

MecSoft Corporation  
Your CAM Partner

MecSoft

# RhinoCAM 2016

*Computer Aided Manufacturing inside Rhino®*

Powerful | Easy To Learn | Easy To Use | Value Priced



# RhinoCAM®

*Includes MILL, TURN, NEST & ART modules*

*A complete CNC programming system running fully inside Rhino for rapid prototyping, mold & die, tooling, wood working, general machining, hobby & education*

**Rhino's modeling + RhinoCAM's machining = Unlimited possibilities!**

RhinoCAM's MILL module includes powerful 2.5, 3, 4 and 5 axis machining functionality to program CNC mills. Comes with hundreds of free post-processors and the ability to create new ones.

RhinoCAM's TURN module is a complete 2 axis CNC turning center programming system, including Roughing, Finishing, Grooving and other machining methods and also free post-processors.

RhinoCAM's NEST module, with both Rectangular & True Shape nesting, is used for optimally arranging and fitting arbitrary part geometry shapes onto sheets of stock material.

RhinoCAM's ART module converts artwork to geometry suitable for machining. Used for modeling artistic shapes using bitmap images, it extends the capabilities of the machining modules.

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# RhinoCAM - MILL 2016

RhinoCAM - MILL is one of the 4 modules in the RhinoCAM product suite that is used for programming CNC mills. It is ideal for rapid-prototyping, mold & die, tooling, wood working, general machining, hobby and education. and includes 2.5, 3, 4 and 5 axis machining functionality. It comes with hundreds of free post-processors and a post-processor generator to create your own. Priced right for the cost conscious buyer, RhinoCAM - MILL software delivers outstanding value for your investment.



## Configurations

### RhinoCAM - MILL Xpress (XPR)

A program tailored for hobbyists, makers and students. Ideal for getting started with CAM programming. Includes 2 & 3 axis machining methods.

### RhinoCAM - MILL Professional (PRO)

For demanding users with sophisticated requirements such as mold, die & tooling, woodworking industries. Includes all of EXP plus indexed 5 axis machining and advanced 3 axis machining methods.

### RhinoCAM - MILL Standard (STD)

A multi-purpose program suited for production, rapid prototyping, flat panel & general machining, where ease of use and a complete tool set is important. Includes 2 & 3 axis machining methods and advanced simulation.

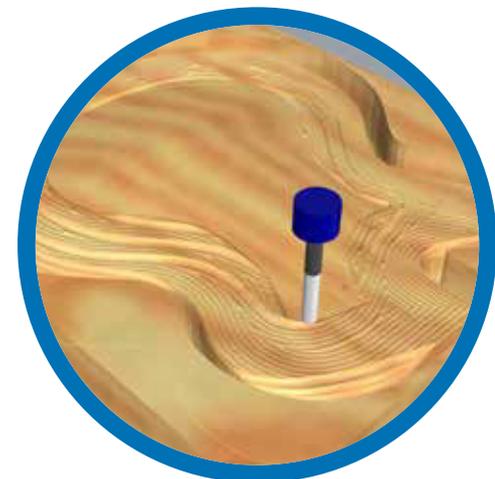
### RhinoCAM - MILL Premium (PRE)

For demanding users with highly sophisticated manufacturing requirements such as aerospace, advanced mold making and woodworking. All of PRO functionality plus continuous 5 Axis machining.

### RhinoCAM - MILL Expert (EXP)

Includes all of STD functionality plus a wider range of 2, 3 axis methods as well as 4 axis Indexed and continuous roughing and finishing operations and advanced simulation.

