



## GIBBSCAM 2015 ENHANCEMENTS

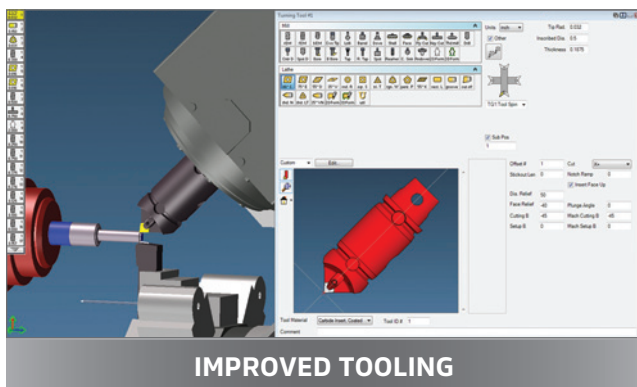
**GibbsCAM 2015 introduces its new engine**, the Universal Kinematic Machine (UKM), while maintaining the ease of use for which GibbsCAM is known. GibbsCAM UKM was developed to further simplify programming, provide the flexibility to easily support the most advanced machines and accurately simulate all of the machine components and capabilities of any machine. Driven by UKM, GibbsCAM supports most machine configurations available today and even machines that haven't been invented yet. GibbsCAM 2015, with GibbsCAM UKM, provides the most accurate and complete rendering and machine simulation available, simplifies programming of complex machines, and enables system-wide performance improvements.

### GENERAL SYSTEM / INTERFACE IMPROVEMENTS

- » Redesigned DCD (Document Control Dialog) with context-dependent tab sets
- » *User Colors* editable by selection, RGB key-in or color palette loading
- » *Workgroup Type* (wrapped/not wrapped part geometry, extruded or revolved part stock) is now shown in the Workgroup list
- » *Reporter* can now write directly to \*xlsx files without having to use Microsoft Excel
- » New *Pack and Go* feature allows for easy and complete sharing of parts and setups through automatic creation of a package file containing the GibbsCAM part and all associated files necessary for that part to execute properly on a different computer

## PRODUCTION MILL AND LATHE GEOMETRY

- » New *Contour Trace* function allows for creating a machinable contour from a chain of intersecting lines and circles
- » Modify spline curves with the new *Edit Spline* function by dragging knots and control points



## TOOLING

- » Redesigned Tool dialog, including new icons and dynamic 3D viewing of tools and tool holders
- » New mill tool types: Barrel, Dovetail, Convex Tip, & 3D form tools (solid models)
- » New lathe tools: 75° Diamond (ISO E-style) & 3D form tools (solid models)
- » Straight, tapered and stepped shanks are now supported for all mill tools
- » **ADVEON TOOL LIBRARY\***
  - Integration with Sandvik Coromant's Adveon Tool Library enables importing cutting tools from Sandvik and any other ISO 13399 compliant systems
  - Makes a standard library, with latest tool data, always available
  - Simplifies managing tool data

\*Only Milling tools will be supported for initial GibbsCAM 2015 release

- Allows building, saving and reusing a tool library for the shop
- Enables linking tools and tool assemblies to parts, for use and reuse

## HOLES

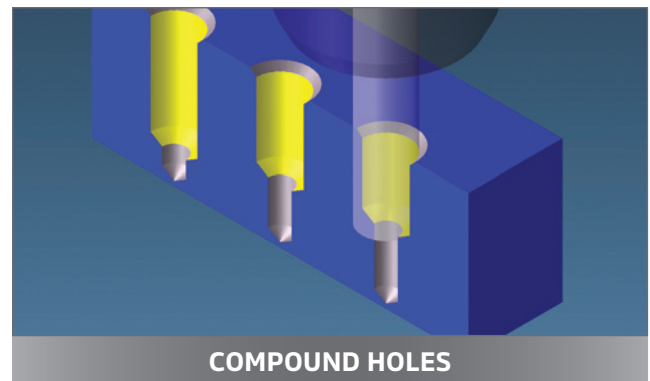
- » *Helix Bore* plug-in functions now integrated with the Holes process
- » Enhancements to *Helix Bore* and *Mill Bore* functions

## VOLUMILL

- » Pre-drilling is now supported
- » New back-and-forth strategy
- » Toolpath can now be processed in backgrounds
- » Ability to specify minimum feedrate
- » Collision avoidance with tool holders and tool shanks

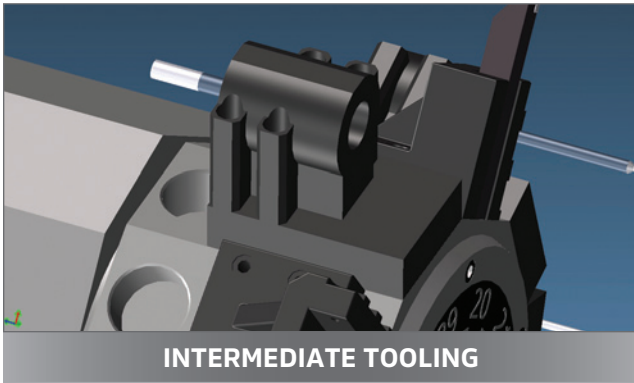
## 2.5D SOLIDS

### HOLES



- » Improvements to *Hole Manager*
- » Hole Feature enhancements in holes process dialog
- » Enhanced support for *compound holes* with multiple straight/tapered/threaded segments
- » *Helix Bore* plug-in functions are now integrated with the Holes process

