

# 2023

## What's New in GibbsCAM 2023

### Power Up with GibbsCAM 2023!

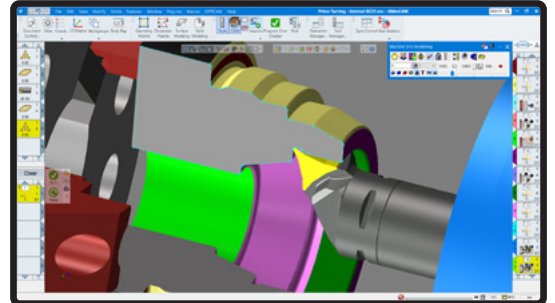
With GibbsCAM, you can easily program, simulate, and control any CNC machine—from 2D to 5-axis milling, turning, multi-task machining (MTM), and wire-EDM. GibbsCAM 2023 features significant Turning enhancements including the highly effective implementation of Sandvik Coromant's PrimeTurning™ to permit turning and facing in all directions for dramatic increases in high volume production. Powerful functionality for cylindrical milling, multifunction insert tools, and threading highlight this powerful new release.

### PrimeTurning™

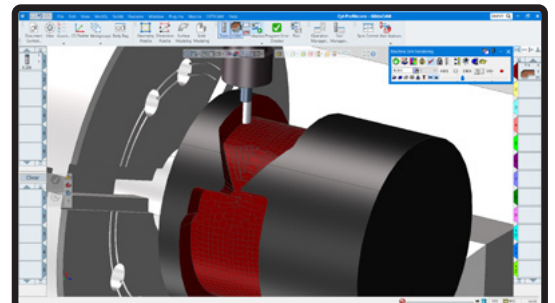
- PrimeTurning reduces cycle time up to 50%, and increases insert tool life more than 500%. PrimeTurning uses the slope of the insert for chip thinning to allow you to make heavy cuts and spread cutting forces and heat over a larger portion of the cutting edge. PrimeTurning adapts the feed rate (excellent for cutting on a taper) to constantly manage chip thickness which is ideal for high-volume and unattended environments.

### Milling Improvements

- Cylindrical milling is easier with direct selection of a "Slice" in the CS depth axis—select a closed profile to machine a cylindrical boss or pocket, or select two loops to machine a groove or ring without the need to extract edge geometry and unwrap the shape.
- New Spiral Boring functionality cuts a spiral out to the full diameter at each Z step, which substantially increases cutting feed rate and depth due to a more consistent tool load.



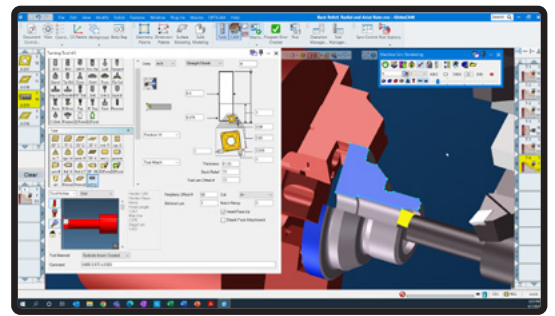
Sandvik Coromant's PrimeTurning™



Cylindrical Milling

## Drilling Enhancements

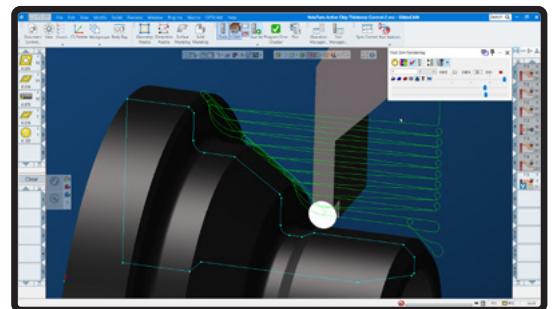
- Multifunction Insert Drill type can be used to perform both turning and drilling/boring operations (such as the Sandvik Coromant CoroDrill® 880 series). The Multifunction Insert Drill tool type can seamlessly switch between turning, lathe drilling, and mill drilling without retraction or tool change motions.
- Also included is a new option for Lathe Drilling with counter-rotating tools that instructs the live tooling spindle to turn in the opposite direction at a specified RPM to effectively increase spindle speed and significantly boost material removal rates.



Multifunction Insert Drills

## Cutting Load Control

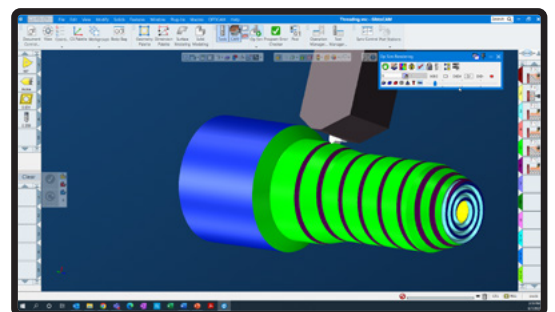
- Control Cutting Load Variation in order to suppress resonance-induced chatter and improve chip breaking for CNC machines. This machine capability is also called variable spindle speed by Okuma, and low frequency vibration by Citizen.
- VoluTurn functionality has also been extended to manage the active control of chip thickness during the cut by varying the feed rate instantaneously with any changes in cut depth.



VoluTurn Active Chip Thickness Control

## Threading

- Thread Turning operations have been expanded with Face Threading, Variable Pitch Threading, Multi-pitch, and Position Tool Front options. Users can produce a spiral thread on the face of a part, vary pitch threads incrementally per revolution, or generate different pitches on a continuous thread, with easy control of exact start/end specs in the tool dialog.



Variable Pitch Threading



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