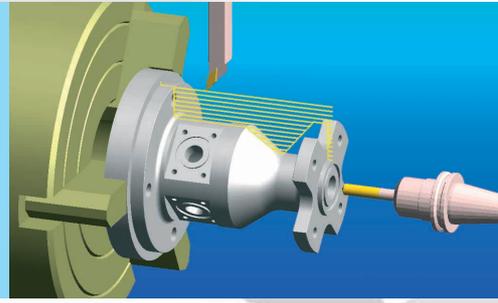


EdgeCAM® is one of the worlds leading manufacturing systems and is the perfect solution for your Production Machining needs.



Production Machining

COMPUTER AIDED MANUFACTURING

Despite advances in control technology, manually programming a modern CNC machine tool can be a slow, inefficient and potentially inaccurate process. This is especially true where the finished component contains sculptured free form geometry, complex prismatic features or a combination of both.

Using a Computer Aided Manufacturing (CAM) system to program CNC machine tools can reduce manufacturing lead times, eliminate the risk of programming errors and dramatically improve overall productivity.

How Does CAM Work?

A CAM system generates NC code based on a Computer Aided Design (CAD) model of the finished part. The CAD model can be created using the design function of the CAM system, or it can be imported from another CAD system. Whichever method is used the CAM system displays a graphical representation of the part for which the NC code is being generated.

An effective CAM system will provide a complete machining strategy for a component, or a 'family' of similar components, including material and tooling information together with appropriate speeds and feeds. It should also be capable of producing the NC code for any type of CNC machine tool.

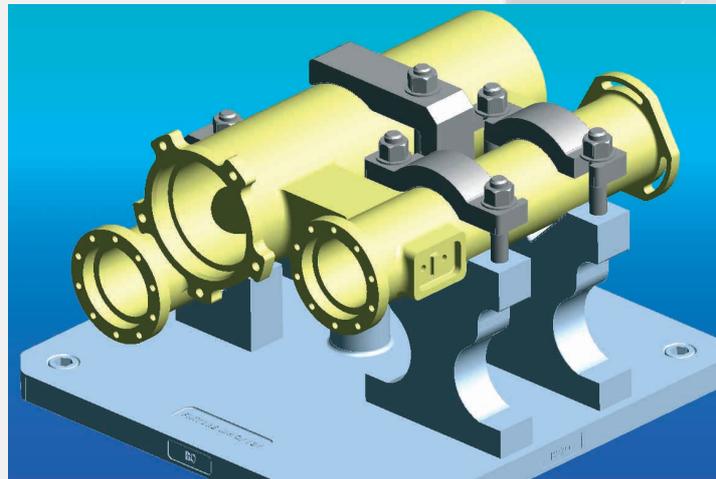
Why Use EdgeCAM?

EdgeCAM is a simple to use, native Windows based CAM system specifically designed for the busy production machining environment. Pathtrace Engineering Systems, the developers of EdgeCAM, has over 20 years of experience gained by working with over 18,000 manufacturing companies around the world.

EdgeCAM is loaded with valuable, productivity enhancing features:

- EdgeCAM Solid Machinist is established as the worlds leading solids based CAM solution. Native CAD parts from SolidWorks®, Autodesk Inventor®, Pro-ENGINEER®, Pro-DESKTOP®, Solid Edge® and other Parasolid® based CAD systems can be loaded into EdgeCAM. Toolpaths generated in EdgeCAM remain associative to the originating CAD throughout the manufacturing process
- EdgeCAM also accepts files in the following formats: IGES, DXF, VDA, Parasolid, ACIS, native CATIA and AUTOCAD
- EdgeCAM offers 2D and 3D solid CAD functionality to design components from concept to completion, or to modify imported CAD files
- EdgeCAM Code Wizard produces NC code for any type of CNC machine tool

EdgeCAM does much more than generate NC code. Using the features and functions of the Productivity Toolbox, EdgeCAM develops machining strategies that optimise toolpaths, eliminate unnecessary air cutting, maximise tool life, reduce programming time and increase overall productivity.



