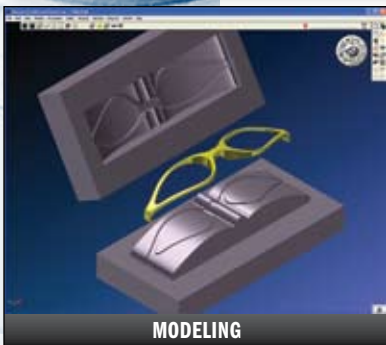
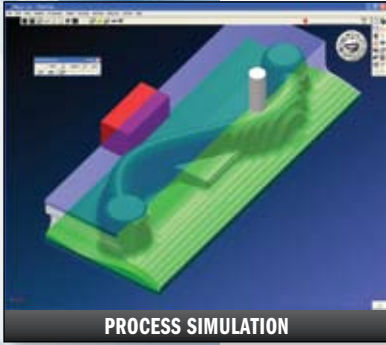


Overview

GibbsCAM® is a PC-based programming system for CNC machine tools that is simple to use, yet extremely powerful. The system's base functionality can be seamlessly extended through the addition of optional modules. An intuitive graphical user interface allows users to easily access geometry, tooling, toolpath, verification and post processing functions. Flexible programming methods allow users to quickly create highly optimized CNC programs. Proven processes can be saved and reapplied allowing KBM (knowledge-based manufacturing). Modeling options support manufacturing requirements for creating and modifying wireframe, surface and solid models. Integrated Cut Part Rendering dynamically displays an accurate simulation of the machining process showing the work-in-process stock as well as any collisions. Work-in-process stock can be compared against part geometry to identify over- or under-cut areas. Full associativity between geometry, processes and toolpath allows design and process changes to be made quickly with automatic updating. GibbsCAM is Compatible with Windows® 7 and Certified for Windows Vista.



Production Milling

Easily contour, drill, tap, bore, machine open-sided pockets, perform pocketing with an unlimited number of islands and much more, machine only where material has been left by prior operations. Create text and engrave both text and artwork. Store regularly used programming parameters for later reuse. Perform complex machining operations, such as 2.5-axis surfacing, to create tapered walls and swept surfaces. The Tombstone Machining option reduces programming time when creating programs for multiple parts fixtured on tombstones, minimizing errors.

Production Turning and Mill/Turn

Create faster, shorter and more efficient programs. Use "material-only" cutting mode to keep track of remaining material on a part after each operation; subsequent operations cut only the remaining material. Using custom stock definition simplifies processing castings, forgings, tubing or previously machined parts. Calculate "automatic clearance" moves to keep the tool at an optimal distance from the part as the tool moves around it, avoiding unnecessary retracts. Mill/Turn functionality, including C-axis programming, is supported when combined with the Mill module.

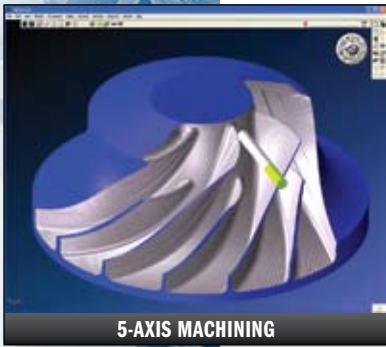
Surface and Solid Machining

Leverage solid modeling technology with options which support interacting with and directly machining simple 2.5D through complex 3D solid

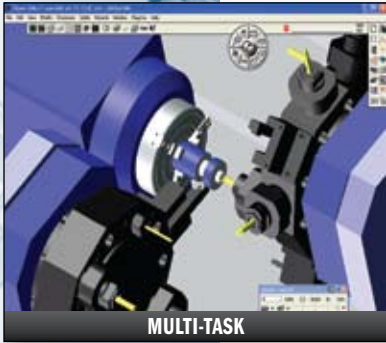
models. Create both part and tool models with integrated surface and solid modeling capabilities. Imported surface geometry can be repaired using advanced surface healing tools then automatically stitched into solid models. Remove features not required for machining using body slicing and unstitching functionality. IFR (interactive feature recognition) capability allows quick identification of machineable features, while AFR (automatic feature recognition) technology optimizes the programming of holes in complex parts.

Full 3-Axis Machining and HSM

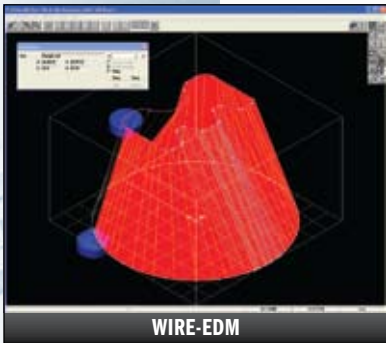
Extends milling functionality to create and machine multi-surface, parts, solid models and STL files. Functionality supports a wide range of 3-axis parts, including prismatic production parts, mold cavities, cores, electrodes, base plates and dies. Apply multiple processes to multiple surfaces in a single step with automatic fixture avoidance. Create gouge-free, 3-axis toolpaths based on part geometry with contouring, pocketing, lace cutting and intersection machining functionality. NURBS output for high-speed machining is available for NURBS-enabled controllers. Smoothed polyline output and arc fitting of NURBS geometry is also supported. A variety of HSM (high-speed machining) aspects, such as entry/exit control, 3D cusp height control, radiused connect moves and corner looping, can also be incorporated into the toolpath to support high-speed machining.



