

WHAT'S NEW IN BOBCAD-CAM V26 BUILD 1182

Introduction

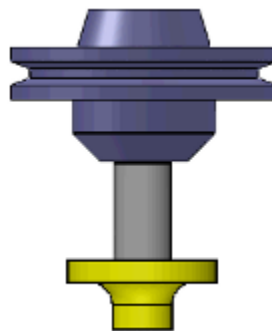
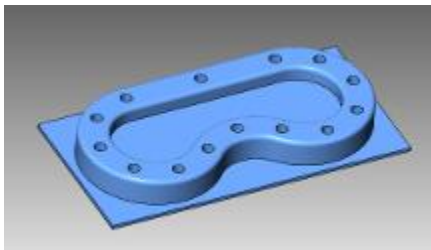
Many feature enhancements and bug fixes are addressed in the BobCAD-CAM V26 Build 1182.

Release Date: November 27, 2013

Corner Round Tool and Operation

Available for All Mill Licenses

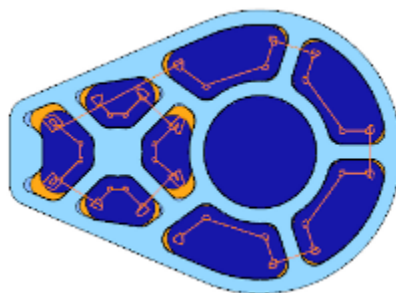
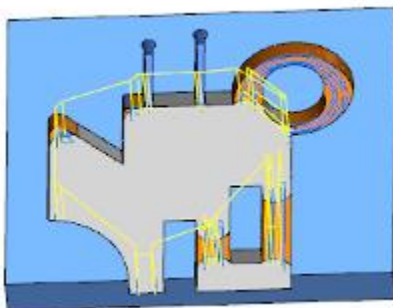
The Corner Round tool type has been added to the Milling Tool Library to allow you to simulate Corner Round tools for a more realistic simulation of the actual cut part. We have also created the Corner Rounding operation to be used within Mill 2 Axis Features to allow for easier definition of the profiling toolpath using a Corner Round tool.



Rest Machining with Advanced Pocket

Available for Mill 3 Axis Standard and Higher

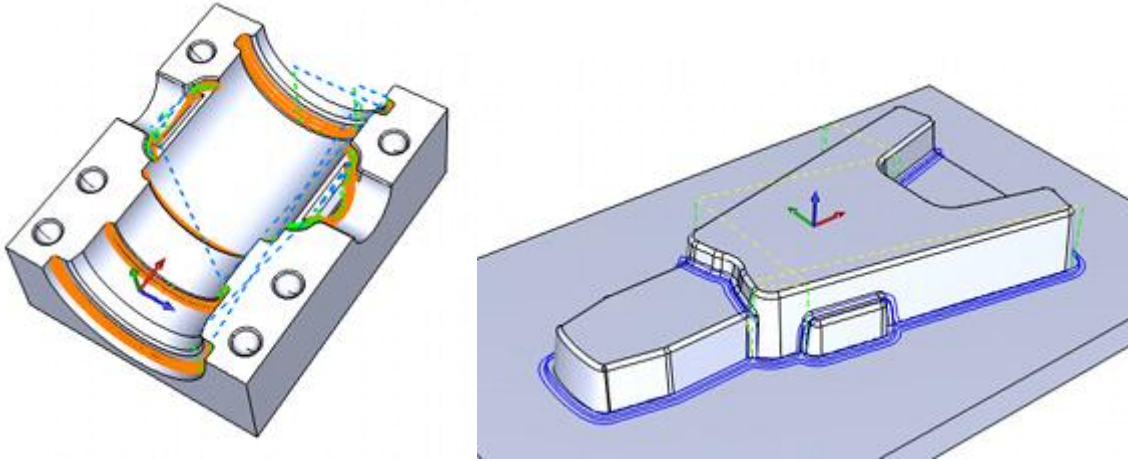
The Pocket operation can now be utilized as a Rest Machining operation, allowing the software to automatically detect the pocket areas that the larger tool could not reach and create an optimized strategy for removing the rest material. This strategy can also be used with a standard offset style toolpath, as well as the high speed Adaptive Roughing strategy!



