



Mastercam.X² Art



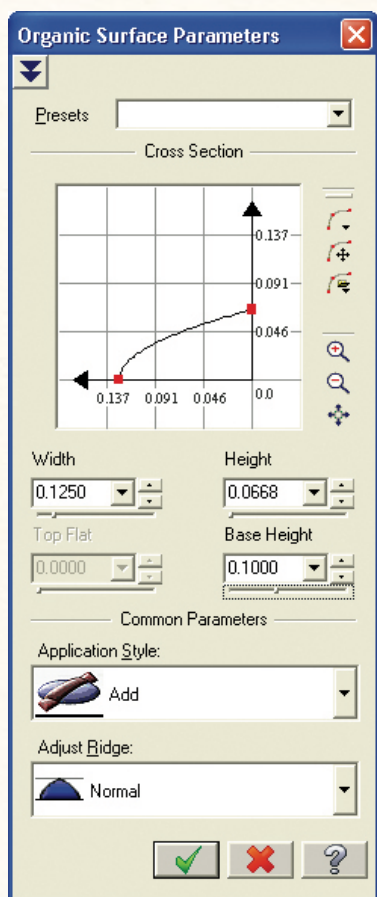
Fast. Flexible. Reliable.



COMBINING AN ARTIST'S EYE WITH A COMPUTER'S EASE

Mastercam® brings its power and experience to artistic relief design and cutting with Mastercam X² Art. This exciting new product lets you quickly bring 2D sketches, clip art, photos, and CAD files to life by crafting them on-screen and cutting them with easy, specialized toolpaths. Mastercam Art is the ultimate tool for anyone trying to add that extra sculpted flair to their work because it puts sculptured 3D artwork within everyone's reach – without the need to be a surface modeling expert.

Quickly shape and change your model on-screen until it looks just the way you want it, with great visualization tools and instant editing features. Beginners can create their first complex models by defining shapes from clip art or their own scanned artwork. Experienced CAD/CAM users have a full range of modeling tools to create even more sophisticated pieces. And in all cases, Mastercam Art tracks your model step-by-step, allowing quick and easy modifications any time. Mastercam Art is an add-on to other Mastercam products.



Save your Knowledge

It's common to re-use your creation settings on various jobs. Mastercam Art lets you save your favorite combinations as "presets," ready to be used again in an instant.

Quick Creation

Mastercam Art's power is its ability to create complex organic surfaces with a few simple clicks. Once you have selected the basic outline of your project, you can quickly "puff it up" by applying a cross-section to it. You can create your own, or use a dynamic cross-section from the included library.

Easy Refinement

You choose to refine your cross-section shape "by eye" through clicking and dragging control points on the graph, or with mathematical precision by entering values.





Add



Blend



Add-cut



Subtract

Sculpting Options

Mastercam Art's various application styles let you add, subtract, intersect, and blend multiple organic shapes. You can test a variety of dramatically different looks by simply choosing various application styles for each shape and regenerating the model.

Relief Manager

Track your project step-by-step with Mastercam's Art Manager. You can instantly adjust, reorder, or edit each element, letting you put the finishing touches on your project and giving you complete control. Suppress and add elements with a single click to generate fast design changes.

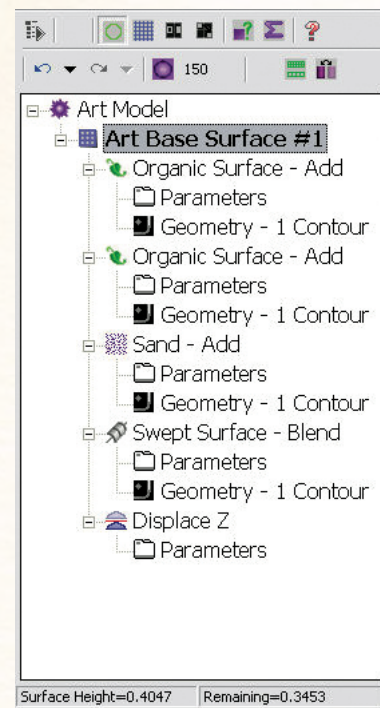
Rough Model Gets Precise with a Single Click

Model using a "quick" screen resolution for fast redraws and design experimentation. You can boost the resolution at any point to get a crisp model with as much detail as you need.

Experimentation Made Easy

Quickly undo and redo your modeling steps, ensuring that your model is always flexible and you can go back to previous versions.

