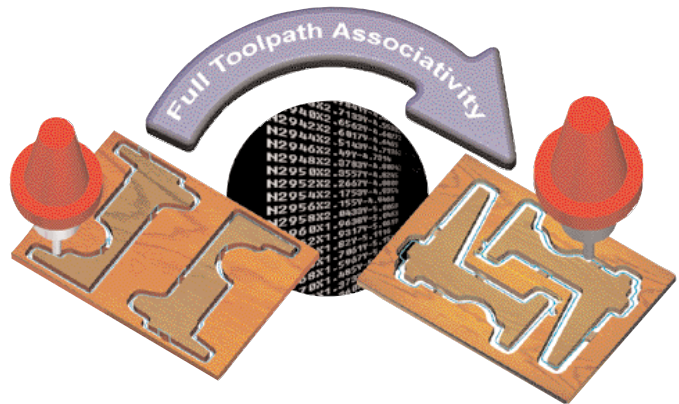


Mastercam[®] Router



Capture Your Router Knowledge

Mastercam's full associativity gives you the power to capture your knowledge and build on your experience. Once you program a part - any part - you can modify any element of the job and immediately get new toolpaths without starting over. And Mastercam's intelligent NC programming lets you build a library of machining strategies done the way you want them. Just apply a saved operation to a part, and Mastercam adapts them to the new model. Fast, easy and productive. The way programming should be.

CAD/CAM software for the most important jobs — yours.

Mastercam Router CAD/CAM is designed to let you make the most of your shop. It's easy to learn because Mastercam is designed to get you productive fast. It's easy to use because you can modify any part immediately - and get new toolpaths without starting over. And it's easy to profit by because Mastercam grows with your business. From basic flat parts to the most intricate 5-axis machining, Mastercam brings a new level of automation, ease and expandability to your work.

With Mastercam, you get proven reliability.

Mastercam has a proven track record of developing CAD/CAM software with one thing in mind - the specific needs of the user. Today, more shops rely on Mastercam than any other CAD/CAM software. And with Mastercam Router, you have a powerful, easy-to-use package with CAD/CAM tools designed expressly for routing operations like yours.

“After using other router software, I tried Mastercam. I had a flawless program in less than 15 minutes. I’m glad to see a company that delivers the results customers want.”

- Bill Lounsbury, Co-Owner
CNC Router Technologies
Danbury, CT

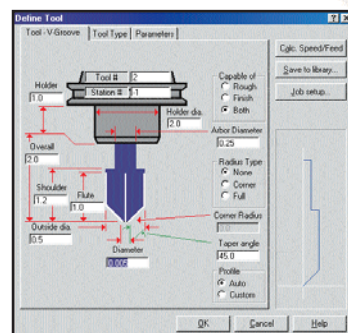


Design, machining, nesting, tabs – Mastercam delivers the CAD/CAM tools you can rely on.

Powerful Part Modeling

Whether you get CAD files from an outside source or want to create the model yourself, straightforward design tools are essential for a shop's flexibility. Mastercam delivers shop-tested CAD tools and specialty items to speed up any design.

- Easy 2D and 3D geometry creation.
- Fast creation of 3D surfaces.
- Optional ability to create, import and machine solid models.
- Mastercam's Raster to Vector translator lets you bring in scanned art as a machine-ready CAD file.
- EPS and DWG converters included.
- Mastercam's specialty modeling tools help you quickly create staircase stringers, classic door designs (including reading information from an outside Excel file), and more.
- Associative dimensions update as you change your model.
- Quickly translate, mirror, scale, rotate and offset entities.
- Extensive editing tools ensure your model is exact.
- Dynamic rotation, panning, zooming in multiple views.
- AutoCursor™ snaps to commonly used points for easy construction.
- User-definable drafting grid simplifies detailed construction.
- Analyze single points, between points, angles and entire entities.



Choose from an extensive library of tools or create your own.