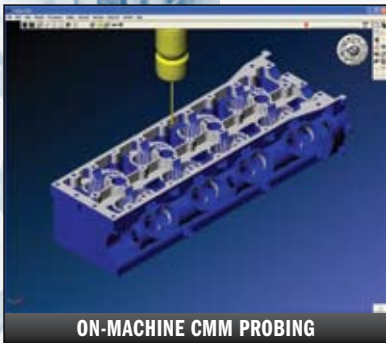
5-AXIS MACHINING



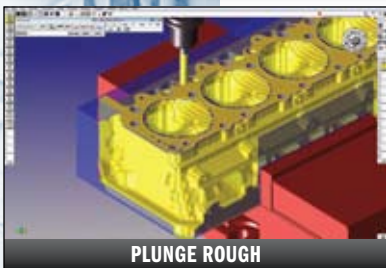
MULTI-TASK



WIRE-EDM



ON-MACHINE CMM PROBING



PLUNGE ROUGH

4- and 5-Axis Rotary Milling

Generate 4-axis rotary toolpath using wrapped or radial geometry or 5-axis rotary directly from solid models. The tool axis can either be positioned on-axis or off-axis with tilt control. For even greater machining flexibility, comprehensive 5-axis simultaneous programming capability with full collision avoidance of the tool and tool holder for all standard tool types (ball, flat, bull, conical and lollipop) is also available.

Multi-Task Machining

Create optimized programs for multi-task machine tools with multiple turrets or tool groups and spindles. Define synchronization links graphically and easily synchronize operations across multiple tool groups. Program pick-off spindles, part shifts, part catchers and tail-stock control and other utility operations as well. Also supports Swiss-style machine tools. Factory approved MTM posts ensure accurate output.

Machine Simulation

Verify complex machine tool motions to ensure that tooling does not interfere with fixturing, machine tool components or the part before running the program on the shop floor avoiding costly errors.

Wire-EDM

Program 2-axis and 4-axis wire-EDM machines. Motions can be either parallel or tapered with or without lands. Define and store EPAK settings for reuse. Roughing, skim cuts and glue-stop removal operations can be interactively defined to explore alternate machining strategies. Full color animation of wire path supports visualizing and optimizing the process.

CAD/CAM Interoperability

Read data from any popular CAD system with a broad set of interoperability options. AutoCAD DXF/DWG, ACIS(SAT), Parasolid, VDA-FS,

STEP AP203 & AP214, as well as native Autodesk Inventor, CATIA V4 or V5, KeyCreator, Pro/ENGINEER Wildfire, UGS/NX, Rhinoceros, Solid Edge, and SolidWorks formats are currently supported. Transfer models from within Autodesk Mechanical Desktop and Inventor, KeyCreator, Rhinoceros, Solid Edge or SolidWorks directly to GibbsCAM for programming using custom add-ins.

Post Processors

Develop your own posts with generic, template based post processing. Or for a greater level of sophistication and optimization, posts from a library of over 10,000 controller/machine tool-specific post processors can be purchased, ensuring WYSIWYM (what-you-see-is-what-you-machine) output. Library posts can also be further customized to address specific customer requirements. APT-CL output is also available to support legacy posting environments.

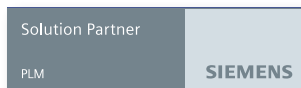
Advanced 3D Machining Option

The new Plunge Rough feature, now one of many user-controlled custom processes within GibbsCAM, accommodates the latest, non-centered cutting, plunge milling tools specially developed for this type of material removal and allows users to specify machining patterns and multiple variables to control tools and motion for fast plunge roughing with optimal surface finish and tool longevity. This feature combines the use of geometry and solids to enhance the material removal process.

User and 3rd Party Extensions

GibbsCAM's functionality can be user-extended using an easy to use macro programming capability. In addition, third party options are available, such as in-process probing from Renishaw and VoluMill with expanded milling solutions for cutting methods that maximize material removal rates.

Gibbs and Associates For over twenty five years, Gibbs and Associates has been a leader in providing cutting edge CAD/CAM technology, while maintaining its signature ease-of-use and productivity. "Powerfully Simple. Simply Powerful." is the guiding philosophy at Gibbs. Gibbs believes in empowering the NC programmer, machinist, and manufacturing engineer, not eliminating them. Gibbs' goal is to introduce manufacturers to new technologies and new ways of working that makes their machining easier and their businesses more profitable. To achieve this goal, Gibbs creates tools that are naturally intuitive, graphically interactive, extremely visual, associative, and just plain enjoyable to use. Gibbs provides a total quality solution with the service and support successful customers require.



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