Vericut v9.7 Release Highlights

We're excited to introduce Vericut v9.7, a major advancement with all new enhancements to the Vericut AI Platform, faster performance, and an enhanced user interface.

Vericut Assistant (VA) is an AI-driven resource built directly into Vericut. Whether you're learning how to use AUTO-DIFF, creating coordinate systems, or performing other tasks, VA delivers clear, contextual assistance when and where you need it.

Introducing all new F2 Enhanced Tooltips and Guidance, powered by Vericut Assistant (VA). With a single keystroke, users can access clear, in-context explanations and step-by-step guidance directly within the interface. This integrated AI-driven assistance makes Vericut easier to learn, navigate, and take advantage of its powerful features.

The Vericut AI Platform continues to evolve and will further streamline workflows and expand the capabilities available to users. To learn more, including about the new Vericut Intelligence (VI), please visit: vericut.com/ai

Vericut v9.7 is packed with enhancements designed to improve performance, increase productivity, and drive greater efficiency. The following pages highlight the latest advancements in simulation, verification, and optimization to help you get the most from your Vericut investment.

Thank you for making Vericut an essential part of your NC programming and machining workflow. For more than 35 years, CGTech's technology leadership has helped Vericut evolve with our customer base. CGTech's solutions are deeply trusted and widely adopted today across industries ranging from aerospace to Formula 1 racing. People are at the heart of CGTech's success and have made it what it is today: an innovative software company driven by team spirit and our collaborative customers.

Sincerely,

Ely Wahbeh
Vericut Product Manager

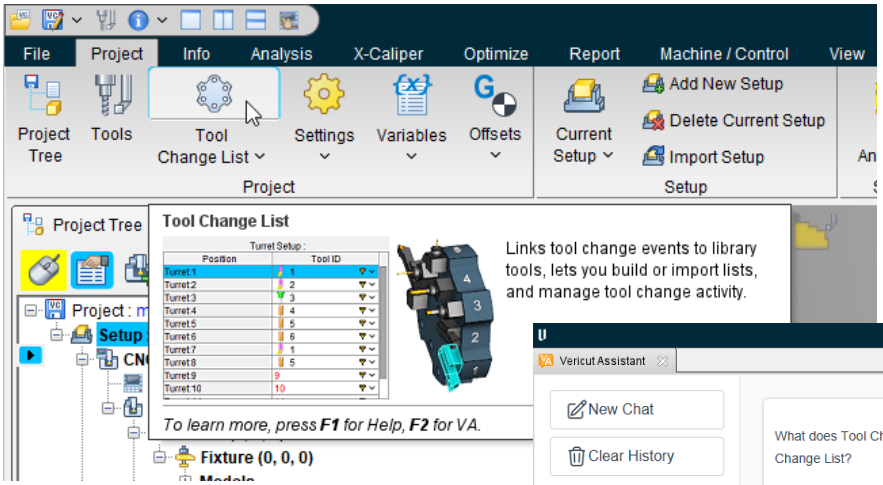
Maintenance and Licensing Information

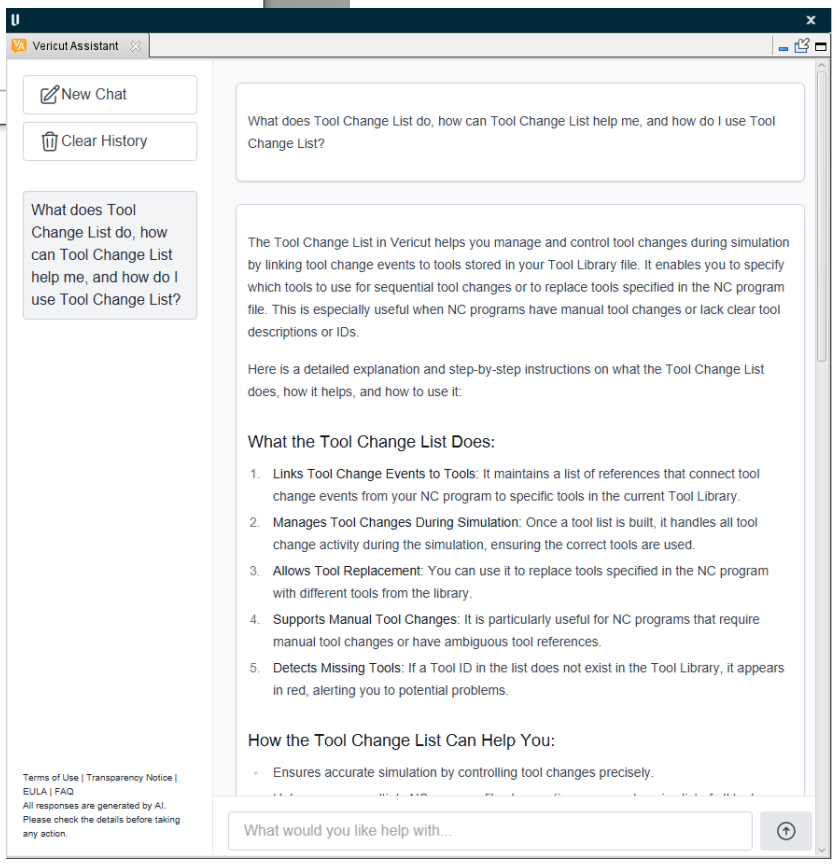
Note: This software requires Vericut v9.7 licensing. Licensing is sent via email. To Get a License, use the link below to submit a License Request: https://vericut.com/support/request-license

Software maintenance keeps you on the cutting edge - CGTech provides update software to customers with current software maintenance. Your continued maintenance ensures that you have the most advanced verification technology available. If your maintenance has expired, please contact your CGTech representative (https://vericut.com/company/contact-us).

