

GibbsCAM 2009 Enhancements

The GibbsCAM 2009, v9.0, release introduces over 150 significant enhancements across the entire GibbsCAM product line providing exceptional value for customers on Maintenance as well as providing extensive functionality to new users. In addition to enhancements to the system, numerous fixes have been introduced with this release improving GibbsCAM's overall quality.



Because of GibbsCAM's unique software architecture, upon which all GibbsCAM modules and options are based, enhancements made to GibbsCAM's core benefit all GibbsCAM customers. Some of the key core improvements introduced in this release are: multiple undo/redo, the new Multiple Viewport Manager, pre-selection highlighting, and hidden line toolpath display. Additionally, GibbsCAM 2009 has been designed for ease-of-use, better performance, and enhanced security with Windows Vista, earning the "Certified for Windows Vista" certification.

Major improvements have been made to support GibbsCAM's focus on production machining. The new Advanced 3D/HSM Machining capability for SolidSurfacer introduces a wide range of multi-surface machining functionality that includes support for high-speed machining methodologies. These new capabilities were designed to leverage multi-CPU computers and support batch toolpath generation, a key benefit when generating extremely large toolpath files.

Several general improvements and new features have been introduced to Lathe and 4- and 5-Axis Milling, which are also applicable in Mill/Turn and MTM.



These capabilities further round out GibbsCAM's support for turning centers and provide even more programming versatility and utility.

The GibbsCAM 2009, v9.0 release also ensures GibbsCAM's ability to exchange data with the latest versions of popular CAD systems. GibbsCAM is a Certified Application for Autodesk Inventor 2009, is a Certified Select Product with Solid Edge 20, and is a Certified CAM Product with SolidWorks 2008. GibbsCAM is also compatible with the latest versions of ACIS, Parasolid, CATIA V4 and V5, Kubotek KeyCreator, Pro/ENGINEER Wildfire, Robert McNeel & Associates' Rhinoceros, and UGS Unigraphics and NX.

The following list provides a more detailed overview of some of the more interesting improvements and new capabilities in the GibbsCAM 2009 release. Refer to the What's New In GibbsCAM 2009 document or the release notes for an expanded description of these improvements.

GENERAL

Operating System

- “Certified for Windows Vista”

Interface – General

- Unlimited Undo/Redo stack
- Separate Do It and Redo buttons
- Multiple tool and process tile dragging
- Startup Macro
- Improved file overwrite protection

Interface – Display

- Multiple viewports, panes, pop-up windows
- Hidden line toolpath display
- Pre-selection highlighting
- User-definable colors for system display objects

Documentation – General

- Updated SolidSurfacer manual
- Updated Lathe manual
- Updated Common Reference manual
- Updated Getting Started Guide

Licensing

- Single licensing system for key and NLO
- Customer-site upgradeable licensing
- Display expiration date of timed keys

Cut Part Rendering

- New hot key (space) for CPR single step
- Tool/Op Color mode (FCPR)
- Display geometry in Cut Part Rendering
- Point-of-view lock
- Show Rapid tool color
- FastCut display

CAD – General

- Alt/Click Center Point
- Greater control over display of annotation text

CAM – General

- Expanded functionality utility markers (feed rate, spindle speed, tool offset, comment, CRC, and dwell)

NOTE: Requires post-processor modification

Reporter

- Numerous enhancements

MILLING

- Ramp and Helix entries for Contour
- Lollipop Tool support
- Tool Edge Path in Pocketing

TURNING

- Advanced Entry/Exit
- Entry Feed Rate
- Enhanced No Drag
- Clean-up Pass
- Multi-Pass Plunge Roughing
- Notch Ramp Roughing
- Offset Contour
- Groove Tool Deflection Compensation
- TPI or Pitch threading entry and tapping tools
- Material Only accommodates Centerline Mill Drilling
- Machine B-axis display for lathe tools
- Tool Edge Path in Lathe Contour

MACHINE SIMULATION

- Tool motion simulation
- Tool/Op Color mode
- Show Rapid tool color
- Point-of-view lock

SOLIDS IMPORT

Data Exchange

- Support Parasolid v19.1
- Solid Edge V20 Certification
- Support SolidWorks 2008

SOLIDSURFACER[®]

- Advanced 3D/HSM Functionality
 - Multi-threaded for multi-CPU machine
 - Batch toolpath generation
 - Machine faceted bodies, imported STL files
 - Automatic Core/Cavity detection for inside out or outside in determination
 - Automatic filleting of surfaces to avoid sharp concave corners
- Improved use of boundaries
- Enhanced entry/exit control
- 3D Material Only (Rest Machining) support
- Advanced tool shape (tapered tools) support
- Improved toolpath quality

- New machining strategies
 - Cut Flats Machining
 - Intersection Machining
 - Intersection Rest Machining
 - Enhanced Lace Cut
 - Radiused Corner Pocketing
- New types of finishing processes
 - Constant Step-over Machining
 - Steep/Shallow Combination
- 3D Toolpath Splitting to allow insert changing
- Tool Holder Gouge Checking

MTM

- Sync Mgr, Op List, Op Mgr associativity
- Sync Control Fit View
- Hard-coding of spindle values in VMM

5-AXIS

- Automatic Tilting
- Improved definition of 4-axis machining on 5-axis machines
- Re-Optimize Toolpath Corrections vs. Machine Motions
- Cusp Height Step-over Control
- Gouge Check Collision Reporting
- Shrink/Expand stock for Roughing
- Improved flexibility in linking toolpaths
- Shrink/Expand stock for Roughing
- 5-Axis Work Area angular axis limits

ACIS READER

- Support for ACIS V18.0
- Support Autodesk Inventor 2009

CATIA V5 READER

- Support for CATIA V5 R18

SOLID EXCHANGE BUILT ON GRANITE

- Support for Granite 5.0
- Support for Pro/ENGINEER Wildfire v4.0l

UGS/NX READER

- Support for NX5

NOTE: This is the list of currently targeted new content for GibbsCAM 2009. Actual content at time of GibbsCAM 2009's release may vary from this list.



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