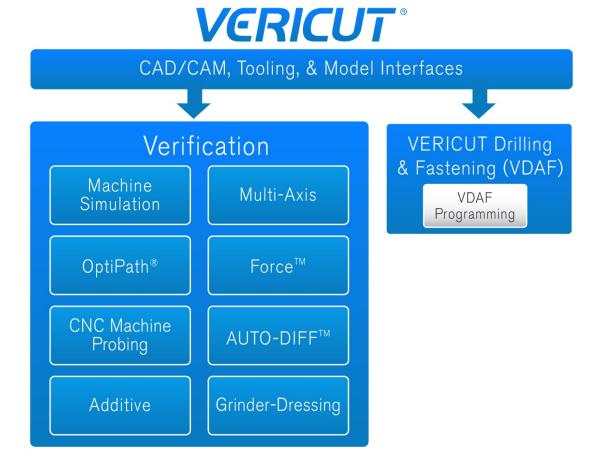
Installing CGTech Products



Overview

A VERICUT software installation is typical of any other software installation on your computer. You simply follow the onscreen instructions for the software components you wish to install and where you want them installed on your PC. The software can be installed on as many PC's as you like. The number of licenses available determine how many of the copies can be run simultaneously. VERICUT and its features are managed through the license manager. This document applies to VERICUT Verification and VERICUT Drilling and Fastening (VDAF)

Considerations before Installation

VERICUT installation is very simple but you need to know a few things prior to installing your software. Some of the menu options you'll see during the installation require you to know what VERICUT products you purchased so you know what to select during the installation process. If you are planning on installing the license server please note that you must have administrator privileges to perform the license server configuration. You must also have administrator privileges to install the Microsoft redistributable run-time libraries if necessary. It's also possible that the windows security settings on your PC will require administrative privileges to install the base software also. Check with your IT administrator about your security settings prior to attempting installation.

Take a look at the pc requirements and the licenser server configuration before installing the software. (click on the links below)

PC requirements

License Server

Terminology

Client Computer — The computer that runs the VERICUT software.

License Server Computer — The computer running the license server program. It may also run the VERICUT client software concurrently

License Server Program — The program providing licenses for VERICUT. VERICUT requires a license, so the License Server Program must be running for VERICUT to operate. VERICUT uses the Sentinel RMS license server program from <u>SafeNet</u>. The license server program and VERICUT communicate using TCP/IP network protocol. Only one Sentinel RMS license server program may run on a computer.

Installation from a DVD

Insert the DVD into the Drive and follow the onscreen instructions.

Installing from A downloaded Zip file

You can request a download of the VERICUT installation files from the CGTech website.

http://www.cgtech.com/vericut_support/request-software-update

Once you downloaded the zip file you'll need to unzip it to a temporary folder. While unzipping the file you'll be prompted for a password. This password will be in the email that was sent to you for the download link.

From the temporary folder where you unzipped your installation, double click (or right click, open) on the setup.exe. Next, follow the on-screen instructions

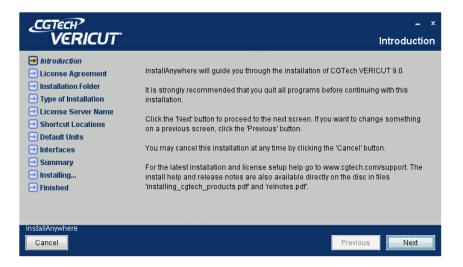
Basic VERICUT Product Installation

Insert the DVD or run the setup.exe from the folder containing the downloaded installer.

Select the desired language from the dropdown list at the bottom and click on the OK button.



The Introduction page will be displayed. Click the "Next" button to continue.

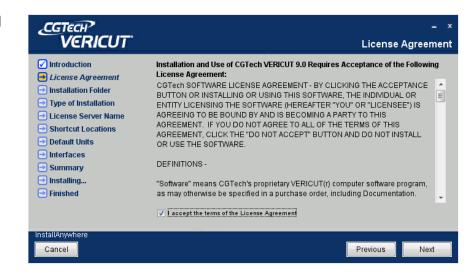


The license agreement page will then be displayed.

Read the license agreement.

If you agree, select the "I accept the terms and conditions"

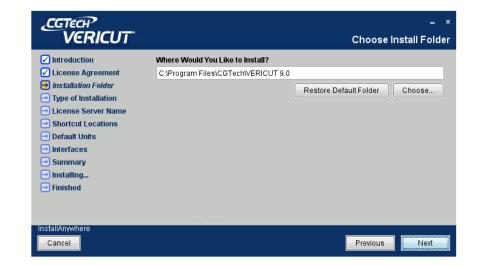
Click the "Next" button to continue.



The folder location will then be displayed.

Accept the default location or browse for a different location.

When you're satisfied with the location, click the "Next" button to continue



Choose your installation options.

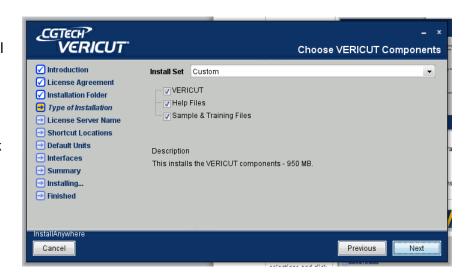


Full installs the product, license server, help, samples and training files. This is the recommended setting.

Partial installs the product, license server and help files.

Custom allows you individually to choose which items get installed.

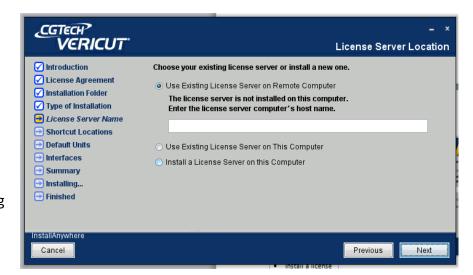
If you've chosen the Custom option the next screen will allow you to select which components of the product to install. Make your selections and click the "Next" button to continue.



Choose which license server to access.

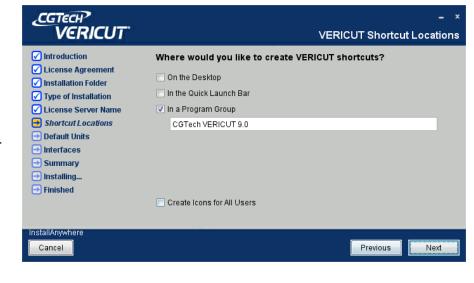
- Use Existing License server on Remote Computer.
- The Use Existing License server on this
- Install a license server on this computer. (NOTE: installing new license server requires administrative privileges)

Click the "Next" button to continue.



Shortcut Locations

Choose where you want you shorts to be located. On the Desktop, in your Quick Launch bar or in a program group in your start menu. You may select as many of these option as you want.



NOTE: It is recommended that you always keep the program group as a selection. The group in the start menu will contain several utilities that you may wish to access later on.

Click the "Next" button to continue

VERICUT Product Shortcuts

Select which product(s) you which to install and create shortcuts for.

Make sure you know which products you purchased prior to making your selection.

Click the "Next" button to continue.

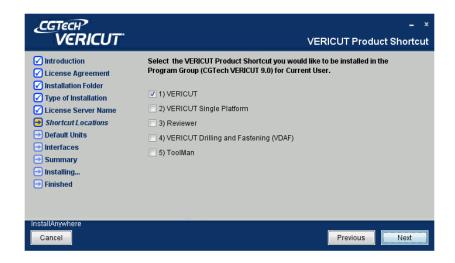
Defaults Units

Choose the default units to use when opening VERICUT.

During normal VERICUT operation, the units can also be selected when starting a new project.

Once a unit has been selected it's saved with the project file.

Click the "Next" button to continue.





Select which Help Documentation you would prefer: Online or Local.

Click the "Next" button to continue

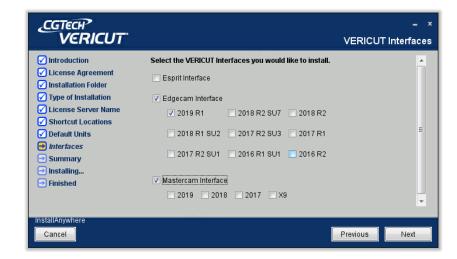


Select Additional interfaces.

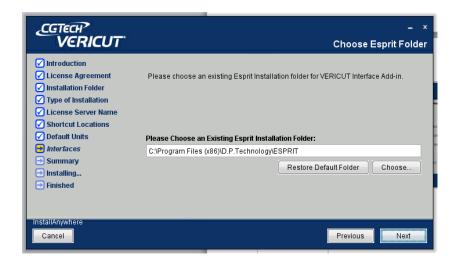
If you purchased additional interfaces in the list, select them to have them installed.

NOTE: there may be more options available than this image depicts.

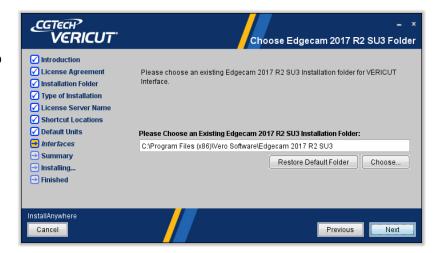
Click the "Next" button to continue



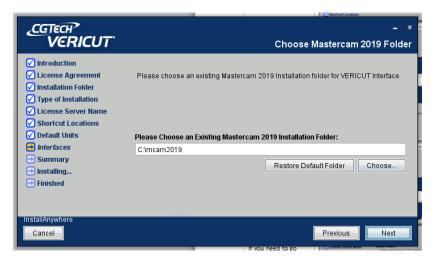
If you selected the Esprit interface you will be prompted for the location of the Esprit installation. If it's not the default installation listed then click on the "Choose" button to locate the Esprit installation.



If you selected the EdgeCam interface you'll be prompted to select the installation directory.



If you selected the Mastercam interface you'll be prompted to select the installation directory.

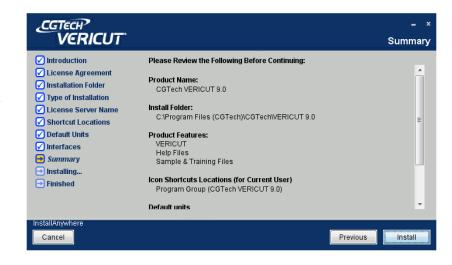


The Summary page will then be displayed.

Review your choices. If you need to go back and make any changes click on the "Previous" button to return to the topic that needs a correction.

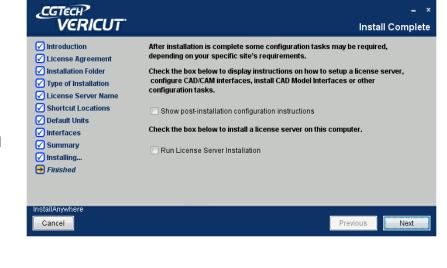
Clicking the "Install" button will begin the installation process.

The installation progress screen will be displayed during the installation.



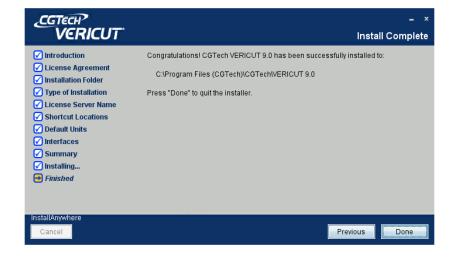


Once the installation is completed a window will be displayed asking if you would like to view the postinstallation instructions. This will launch your browser and provide a link to take you to the CGTech website to the on-line postinstallation instructions.



If you wish to install a license server on this PC then check the box and click next.

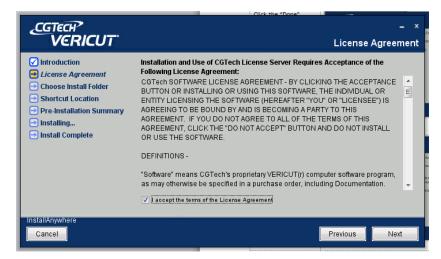
Click the "Done" button to exit the Installer.



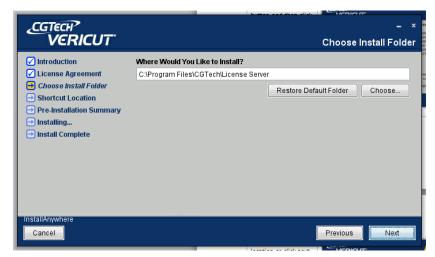
If you opted to install the license server, click next to continue.



Click on the accept button and then click next to continue



Choose a new location or click next to accept the default location to continue.

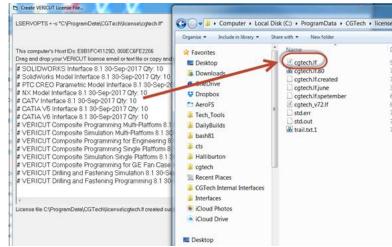


Check the program group option (recommended) to create a program group in the start menu.

This group contains additional utilities for configuring the license server as shown on the next page.

This picture shows the additional utilities available when available using the program group option.





The pre-installation page is now displayed. Examine the install options selected. If necessary, click the previous button to go back and change any options otherwise click next to continue the installation. Click Done when the installation is completed.



Basic License Server Configuration

NOTES FOR EXISTING USERS

As of the VERICUT 9.0 release, the license file manager from the VERICUT 9.0 installation must be installed (Sentinel version 9.1). Prior versions of the Sentinel License Server are not compatible with the new license file format.

In addition, those running the Sentinel License Server on a Virtual Machine must specifically request a Virtual Machine Enabled license file from CGTech. Attempting to run a VM disabled license from a Virtual Machine will result in error.

This set of instructions assumes that you have a standard Windows network configuration with TCP/IP. You must have administrative privileges in order to install the license server or the Microsoft redistributables.

Before you can install and configure the license manager service you must first obtain a license file email from CGTech. If you're a new user of VERICUT you can go to the CGTech website to request your license file. Before going to the website to request your license, you need to be prepared to provide your 6 digit company ID, your Host Name (name of the server or PC running the license manager) and the Host ID (the 12 digit MAC address of the server or PC running the license manager).

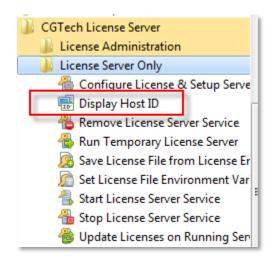
If you don't know your 6 digit company ID you can contact you CGTech Sales engineer or the technical support department

You can locate your host name by opening control panel and selecting System. The host name is the Computer name.

You can determine your Host ID by running the HOST ID utility from the start menu. This will display a command window with 1 or more 12 digit Ethernet addresses. Choose an address from the list.

Example:

Ethernet 1: 0001CF45A789



Ethernet 2: 2001BC23B123

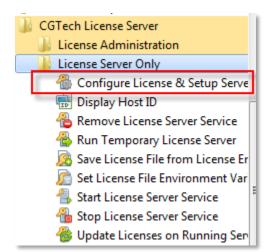
Once you have this information you can go to the CGTech website and complete the license request form. The form will be sent to the email address you specified on the form.

http://www.cgtech.com/vericut_support/request-license

Once you have your license file email available, proceed with the following steps.

Go to the start menu and select the VERICUT license folder that was created during the installation process

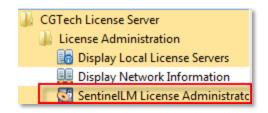
Next, select the license server only folder and then select Configure License and Setup Server. This utility performs the following tasks.



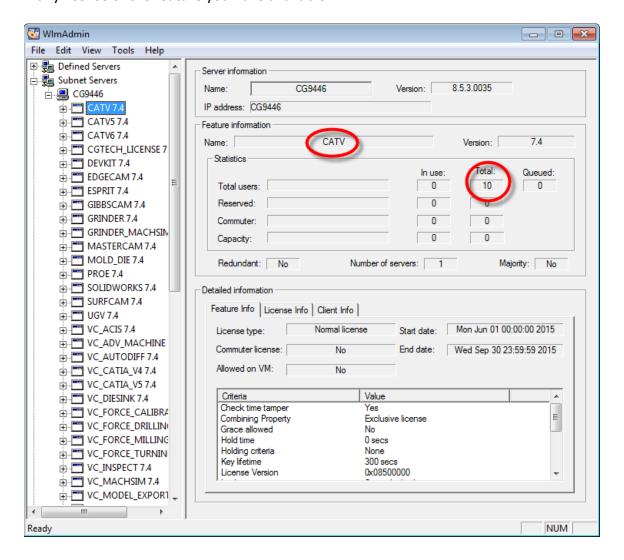
- 1. Creates a license file from your license email
- 2. Sets the LSERVOPS environment variable to point to your new license file location.
- 3. Stops the existing server if one exists
- 4. Removes the existing license server service.
- 5. Installs the new license server service.
- 6. Updates the new license server service with the new license file features.

If you get any errors during this process please go to the trouble shooting section.

If no errors are generated then run the Sentinel LM License Administrator (wlmadmin.exe) from the start menu, VERICUT Installation, License Administration.



When the license administrator launches, expand out the subnet servers (+) and then expand out the computer name. You should see all you license features appear. Selecting the license feature in the list will display the name of the feature and how many license of the feature you have available.



At this point the client PC's should be able to run VERICUT. If VERICUT fails to launch, take note of the error message and go to the trouble shooting section of this guide.

Choose an Installation Configuration

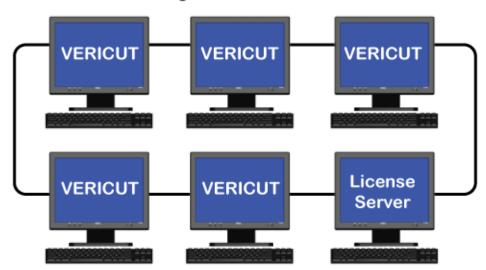
There are several different ways to configure your VERICUT software installation. The following are common configurations: a simple single computer or stand-alone installation and multiple-computer installations.

Standalone Configuration



Both the License Server and the VERICUT software run on the same computer

Network Configuration



License server running on a different PC on the network

(NOTE: The license server computer may also run the VERICUT application)

(Back to Things to Consider Before Installation)

VERICUT System Requirements

Version 9.0

When considering system requirements you need to consider all the tasks it will be performing. For the purposes of discussion, we'll only reference 64 bit CPU's and operating systems. VERICUT Version 9.0 supports only 64 bit CPU's and operating systems. As of today, some CAD/CAM companies have dropped support for 32 bit applications and only deliver 64 bit versions.

Considerations:

- 1) What is the physical size of the part you will simulate?
- 2) What other software applications are running while VERICUT is running?
- 3) What requirements do the other applications have (both memory and graphics)?

VERICUT performance is primarily affected by the simulation tolerances used and the speed of the CPU's. The faster the CPU speed, the faster your programs will run. The length of part programs being simulated does not affect VERICUT speed. Typical CPU clock speed for a system running engineering applications ranges from 2.8 to 3.5, or higher. In addition, the number of CPU's (cores) can boost performance, especially when running multiple applications concurrently.

The link below takes you to the Intel site where you can review the current CPU's available and read up on some of the latest CPU technology.

http://www.intel.com/content/www/us/en/processor-comparison/compare-intel-processors.html?select=desktop

The amount of physical memory in your computer will impact the number of applications you can run at the same time without having physical memory limitations affect performance. When running VERICUT, the physical size of your part, tolerance, program size and features used also impacts the amount of memory required for the simulation. For most VERICUT simulations, 8 GB of physical memory is sufficient for VERICUT, along with a few other smaller applications running concurrently. When the part sizes are substantially larger (400" x 100" x 100" or more), or tolerance requirements are very high, you may need to increase memory to 12 or 16 GB.

IMPORTANT! *Always* check the latest system requirements, available at <u>VERICUT</u> <u>System Requirements webpage.</u>

NOTE: Requirements have changed – review carefully

Minimum Requirements (for running VERICUT only)

- Two or three button mouse (Three button mouse with mouse-wheel is recommended due to new dynamic view controls)
- Network interface card
- Graphics device capable of displaying at least 16K colors
- OpenGL compatible graphics accelerators can be used in a machine simulation view and for dynamic rotate/pan/zoom in a workpiece view. Due to the large amount of graphics memory required to display the cut stock, graphics memory of 512MB minimum is recommended, and 1GB or more is preferred.

Windows 64 bit Requirements

Disk Space	GB (full installation including Library, Samples, and Help files, and Java Run-Time) GB required if also installing the Model Interfaces Feature
Temporary Disk Space	4 GB required during installation, in addition to the permanent Disk Space above.
Page File	2-times available physical memory recommended

Windows Operating System VERICUT 9.0 works on Windows 7 or 10, 64 bit.

VERICUT 9.0 is not supported on Windows 2000, Windows 98, Windows ME and Windows NT operating systems. Click <u>here</u> for more information.

Java Run Time Environment 1.7.0_80 (included in the VERICUT

VERICUT°

CAD/CAM, Tooling, & Model Interfaces

Verification Machine Simulation Multi-Axis OptiPath® Force™ CNC Machine Probing AUTO-DIFF™ Additive Grinder-Dressing

VERICUT Drilling & Fastening (VDAF)

> VDAF Programming

installation)

Windows Script 5.3 or later is required for the CATIA V5 Interface

TCP/IP Network Protocol installed on the network device

VERICUT on Windows 7 64 may require installation of Windows C++ run-time libraries (Microsoft Redistributables). An administrative user must do the installation. The run-time library installer is included on the VERICUT DVD and in the downloadable zip file of the VERICUT installation. The installer file name is vcredist_x64.exe. Double-click on the file to run the installer.

	The Microsoft Redistributable Installer is also available for download at:
	http://www.cgtech.com/vericut_support/system-requirements
	VERICUT 9.0 uses different run-time libraries than earlier versions.
	The different versions of run-time libraries can be installed together on the same computer if you need to run earlier versions concurrently.
Physical Memory	Windows 7 and XP 64 bit - 4 GB is required, 8 is recommended.
Processor	Intel or 100% Pentium-compatible Processor.
	2.5 GHz or faster is recommended. Multiple processors improve performance, especially when running other large programs concurrently with VERICUT.