Equidistant Rest Finishing

Available for Mill 3 Axis Pro and Higher

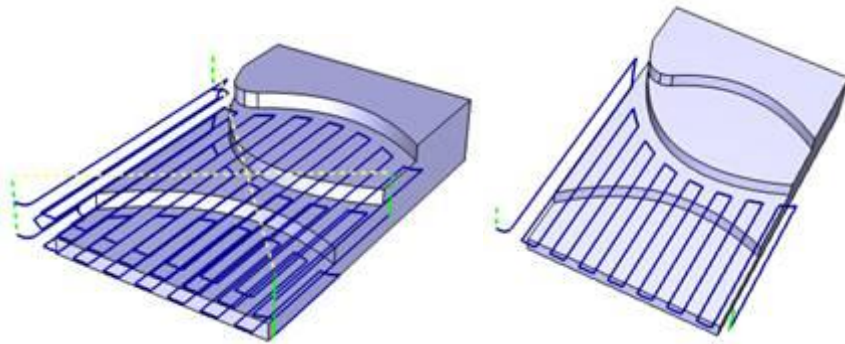
The ability to perform 3D Rest Finishing utilizing the Equidistant toolpath has been added as another powerful option for 3D machining. You can now enter a previous tool diameter and the software automatically finds the areas that the previous tool could not reach which creates an optimized finishing toolpath for only the left over material. This creates a lot of time savings in both programming and machining the part, as you no longer need to use that smaller tool for the entire model.



Parallel Cut Pattern for Advanced Rough

Available for Mill 3 Axis Pro and Higher

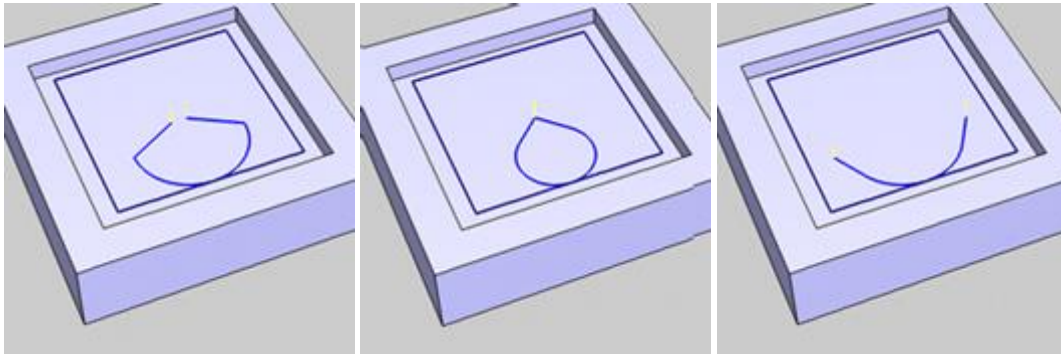
A new Parallel cutting pattern has been added to the Advanced Rough operation to provide you with more options to create the most optimized toolpath for every situation. A popular request from customers, this allows you to calculate a Zig or Zig Zag cutting path used for roughing 3D models. The Parallel cut pattern can also be applied in combination with all of the other powerful options in the Advanced Rough, such as automatic flatlands detection, intermediate slices (or step up machining), and the powerful rest machining options within the Advanced Rough operation.



Lead Enhancements for 2 Axis Machining

Available for All Mill Modules

Several enhancements were made to the lead-in and lead-out parameters available for the Profile Rough, Profile Finish, Chamfer, and Corner Rounding operations. First, the ability to modify the length and angle of the linear entity, as well as the angle sweep of the Circular leads gives you more control to optimize the entry and exit for each operation. Second, the new Blend lead type allows you to define a blending lead that guarantees the entry and exit position use the same exact location!