Vericut v9.7 Release Highlights

Vericut Assistant (VA) F2 Enhanced Tooltips and AI-Assisted Guidance





F2 Enhanced Tooltips and Guidance.

Enhanced in-context guidance with improved tooltips and integrated AI, delivering clearer explanations and on-demand assistance directly in the interface making the software more intuitive, navigable, and easier to learn, especially for new users.

Vericut Assistant (VA) is designed to answer three essential questions users often have when exploring Vericut features:

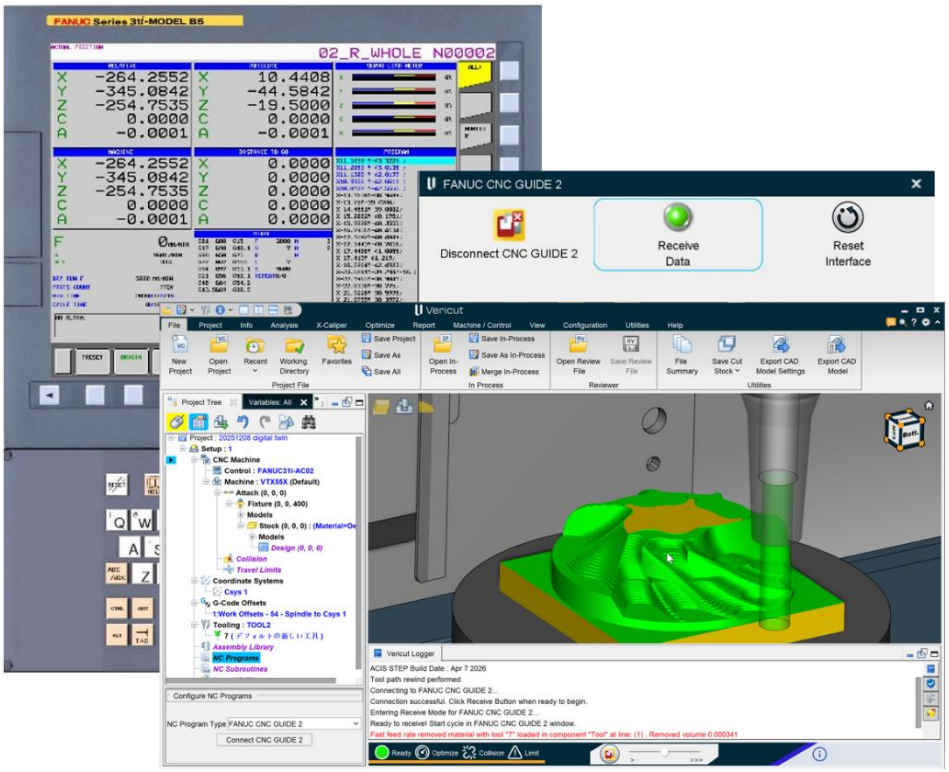
- What does it do?
- How can it help me?
- How do I use it?

Fanuc CNC Guide 2

Vericut's new interface with **FANUC CNC Guide 2** brings high-fidelity FANUC CNC simulation directly into the verification workflow.

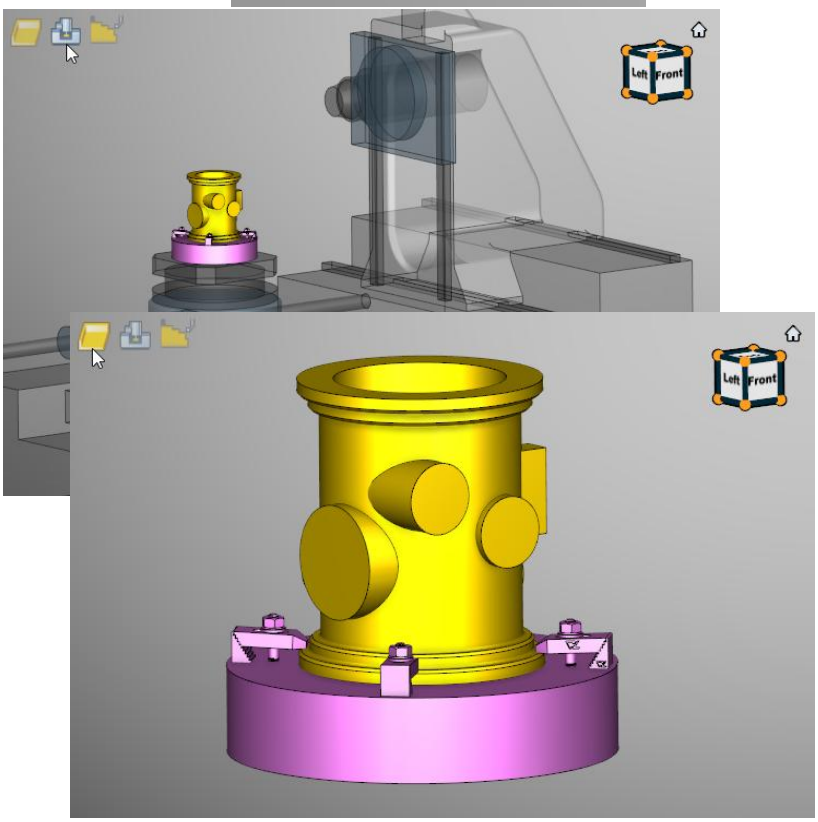
CNC Guide 2 replicates real machine behavior, enabling rapid program proving without using a physical machine.

By embedding authentic FANUC logic, Vericut gives users greater confidence that verified programs will run as expected on the shop floor.