Basic Troubleshooting

Errors Running Vericut

"Error No License Server Found"

Cause - The license server is not running.

Solution – Start the license server utility. Make sure the license server is installed NOTE: loading or stopping/starting the license server requires administrative privileges.

Cause - The server name is incorrect

Solution – From the start menu, CGTech program group, license administration, run the "Specify License Server Computer" utility. This will allow you to edit the LSHOST variable with the correct server name or IP address.

"License server found but invalid version number"

Cause – Typically this is caused by an older license file being

Solution – Ensure that the license file being used is for 9.0.

Check the Iservops environment variable to be sure that it points to the correct location for the 9.0 license file. Either edit the LSERVOPS variable or move the license file to the correct location.

NOTE: editing the LSERVOPS variable requires administrative privileges.

"Unable To Access Shared Library"

Cause - Missing the Microsoft redistributables.

Solution – run the vcredist_* executables from the redist folder of your VERICUT installation or from the redistributables folder of your VERICUT Installation DVD or folder.

NOTE: running these files requires administrative privileges.

"Error Loading ACIS Libraries"

Cause - Model interfaces not installed

Solution – Run the Model Interfaces Executable from the DVD or the installation folder. (model interfaces v73.exe)

Cause - Missing the Microsoft redistributables.

Solution – run the vcredist * executables from the redist folder of your VERICUT installation or from the redistributables folder of your VERICUT Installation DVD or folder.

NOTE: running these files requires administrative privileges.

"License server found but features not present"

Cause – Firewall or anti-virus is blocking communication between the license server and the client running VERICUT.

Solution – Open up the firewall / anti-virus utility and add exceptions for port 5093 as well as Iservnt.exe.

Errors Installing the Sentinel License Server

"Cannot Communicate with License server"

Cause - Missing the Microsoft redistributables.

Solution – run the vcredist * executables from the redist folder of your VERICUT installation or from the redistributables folder of your VERICUT Installation DVD or folder.

NOTE: running these files requires administrative privileges.

"Sentinel RMS Development Kit: Error[150] The specified lock code is invalid Cause – MAC address in license file does not match MAC address on the server

Solution – Move the license server to the correct computer or request a new license file with the correct MAC address. To request a new license file you must fill out a license transfer request online at:

http://www.cgtech.com/vericut_support/request-license/transfer-request/

Error license file cgtech.lf does not exist

Cause – The update batch file cannot locate the cgtech.If license file.

Solution – Make sure the cgtech. If was created in the license folder of your VERICUT installation. Ensure that you have write permissions for this folder.

Other Installation Types

Install VERICUT License Server Only

It may be desirable to install only the license server program on the license server computer. To do this, run the "license_server_install.exe" from the DVD or download folder.

Using Silent Install

Silent Mode

Silent mode enables an installer to run without any user interaction on Windows platforms. If you choose to run this option, there will be no console or GUI output during installation. Silent mode supports the setting of a target directory, shortcuts directory, and Components/Features via either command-line arguments or a properties file. Silent mode is supported in both the installer and uninstaller runtime environments. InstallAnywhere and end-user-defined variables may be set through command-line parameters and/or a properties file.

An installer properties file or a command-line parameter may trigger silent mode.

Installer Properties File

An installer properties file is an ASCII text file that defines certain parameters for your installation. This may be useful if you have a complex project that you are installing both internally and externally. Your internal end-users do not need to see panels such as the **License Agreement** panel. The properties file is an ideal way to turn panels on or off depending on your specific needs. In addition, the properties file can define the type of installation you want to run, such as console or silent.

NOTE: Please make sure that your properties file ends in .properties, not .txt.

Tip: If the install properties file is in the same directory as your installer, it will be invoked automatically. However, if it is in a different directory or a different name, you may use the following command line option to direct it to the relative path:

C:\\ <path to the installer> -f <path to the properties file>

Command Line Parameter

To call the properties file from the command line, type the following command:

install.exe -f < properties file>

You may use the direct or the relative path to the properties file.

InstallAnywhere variables may be incorporated in these values, and they will be resolved at install time.

NOTES:

- 1. File separators should be denoted by the "\\".
- 2. Values may ignore case.
- 3. Silent mode will override action panel values.
- 4. In any mode on Windows systems, installers and uninstallers will always display the very last "Cleaning-up" dialog box, as well as the "Preparing to install" panel.

VERICUT Properties File Variables

An example of an *install.properties* file with all parameters is as follows

```
#INSTALLER GUI? Silent, Console, GUI
#-----
INSTALLER UI=Silent
#Choose Install Folder
#-----
USER INSTALL DIR=C:\\Program Files\\CGTech\\VERICUT 9.0
#Choose Type of Installation
#-----
CHOSEN FEATURE LIST=VERICUT, Help, Samples
CHOSEN_INSTALL_FEATURE_LIST=VERICUT,Help,Samples
CHOSEN INSTALL SET=Full
#License Server Location
#-----
LICENSE SERVER EXISTS REMOTE=1
LICENSE SERVER EXISTS REMOTE HOSTNAME=LicenseServer
LICENSE SERVER EXISTS LOCAL=0
LICENSE SERVER INSTALL LOCAL=0
#VERICUT Shortcut Locations
#-----
USER_INPUT_DESKTOP FLAG=1
USER INPUT QUICK LAUNCH FLAG=1
USER INPUT PROGRAM GROUP FLAG=1
USER_INPUT_PROGRAM_GROUP_NAME=CGTech VERICUT 9.0
USER INPUT ALL USERS FLAG=0
```

```
#VERICUT Product Shortcut
#-----
# "1) VERICUT"
DEFAULT BASE LIC VAR 1=1
# "2) VERICUT Single Platform"
DEFAULT_BASE_LIC_VAR_2=1
# "3) Reviewer"
DEFAULT BASE LIC VAR 3=1
# "4) VERICUT Drilling and Fastening (VDAF)"
DEFAULT BASE LIC VAR 4=1
# "5) ToolMan"
DEFAULT_BASE_LIC_VAR_5=1
#VERICUT Default Units
#-----
DEFAULT UNITS VAR=\"1) Inch\",\"\"
DEFAULT UNITS VAR 1=1) Inch
DEFAULT_UNITS_VAR_2=
#VERICUT Interfaces
#-----
#Install Complete
#-----
```

The above sample will install an Inch version of VERICUT and create shortcuts for VERICUT, SP, Reviewer and ToolMan.

Below is a list of possible variable:

```
#INSTALLER GUI? Silent, Console, GUI
#-----
INSTALLER_UI=Silent

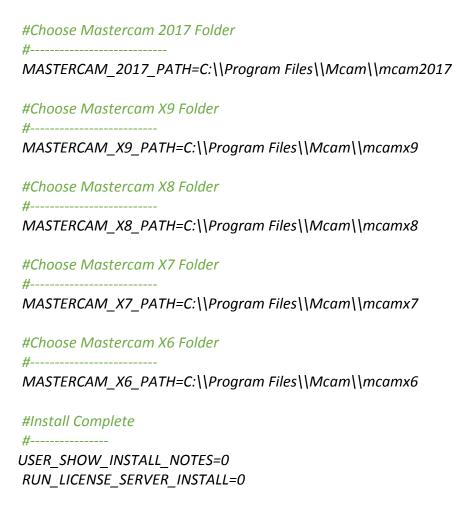
#Choose Install Folder
#------
USER_INSTALL_DIR=C:\\Program Files\\CGTech\\VERICUT 9.0
```

```
#Choose Type of Installation
#-----
CHOSEN FEATURE LIST=VERICUT, Help, Samples
CHOSEN INSTALL FEATURE LIST=VERICUT, Help, Samples
CHOSEN INSTALL SET=Full
#License Server Location
#-----
LICENSE SERVER EXISTS REMOTE=1
LICENSE SERVER EXISTS REMOTE HOSTNAME=LicenseServer
LICENSE SERVER EXISTS LOCAL=0
LICENSE_SERVER_INSTALL_LOCAL=0
#VERICUT Shortcut Locations
#-----
USER INPUT DESKTOP FLAG=1
USER INPUT QUICK LAUNCH FLAG=1
USER INPUT PROGRAM GROUP FLAG=1
USER_INPUT_PROGRAM_GROUP_NAME=CGTech VERICUT 9.0
USER INPUT ALL USERS FLAG=0
#VERICUT Product Shortcut
#-----
# "1) VERICUT"
DEFAULT BASE LIC VAR 1=1
# "2) VERICUT Single Platform"
DEFAULT BASE LIC VAR 2=1
# "3) Reviewer"
DEFAULT BASE LIC VAR 3=1
# "4) VERICUT Drilling and Fastening (VDAF)"
DEFAULT BASE LIC VAR 4=1
# "5) ToolMan"
DEFAULT BASE_LIC_VAR_5=1
#VERICUT Default Units
#-----
DEFAULT_UNITS_VAR=\"1) Inch\",\"\"
DEFAULT UNITS VAR 1=1) Inch
```

DEFAULT_UNITS_VAR_2=

```
#VERICUT Interfaces
#-----
SPATIAL INSTALL=1
ESPRIT INTERFACE INSTALL=1
EDGECAM INTERFACE INSTALL=1
EDGECAM_2017_R2_SU3_SELECTED=1
EDGECAM 2017 R2 SU1 SELECTED=1
EDGECAM 2017 R1 SELECTED=1
EDGECAM 2016 R2 SELECTED=1
EDGECAM 2016 R1 SU1 SELECTED=1
EDGECAM 2015 R2 SELECTED=1
EDGECAM 2015 R1 SELECTED=1
EDGECAM 2014 R2 SU2 SELECTED=1
EDGECAM 2014 R1 SELECTED=1
EDGECAM_2013_R2_SELECTED=1
EDGECAM 2013 R1 SELECTED=1
MASTERCAM INTERFACE INSTALL=1
MASTERCAM 2018 SELECTED=1
MASTERCAM_2017_SELECTED=1
MASTERCAM X9 SELECTED=1
MASTERCAM X8 SELECTED=1
MASTERCAM X7 SELECTED=1
MASTERCAM X6 SELECTED=1
#Choose Esprit Folder
#-----
ESPRIT INSTALL DIR=C:\\Program Files\\D.P.Technology\\ESPRIT
#Choose Edgecam 2013 R1 Folder
EDGECAM 2013 R1 INSTALL DIR= C:\\Program Files\\Planit\\Edgecam 2013 R1
#Choose Edgecam 2013 R2 Folder
#-----
EDGECAM_2013_R2_INSTALL_DIR= C:\\Program Files\\Planit\\Edgecam 2013 R2
#Choose Edgecam 2014 R1 Folder
#-----
EDGECAM 2014 R1 INSTALL DIR= C:\\Program Files \\Planit\\Edgecam 2014
R1
```

```
#Choose Edgecam 2014 R2 SU2 Folder
#-----
EDGECAM 2014 R2 SU2 INSTALL DIR= C:\\Program Files\\Planit\\Edgecam
2014 R2 SU2
#Choose Edgecam 2015 R1 Folder
EDGECAM 2015 R1 INSTALL DIR= C:\\Program Files\\Planit\\Edgecam 2015 R1
#Choose Edgecam 2015 R2 Folder
EDGECAM 2015 R2 INSTALL DIR=C:\\Program Files\\Vero Software\\Edgecam
2015 R2
#Choose Edgecam 2016 R1 SU1 Folder
#-----
EDGECAM 2016 R1 SU1 INSTALL DIR=C:\\Program Files\\Vero
Software\\Edgecam 2016 R1 SU1
#Choose Edgecam 2016 R2 Folder
EDGECAM 2016 R2 INSTALL DIR=C:\\Program Files\\Vero Software\\Edgecam
2016 R2
#Choose Edgecam 2017 R1 Folder
#-----
EDGECAM 2017 R1 INSTALL DIR=C:\\Program Files\\Vero Software\\Edgecam
2017 R1
#Choose Edgecam 2017 R2 SU1 Folder
EDGECAM 2017 R2 SU1 INSTALL DIR=C:\\Program Files\\Vero
Software\\Edgecam 2017 R2 SU1
#Choose Edgecam 2017 R2 SU3 Folder
EDGECAM_2017_R2_SU3_INSTALL_DIR=C:\\Program Files\\Vero
Software\\Edgecam 2017 R2 SU3
#Choose Mastercam 2018 Folder
MASTERCAM 2018 PATH=C:\\Program Files\\Mcam\\mcam2018
```



VERICUT Command Descriptions

Specify Silent Install

INSTALLER_UI=Silent
Use to specify that Silent install is to be used.

Choose Installation Folder

USER_INSTALL_DIR=insert destination path here
Use to specify the path to the VERICUT installation folder.

Example:

USER_INSTALL_DIR=C:\\Program Files \\CGTech\\VERICUT 9.0

Choose Type of Installation

CHOSEN_INSTALL_SET=option

Use to specify which features are to be installed. Select one of the following options.

Full – VERICUT Product, Help, Sample and Training files will be installed. Partial – VERICUT Product and Help files will be installed.

If either of the above options (Full or Partial) is used, no other commands are needed to specify the features to be installed.

Example:

CHOSEN INSTALL SET=Full

Custom – Use this feature to select a "custom" group of features to be installed. Use the CHOSEN_INSTALL_FEATURE_LIST command, defined below, to specify the features that are to be installed.

CHOSEN_INSTALL_FEATURE_LIST=feature list

Use to specify the "custom" list of features to be used for the CHOSEN_INSTALL_SET=Custom command described above. Choose one or more of the following:

VERICUT – The VERICUT Product will be installed.

Help Files – The Help files will be installed.

Sample and Training Files – The Sample and Training files will be installed.

Example:

The following commands will install the VERICUT Product and the Sample and Training files.

CHOSEN_INSTALL_SET=Custom
CHOSEN_INSTALL_FEATURE_LIST=VERICUT, Sample and Training Files

License Server Location

You can only use one of the following options: LICENSE_SERVER_EXISTS_REMOTE, LICENSE_SERVER_EXISTS_LOCAL, or LICENSE_SERVER_INSTALL_LOCAL.

LICENSE_SERVER_EXISTS_REMOTE=value

Use a value of 1 to use an existing license server on a remote computer. A value of 0 indicates that this option is not to be used. If the option is not specified, it defaults to 0. Use the LICENSE_SERVER_EXISTS_REMOTE_HOSTNAME command, described below, to specify the host name of the remote license server computer.

LICENSE SERVER EXISTS REMOTE HOSTNAME=host name

Used with the LICENSE_SERVER_EXISTS_REMOTE command described above. This command is used to specify the license server computer's host name.

Example:

LICENSE_SERVER_EXISTS_REMOTE=1
LICENSE SERVER EXISTS REMOTE HOSTNAME=LicenseServer

LICENSE SERVER EXISTS LOCAL=value

Use a value of 1 to use an existing license server on this computer. A value of 0 indicates that this option is not to be used. If the option is not specified, it defaults to 0.

LICENSE_SERVER_INSTALL_LOCAL=value

Use a value of 1 to install a License Server on this computer. A value of 0 indicates that this option is not to be used. If the option is not specified, it defaults to 0.

The license server installation starts after the VERICUT installation finishes. Have your license email for this computer and version available.

NOTE: The use of this option requires that you are an "Administrator" user.

VERICUT Shortcut Locations

USER_INPUT_DESKTOP FLAG=value

The USER_INPUT_DESKTOP_FLAG variable is used for adding icons to the Desktop. A value of 0 does not add any icons to the Desktop. A value of 1 adds icons to the Desktop. If the option is not specified, it defaults to 0.

USER INPUT QUICK LAUNCH FLAG=value

The USER_INPUT_QUICK_LAUNCH_FLAG variable is used for adding icons to the Quick Launch taskbar. A value of 0 does not add any icons to the Quick Launch taskbar. A value of 1 adds icons to the Quick Launch taskbar. If the option is not specified, it defaults to 0.

USER INPUT PROGRAM GROUP FLAG=value

The USER_INPUT_PROGRAM_GROUP_FLAG variable is used for adding icons and menus to the Programs Menu. A value of 0 does not add any icons or menus to the Programs Menu. A value of 1 adds icons and menus to the Programs Menu. If the option is not specified, it defaults to 0.

USER_INPUT_PROGRAM_GROUP_NAME=name of program group
The USER_INPUT_PROGRAM_GROUP_NAME variable indicates the name of the
Program Group that is to be added to the Start > All Programs menu. If the option is not

specified, it defaults to "CGTech VERICUT x.x.x", where x.x.x is the current VERICUT version number.

USER INPUT ALL USERS FLAG=value

The USER_INPUT_ALL_USERS_FLAG variable indicates if any icons added by the previous three options are added for all users of the computer or only the current user. A value of 0 adds icons for the current user only. A value of 1 adds icons for all users. If the option is not specified, it defaults to 0.

NOTE: The use of this option requires that you are an "Administrator" user.

VERICUT Product Shortcut

Use to specify the VERICUT Product Shortcut(s) that you would like to be installed in the Program Group (CGTech VERICUT 9.0) for the current user.

DEFAULT_BASE_LIC_VAR=string series

- "1) VERICUT"
- "2) VERICUT Single Platform"
- "3) Reviewer"
- "4) VERICUT Drilling and Fastening (VDAF)"
- "5) ToolMan

Example: VERICUT only

DEFAULT BASE LIC VAR =\"1) VERICUT\",\",\",\",\"

VERICUT Default Units

DEFAULT UNITS VAR=string series

- "1) Inch"
- "2) Millimeter"

Example: Inch

DEFAULT UNITS VAR=\"1) Inch\",\"\"

VERICUT Interfaces

SPATIAL INSTALL=value

Used to specify if the Spatial software used for the Model Interface option gets installed. A value of 0 does not install the Spatial software. A value of 1 installs the Spatial software. If the option is not specified, it defaults to 0.

ESPRIT INTERFACE INSTALL= value

Used to specify whether, or not, the Esprit-to-VERICUT Interface gets installed. A value of 0 does not install the Esprit-to-VERICUT Interface. A value of 1 installs the Esprit-to-VERICUT Interface. If the option is not specified, it defaults to 0.

ESPRIT_INSTALL_DIR=path
Use to specify the path of an existing Esprit installation folder.
Typically C:\Program Files (x86)\D.P.Technology\ESPRIT

Example:

The following pair of commands is required to install the Esprit-to-VERICUT Interface

ESPRIT INTERFACE INSTALL=1

ESPRIT INSTALL DIR= C:\Program Files (x86)\D.P.Technology\ESPRIT

EDGECAM INTERFACE INSTALL=value

Used to specify whether, or not, the Edgecam-to-VERICUT Interface gets installed. A value of 0 does not install the Edgecam-to-VERICUT Interface. A value of 1 installs the Edgecam-to-VERICUT Interface. If the option is not specified, it defaults to 0.

EDGECAM 2013 R1 SELECTED=value

Use to specify if the EDGECAM 2013 R1 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2013 R2 INSTALL DIR=path

Use to specify the path of the EDGECAM 2013 R1 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2013 R1

EDGECAM 2013 R2 SELECTED=value

Use to specify if the EDGECAM 2013 R2 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2013 R2 INSTALL DIR=path

Use to specify the path of the EDGECAM 2013 R2 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2013 R2

EDGECAM 2014 R1 SELECTED=value

Use to specify if the EDGECAM 2014 R1 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2014 R1 INSTALL DIR=path

Use to specify the path of the EDGECAM 2014 R1 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2014 R1

EDGECAM 2014 R2 SU2 SELECTED=value

Use to specify if the EDGECAM 2014 R2 SU2 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2014 R2 SU2 INSTALL DIR=path

Use to specify the path of the EDGECAM 2014 R2 SU2 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2014 R2 SU2

EDGECAM 2015 R1 SELECTED=value

Use to specify if the EDGECAM 2015 R1 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2015 R1 INSTALL DIR=path

Use to specify the path of the EDGECAM 2015 R1 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2015 R1

EDGECAM 2015 R2 SELECTED=value

Use to specify if the EDGECAM 2015 R2 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2015 R2 INSTALL DIR=path

Use to specify the path of the EDGECAM 2015 R2 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam 2015 R2

EDGECAM 2016 R1 SU1 SELECTED= value (0 or 1)

Use to specify if the EDGECAM 2016 R1 SU1 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2016 R1 SU1 INSTALL DIR=path

Use to specify the path of the EDGECAM 2016 R1 SU1 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam 2016 R1 SU1

EDGECAM 2016 R2 SELECTED=value

Use to specify if the EDGECAM 2016 R2 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

EDGECAM 2016 R2 INSTALL DIR=path

Use to specify the path of the EDGECAM 2016 R2 Installation.

Typically C:\\Program Files (x86)\\Planit\\Edgecam_2016 R2

Example:

The following three commands are required to install the Edgecam-to-VERICUT Interface. This example is for installing the Edgecam-to-VERICUT Interface for Edgecam 2016 R2 but is representative of the commands needed for all Edgecam versions.

EDGECAM_INTERFACE_INSTALL=1
EDGECAM_2016_R2_SELECTED=1
EDGECAM_2016_R2_INSTALL_DIR=C:\\Program Files (x86)\\Planit\\Edgecam 2016_R2

MASTERCAM X6 SELECTED= value

Use to specify if the Mastercam_X6 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

MASTERCAM_X6_PATH = path
Use to specify the path of the Mastercam X6 Installation.
Typically C:\\mcamx6\

MASTERCAM X7 SELECTED=value

Use to specify if the Mastercam_X7 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

MASTERCAM_X7_PATH = path

Use to specify the path of the Mastercam X7 Installation. Typically C:\\mcamx7\

MASTERCAM X8 SELECTED=value

Use to specify if the Mastercam_X8 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

MASTERCAM X8 PATH = path

Use to specify the path of the Mastercam X8 Installation.

