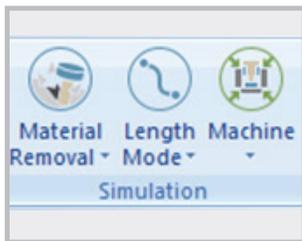


## MACHINE SIMULATION

### Solid simulation and verification for toolpath & machine components

Solid simulation comes standard with optional machine simulation to add machine components to the gouge checking process. Users can back backplot toolpaths and run solid simulations showing material removal while checking for gouges. Spend less time editing your toolpaths setting or g-code programs by running and analyzing solid simulations of your toolpath, setup and machine components.

### FEATURES:



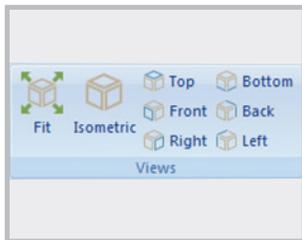
#### Modes

Select from multiple simulation modes to view and inspect your toolpaths and setup. Choose from: Material removal, Backplot, NC mode, Time mode, Length mode, Machine focus, Tool focus, Workpiece and stock focus



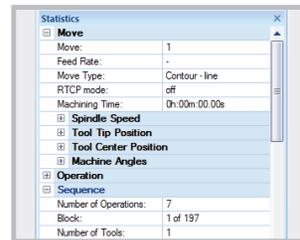
#### Move List

Lists the operations that will be simulated. Jump to toolpaths you want to focus on by clicking on an operation in the move list.



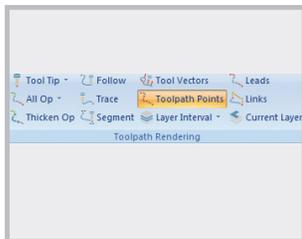
#### Views

Choose from one of the standard view options to change your perspective of the simulation. Use hotkeys to jump to standard view without clicking an icon.



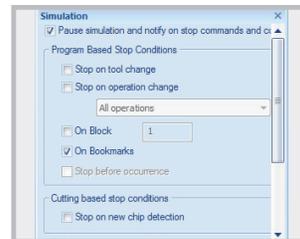
#### Statistics

Displays detailed information about your toolpath like: Machining time, Spindle speed, Tool tip position, Tool center position, machining angles and more.



#### Toolpath Rendering

Multiple display options for toolpath: Tool tip, All ops, Thicken op, Follow, Trace, Segment, Tool vectors, Toolpath points, Layer interval and more.



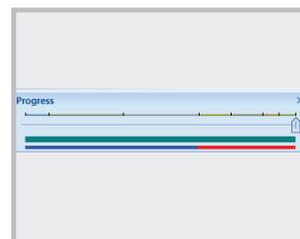
#### Simulation Settings

Customize how your simulations with run with options to: Stop on tool change, Stop on operations change, stop on block number and more.



#### Measure Grid

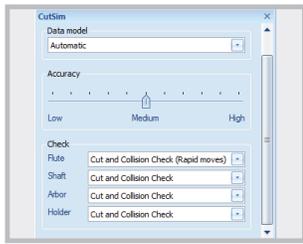
Toggle on and off the measure grid to aid in measurement of machine, setup and toolpath.



#### Progress

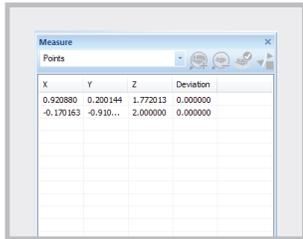
Toolpath slider bar that allows users to fast forward to specific operations. Users can drag the slider bar along to advanced simulation to desired location.

# FEATURES CONT:



## Cut Sim

Simulation settings used to adjust quality and checking groups, Save simulation as an STL file or create a section view of stock.



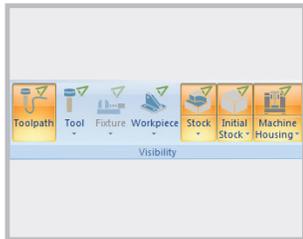
## Measure

Simulation measuring tools to help you understand the size of your cut models. Choose from points, distances, refine box, remove chips and off.



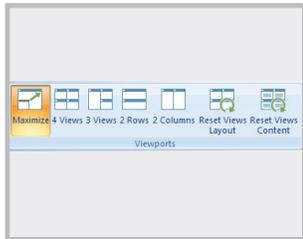
## Control

Play your toolpath simulation with the same controls as watching a DVD movie. Run, Stop, Fast Forward, step forward, Jump to the next operation, Step back, Jump to previous operation and restart; putting you in full control of your toolpath and machine simulations.



