What's NEW in VERICUT Composites Simulation 9.2.1

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September 30, 2021

Dear VERICUT® User:

Thank you for your continued investment in VERICUT, an important part of your NC programming and machining process!

VERICUT 9.2.1 features [new feature summary], and much more. These changes and more will be described in the following pages. Please take a moment to review what's new and improved in this release.

Maintenance and Licensing Information

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To Get a License – use the link below to submit a License Request:
http://www.cgtech.com/vericut_support/request-license/.

Licensing is sent via E-mail only.

VERICUT 9.2.1 runs on 64 bit Windows, and is supported on Windows 10 computers. It is not available for 32 bit Windows computers.

VERICUT’s license server will continue to run and be supported on 32 bit or 64 bit computers.

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 (http://www.cgtech.com/about/contact-us/).

Sincerely,

Andre Colvin

CGTech VERICUT Product Manager

Enhancements and Changes in V9.2.1

Verification

Record Cutting Conditions toggle has been added to the Status window to help tabulate removal rates.

AUTO-DIFF Results option now comes with surface translucency setting.

User can now select KRL programs through the NC Program window by selecting KRL as the program type.

Status window can now display Coolant type.

Machine/Cut Stock view can now use VCT files for fixtures.

Accel/Decel logic has been enhanced for greater accuracy.

Optimization

Expanded FORCE material catalog to include the following:

- Tool-Steel+CR7V-L+HRC23
- Tool-Steel+1.2714+HRC25
- Tool-Steel+Uddeholm-Ovar-Supreme+HRC47

Accel/Decel logic has been enhanced to calculate and report optimized machining times while optimizing (instead of via subsequent simulation).

G-Code Processing

Added "RESET" option to AROT in Library Controls.

The Validate feature on the G-Code Processing window now also checks for a Base control record referencing a Word that is not in the Base control.

New **OptiFPRFormat** macro introduced to help optimize IPR and IPM formats.

MotionSpiralOption macro has been added to supplement certain orbital cutting types.

RelationalOffsetUVWOption macro added to supplement **ZRelationalOffsetCompName** macro.

OptiAllowAddCutsCDCCircles macro enhanced to allow circles to be broken up when running cutter comp.

Added Stop at Limit warnings to **AxisMotionLimit** macros.

Added new **MountToolExchange** macro to better support tool change mechanisms.

Support added for multiple End of Block characters.

Tool Manager

Added Reference Path field to CAD Import window.

OK to Mill option has been added to revolved profile Hole Making tools.

OK to Mill option added for Profile and Model cutters.

Indexable mill inserts have been added to CoroPlus interface.

Reports

3D and 2D text (flat to screen) has been added for Dimensions.

Page break controls have been added.

New Machine Metrics Table introduced.

Introduced up and down arrows to Setup Plan window to help organize views.

"Comments" column option has been added to Inspection reports.

Added Surface Finish option to Annotated Images for Inspection reports.

CAD/CAM Interfaces

EdgeCAM

Support added for EdgeCAM 2022.

GibbsCAM

Tooling outputs are now saved in the GibbsV preferences file.

MasterCAM

Support added for MasterCAM 2022.

NXV

Support added for NX 1980.

Relief diameter and relief length features have been added for some milling cutters.

PROEV

Added option to store settings in ProE project file parameters.

Problems Resolved in V9.2.1

Verification

An issue related to animation speed slider affecting material removal has been corrected.

An issue related to NC Program window continuing to display hidden subprograms has been corrected.

An issue where tool shanks created through TDM interface did not properly display has been corrected.

A regression issue where certain older tool thumbnails failed to display in newer versions has been corrected.

An issue related to turning threads generating false collision reports has been corrected.

An issue related to abnormal material removal affecting helical profiles has been corrected.

An issue of profile views not displaying correctly has been corrected.

A couple rare instances where VERICUT locked unexpectedly have been corrected.

Issues related to incorrect holder collisions generating have been corrected.

An issue where Step Through buttons failed to work correctly on subprograms in NC Program window has been resolved.

An issue where certain edited files could not always save while in use has been corrected.

An issue where AUTO-DIFF Design Component field could not use Design_VCT components has been corrected.

Issues related to unexpected termination caused by using NumSubSequenceOverWrite macro, taking measurements in profile view, using SYNC method Generic on Sin840D, and saving stocks in certain positions have been resolved.

An issue with batch processing causing Reports to generate without filled NC Program fields has been corrected.

An issue related to poor subsystem setups has been corrected.

An issue of invalid tool/stock collisions occurring has been corrected.

An issue of NC Program Review not displaying cut stock correctly has been corrected.

Issues related to unexpected termination caused by using NumSubSequenceOverWrite macro, taking measurements in profile view, using SYNC method Generic on Sin840D, and saving stocks in certain positions have been resolved.

G-Code Processing

An issue related to **CutterCompFull** macro not working as desired has been corrected.