Typically C:\\mcamx8\

MASTERCAM X9 SELECTED=value

Use to specify if the Mastercam_X9 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

MASTERCAM_X9_PATH = path
Use to specify the path of the Mastercam X9 Installation.
Typically C:\\mcamx9\

MASTERCAM_2017_SELECTED=value

Use to specify if the Mastercam_2017 interface is to be installed. A value of 0 does not install the interface. A value of 1 installs the interface. If the option is not specified, it defaults to 0.

MASTERCAM_2017_PATH = path
Use to specify the path of the Mastercam 2017 Installation.
Typically C:\\mcam2017\

Example:

The following pair of commands is required to install the Mastercam-to-VERICUT Interface. This example is for installing the Mastercam-to-VERICUT Interface for Mastercam 2017 but is representative of the commands needed for all Mastercam versions.

MASTERCAM_2017_SELECTED=1
MASTERCAM_2017_PATH = C:\\mcam2017\

Install Complete

USER SHOW INSTALL NOTES=value

Use to specify whether or not to show the post-installation configuration instructions. This feature displays instructions on how to setup a license server, configure CAD/CAM Interfaces, install CAD Model Interfaces or other configuration tasks. A value of 0 does not display the post-installation instructions. A value of 1 displays the post-installation instructions. If the option is not specified, it defaults to 0.

RUN LICENSE SERVER INSTALL=value

Use to specify whether or not to run the license server installer. A value of 0 does not run the license server installer. A value of 1 runs the license server installer. If the option is not specified, it defaults to 0.

VERICUT Reviewer Command Descriptions

Specify Silent Install

INSTALLER_UI=Silent
Use to specify that Silent install is to be used.

Choose Installation Folder

USER_INSTALL_DIR=destination path
Use to specify the path to the VERICUT installation folder.

Example:

USER INSTALL DIR=C:\\Program Files \\CGTech\\VERICUT 9.0

Choose Reviewer Platform

Use to specify the VERICUT Reviewer Windows platform that you would like to be installed.

VERICUT_PLATFORMS=string series

Choose one of the following options.

Windows 32-bit Windows 64-bit

Examples:

VERICUT_PLATFORMS=\"Windows 32-bit\",\"\" VERICUT_PLATFORMS=\"\",\"Windows 64-bit\"

VERICUT Reviewer Shortcut Locations

Use to specify where you would like to create VERICUT Reviewer 9.0 shortcut(s)

USER INPUT DESKTOP FLAG=value

Use to put a VERICUT Reviewer icon on the Desktop. A value of 0 does not put a VERICUT Reviewer icon on the Desktop. A value of 1 puts a VERICUT Reviewer icon on the Desktop. If the option is not specified, it defaults to 0.

USER INPUT QUICK LAUNCH FLAG=value

Use to put a VERICUT Reviewer icon in the Quick Launch Bar. A value of 0 does not put a VERICUT Reviewer icon in the Quick Launch Bar. A value of 1 puts a VERICUT Reviewer icon in the Quick Launch Bar. If the option is not specified, it defaults to 0.

USER INPUT PROGRAM GROUP FLAG=value

Use to put a VERICUT Reviewer shortcut in a Program Group. A value of 0 does not put a VERICUT Reviewer shortcut in a Program Group. A value of 1 puts a VERICUT Reviewer shortcut in a Program Group. If the option is not specified, it defaults to 0. This command is used with the USER_INPUT_PROGRAM_GROUP_NAME command described below.

USER_INPUT_PROGRAM_GROUP_NAME=program group name
Use to specify the name of the Program Group that you want a VERICUT Reviewer
shortcut put in. This command is used with the USER_INPUT_PROGRAM_GROUP_FLAG
command described above.

USER INPUT ALL USERS FLAG=value

Use to specify that specified icons/shortcuts are to be added for all users of this computer.

Examples:

The following command puts a VERICUT Reviewer icon the desktop.

USER INPUT DESKTOP FLAG=1

The following pair of commands puts a VERICUT Reviewer shortcut in "CGTech VERICUT Reviewer 9.0" program group.

USER_INPUT_PROGRAM_GROUP_FLAG=1
USER_INPUT_PROGRAM_GROUP NAME = CGTech VERICUT Reviewer 9.0

Stand-alone Tool Manager Command Descriptions

Specify Silent Install

INSTALLER_UI=Silent
Use to specify that Silent install is to be used.

Choose Installation Folder

USER_INSTALL_DIR= destination path
Use to specify the path to the Stand-alone Tool Manager installation folder.

Example:

USER INSTALL DIR=C:\\Program Files \\CGTech\\ToolMan 9.0

License Server Location

You can only use one of the following options: LICENSE_SERVER_EXISTS_REMOTE or LICENSE SERVER EXISTS LOCAL.

LICENSE_SERVER_EXISTS_REMOTE=value

Use a value of 1 to use an existing license server on a remote computer. A value of 0 indicates that this option is not to be used. If the option is not specified, it defaults to 0. Use the LICENSE_SERVER_EXISTS_REMOTE_HOSTNAME command, described below, to specify the host name of the remote license server computer.

LICENSE_SERVER_EXISTS_REMOTE_HOSTNAME=host name

Used with the LICENSE_SERVER_EXISTS_REMOTE command described above. This command is used to specify the remote license server computer's host name.

Example:

LICENSE_SERVER_EXISTS_REMOTE=1
LICENSE SERVER EXISTS REMOTE HOSTNAME=LicenseServer

LICENSE SERVER EXISTS LOCAL=value

Use a value of 1 to use an existing license server on this computer. A value of 0 indicates that this option is not to be used. If the option is not specified, it defaults to 0.

ToolMan Shortcut Locations

Use to specify where you would like to create ToolMan icons/shortcuts

USER INPUT DESKTOP FLAG=value

Use to put a ToolMan icon on the Desktop. A value of 0 does not put a ToolMan icon on the Desktop. A value of 1 puts a ToolMan icon on the Desktop. If the option is not specified, it defaults to 0.

USER_INPUT_QUICK_LAUNCH_FLAG=value

Use to put a ToolMan icon in the Quick Launch Bar. A value of 0 does not put a ToolMan icon in the Quick Launch Bar. A value of 1 puts a ToolMan icon in the Quick Launch Bar. If the option is not specified, it defaults to 0.

USER INPUT PROGRAM GROUP FLAG=value

Use to put a ToolMan shortcut in a Program Group. A value of 0 does not put a ToolMan shortcut in a Program Group. A value of 1 puts a ToolMan shortcut in a Program Group. If the option is not specified, it defaults to 0. This command is used with the USER INPUT PROGRAM GROUP NAME command described below.

USER_INPUT_PROGRAM_GROUP_NAME=program group name
Use to specify the name of the Program Group that you want a VERICUT Reviewer shortcut put in. This command is used with the USER_INPUT_PROGRAM_GROUP_FLAG command described above.

USER INPUT ALL USERS FLAG=value

Use to specify that specified icons/shortcuts are to be added for all users of this computer.

Examples:

The following command puts a VERICUT Reviewer icon the desktop.

USER INPUT DESKTOP FLAG=1

The following pair of commands puts a VERICUT Reviewer shortcut in "CGTech VERICUT Reviewer 9.0" program group.

USER_INPUT_PROGRAM_GROUP_FLAG=1
USER_INPUT_PROGRAM_GROUP_NAME = CGTech ToolMan 9.0

VERICUT Interfaces

SPATIAL_INSTALL=value

Used to specify if the Spatial software used for the Model Interface option gets installed. A value of 0 does not install the Spatial software. A value of 1 installs the Spatial software. If the option is not specified, it defaults to 0.

Redundant License Server Setup

If you plan to configure redundant license servers you should have identified the three (3) required license server computers, provided their Host ID's to CGTech, and received a license email containing the special license keys for redundant license servers. You should also have specified the three license servers (in the order, leader:follower1:follower2) during the VERICUT installation.

A redundant license server configuration requires a special license configured for three (3) license servers. Earlier installation instructions explained how to request the license. Redundant license server configuration should only be done by experienced system administrators with networking experience.

NOTE: Each redundant server must have a static IP address. Dynamic IP addresses cause poor performance or failure.

Follow the steps below to setup a Windows redundant license server configuration. These steps must be done by an "Administrator" user. The steps assume you have received the license email from CGTech.

1. Save License File from License Email.

(requires privileges to write to the VERICUT installation folders)

Select Start > All Programs > CGTech license Server > License Server Only > Save License File from License Email.

When the Create VERICUT License File screen displays, drag and drop the VERICUT license email from Microsoft Outlook, or Outlook Express, into the Create VERICUT License File screen. If you use another email program or cannot access the license email from the license server computer, save the license email as a "Text Only" or plain text file, then drag and drop the saved file into the Create VERICUT License File screen. You can also Copy/Paste the email contents into the Create VERICUT License File screen.

The Create VERICUT License File screen's text area displays all the added license keys, followed by the message:

"License file C:\cgtech60x\windows\license\cgtech.If created successfully". Close the Create VERICUT License File screen after the license file has been created.

2. Determine the IP address of each of the 3 license servers.

These will be used in the redundant license file configuration in the following steps.

3. Use WRIfTool.exe (eg. C:\Program Files\CGTech\License Server folder of your VERICUT installation) to create the redundant license file.

Run ...\windows\license\WrlfTool.exe.

In the WRIfTool panel select File -> New.

Press the **Add Server** button (in the upper half of the window).

In **Add Server to Pool** panel, enter the Hostname and IP Address (or IPX Address) for the "leader" license server computer, and then press **OK**.

Press the **Add Server** button two more times to add the Host Names and IP addresses for each of the two "follower" license server computers. All three redundant server host names and IP addresses should now appear in the **Redundant Servers** list.

Press the Add License button (in the lower half of the window).

In the Add Redundant License panel, select "Read License(s) from file".

Press **Browse** and navigate to, and select, the **cgtech.If** file you saved in step 1C above. Press **Open**, and then press **OK**.

The **Edit License** panel opens, showing the first VERICUT license key in the **License Code** field on the right side of the panel, and the number of available licenses displayed in the **Number of Tokens** field (lower left in the panel).

On the right side of the panel the 3 license server host names appear in the **Server** column. Check the **Include** checkboxes for all 3.

Enter the value from **Number of Tokens** (lower left) in the **Num Tokens** column to the right of the first or "leader" server. This assigns all tokens for the displayed license key to the leader license server. Make sure that the **Num Tokens** values, for the two "follower" servers, is set to zero.

Select **Next License** >> at the bottom of the panel to display the information for the next VERICUT feature. Repeat the previous step to assign all tokens for this license key to the leader license server.

Repeat for each license key.

Press **Done** at the bottom of the panel after the last license key is completed.

Select **File->Save As** and save the redundant license file as "**cgtech.If**" in the .../windows/license folder of the leader license server's VERICUT installation.

4. Copy the redundant license to the other license servers.

Copy the file **cgtech.lf** into the **.../windows/license** folder of the VERICUT installation on each of the other two license server computers.

5. Start the License Servers.

CGTech *strongly* recommends you configure the license server program to automatically start when you start your computer.

NOTES:

- The license server computer requires TCP/IP network protocol installed on the network adaptor. See the section, <u>Check Windows Network Configuration</u> for more information.
- 2. The following steps must be done by an Administrator user.
- 3. If you are installing on a computer running Windows 7 Pro you will need to do the following before continuing with the Configure License & Setup Server steps.
 - Go to Control Panel > User Accounts > Change User Account Control settings (aka UAC).
 - Change it from **Default** to **Never notify**

The **Never Notify** setting is to be used when using a program not certified for Windows 7 because it does not support **User Account Control** (like Sentinel or VERICUT).

6. On the "leader" license server computer:

Select Start > All Programs > CGTech License Server > License Server Only > Start License Server Service. This will automatically remove any existing service and add and start the service from the current folder.

- A. Select Start > All Programs > CGTech License Server > License Server Only > Set License File Environment Variable.
- B. Modify the system environment variable **LSERVOPTS** created in the previous step.
- C. The following is one way to do it:
 - a. Find the "My Computer" icon, right-mouse click on it, and select **Properties**.
 - b. In the System Properties panel, select the **Advanced tab**. Press the **Environment Variables** button located near the bottom of the panel.
 - c. In the **Environment Variables** panel, scroll the lower **System Variables** list, select **LSERVOPTS**, and press the **Edit** button.
 - d. In the **Edit System Variable** panel change the **Variable Value** by replacing the "-s" with "-rlf"
 - e. Press **OK** in the **Edit System Variable** panel, and all remaining panels.
 - D. Restart the computer.
 - E. Repeats steps A through D for the two follower computers.

NOTES:

- 1. Be sure to start the 3 redundant license server computers in the same order specified when the redundant license file was created. Starting them out-of-order could cause problems designating the "leader" computer and assigning tokens. You should wait 1 or 2 minutes between starting each license server computer to make sure that it is fully started and ready to communicate with the next one. There is no "maximum" time limit between starting the license server computers.
- 2. When starting a redundant license server, the error message "Iservrc not found" may display. This message can be ignored.

7. Verify the license servers started.

All 3 redundant license servers should now be running and should be configured to automatically start. You can confirm that the server program is running using the Sentinel License Administrator program.

Select Start > All Programs > CGTech License Server > License Utilities> Sentinel License Administrator (WlmAdmin). You should see all 3 license server computers' host names appear under the **Defined Servers** list under the 'tree' displayed on the left side of the window.

If they do not display you may need to add them using **Edit > Defined Server List** in the **WImAdmin** panel. In a few seconds your VERICUT licenses should appear under the server computer's name (you may have to expand it).

The redundant license server computers are now configured to automatically start the license server program, the VERICUT license keys exist in ...\windows\license\cgtech.lf, and the license server programs are configured to read VERICUT license keys from the file.

NOTE: During VERICUT installation you should have specified the 3 license servers when prompted for the license server name. If you did not enter the three license server host names during installation, you can modify the name by selecting Start > All Programs > CGTech VERICUT x.x > License Administration > Specify License Server Computer. When the Notepad editor opens, change the line "set LSHOST=..." to be:

set LSHOST=hostname1:hostname2:hostname3

Where "hostname1", etc. are the names of your 3 redundant license servers. The names **MUST** be specified in the same order used when the redundant license file was created. The three hostnames are separated by colons (:).

8. Save the file and exit Notepad.

NOTE: For more detailed information about setting up a redundant license server configuration, see the <u>Sentinel RMS License Manager System Administrator's Guide</u>.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

Detailed VERICUT Configuration Tasks

Windows Start Menu License Administration Choices

The following describe the different Windows "Start Menu" choices under Start > All Programs > CGTech VERICUT 9.0 > License Administration. Some of these choices only display information and some require a Windows administrative user in order to make changes to system settings.

License Utilities

"License Utilities" choices are intended to help setup licensing or diagnose license problems on either the license server computer or the VERICUT client computer.

Display Local License Servers

View all Sentinel RMS license servers on this subnet. This choice uses the Sentinel RMS **Iswhere** utility to display all Sentinel RMS license servers that can be communicated with. It uses Sentinel RMS's 'broadcast' feature to contact and collect information about various Sentinel RMS license servers on the same subnet as the current computer. It reports on any Sentinel RMS license servers, which may or may not have VERICUT licenses. For more information about advanced license server configuration options, see the

Sentinel - <u>Sentinel RMS License Manager System Administrator's Guide</u>.

Display Network Information

Check IP and Ethernet addresses of network devices on this computer. This choice uses the Windows' command IPCONFIG /ALL to display important network information, especially TCP/IP configuration information. This can be used to determine if the TCP/IP configuration is valid (i.e. displays a valid IP address of the current computer). It also shows if multiple network devices are present, and their status.

Sentinel RMS License Administrator (WImAdmin)

View licenses and status of running Sentinel RMS license servers using the Sentinel RMS Windows' license utility **WImAdmin**. **WImAdmin** is configured with the VERICUT license

server identified during installation as a "**Defined Server**" in **WimAdmin**'s defined server list. For more information about the **WimAdmin** utility see the <u>Sentinel RMS License</u> <u>Manager System Administrator's Guide</u>.

Specify License Server Computer

(requires privileges to write to the VERICUT installation folders)

Direct VERICUT to get its licenses from a different license server computer. The choice opens the VERICUT configuration file, **cgtenv.bat** in Windows' Notepad text editor. Comments in the file identify the LSHOST environment variable and how to change it to specify a different VERICUT license server computer's host name. For more information about the **LSHOST** environment variable see the

Sentinel RMS License Manager System Administrator's Guide.

License Server Only

"License Server Only" choices are only intended to be used on the license server computer, to help setup licensing or diagnose license problems.

Configure License & Setup Server

NOTES:

- 1. Requires administrative privileges
- 2. If you are installing on a computer running Windows 7 Pro you will need to do the following before continuing with the **Configure License & Setup Server** steps.
 - Go to Control Panel > User Accounts > Change User Account Control settings (aka UAC).
 - Change it from **Default** to **Never notify**

The **Never Notify** setting is to be used when using a program not certified for Windows 7 because it does not support **User Account Control** (like Sentinel or VERICUT).

This is typically the only selection used when setting-up a Windows license server. It does the following:

 Opens the Create License program and instructs the administrator to drag/drop the VERICUT license email into the screen. This creates the 'cgtech.lf' license file in the license folder.

- 2. Sets the system environment variable **LSERVOPTS** to point to the license file just created.
- Removes any previous Sentinel RMS license server service, then adds and starts the
 license server service from the current installation folder. When the server starts (via
 the service) it looks for the license file defined in LSERVOPTS, and adds the license
 keys.

Display Host ID

Display the Ethernet address of all enabled network adapters on this computer. The user selects one of these displayed Ethernet addresses as the HOST ID used to lock the license server to this computer. The program that displays the Ethernet addresses uses the exact same logic as the license server program. When a license is added to the license server program, it is compared against enabled network adapters. If the network adaptor encrypted in the license key does not match any of the enabled network adaptors, the key is not added to the license server.

Remove License Server Service

(requires administrative privileges)

Stops the license server and removes the license server service on this computer. You can use **Start License Server Service** to restart a license server that is installed as a service.

Run Temporary License Server

(requires administrative privileges)

Starts a temporary license server from the current user's login. You may use this choice to temporarily start the license server program, such as for testing or if it is not possible to add a service. The license server is temporary because it is terminated when the user logs-out of the current session. Use **Configure License & Setup Server** for a permanent installation of the server via Windows Services.

Save License File from License Email

(requires privileges to write to the VERICUT installation folders)

Creates the VERICUT license file from a license email or text file containing the license keys. This choice opens a utility program that reads the license keys in the CGTech license email and creates the **cgtech.lf** license file in the local installation's 'license' folder. The utility program reads the license email via:

- 1. Drag/drop the email directly from Microsoft Outlook or Outlook Express.
- 2. Drag/drop a saved email message file (.msg or .eml).

- 3. Copy/paste the email's text. For example you can select all the text (typically Edit > Select All in your email program), then paste it into the Create License panel with the right-mouse menu > Paste menu button.
- 4. Drag/drop a plain text file saved from the license email.

The **Create License** panel's text area displays all the added license keys, followed by the message "License file C:\cgtech82\windows\license\cgtech.lf created successfully". The license server program reads the **cgtech.lf** license file when it starts, and adds valid license keys to the running license server.

Set License File Environment Variable

NOTES:

- 1. Requires administrative privileges
- 2. If you are installing on a Windows 7 Pro computer you will need to do the following before continuing with the Configure License & Setup Server steps.
 - Go to Control Panel > User Accounts > Change User Account Control settings (aka UAC).
 - Change it from **Default** to **Never notify**

The **Never Notify** setting is to be used when using a program not certified for Windows 7 because it does not support **User Account Control** (like Sentinel or VERICUT).

Sets the **LSERVOPTS** system environment variable, used by the license server to find the **cgtech.lf** license file when the Windows service starts the license server. This setting is only used by the license server started as a Windows service. For more information about **LSERVOPTS** and its options see the

Sentinel RMS License Manager System Administrator's Guide.

NOTE: A restart is required after the environment variable is changed.

Start License Server Service

(requires administrative privileges)

Stops and removes any existing license server service, then installs and starts the license server service from the current installation. This choice is only effective when using a license server service.

Stop License Server Service

(requires administrative privileges)

Stops a running license server service on this computer. The service is not removed, only stopped.

Update Licenses on Running Server

(requires administrative privileges if used on a license server service)

Causes the running license server to re-read the license file. The server must be running when this selection is used. This selection uses the Sentinel RMS **Islic** program to remove the current licenses, then re-reads the license keys in the **cgtech.If** license file and adds them to the running license server. For more information about the **Islic** program see the <u>Sentinel RMS License Manager System Administrator's Guide</u>.

Alternate Method to Determine Your Windows License Server Computer's HOST ID

If you do not have access to the VERICUT DVD you can display the HOST ID as follows:

- Open a Command Prompt window (also called a DOS window)
- Type in the window: **Ipconfig /all**

The value shown to the right of "Physical Address" is typically the HOST ID. Valid IDs are 12 characters and contain only the characters 0-9 and A-F. If your computer has multiple network adapters, the license server program compares the address encrypted in the license keys with enabled network adapters. If a network adapter address matching the encrypted key address is found then the license is added to the server.

The following Physical Addresses are not valid, and indicate something is wrong with the TCP/IP network protocol configuration for the Ethernet device, or indicates the card is not enabled or available:

00000000000

204c4f4f5020

ffffffff

fffffffffff

NOTE: The license server delivered with this version of VERICUT only requires the device to be enabled. It no longer requires it to be connected or have an active network transport such as IPX/SPX.

See the section on <u>Check Windows Network Configuration</u> if you are having trouble getting a valid Physical Address.

Check Windows Network Configuration

In any VERICUT installation there is a computer that functions as the license server computer. There are also one or more client computers that run VERICUT and communicate with the license server computer to get licenses. In a stand-alone configuration the license server computer and the VERICUT client computer are one-in-the-same, but the same network communication requirements apply. The following checks ensure that the license server computer and the VERICUT client computer(s) can communicate, and that the VERICUT client computers can successfully run VERICUT.