Enhanced View Controls

Users can now quickly access key view types with new on-screen icons in the graphics area.



Workpiece, Machine, and **Profile** views are now displayed in the top-left corner opposite the View Cube, making them easy to discover and switch between previously hidden menus.
These commonly used options are now always visible, helping users navigate the interface faster while improving overall workflow efficiency.

By surfacing these controls directly in the workspace, Vericut now makes essential functionality immediately visible and accessible.

Animation Bar UI Refresh

The Animation Bar has been redesigned for a cleaner, more modern, and intuitive experience. Controls such as **Play** buttons and the **Animation Speed** adjustment are now better organized and centralized for easier access.

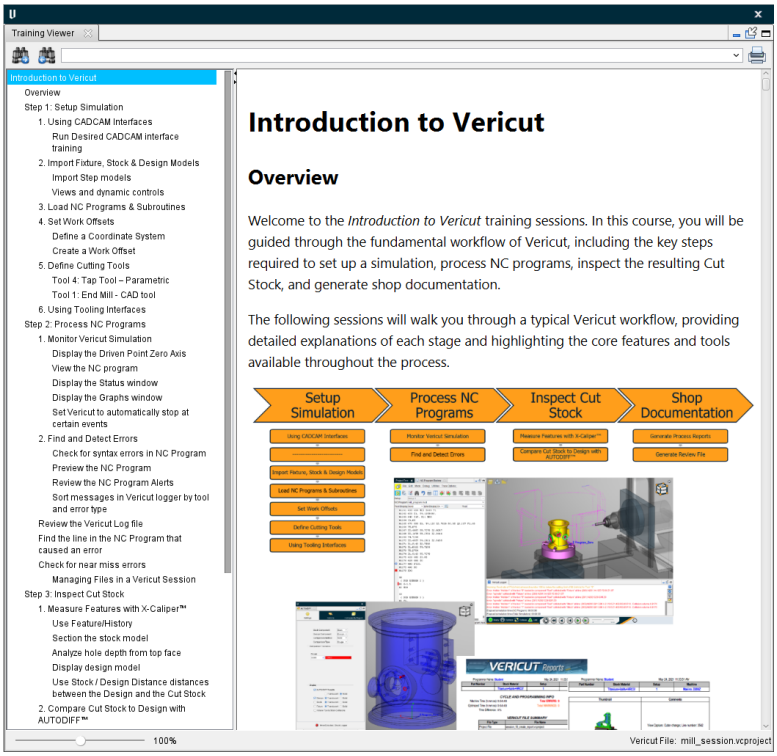
The updated design simplifies visual elements, reducing clutter and minimizing reliance on hard-to-interpret indicator lights. This results in a more user-friendly interface that helps users operate animations more confidently and efficiently.

Training Viewer Panel

The new **Training Viewer** panel displays the active training session's instruction file with built-in navigation features, making it easier to follow along and stay oriented within the workflow.

This dockable Vericut panel renders training content directly from the Welcome screen, ensuring a seamless connection between onboarding and execution.

By integrating training materials into the workspace, users can access step-by-step guidance without leaving Vericut, improving efficiency and reducing the need for external applications.

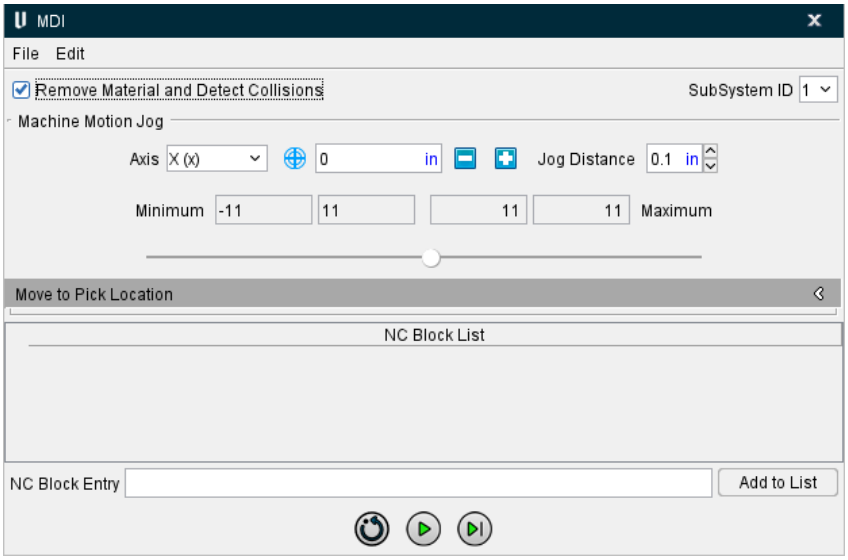


MDI Window UI Improvements

The MDI window has been updated for improved consistency and usability. **Play** and **Step** controls now align with updated Vericut animation controls, providing a more familiar and intuitive experience.

The interface has also been simplified and cleaned up, reducing visual clutter. Less frequently used options, such as **Move to Pick Location** settings, are now collapsed by default, keeping the workspace focused.