Easy 2D Machining

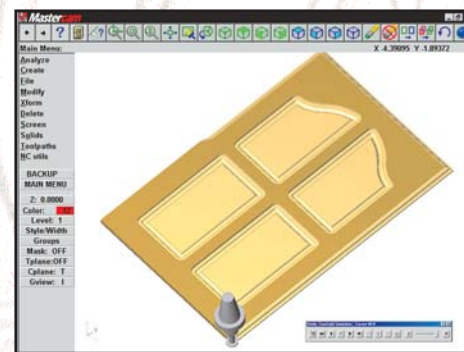
2D and 2½D machining ranges from the very simple to the very complex. Mastercam delivers all the tools you need to maximize your time.

- Optimized drilling including easy block or "gang" drilling.
- Smart toolpath control slows down around corners.
- 2D contouring for flat shapes.
- 3D contouring for complex shapes and trimming.
- Pocketing styles include true spiral, constant overlap spiral, "morph" pocketing, zigzag and more.
- Machine open pockets without creating additional geometry.
- Clean-corners and constant overlap features ensure clean spiral pocketing.
- Contour and pocket REST (remaining stock) machining.
- Efficient helical or ramp entry for each pocketing level.
- Choose multiple drill points, contours, pockets, and nested pockets with a single selection.
- Choose separate taper angles for pocket walls and islands of any height.
- Facing cleans stock from the tops of islands or entire parts.
- Optional separate lead-in and lead-out for contours and pocket finish passes.
- Choose multiple roughing and finishing passes and multiple depth cuts for any contour.
- High-speed machining (HSM) support eliminates sharp corner motion.
- Full associativity lets you change the model or machining parameters and update your toolpath with a single mouse-click.

Versatile 3D Roughing and Finishing

Fast, efficient bulk material removal is essential to efficient NC programming. A superior finish is crucial to any job. Mastercam gives you a variety of techniques suited to your specific projects.

- Rough and finish cut multiple surfaces, solid models, or a combination of both.
- Select from a variety of roughing styles, each designed to provide the most efficient cutting method for a specific type of part or situation.
- Parallel finishing delivers robust toolpaths for a wide variety of projects.
- Scallop machining maintains a consistent finish on combinations of sloped and flat surfaces.
- Options including Radial, Flowline, and Ruled finishing let you choose the perfect strategy for any job.
- Leftover material causes extra handwork and time. Mastercam automates leftover material removal, leaving you with a finer finish.
- Full associativity lets you change your model or machining and update your toolpath with a single mouse-click.



With Mastercam's toolpath verification, you can preview your finished part before sending it to the machine.

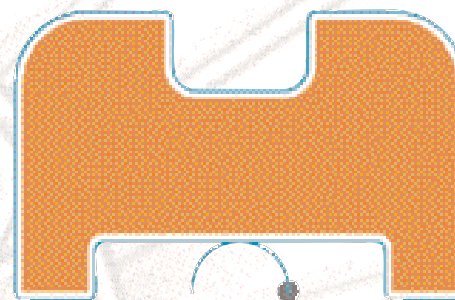
Multiaxis Machining

Multiaxis machining adds an extra level of flexibility to your machining operations for a wide variety of projects ranging from high precision to free-flowing artistic cutting.

- Create 5-axis cuts on or around curves and edge curves for applications such as part trimming.
- 5-axis drilling lets you approach the part from any angle.
- 4-axis machining.
- Multisurface 5-axis roughing and finishing.
- A 5-axis "safe zone" around the part helps eliminate gouges.
- Swarf fanning and swarf machining over multisurface floors.
- 5-axis shank containment for cutting internal areas larger than an opening.
- 5-axis multisurface flowline machining.

Right Angle and Compound Angle Heads

In addition to Mastercam's wide variety of tool shapes and types, you have the added flexibility of Right Angle (RA) and Compound Angle (CA) head support. This lets you quickly program and machine areas on the sides of your part in a single setup.



Mastercam's toolpath nesting lets you program a part once, exactly the way you want it, then nest that process so that each part is cut with identical motion.

Tabs, Webs, and Breakthrough Control

Efficient flat panel cutting relies on easy control over tabs, webs and cutting specifics. Mastercam gives you the tools to ensure you cut, and leave, exactly what you want.