Checks for both the License Server Computer and VERICUT Client Computers

1. Check the network hardware.

Ensure that you have a network adapter installed and enabled on the license server computer. You can use the Windows Device Manager (available under the Control Panel's System icon) to see if you have an installed network adapter. The VERICUT license keys are encrypted to match the physical address of an enabled network adapter. When the license server program initially starts it finds enabled network adapters and compares each license key with the physical address of the adapter(s). If a match is found the license key is added to the license server.

2. Check the network software.

VERICUT and the license server program use TCP/IP network protocol to communicate with each other, even when running VERICUT on a single stand-alone computer (where both VERICUT and the license server program run on the same computer). TCP/IP network protocol must be installed on the enabled network adapter that matches the Host ID encrypted in your VERICUT license.

If you need to add TCP/IP protocol and your computer is on a company network you should consult with your network administrator. If you are on a computer with no network connection and you need help on how to add TCP/IP protocol, see the section, <u>Basic Windows Network Configurations</u>.

Checks for the License Server Computer

1. Serving licenses to other client computers.

In addition to having a network adapter and TCP/IP network protocol installed, the license server computer must have a valid IP address in order to serve licenses to other computers. A static IP address should be used. If a dynamic IP address is assigned using a DHCP server, then VERICUT license check-out on client computers may be slow and/or inconsistent. Static IP addresses are required for all license server computers in a redundant server configuration.

Use the **ipconfig** command to verify there is an enabled network adapter with TCP/IP protocol installed and that it is properly configured to be the license server computer. Type the following command in a command prompt window (also called a 'DOS' window):

ipconfig /all

The **ipconfig** command returns information about your computer's network configuration. Only a few items are important for your VERICUT installation. If your computer is connected to a network and TCP/IP protocol is installed and configured correctly, the following lines should have values in order for the license server program to provide licenses to VERICUT on another computer:

Host Name : mycomputer

Physical Address. : 00-0B-AB-77-34-64

IP Address. : 199.1.1.123

Subnet Mask : 255.255.255.0

2. No network connection, stand-alone configuration.

If your computer is not connected to a network, or your computer is sometimes disconnected from a network when you want to use VERICUT (thus it is a standalone configuration with VERICUT and the license server program running on the same computer), then at a minimum you must have an enabled network adaptor.

When disconnected from a network, **ipconfig** may not display an IP address. This does not cause a problem for VERICUT or the license server program because the IP loopback address (127.0.0.1) is used automatically. A Host Name is required, but the default name, "localhost" is sufficient.

The following values should be displayed by **ipconfig** for a stand-alone configuration:

Host Name : mycomputer (or localhost)

Physical Address. : 00-0B-AB-77-34-64

Checks for VERICUT Client Computers

1. Set the optimum color display for VERICUT

True or high color display provides optimum VERICUT performance. Desktop color display is changed by opening the **Display** icon in the **Control Panel**, or by right-click > **Properties** on the desktop.

NOTE: The following checks are not necessary for a stand-alone configuration where VERICUT and the license server program run on the same computer.

2. Check the VERICUT client computer's network software configuration.

In addition to having a network device and TCP/IP network protocol installed, the device must have a valid IP address (either statically assigned, automatically created, or dynamically provided by a DHCP server).

Use the **ipconfig** command to verify that there is an active network device with the TCP/IP protocol installed and that it is properly configured with a host name and IP address. Open a command prompt window (also called a 'DOS' window) and type:

ipconfig /all

The **ipconfig** command returns information about your computer's network configuration. Only a few items are important for your VERICUT installation. If your computer is connected to a network, and TCP/IP protocol is installed and configured correctly, the following lines must have values in order for VERICUT to work correctly:

Host Name : mycomputer

Physical Address. : 00-0B-AB-77-34-64

IP Address. : 199.1.1.123

Subnet Mask : 255.255.255.0

3. Verify client and license server computers can communicate with each other.

Both client and license server computers must have host names and valid IP addresses. The mechanism for assigning host names and IP addresses varies with the network configuration. See your site's network administrator if you are not familiar with how your network is configured.

The easiest way to verify communication between computers is to "ping" each one from the other. Open a command prompt window and type:

ping COMPUTER1

(where 'COMPUTER1' is the host name of the computer you need to communicate with)

If the computers can communicate you should see something like:

Pinging COMPUTER1 [199.1.1.123] with 32 bytes of data:

```
Reply from 199.1.1.123: bytes=32 time=48ms TTL=127
```

Reply from 199.1.1.123: bytes=32 time=46ms TTL=127

Reply from 199.1.1.123: bytes=32 time=43ms TTL=127

Reply from 199.1.1.123: bytes=32 time=41ms TTL=127

Ping statistics for 199.1.1.123:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 41ms, Maximum = 48ms, Average = 44ms

You should ping the client from the license server computer and the license server computer from the client since both computers must know about each other for proper communication. If the ping test fails contact your site's network administrator to correct the problem.

In some network configurations there may be a router, gateway or other network device that acts like a firewall between the client and license server computer. In this case, the ping test will succeed but licensing will fail since the router or firewall must be configured to allow TCP/IP to pass UDP packets through port 5093. For this and other complex network configurations contact your site's network administrator and see the Sentinel RMS License Manager System Administrator's Guide, for more information about configuring the Sentinel RMS license server and clients

Basic Windows Network Configurations

Use the appropriate section below to properly configure your network device for VERICUT on Windows computers.

To check for network software on Windows XP Professional:

When using the Start Menu,

- 1. Taskbar: Start > Control Panel > Network Connections
- 2. Double click on the **Device** icon.
- 3. Select Support tab.

Installed software must include "Internet Protocol TCP/IP".

When using "classic" Start Menu,

- 1. Taskbar: Start > Settings > Network Connections
- 2. Double click on the **Device** icon.
- 3. Select Support tab

Installed software must include "Internet Protocol TCP/IP".

Configuring VERICUT to Read an NX Part File

An NX part file can be opened directly in VERICUT. The following describe the environment variables that need to be set.

The following environment variables need to be set in VERICUT's environment:

UGII_BASE_DIR

UGII_BASE_DIR is setup by an NX installation in the system environment space and typically points to the place where NX is installed, for example C:/Program Files/UGS/NX 6.0/.

UGII_ROOT_DIR

UGII_ROOT_DIR is setup by an NX installation in the system environment space and typically points to the location of the NX executable files, for example C:/Program Files/UGS/NX 6.0/UGII/.

Also, **UGII_ROOT_DIR** must be set in the execution path (the "path" environment variable).

Additional requirements:

- 1. NX6, NX7, NX7.5, NX8, NX8.5 or NX9 must be installed on the computer that is running VERICUT.
- 2. An NX license must be available.

Other VERICUT Configuration Tasks

Following are configuration tasks that may need to be done depending on the CGTech products you are using.

• To configure CAD/CAM Interface modules, go to one of the following:

CATIA V5-to-VERICUT Interface for CATIA version 5

CATIAV6-to-Vericut Interface for CATIA/DELMIA V6

CATIA V5-to-VERICUT Drilling and Fastening Interface (CAT2VDAF)

CAMWorks to VERICUT Interface

EdgeCAM-to-VERICUT Interface

ESPRIT-to-VERICUT Interface

GibbsCam-to-VERICUT Interface (GibbsV)

Mastercam-to-VERICUT Interface (MCAMV)

NX-to-VERICUT Interface (NXV)

NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF)

Pro/E-to-VERICUT Interface (PROEV)

SURFCAM to VERICUT Interface

- To install the CAD Model Interface modules, go to <u>Installing the Model Interface</u> Modules.
- To enable VERICUT to read NX files directly, go to <u>Configuring VERICUT to Read</u> an NX Part File
- To configure the VERICUT TDM Interface, go to <u>VERICUT TDM Systems Interface</u>.

Following are other configuration tasks that may need to be done, depending on your site's requirements.

- Windows Start Menu License Administration Choices
- Determine Your License Server's Host ID
- Check Network Configuration
- Change License Servers
- Update an Existing License
- Stop and Remove a License Server
- Starting a Temporary License Server

- Uninstall an old version of VERICUT
- Download and Install the Latest Point Release for Windows
- Installing Microsoft C++ redistributable run-time libraries for XP64
- Configure Redundant License Servers on <u>Windows</u>

Move Windows License Server

It is sometimes desirable (or necessary), due to hardware upgrades or network changes, to move your VERICUT license server to a different license server computer. To move the license server in an existing installation, do the following:

- 1. Request a license for the new license server computer using CGTech's on-line license Transfer Request form.
 - (Once you receive the license email containing your new license keys, continue with the following steps.)
- 2. Stop and Remove the Windows License Server.
- 3. Follow the VERICUT <u>Installation Steps</u> to install VERICUT on the new license server computer.
- 4. <u>Modify VERICUT client computer installations</u> to use the newly installed license server computer.

Do step 4 for each VERICUT or VERICUT Composite Software installation in your network.

Modify VERICUT on Windows to Use a Different License Server Computer

To change an existing VERICUT Windows installation to access VERICUT licenses on a different license server computer:

- 1. Select Start > All Programs > CGTech VERICUT 9.0 > Utilities > Specify License Server Computer (opens the file in Notepad)
- 2. Change the line:

set LHOST=server1

- 3. Replace "server1" (or the name of your old license server computer) with the host name of the new license server computer.
- 4. Save the file cgtenv.bat.

Update a License on Windows License Server

These instructions assume you have received a new license from CGTech via email. If you have not, and you need to request a new license, see Determine the HOST ID and Request a License. To update your VERICUT license on a Windows license server, do the following (on the license server computer):

- 4. Create the license file from the license email or saved text file.
 - A. Select Start > All Programs > CGTech License Server > License Server Only > Save License File from License Email.
 - B. Drag and drop the VERICUT license email from Microsoft Outlook, or Outlook Express, into the Create License File panel. If you use another email program, or cannot access the license email from the license server computer, then save the license email as a "Text Only" or plain text file and drag/drop the saved file into the Create License File panel.
 - C. Close the **Create License File** panel after the "success" message displays.
- 5. Update the licenses on the running license server.

Select Start > All Programs > CGTech License Server > License Server Only > Update Licenses on Running Server. Do not attempt to do this action unless you know your license server is running. If you are not sure, you can verify that the server is running using Start > All Programs CGTech License Server > License Utilities > Display Local License Servers. Your server's Host Name should appear in the resulting panel.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

Stop and Remove a Windows License Server

Only one license server can run on the license server computer. The license server from the newest installed version should be used. The old license server should be stopped and removed before configuring and starting the new license server.

Stop and remove a Windows license server service

NOTE: The following must be done by an Administrator user.

Start > All Programs > CGTech License Server > License Server Only > Remove License Server Service

Stop and remove a temporary license server process

Right-mouse click on the SentinelLM task in the windows task bar, and choose Close.

Remove any mechanism which might have been configured to automatically start the temporary server. For example, you may need to remove a shortcut to the temporary server startup batch file from the Start > All Programs > Startup folder.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

Starting a Temporary Windows License Server

The following describes how to start a temporary license server. But, it is *strongly* recommended that you configure the license server program to automatically start using Windows services. If for some reason you cannot configure the license server service, then it can be temporarily started.

To start a temporary license server select:

Start > All Programs > CGTech License Server > License Server Only > Run Temporary License Server.

You could add a Windows shortcut to your desktop to make access to this procedure easier.

This Start menu item could also be added to the Windows Startup folder so that it automatically starts when you log-in.

NOTES:

- 1. A temporary license server can only be started by an Administrator user.
- 2. The temporary license server process is owned by the specific user that starts it. When that user logs-out, the license server program terminates.
- 3. Starting a temporary license server stops the Windows license server service if it is running.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

Uninstall an Old Version of VERICUT

Uninstalling is recommended when a VERICUT software version is no longer needed, or when disk space is limited. Use the appropriate procedure below to remove a version of VERICUT software from your computer.

To remove VERICUT software from a Windows computer:

- Remove the license server service by selecting Start > All Programs > CGTech
 License Server > License Server Only > Remove License Server Service. Do this
 BEFORE uninstalling!
- Unistall VERICUT by selecting Start > Programs > CGTech VERICUT x.x > Utilities > Uninstall VERICUT x.x (where "x.x" is the version of VERICUT to be uninstalled) and follow the prompts of the "uninstall" program. You can also start the "uninstall" program using the UninstallVERICUT.exe, located in the UninstallerData folder of your VERICUT software installation.

NOTE: There may be program folder/files that are not removed by uninstalling. These were created after VERICUT was installed and will have to be removed manually.

During the uninstall process the following dialog may appear. You **do not** have to do a system restart and may just press the "continue" button to proceed.



Download and Install the Latest Point Release for Windows

VERICUT point releases for Windows are available on the CGTech web site. The following steps will guide you through downloading and installing a VERICUT point release (we'll use 9.0 as an example below):

Download Instructions:

The VERICUT 9.0 Windows version (Windows 7, 64 bit) is available for download from our web site. Follow this link to open the on-line form to begin the download process:

http://www.cgtech.com/vericut_support/request-software-update/

To download the file, you will need your Company ID and the access code from the "VERICUT 9.0 is available for download" email that was sent to all customers on maintenance. If you are not currently on maintenance, contact your CGTech representative.

Starting the Installation:

After downloading the zipped installer, unzip it to a temporary folder. The zip file is password protected. The password was also included in the "VERICUT 9.0 is available for download" email.

Once the files are unzipped, double-click on **install.exe** to begin the installation.

Return to "Other Configuration Tasks"

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Install Microsoft redistributable C++ Run-Time Libraries

VERICUT on Win7 64 may require installation of the correct version of Microsoft's C++ run-time libraries. You may also need to install the correct version of Microsoft's C++ run-time libraries if you are installing the Model Interface Modules. The following describes the 64 bit version of the libraries.

To install the libraries:

Get the vcredist_x64.exe installer:

The redistributable C++ run-time is available

- On the VERICUT DVD. The file name is vcredist_x64.exe.
- In the VERICUT installation in
 C:\Program Files\cgtech\VERICUT 9.0\redist\vcredist_x64.exe,
 where "C:\Program Files\cgtech\VERICUT 9.0\" is your installation location.
- Download from CGTech's download site at:
 http://www.cgtech.com/vericut_support/system-requirements

Installation:

Double-click on <u>vcredist x64.exe</u> to install. There are no prompts during installation and no confirmation of completion. You must have Administrator privileges to do the install.

Return to "Other Configuration Tasks"

Configuring CAD/CAM to VERICUT Interfaces

Choose the interface you want to configure from the following:

CAMWorks to VERICUT Interface

CATIA V5-to-VERICUT Interface for CATIA version 5

CATIAV6-to-Vericut Interface for CATIA/DELMIA V6

CATIA V5-to-VERICUT Drilling and Fastening Interface (CAT2VDAF)

EdgeCAM-to-VERICUT Interface

ESPRIT-to-VERICUT Interface

GibbsCam-to-VERICUT Interface (GibbsV)

Mastercam-to-VERICUT Interface (MCAMV)

NX-to-VERICUT Interface (NXV)

NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF)

Pro/E-to-VERICUT Interface (PROEV)

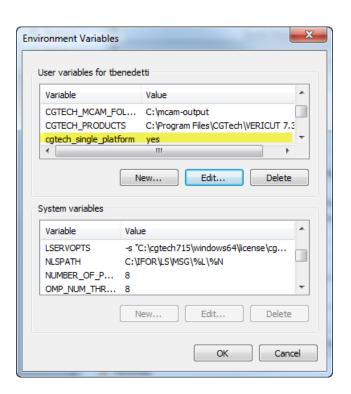
SolidWorks-to-VERICUT Interface

SURFCAM to VERICUT Interface

NOTE: If using the interface with VERICUT Single Platform you'll need to add an environment variable so that the interface will launch the correct version of VERICUT.

CGTECH_SINGLE_PLATFORM=YES

This variable may be added to your Windows environment variables.



Configuring the CAMWorks-to-VERICUT Interface

The CAMWorks interface requires that CAMWorks and SolidWorks are installed. In addition, 3 environment variables need to be established.

To enable CAMWorks to find the necessary VERICUT files, you also need to define three environment variables, **CGTECH_INSTALL**, **CGTECH_PRODUCTS** and **LSHOST**.

If you are using VERICUT single Platform then an additional environment variable needs to be defined for the interface.

CGTECH SINGLE PLATFORM=YES

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\CGTech\VERICUT x.x.x
CGTECH_PRODUCTS	C:\Program Files\CGTech\VERICUT x.x.x\windows64
LSHOST	server_name

CGTECH_INSTALL is set to the VERICUT installation folder. In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\CGTech\VERICUT 9.0\.

Defining a value explicitly for the CGTECH_INSTALL environment variable is optional. It can be derived from the CGTECH_PRODUCTS environment variable value.

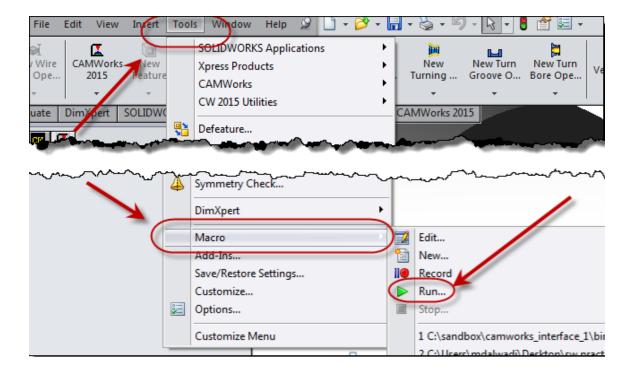
CGTECH_PRODUCTS is set to the folder for the specific operating system of the computer running VERICUT: "windows64". In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\CGTech\VERICUT 9.0\windows64.

LSHOST is set to the name of the license server computer.

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

Accessing the CAMWorks-to-VERICUT Interface

In order to launch the interface from SolidWorks, click on **Tools** button in the SolidWorks menu, and select the **Macro->Run** options as shown in the picture below.

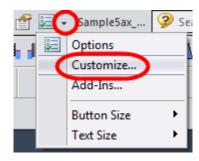


Using the macro browse dialog that displays, navigate through CAMWorks interface installation directory which may be located on the local computer, or on the network, and select the Vericut_Interface.dll and then Open.

At the end of this process, the CAMWorks-to-VERICUT Interface window should display.

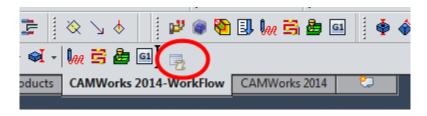
To add an icon to the CAMWorks Toolbar

Select the pull-down next to **Options** licon and select **Customize...**

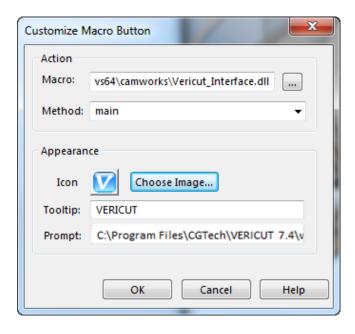


Select Commands tab; Categories: Macro

Drag and drop **New Macro Button** onto the **CAMWorks** Toolbar

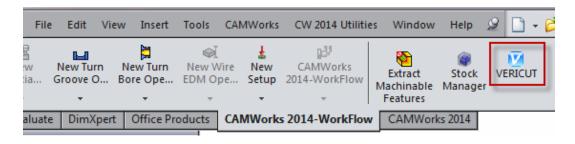


Specify the location of the Vericut_Interface.dll



NOTE: For an Icon you can select C:\Program Files\CGTech\VERICUT 9.0\windows64\solidworks\vericut.ico

Select **OK**



Return to "Other Configuration Tasks"

Configuring the CATIA V5-to-VERICUT Interface

Prerequisites

CATV5 requires CATIA V5 (R18 or later) and **VERICUT** 8.1 (or later). It also requires two elements of Windows.

- "Windows Script" should be version 5.6 or later. The latest version of Windows Script is available from Microsoft's <u>download site</u>. Search for "Windows Script" and pick the latest version offered. Note that there is one download for Windows 2000 and XP, and another for 98, ME and NT.
- 2. Two dynamic link libraries, FM20.dll and FM20ENU.dll, which are distributed with Microsoft Office. If some portion of Office is installed then FM20.dll and FM20ENU.dll should already be present (in the "Windows\System32" folder or an equivalent) and registered.

Configuration

The CGTech software installation procedure places the files required by **CATV** in a subfolder. If you elected to install the software in the default folder "C:\Program Files\cgtech\VERICUT x.x.x\" (where x.x.x is the VERICUT release number), then for VERICUT 9.0, the **CATV** folder will be "C:\Program Files\cgtech\VERICUT 9.0\windows64\catv5".

The one exception is the file "CATV.bat", which is located in the folder "C:\Program Files\cgtech\VERICUT x.x.x\commands" (where x.x.x is the VERICUT release number). The "CATV.bat" file sets at least two environment variables before invoking the executable "CATV.exe" to start the CATIA V5-to-VERICUT Interface.

The first environment variable is **CGTECH_PRODUCTS** and it points to the platform specific folder of the CGTech software. For **CATV** the platform is either "windows" or "windows64". The second environment variable is **CGTECH_LIBRARY** and it points to the folder containing **VERICUT** specific files distributed with the product. These include "init.VcProject" and "initm.VcProject" which are used by "CATV.exe" as project and setup templates if no other file is specified by the user.

The "CATV.bat" file is generated during the installation procedure and there should be no need to edit the definition of either of these mandatory environment variables.

The following optional environment variables are available for use in the CATV.bat file.

CGTECH_CATV_ALL_VISIBLE

This environment variable controls visibility of models transferred to VERICUT.