Tool Manager

An issue where convert units to inch option did not work as expected has been corrected.

An issue where certain imported tools used more memory than was appropriate has been corrected.

An issue related to the Annotate tool not showing proper cutting diameter and radius has been corrected.

An issue where Slice Plane could not be selected for Drill, Reamer, and Center Drill tool types in CAD Import has been corrected.

An issue where coordinate systems failed to display in Tool Manager has been corrected.

An issue where tool assemblies failed to delete correctly has been resolved.

An issue with Tool Manager tool display area not working as desired has been corrected.

X-Caliper

An issue related to X-Caliper displaying radius measurement when diameter is selected has been corrected.

Reports

Reports support a wider array of special characters.

Issue where Create Report > PDF and Generate Report > PDF buttons produced dissimilar outputs has been corrected.

CAD/CAM Interfaces

CATIA

An issue related to unhandled exception errors generating during certain operations has been corrected.

An issue related to indexable tool assemblies not generating correctly has been resolved.

GibbsCAM

An issue related to stock not aligning with certain planes has been corrected.

An issue related to correct gage point failing to generate has been resolved.

An issue where GibbsCAM zoom mouse controls failed to deactivate has been resolved.

An issue with tools not orienting properly in the GibbsCAM interface has been resolved.

MasterCAM

An issue where certain tools disappeared after using the Merge Tools into Setup Template option has been corrected.

NXV

An issue where attach component field for coordinate systems could only be set to "Machine Origin" has been corrected.

Corrected issues of misplaced driven point IDs for 3D tools translated by NXV.

An issue where tool exporting via boring bars in NXV created undesired parameters that could not be edited has been corrected.

An incorrect output for drill tools has been corrected.

An issue where attach component field for coordinate systems could only be set to "Machine Origin" has been corrected.

PowerMILL

An issue related to datum export errors has been corrected.

An issue related to PowerMILL interface licenses not checking in properly has been corrected.

Robots

An issue related to join positions rotating incorrectly has been resolved.

Reviewer

An issue related to certain Reviewer files losing stock has been corrected.

An issue related to Reviewer graphics not working as desired has been corrected.

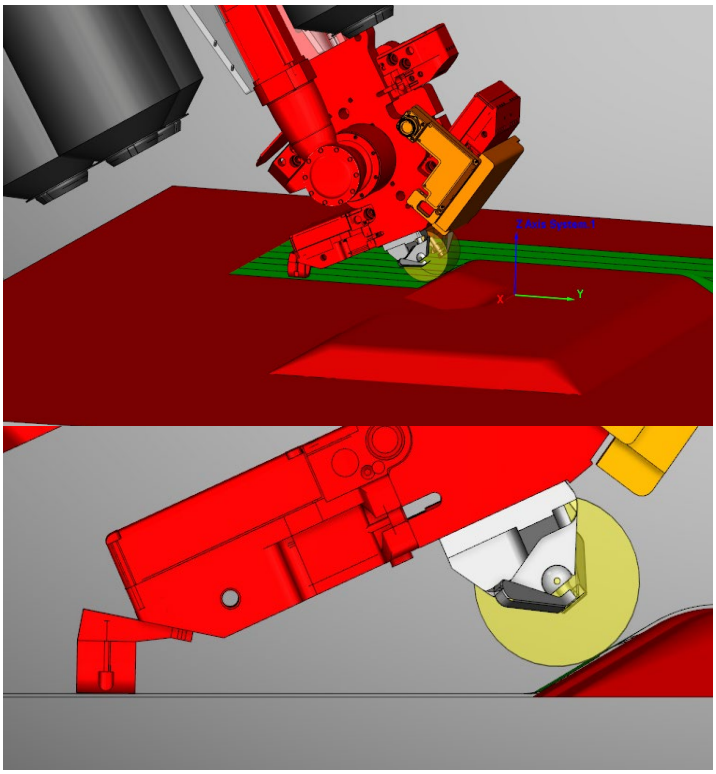
An issue where a stock workpiece became coupled to a tool spindle and couldn't be removed by normal methods has been corrected.

New Macros in V9.2.1

AxisMotionLimit
MachineMetricChild
MachineMetricParent
MotionSpiralOption
MountToolExchange
OptiAllowAddCutsCDCCircles
OptiFPRFormat
RelationalOffsetUVWOption