- Leave a "web" of user-definable thickness at the bottom of each cutting, holding the parts securely until you are ready to remove them.
- Complete tab control including Full Tabs (leaving the entire material thickness) and Partial Tabs with user-definable thickness.
- All tabs are fully editable and moveable, and have adjustable ramp angles.
- You can manually place the tabs or allow Mastercam to do it automatically.
- Mastercam can automatically add tabs on parts smaller than a specified size.
- Tab cutoff passes can be run after each part, or after all parts are done.
- Breakthrough control lets you easily define how deep past the part your tool will go.

Nesting

High yields can be crucial to a job's profitability. Mastercam includes essential nesting capabilities for parts and toolpaths.

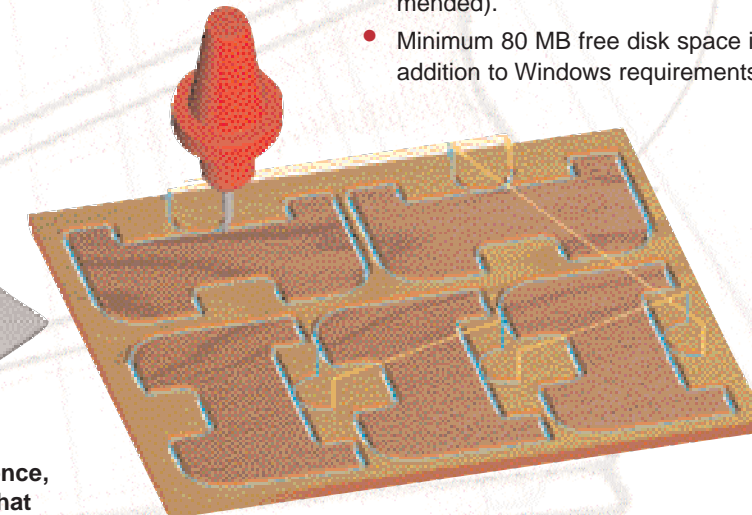
- Nest any that toolpath so that each part is cut exactly as you want it.
- Fast, efficient rectangular part nesting.
- Complete control over part-to-part distance, sheet margins, and more.
- Directly place CAD models from a variety of sources.

Flexible Add-Ins

Mastercam offers a wide variety of optional software add-ins, as well as powerful tools to create your own. Mastercam supports Visual Basic scripts and C programming, giving third-party developers a quick and easy way to write, edit, and run add-ons.

System Requirements

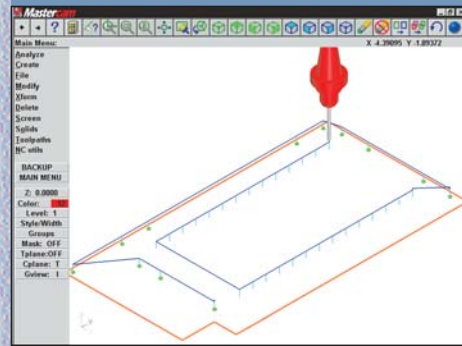
- IBM-compatible PC with a Pentium™ processor.
- Microsoft®, Logitech® or compatible mouse.
- Windows™ NT® 4.0 (or higher), 98, 2000, ME, or XP.
- Minimum 64 MB RAM (128 recommended).
- Minimum 80 MB free disk space in addition to Windows requirements.



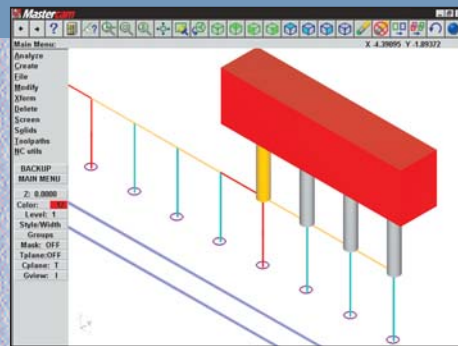
From simple to complex – Mastercam has all the toolpaths you need to get the job done.

Here are just some of the toolpaths that Mastercam offers...