CGTECH_CATV_ALL_VISIBLE=No (Default if not set)

All instances of all CATParts within selected CATProducts are transferred. They are marked as visible or hidden, so that the picture that first appears in VERICUT matches that in CATIA.

CGTECH CATV ALL VISIBLE=Yes

All design, stock and fixture models transferred to VERICUT will be visible, regardless of their state in CATIA.

This environment variable can be set in a batch file that is used to launch CATV.

For example:

C:\Program Files\cgtech\VERICUT 9.0\windows64\CATV.bat

Add a line similar to the following near the beginning of the file:

set CGTECH_CATV_ALL_VISIBLE=Yes

CGTECH_CATV_FOLDER

This environment variable causes CATV to generate a number of files when it communicates the details of a CATIA CATProcess file to **VERICUT**. These include tool libraries, STL or VRML model files, and NC programs in APT or G-Code. Normally **CATV** will offer to place these files in the same folder as the CATProcess file. You can override this behavior interactively, but if you typically want all generated files to be placed in a single (perhaps temporary) folder, you can use this environment variable to specify it.

CGTECH_CATV_LANGUAGE

If you want CATV's interface to use something other than US English, the variable can specify a file of localized text. Versions for French and German and Japanese are supplied.

CGTECH_LATHE_HOLDERS_AS_CATPARTS

Set to "Yes", "Oui", "Ja" or any word not beginning with "N", to trigger behavior implemented for Lathe holders. This includes looking for (A) a coordinate system called

"Tool Holder Axis System" which defines a tool assembly's gage point, and (B) a ".CATPart" which defines a turning tool's holder.

CGTECH CATV LATHE HOLDER PARENT FOLDER

Used with the prior environment variable to indicate where the ".CATPart" files for turning tool holders are to be found.

CGTECH_GAGE_IS_PARAMETRIC_LENGTH

Set to "Yes", "Oui", "Ja" or any word not beginning with "N", to force use of the length specified in the parametric definition of a holder as the gage length, even when the holder's geometry is overwritten by a ".CATPart" or ".CATProduct". Otherwise the height of the profile defined by the ".CATPart" or ".CATProduct" will be used.

CGTECH_CATV_BALL_CENTERS

Set to "Yes", "Oui", "Ja" or any word not beginning with "N" to ignore any driven points specified for parametrically defined ball end mills and to replace them by a single driven point at the ball center. This is a throw-back requested by one customer to mimic the behavior we offered before Dassault added support for multiple driven points (and we figured out how to access that information).

You can place a shortcut to the **CATV** batch file on your Windows Desktop. If you do so, we suggest that you alter the properties of the shortcut so that it runs in a minimized window. This will avoid having an almost empty command window on screen for the batch process. An alternative is to trigger the batch file from an icon on one or more of CATIA's toolbars. To assist in setting this up, there is a CATIA macro script in the CATV5 folder, called "CATV.CATScript". There are two icon files in sub-folders, "Small\I CATV.bmp" and "Normal\I CATV.bmp".

If you wish to have an icon () on a CATIA toolbar, the two icon files must be placed where CATIA expects to find them. The paths depend on where you have CATIA installed, but typically you will find a "small" and "normal" folder under "C:\Program Files\Dassault Systemes\B22\win_b64\resources\graphic\icons". Place the two versions of the CATV icon, both called "I_CATV.bmp", in the appropriate folders.

Adding the **CATV** icon (**v**) to a CATIA toolbar is a multi-step process;

1. Get CATIA V5 running.

- 2. Make the "Advanced Machining" workbench active, either by accessing an existing CATProcess file, or by initializing a new one. One or more of the Manufacturing toolbars are likely to be suitable locations for the **CATV** icon.
- 3. Pick "Tools" > "Macro" > "Macros" from CATIA's menus.
- 4. In the "Macros" dialog, pick "Macro Libraries".
- 5. In the "Macro Libraries" dialog, set the "Library Type" to "Directories".
- 6. Pick "Add existing library ..." and select the folder containing the CATV.CATScript file.
 - (for example, "C:\Program Files\cgtech\9.0\windows\catv5").
- 7. "Close" the "Macro Libraries" dialog.
- 8. "Close" the "Macros" dialog.
- 9. Pick "Tools" > "Customize ..." from CATIA's menus.
- 10. In the "Customize" dialog, bring the "Commands" tab to the front.
- 11. Select "Macros" from the left-hand list of "Categories".
- 12. Pick "CATV.CATScript" from the right-hand list of "Commands".
- 13. Click on the "Show Properties ..." button.
- 14. Pick the "..." button to the right of the "Icon:" label.
- 15. In the "Icon Browser" dialog you need to step through the pages of icons until you find the one for **CATV** (). The icons are presented in alphabetic order of their names, which you can see by allowing the mouse cursor to sit over an icon for a brief period. The **CATV** icon () will probably be on the twelfth page. Pick it and "Close" the "Icon Browser".
- 16. Back on the "Customize" dialog, position the mouse cursor over the name of the macro, CATV.CATScript, in the right-hand list, depress the left mouse button, and drag the cursor to the toolbar where you want the icon to appear. It's counter-intuitive, but you drag the macro name, not the icon! Repeat this step if you want the icon to appear on more than one toolbar.
- 17. "Close" the "Customize" dialog.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the CATIA V5-to-VERICUT Interface. For complete details on using the CATIA V5-to-VERICUT Interface, see **CATIA V5-to-VERICUT Interface**, in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Return to "Other Configuration Tasks"

Configuring the CATIA/DELMIA V6 to VERICUT Interface

CATV6 requires CATIA/DELMIA Version 6 or later. 64 bit Operating systems.

The Interface is launched by executing the CATV6 batch file located in the VERCICUT installation, Commands folder

ex. C:\program files\cgtech\vericut 9.0\windows64\commands

You also may need to install the Microsoft redistributables file.

InstallDSSoftwareVC11Prerequisites x86 x64.msi

It can be found in the spatial folder of your VERICUT installation.

Example:

C:\program files\cgtech\vericut 9.0\windows64\spatial\iopR25\redist

NOTE: You will need administrator privileges to install this file.

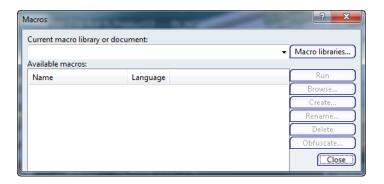
The batch file can also be launched via a CATScript from within CATIA.

Launch CatiaV6 R2013x or DelmiaV6 R2013x (used CatiaV6 in example):

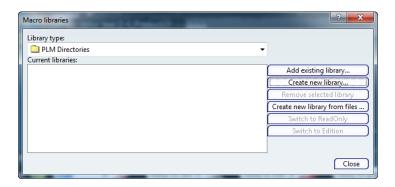
Copy Normal and Small icons from C:\cgtech82\windows64\catv6\normal and \small folders to

C:\Program Files\Dassault
Systemes\B214\win_b64\resources\graphic\icons\normal and \small folders

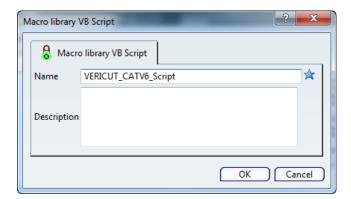
2. Select CATIA menus **Tools** > **Macros** > **Macros** (or ALT-F8)



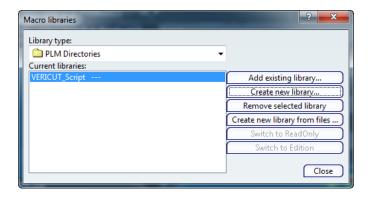
3. Select Macro Libraries



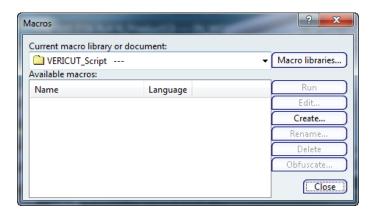
- 4. Library type: from pull-down select PLM Directories
- 5. Select Create New Library ...



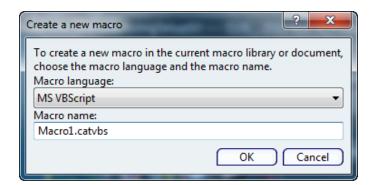
6. Select a Name, example VERICUT_Script, then select OK



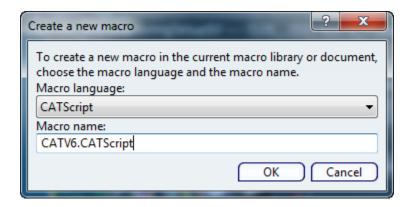
7. Select Close



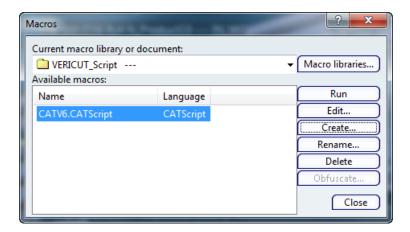
8. From the Macros Window select Create



- 9. Macro Language: from pull-down select CATScript
- 10. Macro Name: enter name, example CATV6.CATScript



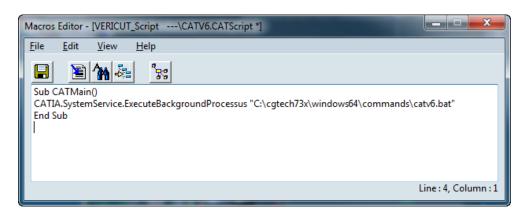
11. select OK



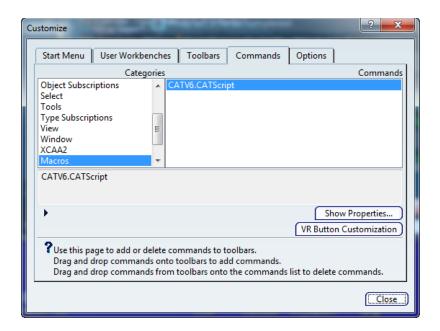
12. Select **Edit**

13. Add the following line in between **Sub CATMain()** and **End Sub**CATIA.SystemService.ExecuteBackgroundProcessus

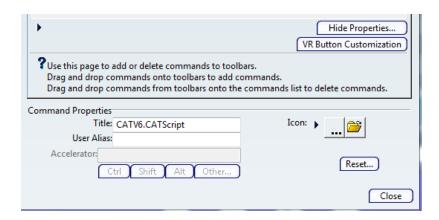
"C:\cgtech82\windows64\commands\catv6.bat"



- 14. Select File > Save and then File > Exit
- 15. Macros window select Close
- 16. Select CATIA menus Tools > Customize > Commands tab > Categories: Macros



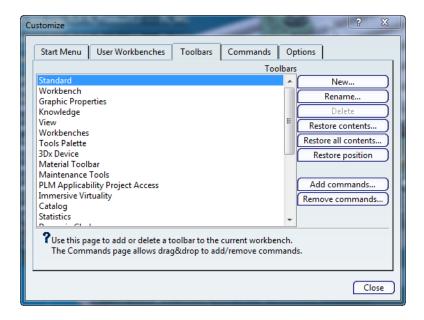
17. Under the **Commands** column select **CATV6.CATScript** then select **Show Properties**



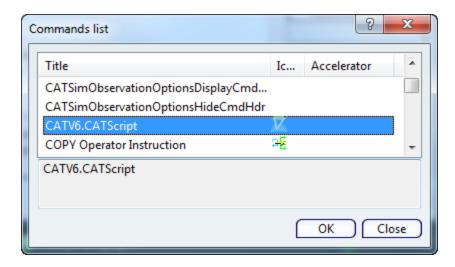
18. Select and choose the VERICUT Icon from the list.



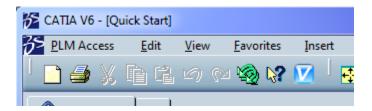
- 19. Close the Icons Browser window
- 20. From the **Customize** window select the **Toolbars** tab.



- 21. Select the desired Toolbar; example Standard and then select Add Commands
- 22. Select CATV6.CATScript and then select OK.



23. Close the Customize window.



Return to <u>"Other Configuration Tasks"</u>

Configuring the CATIA V5-to-VERICUT Drilling and Fastening Interface (CAT2VDAF)

Prerequisites

CAT2VDAF requires CATIA V5 (R18 or later) and **VDAF** 7.1 (or later). It is available for the 64bit Windows platform.

It also requires two elements of Windows.

- 1. "Windows Script" should be version 5.6 or later. The latest version of Windows Script is available from Microsoft's <u>download site</u>. Search for "Windows Script" and pick the latest version offered.
- 2. Two dynamic link libraries, FM20.dll and FM20ENU.dll, which are distributed with Microsoft Office. If some portion of Office is installed then FM20.dll and FM20ENU.dll should already be present (in the "Windows\System32" folder or an equivalent) and registered.

Configuration

The CGTech software installation procedure places the files required by **CAT2VDAF** in "C:\Program Files\CGTech\VERICUT 9.0\windows64\CAT2VDAF".

The one exception is the file "cat2vdaf.bat", which is located in the folder "C:\Program Files\cgtech\VERICUT 9.0\windows64\commands". The "cat2vdaf.bat" file sets at least two environment variables before invoking the executable "cat2vdaf.exe" to start the CATIA V5-to-VERICUT Drilling and Fastening Interface.

The first environment variable is **CGTECH_PRODUCTS** and it points to the platform specific folder of the CGTech software. For **CAT2VDAF** the platform is "windows64". The second environment variable is **CGTECH_LIBRARY** and it points to the folder containing **VERICUT Drilling and Fastening** specific files distributed with the product. These include "init.vdafproject" and "initm.vdafproject" which are used by "cat2vdaf.exe" as project and setup templates if no other file is specified by the user.

The "cat2vdaf.bat" file is generated during the installation procedure and there should be no need to edit the definition of either of these mandatory environment variables.

The following optional environment variables are available for use in the CATV.bat file.

CGTECH_CATV_ALL_VISIBLE

This environment variable controls visibility of models transferred to VERICUT Drill and Fastener.

CGTECH CATV ALL VISIBLE=No (Default if not set)

All instances of all CATParts within selected CATProducts are transferred. They are marked as visible or hidden, so that the picture that first appears in VERICUT Drill and fASTENER matches that in CATIA.

CGTECH CATV ALL VISIBLE=Yes

All Skin, Structure and Fxture models transferred to VERICUT Drilling and Fastening will be visible, regardless of their state in CATIA.

This environment variable can be set in the batch file that is used to launch CAT2VDAF. For example:

C:\Program Files\cgtech\VERICUT 9.0\windows64\cat2vdaf.bat

Add a line similar to the following near the beginning of the file:

set CGTECH CATV ALL VISIBLE=Yes

CGTECH_CATV_FOLDER

This environment variable causes CATV to generate a number of files when it communicates the details of a CATIA CATProcess file to **VERICUT Drilling and Fastening**. These include STL or VRML model files. Normally **CAT2VDAF** will offer to place these files in the same folder as the CATProcess file. You can override this behavior interactively, but if you typically want all generated files to be placed in a single (perhaps temporary) folder, you can use this environment variable to specify it.

In the cat2vdaf.bat file, remove the "rem" from the

set CGTECH_CATV_FOLDER=C:\Temp statement and specify the path to the desired folder.

CGTECH_CATV_LANGUAGE

If you want CATV's interface to use something other than US English, the variable can specify a file of localized text. Versions for French and German and Japanese are supplied.

In the cat2vdaf.bat file, remove the "rem" from the appropriate set CGTECH CATV LANGUAGE=... statement.

You can place a shortcut to the **cat2vdaf** batch file on your Windows Desktop. If you do so, we suggest that you alter the properties of the shortcut so that it runs in a minimized window. This will avoid having an almost empty command window on screen for the batch process.

You should now be ready to start using the CATIA V5-to-VERICUT Drilling and Fastening Interface. For complete details on using the CATIA V5-to-VERICUT Drilling and Fastening Interface, see CATIA V5-to-VERICUT Drilling and Fastening Interface, in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

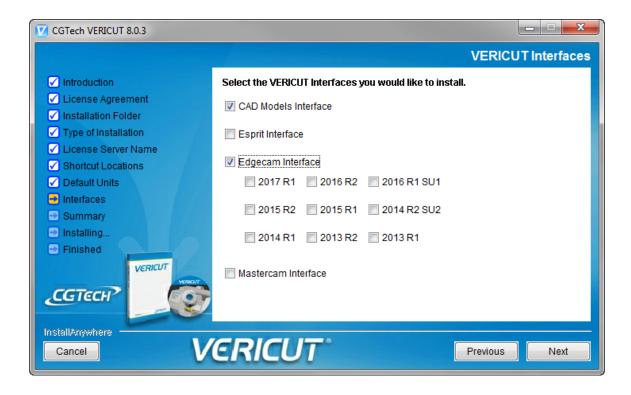
If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

• CGTECH_SINGLE_PLATFORM=YES

Return to "Other Configuration Tasks"

Configuring the Edgecam-to-VERICUT Interface (Edgecam 2013 R1 & R2, 2014 R1 & R2-SU2, 2015 R1 & R2, 2016, and 2017)

To automatically install the Edgecam to VERICUT interface (ECV), insert the VERICUT installation DVD or navigate to the root folder of the downloaded VERICUT installer. Next, run the edgecam interface install.exe and follow the on-screen instructions.



The Installer creates 3 environment variable on your system (example below)

- CGTECH_INSTALL=c:\program files\cgtech\VERICUT 9.0
- CGTECH_PRODUCTS= c:\program files\cgtech\VERICUT 9.0\windows64
- LSHOST=<server name> or LocalHost

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

CGTECH_SINGLE_PLATFORM=YES

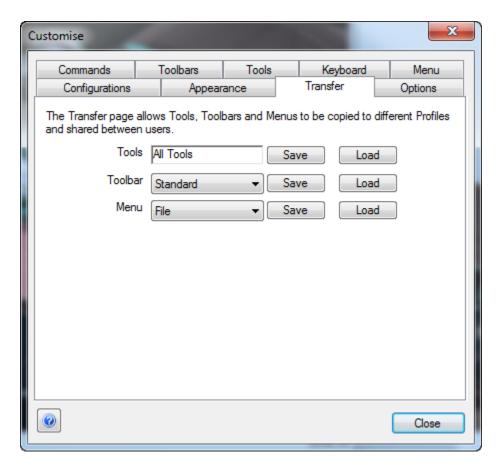
The installer copies specific files to your Edgecam installation folder. (see table)

File	Edgecam Folder	Description
VericutPdi.exe	Cam\PDI\Menu-Run\	Executable
VericutGui.dll	Cam\PDI\Menu-Run\	Library for GUI
mch_reader.dll	Cam\PDI\Menu-Run\	Library to read machine file
Vericut.local	Cam\PDI\Menu-Run\	Language strings
VericutPdi.pdi	Cam\PDI\Src\	Dialogs
VericutPdi.dfn	language\	Commands
VericutPdi.commands	%USERPROFILE%\Documents\Planit	Menu toolbar
	\2014.20\Edgecam\cam\Support	
icons*	%USERPROFILE%\Documents\Planit	Icons
	\2014.20\Edgecam\Themes\Default	
	\Ribbon	

To add the VERICUT menu to the Edgecam main menu bar (2013 $R1-2014\ R2)$

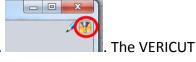
Note: A **Transfer File** VERICUT.commands is included, which can be imported into Edgecam by using the **Customise** dialog

• From Edgecam main menu bar, select View> Toolbars> Customize> Transfer



Select Toolbar > Load then browse the
 C:\Users\%USERPROFILE%\Documents\Planit\2014.20\Edgecam\cam\Support, Open





To launch the interface, switch to Manufacturing mode. menu will appear in the toolbar.

At this Time you can configure the interface or run the interface.



Note: After running ECV, The **Build Date** message is written to the **Feedback** window



NOTE: Edgecam 2014R2 versions supported:

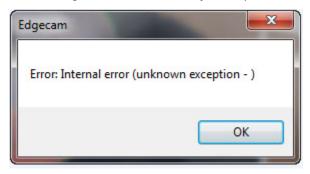
ECV currently requires that a specific version of Edgecam 2014R2 be installed. Below is a list Edgecam 2014R2 versions and their corresponding ECV files:

2014R2 2014.20.0 → ECV (U:\Applications\DailyBuilds\cgtech82\windows64\edgecam\ 2014R2)

2014R2 2014.20.1 → ECV (U:\Applications\DailyBuilds\cgtech82\windows64\edgecam\ 2014R2SU2)



Note: error generated but VERICUT files output OK



2014R2 2014.20.2 → ECV (U:\Applications\DailyBuilds\cgtech82\windows64\edgecam\ 2014R2SU2)



Note Known issue:

Symptom: Try to launch VERICUT interface and there is no response

Solution:

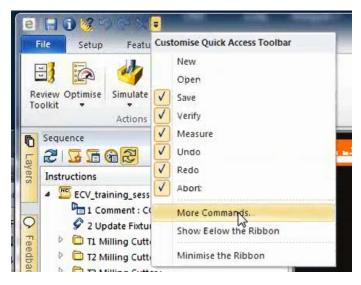
Edgecam 2014 R2SU2 interface not loading was caused by this file.