2 1/2-Axis Milling						4 Axis Milling						Toolpath Editing					
	XPR	STD	EXP	PRO	PRE		XPR	STD	EXP	PRO	PRE		XPR	STD	EXP	PRO	PRE
Pocketing	●	●	●	●	●	4 Axis Indexed Machining			●	●	●	Toolpath Graphical Viewing	●	●	●	●	●
Profiling	●	●	●	●	●	4 Axis Auto Multiple Indexing			●	●	●	Toolpath Graphical Editing				●	●
Facing	●	●	●	●	●	4 Axis Continuous Facing			●	●	●	Toolpath Instancing				●	●
Engraving	●	●	●	●	●	4 Axis Continuous Pocketing			●	●	●	Toolpath Arc Fitting				●	●
Bridges/Tabs		●	●	●	●	4 Axis Continuous Profiling			●	●	●	Post Processor Generator					
2-Axis Roughing		●	●	●	●	4 Axis Continuous Engraving			●	●	●	Customizable Post Generator	●	●	●	●	●
High Speed Pocketing		●	●	●	●	4 Axis Parallel Roughing			●	●	●	Simulate Cycles	●	●	●	●	●
V-Carving		●	●	●	●	4 Axis Parallel Finishing			●	●	●	Arc Output	●	●	●	●	●
V-Carve Roughing		●	●	●	●	4 Axis Radial Finishing			●	●	●	Helix Output		●	●	●	●
Chamfering		●	●	●	●	4 Axis Projection Pocketing			●	●	●	Spiral Output		●	●	●	●
Hole Making		●	●	●	●	5 Axis Milling						5 Axis Output				●	●
T-Slot Milling		●	●	●	●	5 Axis Indexed Machining				●	●	Miscellaneous					
Thread Milling		●	●	●	●	5 Axis Curve Projection Machining					●	32 & 64 Bit	●	●	●	●	●
Re-Machining				●	●	5 Axis Flow Curve Machining					●	HTML Shop Documentation	●	●	●	●	●
3 Axis Milling						5 Axis Between 2 Curves Machining					●	Avoid Regions			●	●	●
Horizontal Roughing	●	●	●	●	●	5 Axis Drive Curve Machining					●	Knowledge Base			●	●	●
Parallel Finishing	●	●	●	●	●	5 Axis Surface Normal Machining					●	Default Knowledge Base			●	●	●
Horizontal Finishing		●	●	●	●	5 Axis Swarf Machining					●	Machine Control Operations			●	●	●
Radial Machining		●	●	●	●	Hole Making						Predefined Regions			●	●	●
Spiral Machining		●	●	●	●	Automatic Hole Selection	●	●	●	●	●	Explode Cabinet Model			●	●	●
Clear Flats Machining				●	●	Drilling	●	●	●	●	●	Rotate Table Setups				●	●
Plunge Roughing				●	●	Tapping			●	●	●	Multiple Setups				●	●
Horizontal Re-roughing				●	●	Boring			●	●	●	Fixture Offset Programming				●	●
Plunge Re-roughing				●	●	Reverse Boring			●	●	●	Check Surface Boundary Creation				●	●
Projection Pocketing				●	●	User Defined Cycles			●	●	●	Tool Silhouette Boundary Creation				●	●
3D Offset Profiling				●	●	4 Axis Drilling			●	●	●	Tool Double Contact Boundary Creation				●	●
3D Offset Pocketing				●	●	4 Axis Tapping			●	●	●	Tool Holder Collision Boundary Creation				●	●
Pencil Tracing				●	●	4 Axis Boring			●	●	●						
Valley Re-Machining				●	●	4 Axis Reverse Boring			●	●	●						
Plateau Machining				●	●	Simulation											
Steep Area Parallel Machining				●	●	Toolpath Animation	●	●	●	●	●						
Horizontal Hill Machining				●	●	Cut Material Simulation	●	●	●	●	●						
Curve Machining				●	●	Advanced Cut Material Simulation			●	●	●						
Between 2 Curves Machining				●	●	Machine Tool Simulation				●	●						
Reverse Post Machining				●	●	Tools											
				●	●	Standard (Ball, Flat, C Rad., Vee, Drill)	●	●	●	●	●						
				●	●	Advanced (Taper, Tap, Bore, Rev. Bore)			●	●	●						
				●	●	Form Tools			●	●	●						
				●	●	Stepped Tools			●	●	●						
				●	●	Holder Collision Detection			●	●	●						



## RhinoCAM - TURN 2016

RhinoCAM - TURN is a powerful 2 axis turning center/lathe programming system, that is included as a separately licensed module inside RhinoCAM. This module includes Turn Roughing, Finishing, Groove Roughing, Finishing, Threading, Parting, Hole Machining methods & free post processors.