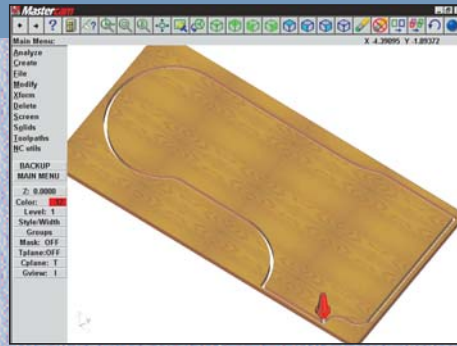
Drilling, Contouring, Pocketing and More



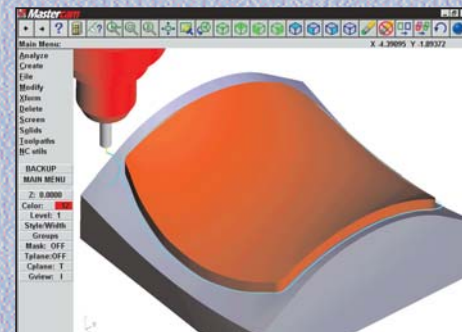
Optimized drilling



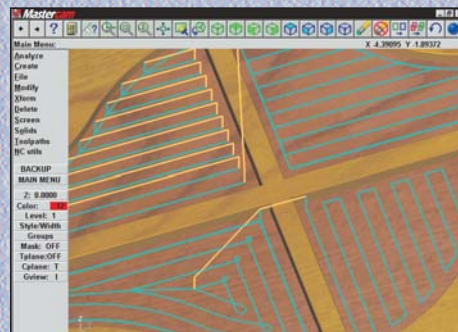
Block drilling



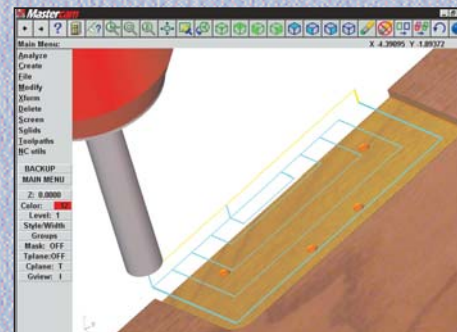
Fast, easy 2D contouring



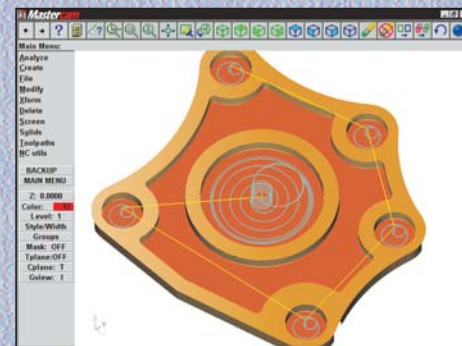
Flexible 3D contouring



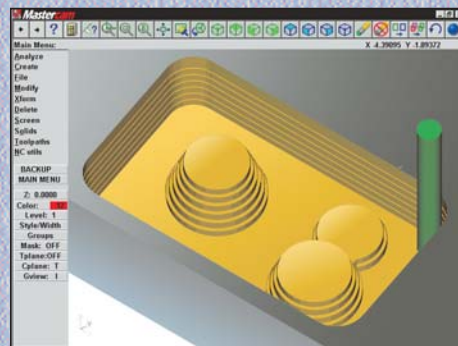
Multiple pocketing styles



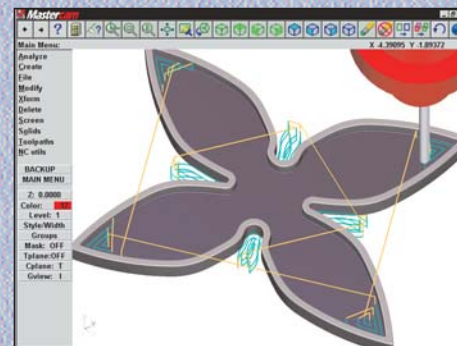
Easy open pocket machining



Automated circle milling

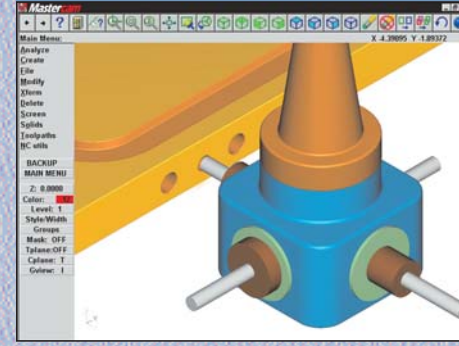


Tapered wall pocketing with islands of different heights

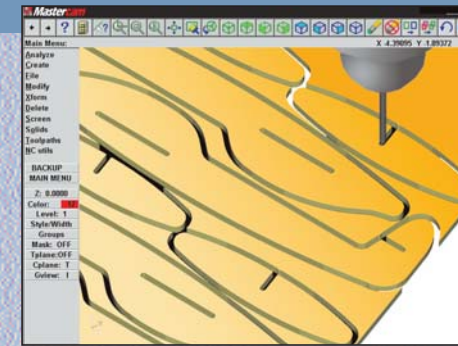


Automated contour and pocket remachining with a smaller tool

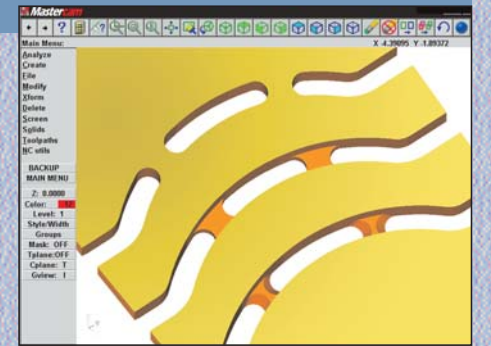
Full Toolpath Control



Right-angle head support

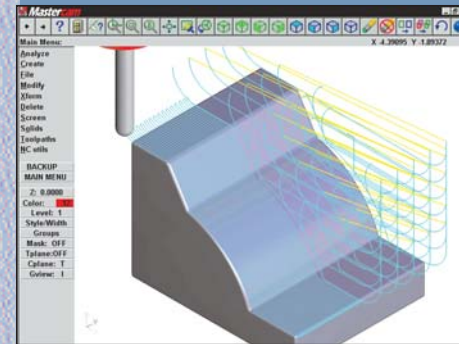


Nest your parts or your toolpaths

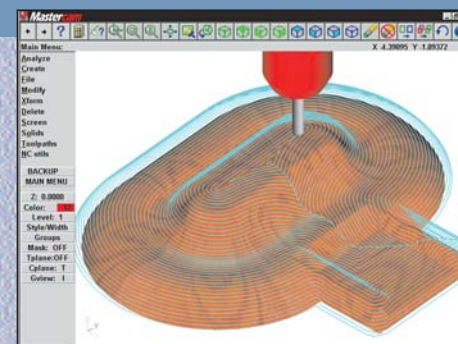


Easy-to-use options for a wide variety of tabs.