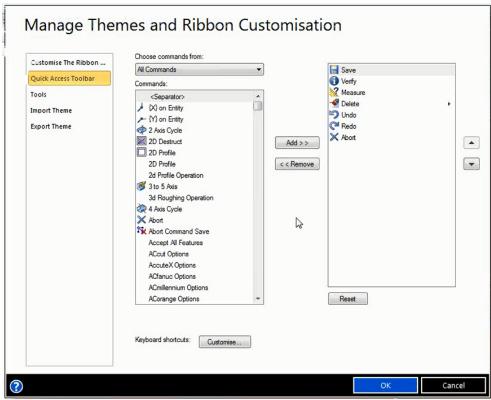
C:\Windows\SysWOW64\UTILS.DLL

Renaming this file will let the interface load the correct utils.dll "C:\Program Files (x86)\Planit\Edgecam 2014 R2\cam\utils.dll"

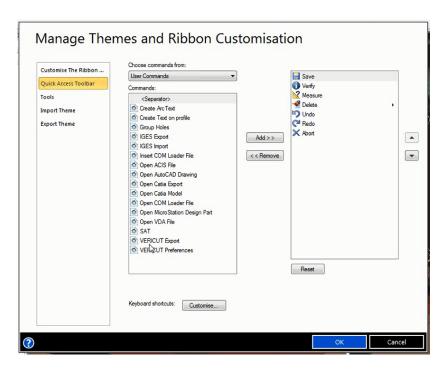
To add the VERICUT menu to the Edgecam main menu bar (2015 R1 – 2015 R2)

Select Customize Quick Access Toolbar > More Commands

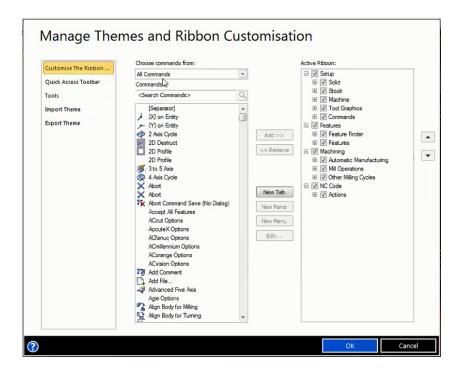




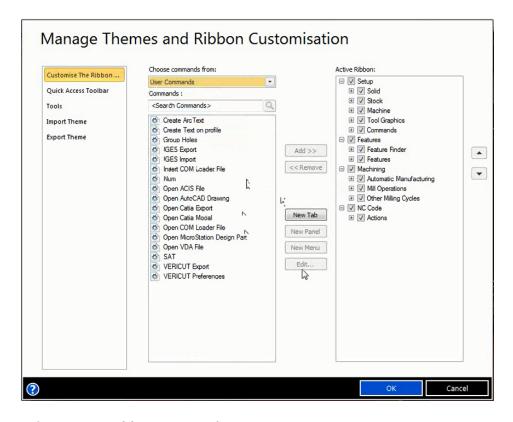
Select Choose commands from: > User Commands



Select Customize The Ribbon...



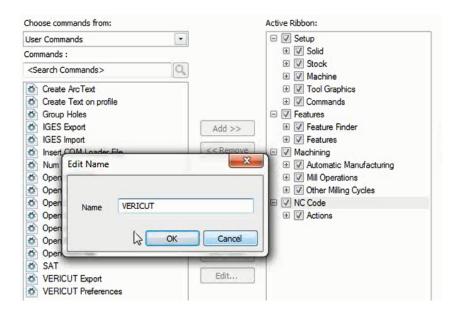
Select User Commands



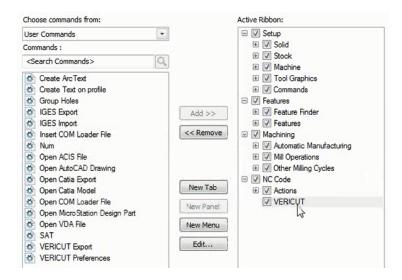
Select Active Ribbon > NC Code >

Select New Panel

Edit Name window > Name: VERICUT



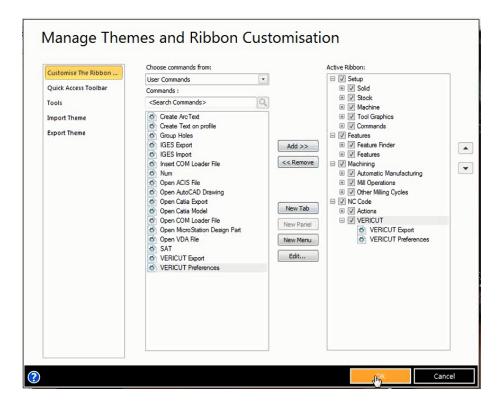
Select OK



Select VERICUT Export from the Commands column

Select Add to move it to the Active Ribbon column

Do the same for **VERICUT Preferences**



Select **OK**

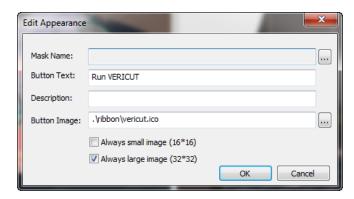


Select VERICUT Export, right mouse pick Edit Appearance

Button Text: Run VERICUT

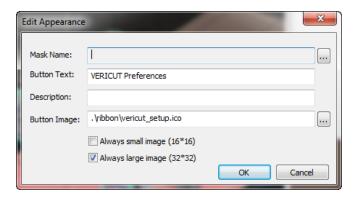
Button Image: Browse

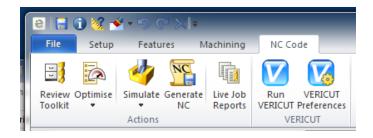
Check Always large image (32*32)



Select **OK**

Set up image for **VERICUT Preferences**





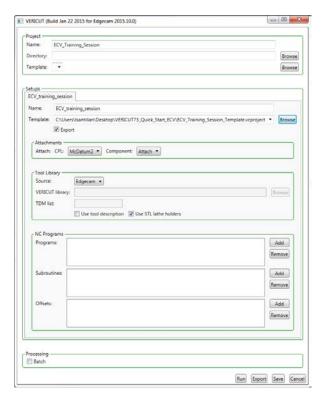
Launch Edgecam:

Use desktop shortcut Open .ppf file

Launch interface:







2015R1 2015.10.0 →

C:\PROGRAM FILES\CGTECH\\vericut 9.0\windows64\edgecam\2015R1)

2015R1 2015.10.1

C:\PROGRAM FILES\CGTECH\\vericut 9.0\windows64\edgecam\2015R2)

Note Known issue:

Symptom: Error Internal error; Unable to load DLL "mch_reader.dll"

Solution: Install the Windows C++ run-time libraries (Microsoft Redistributables).

The Microsoft Redistributable Installer is also available for download at:

http://www.cgtech.com/vericut_support/system-requirements

Return to <u>"Other Configuration Tasks"</u>

Configuring the ESPRIT-to-VERICUT Interface

Automatic Installation

To automatically install the Esprit to VERICUT interface, insert the VERICUT installation DVD or navigate to the root folder of the downloaded VERICUT installer. Next, run the esprit interface install.exe and follow the on-screen instructions.

NOTE: You must have Administrator privileges to install the Esprit to VERICUT interface.

Next, you will need to register your files with the Windows registry and with ESPRIT so that it will be able to find the Add-In when starting up.

You will need to double-click the file **register-vericut-addin-64.reg**. After double-clicking the file, you will be asked to confirm if you want to add an entry to the registry. Select yes and you should receive a confirmation message that the value was added successfully to the registry.

NOTE: You must have Administrator privileges run register-vericut-addin-64.reg.

The other file you need to run is **register-dll.bat**. You will first need to edit this file to point to your specific ESPRIT AddIns folder. To edit, you must right-click and select Edit, choosing Notepad to edit it with if prompted. By default, the folder specified is the default install location for ESPRIT. **Even if you have ESPRIT installed in the default location, it is strongly recommended to double-check that the folder specified in register-dll.bat is the same folder where you copied the files previously**. If you need to edit the install location, only change text on the line highlighted in red below:

C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\RegAsm.exe "C:\Program Files (x86)\D.P.Technology\ESPRIT\Addins\VericutAddin\VericutAddin.dll" /codebase /tlb

For example, if you have ESPRIT installed under **T:\Applications\cad_cam**, the line in your file would look like this:

 $\label{lem:conditions} $$C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\RegAsm.exe $$T:\Applications\cad_cam\D.P.Technology\ESPRIT\Addins\VericutAddin\VericutAddin.dl $I'' / codebase / tlb $$$

Also keep in mind that all the above text should be on the same line. It's only split onto multiple lines in Word. When you're done editing, save and close the file, then double-click to run it. You should see a console window with the text from the file in it. This will tell you if there were any problems running the script.

NOTE: You must have Administrator privileges run register-dll.bat.

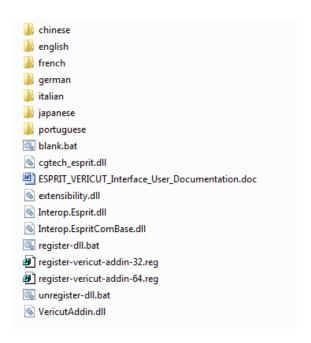
Now you just need to enter a few environment variables to complete the installation.

Manual Installation

The following section describes how to install the ESPRIT-to-VERICUT Interface without using the installer. ESPRIT requires that Add-Ins write values to the registry, because of this, you must have administrator privileges to run these scripts.

First, create a directory named **VericutAddin** in your ESPRIT AddIns folder. If you have ESPRIT installed in the default location, the folder you will need to create will be at **C:\Program Files (x86)\D.P.Technology\ESPRIT\AddIns\VericutAddin**.

Next, copy all the provided source files into your VericutAddin directory. For reference, here is the list of files you should copy:



Next, you will need to register your files with the Windows registry and with ESPRIT so that it will be able to find the Add-In when starting up.

You will need to double-click the file **register-vericut-addin-64.reg**. After double-clicking the file, you will be asked to confirm if you want to add an entry to the registry.

Select yes and you should receive a confirmation message that the value was added successfully to the registry.

NOTE: You must have Administrator privileges run register-vericut-addin-64.reg.

The other file you need to run is **register-dll.bat**. You will first need to edit this file to point to your specific ESPRIT AddIns folder. To edit, you must right-click and select Edit, choosing Notepad to edit it with if prompted. By default, the folder specified is the default install location for ESPRIT. **Even if you have ESPRIT installed in the default location, it is strongly recommended to double-check that the folder specified in register-dll.bat is the same folder where you copied the files previously**. If you need to edit the install location, only change text on the line highlighted in **red** below:

C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\RegAsm.exe "C:\Program Files (x86)\D.P.Technology\ESPRIT\Addins\VericutAddin\VericutAddin.dll" /codebase /tlb

For example, if you have ESPRIT installed under **T:\Applications\cad_cam**, the line in your file would look like this:

 $\label{lem:c:windows} $$C:\WINDOWS\Microsoft.NET\Framework\v2.0.50727\RegAsm.exe $$"T:\Applications\cad_cam\D.P.Technology\ESPRIT\Addins\VericutAddin\VericutAddin.dl I" /codebase /tlb$

Also keep in mind that all the above text should be on the same line. It's only split onto multiple lines in Word. When you're done editing, save and close the file, then double-click to run it. You should see a console window with the text from the file in it. This will tell you if there were any problems running the script.

NOTE: You must have Administrator privileges run register-dll.bat.

Now you just need to enter a few environment variables to complete the installation.

Environment Variables

In order to use the ESPRIT-to-VERICUT interface, you also need to define four environment variables, CGTECH_INSTALL, CGTECH_PRODUCTS, LSHOST and CGTECH_LANGUAGE.

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

• CGTECH_SINGLE_PLATFORM=YES

For example:

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\cgtech\VERICUT x.x.x
CGTECH_PRODUCTS	C:\Program Files\cgtech\VERICUT x.x.x\windows64
LSHOST	server_name
CGTECH_LANGUAGE	C:\Program Files\cgtech\VERICUT x.x.x\windows64\ Esprit\language

CGTECH_INSTALL is set to the top level folder where VERICUT is installed. In the above table, *x.x.x* represents the VERICUT release number. For VERICUT 9.0 the environment variable would be set to C:\Program Files\cgtech\VERICUT 9.0.

CGTECH_PRODUCTS is set to the folder for the specific operating system of the computer running VERICUT: either "windows" or "windows64". For a typical VERICUT 9.0 installation this variable is set to:

C:\Program Files\cgtech\VERICUT 9.0\windows64.

LSHOST is set to the name of the license server computer.

CGTECH_LANGUAGE is used to specify the \path to the folder containing the Esprit-to-VERICUT Interface language file (EspritRes.local) that you want to use.

Use the Microsoft Windows **Control Panel > System > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

License

At the time that the ESPRIT-to-VERICUT Interface is launched for the first time, it tries to connect with license server. License server name can be specified by environmental variables **LSHOST** or **LSFORCEHOST**.

If neither of these two environment variables is defined, the window shown below will display, enabling you to specify the license server name manually. The Name specified will be saved for future use, so that you only have to define the license server name once.



Language

At the time that the "VericutAddin.dll" is loaded with ESPRIT CAM system, the ESPRIT-to-VERICUT Interface looks for **CGTECH_LANGUAGE** environment variable. If it is defined, the interface loads the "EspritRes.local" file found at that location.

If the **CGTECH_LANGUAGE** environment variable is not set, then the ESPRIT-to-VERICUT Interface looks for the **CGTECH_LOCALE** environment variable to get the name of the language file.

If the **CGTECH_LOCALE** environment variable is defined, the ESPRIT—to-VERICUT Interface will look for the "EspritRes.local" file in the folder where "VericutAddin.dll" is located, in a subfolder named the same as the language that you want to use.

If the location of the language file is not found in any of these places, English will be used as the application language. Also, if the "EspritRes.local" file for specified language is not found, English will be used as the application language.

VERICUT Installation Directory

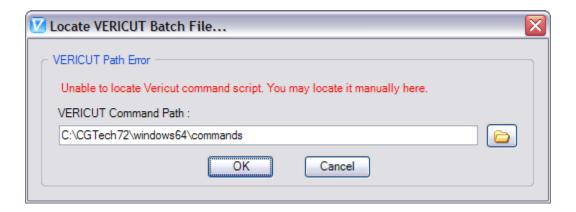
The ESPRIT-to-VERICUT Interface needs to know where VERICUT is installed and whether it is a windows or windows64 version. Use the CGTECH_PRODUCTS environment variable to provide this information. For example, set CGTECH_PRODUCTS to "C:\Program Files\cgtech\VERICUT 9.0\windows64".

Use the CGTECH_INSTALL environment variable to specify the location of the VERICUT installation. For example, set CGTECH_INSTALL to "C:\Program Files\cgtech\VERICUT 9.0\".

Initially the ESPRIT-to-VERICUT Interface will look for the environment variable CGTECH_PRODUCTS. If it is defined, then execution continues, otherwise the following window displays, enabling you to specify the location of the "commands" folder of your VERICUT installation. Enter the \path\ to the "commands" folder of your VERICUT

installation in the **VERICUT Command Path**: text field or use the (**Browse**) icon to display a directory selection window and use it to specify the \path\ to the "commands" folder.

For example, "C:\Program Files\cgtech\VERICUT 9.0\windows64\commands".



Based on the path that you provide, the value for CGTECH_PRODUCTS is determined. You only need to specify the path the first time that the ESPRIT-to-VERICUT Interface is used. The value of CGTECH_PRODUCTS will be saved for future use.

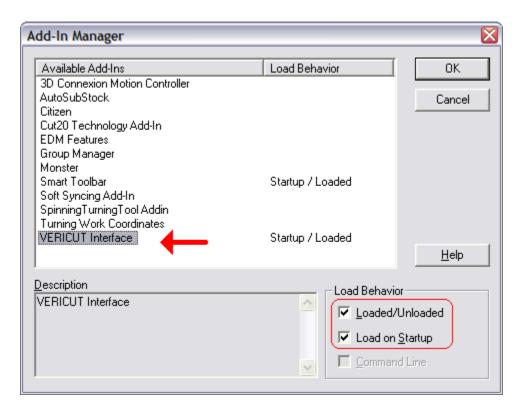
The location of the VERICUT installation will be retrieved from the CGTECH_INSTALL environment variable, if defined, or will be determined from the value of CGTECH_PRODUCTS.

If either of these variables remains undefined, the ESPRIT-to-VERICUT Interface will not load up.

Troubleshooting

If the ESPRIT-to-VERICUT Interface does display in the **Tools** menu in ESPRIT, it needs to be reloaded. This issue can be resolved by following the steps below:

- Select 'Tools =>Add-In'. It will bring up the Add-In manager in ESPRIT.
- Click on the VERICUT Interface entry, and check both boxes under 'Load Behavior'.



If there is no entry for the VERICUT Interface in the available add-ins list, there is most likely a problem with registering the Interface.

Return to <u>"Other Configuration Tasks"</u>

Configuring the GibbsCam-to-VERICUT Interface (GibbsV)

NOTE: The GibbsCam-to-VERICUT Interface (GibbsV) requires at least Gibbs 2010 V9.5.2.2.

NOTE: When installing this interface, the program should be run under an Administrator account in order to minimize errors in the installation process.

The GibbsV-to-VERICUT Interface is distributed as two files;

GibbsV.dll (the code)
Gibbsv[language].local (localization file)

Supported localization files:

GibbsvChinese.local

GibbsvEnglish.local

GibbsvFrench.local

GibbsvGerman.local

GibbsvItalian.local

GibbsvJapanese.local

GibbsvSimplifiedChinese.local

GibbsvTraditionalChinese.local

The GibbsV.dll file should be placed in the GibbsCAM plugins directory. The localization file should be placed under the "CGTECH PRODUCTS\GibbsV" directory.

For a typical VERICUT installation, these files are located in the C:\Program Files\CGTech\VERICUT 9.0\windows64\GibbsV.

The EditCode.gif file, EditPost.gif file, and the GibbsV.dll file should be placed in the GibbsCAM plugins directory (for example, C:\Program Files\Gibbs\GibbsCAM\9.0 NLO\plugins\.

NOTE: EditCode and EditPost have been removed from V9.0 onwards.

The localization file should be left in the \GibbsV\ directory of your VERICUT installation directory.

The GibbsCAM-to-VERICUT Interface must have the following three environment variables, CGTECH_PRODUCTS, LSHOST and GIBBSV_LANGUAGE set before using.

If you are using VERICUT single Platform then an additional environment variable needs to be defined for the interface.

CGTECH SINGLE PLATFORM=YES

Environment Variable Name	Variable Value
CGTECH_PRODUCTS	C:\Program Files\cgtech\Vericut x.x.x\windows64
LSHOST	server_name
GIBBSV_LANGUAGE	C:\program files\cgtech\vericut x.x.x\windows64\GibbsV <select language=""></select>

CGTECH_PRODUCTS is set to the folder for the specific operating system of the computer running VERICUT: "windows64". In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\cgtech\VERICUT 9.0\windows64.

LSHOST is set to the name of the license server computer.

GIBBSV_LANGUAGE is set to the folder where the GibbsV language localization files are located. In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\CGTech\VERICUT 9.0\windows64\GibbsV\GibbsCAM xxx\GibbsVlanguage.local (where *language* is English, French, German, etc.).

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

Accessing the GibbsCAM to VERICUT Interface

To start the GibbsCAM to VERICUT Interface from within GibbsCAM, click **Plug-Ins** in the GibbsCam main menu, then select VERICUT from the pull-down list.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the GibbsCAM-to-VERICUT Interface. For complete details on using the GibbsCAM-to-VERICUT Interface, see **GibbsCAM-to-VERICUT Interface** (**GibbsV**), in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Return to "Other Configuration Tasks"

Configuring the Mastercam-to-VERICUT Interface

Configuring the Mastercam-to-VERICUT Interface (MCAMV - Version X4, X5, X6, X7, X8 and X9).

NOTE: The VERICUT 9.0 release has Mastercam Interface Installation options for Mastercam X6 through X9 that automatically install the interface files and set the necessary environment variables for the Mastercam Interface. A standalone Mastercam Interface installer is also available on the DVD or in the downloaded installation folder called mastercam_interface_install.exe. If you have used the automatic installation then jump directly to the Mastercam environment variable section.

Using Mastercam's terminology, the interface between MastercamXv (where v is the Mastercam version number) and VERICUT is a Net-Hook. It can be invoked while running Mastercam, transfers internal Mastercam data to files recognized by VERICUT, and fires up VERICUT ready to perform verification of the NC programs. You can opt to verify Mastercam's Intermediate NC data (NCI) or the G-code files produced by Mastercam's post-processors.

NOTE: MCAMV requires the installation of the Microsoft C++ run time environment. This is not distributed automatically by Microsoft. A copy of the installer is on the VERICUT DVD, or at:

http://www.cgtech.com/vericut_support/system-requirements

Administrator privileges are required to install this.

You do not need this if you have Microsoft Visual Studio C++ 2005 installed (not likely for most VERICUT users).

Configuration

The VERICUT C-Hook is for Mastercam Xv. It is distributed as five files located in the C:\Program Files\cgtech\VERICUT x.x.x\windows64\mcamv\Xv\ directory of your VERICUT installation. The x.x.x represents the VERICUT release number.

VERICUT.dll (the code)
VericutSupport.dll (supporting code)
SetStock.dll (gets the parameters for a Lathe Stock from Mastercam source code)
VERICUT.ft (used to map an Icon into the Mastercam menu interface)
mcRes.local (language translation)

The three .dll files and the .ft file should be placed in Mastercam's "chooks" folder, which is one level down from the Mastercam installation folder (for example

C:\McamX\chooks). The file mcRes.local should be placed in the Mastercam installation folder.

To enable the C-Hook to find VERICUT, you also need to define three environment variables, CGTECH_INSTALL, CGTECH_PRODUCTS and LSHOST.

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

CGTECH_SINGLE_PLATFORM=YES

For example;

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\cgtech\ <i>VERICUT x.x.x</i>
CGTECH_PRODUCTS	C:\Program Files\cgtech\VERICUT x.x.x\windows64
LSHOST	server_name

CGTECH_INSTALL is set to the top level folder where VERICUT is installed. In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation the environment variable would be set to C:\Program Files\cgtech\VERICUT 9.0.

CGTECH_PRODUCTS is set to the folder for the specific operating system of the computer running VERICUT: either "windows" or "windows64". For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\cgtech\VERICUT 9.0\windows64.

LSHOST is set to the name of the license server computer.

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

Optional environment variables are for use MCAMV.