Stack It Up in Minutes



2D vector drawing



Puffed up base



Facial detail added



Fur detail added



The PROCESS

Mastercam lets you go from “art to part” with a single software package. A simple process takes you from flat art to a beautifully sculpted piece that comes off the machine with exactly the look you want.



Import Art

Bring in clip art, a CAD file, or a scanned sketch or photograph. Mastercam Art converts the artwork into flat, machinable geometry, giving you a basic palette from which to craft your finished model. If you need ideas to start your project, Mastercam's Classic Design Library gives you 4,000 artistic elements to easily place in your model.

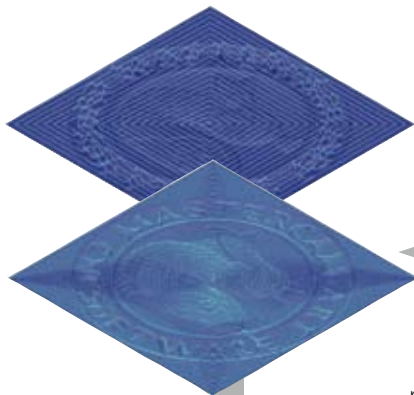
Build a 3D Model

Quickly create a full 3D sculpture from your 2D artwork by picking elements of your flat art. Mastercam “puffs up” the art using a cross-section you control. You can add or remove one section from another, and easily modify the model by eye to make sure it's exactly what you want.



Create a Toolpath

Pick one of Mastercam Art's specialized toolpaths to cut your project. These fast, reliable cut strategies are easily modified, letting you quickly try out a variety of cutting techniques for the perfect result.



Machine It On-Screen

Watch as your part is cut on-screen from a solid block of material with Mastercam's toolpath verification. When finished, you can inspect the piece for surface finish and make sure it's exactly what you want before it goes on the machine.



Output Code to Your Machine

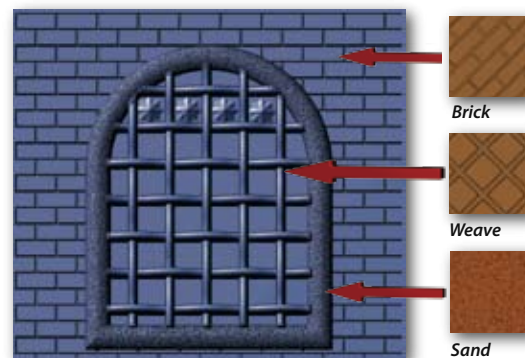
Quickly create G-code for your machine using Mastercam's extensive post processor library.



The POWER TOOLS

Unlimited Textures

Adding a textured or patterned surface to a model can significantly increase the level of intricacy and perceived value of your work. Mastercam Art automates this process, allowing you to quickly fill a boundary with a selected texture. You can choose a pre-defined texture, or create a new one using your own model as the repeating shape.



Add predefined and custom detailed textures to any model with point-and-click ease.

From Picture to Sculpture



Mastercam Art delivers powerful, easy, artistic tools, including the ability to create a 3D model directly from a digital image. Scan in a photo, and Mastercam Art will create an organic, sculpted piece using the highlights and shadows as guidelines for height.

Mold Creation



After you've created your "positive" model, you can convert it into a mold with one simple mouse click. It can also automatically reverse your text.

Design Libraries

Mastercam Art comes with an extensive Classic Design Library of over 4,000 2D images in Mastercam format to get you started. You can also bring in third party libraries, or build your own.

When you choose a design from the library it attaches to your cursor, ready to dynamically place, rotate, mirror, and independently scale. Once placed, another image is automatically attached to your cursor to place again. After your 2D design is complete, you can save it to your personal library.

3D Art Surface Libraries

Once you have created your 3D part, you can save some of it to the Art surface library for future use. As an example, you may want to create a 3D logo and save it to your library. Later, you can use that logo for a variety of projects, scale it down for a pin, scale it up for a sign, or even reverse it for a mold.



The STRATEGIES

Model Any Way You Want

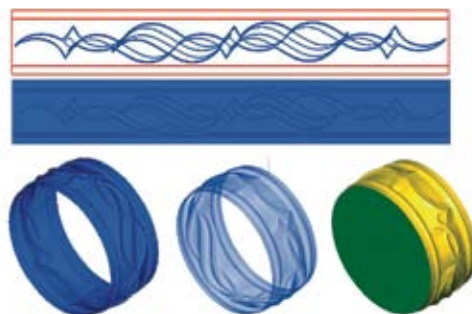
Mastercam delivers a complete CAD suite. In addition to the specialized Art surface creation tools, Mastercam offers wireframe, traditional surfaces, and optional solid modeling. Use the best tool for the job, or any combinations of tools to get your model just right.



