### VERICUT® CNC Machine Software

# 3DLive GDML Interface

Simplify the VERICUT machine building process and create more realistic setups in a matter of seconds by importing 3DLive data.

Read Geometry Description Markup Language (GDML) files into VERICUT with the 3DLive Interface. GDML is an application independent geometry description format based on XML.



The 3DLive Interface reads in 3D Geometry for CNC machines, fixtures and cutting tool holders, including:

- Colors
- Kinematic configuration
- Travel limits
- Min/max feed rates
- Initial machine position

What has traditionally been a challenging and time-consuming procedure to obtain machine specific information and manually build digital twin machines, can now be done quickly and easily in VERICUT using the new 3DLive interface.



\*3DLive $^{\mathbb{I}}$  is a registered trademark of MachiningCloud, Inc.

### Why 3DLive + VERICUT?

Read 3DLive files into VERICUT in a matter of seconds

Eliminate measuring/modeling of components by traditional means or requesting 3D models from the machine tool builder

Utilize GDML data containing fixtures for collision checking

Read tool assembly holders into VERICUT's Tool Manager

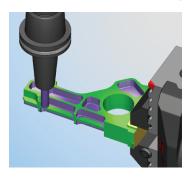
Utilize 3DLive fixtures to exactly represent the workholding setup



# CRASH YOUR MACHINE

...as long as it's in VERICUT

NC Program Verification, Inspection & Analysis, CAD Export \_\_\_\_\_



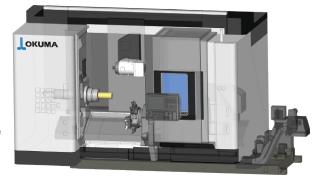
VERICUT simulates milling, drilling, turning, multi-tasking mill/turn, and EDM operations. Errors that could ruin the part, damage the fixture, or break the cutting tool are easily identified. VERICUT supports G-codes and native CAM files and includes analysis tools to measure and compare the cut part with the design model. You can model any cutter, fixture, or holder shape. During simulation you create in-process inspection instructions and export a CAD model of the "as-machined" part.

- Eliminate program errors
- Reduce scrap and rework
- Train without using a machine
- Improve documentation and presentations
- Consistently produce perfect first-time programs without manual prove-outs

#### CNC Machine Simulation\_

A single crash can be extremely expensive, ruin the machine, and delay the entire production schedule! VERICUT enables you to simulate your CNC machines so you can detect collisions between portions of the machine, the part, fixtures and holders, etc. before any actual cutting occurs. And, because the simulation is driven by the same logic as the machine's control, it behaves exactly like the physical machine and is the most accurate collision-checking available.

- Eliminate crashes & close calls
- Check machine capabilities
- Improve process efficiency
- Speed up machine implementation time
- Enhance documentation
- · Increase safety and improve training



#### Feed Rate Optimization.



• Improve cutting tool performance

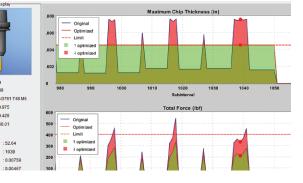
• Prevention of undesirable cutting conditions

• Eliminate manual feed adjustments at the machine

• Utilize cutting tool technologies to their full potential

• Maximized and consistent chip thickness throughout the machining process

VERICUT is equipped with NC program optimization capabilities. Based on the cutting tool geometry, part material, and programmed cutting conditions, VERICUT automatically determines the optimum safe feed rate for each cut. The VERICUT optimized NC program will greatly improve cutter performance resulting in significant cycle time savings, reduced tool wear, improved tool life, and better finished parts.



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