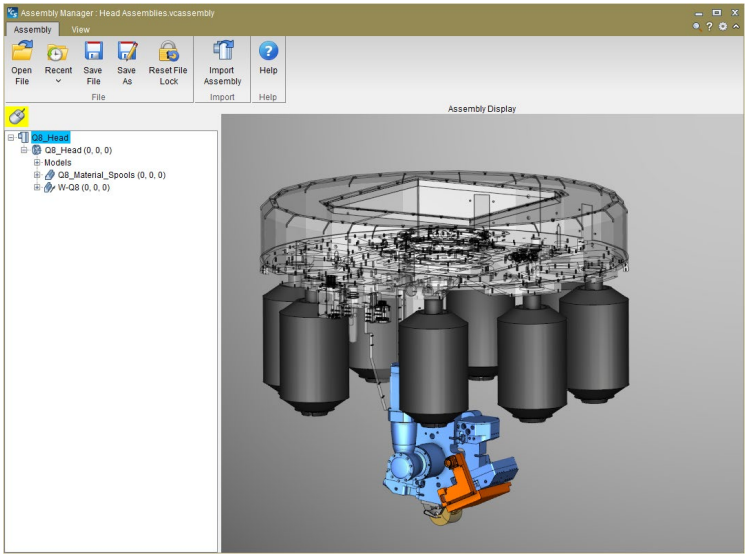
VERICUT 9.2 Release Highlights

Collision Checking



VERICUT 9.2 brings significant speed increases and improved accuracy to collision checking and overall performance. Users gain substantial speed increases for collision checking between highly detailed models such as those having high triangle counts.
VCS 9.2 release features new collision capability with the composite laminate model built during the simulation. The feature accessible from the Panel - Configure Collision-

New Assembly Manager



Manage libraries of component assemblies, such as robot end effectors, interchangeable machine heads, bolt-on rotary tables, part/fixture setups, and more- to use in other VERICUT projects, or be accessible to other users. Export/import assemblies via right-click options added to the Project Tree, or options in the Configure Component panel.

Enhancements and Changes in V9.2

Verification

NC Program window: view previous lines processed, plus new customizable Toolbar. Left/Right arrow icons step backward/forward (up to line where processing stopped). Far-left icon returns to last NC program line processed.

Machine and Control notes textboxes got scroll bars to allow increase their size with the size of the window.

Syntax Check has been enhanced to greatly decrease the total time, especially for Siemens projects.

Implemented string substitution based on the values in the Substitute tab of the Control Advanced Options window.

G-Code Processing

Added message in VERICUT 9.2 when end sequence number (Q) is not found in current subroutine.

Introduced **RtcpUses** macro to select between offset types like in Control Settings.

IfCheckZero macro introduced to assist **IfCheck** macro.

AddCommentToVar macro enhanced to create numeric variables.

Fanuc G65/G66/G66.1 logic has been completely rewritten to support a wider array of subprogram options.

Robots

VERICUT Robots support has been overhauled with enhanced machining logic to speed up manufacturing times, reformatted documentation for ease of use and navigation, and has received a wide array of macro updates to enhance its utility.

VDAF

In Fastener Programming, locations in tables can now be refreshed. Different parameters for the same cycle name can be entered for different locations.

Reviewer

An issue where .vcreview files imported incorrect models has been resolved.

Implemented Driven point and tool tip axes in Reviewer. Axes need to be on during simulation to be captured for Reviewer.

Added driven point saving in 9.2 review file. Driven point axes need to be displayed during simulation in order to capture their values and replay them in Reviewer.

Problems Resolved in V9.2

Verification

Syntax Check has been enhanced to greatly decrease the total time, especially for Siemens projects.

Multiple instances of VERICUT slowdown or delay have been corrected.

An issue of Refine Display not working as intended has been corrected.

An issue with active offsets not deleting properly has been corrected.

Issues of unexpected termination have been resolved.

An issue of feedrates not being read correctly by the control file has been corrected.

An issue of sectioned edges appearing even when Section was not active has been resolved.

An issue with deleted branching models affecting simulation has been corrected.

An issue with ATL cut tapes has been resolved.

Issue with X-Caliper stack thickness measure has been resolved.

Added support for MTorres Tow files with multiple sequences and plies.

Reviewer

An issue where certain features disappeared in the Reviewer app when entering Reviewer Mode has been corrected.

An issue where certain machine models rotated incorrectly once opened in Reviewer has been corrected.

An issue where transferring files to Reviewer did not work as intended has been resolved.

An issue related to certain tools disappearing from Reviewer after saving the file has been corrected.

New Macros in V9.2

ChannelTagPosition
CoolantOnType
CutterCompBottleneckDetect
CycleTurnGrooveXRetract
CycleTurnGrooveYRetract
HeidSysWrite502ApplyRotationPlane
IfCheckZero
Ijk2AnglesApplyWORotation
OptiXWordExpression
OptiYWordExpression
OptiZWordExpression
RelationalTablesRefresh
RestoreDWO
RestoreRpcp
RestoreRtcp
RoedersForLoop
RtcpUses
SetRobotLogicVersion
SiemensCONTPRON_YZOption
Siemens840DSyncInitChannel
Siemens840DSyncInitSub
Siemens840DSyncStartSubChannel
Siemens840DSyncWaitEndChannel
SiemensCONTPRON_YZOption
SiemensSetFrame2
TapeMTorresGetTowData
ToolNoseCenterCalcs
WTapeMTKnife1Angle
WTapeMTKnife2Angle