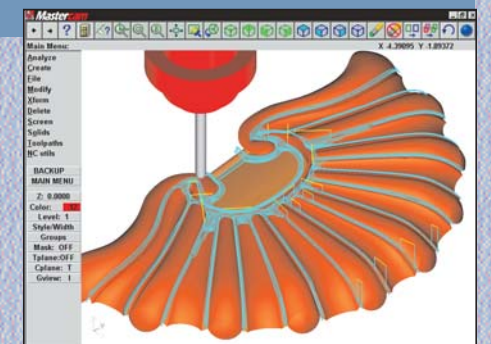
Multisurface Roughing & Finishing



Fast, efficient parallel roughing & finishing

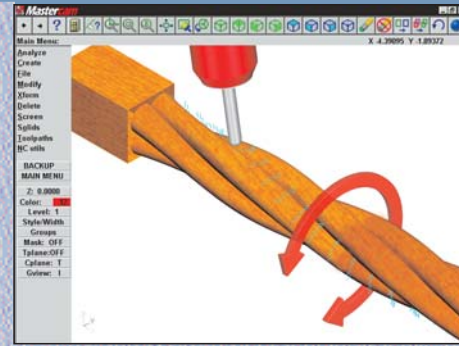


Constant scallop machining for a smooth, consistent finish

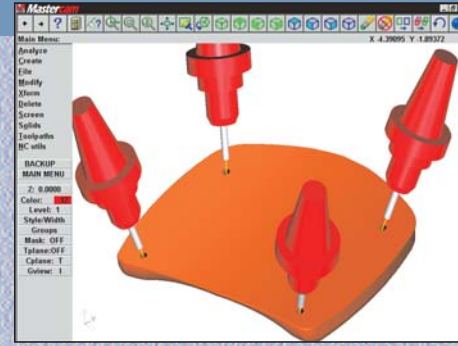


Automated leftover machining with a smaller tool

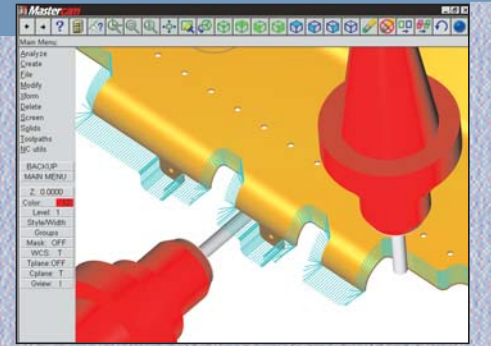
Multiaxis Cutting



Rotary 4-axis cutting



5-axis drilling



5-axis contour cutting for easy part trimming

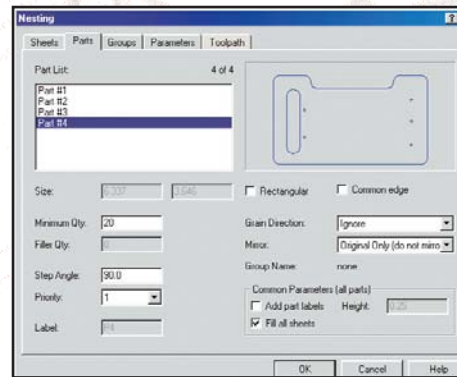
Advanced Nesting and Engraving – two powerful options to help get the most from your machines.

Advanced Nesting

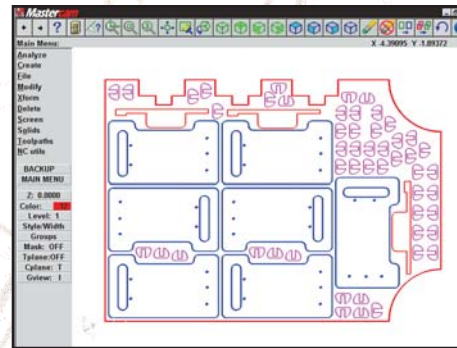
Mastercam Router includes basic nesting, but there are times when you want more sophisticated nesting for a higher yield. Mastercam's optional TrueShape nesting optimizes your material use for greater yields and an improved bottom line. With the TrueShape nesting add-on, you can efficiently nest interlocking parts with a wide variety of options:

- Nest your parts or your toolpaths.
- Advanced automatic interlocking nesting.
- Custom sheet definition.
- Maintain grain direction of any part.
- "Filler" part nesting to reduce waste.
- Mark a series of parts as a "Group" to ensure the entire set is always nested.
- Set minimum number of parts needed.
- Assign priority to make sure that the parts you need the most are nested first.
- Combine parts into "clusters" that will be nested in the same orientation to each other.
- Create and save a library of fully definable sheets.
- Save sheet scrap for later use.
- Full control over part spacing and sheet margins.
- Directly import and place DXF files.
- Automatically separate different parts into levels that you can turn on or off.
- Mastercam's fast, easy machining will program your entire nested sheet at one time.

