

## **Vericut CNC Machine Connect: Precheck**

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# Achieve High-Accuracy Digital Twins

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Scytec has partnered with **Vericut** to integrate the Scytec DataXchange shop floor machine monitoring system into Vericut via **CNC Machine Connect**. This integration gives users the ability to connect Vericut directly to CNC machines through DataXchange to utilize real-time data from your shop floor equipment. Take your CNC simulation to the next level by creating the most accurate digital twins of your machines possible and establish a more streamlined manufacturing process without errors.



**Vericut** 

Vericut user interface showing which of the parameters have passed and failed Precheck

#### Precheck

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

If Precheck shows machine parameters and setup 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 your 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 revise Vericut with the machine data and rerun the simulation. This ensures there are no new problems or unexpected errors before pressing the Cycle Start button on your CNC machine.

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#### **Vericut CNC Machine Connect: Precheck Highlights**

The purpose of Precheck is verifying that job setup information on the machine is correct by comparing the corresponding data within Vericut.

- · Verify tools and tool offsets match those in Vericut, within allowable tolerances.
- Verify work offsets on the CNC machine match those in Vericut.
- · Verify the starting axis positions are correct.
- Verify the main and subprograms match the corresponding Vericut setups.
- · Verify critical parameters on the CNC match Vericut's virtual machine.

Real-time dashboards along with email, text message, or Microsoft Teams notifications can be used to communicate Precheck results or if a Precheck was not performed before running a new job.

### **The Precheck Process**

Once the CNC job has been verified by Vericut, the CNC programmer can either perform a Precheck from within Vericut, or publish the needed Precheck data for later verification on the shop floor. A separate, unlicensed Precheck application can run on a PC or Windows tablet, allowing shop floor personnel to perform the Precheck when the setup on the CNC machine has been completed.

CNC Machine Connectivity	Disconnect	- 60 Connected NC Program
CNC Machines Focas Simula	ator 2 ·	Connected NC Program Record
Configuration Precheck Postcheck CNC Machine Moni Summary Initial Machine Location Work Offsets NC P	rogram Tooling Offsets	Tool Description Spindle (Spindle) OFF
Ø Parameters Ø Initial Machine Location Ø Work Offsets	10 15 15 15	Spindle Override % (Spindle) Spindle Load (Spindle)
	5 Ista For Precheck	

The Precheck standalone application

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