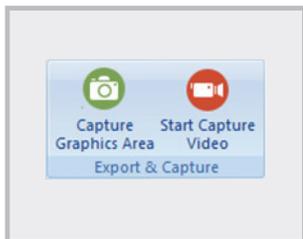
## Visibility

Control the display of simulation components. Toggle on and off toolpath, tool, fixture, workpiece, stock, initial stock and machine housing. Show, opaque, transparent and hide options allowing users to fully customize what they display and in what form.



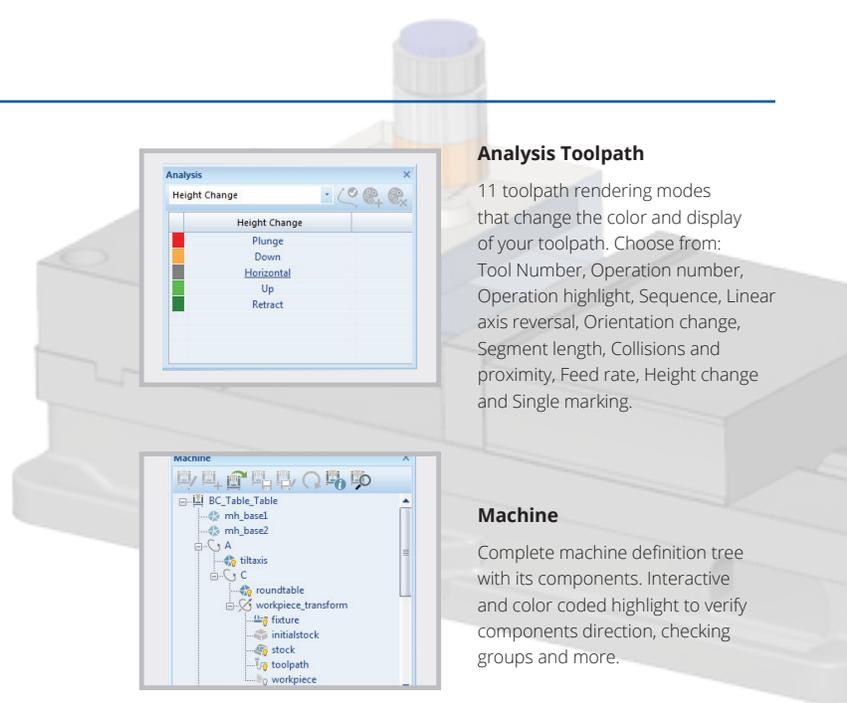
## View ports

Customize your simulation experience by adjusting the number of viewports displayed. Allowing users to view their simulation from multiple perspectives within the simulation window.



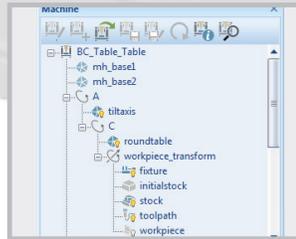
## Capture Graphics & Video

Communicate better with internal staff or external customers by capturing images and video of toolpath, setups and machine movements



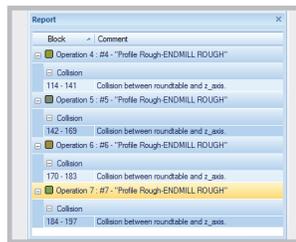
## Analysis Toolpath

11 toolpath rendering modes that change the color and display of your toolpath. Choose from: Tool Number, Operation number, Operation highlight, Sequence, Linear axis reversal, Orientation change, Segment length, Collisions and proximity, Feed rate, Height change and Single marking.



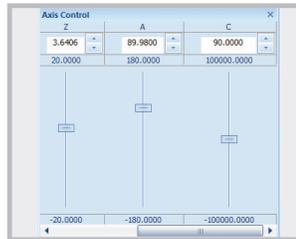
## Machine

Complete machine definition tree with its components. Interactive and color coded highlight to verify components direction, checking groups and more.



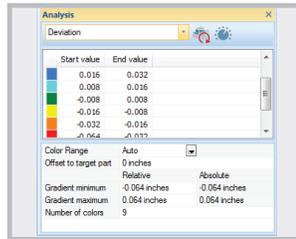
## Report

Collision / interference report list collisions that occurred and where they happened.



## Axis Control

Jog the machines virtual axis to desired locations. Great for verifying limits of machine definition and visualizing the movement of machine components. Drag the slider bar up or down to jog the axis / component, or input a defined value in the input field.



## Analysis

10 simulation rendering modes that change the color and display of machined stock. Choose from None, Tool number, Operation number, Deviation, Height change, Orientation change, Toolpath length, Mark parts, Single marking and gouge and excess.



## Reset

Create new or modify a current user coordinate systems with BobCAD's UCS manager. Develop drawing planes with one of the 6 creation methods. Modify a current UCS with the same functionality as setting up a parts origin in the stock wizard.