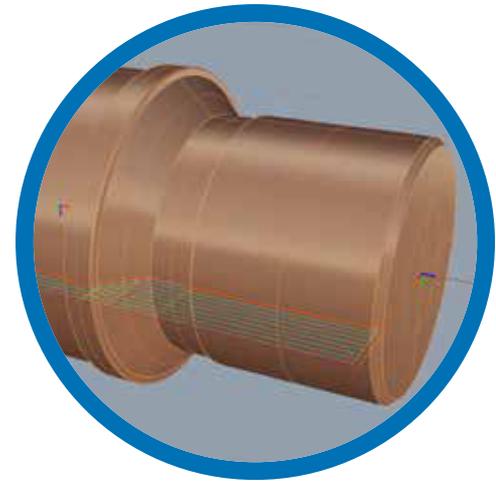


2 Axis Turning	VisualTURN
Roughing	●
Finishing	●
Groove Roughing	●
Groove Finishing	●
Threading	●
Follow Curve	●
Parting Off	●
Upgraded 3D Model Slicing	●
Global Part Object	●
Materials for Stock Models	●
Knowledge Base Loading and Saving	●
Tool Path Viewer	●
MopSets	●
Machine Control Operations	●
Fixture Offset Operations	●
Drag and drop operations from Knowledge Base	●
Diameter Programming	●

Hole Making	VisualTURN
Drilling	●
Tapping	●
Boring	●
Reverse Boring	●

Toolpath Simulation	VisualTURN
Toolpath Animation	●
Cut Material Simulation	●
Part to Stock Comparison	●

Post-Processor Generator	VisualTURN
User customizable post-processor generator	●



## RhinoCAM - NEST 2016

RhinoCAM - NEST, another module of RhinoCAM, is a cost effective solution for optimally arranging and fitting geometric shapes onto sheets of stock or sheet material. It provides two primary nesting capabilities: *Rectangular Nesting* and *True Shape Nesting*. For both solutions, individual 2D CAD shapes can be arranged on sheets according to user-defined quantities, spacing, and with orientation control, including material grain restrictions.



*Rectangular Nesting* is very fast and useful in cases where the shapes are rectangular, such as when nesting panels for the assembly furniture industry.

*True Shape Nesting* considers the true shape of the parts to be nested and can place smaller parts within cutouts of larger parts and can also accept true shape remnants as material sheets. RhinoCAM - NEST saves the resultant nested geometry for follow-up applications' use such as machining or fabrication.

User Interface Enhancements	VisualNEST
Wizard Interface	●
Preview before output	●

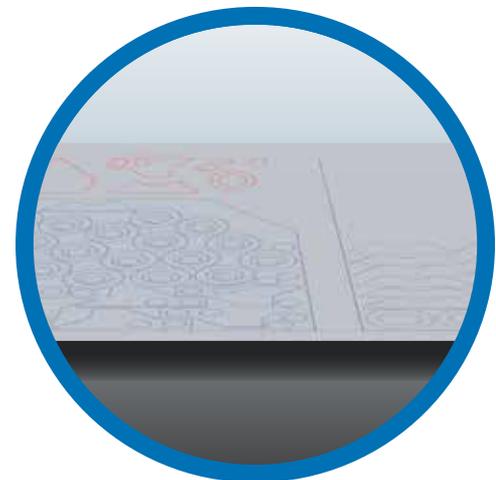
Nesting Methods	VisualNEST
Rectangular/Block Nesting	●
True Shape Nesting	●

Global Parameters	VisualNEST
Distance limits between part and sheet	●
Distance limits between two adjacent parts	●
Accuracy control of nesting	●

Sheet Parameters	VisualNEST
Sheet start corner	●
Nesting direction	●
Grain direction	●
Unlimited number of sheets	●
Sheet layering by color	●

Part Parameters	VisualNEST
Distance limits between part and part	●
Rotation limits	●
Mirroring	●
Island recognition	●
Part-in-Part	●

Miscellaneous	VisualNEST
Tagging of parts	●
Nesting for cabinet making	●
Nesting for sign making	●