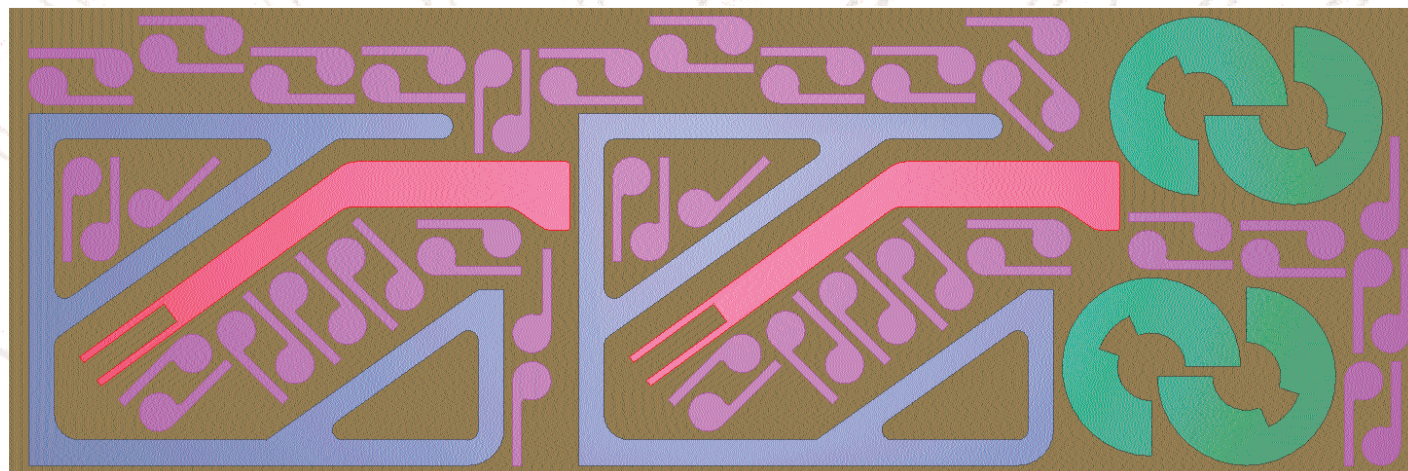
For more information about purchasing the TrueShape nesting add-on, contact your Mastercam reseller.



Mastercam's advanced nesting gives you high yield with just a few simple steps.



You get a wide variety of nesting tools, including nesting parts in scrap from a previous session.



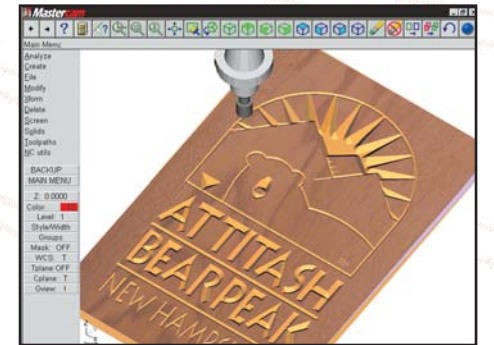