CGTECH_MCAM_FOLDER

The environment variable CGTECH_MCAM_FOLDER can be used to set the MCAMV Working Directory.

For example,

set CGTECH MCAM FOLDER=C:\CGTech\McamV working\tmp

It may be convenient for those who want to have the same Output Directory for all MCAMV projects.

CGTECH_DEFAULT_PROJECT

The environment variable CGTECH_DEFAULT_PROJECT can be used to set the MCAMV Project Template.

For example,

Set CGTECH_DEFAULT_PROJECT=C:\McamV_working\VCtemplate\MCAMV_Template.vcproject

It may be convenient for those who want to have the same Project Template for all MCAMV projects.

CGTECH_MCAM_NOTE_LEVEL

The environment variable CGTECH_MCAM_NOTE_LEVEL can be used to set the Mastercam level for storing "notes" (saved MCAMV attributes). The default level is 3987. The custom level can be used in the unlikely event the default level is already used, or is unsuitable for some other reason.

CGTECH_MCAM_IGNORE_NOTES

The environment variable CGTECH_MCAM_IGNORE_NOTES can be set to 1 if you do not wish MCAMV to use the stored attributes. If this variable is set to 0, or not set, the stored attributes are used to populate the MCAMV dialog fields.

CGTECH_MCAM_NOTE_COLOR

The environment variable CGTECH_MCAM_NOTE_COLOR can be used to set the attributes color to something different from the default 0 (which is black). This was added to eliminate warnings produced because at the notes level the background color was also black. The color itself does not matter since the notes are not visible.

For example,

"set CGTECH_MCAM_NOTE_COLOR=1" to resolve a similar problem.

CGTECH_MCAMV_TLNO_IS_SLOT

The environment variable CGTECH_MCAMV_TLNO_IS_SLOT was added to aid in obtaining correct tool ID's from older part files.

Access

To trigger the Net-Hook while in Mastercam, hold down the **Alt** key and click the **C** key (referred to as **Alt-C**). Alternatively, you could select **Settings > Run User Application**. You will see a file selection dialog offering all the installed C-Hooks. Pick **VERICUT.dll** and click on the **Open** button.

Setting up a VERICUT icon in Mastercam X4, X5, X6 and X7 user interface



In Mastercam main window, select **Settings > Customize**

- 1. In Customize window, change **Category** to NET Hook
- 2. Select the VERICUT icon in the "**Commands**" area, and drag and drop it onto the toolbar in the Mastercam main window
- 3. In the Customize window, in the Toolbars list, right click on "New Toolbar" and select **Rename Toolbar**, rename it to something like Run VERICUT, then Enter.
- 4. Select the Diskette (Save As) icon, save as filename.mtb , OK
- 5. Click on the checkmark (OK) button to close the Customize window.

In Mastercam main window, select **Settings > Configuration**

- 1. In the System Configuration window, under Topics, select **Start / Exit.**
- 2. Under Startup Settings, point **Toolbars** to the *filename*.mtb file that you created above. Either enter the */path/filename* in the text field or click on the File Cabinet icon (Select) and use the window that displays to select the file.

- 3. Click on the checkmark (OK) button to close the System Configuration window.
- 4. If prompted: "Save Settings to Configuration File?", Yes.

See Mastercam Help for additional information.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

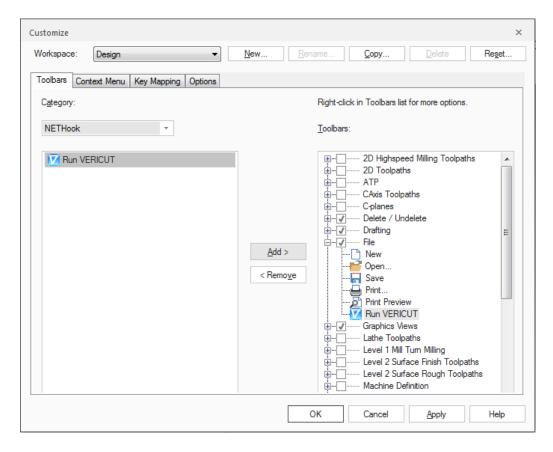
You should now be ready to start using the Mastercam-to-VERICUT Interface. For complete details on using the Mastercam-to-VERICUT Interface, see **Mastercam-to-VERICUT Interface** (MCAMV), in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Setting up a VERICUT icon in Mastercam X8 & X9

How to configure a MCAMV icon: X8 / X9

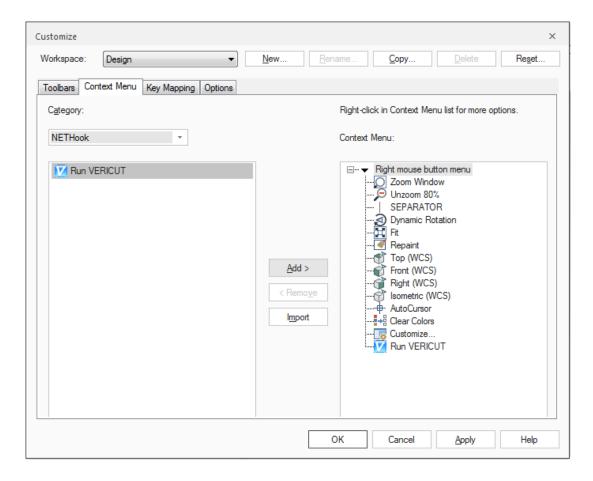
Add icon to toolbar steps:

Settings > Customize Customize window > Select desired Workspace Toolbars > Category: NetHook Select Run VERICUT > Add > OK



Add icon to right click menu steps:

Settings > Customize Customize window > Select desired Workspace Context Menu > Category: NetHook Select Run VERICUT > Add > OK

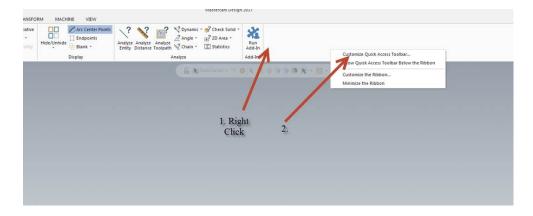


Return to "Other Configuration Tasks"

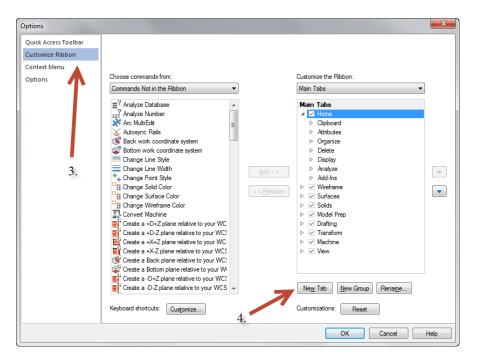
Setting up a VERICUT icon in Mastercam 2017

To add a VERICUT icon to the Mastercam window, perform the following:

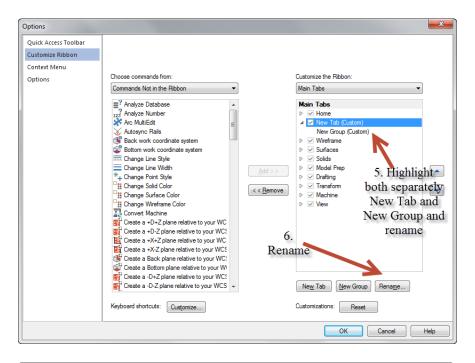
1. In the Mastercam main window, right click on the ribbon bar and selected either **Customize the Ribbon** from the right click menu that populates. This opens the Options window.

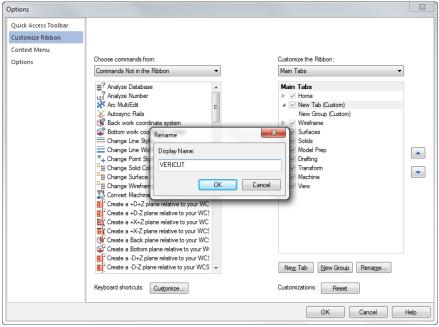


2. In the Options window, select **New Tab**. A New Tab (Custom) will appear with a New Group (Custom) populating beneath it in the Main Tabs section of the Options window.

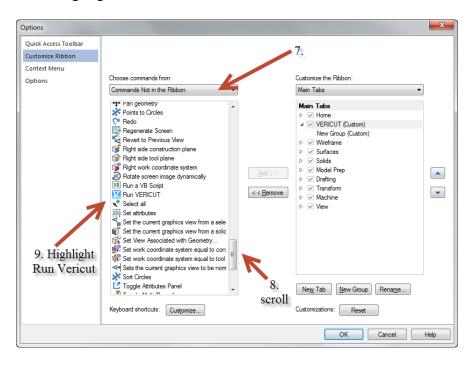


3. Use your mouse to highlight New Tab (Custom) then select **Rename**. Change the name of the tab then repeat this process with New Group (Custom). In the examples below, the tab and group have both been renamed to VERICUT.

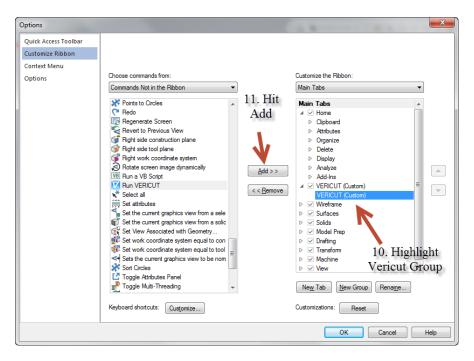




4. Go to the **Choose command from:** section and select **Commands Not in the Ribbon** from the pulldown menu. In the list that populate beneath the pulldown menu, highlight Run VERICUT.



5. Highlight the new group as shown below, then select **Add** to move the command into the group. Select **OK** to save this configuration.



6. The new tab now appears with the new group in the ribbon bar and when it is selected, the Run VERICUT icon will be displayed.



Configuring the NX-to-VERICUT Interface (NXV)

This section documents supported versions of NX, and the procedure for configuring the NX-to-VERICUT Interface (NXV). These instructions apply only when VERICUT will be run via NXV. If VERICUT will only be run outside of NX, then ignore this section.

NX version support

NXV can be operated on Windows computers with NX versions NX6, NX7, NX7.5, NX8, NX8.5, NX9 and NX10.

VERICUT Interfaces for old Unigraphics versions (V16, V17, V18, NX, NX2, NX3, NX4 and NX5) are no longer distributed with the VERICUT installation. You can copy the old interface files forward from a previous installation, or contact VERICUT technical support for the older Unigraphics interface files.

Upward compatibility of the old interfaces is not tested with this release and not guaranteed. However nothing is intentionally changed to prevent them from continuing to work.

Configuration

Follow the general procedure below to configure NXV. Integrating NXV into your standard UG startup may require "root" or administrator permissions - see your system administrator for assistance.

NOTE: The following NX products, ufunc_execute (P2_ufunc_execute for NX2, product name "UG/Open API Execute") and the grip_execute (product name "UG/Open Grip Execute") are required for NXV.

Assuming NX is installed, install VERICUT (includes the NXV software) per the VERICUT installation instructions.

Windows

1. Locate the NXV batch file for your version of NX

Look in VERICUT's 'commands' folder (C:\Program Files\cgtech\VERICUT 9.0\windows64\commands\ directory of your VERICUT installation. For the batch file named **nxV.bat** (where *V* represents the NX version, i.e. nxv.bat, nx8.bat, nx9.bat, etc). The batch file sets the environment for NXV, then runs NX using %UGII ROOT DIR%\UGII.BAT.

NOTE: If you need a batch file for a newer/higher version of NX use the highest nxV.bat available in the folder. The interfaces are usually upward compatible with newer versions of NX.

The following optional environment variables are available for use in the nxV.bat (where V represents the NX version, i.e. nx2.bat, nx3.bat, nx4.bat, etc.) file.

CGTECH_NXV_OUTPUTDIR

The environment variable CGTECH_NXV_OUTPUTDIR can be used to set the NXV Output Directory.

Example:

set CGTECH_NXV_OUTPUTDIR=C:\CGTech\nxv\working\tmp

It may be convenient for those who want to have the same Output Directory for all NXV projects.

CGTECH NXV PREFSDIR

Environment variable CGTECH_NXV_PREFSDIR can be used to specify the location of the NXV preferences file.

Example:

Set CGTECH_NXV_PREFSDIR=C:\CGTech82\nx

If CGTECH_NXV_PREFSDIR is not set NXV will attempt to use the preferences file in the default location %HOMEDRIVE%%HOMEPATH%.

CGTECH_NXV_PROJTEMPLATE

The environment variable CGTECH_NXV_PROJTEMPLATE can be used to set the NXV Project Template.

Example:

set CGTECH_NXV_PROJTEMPLATE=C:\CGTech\nxv\working\NXV_Template.vcproject

It may be convenient for those who want to have the same Project Template for all NXV projects.

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

• CGTECH_SINGLE_PLATFORM=YES

2. Create a desktop shortcut to the batch file

Create a desktop shortcut that points to the NXV batch file found in step 1. Set the shortcut's start-in property to a folder where the user has write permission.

You can optionally copy the batch file to a folder where you have write permission and run it directly from there.

NOTE: The NXV batch file will NOT work correctly from its location in the VERICUT's 'commands' folder because users usually do not have write permissions there. You must either create a desktop shortcut with a start-in path where you have write permissions, or copy the batch file to a directory where you have permission to write files.

NOTE FOR NX SYSTEM ADMINISTRATORS: To integrate the NXV interface into your normal NX startup process, copy the environment settings from NXxx.bat into your normal NX startup process. Do not copy the line that runs NX.

Start NX with NXV.

After completing the previous steps and assuming VERICUT is licensed and operational, run NX using the batch file short cut. If NX does not start, **DO NOT CONTINUE** - see your system administrator for assistance.

Depending on the version of NX, NXV is accessed differently. See the help on using NXV in the *Converters and CAD/CAM Interfaces* section, in the *CGTech Help Library*, for details.

Configuring NXV to start VERICUT with a custom Project file

If no Project Template is specified in the NXV interface dialog, NXV initializes VERICUT with the following project from VERICUT's Library folder:

- init.VcProject (inch NX session)
- initm.VcProject (millimeter NX session)

The interface adds models, NX program(s), and tools from the current session, and then runs VERICUT.

You can change VERICUT's default settings by modifying **init.Vc Project** (or **initm.VcProject**). We recommend you save a backup copy of these files before modifying them. The files are located in the "library" folder in your VERICUT installation.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the NX-to-VERICUT Interface. For complete details on using the NX-to-VERICUT Interface, see **NX-to-VERICUT Interface (NXV)**, in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Return to "Other Configuration Tasks"

Setting up NXV to work with Teamcenter

Overview

Teamcenter (formerly IMAN and UG Manager) is a Product Lifecycle Management (PLM) application that manages NX data files. When using the NX-to-VERICUT Interface (NXV), it is necessary to modify the NX Teamcenter environment in order for NXV to operate correctly.

NXV uses Teamcenter functions for reading data and writing files when running within Teamcenter. For example:

- If Teamcenter is not used, NXV asks NX to write VERICUT model files to the path specified in the NXV interface.
- If Teamcenter is used, NXV asks Teamcenter to ask NX to write model files. Teamcenter then places the files in a "temporary" Teamcenter folder.

NXV detects when it is running within Teamcenter and uses Teamcenter data management functions when requesting and writing data.

All VERICUT files for the current session are placed by Teamcenter in the "temporary" Teamcenter folder for the current checked-out project. At the end of the NX session, Teamcenter prompts the user to check the files in.

VERICUT files are considered, "meta-data" by Teamcenter. "meta data" is data with unknown content, but the files are controlled by Teamcenter.

Implementing NXV in a Teamcenter installation

NOTE: The following example shows modifying a Teamcenter windows batch file for NX2 on Windows, but the concept is the same for later NX versions.

The Teamcenter startup batch file (in this example, START_UGMANAGER.BAT) sets the environment for starting NX2 with Teamcenter on Windows. The Teamcenter startup batch file must be modified to call the modified NXV batch file (nx2.bat, nx3.bat, etc, depending on your version of NX) from VERICUT's **commands** folder.

1. Modify 4 lines in NXV's startup batch file.

Add rem at the beginning of the following lines in the nx ν .bat file. Where ν is the NX version number.

rem setlocal

rem set CGTECH_INSTALL=C:\Program Files\cgtech\VERICUT 9.0

```
rem "%UGII_ROOT_DIR%\UGII.BAT" %argstr%
rem endlocal
```

See the red text in the example modified nx7 5.bat file below.

 Call the NXV batch file (as modified in step 1) from the Teamcenter startup script. The call must be inserted above the command that launches NX. Calling the NXV batch file sets the environment for NXV and VERICUT from the Teamcenter startup script. This edit is usually done by the Teamcenter site administrator.

Example lines to add to a Teamcenter startup batch file that uses Windows batch file syntax:

```
set CGTECH_INSTALL= C:\Program Files\cgtech\VERICUT 9.0 call "%CGTECH_INSTALL%\windows\commands\NX2"
```

3. The Teamcenter site administrator needs to configure Teamcenter to recognize VERICUT files as "meta-data". An entry must be made for each extension (.VcProject .mch, .ctl, .tls, .opti, .swp, .sor, .vct, etc?) These files will be managed by Teamcenter.

NOTE: Two temporary files are created by NXV, but do not need to be managed by Teamcenter. They have extension .opts and .vctemp.

Sample edited nx7 5.bat file

(the four edited lines are highlighted red)

@echo off

rem setlocal

rem set CGTECH_INSTALL=C:\Program Files\cgtech\VERICUT 9.0

rem CGTech, Copyright, All Rights Reserved

rem CGTech environment set CGTECH_PRODUCTS=%CGTECH_INSTALL%\windows

call "%CGTECH PRODUCTS%\commands\cgtenv"

rem set CGTECH_IGNORELAST=TRUE

```
set CGTECH_CLASSES=%CGTECH_INSTALL%\classes
if "%CGTECH LIBRARY%" == "" set CGTECH LIBRARY=%CGTECH INSTALL%\library\
if "%CGTECH_LICENSE%" == "" set CGTECH_LICENSE=%CGTECH_PRODUCTS%\license
if "%TEMP%" == "" set TEMP=C:\TEMP
if "%TMP%" == "" set TMP=C:\TEMP
if "%CGTECH LOCALE%" == "" set CGTECH LOCALE=english
set CGTECH LANGUAGE=%CGTECH CLASSES%\%CGTECH LOCALE%
set CGTECH HELP=%CGTECH INSTALL%\hhelp
set CGTECH_SAMPLES=%CGTECH_INSTALL%\samples\
set CGTECH TRAINING=%CGTECH INSTALL%\training\
set CGTECH DEFAULT UNITS=INCH
set CGTECH RGB TXT=%CGTECH PRODUCTS%\vericut\rgbhues.txt
if "%CGTECH JRE%" == "" set CGTECH JRE=%CGTECH PRODUCTS%\jre
set path=%CGTECH_PRODUCTS%\vericut;%CGTECH_PRODUCTS%\license;%PATH%
set waitopt=
set argstr=
if test%1==test goto cgtchkend
if %1==BATCH set waitopt=/wait
if %1==batch set waitopt=/wait
if %1==BATCHP set waitopt=/wait
if %1==batchp set waitopt=/wait
set argstr=%1
shift
:cgtgetarg
if test%1==test goto cgtchkend
if %1==BATCH set waitopt=/wait
if %1==batch set waitopt=/wait
if %1==BATCHP set waitopt=/wait
if %1==batchp set waitopt=/wait
set argstr=%argstr% %1
shift
goto cgtgetarg
:cgtchkend
if "%OS%" == "Windows_NT" set start_cmd=start "VERICUT" %waitopt%
if "%OS%" == "" set start_cmd=start %waitopt%
set UGII_VENDOR_DIR=%CGTECH_PRODUCTS%\nx\nx7.5
rem "%UGII_ROOT_DIR%\UGII.BAT" %argstr%
:end cgtech
rem endlocal
```

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the NX-to-VERICUT Interface. For complete details on using the NX-to-VERICUT Interface, see **NX-to-VERICUT Interface (NXV)**, in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the *CGTech Help Library*.

Return to "Other Configuration Tasks"

Starting NXV when starting NX from Start > All Programs > Siemens NX x.x > NX x.x

Follow the following steps to enable using the NX-to-VERICUT Interface (NXV) when starting NX from Start > All Programs > Siemens NX x.x. > NX x.x., where x.x is the NX version number.

The CGTech software installation procedure places the files required by **NXV** in a subfolder. If you elected to install the software in the default folder "C:\Program Files\cgtech\x.x.x" (where x.x.x is the VERICUT release number), then for VERICUT 9.0, the **NXV** folder will be "C:\Program Files\cgtech\VERICUT 9.0\windows\nx" or "C:\Program Files\cgtech\ VERICUT 9.0\windows64\nx".

Copy the files in:

C:\Program Files\cgtech\VERICUT 9.0\windows64\nx\NXx.x\application\ where x.x is the NX version number.

to:

C:\Program Files\UGS\NX x.x\UGALLIANCE\vendor\application\, where *X.X* is the NX version number.

Copy the files in:

C:\Program Files\cgtech\VERICUT 9.0\windows64\nx\NXx.x\startup\

to:

C:\Program Files\UGS\NX *x.x***\UGALLIANCE\vendor \startup** where *x.x* is the NX version number.

Edit the file:

C:\Program Files\UGS\NX x.x\UGII\ugii_env.dat where x.x is the NX version number.

Remove the "#" from variable

#UGII_VENDOR_DIR=\${UGALLIANCE_DIR}vendor

so that it now looks like

UGII_VENDOR_DIR=\${UGALLIANCE_DIR}vendor

To enable NX to find VERICUT, you also need to define two environment variables, **CGTECH_PRODUCTS** and **CGTECH_INSTALL**.

