

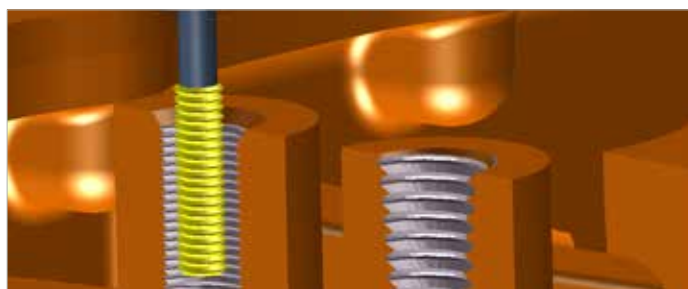
GibbsCAM 2016 Enhancements

GibbsCAM 2016 continues to build on the power of the revolutionary UKM technology introduced in GibbsCAM 2015. Its powerful suite of enhancements gives users the flexibility they want along with the control they need. Improvements, which range from milling and turning functionality, to 5-axis milling and multi-axis turning deliver increased efficiency, programming speed, visualization and accuracy.

Milling

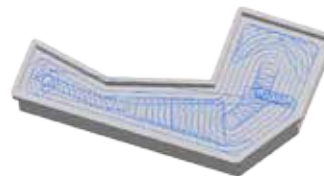
THREAD MILLING

- **Full Profile Threadmill** is a new tool type that allows for multiple teeth and provides support for threadforms and tapered-angle tools
- **Support for tapered threads** using single and multi-point thread tools (including NPT and BSPT types)
- **Allows for multiple passes** and spring passes providing optimal thread finish
- **Depth of thread-milled holes** is associated with hole geometry definition
- **Hole processes now include drilling** and threading routines that can be combined into a single process list
- **Improved visualization** when creating both custom and standard thread cutting tools

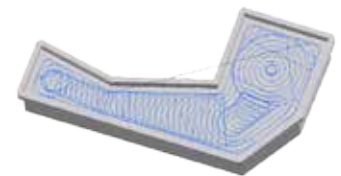


VOLUMILL (WIREFRAME AND SOLIDS)

- **Newly integrated Technology Expert** calculates optimal speeds and feeds for VoluMill toolpaths
- **Automatic calculation** of spiral toolpaths in large pockets
- **Open face milling calculations** reduce cutting time by up to 60%
- **Optimized cutting motion** in slots and corners further reduces cutting time and tool wear



GibbsCAM 2015



GibbsCAM 2016

MULTIPLE CONTOUR CONTROL

- **Select multiple contours** for a single operation
- **Define cutting side** and direction for individual contours in a group

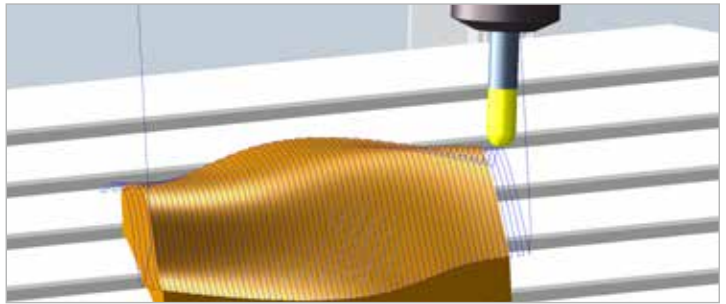
5-Axis Milling

- **New pattern type, Flowline**, creates U or V aligned toolpath on a single surface without selecting additional bounding geometry
- **Extend/Trim now allows Side Extensions** in addition to Tangential when extending or trimming surface based toolpaths
- **New Mirror Toolpath** function available for Surface, Triangle Mesh, Swarf Machining and Wireframe strategies



- **New function, Follow Surface Topology**, available in Swarf Machining when using multiple slices that allows for stripe milling, which follows the actual curvature of the surfaces, improving toolpath for convex shapes such as gear flanks and pressure sides of impeller blades

- **Multi-axis machining** now allows multiple floor faces to be selected as the floor surface definition
- **5-Axis Drilling improvements** allow users to specify direct or stepped retract moves between holes when using an incremental clearance area
- **A new Gouge strategy, Along tool plane**, avoids collisions by retracting along a plane normal to the tool axis while retaining tool orientation and height
- **Porting option includes new Roll over edge** function to extend the toolpath starting cuts and new **Auto choices** for automatic calculation of radius and/or direction of the Connection cylinder

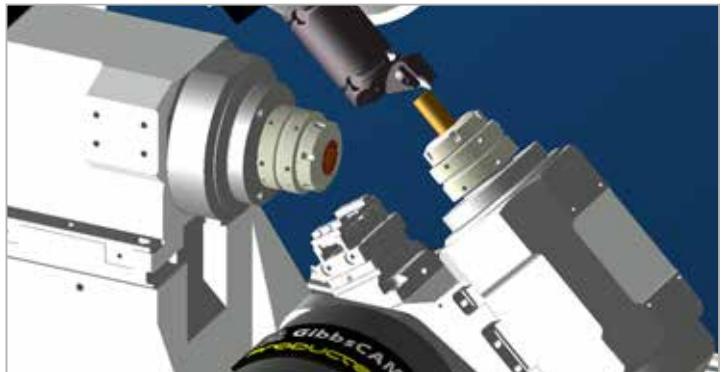


Turning, Mill-Turn, and Multi-Task Machining (MTM)

- **Improved process layouts** for quicker programming
- **Horizontal view formatting** of MTM Sync Manager for increased visibility and customization
- **Turning tools** are now supported in the Adveon Tooling Library Plug-in

ORIENTED TURNING

- **Ability to use a single tool at multiple B orientations**
- **Re-orient a toolgroup** for use on a different spindle
- **Turn at arbitrary orientations** on machines with redundant rotary axes
- **Rotation setting available** for all turning processes
- **Full support for Flash Tooling** (multiple orientation turning tools)



Data Exchange

- ACIS/SAT read/write option is now available free of charge for all licenses that include the 2.5D Solids option
- New option for importing UGS/NX *.prt models using Spatial
- Spatial options for NX, CATIA, and STEP now import Product Manufacturing Information (PMI) data

MANUFACTURING THE FUTURE™

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3D Systems Corporation
333 Three D Systems Circle
Rock Hill, SC 29730
www.3dsystems.com

3D Systems, GibbsCAM
323 Science Drive, Moorpark, CA 93021
Tel: 805.523.0004, 800.654.9399
Fax: 805.523.0006

For more information, visit: www.gibbscam.com

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