Mastercam's advanced nesting can automatically interlock different shapes, including nested "cutout" areas.

Engraving

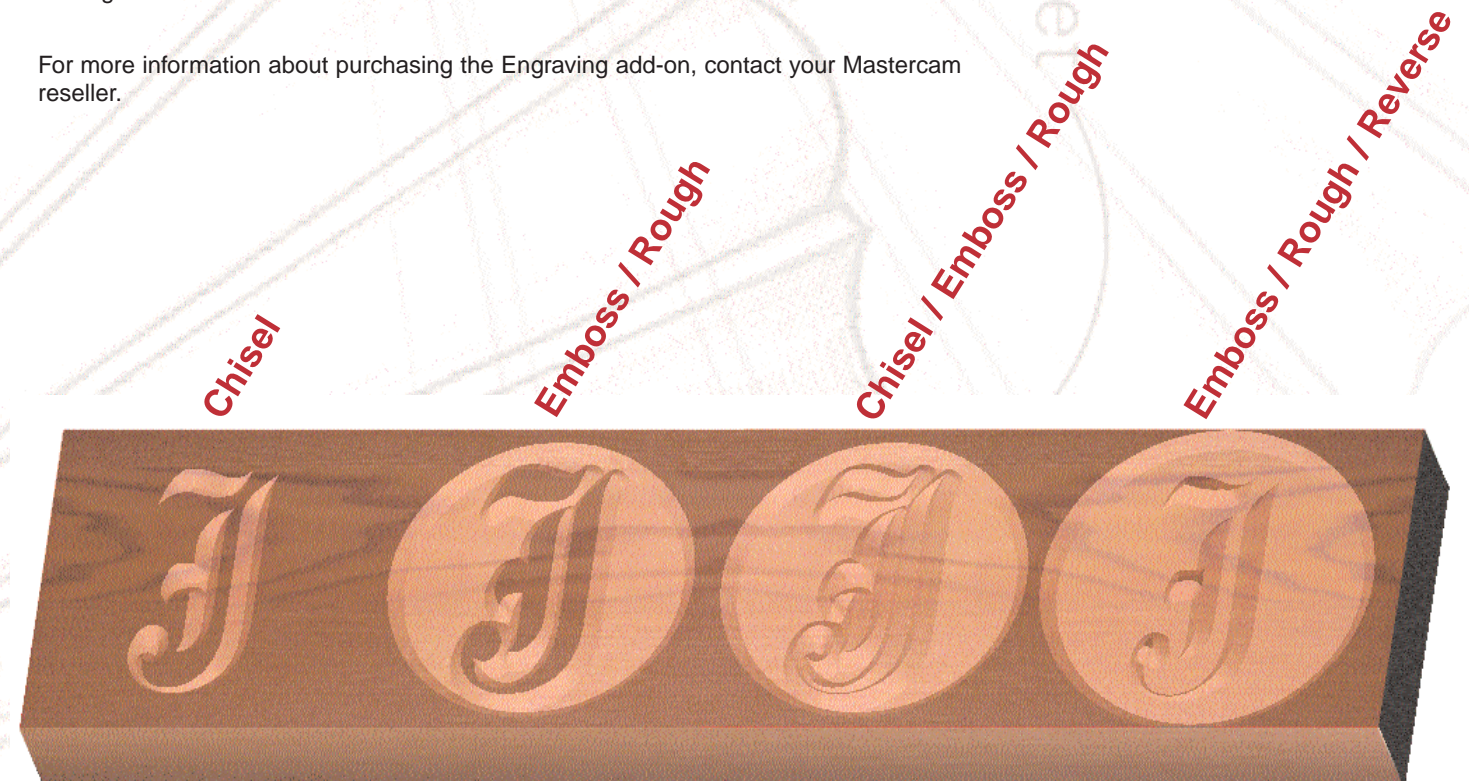
Mastercam's optional Engraving gives you the effect of classic hand-carved art using your CNC machine. Sharp inside corners give the finished piece a crisp edge which is unattainable with conventional machining. Mastercam's Engraving add-on gives you a wide variety of choices:

