

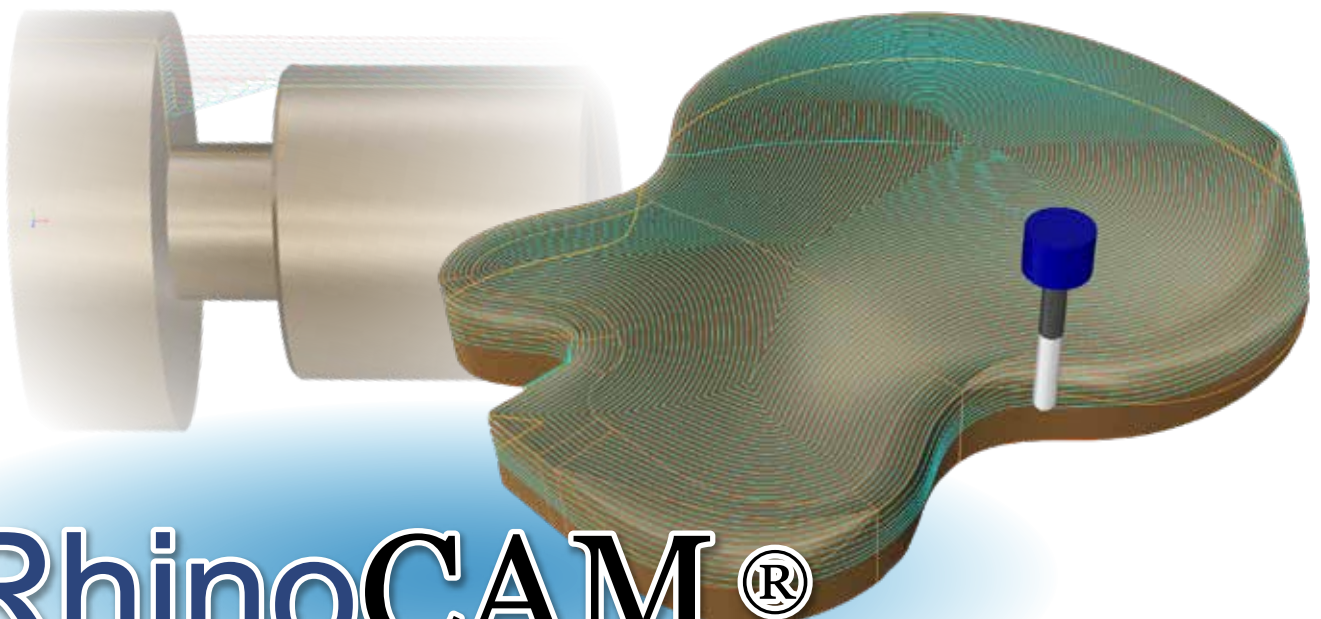
MecSoft Corporation
Your CAM Partner

MecSoft

RhinoCAM 2019

Computer Aided Manufacturing inside Rhino®5/6

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



RhinoCAM®

Includes MILL, TURN, ART, NEST & MESH modules

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

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

RhinoCAM's ART module converts artwork to geometry suitable for milling. Used for modeling artistic shapes from raster images, extending the capabilities of the milling module.

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

RhinoCAM's TURN module is a complete 2 axis CNC turning center programming system, including Roughing, Finishing, Grooving and other machining methods. Comes with numerous post-processors and the ability to create new ones.

RhinoCAM's MESH module offers efficient, easy and automatic tools for cleaning, fixing up and refining 3D mesh data for downstream applications such as toolpath programming as well as 3D printing.

RhinoCAM - MILL 2019

RhinoCAM's MILL module includes powerful 2.5, 3, 4 and 5 axis machining functionality to program CNC mills. Also includes automatic feature detection and machining! Comes with hundreds of free post-processors and the ability to create new ones. Ideal for rapid-prototyping, mold & die, tooling, metal & wood working, general machining, hobby and education industries. RhinoCAM - MILL delivers outstanding value for your investment.



Available Configurations

MILL Xpress (XPR)

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

MILL Standard (STD)

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

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 as well as advanced simulation.

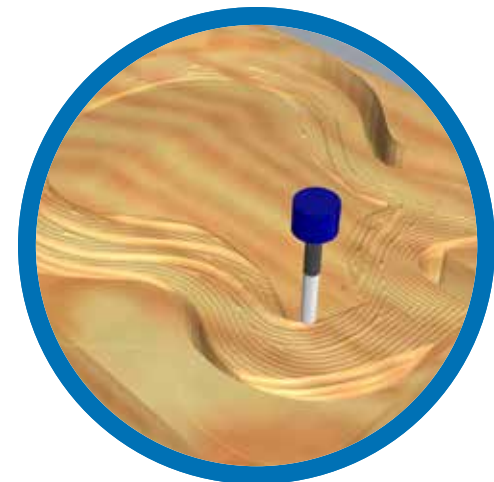
MILL Professional (PRO)

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.

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.

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



RhinoCAM - ART 2019

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.



