

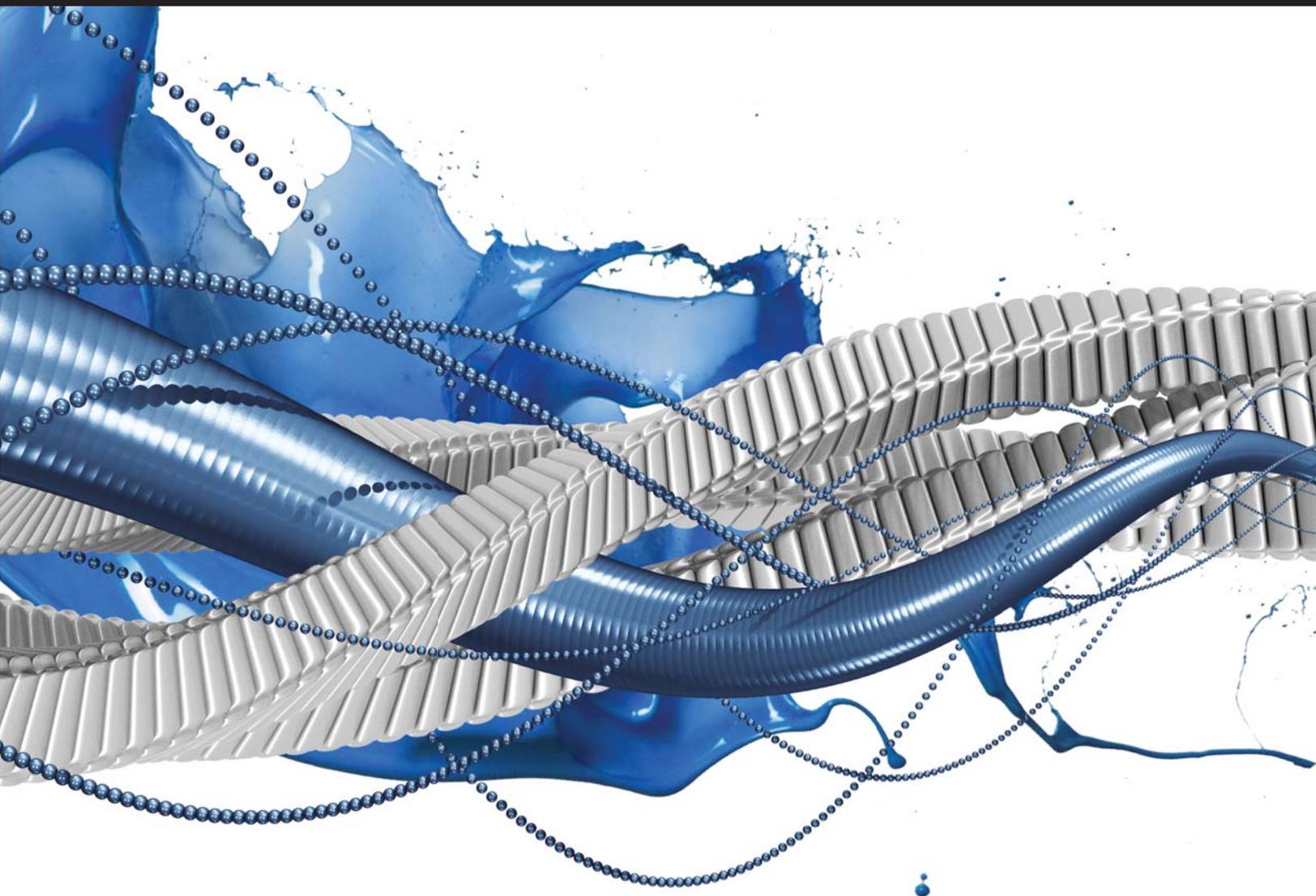
# BobCAD-CAM



V27

CAD/CAM SOFTWARE

CAD | MILL | LATHE | ART | NEST | WIRE | MACHINE SIMULATION | EDITOR



**LESS STEPS | BETTER CUTS | MORE PROFIT**

28200 U.S. Highway 19 N. Suite E Clearwater, FL 33761 P • (877) 262-2231 | 727-442-3554



# EXPERIENCE THE POWER COMPLETE 2D & 3D HYBRID MODELING SYSTEM

## NEW RELEASE BOBCAD-CAM V27

You asked, we listened! For our biggest release yet BobCAD-CAM V27 features many new enhancements and improvements that our customers requested as well as other useful tools we have been developing.

A complete overhaul of CAD functionality enables you to draw what you need quickly and get on the road faster to part creation and cutting. With a new CAD solid action tree you can modify your drawing and model for better design flow. Several new toolpaths have been added to the Mill 3 Axis PRO module and WIRE EDM gained new functionality with the ability to edit and create cutting conditions databases, toolpath patterning and more.

