Vericut

Gloucestershire Engineering Training

Vericut software helps apprentices become industry ready.

User Story

Recent investment in Vericut verification, simulation and optimisation software is helping apprentices at Gloucestershire Engineering Training (G.E.T.) advance their skills in CNC machining to even higher levels of achievement. This progressive training specialist says the introduction of Vericut even prompted the first cohort of learners to share their positive feedback with the organisation's CEO, requesting the software remains part of the curriculum and undergoes further integration moving forward.

Designing and delivering engineering training for large and small employers since 1977, G.E.T. has its headquarters and main facility in Gloucester, supported by a satellite site at nearby Cinderford.

"Our apprenticeship programs and commercial training courses are tailored to suit the needs of both industry and individual learners," states Training & Maintenance Manager Jake Weatherley, who looks after the machining curriculum. "This means our learners are work-ready from the minute they finish training. We also operate as part of the GTA England training network, sharing best practice and helping to develop apprenticeships and curriculums."

An independent training provider and registered charity with 52 members of staff, the current academic year (2025/26) saw GET take on another 164 Level 3/Level 4 apprentices. All have positions at companies within GET's rapidly expanding network of 100+ employers.

Fired up for progress

"We first met with Vericut in 2023, and it really opened our eyes. We instantly saw the software's potential," says Jake. "We had always taught CNC as G-code programming, typing codes into Notepad and then transferring to the machine and watching a 2D toolpath simulation. However, it's often difficult for learners to visualise what the machine and cutter are doing. Vericut, with its complete digital model of the machine and its set-up, brings machining to life. It's a huge benefit for our learners."

Vericut features the most accurate collision checking routine on the market, no matter how complex the NC program. Rather than simply checking points along a path, the software checks the entire travel motion by

sweeping through space.

“I can recall from my own training many years ago that I once bumped the chuck on a CNC machine,” reveals Jake. “I missed one line of code to send the tool home. The turret indexed round and clipped the chuck jaws. That was the last and only time I crashed a CNC machine, but it was a frightening experience.”

He continues: “Vericut provides a fantastic safety net. We are teaching machining to young learners, which is quite a big responsibility. Checking every line of every learner’s program before it runs on the machine is intense. Vericut not only provides confidence in safe programs, but it also gives me more time to spend with learners rather than checking code. The simulation quickly shows if there are any collisions and were.”

First impressions

Vericut is still in its infancy at GET, the first group of learners to use the software was part of the 2024/25 cohort. However, the group was so impressed it felt compelled to relay positive feedback via email directly to the organisation’s CEO, Warren Thomas. The learners expressed how advantageous Vericut was proving and requested G.E.T. continues building on its adoption and use.

The GET facility in Gloucester houses two Haas TM-1 CNC toolroom milling machines, a Haas Super Mini Mill with automatic tool-changer, on-board probing and high-speed spindle, Two Haas ST-10 CNC lathes are also on site. As a point of note, GET. has placed an order for another Haas Super Mini Mill, this time with a fourth axis, and a Haas UMC-400 five-axis CNC machining centre.

“Vericut is really coming into its own at GET,” states Jake. “We of course still teach manual G-code programming but, through consultation with our employer network about our course delivery moving forward, CADCAM, 3+2 axis machining, rotating parts and simultaneous operations are increasingly part of the requirement. Our new machines will be integrated with Vericut ready for our September 2026 apprentice intake. We are also in the process of setting up our Haas lathes for use with the software.”

Setting the standards

Currently, by the time apprentices reach CNC training they have already completed Level 2 and 3 milling and turning on manual machines.

“Learners are introduced to CNC via absolute and incremental programming, programming point-to-point and learning about sub routines, tool changes, safe moves and so on,” explains Jake. “Typically, the learners begin by machining simple 2D profiles from plastic or aluminium, working towards assessment tasks. For milling, these assessments might include profiling, chamfering, pocketing, drilling and CAM cycles, for example.”

Learners program the part themselves in Notepad before transfer to a Haas Simulator to view the tool paths.

“Vericut fits in the step between, the Haas simulator is brilliant for checking that the program syntax is correct for our Haas machines. However, while it shows the tool paths, it will not tell you if you’re roughing out with a drill, for example. In contrast, Vericut simulation shows very clearly any errors or collisions; it lets learners know if they called up the wrong tool or applied unsafe clearances.”

Industry-ready learners

This progressive training organisation is a clear innovator, investing in the latest technologies to help its learners become the best version possible of ‘industry-ready’. This ethos provides the basis for success and growth, evidenced by GET’s recent opening of a new Higher Education Facility at a neighbouring unit.

The move was funded by a grant from the Gene Haas Foundation, which has recognised GET as one of the few training centres in the UK to become a designated Gene Haas Centre for Advanced Manufacturing. With state-of-the-art training rooms, breakout areas, and quiet study spaces, the new Gene Haas Centre for Advanced Manufacturing enables GET to support more Level 4 apprenticeships and HNC/D learners than ever before.

This grant has also allowed GET to expand its existing training workshop, developing the mechatronics curriculum to include pneumatic and hydraulic training.

GET recruits and trains learners for companies both large and small across the Gloucestershire engineering sector, including ABB, GE Aerospace, Konecranes, Moog, Renishaw, Safran, Spirax Sarco, Royal Mail, Walls, and Trelleborg, to name just a few.

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“Vericut is massively supportive in GET.’s continuous improvement initiatives,” concludes Jake. “Our instructors had their initial Vericut training days at the MTC [Manufacturing Training Centre] in Coventry, but the on-site training delivered by Vericut here in Gloucester was particularly beneficial. Since then, Vericut helped us set up digital models of our machines and is always asking if we need further assistance. Their willingness to support our progress and success is second to none.”