MACH 2020 20 to 24 April NEC Birmingham Disruption is sometimes the only way forward says CGTech (Hall 17 Stand 330)

'If you always do what you've always done, you'll always get what you've always got' is a truism that CGTech, developer of VERICUT – the world's leading CNC simulation, verification and optimization software - has been stating to manufacturers in many industry sectors since 1988.



Visitors to the MACH 2020 exhibition (Hall 17 Stand 330) can find out from the renowned global leader in NC code simulation how the software can improve (disrupt) their business. With VERICUT, CGTech offers a wide range of products and solutions that ensure CNC machine tools run collision-free and manufacturing processes operate more efficiently with increased profit levels. Machine shops can take back control and get ahead with VERICUT.

Demonstrations of the latest features in version 9.0 of VERICUT CNC machine simulation and optimization software will be conducted on the stand, by the company's knowledgeable technical staff. VERICUT software is the industry standard for simulating CNC machining in order to detect errors, potential collisions, or areas of inefficiency. It operates independently; but can also be integrated with leading CAM systems.



Technical Director, Gavin Powell, says: "Faster is better, with the development of our new graphics display providing significant gains for users. You can render faster with more realistic and crisper views of cutting processes and machines. With dramatic improvements in the view environment; rotate or zoom while cutting, seamlessly switch view types or layouts, and change model translucency, colours or other appearance properties at any time. New flexibility to use major functions (like Section, X-Caliper and AUTO-DIFF) in any view will help programmers get things done faster."

'Restart' and 'Stop At' capabilities quickly verify changes made to an NC program, and have more control over the simulation. Initiate Restart action on any line in the NC Program window and the simulation quickly processes up to the restart line, then the display updates to show the result. A new Stop At Line Number/Count option enables programmers dealing with looping and branching logic to stop at a specific occurrence number of processing a line in the NC program.

CGTech will also demonstrate VERICUT's Force optimization module at MACH. VERICUT + Force provides an integrated simulation-optimization solution that can significantly reduce machining times, improving cutting tool and machine life. New and legacy NC programs can be optimized with Force to run as efficiently and safely as possible. Force is available for milling, turning, and mill-turn machines.



Force is a physics-and mathematics-based module designed to optimize machining feed rates. The software uses actual data for cutting tool forces and spindle power readings to calculate maximum chip thickness and feed rate.

Sales Engineer, Scott Ravenscroft, explains: "VERICUT covers the obvious and visible production elements, such as crashes, scrap, gouges and prove outs; Force addresses the hidden opportunities. These include inefficient programming and suboptimal feedrates caused by the CAM system's inability to adjust cutting feedrates for varying cutting conditions."

Force relies on proven technology to maximize program efficiency and productivity and typically achieves savings of 8 to 15 per cent on aluminium and 15-plus per cent on difficult to cut materials. Return on investment can often be as little as one production component, with the opportunity to analyze cutting conditions, improve tool life, protect CNC machine tools and reduce operational costs.

Gavin Powell concludes: "Companies now more than ever are realizing the importance of simulation and the digital twin model. We are working closely with our customers and partners around the world to understand their exact needs, we deliver superior technical and economical solutions through the use of advanced technologies."