GibbsCAM

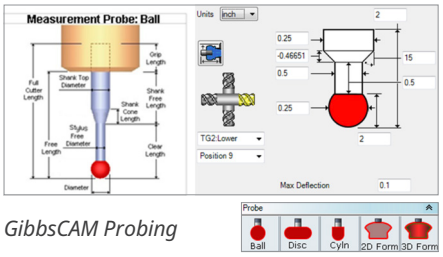
# What's New in GibbsCAM 14

## Simplify Sophisticated Machine Programming

GibbsCAM® helps simplify complexity. Easily program, simulate, and control any CNC machine—from the simplest 3-axis machine to the most sophisticated multi-task machine. Its single, intuitive user interface (UI), unique UKM (universal kinematic machine) architecture, and proven track record support current and future challenges. GibbsCAM 14 includes new capabilities and enhancements to facilitate manufacturing process automation and support adoption of next-generation manufacturing technologies.

## Probing

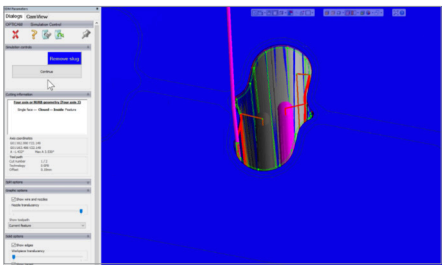
The new GibbsCAM Probing option helps streamline your manufacturing process and enhance automation. It includes definitions for probing tools (ball, disk, cylinder, 2D Form, and 3D Form), simulation support, a framework for probing operations, and built-in probing cycles for on-machine setup and in-process measurement.




*GibbsCAM Probing*

## Wire EDM Beta

GibbsCAM 14 incorporates a new Wire EDM option, based on Camtek's OPTICAM proven high-end solution. That includes comprehensive feature recognition and solids machining capabilities; toolpath rendering and simulation; a detailed technology database; and post processors for all major wire electrical discharge machines.

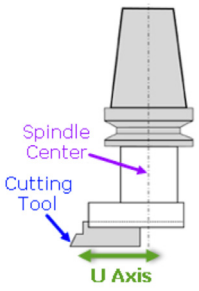


*GibbsCAM Wire EDM*

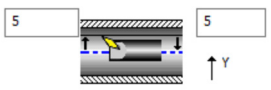
## Future-Ready Kinematics

GibbsCAM 14 includes new kinematics support for U-axis turning and swappable heads.

- **U-axis:** In addition to interpolation turning, eccentric turning, and elliptical turning, GibbsCAM 14 includes new U-axis turning support. The U-axis is an alternate X-axis where a live milling tool spins the cutting edge of a turning-type insert as a kind of super-boring-bar. Use U-axis turning to machine very precise, variable-radius bores and faces on a bulky or heavy part that would be hard to machine on a lathe.
- **Swappable heads:** GibbsCAM 14 supports swappable heads. Detach and park entire heads and attach a different head. Common on very large machines like twin-column or gantry mills, some machine manufacturers call these automatic attachment changers or automatic head changers.




*Spindle center, cutting tool, and U-axis in GibbsCAM 14*

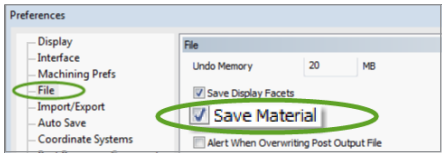



*Swappable heads in GibbsCAM 14*

3D SYSTEMS

## 3D Material Only

GibbsCAM 14 automatically reduces the amount of air cutting, especially in complex part operations like 3+2 or 5-axis cutting, milling/turning, hybrid machining, and multi-spindle multi-task machining (MTM). Reduced air cutting saves time and money, which directly leads to reduced part costs.

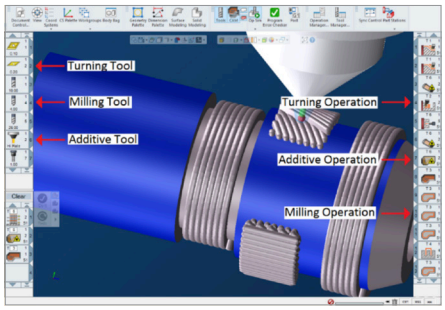



*3D Material Only in GibbsCAM 14*

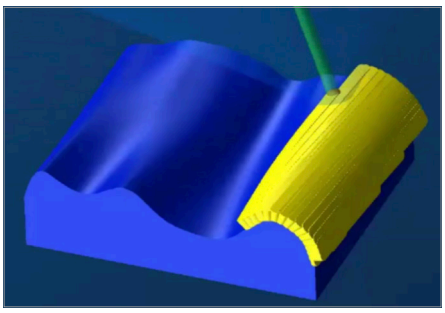
## Deposition Additive Beta

GibbsCAM 14 supports multi-task machines that use deposition additive including hybrid machines that are capable of both additive and subtractive operations in one machine and stand-alone deposition additive machines. New additive processes calculate the number of cladding layers required using your machine's supported cladding heads. Processes present the specific technology data that are applicable to the selected head including laser and powder parameters. A single post processor creates all your CNC code, which eliminates the need to copy and splice or use multiple part programs.

- **Hybrid machining** combines additive operations with subtractive operations (milling, turning, and broaching) in a single part for true hybrid machining. Automatically interweave additive and subtractive operations to maintain precise control over the size, shape, and surface condition of part features.
- **Deposition additive multi-axis surfacing** supports true constant offset deposition on 3D surfaces using 3 to 5 machine axes. It includes the same tilting, clearance, and collision avoidance technology used in 5-axis milling.




*Turning, milling, and additive tools and operations in GibbsCAM 14*

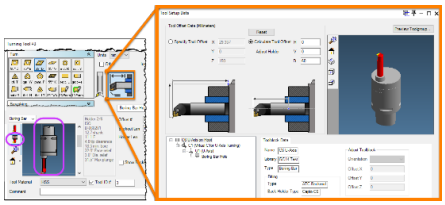


*Deposition additive multi-axis surfacing in GibbsCAM 14*

## Usability and Workflow Enhancements

GibbsCAM 14 includes comprehensive UI and workflow enhancements for efficient programming and a better programming experience.

- **Programming automation:** Program parts in fewer steps by using Process Comments and Combinatorial Coolants.
- **User experience:** Easily modify 2D parts with enhanced dimensioning and sketching features.
- **Tooling support:** Quickly and easily create and use tool block libraries with the enhanced Intermediate Tooling feature. Save time and effort during tool setup with parametric turning tool holders and new automatic options for ANSI letter-gauge drills.



*Intermediate Tooling in GibbsCAM 14*

### If you're on maintenance:

Download GibbsCAM 14 today at https://support.3dsystems.com/s/software-support-3dsystems.

### If you're off maintenance:

Contact your GibbsCAM reseller or visit https://www.3dsystems.com/how-to-buy/software.

**Find out more at: http://3dsystems.com/software/gibbscam.**



3D SYSTEMS