

## Powering VERICUT CNC Machine Connect

### Achieve High-Accuracy Digital Twins with VERICUT Using a Live Connection to CNC Machines Through DataXchange

Scytec has partnered with **CGTech** for integrating the Scytec DataXchange shop floor machine monitoring system into **VERICUT** via CGTech's new **CNC Machine Connect** module. The integration gives users the ability to connect VERICUT directly to CNC machines through DataXchange to utilize real-time data from the shop floor. Take your CNC simulation to a new level by creating the most accurate digital twin of your machines possible and establish a more streamlined manufacturing process.

#### Pre-Check

CNC Machine Connect allows users to conduct a **Pre-Check** after running a VERICUT simulation and before manufacturing a part on the machine for the first time. Pre-Check verifies that the data and parameters used in the simulation match what is on the machine. This prevents unexpected errors from appearing when you run your part for the first time on your shop floor.



If Pre-Check shows that machine parameters and set up details such as the main NC program, subprogram, tools, length offsets, and more match what was in VERICUT, it's time to press Cycle Start on the machine. If differences are identified, users can investigate and update these on the CNC machine or use the **Update** feature in CNC Machine Connect to update VERICUT with the machine data to rerun the simulation and ensure there are no new problems or unexpected errors before pressing the Cycle Start button on the CNC machine.

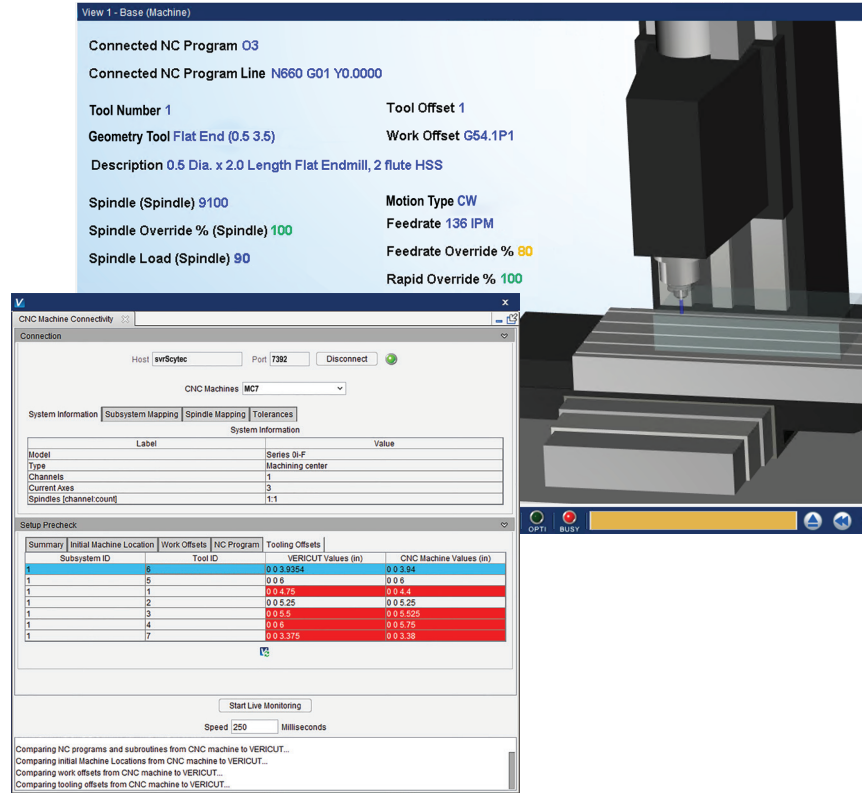
#### Live Streaming

The CNC Machine Connect **Live Streaming** functionality brings true digital twin capabilities to reality. With live streaming data from Scytec DataXchange, VERICUT is driven by the actual CNC machine data points. See exactly what the machine is doing at all times, from within VERICUT.

# Powering Vericut with CNC Machine Connect

## CNC Machine Connect Highlights

- Read machine set up information such as main NC programs, subprograms, axis locations, work offsets, and tooling to compare with VERICUT's Machine Configuration (VMC).
- Read machine parameters to improve VERICUT'S digital twin machine.
- Identify differences between machine variables, parameters and settings and update the VERICUT simulation to verify that these values produce the intended result.
- The ability to Live Stream the machining process for insight into axis positions, overrides, tooling, and more.
- Investigate potential issues that may have caused parts to be out of specification.
- Review any modifications to the NC program, subroutines, feed rates, spindle speeds and more.
- Identify and review any errors or problems that resulted in overrides or emergency stops.
- Compare live cycle times to VERICUT's predicted run times.



## DataXchange Charts and Dashboards

The Scytec DataXchange machine monitoring platform is a robust shop floor tool that comes with manufacturing dashboards and charts that give users access to real-time machine status, performance, and utilization metrics.

Use the DataXchange dashboards and mobile

apps to view equipment status and alarms in real-time. Receive Microsoft Teams, text messages and email notifications based on configurable events such as the machine running with the feedrate override turned down. Take your shop floor to the next level using Scytec DataXchange.