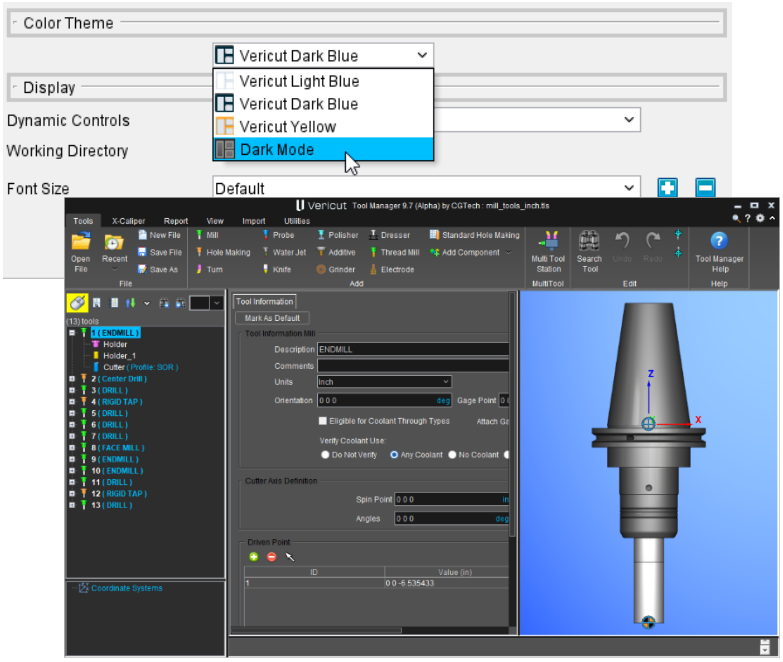
Additionally, when the MDI window is opened, **Remove Material and Detect Collisions** is enabled by default, supporting more efficient and reliable simulation workflows.



Tool Manager Color Theme Support

Standalone Tool Manager now has a new **Color Theme** section in the **Preferences** window, making it easy to change the color to options like Vericut Dark Blue or Dark Mode. These options are the same as existing Color Theme options in the Vericut Preferences window.

This update improves visual consistency across products while giving users more flexibility to choose the interface theme they prefer.

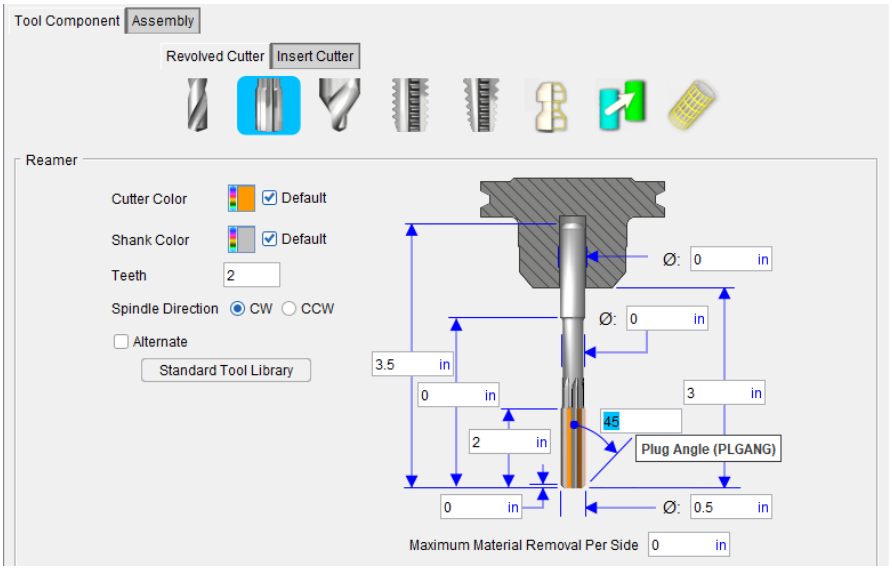


Adjustable Reamer Chamfer Angle

Reamer tools in Vericut now support an **adjustable chamfer angle** (ISO 13399: PLGANG), allowing for more accurate tool representation.

Previously fixed at 45°, the chamfer angle can now be defined based on imported tooling data, ensuring reamers reflect their true geometry.

This enhancement improves compatibility with external tooling systems and increases simulation accuracy.

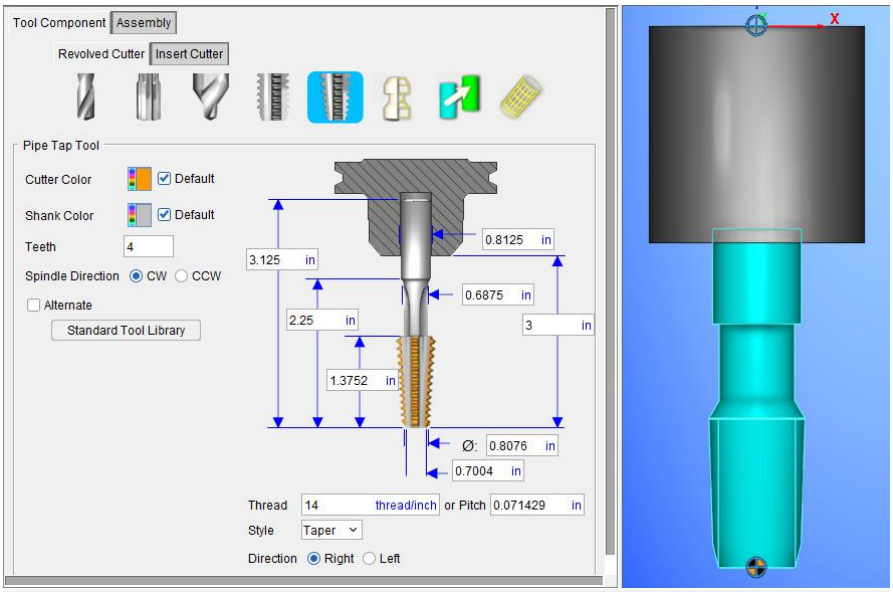


New Pipe Tap Tool in Tool Manager

Vericut v9.7 introduces a new **Pipe Tap tool type** in Tool Manager, enabling accurate definition and simulation of tapered pipe taps.

Users can now select from standard sizes across **NPT, BSPT,** and **BSPP** specifications, making it easy to create realistic tools that match industry standards. Unlike traditional taps, pipe taps include an external taper, which is now properly represented in simulation.