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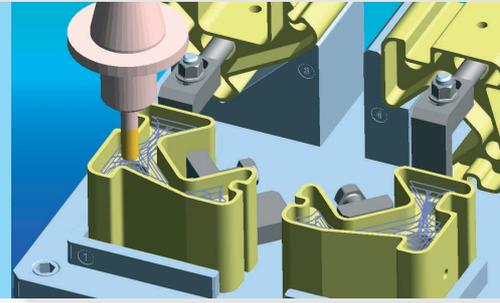
PRODUCTION MACHINING

www.edgecam.com



Pathtrace
Engineering Systems

PRODUCTION MILLING



EdgeCAM provides the production machine shop with a wide range of flexible milling cycles. Machining efficiency is maximised on simple and complex prismatic parts as well as those incorporating sculptured surface geometry.

A Complete Solution

With EdgeCAM you get prismatic machining combined with powerful 3D solid and surface machining strategies, all in one solution.

Intelligent Roughing

EdgeCAM's advanced roughing cycle will generate the optimum strategy to rough machine a component with bosses, open and closed pockets and open profiles in one easy to use cycle. A laced or concentric strategy can be implemented with bottom to top intermediate slicing between levels.

This intelligent cycle will automatically apply the most efficient lead-in method for each region and will create trochoidal moves to avoid full width cuts.

EdgeCAM's roughing cycle also incorporates Rest Roughing, whereby a subsequent roughing strategy can be defined with a smaller tool, only removing material left behind by the preceding larger tool. The rest roughing stock is automatically defined by the initial roughing cycle. This means that air cutting is eliminated and allows flexibility when choosing the rest roughing tool type.

Finishing Cycles

Finish milling cycles can be controlled by step over, cusp height and depth of cut increment. Consistent surface finishes can be achieved whilst machining times are optimised.

Pencil and Rest Finishing cycles are used to clean up material remaining from a previous finishing cycle which implemented a larger tool. Pencil Finishing executes this as a single pass along internal edges and intersections, whilst Rest Finishing consists of a series of passes and is typically used to finish machine internal radii.

Flatland Finishing allows flat areas at all levels of the part to be detected automatically and finish machined, usually with a flat bottomed cutter.

Prismatic Profiling

EdgeCAM's prismatic machining is 'best in class' functionality. A comprehensive range of 2D machining cycles are available, including: Concentric and Lace Area Clear, Profiling, Slotting, Face Milling, Text Milling, Drilling, Tapping and Boring.



Productivity Enhancing Features

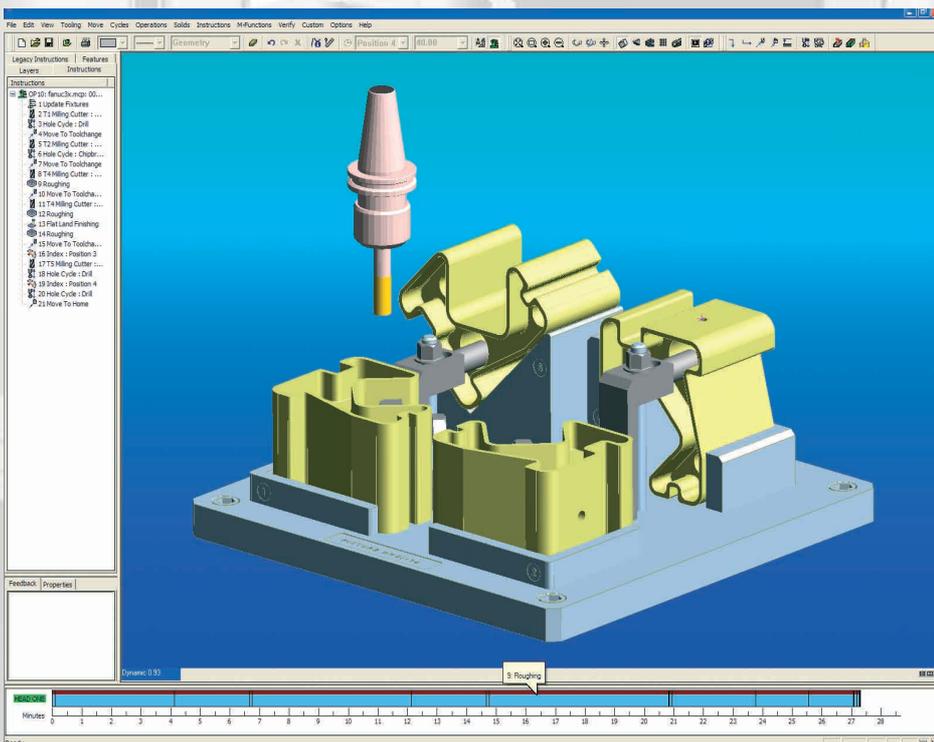
EdgeCAM incorporates a range of features designed to reduce programming and machine cycle time.

