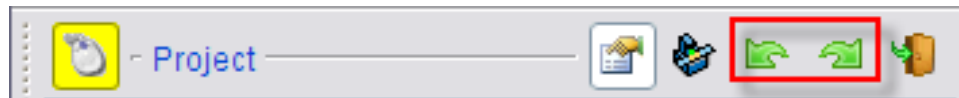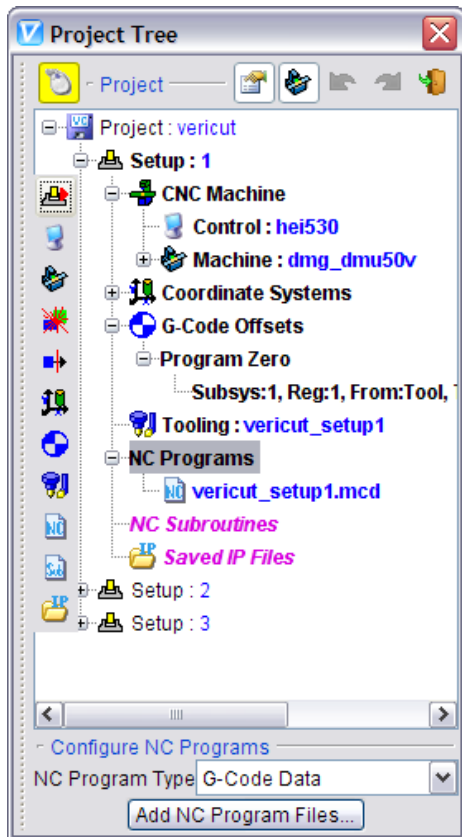# VERICUT 7.1

More control than ever!

VERICUT Version 7.1 further improves VERICUT's user interaction, simulation capabilities, cutting tool creation, and CAD/CAM integration. Additionally, CGTech developer resources have continued to focus on diligent code optimization and over 400 customer-driven enhancements.

Don't worry about making a mistake while configuring your project: a general purpose Undo/Redo button is available at the top of the Project Tree.

PROJECT TREE ENHANCEMENTS

The Project Tree, first introduced in VERICUT 6.0, continues to be refined to make your VERICUT sessions simple to set up. A shortcut Toolbar has been added to enable you to quickly
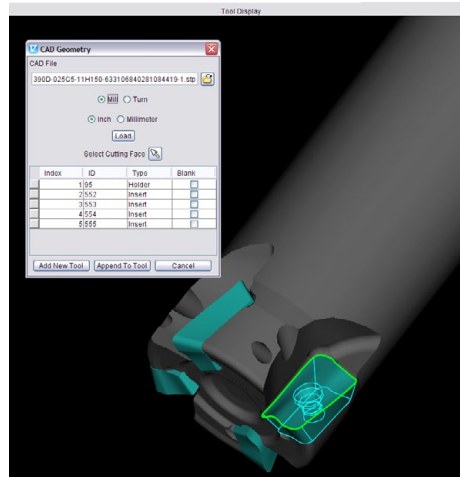

go to a particular Project Tree branch. You can hold the cursor over the icons to see what branch the icon goes to. Model file names are shown in parentheses for all models that have model files associated with them. Double clicking on NC Programs, or NC Subroutines, displays the appropriate file selection window. Also, NC Programs and NC Subroutine files can be added by simply right-clicking in the Project Tree. Don't worry about making a mistake while configuring your project: a general purpose Undo/Redo button is available at the top of the Project Tree.

CUTTING CONDITIONS SHOWN

Cutting conditions are shown in the status display and available when stepping through the program using NC Program Review. The feature shows detailed information about the cutter's engagement with material, including: axial depth, radial width, volume removal rate, chip thickness, maximum surface speed and contact area.

Importing STEP model assemblies is simple with 7.1.

TOOL MANAGER

To further simplify creating your VERICUT tool library, you can now import CAD solid models of inserts and holders into VERICUT. The new feature added to the Tool Manager displays the CAD Geometry window that allows you to identify which parts of the CAD model file corresponds with holders, cutters, or inserts. CATIA v5 and STEP models are supported.

You also now have the ability to create and display coordinate systems in the Tool Manager. These coordinate systems can then be used to align tool components.