This enhancement addresses long-standing user requests and improves accuracy when working with pipe threading operations.



"OK to Mill" Option for Center Drills

Center Drills now include an **OK to Mill** option, allowing them to be used for side cutting operations without triggering drill-related errors.

Available in the Tool Component tab, this option mirrors the existing functionality for standard drills, providing consistent behavior and greater flexibility in tool usage.

This enhancement enables more accurate simulation and expands the practical use of Center Drills in milling operations.

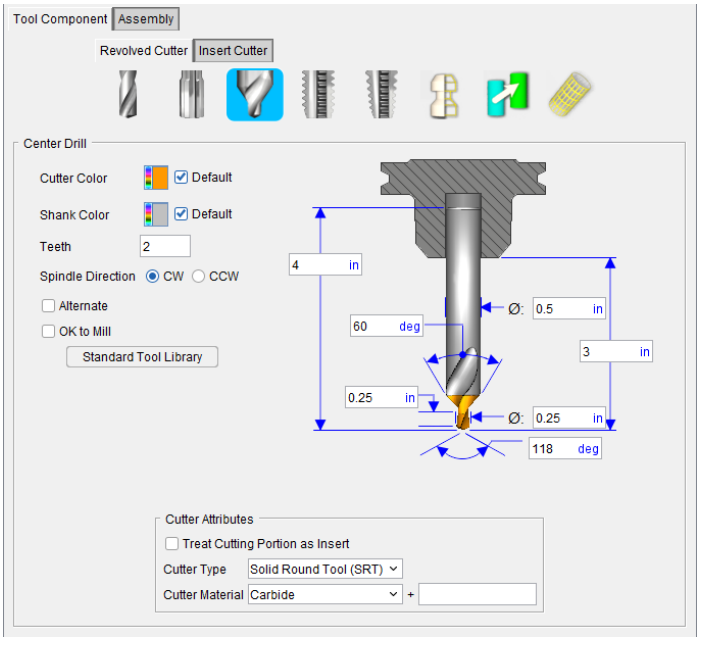
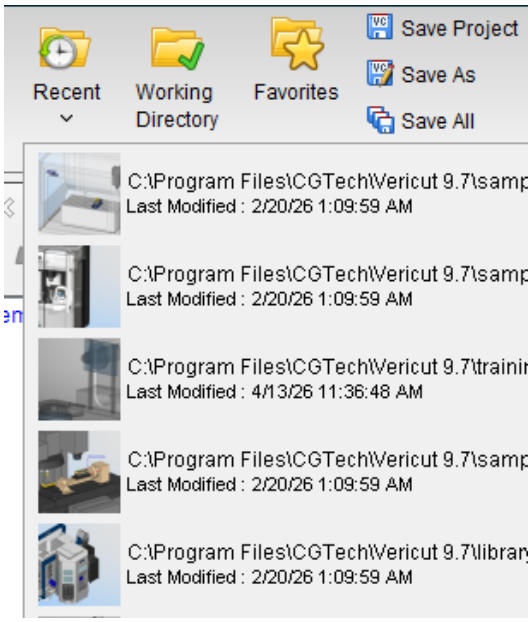


Image Preview in Open Recent

The Open Recent menu now includes image previews of Project files, making it easier to quickly identify and reopen projects.

Instead of relying solely on file names, users can visually recognize projects at a glance - saving time and improving workflow efficiency, especially when working with multiple or similarly named files.

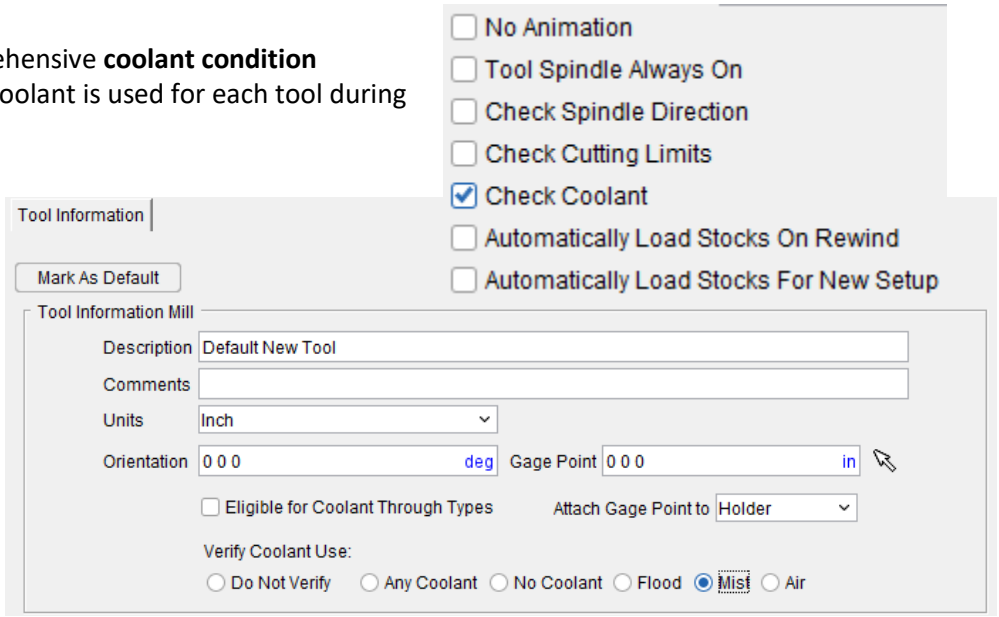


Enhanced Coolant Verification

Vericut now provides more comprehensive **coolant condition verification** to ensure the correct coolant is used for each tool during simulation.

