U Vericut

Services & Training

Implementation and Automation Consulting

Be sure Vericut is correctly integrated with your CAD/CAM systems, and that your electronic workflow is as smooth and efficient as possible! On-site advice about your initial pilot projects eliminates false starts and confusion, and can be the key to accelerating your R.O.I.

Verification Audit

Are you using Vericut to its full potential? Here's how to tell! A Vericut expert will examine your use of the software and provide you with a written report covering potential risks in your current operation, and areas where you can achieve better results. We'll check your Vericut installation and assess whether your staff is sufficiently trained to use the software.

Optimisation Mentoring

You've purchased one of our optimisation modules, now make sure you take full advantage of its capabilities. Our experts will provide hands-on training on how to optimise your tool paths – using your parts, on your machines. We'll set up your optimisation libraries and fine-tune the results, including runs on your machines, so your operators can see for themselves how efficient they are.

Contract Services

Machine Tool Modeling & Control Building

Need to simulate your CNC machines, but don't have the time or manpower to model them? Maybe you have special or complex simulation requirements. Hire CGTech to model your machines and do everything required to make running your simulations a push-button operation! We'll build your virtual CNCs for graphical simulation and collision checking, as well as non-graphical kinematic representations designed to enable Vericut to accurately process your G-codes.

NC Program Optimisation

Want to improve the quality and throughput of your NC machining? Send us your NC programs (G-code or APT), and we'll return faster, more efficient programs. This is an ideal solution for shops with limited time, manpower, or optimisation expertise.

Custom Tool Libraries We will build Vericut tool libraries from scratch or from your existing spreadsheets and databases.

Vericut Verification
Training Course

DAY 1 -
BASIC NC PROGRAM SIMULATION & VERIFICATION

This course introduces users to the basics of NC program verification. Following an overview of the graphical user interface and functionality, you'll learn how to run a project in Vericut Special emphasis will be placed on how to detect and locate errors in NC programs. This course will also show you how to analyse the cut part by using many of Vericut's built-in analysis features, including the ability to compare the cut stock to the design data.

DAY 2 -
JOB CONFIGURATION

Day two will expand on the first day and shows how to configure a job in Vericut We'll cover configuring multiple setup projects, advanced modeling and assembly techniques, and defining tool shapes. You'll learn how to use coordinate systems, subroutines and work offsets. We'll also teach how to define and position the stock model, and orient the models on the machine.

DAY 3 -
INTEGRATION

Day three builds on what you learned in the first two days and shows how to integrate Vericut in your manufacturing process. Topics include using Vericut-to-CAD/CAM interfaces and how to customize reports for your specific requirements. The afternoon will be a chance for you to delve deeper into Vericut features and will give you an opportunity to work on projects with the instructor's assistance. Some topics may include: setting up and simulating your own files, advanced tool configuration, and NC optimistion.
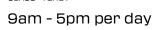
PREREQUISITES FOR WEB TRAINING

• Must have VERICUT 9.5 running on your computer prior to class. Licensing concerns can be addressed by emailing support.uk@cgtech.com.
• Computer must be set up to support voice over IP. There will be no "Phone-in" option available for the training.
• All users must use headphones or earbuds for listening in. Open speakers can cause feedback problems when microphones are enabled.
 • Two monitors are required. Computer display should be configured to extend applications to either monitor (not duplicated).

PRICING:
£300 per day per attendee
Training courses are held online, or at our facilities across the United Kingdom. On-site customer training is also available. Please contact us for a quote

CLASS TIME:
9am - 5pm per day
Classes typically commence between these hours, whether online or in person.

Cancellation Policy:
10 Working Days
If you need to cancel your place we request that you do so at least 10 working days in advance of the course start date. If minimum numbers for each class are not met, then we will cancel the course and you will be moved onto the next available class.