For nearly 30 years we've been dedicated to providing manufacturers like you with the power to automate the machining process. Since BobCAD-CAM is modular you can select the 2, 3, 4, or 5 Axis features and solutions you need for your business or home shop.

BobCAD-CAM software combines the power of 2D and 3D CAD with the power of CNC machining wizards that are easy-to-use and get machining jobs programmed quickly. Our Mill software is an excellent choice due to the large volume of machining capabilities available at an affordable cost.

You will find the system is easy to learn. It features an intuitive software interface offering customizable toolbars, on-the-fly geometry editing capabilities, and much more. For CAD, you can import most of the common file types in use today. The CAM Tree Manager provides full control over your job, including the power to save and reload machining features, saving you time.

Whether you're new to BobCAD-CAM or a loyal customer we know that you'll benefit from all of the great new features and enhancements that have been added!

## NEW FEATURES AND ENHANCEMENTS

- **New CAD Solid Action Tree** enables users to modify any step of their solid creation
- **Dynamic Drawing** Makes simultaneous sketching and editing of values available to users
- **New Surface and Solid Creation Tools** give users on the fly extruding and modifications of solid shapes
- **New CAD Shape Library** has 40 shapes for many common shapes to speed up the design process
- **New 2D Boolean** allows for faster editing of intersecting 2D geometry
- **Project Edges to Z Plane Feature** lets the user extract edges from a 3D model and flatten the geometry along the Z plane or a defined axis
- **New Scaling Features**
- **New Extrude Boss and Cut Feature** provides added flexibility to designing models
- **New Shelling Feature** allows users to hollow out a solid model leaving a thin walled solid on the remaining surfaces
- **New Trim to Operation Stock** option allows you to pick an STL to define the stock for the current operation
- **New Project Curves Operation** added to the Mill 3 Axis Pro module allows you to select one or more chains to project onto a 3D Model with the ability to compensate for the tool
- **New Advanced Planar Option** adds several new enhancements including steep/shallow, rest machining, and more!
- **New Advanced Z Level Finish Operation** adds several new enhancements including steep/shallow, rest machining, and more!
- **New Wire EDM Features** including automatic setup sheets, ability to edit wire cutting condition tables, and creating toolpath patterns and more!



## POWERFUL CAM CAPABILITIES

- **CAM Tree** – supports multiple jobs in one CAM Tree; allows user to simply copy and paste machining features inside the CAM Tree, making it easy to add pre-defined machining features to jobs
  - **Job Selection Wizard** – helps you create and start a job based on your requirements
  - **Customizable Setup Sheets** – Setup Sheets can now be generated and handed off to the CNC operator, providing all the data needed to get an overview of the program. Information such as tool lists, program, stock, material, and operation data, are all available through an HTML report
  - **Customizable Posting for Machining Order** – Customize your posted G-Code via an operation list; post by tool, by feature, or by whatever order you choose
  - **Dynamic Machining Strategies** – Choose the type of CAD feature that you want to machine with any combination of machining operations per feature
  - **Tool Patterns for multiple machining strategies within one operation** – Supports earlier version tool patterns as well as gives the user the ability to adjust default operations through tool patterns
- Enhanced Thread Milling** – supports multiple holes or boss locations on the part model
- **Customizable Starting Points for Machining** – allows the user complete control of starting points within a feature (i.e. multiple starting points for multiple finishing passes)
  - **Enhanced Toolpath Patterning** - create multiple tool patterns within a single operation, feature, index system or machine setup

## SUPPORTED MACHINES

- 2-5 Axis Horizontal and Vertical Mills
- 2-5 Axis Routers
- 2-5 Axis Lasers
- 2-5 Axis Plasma Cutters
- 2-5 Axis Waterjet
- 2 Axis Lathes
- 4 Axis Wire EDM's

## CAM

- Tool Crib
- Stock Wizards
- Multiple Machine Setups
- Material Library
- Material Speed & Feed Library
- Tool Holder Library
- Tool Database
- Customizable Post Processing
- 2D Machining Based on 3D Models
- 3D Simulation
- Cycle Time Calculations
- Work Offset Selection
- Coolant Selection Type
- Sub Program Output
- G-Code Editor
- RS232 / DNC Communications
- Laser, Plasma, & Waterjet  
Toolpath Specific Tools

**BOBCAD-CAM** is a complete 2D and 3D hybrid modeling system, providing you with a wide range of design utilities for creating simple or complex part models. Our easy-to-use, intuitive interface allows you to quickly design parts from start to finish.