When **Check Coolant** is enabled, Vericut verifies that the active coolant type (e.g., flood, mist, through-spindle, air) matches the tool's specified requirement as it enters material.

Mismatches will trigger a clear error message, helping prevent improper machining conditions. New coolant macros have also been added to improve control and accuracy of coolant states.



This enhancement reduces risk of tool, machine, or part damage by enforcing correct coolant usage throughout the simulation.

Performance improvements

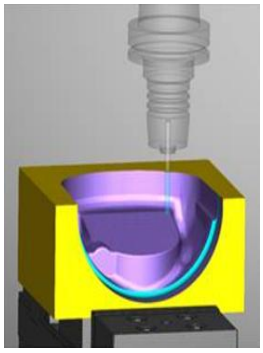
This release delivers notable **performance** gains across Vericut's Review mode and Reviewer, resulting in a faster and more responsive user experience.

Benchmark testing shows significant improvements in processing efficiency and rendering performance, particularly for complex projects and multi-setup environments.

Additional Improvements include:

- **Processing speed:** 10–20% faster overall performance
- **Refine Display:** Approximately 5–10% improvement
- **Rendering (multi-setup VCT):** 50–80% improvement

Together, these enhancements help reduce wait times, improve visualization responsiveness, and accelerate overall workflow efficiency.



Stock size: 190 x 160 x 90 mm
Cutting Res.: 0.5 mm
Model Tol.: 0.1 mm
NC program: 172,071 lines (G-code)

	9.6.2	9.7	Difference
Time to run full simulation:	7m 28s	4m 51s	1.5X faster
Memory used:	1745 MB	1356 MB	22% less memory used
Time to enter NC Program Review:	2.8s	13.7s	5X longer
Time to navigate in program ("Set Current")			
- 1/2 way thru program:	17s	3.8s	4-5X faster
- 1/4 way thru program:	33s	2.1s	16X faster
- 3/4 way thru program:	45s	6.5s	7X faster
- nearly finished program:	28s	10s	3X faster
Time to exit NC Program Review:	2.8s	3.4s	nearly equivalent
Time to save Review file:	1m 51s	20s	5-6X faster
Review file size:	651 MB	57 MB	11X smaller file size
Time to open Review file in Reviewer:	44s	30s	1.5X faster
Qty of program lines reviewed in 30 sec.:	1797	5542	3X lines reviewed
Avg. time to refine finished cut stock model:	1-2s	1-2s	equivalent

Enhancements and Changes in v9.7

Verification

Run MyVirtual Machine - added support for Probe (MEAS=1) and Touch (MEAS=2)

Tool Spindle Direction Detection - Fixed an issue where incorrect spindle rotation direction was not properly detected for turning tools with CAD inserts used in milling operations.

G-Code Log window – Enhanced to include subtle color cues designed to make key log entries easier to spot while reviewing G-Code processing output.

AUTO-DIFF Report Improvements - Enhanced the AUTO-DIFF Report tab by increasing the AutoDiff summary row height in the Logger, making error tables easier to access and review when Gouge or Excess conditions are detected.

Tool Manager

Probe Tools - Added support for radius queries on probe tools.

GCode Processing

Variables - Users can now write variables to different subsystems using aliases.

Wire EDM - Added support for **ABC rotary motion** with WireEDM.

Heidenhain Support - Added support for **CYCL DEF 14.0**, **14.1**, and **292**.

CAD/CAM Interfaces

NXV

- **Fixture Naming Conventions** - Added an environment variable that allows users to revert to the previous fixture model naming convention when needed.

Tooling Interfaces

MachiningCloud

- Enhanced Anti-Collision cutter model imports to support **STEP** and **ISO** standards.

Problems Resolved in v9.7

Verification

fine Display Fix - Corrected an issue that caused inaccurate model representation when using *Refine Display*.

Stock Display - Fixed an issue where enabling a stock model mid-simulation could corrupt the database and produce incorrect stock display after simulation.

Spindle Coupling - Fixed an issue where matching spindle directions prevented updating the coupled component's direction.

Model Export - Fixed an issue where IGES Method = "Slices" wasn't saved. Apply now correctly stores the method in the project file.

Groove Insert Cutting - Fixed incorrect material removal when using a groove insert. Cutter now removes material properly.

Insert Collision - Fixed a bug that could trigger a false non-cutting insert collision based on Slider settings and hardware threads.

Annotated Images - Fixed an issue where the view cube was being captured in annotated images.

Fixed a crash that occurred when TEMP/TMP environment variables contained Japanese characters.

Cutter Diameter Compensation (CDC) Values - Fixed a regression issue where CDC results differed between Vericut 9.5 and 9.6

Flute Length Coloring - Fixed an issue where flute-length color failed at the necked diameter and shank color was unticked when modifying flute length.

Multi-Channel simulation - Fixed an issue where a Multi-Channel machine simulation stopped moving. Added parameter checks during accel/decel processing.

Turning mode - Fixed a false collision during a G03 move where the *non-cutting* portion of the insert was incorrectly flagged and the arc move was not executed.

Multi-APT Simulation - Fixed an issue where simulation did not cut when the first toolpath was inactive. The first active NC program is now used regardless of its position.

Tool Change By - Fixed an issue where 'Tool Change By' was being set incorrectly. The Vericut logic now preserves the template project's tool_change_by setting when exported by a CAD/CAM Interface.

NC Program Review Navigation - Fixed an issue where NC Program Review did not switch to the correct position in the NC Program window.

Tool Spindle Direction Detection - Fixed an issue where incorrect spindle rotation direction was not properly detected for turning tools with CAD inserts used in milling operations.