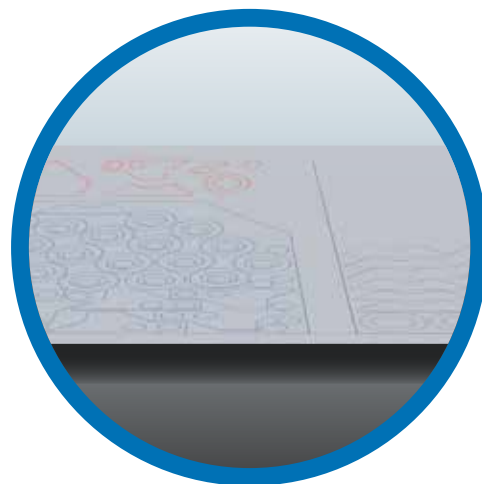
Features & Functions

- 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

ART is included FREE in all configurations of MILL!

RhinoCAM - NEST 2019

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 useful in cases where shapes are rectangular, such as when nesting panels for the assembly furniture industry.

True Shape Nesting considers the true shape of 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

- Wizard Interface
- Preview before output

Nesting Methods

- Rectangular/Block Nesting
- True Shape Nesting

Global Parameters

- Distance limits between part and sheet
- Distance limits between two adjacent parts
- Accuracy control of nesting

Sheet Parameters

- Sheet start corner
- Nesting direction
- Grain direction
- Unlimited number of sheets
- Sheet layering by color

Part Parameters

- Distance limits between part and part
- Rotation limits
- Mirroring
- Island recognition
- Part-in-Part
- 3D Solids as Parts

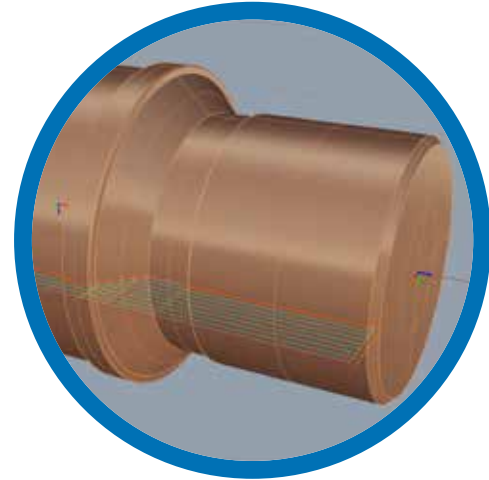
Miscellaneous

- Tagging of parts
- Nesting for cabinet making
- Nesting for sign making
- Estimate # of sheets,
- Calculate Sheet Utilization
- Export Sheets to Files

NEST is included FREE in all configurations of MILL!

RhinoCAM - TURN 2019

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



2 Axis Turning	Hole Making
Roughing	Drilling
Finishing	Tapping
Groove Roughing	Boring
Groove Finishing	Reverse Boring
Threading	
Follow Curve	
Parting Off	
Global Part Object	
Curve or Solid 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	

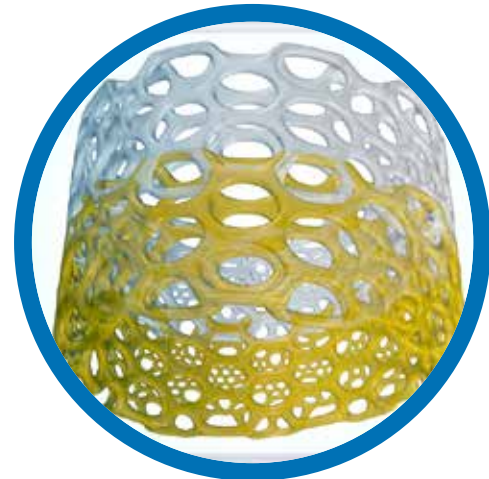
Toolpath Simulation
Toolpath Animation
Cut Material Simulation
Part to Stock Comparison

Post-Processor Generator
User customizable post-processor generator

TURN is included FREE with MILL configurations STD, EXP, PRO & PRE!

RhinoCAM - MESH 2019

RhinoCAM - MESH offers efficient, easy & automatic tools for cleaning and fixing up 3D mesh data for downstream applications such as toolpath programming and/or 3D printing.



Features & Functions
Import solids, surfaces, meshes & point clouds to create meshes
Create meshes using Rhino's powerful NURBS and mesh tools
Reduce density of large meshes while maintaining data integrity
Edit meshes by transforming, splitting and merging geometry
Edit local selections on meshes using a graphical manipulator
Combine meshes using Boolean Unite, Subtract and Intersect
Smooth meshes when data is noisy, such as data from a scanner
Refine meshes globally/locally using various criteria for print quality
Analyze meshes using reflection lines, curvature & comparison plots
Auto/Manual fix meshes to remove gaps, holes & self intersections
Find best orientation for printing with minimum overhangs
Create straight/tree supports in areas with overhangs
Output to STL/AMF/G-Code files or use Windows 3D print driver

MESH is separately priced and can be bought independently or bundled

System Requirements

- Runs on 64 bit versions of Rhino 5.0 & 6.0 (Windows only)
- 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**
- **Training**
- **Support Forum**
- **Maintenance Services**
- **Value Pricing**