# TOOLPATH MATRIX

2 AXIS EXPRESS

3 AXIS STANDARD

3 AXIS PRO

4 AXIS STANDARD

4 AXIS PRO

5 AXIS STANDARD

5 AXIS PRO

2.5  
AXIS

## 2.5 AXIS TOOLPATH

• Profiling & Pocketing	•	•	•	•	•	•	•
• Engraving	•	•	•	•	•	•	•
• High Speed Pocketing		•	•	•	•	•	•
• Thread Milling	•	•	•	•	•	•	•
• Plunge Roughing	•	•	•	•	•	•	•
• Facing	•	•	•	•	•	•	•
• Chamfering	•	•	•	•	•	•	•
• Rest Machining		•	•	•	•	•	•

3  
AXIS

## 3 AXIS TOOLPATH

• 3 Axis Planar	•	•	•	•	•	•	•
• 3 Axis Spiral		•	•	•	•	•	•
• 3 Axis Engraving		•	•	•	•	•	•
• 3 Axis Radial		•	•	•	•	•	•
• 3D Plunge Roughing		•	•	•	•	•	•
• Z-Level Roughing		•	•	•	•	•	•
• Z-Level Finishing		•	•	•	•	•	•
• Advanced Roughing			•		•		•
• Flatlands			•		•		•
• Equidistant Offset			•		•		•
• Pencil			•		•		•
• High Speed Roughing			•		•		•
• Rest Machining			•		•		•
• Advanced Planar			•		•		•
• Advanced Z Level Finish			•		•		•
• Project Curves			•		•		•

## SURFACE BASED TOOLPATH (3, 4, & 5 AXIS OUTPUT)

• Parallel Cuts					•		•
• Cuts Along Curve					•		•
• Morph Between 2 Curves					•		•
• Parallel to Multiple Curves					•		•
• Project Curves					•		•
• Morph Between Surfaces					•		•
• Parallel to Surface					•		•

4 & 5  
AXIS

## 4 & 5 AXIS TOOLPATH

• Indexing & Wrapping				•	•	•	•
• Rotary				•	•	•	•
• Trimming					•	•	•

5  
AXIS

## 5 AXIS TOOLPATH

• SWARF Machining							•
• Multiaxis Roughing							•
• High Speed Roughing							•

# ADD-ONS

## ART

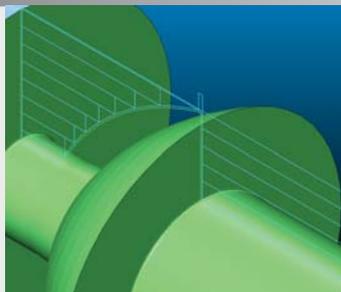
Turn your artistic Imagination into a manufacturing reality! Our BobART software allows you to take a picture or drawing and turn it into relief model or vectorized geometry that can be machined by a CNC mill, router, waterjet, laser or burning machine. By opening a jpeg, bitmap or other picture type image, you are just a few steps away from engraving, carving or embossing by creating toolpath and g-code for your CNC machine.



- Raster to Vector conversions
- Import EPS, AI, PSD & More
- 64 Color Vectorization
- 2 Rail Sweep
- Emboss from Component
- V Carving
- Photo Embossing
- Cylindrical Wrapping

## LATHE

Equipped with file translation capabilities so you can operate with external files from popular design products. Our canned cycle support in posting enables you to minimize the size of your NC programs. BobCAD-CAM post processors are fully customizable and includes a NC Editor as well as RS 232 communications and DNC capabilities.



- Stock Wizard
- CAM Wizard
- Dynamic Operations
- Hole Making Drill Tap Ream Operations
- OD/ID Roughing & Finishing Operations
- Cut/Off Operation
- Stock Feed Operation

## NEST

Powerful true shape nesting gives you faster and smarter sheet optimizing functionality so that you can increase your per job profitability through higher yields on your nesting jobs. Special options allow for the support of hole drilling operation, dadoes, and lead-in and lead-out for tools. A Part-in-Part feature uses larger inside shapes for fitting smaller part profiles inside them. The Nesting Job Tree provides you graphical control in machining nested parts.



- Multiple Part Import Options
- True Shape Nesting
- Automatic Hole Drilling
- Support for Dadoes
- Part-in-Part Nesting
- Batch Processing

## WIRE

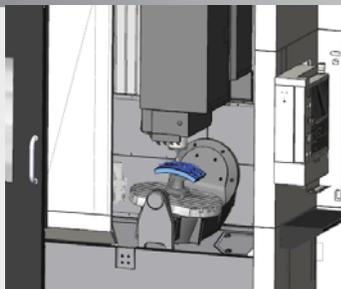
Programming features allow you to create a part model or import it, extract the edge geometry and generate the g-code program the way you need it. Post Processors are available and workable for even more complex wire controls including Mitsubishi, Sodick, Japax, Brother and Agie 2 & 4 axis wire machines as well as many others. BobWIRE comes with built-in RS 232 communications and DNC capabilities.