U Vericut

Vericut Machine & Control Building Training Course

Note:
The Vericut Machine & Control Building Class is intended for experienced Vericut users. It is assumed that attendees already have a good working knowledge of Vericut's user interface and basic verification techniques. The class builds on your existing foundation of knowledge to advise on proper techniques for configuring Vericut machines, controls, and master project files to be used by all users at your company.

DAY 1 -
MACHINE BUILDING INTRODUCTION

This course introduces users to the basics of building a Vericut Machine Configuration (VMC). Following an overview of the machine building concepts, you'll learn how to layout the machine kinematics and then add 3D models to the VERICUT machine. On day one you will see how to build 3-, 4- and 5-axis milling machines and also a 2-axis lathe.

DAY 2 -
CONTROL BUILDING INTRODUCTION

Day two of this course will concentrate on the configuration of the Vericut control. Following an overview of the control building concepts, you'll learn how to customise a control to simulate how various G-Code words and data formats will be processed by Vericut. We'll cover how to: configure spindle logic for milling and mill/turn machines, customise a control to generate additional error messages, configure rotary behavior, and other control specific options.

DAY 3 -
ADVANCE MACHINE BUILDING

Day three builds on what you learned in the first two days and shows how to incorporate machine auxiliary components to your VMC. Topics include tool chain configuration, milling head attachment, pallet changers, and tailstocks. On this day you will also learn how to use Vericut's many trouble-shooting tools to assist you in the configuration of your machine and control. You will end the day with probing simulation sessions and file management suggestions.

DAY 4 -
MACHINE/CONTROL WORKSHOP

Day four is a workshop, where you will work on your own projects with an instructor's assistance. On this day you will learn how to find and utilise the information to build an accurate VMC machine/control simulation.

PRICING:
£300 per day per attendee
Training courses are held online, or at our facilities in the United States. On-site customer training is also available at $1,950/day plus travel expenses.

CLASS TIME:
9am - 5pm per day
Classes typically commence between these hours, whether online or in person.

Cancellation Policy:
10 Woking Days
If you need to cancel your place we request that you do so at least 10 working days in advance of the course start date. If minimum numbers for each class are not met, then we will cancel the course and you will be moved onto the next available class.

Vericut Machine & Control Building Training Course cont.

PREREQUISITES FOR WEB TRAINING

• Must have VERICUT 9.5 running on your computer prior to class. Licensing concerns can be addressed by emailing support.uk@cgtech.com.
• Computer must be set up to support voice over IP. There will be no "Phone-in" option available for the training.
• All users must use headphones or earbuds for listening in. Open speakers can cause feedback problems when microphones are enabled.
• Two monitors are required. Computer display should be configured to extend applications to either monitor (not duplicated).

PREPARATION FOR MACHINE & CONTROL BUILDING COURSE

Prior Vericut experience is required – proficiency with using Vericut is a prerequisite for this class. To get the most from this class we strongly recommend that you have gone through Vericut verification training sessions to reinforce your understanding of basic Vericut knowledge. In addition, you can quickly review the Vericut training sessions (part of every install). The training sessions can be found in Vericut's Help menu > On Vericut… – look for "Training Sessions" in the tree on the left side of the window. The Machine and Control Building Class will pick up from the basic Vericut training, and will cover advanced material pertinent to CNC machines and G-code NC program simulations.

The goal of this class is to provide you with a foundation of machine and control building knowledge. By the end of the class you will be able to begin building a wide range of machines and simulate the NC codes that run on them. This should not be considered a "custom machine building" class, although you are invited to work on your own machines in the Workshop session that follows the class. The class will discuss principles applicable to a wide array of NC machines so that all attendees may advance their machine and control building knowledge.

Selecting a machine to build – we suggest starting with a simple 3 or 4-axis machine, as this increases your chances of completion. Some 5-axis machines may be candidates if the NC program is not too complex. Avoid selecting complex machines (e.g. mill-turn, multi-tasking or multi-channel machines, etc.), as they typically require more time and effort than is available during class.