CAD MODEL ASSEMBLY

A new feature, Assembly, in the Open model file selection window enables

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you to extract all the individual components of a CAD assembly file and store them in their own model definitions. If Assembly is toggled "on" (checked) a separate model will be created for each component in the CAD model. When toggled "off" (unchecked) all components are used to create a single model. This feature supports STEP, CATIA v5, and NX model types.*
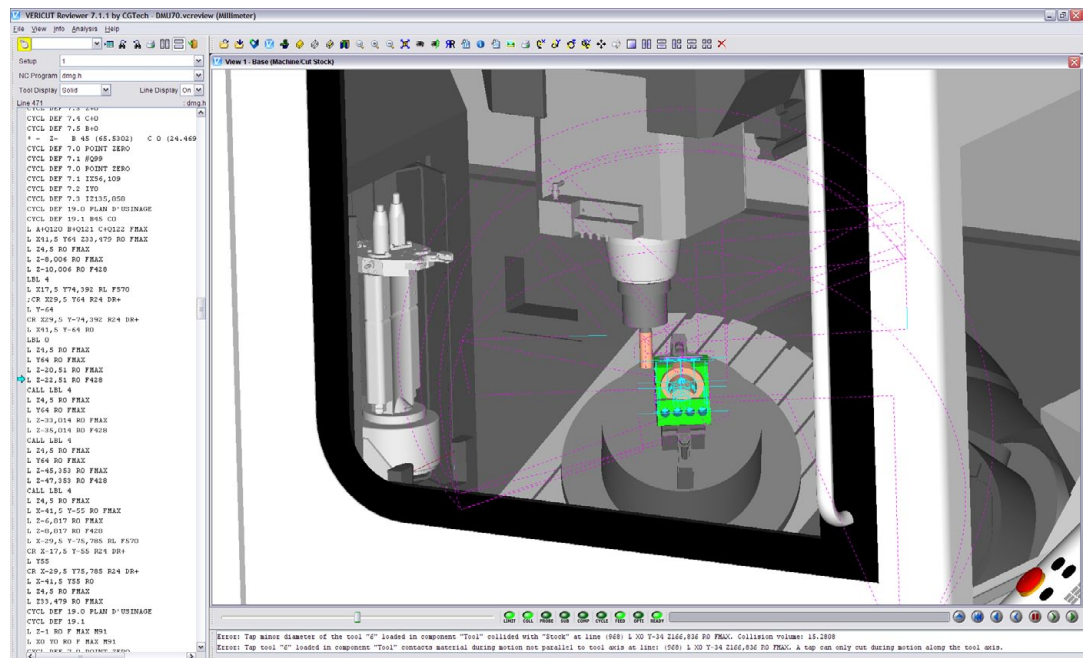
VERICUT REVIEWER

The VERICUT Reviewer incorporates all the functionality of NC Review mode in a stand-alone viewer that does not use a license. The Re-

The VERICUT Reviewer incorporates all the functionality of NC Review mode in a stand-alone viewer

viewer can play forward and backward while removing and replacing material. You can rotate, pan and zoom just like normal VERICUT, and the cut stock can be measured using all the standard X-caliper tools. The "Reviewer" file can be saved at any point in a VERICUT session.

SHOP DOCUMENTATION

With the new VERICUT report enhancements, you can preview and customize your own report templates to include features such as pictures in tables, links to files and links to websites. These reports have become increasingly valuable for VERICUT users to share CNC machining process information throughout their organization and supply chain.

MACHINE SIMULATION

A new feature has been added for VERICUT collision checking: you can now stop the simulation at an "exact" collision point between the machine components. The new feature is turned on/off using the new Stop At Collision check box on the Start/Stop panel. The new logic is applied only to the Machine Simulation collision checking, and only to machine components other than the STOCK component. It is not applied to the holder/stock and tool/fixture collision checks. While simulating a NC block with the Stop At Collision box checked, VERICUT will stop in mid-motion at each collision point. Clicking the Step button continues simulation to the next collision point (or to the end of the motion if no other collisions exist).

GEAR CUTTING

VERICUT now supports material removal for gear hobbing and synchronizes the tool spindle with part spindle.

ADDITIONAL ENHANCEMENTS:

■ The Pro/E interface has been enhanced to improve creation of parametric, sketch, and solid tools.

■ Helical milling material removal is enhanced by creating a "true helix" motion type.

■ Material removal for general broaching operations is supported.

■ Simulation of back spot-facing tools is now supported.

■ Diameter value is added to hole measurement information in X-Caliper.

■ VERICUT now supports a full range of six-axis robots to simulate machining, waterjet trimming, fiber-placement, drilling and fastener insertion.

■ A general linkage component is added to allow the connection of two driven components with a slaved linkage.

■ The ability to output a NC program, of a different format than the input program, is added to base VERICUT functionality. The method for re-formatting the program is user-configurable.

■ All popular controls continue to be enhanced with new advanced features: Siemens 840D, Fanuc 30's, Heidenhain, Okuma OSP, Mazak Matrix.

*Model interface required for STEP and CATIA file types.

CGTech always welcomes input. Regardless of where the feedback is received – the VERICUT User forum, CGTech technical support, or at one of the many VERICUT User Group meetings held around the world – we are listening. User input is what drives the vast majority of enhancements included in each VERICUT release.