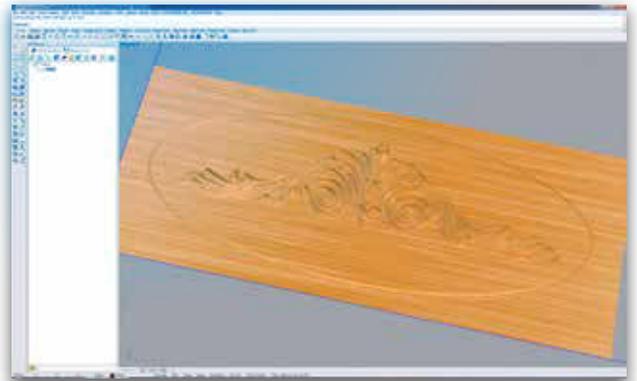
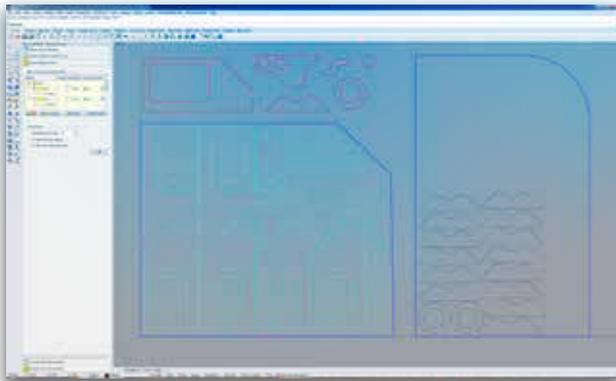
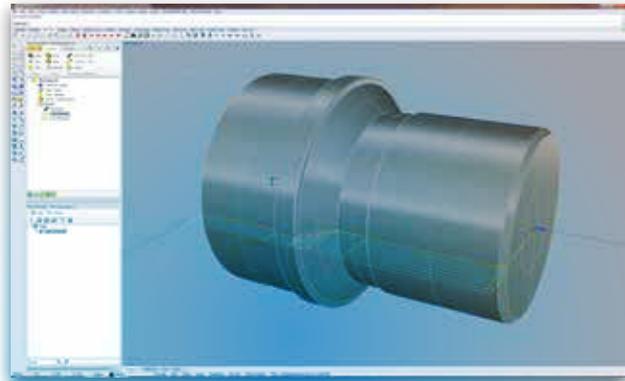
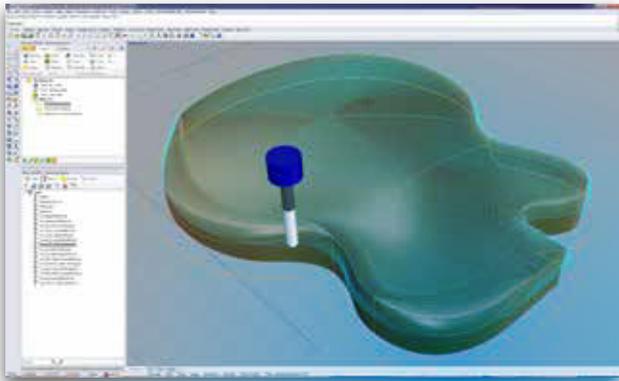


# RhinoCAM - ART 2016

RhinoCAM - ART is a module within the RhinoCAM product suite used to convert artwork into geometry suitable for machining. It uses special modeling techniques for modeling artistic shapes using raster bitmap images. Used in conjunction with Rhino's modeling tools, it offers a complementary set of modeling techniques for jewelry design, sign making and model making.



Feature	RhinoCAM - ART
Create 3D Relief from bitmap image files	●
Ability to limit creation of reliefs using colors and/or curves	●
Create puffed up 3D volumes using closed curves	●
Create 3D sweep volumes using various profiles	●
Combine 3D volumes using various Boolean operations during creation	●
Export created 3D volumes as Mesh geometry to CAD system	●
Convert 3D CAD geometry to ART 3D volumes	●
Create 2D Curve geometry from image files using Raster to Vector operations	●
All operations are associative to CAD geometry used in creation	●
Save and reuse previously created 3D volumes using Shape Library functionality	●



## System Requirements

- Runs on both 32 bit and 64 bit versions of Rhino 5.0
- CPU: Pentium class or higher processor
- RAM: Minimum: 1GB, Recommended: 4GB or higher
- Disk: 700 MB of free disc space
- OS: Microsoft Windows 7, 8, 8.1, 10
- Graphics: Requires OpenGL, Recommended OpenGL 2

## Other

- [Free Technical Support](#)
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