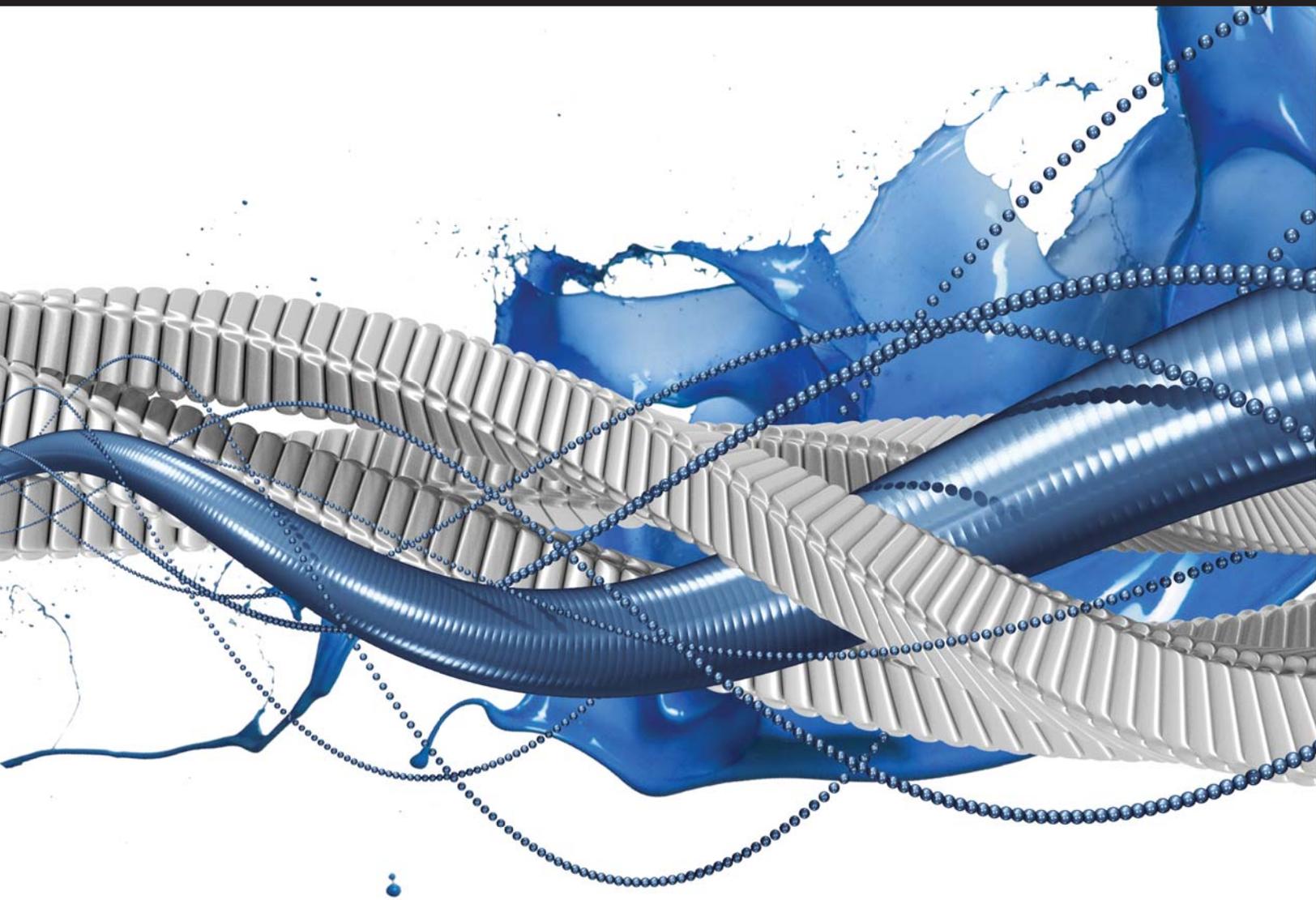
- Job Setup Wizard
- Stock Setup Wizard
- Geometry Verify, Editing & Translating
- CAM Machining Wizards
- 2 Axis Inside/Outside/Open
- 4 Axis Inside/Outside/Open
- Solid Simulation

## MACHINE SIMULATION

See the machine components in action and any occurrences of tool or part collision. The software provides the ability to see if part fixtures have correct orientation, preview machine movement, isolate location issues and even make sure fixture sizes are correct for the part. Users can evaluate rotary rewrites, perform machined part deviation analysis, and gather the minimum and maximum cutting length data.



- Display Full Machine Operation
- Set Machine Travel Limits
- Calculate Cycle Times
- Dynamic Machine/Material/ Tool Viewing
- Time Based Mode/ Length Based Mode
- Works With Your STL Stock



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