- Canned cycles
- Subroutines
- Tool and material database gives automatic speed and feed calculation
- Merging of toolpaths from different components to make a single machining sequence, ideal for loading different parts on the machine tool table
- Machining sequences and toolpaths can be rationalised by tool, index position or datum to produce an optimal program.

Multi-Axis and Multi-Plane Machining

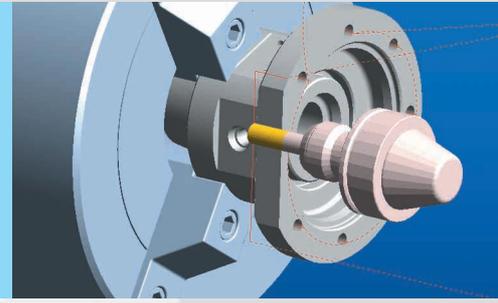
EdgeCAM has full support for multi-axis milling, including 4 axis rotary machining, 3 axis machining plus 2 axis simultaneous indexing and 5 axis machining for trimming, and de-flashing of single surfaces.

When machining multi-faced parts, or multiple parts mounted on a tombstone fixture, EdgeCAM can easily position to any face to allow full use of both prismatic and surface machining cycles.



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PRODUCTION TURNING



Turning functionality in EdgeCAM enables production machine shops to produce NC code for a wide range of machines from basic 2 axis through to highly sophisticated multi-turret, multi axis centres with driven tooling. Ease of use and an understanding that cycle times are critical, especially on multi-configuration mill/turn machines, underpin the development of EdgeCAM's turning functionality.

Turning

EdgeCAM produces advanced rough and finish turning cycles, together with support for facing, boring and drilling in either canned cycle or longhand format.