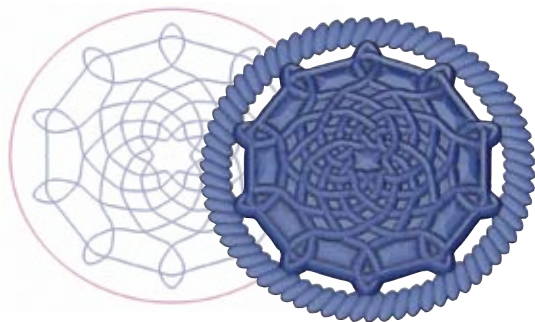
Mastercam Art's flexible CAD modeling allows for a wide variety of fast and easy designs, from "puffing up" basic shapes, to complex 3D design.

Wrapping

Mastercam Art lets you wrap your art on a cylinder and cut it. Enter your cylinder dimensions and Art will automatically create an unwrapped cylinder for you to create on. Next, create your design and Art can wrap it up for you so you can visualize it in the round. Apply your toolpath and cut it on your 4-axis machine.



Wrap your design, apply a toolpath, and preview your cut part. Perfect for a wide variety of projects, including jewelry making.



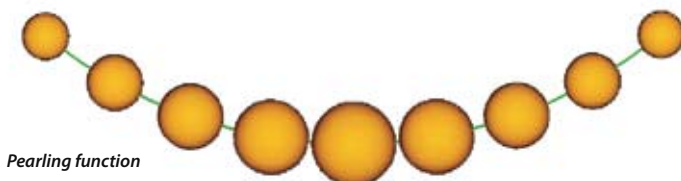
Finished 3D celtic knot. The rope border was created with a patterned contour.

Celtic Weave

Quickly create Celtic knots ranging from the very basic to the extremely complex. Simply select the design and Mastercam Art will automatically create the 3D over-and-under weave. With a variety of controls, you can get the exact look that you need.

Patterned Contour

Apply a repeating pattern to a contour shape with a few simple clicks. You have complete control over the size, scale, spacing and rotation of the pattern, giving you the perfect look.



Pearling function



Patterns applied to a circle and square.



Once you've modeled your project, Mastercam X Art gives you a wide variety of cutting techniques to ensure the part comes off the machine exactly how you imagined it.

Accuracy and Speed

Mastercam Art's toolpaths are created specifically for accurately machining artistic surfaces. These toolpaths produce machine-ready results, usually in seconds.

Pick the Perfect Technique

Mastercam gives you a powerful set of strategies to fit every project. Roughing toolpaths use big tools for quick stock removal, while finishing toolpaths use smaller tools to pick up the detail. Choose ball, bullnose, flat, and a variety of taper cutters.

Machine at the Resolution You Need

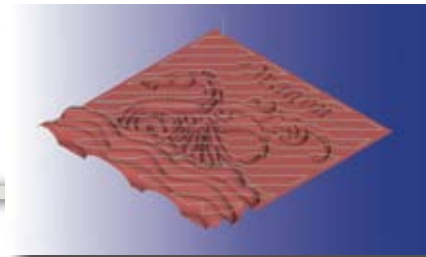
Start with a clean "canvas" to which you add your art. Model highly detailed work on a "high resolution" canvas section and looser work on a "medium resolution" section. This dramatically speeds your modeling and programming time. You can also put these canvases on different machining planes for more flexibility.

Save Your Knowledge

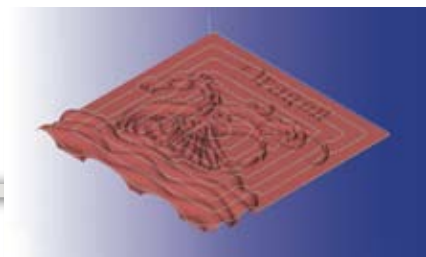
Mastercam's Operations Manager lets you edit your cut strategies and generate a new toolpath with a single click. You can also save sets of strategies, and apply them quickly to future jobs.