What to bring – if there is a particular machine you are interested in building, bring as much data/information about this task as possible. For example:

MACHINE INFORMATION:

• Machine Make and Model.
• Machine diagrams – showing all motion axes & directions, pivot distances, travel distances & limits (more info is better).
• Machine models – model files when available, otherwise drawings of machine components.
• Tool behavior – which axes move during a tool change, and to where.
• Rapid & Max Feed Rates of each axis.
• Rapid motion behavior – Dog-leg vs. interpolated motion, axis priorities and sequences.

CONTROL INFORMATION:

• Control Make and Model.
• Programming or Operator's Manual – or equivalent, describing all codes to be supported.

SAMPLE/TEST JOB DATA:

• NC Program – this should be a program that is known to run correctly on the machine without operator intervention, and demonstrates all features to be simulated.
• Stock model – model file, drawing, or dimensions.
• Fixture/Design models – bring when available. These can aid in faster setups on the simulated NC machine, and with verifying that simulated motions are correct.
• Setup sketch/instructions.
• Cutting tool descriptions – tool shapes, pocket numbers, gage lengths, offsets, etc. You may not actually need all this data, but it is a good idea to have it just in case.

What happens after class – while every attempt is made to help you complete your machine(s) during class, it may not always be feasible or possible to do so. Keep in mind that the intent of this class is to provide you with a good foundation of basic machine and control building knowledge that enables you to begin building a wide range of machine types. As questions arise, feel free to contact Technical Support for assistance. It has been our experience that most questions can be answered directly, however, some may be better handled via consulting services. Either way, we will do our best to assist you

Vericut

Force Optimisation
Training Course

Note: The Vericut Force Optimisation class is intended to illustrate how Vericut software can be leveraged to create an optimised program derived from the original posted NC Code. The resulting program can improve perfor-mance, shorten machine cycle times, improve tool life, and minimise wear and tear on the machine tool. While all are welcome, this class is intended for users with a general knowledge of the core Vericut product.

This class is from 8:00 AM - 12:00 PM on two successive days for a total of 8 hours per class.

DAY 1 -
INTRODUCTION TO FORCE OPTIMIZATION

Introduction
Welcome
Online Help
Why Force Optimisation

Getting Started
Machine Configuration
Control Configuration
Project Settings
Component Feed Rate Definition
NC Code
Considerations

Air Cuts
Air Cuts Only Mode
Optimise Control
Optimisation Saving Calculator
Status
Vericut Log File
Compare Files

Optimisation Reports
Reporting optimisation results

DAY 2 -
FORCE IMPLEMENTATION

Introduction to Force Optimisation
What is Force?
How does it work?

Analysing Cutting Conditions
Selecting Stock Material Records
Force Analyse Mode
Force Charts
NC Review
Calculating proper cutting conditions

Force Optimisation
Optimisation parameters
Configuring for optimum efficiency

Preparing for Optimisation File
Management
Syntax checking
Layout and View setup
Customizing the GUI
Creating and using Master Tool Lists

PREREQUISITES FOR WEB TRAINING

• Must have VERICUT 9.5 running on your computer prior to class. Licensing concerns can be addressed by emailing support.uk@cgtech.com.
• Computer must be set up to support voice over IP. There will be no "Phone-in" option available for the training.
• All users must use headphones or earbuds for listening in. Open speakers can cause feedback problems when microphones are enabled.
• Two monitors are required. Computer display should be configured to extend applications to either monitor (not duplicated).

PRICING:
£300 per day per attendee
Training courses are held online, or at our facilities in the United States. On-site customer training is also available at $1,950/day plus travel expenses.

CLASS TIME:
8am - 12pm per day
Classes typically commence between these hours, whether online or in person.

Cancellation Policy:
10 Working Days
If you need to cancel your place we request that you do so at least 10 working days in advance of the course start date. If minimum numbers for each class are not met, then we will cancel the course and you will be moved onto the next available class.