Grooving Cycles

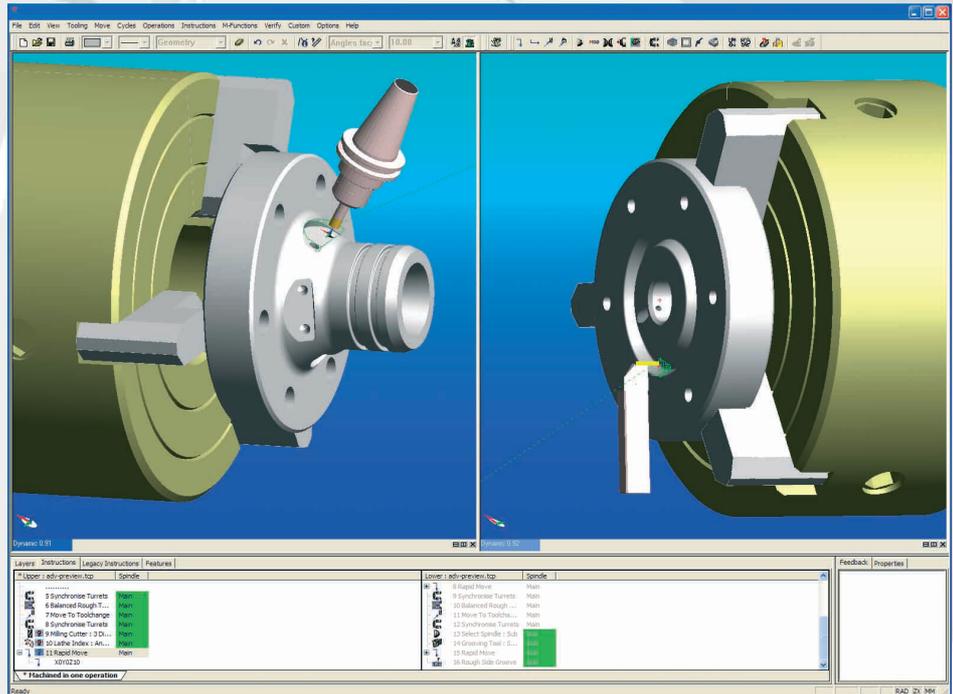
External, Internal and Face Grooving are all simple tasks with EdgeCAM. The inclusion of Side Grooving cycles enable the programmer to produce sophisticated machining strategies taking advantage of advanced tooling design.

Threading

Taper, single and multi-start threads are easily programmed supporting canned cycle or longhand input.

Sub-Spindle

EdgeCAM provides full support for turning centres with sub-spindles. Easy set up of



the machine configuration and control over spindle docking and bar feed functionality are all included and can be visualised with the side by side sequence browser and process time line.

4 Axis Turning

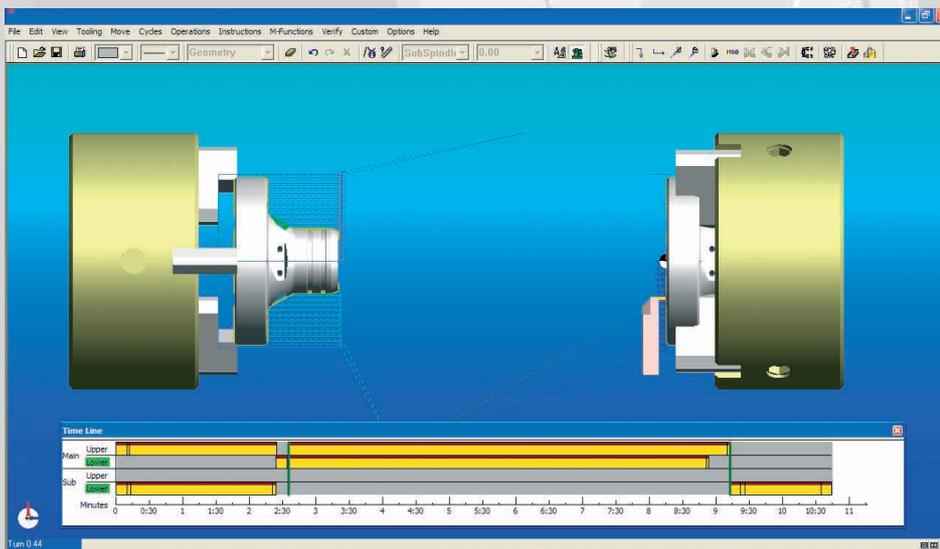
Machines with twin turrets are easily programmed and synchronised for maximum efficiency. Optimum use of one upper and one lower turret is achieved by defining priorities and making use of the sequence browser and time line.

C and Y Axis Mill/Turn

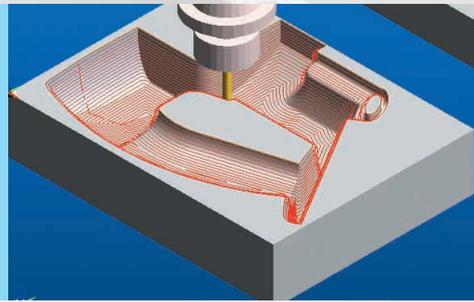
Utilising the complete range of machining commands, EdgeCAM allows driven tooling to be programmed for machining on the face or the diameter of a component. Switching between the Y axis and the C axis modes is a single click process.