General Enhancements

- Modifications to the variable formatting modifiers have been made to allow for more control, within the post, when formatting individual variable leading and trailing zeroes. Please view the new variable formatting Help topic within the Posting section for more information.
- G Code definition blocks for G98 and G99 have been added to the Mill post processor
- Posting blocks have been added to the lathe post processors to allow arcs to be broken into line segments during posting
- Pick Depth options have been adding to the Mill and Lathe Hole Making Features on the Geometry selection dialog box
- Profile Rough, Profile Finish, Corner Rounding and Chamfer Mill leads are now automatically shifted into a gouge free location when improper start points are defined

Simulation Enhancements

- Gouge Report options were updated and renamed to Gouge and Excess, which include excess material display as well as gouges (additional parameters are accessed from Advanced Properties in the Cutsim tab)
- New color scheme for Deviation Analysis uses only three colors to display rest material: blue (excess), green (within tolerance), and red (gouge) (Gouge and Excess must be selected for Color Range)
- Option added to import an image to use as the background color in simulation window

Multiaxis Enhancements

- The Swarf feature was redesigned to allow for more flexible geometry selections and more control of the feature strategies and parameters
- The Swarf feature now contains Extensions to extend the defined toolpath (with or without using leads) or to specify an angle that is applied to the tool at the feature start
- Autodetect option was added to the Machining Side parameters for Swarf features
- Best Fit Swarf strategy was redesigned and renamed Automatic
- The Gouge Check Strategies and Parameters section was reorganized and the parameters renamed to more appropriate labels
- More control was added to the Remaining Collisions option in the Gouge Check tab
- The Multiaxis Distances and Clearance Plane dialog boxes are now combined and renamed to Retracts
- The Feed Distance can now be specified separately as an Entry Feed Distance and Exit Feed Distance
- Arc Fit group allows an Arc Radius to be created between retract moves for: Retract to Clearance Area, Retract to Feed Distance, and Retract to Rapid Distance
- New Vertical Profile Ramp option is now available for Leads
- New Position Line lead option allows you to select a line which defines the lead-in and lead-out location and tool orientation for the feature
- New Point Tilt Type options are added to the Tilted Through Point - Tool Axis Control strategy
- New Titled Relative to Contact Point titling strategy was added to the Tool Axis Control tab
- Markers group was added to the Utility tab to mark sharp corners in the toolpath for laser machines (for some features)
- Snap to Curve options added to the Titled Through Curve tilting strategy when using the Curve Tilt Type - Angle from Spindle Main Direction with an additional Tilt Angle specified

General Fixes

- Manual feeds and speeds defined for a tool within the tool library not being properly loaded in the wizard was addressed
- Multiaxis Features not properly loading laser tools was corrected
- Improper machine type being set when defining a new Laser machine has been corrected
- Real value units defined in an Advanced Posting Custom File not being properly converted has been corrected

- Instances of the Tool Holder not properly being passed for Gouge Detection in Multiaxis features has been corrected
- Lead-in and lead-out direction being incorrect for some Groove tool orientations has been corrected
- Several corrections have been made to the Mill 4 Axis Rotary toolpath
- Time Based Mode and cycle time output in simulation for 4 Axis Rotary operations have been corrected
- Milling features not outputting the proper Work Offset in posting has been corrected
- Instances of Feature level Multiaxis Posting settings not simulating properly has been corrected
- Instances of loading DXF files for the part geometry in Nesting not being read properly were addressed
- When drawing on the Front or Side plane, the geometry preview color being displayed improperly has been corrected
- The DEFAULT_COMBO_INDEX used in the Advanced Posting Custom Files not properly setting the default index has been corrected
- The Tool Crib Save function improperly saving data in some instances has been corrected
- Instances of tools that were automatically added to the Tool Crib losing the tool material has been corrected
- Instances of the manual tapping depths outputting improperly have been corrected
- Simulation of T-Cutters with machine cutter compensation has been corrected
- Instances of lollipop tools not being drawn properly in simulation has been corrected
- Instances of the Nesting bridge distance not being properly applied has been corrected
- The default BC_3X_Mill in the initial release installer was set to output TCP mode height offsets. This caused non-standard output of the Height offset values when posting with the default post processor. An updated BC_3X_Mill is included in this update which is set to the more common Machine Compensation in Z output for posting.
- Apply to All Features and Apply to All Operations button moving off the screen when Windows font sizes are set to display at greater than 100% has been corrected
- Instances of using multiple Toolpath Patterns on a single Machine Setup being improperly applied has been corrected