See it Before You Cut It

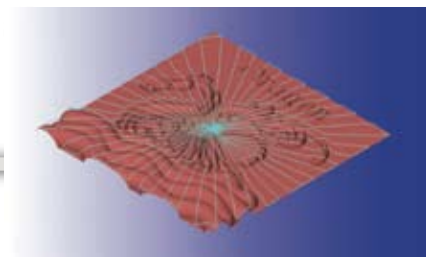
See your part before it comes off the machine with Mastercam's solid-model toolpath verification. Watch the part being cut on-screen, and inspect it by rotating and zooming in on any detail.



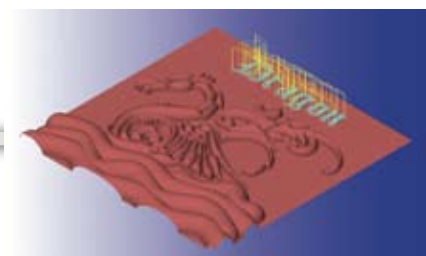
Parallel at given angle



Spiral cutting

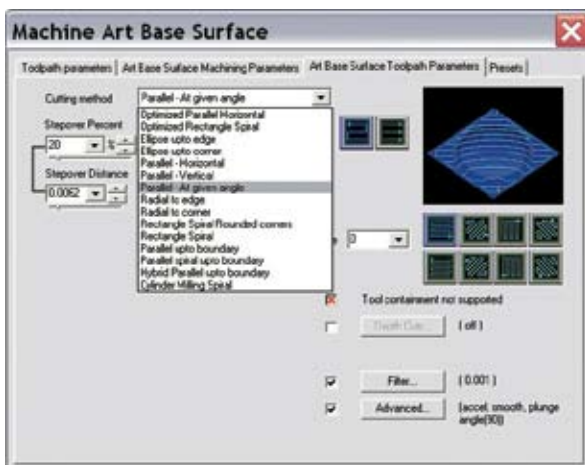


Radial cutting



Contain toolpath to boundary

Machining Strategies



“MASTERCAM ART GIVES ME THE PERFECT COMBINATION OF FREE-FORM ART AND USER-FRIENDLY TECHNOLOGY.”

- Robert Hendricks, Production Jeweler
Hendricks Manufacturing
Salt Lake City, UT



Other powerful CAD/CAM packages available from CNC Software:

Mastercam Solids

Easy Parasolid® based part modeling

Mastercam Design

Powerful 3D CAD software

Mastercam Mill

2- through 5-axis milling

Mastercam Lathe

Fast, flexible CNC turning

Mastercam Wire

2-axis and 4-axis wire EDM programming

Mastercam Router

Quick and easy router cutting

System Requirements

Processor: 1.5 GHz Intel processor

Operating System: Windows® XP or Windows 2000
with latest service packs and updates;

.NET 1.1 framework and DirectX® version 9.0c

Memory: 512 Mb RAM, 1 GB available hard disk space

Graphics Card: 64 MB OpenGL-compatible (minimum)

Monitor: 1024 x 768 resolution (minimum)

Mouse: Windows® compatible mouse

Mastercam X² Art is available in two different levels to fit your needs. Choose from standard Mastercam X² Art for full modeling and machining, or Mastercam X² Art LT if you only need Art's unique modeling techniques. Both Art and Art LT can be added to any Mastercam X² Router or Mastercam X² Mill product. Art LT can also be added to Mastercam X² Design.

	Mastercam X	Art LT	Art
CAD Tools			
Quick 3D design without requiring surface or solids expertise		x	x
Shape your model by eye or with precise measurements		x	x
"Puff up" 2D outlines into 3D shapes		x	x
Add, subtract, and blend 3D shapes with a click		x	x
Convert 2D artwork into machinable geometry		x	x
Create 3D reliefs from scanned photos		x	x
Art Manager - edit any step in your project		x	x
Design at any resolution to speed your modeling		x	x
Save your favorite creation techniques		x	x
CAM Tools			
Exclusive fast toolpaths specifically for the unique Art models			x
Fourteen shop-tested Art-specific rough and finish strategies			x
Program at the "resolution" that fits your project			x
Save your favorite machining strategies			x
Toolpath Manager - edit your machining strategy steps			x
See your part cut "on-screen" before sending it to the machine			x
Bring Art models into Mill or Router for standard surface machining		x	x
Help and Support			
Context-sensitive help		x	x
Full tutorial PDF with step-by-step lessons		x	x
On-demand videos covering the major processes		x	x

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