B Axis

A 'one hit' manufacturing solution is provided with EdgeCAM's B axis functionality. The ability to programme milled features at any B axis orientation exists for both the main and sub spindles.



THE COMPLETE SOLUTION



EdgeCAM Solid Machinist

With EdgeCAM Solid Machinist the production engineer has significantly more opportunity for automation and efficiency. Native CAD files from SolidWorks, Autodesk Inventor, Pro/Engineer, together with Solid Edge and other Parasolid based systems, can be loaded into EdgeCAM.

True CAD Integration

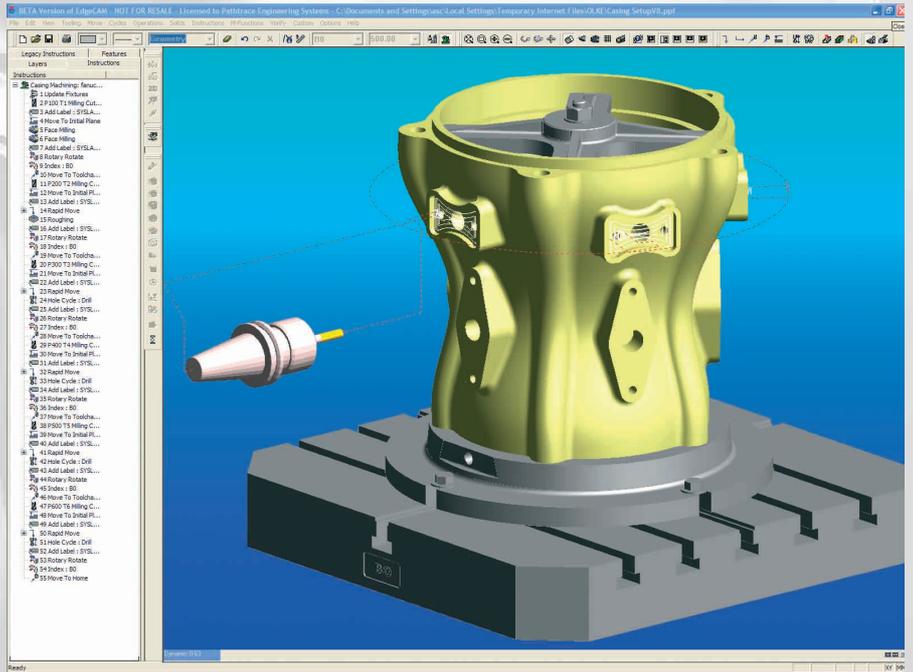
There is no filtering or translation of data when loading solid CAD models into EdgeCAM. True data integrity is achieved. EdgeCAM sees the part as the designer intended.

Intelligent

The result of EdgeCAM's true integration with CAD is that more of the models' inherent intelligence can be used to generate machining strategies. EdgeCAM Solid Machinist uses automatic feature recognition to locate machineable features.