- » Improved data structures, associativity, and feature recognition
- » Holes are now treated as fully associative features of solid bodies, independent of geometric points and workgroups
- » More support for imported hole features: Holes from SolidWorks, Solid Edge, Autodesk Inventor and CATIA V5 are now fully associative features
- » Hole features, including compound holes, can easily be edited with the new interactive *Hole Editor*



## INTERMEDIATE TOOLING

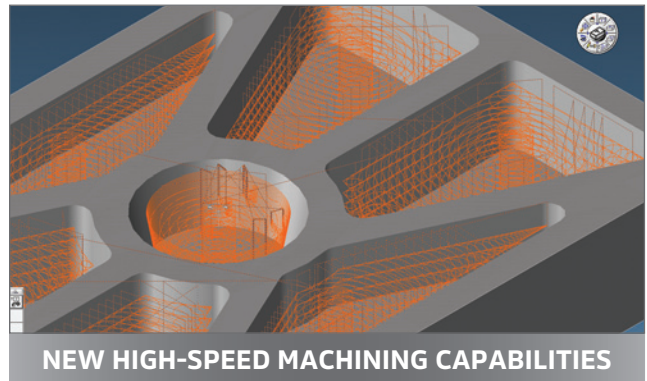
- » Support for toolblocks (adapter blocks, holders for tool holders, right-angle and adjustable heads and flash tooling) with toolblock library
- » Support for fixtures (work holding) including fixture library

## SOLID SURFACER / ADVANCED 3D

- » New *Adaptive Roughing*, a high-speed strategy which levels tool loading and allows deeper cuts

## 5-AXIS MILLING

- » Streamlined *5-axis drilling* interface
- » Improved post processor support for hole-making cycles, including those for 5-axis



## MULTI-TASK MACHINING (MTM)

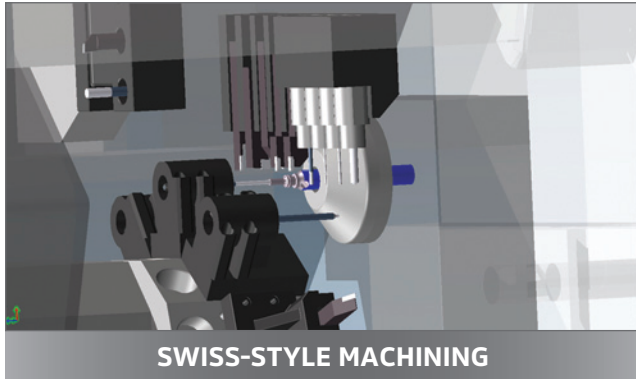
### INTERMEDIATE TOOLING

- » Support for toolblocks (adapter blocks, holders for tool holders, right-angle and adjustable heads and flash tooling) with toolblock library
- » Support for fixtures (chucks, tailstocks, steady rests and other work holding) including fixture library
- » Simplifies programming through easy and accurate placement and orientation of tools
- » MTM tooling is now more manageable and simulation more accurate



## MTM SYNC MANAGER

- » Improved sync capabilities give greater control over tool motion
- » Added the ability to sync away from the part



## SWISS-STYLE MACHINES

- » UKM enables better control over machine motion between operations, allows full support of features such as axis synchronization and double drilling, and fully supports machine simulation

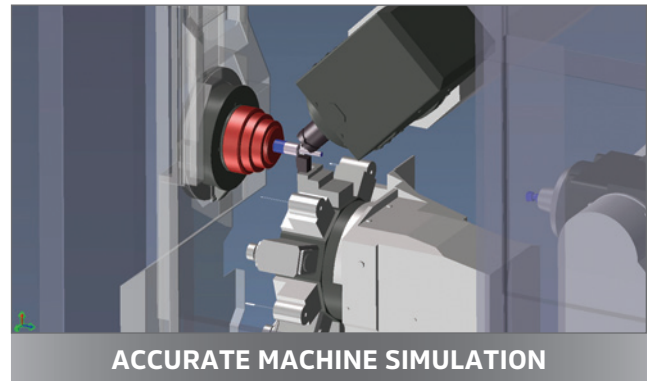
## OTHER COMPLEX MACHINES

- » Other classes of complex machines are also fully supported. These can include rotary-table mill-turn machines; multi-flow, non-turning machines such as multi-head, multi-table mills and mills with steady rests or pallet changers; and turning centers with multiple turning planes

## MACHINE SIMULATION

- » Rendering and simulation are more accurate, complete and efficient

- » Displays intermediate tooling for more complete simulation of all moving components
- » Improved rendering palette
- » New *Stops* and *Watches* for customized monitoring of key rendering conditions



## TOMBSTONE MANAGEMENT SYSTEM (TMS)

- » New machining-order strategies for optimizing use of rotary axes
- » Custom spacing, unconfined by uniform grid, is now available for part layout
- » Different clearances may now be specified when transitioning between coordinate systems at the same (B-axis) rotational angle

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