Step Function Keyboard Shortcut - Fixed an issue where pressing the Spacebar did not execute the Step command as expected.

NC Program Review and IP File Save - Fixed an issue where saving an IP file after performing an NC Program Review could cause VERICUT to crash.

Multiple NC Program Error Navigation - Fixed an issue where selecting an error message from the Vericut log did not correctly update the View and NC Program windows when multiple NC programs were being simulated.

SOR Model File Loading - Fixed an issue where .SOR model files did not open correctly in Vericut.

NC Program Rewind - Fixed an issue where the design component was not positioned correctly after using NC Program Rewind.

Stock Simulation Stability - Fixed an issue where Vericut could close unexpectedly at a specific simulation step when both Main Stock and Sub Stock were enabled simultaneously.

Tool Change List Vertex Selection - Fixed an intermittent issue where vertex selection in the Tool Change List did not work reliably.

View Orientation Persistence - Fixed an issue where saved view orientations were not retained correctly.

Workpiece View Attributes - Fixed an issue where the Attach Component setting in Workpiece View Attributes was reset after switching to the Machine view and then back to the Workpiece view.

Graphs - Fixed an issue where graphs continued updating indefinitely after using NC Program > Restart on Selected Line.

Wire EDM Multiple Stock Components - Fixed an issue where multiple stock components with different locations could produce unexpected results in Vericut Wire EDM projects.

APT7 Tool - Fixed an issue where APT7 tools with a shank diameter of zero were incorrectly initialized as part of the cutter/shank separation logic.

Multi-Tool Station - Fixed an issue where a drill in a multi-tool station could be incorrectly identified as a tap.

Revolved Cut Stock - Fixed an issue where incorrect revolved cut stock geometry could be generated with multiple setups.

Graphs Window Legend Display - Fixed an issue where the color swatch for the Optimized shaded area was missing from the Graphs window legend.

Project Tree Tooling Display - Fixed an issue affecting the display and handling of tooling data in the Project Tree.

Probing Tool Recognition - Fixed an issue where referenced probe tools were not correctly recognized during simulation, causing probing operations to behave incorrectly.

Turret Setup Center of Rotation - Fixed an issue where the Center of Rotation feature in Tool Change List > Turret Setup did not function as expected.

File Open Dialog Drag and Drop - Fixed an issue where dragging a file outside the File Open dialog could cause VERICUT to become unresponsive.

File Selection Box Drag and Drop - Fixed an issue where Vericut could become unresponsive or crash when dragging and dropping files from the File Selection Box to the desktop.

NC Program Review - Fixed an issue where the driven point did not align correctly with the toolpath during NC Program Review.

Tool Change Logger Error - Fixed an issue where an error message could be reported in the Logger during a tool change in Vericut 9.6.2. Cutter profile smoothing for noisy profile data has been restored, preventing the erroneous message from occurring.

Cycle Time Calculation - Fixed an issue where the reported cycle time could be inaccurate when the same tool was used across multiple NC programs. Cycle time is now calculated correctly in these scenarios.

Inserted Drill Material Removal - Fixed an issue where inserted drills did not remove material correctly when using all insert configurations.

Multi-Tool Event Setup - Fixed an issue where tool positions could be incorrect when using Multi-Tool configurations in Tool Event Setup.

Reviewer

NC Program Reviewer and Subprograms - Improved Reviewer reset behavior when working with subprograms. The Reset command now always returns to the first active NC program file in the current setup, providing consistent navigation during NC Program Review.

Reviewer Popup Information - Fixed an issue where popup information was not displayed correctly in the Reviewer

NC Program Review Tool Path Selection - Fixed an issue where clicking a toolpath line did not navigate correctly in NC Program Review and Reviewer

Optimization

Learn Mode Fix - Corrected an issue where *Begin Learning…* prompted users twice to overwrite an existing Tool Library.

Force Turning - Fixed an issue where interrupted cuts were not identified correctly. Logic has been reworked for more accurate detection in Force.

Stock Material Record - Fixed an issue where the operation method wasn't written to the tool file and defaulted to Rough.

Air Optimization and Force Optimization - Fixed an issue where Air Optimization and Force Optimization could produce results that were longer than the original toolpath.

Force Learn Mode Stability - Fixed a software crash that could occur during Force Learn Mode when processing tool deflection calculations.

Optimization Savings Calculator - Fixed an issue where the Optimization Savings Calculator reported an incorrect Optimized Time percentage for drill tool.

Optimized Time Calculation - Fixed an issue where the Optimized Time reported could be higher than in previous releases.

Time Display - Fixed an issue where the completion percentage and time displayed in the status bar were incorrect immediately after opening a Vericut project.

Tap Tool Collision Detection - Fixed an issue where false collision conditions could occur with tap tools due to an error in thread form comparison when determining the minor diameter if its value was zero.

Optimization Savings Calculator - Fixed an issue where an internal error could be reported in the Command window when opening the Optimization Savings Calculator after running an optimization.

Optimize Control Window Size - Fixed an issue where the Optimize Control window resized automatically.

Tool Manager

Tool File Prompt - Fixed an issue where the message “Do you wish to save the tool file?” did not appear in some cases.

Cutting Face - Fixed an issue where changing a tool’s units did not correctly scale the Cutting Face radii.

Export Selected Tool - Fixed an issue where STL files were not generated due to incorrect tool-entity error checking.

Driven Point - Fixed an issue where renaming a cutter component changed the Attach Driven Point selection.

Import CAD Tool - Fixed a crash that occurred when Select Revolved Axis was used in Import CAD Tool.

Merge Tools - Fixed an issue where TLS files couldn’t be saved after merging due to incorrect in-memory tracking of tool-file data.