- Standard "chiseling."
- Embossed images.
- Combined chiseled/embossed images.
- Emboss "reversed" images.
- Open pixel-based artwork as engravable geometry (.BMP, .GIF, .TIF, .PCX, .EPS and more).
- Easily engrave any TrueType® font.
- Inverse embossing for mold work.
- Engrave remachining allows you to cut an area with a large tool and automatically remove remaining material with a smaller tool.
- Use constant-volume depth cuts for more consistent tool load.
- Use V-groove cutters with any angle.
- Engrave with flat cutters to remove floor stock.

For more information about purchasing the Engraving add-on, contact your Mastercam reseller.



Easily produce a wide variety of parts with the look of classic, hand-carved art.



Software That Grows With Your Business

Mastercam Router is designed to grow with your business. The software is available in three levels, with several options, so you can pick the one that best suits your needs. And with Mastercam, your investment is secure - when you want to move to the next level of Router, you simply pay the difference between the two packages.

	Router Entry	Router	Router Pro	
CAD	Create and dimension 3D wireframe geometry	X	X	X
	Read/write translators (IGES, DXF, SAT, STL, Parasolid, and more)	X	X	X
	DWG, EPS, and raster to vector translators		X	X
	Door geometry & stair stringer creator		X	X
	Basic part & toolpath nesting		X	X
	Surface creation		optional	X
	Solids creation		optional	optional
	Advanced part & toolpath nesting		optional	optional
CAM	Fully associative toolpaths	X	X	X
	Drilling	X	X	X
	2D contour cutting	X	X	X
	Basic pocketing	X	X	X
	3D contour cutting, trimming & remachining		X	X
	Advanced pocketing, including open pockets		X	X
	Block drilling		X	X
	Tabs		X	X
	Right-angle heads		X	X
	Toolpath editor		X	X
	Automatic feed rate optimization		X	X
	On-screen toolpath verification		X	X
	Engraving		optional	optional
	Multisurface roughing			X
	Multisurface finishing			X
	Multisurface "cleanup" machining			X
	4- and 5-axis machining			X
5-axis contour cutting, trimming & drilling		optional	X	

Mastercam®

When Second Best Won't Cut It.

cnc software, inc. 671 Old Post Road Tolland, CT 06084 USA
 (800) 228-2877 • Fax (860) 872-1565 • www.mastercam.com • mcinfo@mastercam.com