## VERICUT® CNC Machine Software

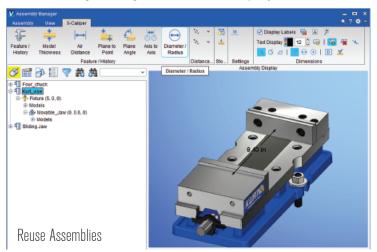
### Version 9.3

# Smarter Data for Smarter Manufacturing

#### Build, Manage, and Reuse Assemblies

Use Assembly Manager to create and manage portions of your NC machines such as rotary table configurations, angle heads for machining, robot end effectors, or various workholding setups with fixtures and workpieces to be machined. The library of assemblies save programmers time since they are easily accessed by others, and for repeated use in new VERICUT projects.

- Easily build and manage component assemblies using a project tree-like structure.
- Test jog motion directions, axes of movement, and kinematics for each assembly.
- Verify assemblies via Section views and X-Caliper measurements.
- Quicker job setup: drag and drop assemblies from Assembly Manager to VERICUT's project tree.



#### Status and HUD Improvements

Streamline machining and simulation information seen in the Status window and Head Up Display (HUD).

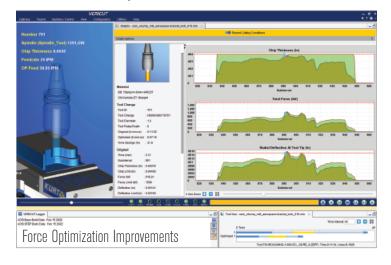
- HUD automatically updates to match visible Status information, or use "Field Visibility Edit Mode" to concurrently edit Status and HUD configurations.
- Users can lock and unlock the visibility of status groups to retain a familiar layout for future VERICUT sessions.



#### Force Optimization Improvements

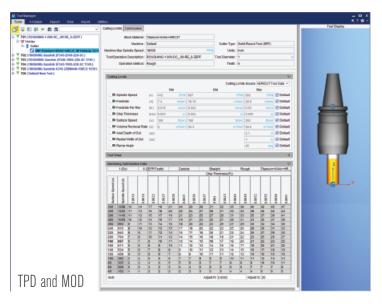
Achieve better machined part quality, as well as longer tool and spindle bearing life by limiting tool deflection through Force optimization.

- Deflection calculations in 9.3 are expanded to account for the entire rotating tool assembly, including holders, indexable mills and CAD model assemblies used as tools.
- Deflection is calculated even if "holder-less" tools are used.
- Force users can add volume removal rate (VRR) as a limit, along with any other optimization limit.
- Improved analysis and optimization for solid round tools and complex cutters.





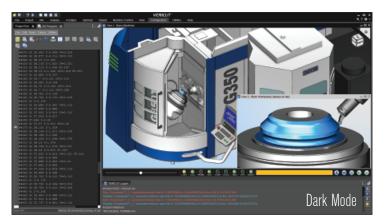
### VERICUT® CNC Machine Software



### Tool Performance Database (TPD) and Machining Optimization Data (MOD)

Tool Manager includes a Tool Performance Database (TPD) that suggests starting spindle speed and feed rate values to use with cutters in a wide range of stock materials. This data works with Machining Optimization Data (MOD) in VERICUT's Tool Manager. MOD displays a table of spindle speeds and feed rates that helps programmers achieve desired cutting conditions.

- TPD offers data for solid round tools, indexable mill cutters, and turning inserts.
- TPD/MOD values based on the type of cutter being used, material of the workpiece and the cutting operation method (roughing or finishing).



#### **CNC** Machine Connect

Get data directly from CNC machines on the shop floor for use in VERICUT. The first connective ability being released with VERICUT 9.3 is "Pre-check," which obtains data from machines to ensure VERICUT's virtual machine is the best possible "twin," and validate the job setup information on the machine matches what was verified in VERICUT.

Identify important differences, so they can be corrected before pressing "Cycle Start" on the machine. Or use the options to update VERICUT with the machine information, then rerun the simulation to verify no new issues will "suddenly" appear on the machine.

- Check that parameters from your physical machine and VERICUT's virtual machine match, and use this data to enhance or correct the virtual machine.
- Verify that job setup information on the machine (NC programs, subprograms, work offsets, etc.) matches with corresponding VERICUT setups.
- Verify cutting tools and their length offsets match with VERICUT.



#### Dark Mode Color Theme

VERICUT offers a Dark Mode color theme for users that prefer darker colors to ease eye strain and provide more striking views of the simulation.

 $\hbox{@ CGTech 2022. All rights reserved. CGTech and VERICUT are registered trademarks of CGTech and VERICUT are registered trademarks are registered trademarks and vERICUT are registered trademarks are registered trademarks. The registered trademarks are registered trademarks are$ 

