

What's New in *BobCAM for SolidWorks V2*

BobCAM V2 for SolidWorks

The focus for BobCAM for SolidWorks V2 was based completely off of user feedback. The toolpath creation was redesigned giving the user an even easier machining process designed to walk the user step by step through setting up each machining feature, while giving the user more control over each element of each machining operation. The user interface has been improved by grouping commonly used tools together, making it easier and faster to get to the most commonly used functions in the software.

As with the previous version of BobCAM for SolidWorks, all of our machining features work directly with the solid model data to determine depths, shapes, and hole sizes all right from the solid model saving users time from having to determine these parameters on their own.

Hundreds of new descriptive images have been added to the software giving the user more confidence over controlling each aspect of the BobCAD-CAM toolpath strategies.

Mill Machining Wizards

Completely redesigned machining process setup focused on giving the user more control over all aspects of BobCAD-CAM's multi-operation machining features, while still maintaining BobCAD's automation of the entire machining process. The Drilling, 2 Axis, and 3 Axis Machining Wizards make cutting parts easier and faster, while giving more control to the user.

- Automatically creates separate drilling features for each individual hole size.
- Automatically creates separate pocketing and profiling features for all shapes selected or detected from the graphics area.
- Automatically assigns appropriate drilling tools for each operation inside the drilling features.
- Allows for editing of several machining features at one time decreasing the time to program your parts.

CAM Enhancements

- Multiple setups can now be used inside of one part file for the Milling module. This allows the users to machine all sides of their parts within one part file!
- Independent control over system compensation and machine compensation for all roughing and finishing profiling toolpaths.
- On the fly start point and direction editing for Profile, Chamfer, and Engraving machining features, eliminating the need to create extra geometry.
- Redesigned Tool Library to make creating and editing tools faster and easier.

- Redesigned tool numbering scheme allowing the user to view and edit all tools from within any machining feature.
- Improved manual feed and speed calculator allowing users to perform SFM calculations on the fly.
- Independent flood, air, mist, and oil coolant control for each tool.
 - Posting blocks:
 - 706. Coolant Mist code? "M07"
 - 707. Coolant Air code? "M07"
 - 708. Coolant Oil code? "M07"
- Diameter and Height Offset register editing on the fly.
- Editing of either effective depth or overall depth of drilling tools has been added.

Lathe

The lathe module is now available in BobCAM for SolidWorks V2!

- Geometry selection now gives the users multiple methods for getting your parts programmed faster. Some of the features include:
 - Cutting profiles detected from the solid model
 - Utilizes all of the tools available in SolidWorks allowing you to select entire solid bodies, faces, features, and sketches.
 - Methods for determining the maximum profile for non-cylindrical models
 - Option for choosing to remove undercutting, and grooves from the geometry selection for Roughing and Finishing is as easy as selecting a checkbox! This allows users to not have to create any extra geometry to achieve the toolpaths they require.
- Machining features include:
 - Roughing operations
 - Finishing operations
 - Grooving operations
 - Drilling operation
 - Cut Off operation
 - Stock Feed operation

New Improved Simulation Module

- Single window integration allows users to simulate both the mill and lathe toolpaths directly inside the SolidWorks graphics area
- **Standard** simulation module includes the following features:
 - Material removal for simulating how the part will be cut at the machine
 - NC mode allowing you to quickly simulate your parts

- Time based mode which shows the tool movements and time information at each movement
- Full workpiece and stock display inside of the simulation allowing for visual comparisons
- Statistics for the machining process including:
 - Tool Tip Position coordinates
 - Overall and per operation machining times
 - Feed and rapid move total lengths per operation as well as the overall machining process
- Report area for showing any collisions between the material and the flute, shaft, arbor and tool holder
- Tool Focus mode and Workpiece Focus mode allowing the user to choose between viewing the part moving around the tool, or the tool moving around the part.
- Independent controls for the visibility of the toolpath, tool, workpiece, and stock allowing each to be shown, shown transparent, or hidden.
- Toolpath visibility controls:
 - All toolpaths
 - Only the toolpath of the current operation
 - Follow, trace, and segment modes
 - Toolpath vectors
 - Toolpath segment end points
- Marker flags for any gouging areas on the cut model
- Toolpath analysis features that allow the user to visually see the toolpath uses different colors for the following:
 - By Tool Number
 - By Operation Number
 - Gradients showing toolpath sequence allowing you to easily see the beginning and end of an individual toolpath
 - Segment length
 - Feed rate vs rapid
 - Height change to differentiate between plunge moves, downward moves, horizontal moves, upward moves, and retract moves.
- Stock analysis features that allow the user to visually see the stock data using different color combinations
 - By Tool Number
 - By Operation Number
 - Deviation analysis to compare the cut part to the original model
 - Height change
 - Toolpath length
 - Marking parts for areas that would drop out after machining
- Measuring Tools of the cut stock model
- Simulation Presentations which allow you to save the simulation in a separate exe to send to someone else to view.