Annotations - Fixed an issue where tool component names could not be copied and Add Attached Notes could not be used more than once when annotating tools in Tool Manager.

Flute Length Calculation - Fixed an issue where the reported flute length depended on the tool's original orientation. The cutter/shank splitting logic now uses the correct splitting plane, ensuring flute lengths are calculated accurately regardless of tool orientation.

Merge - Fixed an issue where repeatedly merging TLS files did not work as expected.

Cutter/Shank Color Swatches - Fixed an issue where the cutter and shank color swatch functionality did not work correctly

Treat Cutting Portion as Insert - Fixed an issue where the cutter force settings attribute was incorrectly used to determine the Treat Cutting Portion as Insert behavior.

Turning Tool Driven Point - Fixed an issue where the driven point was assigned incorrectly for turning tools.

Copy/Paste with SMR - Fixed an issue where SMR values were transferred incorrectly when copying and pasting tools.

Turning Tool Insert Orientation - Fixed an issue where turning tool insert orientations could change when opening projects created in earlier versions.

Stock Spindle Direction Display - Fixed an issue where the error "Stock spindle 'Spindle_Sub' spinning in wrong direction" could be reported due to an incorrect CAD profile display in Tool Manager.

Turn Tool Nose Compensation - Fixed an issue where Tool Nose Compensation could not be defined for turn tools.

Turret Tool Mounting - Fixed an issue where certain tools could not be mounted on a turret unless the tool was first renamed in the Tool Library.

Moving Turning Tools - Fixed an issue where the tool tip did not move correctly when repositioning a turning tool holder in Tool Manager.

G-Code Processing

Siemens - CYCLE95 Fixed an issue causing Invalid Index Array errors. Corrected several problems in building the CONTPRON table.

Siemens - Fixed an issue where MEAFRAME produced incorrect values due to point-mapping failures when points were extremely close together.

Tool Vector / ORIVECT - Fixed an issue where the shortest-distance solution was not selected when tool vectors were identical.

CAD/CAM Interfaces

CATV5

- Fixed an issue where centerdrill diameters were incorrect. Diameters now import and display properly.
- Fixed an issue where default unit values were incorrect for custom tool profiles.

Esprit TNG/EDGE

- Fixed an issue where the fixture and part on the subspindle appeared mirrored.
- Fixed an issue where tools were incorrectly assembled due to stacked-component handling. Tools now assemble correctly.
- Fixed an issue where tools were not correctly exported to the turret. All turret and multi-station tool assembly problems in the sample have been resolved.

Esprit Classic

- Fixed an issue where milling tools were assembled with the cutter in the wrong location. Tool assembly is now correct.

GibbsCam

- Fixed an issue where probe tools imported from GibbsV had no driven point. The driven point is now correctly created during import.
- Fixed incorrect tap shank geometry output (shouldered / taper shank).
- Fixed an issue where invalid TLS data could be generated from GibbsCAM due to incorrect handling of Flash Tool definitions.
- Fixed an issue where not all tooling data was transferred correctly from GibbsV. Tool information is now transferred completely and accurately.

MasterCam

- Fixed an issue where reamers were not exported correctly.
- Fixed an issue where tool profiles were not exported correctly.
- Fixed an issue where probe geometry was not exported.

- Fixed an issue where rectangular stock was positioned incorrectly. Interface now processes correctly by applying enhanced anchor-point handling.
- Fixed an issue where lathe tools were assigned a driven point ID even when the Use Tool Length Offset for Driven Point option was not selected.

NX

- Fixed incorrect output for Taper Barrel and Tangent Barrel cutters related to the new Flat Diameter (FD) parameter in the NX Interface.
- Fixed an issue where tool profile data was transferred incorrectly to Vericut, resulting in a project error caused by a negative SOR profile value.
- Fixed an issue where NXV preferences could be overridden when creating a new file.
- Fixed an issue where NXV could report "Tool Library not found" when exporting CAD tool assemblies.

PROEV

- Fixed an issue where cutters were missing when using PROEV
- Fixed a holder “Do Not Spin With Spindle” issue in PROEV
- Fixed a spindle direction issue in PROEV
- Fixed a crash that occurred when clicking the PROEV button in Creo.
- Fixed an issue where tap tools could cause cutters to be missing when exporting tools.
- Fixed an issue where incorrect dimensions could be reported for certain tools, including APT7 milling cutters and drill cutters, due to an inch-to-metric conversion error.

Solidcam

- Fixed an issue where TLS files couldn’t be opened in 9.6 due to tool units being treated as mandatory.

Tooling Interfaces

CoroPlus

- Fixed an issue where selecting Get Cutting Data populated incorrect values for Teeth and Optional Cutter Attributes.

TDM

- Fixed an issue where the tool shank was incorrectly created as a holder. Shank detection and holder naming are now corrected.
- Fixed an issue where reamers could not be imported because Vericut handled Maximum Material Removal Per Side inconsistently.

New Macros in v9.7

AbsoluteShift2
CoolantAir
CoolantAirOff
CoolantAirThruOff
CoolantFloodOff
CoolantMistOff
CoolantOffType
CoolantThruOff
CutterCompInterferenceAtStartWarning
CutterCompRampoffSkipLast
CutterCompRamponSkipFirst
CutterCompShortCorner
CylindricalLogic
EIARotaryIncrementalOption
IncrementalShift2
SetMaxSubroutineNesting
WireEDM_UV_Plane
WireEDM_UVMotionState
WireEDM_XY_Plane
WireEDM_XYSetsUVMotionState
WireEDMCutWidth
WireEDMLogic
WireEDMThreadWire
EIARotaryIncrementalOption