Associative

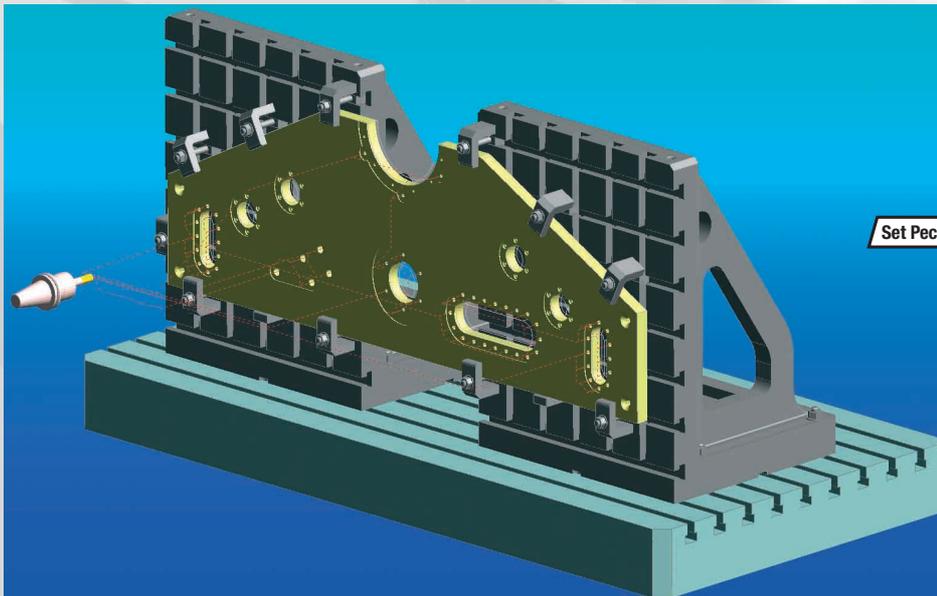
EdgeCAM Solid Machinist will detect and notify the user when a model or part is changed. Dimensional and topological modifications are reported and EdgeCAM automatically recalculates the machining strategy and NC code accordingly.



Complex Shapes

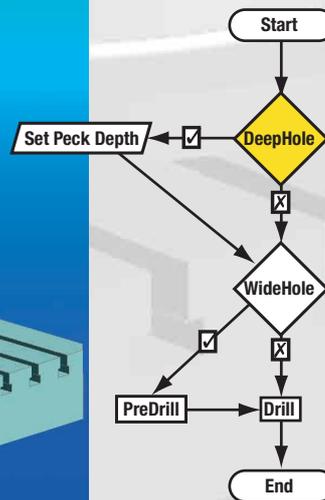
EdgeCAM provides a complete solution for generating quality toolpaths for both prismatic parts and those of a more complex nature containing free flowing forms.

EdgeCAM surface machining strategies can be applied to both surface and solid CAD models, and generate efficient, reliable toolpaths optimised for high speed machining.



EdgeCAM Strategy Manager

Combining the feature based approach of EdgeCAM Solid Machinist with the



knowledge and experience of skilled engineers, EdgeCAM Strategy Manager ensures machining methods are kept consistent by utilising best practice procedures. At the core of EdgeCAM Strategy Manager is an easy to use, graphical flow charting tool for building flexible machining strategies.

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WHAT OUR CUSTOMERS SAY

"EdgeCAM Strategy Manager allows us to work together more efficiently. We now work confidently within machine tool capacity saving significant machining and programming time."

Ingvar Johansson
Managing Director
IKV Tools, Sweden

"One job that used to take 12 hours to machine, is now completed in two hours. We couldn't have programmed it that well without EdgeCAM."

Brychan Williams
Engineering Systems Manager
Hadleigh Castings Limited, UK

"EdgeCAM works extremely well with imported CAD data. Most of our work involves ongoing component development. The fact that changes to the CAD model are automatically and seamlessly incorporated by EdgeCAM is a major benefit."

Peter Jaye
Managing Director
Jaye Engineering, UK

"Product complexity has increased considerably over the years. This has been more than matched by regular upgrades in EdgeCAM's programming and prove-out ability."

Gary Skrzypkowski
Managing Director
EDM, UK

"We just use EdgeCAM, but some of our competitors have to rely on two or even three CAM systems to do the same job."

Mr. Yamakawa
Owner
Yamakawa Seiki, Japan

"We are very impressed with the EdgeCAM macro capabilities and how easy they are to create. The time and cost savings we have achieved with EdgeCAM are well beyond our expectations."

Tony Thompson
Manufacturing Engineer
Total Tooling, USA

"Programming productivity gains average ninety percent, thanks to the extensive automation we've achieved with EdgeCAM."

Glenn Davina
Programming Manager
Jeld Wen Engineering, USA

Indian Partner :

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