For example;

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\cgtech\ <i>VERICUT 9.0</i> \
CGTECH_PRODUCTS	C:\Program Files\cgtech\VERICUT 9.0\windows64\

CGTECH_INSTALL is set to the top level folder where VERICUT is installed. In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation the environment variable would be set to C:\Program Files\cgtech\VERICUT 9.0

CGTECH_PRODUCTS is set to C:\Program Files\cgtech\VERICUT 9.0\windows \windows64.

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

Configuring the NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF)

This section documents supported versions of NX, and the procedure for configuring the NX-to-VERICUT Drill and Fastener Interface (NX2VDAF). These instructions apply only when VERICUT will be run via NX2VDAF. If VERICUT will only be run outside of NX, then ignore this section.

NX version support

NXV can be operated on Windows computers with NX versions NX8, NX8.5 and NX9.

Configuration

Follow the general procedure below to configure NXV. Integrating NXV into your standard NX startup may require "root" or administrator permissions - see your system administrator for assistance.

NOTE: The following NX products, ufunc_execute (P2_ufunc_execute for NX2, product name "UG/Open API Execute") and the grip_execute (product name "UG/Open Grip Execute") are required for NX2VDAF.

Assuming NX is installed, install VERICUT Drilling and Fastening (includes the NX2VDAF software) per the VERICUT Drill and Fastener installation instructions.

Windows

1. Locate the NX2VDAF batch file for your version of NX

Look in VERICUT's 'commands' folder (C:\Program Files\cgtech\VERICUT 9.0\windows64\commands\ directory of your VERICUT installation. The batch file sets the environment for NX2VDAF, then runs NX using %UGII_ROOT_DIR%\UGII.BAT.

The following optional environment variables are available for use in the **nx2vdafV.bat** (where *V* represents the NX version, i.e. nx2vdaf8.bat, nx2vdaf8 5.bat, nx2vdaf9.bat, etc.) file.

CGTECH_NXV_OUTPUTDIR

The environment variable CGTECH_NXV_OUTPUTDIR can be used to set the NXV Output Directory.

For example,

set CGTECH NXV OUTPUTDIR=C:\CGTech\nxv\working\tmp

It may be convenient for those who want to have the same Output Directory for all NXV projects.

CGTECH NXV PROJTEMPLATE

The environment variable CGTECH_NXV_PROJTEMPLATE can be used to set the NXV Project Template.

For example,

set CGTECH NXV PROJTEMPLATE=C:\CGTech\nxv\working\NXV Template.vcproject

It may be convenient for those who want to have the same Project Template for all NXV projects.

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

CGTECH SINGLE PLATFORM=YES

2. Create a desktop shortcut to the batch file

Create a desktop shortcut that points to the nx2vdaf batch file found in step 1. Set the shortcut's start-in property to a folder where the user has write permission.

You can optionally copy the batch file to a folder where you have write permission and run it directly from there.

NOTE: The nx2vdaf batch file will NOT work correctly from its location in the VERICUT's 'commands' folder because users usually do not have write permissions there. You must either create a desktop shortcut with a start-in path where you have write permissions, or copy the batch file to a directory where you have permission to write files.

NOTE FOR NX SYSTEM ADMINISTRATORS: To integrate the NXV interface into your normal NX startup process, copy the environment settings from nx2vdaf.bat into your normal NX startup process. Do not copy the line that runs NX.

Start NX with NX2VDAF.

After completing the previous steps and assuming VERICUT Drilling and Fastening is licensed and operational, run NX using the batch file short cut. If NX does not start, **DO NOT CONTINUE** - see your system administrator for assistance.

Depending on the version of NX, NX2VDAF is accessed differently. See the help on using NXV in the *Converters and CAD/CAM Interfaces* section, in the *CGTech Help Library*, for details.

Configuring NX2VDAF to start VERICUT with a custom Project file

If no Project Template is specified in the VDAF Interface window, NX2VDAF initializes VERICUT Drilling and Fastening with the following project from VERICUT's Library folder:

- init.vdafproject (inch NX session)
- initm.vdafproject (millimeter NX session)

The interface adds models from the current session, and then runs VERICUT Drilling and Fastening.

You can change VERICUT's default settings by modifying **init.vdafproject** (or **initm.vdafproject**). We recommend you save a backup copy of these files before modifying them. The files are located in the "library" folder in your VERICUT Drilling and Fastening installation.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the NX-to-VERICUT Drilling and Fastening Interface. For complete details on using the NX-to-VERICUT Drilling and Fastening Interface, see NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF), in the

CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Return to <u>"Other Configuration Tasks"</u>

Setting up NX2VDAF to work with Teamcenter

Overview

Teamcenter (formerly IMAN and UG Manager) is a Product Lifecycle Management (PLM) application that manages NX data files. When using the NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF), it is necessary to modify the NX Teamcenter environment in order for NX2VDAF to operate correctly.

NX2VDAF uses Teamcenter functions for reading data and writing files when running within Teamcenter.

For example:

- If Teamcenter is not used, NX2VDAF asks NX to write VERICUT Drilling and Fastening model files to the path specified in the NX2VDAF interface.
- If Teamcenter is used, NX2VDAF asks Teamcenter to ask NX to write model files. Teamcenter then places the files in a "temporary" Teamcenter folder.

NX2VDAF detects when it is running within Teamcenter and uses Teamcenter data management functions when requesting and writing data.

All VERICUT Drilling and Fastening files for the current session are placed by Teamcenter in the "temporary" Teamcenter folder for the current checked-out project. At the end of the NX session, Teamcenter prompts the user to check the files in.

VERICUT Drilling and Fastening files are considered, "meta-data" by Teamcenter. "meta data" is data with unknown content, but the files are controlled by Teamcenter.

Implementing NX2VDAF in a Teamcenter installation

NOTE: The following example shows modifying a Teamcenter windows batch file for NX8 on Windows, but the concept is the same for later NX versions.

The Teamcenter startup batch file (in this example, START_UGMANAGER.BAT) sets the environment for starting NX8 with Teamcenter on Windows. The Teamcenter startup batch file must be modified to call the modified NX2VDAF batch file (nx2vdaf8.bat, nx2vdaf8_5.bat, nx2vdaf9.bat,etc, depending on your version of NX) from VERICUT's commands folder.

1. Modify 4 lines in NX2VDAF's startup batch file.

Add rem at the beginning of the following lines in the nx2vdafv.bat file. Where v is the NX version number.

```
rem_setlocal
rem set CGTECH_INSTALL=C:\Program Files\cgtech\VERICUT 9.0
rem "%UGII_ROOT_DIR%\UGII.BAT" %argstr%
rem_endlocal
```

See the red text in the example modified nx2vdaf8.bat file below.

 Call the NXV batch file (as modified in step 1) from the Teamcenter startup script. The call must be inserted above the command that launches NX. Calling the NXV batch file sets the environment for NXV and VERICUT from the Teamcenter startup script. This edit is usually done by the Teamcenter site administrator.

Example lines to add to a Teamcenter startup batch file that uses Windows batch file syntax:

```
set CGTECH_INSTALL= C:\Program Files\cgtech\VERICUT 9.0 call "%CGTECH_INSTALL%\windows\commands\NX2"
```

3. The Teamcenter site administrator needs to configure Teamcenter to recognize VERICUT files as "meta-data". An entry must be made for each extension (.VcProject .mch, .ctl, .tls, .opti, .swp, .sor, .vct, etc?) These files will be managed by Teamcenter.

NOTE: Two temporary files are created by NXV, but do not need to be managed by Teamcenter. They have extension .opts and .vctemp.

Sample edited nx2vdaf8.bat file

(the four edited lines are highlighted red)

@echo off

rem setlocal

rem set CGTECH_INSTALL=c:\program files\cgtech\vericut 9.0

rem CGTech, Copyright, All Rights Reserved

```
rem CGTech environment
set CGTECH PRODUCTS=%CGTECH INSTALL%\windows64
call "%CGTECH PRODUCTS%\commands\cgtenv"
rem set CGTECH_IGNORELAST=TRUE
set CGTECH CLASSES=%CGTECH INSTALL%\classes
if "%CGTECH_LIBRARY%" == "" set CGTECH_LIBRARY=%CGTECH_INSTALL%\library\
if "%CGTECH_LICENSE%" == "" set CGTECH_LICENSE=%CGTECH_PRODUCTS%\license
if "%TEMP%" == "" set TEMP=C:\TEMP
if "%TMP%" == "" set TMP=C:\TEMP
if "%CGTECH LOCALE%" == "" set CGTECH LOCALE=english
set CGTECH LANGUAGE=%CGTECH CLASSES%\%CGTECH LOCALE%
set CGTECH HELP=%CGTECH INSTALL%\hhelp
set CGTECH_SAMPLES=%CGTECH_INSTALL%\samples\
set CGTECH TRAINING=%CGTECH INSTALL%\training\
set CGTECH DEFAULT UNITS=INCH
set CGTECH_RGB_TXT=%CGTECH_PRODUCTS%\vericut\rgbhues.txt
if "%CGTECH_JRE%" == "" set CGTECH_JRE=%CGTECH_PRODUCTS%\jre
set path=%CGTECH PRODUCTS%\vericut;%CGTECH PRODUCTS%\license;%PATH%
set ARG SPLASH=-splash:"%CGTECH CLASSES%\startup.png"
set WAITOPT=
set ARGSTR=
:cgtgetarg
if test%1==test goto cgtchkend
if /I %1==BATCH (
 set WAITOPT=/wait
 set ARG_SPLASH=
set ARGSTR=%ARGSTR% %1
shift
goto cgtgetarg
:cgtchkend
if "%OS%" == "Windows_NT" set start_cmd=start "VERICUT" %WAITOPT%
if "%OS%" == "" set start_cmd=start %WAITOPT%
if exist "%CGTECH PRODUCTS%\nx2vdaf\nx8\%CGTECH LOCALE%" (
set UGII_VENDOR_DIR=%CGTECH_PRODUCTS%\nx2vdaf\nx8\%CGTECH_LOCALE%
) else if exist "%CGTECH PRODUCTS%\nx2vdaf\nx8\english" (
set UGII VENDOR DIR=%CGTECH PRODUCTS%\nx2vdaf\nx8\english
) else (
set UGII VENDOR DIR=%CGTECH PRODUCTS%\nx2vdaf\nx8
```

```
)
rem "%UGII_ROOT_DIR%\UGII.BAT" %ARGSTR%
:end_cgtech
rem endlocal
```

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the NX-to-VERICUT Drilling and Fastening Interface. For complete details on using the NX-to-VERICUT Drilling and Fastening Interface, see NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF), in the CAD/CAM Interfaces section of Converters and CAD/CAM Interfaces, located in the CGTech Help Library.

Return to "Other Configuration Tasks"

Starting NX2VDAF when starting NX from Start > All Programs > Siemens NX x.x > NX x.x

Follow the following steps to enable using the NX-to-VERICUT Drilling and Fastening Interface (NX2VDAF) when starting NX from Start > All Programs > Siemens NX x.x > NX x.x, where x.x is the NX version number.

The CGTech software installation procedure places the NX version specific files required by **NX2VDAF** in a sub-folder of "C:\Program Files\cgtech\ VERICUT 9.0\windows64\nx2vdaf".

Copy the files in:

C:\Program Files\cgtech\VERICUT 9.0\windows64\nx\NXx.x\application\ where x.x is the NX version number.

to:

C:\Program Files\UGS\NX x.x\UGALLIANCE\vendor\application\, where *X.X* is the NX version number.

Copy the files in:

C:\Program Files\cgtech\VERICUT 9.0\windows64\nx2vdaf\NXx.x\startup\

to:

C:\Program Files\UGS\NX *x.x***\UGALLIANCE\vendor \startup** where *x.x* is the NX version number.

Edit the file:

C:\Program Files\UGS\NX x.x\UGII\ugii_env.dat where X.X is the NX version number.

Remove the "#" from variable

#UGII_VENDOR_DIR=\${UGALLIANCE_DIR}vendor

so that it now looks like

UGII_VENDOR_DIR=\${UGALLIANCE_DIR}vendor

To enable NX to find VERICUT Drilling and Fastening, you also need to define two environment variables, **CGTECH_PRODUCTS** and **CGTECH_INSTALL**.

For example:

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\cgtech\ <i>VERICUT 9.0</i>
CGTECH_PRODUCTS	C:\Program Files\cgtech\VERICUT 9.0\windows64

CGTECH_INSTALL is set to the C:\Program Files\cgtech\VERICUT 9.0 **CGTECH_PRODUCTS** is set to C:\Program Files\cgtech\VERICUT 9.0\windows64.

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

Configuring the Pro/E-to-VERICUT Interface (PROEV)

NOTE: The Pro/E-to-VERICUT Interface (PROEV) requires Pro/E Wildfire 5.0, Pro/E Creo Elements Pro 5.0, Creo Parametric 1.0, Pro/E Creo / Creo Parametric 2.0 or Pro/E Creo / Creo Parametric 3.0

Installation

The Pro/E-to-VERICUT Interface is distributed as twenty files located in the C:\Program Files\CGTech\VERICUT x.x.x\windows64\proev\WFyy\ directory of your VERICUT installation. The x.x.x represents the VERICUT release number, for example 9.0. The yy represents the PTC version number, for example 50 for CREO Elements/Pro 5.0.

The following files are located in the \proev\WFyy\ directory of your VERICUT installation.

```
cgtproev.dll
               (application dll)
ProevChinese.local
                           (localization file)
ProevEnglish.local
                           (localization file)
ProevFrench.local
                           (localization file)
ProevGerman.local
                           (localization file)
ProevItalian.local
                           (localization file)
ProevJapanese.local
                           (localization file)
Proev Portuguese.local
                           (localization file)
protk.dat
                           (registry file)
```

The following file is located in the \proev\WFyy\text\ directory of your VERICUT installation.

```
proev.txt (resource file)
```

The following files are located in the \proev\WFyy\text\resource\ directory of your VERICUT installation.

```
cl_cancel.bif
proev_db_design_page.res
proev_db_file_page.res
proev_db_fixture_page.res
proev_db_main_page.res
proev_db_ops_page.res
proev_db_options_page.res
proev_db_process_page.res
proev_db_settings_page.res
proev_db_stock_page.res
```

```
Vericut16.gif Vericut32.gif
```

The following files are located in the \proev\WFyy\text\ribbon\ directory of your VERICUT installation.

```
Thumbs.db proev.rbn
```

Copy the protk.dat file to the "start in" directory per the properties of the shortcut.

At startup, Pro/ENGINEER will look for the registry file, protk.dat, to get location information about the other files used by the Pro/E-to-VERICUT Interface. Pro/Engineer will look for the **protk.dat** file first in the "start in" directory, then it will look in "<Pro/ENGINEER>/<MACHINE>/text" and finally it will look in "<Pro/ENGINEER>/text."

The protk.dat file contains the following information:

```
name cgtproev
startup dll
exec_file <full path, including the file name, where the cgtproev.dll is located>
text_dir <full directory path to the directory, where the proev.txt file is located>
revision Wildfire
end
```

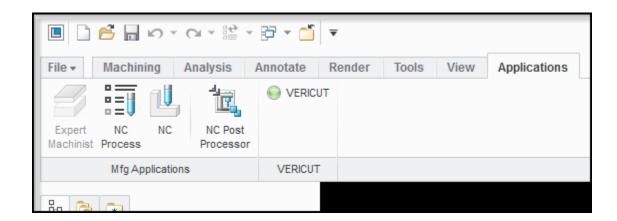
2. Edit the protk.dat file to point to the locations of the cgtproev.dll and the proev.txt file.

The protk.dat file specifies the location of the cgtproev.dll file and the proev.txt file. Edit exec_file so that it points to the \proev\WFyy\cgtproev.dll of your VERICUT installation. Edit text_dir so that it points to the \proev\WFyy\text directory of your VERICUT installation. The protk.dat file should look similar to the following after editing:

```
name cgtproev startup dll exec_file C:\Program Files\cgtech\x.x.x\windows\proev\WFyy\cgtproev.dll text_dir C:\Program Files\cgtech\x.x.x\windows\proev\WFyy\text revision Wildfire end
```

where *x.x.x* is the VERICUT version number and *yy* is the Pro/E Wildfire version number. \windows\ could be \windows64\ depending on whether you are running a 32 bit or 64 bit computer.

The proev.txt file contains the resource text for the VERICUT option which shows up in Pro/ENGINEER under the "Applications" menu. The VERICUT option is the entry point for launching the Pro/E-to-VERICUT Interface.



The proev.txt file contains the following information:

PROEV_VERICUT_BUTTON_LABEL VERICUT...

PROEV_VERICUT_BUTTON_HELP Invoke the VERICUT Interface

3. Set the following environment variables.

PROEV is dependent on the following environment variables:

- PROEV LANGUAGE
- CGTECH PRODUCTS
- LSHOST
- CGTECH_LIBRARY (used only for Pro/E versions prior to Pro/E Creo / Creo Parametric 3.0
- CGTECH SINGLE PLATFORM
- HOMEDRIVE
- HOMEPATH

To enable Pro/ENGINEER to find the PROEV language file and other necessary VERICUT files, you also need to define four environment variables, **PROEV_LANGUAGE**, **CGTECH_PRODUCTS**, **LSHOST** and **CGTECH_LIBRARY**.

If you are using VERICUT single Platform then an additional environment variable needs to be defined for the interface.

CGTECH_SINGLE_PLATFORM=YES

For example:

Environment Variable Name	Variable Value
PROEV_LANGUAGE	C:\Program Files\CGTech\ <i>VERICUT x.x</i> \windows64\proev\WF <i>yy</i> \ Proev[<i>language</i>].local
CGTECH_PRODUCTS	C:\Program Files\CGTech\ <i>VERICUT x.x</i> \windows64
LSHOST	server_name
CGTECH_LIBRARY	C:\Program Files\CGTech\VERICUT x.x\library (used only for Pro/E versions prior to Pro/E Creo / Creo Parametric 3.0

In the above examples, x.x is the VERICUT release number and yy is the WildFire version number

PROEV_LANGUAGE is used to specify the path/filename of the PROEV language file (Proev[language].local) that you want to use.

CGTECH_PRODUCTS is used to specify the folder, for the specific operating system, of the VERICUT installation: "windows64". In the above table, *x.x.x* represents the VERICUT release number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\CGTech\VERICUT 9.0\windows64.

LSHOST is set to the name of the license server computer.

CGTECH_LIBRARY is used to specify the folder, where VERICUT library machine and control files are located. In the above table, *x.x.x* represents the VERICUT release

number. For a typical VERICUT 9.0 installation this variable is set to C:\Program Files\CGTech\VERICUT 9.0\library. This enables PROEV to find machine and control files referenced in the template file. This environment variable is only used for Pro/E versions prior to Pro/E Creo / Creo Parametric 3.0.

Use the Microsoft Windows **Control Panel > System Properties: Advanced tab, Environment Variables** feature to define these environment variables. See Microsoft Windows Help for more information.

4. Create a shortcut to start Pro/E.

For Pro/E Wildfire 5.0 and Pro/E Creo Elements Pro 5.0:

Create a shortcut for "C:\Program Files\PTC\Creo Elements\Pro5.0\bin\proe.exe" and change the shortcut property 'Start In:' to "C:\PROEV".

Now you can run PROEV by launching Pro/E with this shortcut.

For Pro/E Creo Parametric 1.0 / Creo Parametric 2.0 / Creo Parametric 3.0 :

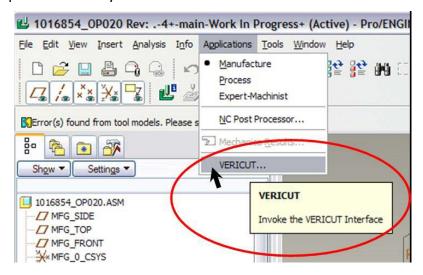
Create a shortcut for "C:\Program Files\PTC\Creo X.0\Parametric\bin\parametric.exe", where X.0 is the Creo Parametric version number, and change the shortcut property 'Start In:' to "C:\PROEV".

Now you can run PROEV by launching Pro/E with this shortcut.

Accessing the Pro/E-to-VERICUT Interface

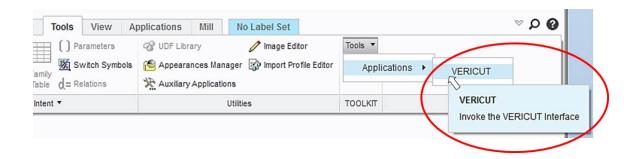
Pro/E Wildfire 5.0, Pro/E Creo Elements Pro 5.0

To start the Pro/E-to-VERICUT Interface from within Pro/ENGINEER, click on **Applications** in the Pro/ENGINEERING main menu, then select **VERICUT** from the pull-down list as shown in the picture below. Holding the cursor over the VERICUT option will display the tip shown in the yellow text box below.



Creo Parametric 1.0 / Creo Parametric 2.0 / Creo Parametric 3.0

To start the Pro/E-to-VERICUT Interface from within Pro/ENGINEER click on **Tools tab > Tools > Applications > VERICUT** in the Pro/ENGINEERING main menu, as shown in the picture below. Holding the cursor over the VERICUT option will display the tip shown in the text box below.



If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.

You should now be ready to start using the Pro/E-to-VERICUT Interface. For complete details on using the Pro/E-to-VERICUT Interface, see **Pro/E-to-VERICUT Interface** (**PROEV**), in the CAD/CAM Interfaces section of *Converters and CAD/CAM Interfaces*, located in the CGTech Help Library.

Configuring the SolidWorks-VERICUT Interface

Installation

This section describes how to install the SolidWorks-to-VERICUT Interface. You are required to have administrator privileges for the computer on which you are installing the SolidWorks-to-VERICUT Interface.

You can put the interface installation files anywhere on the computer as long as, all the files are in the same folder. For consistency, it is preferable that you create new folder named VericutAddin, in the SolidWorks system installation folder and store all of the SolidWorks-to-VERICUT Interface installation files there.

The SolidWorks-to-VERICUT Interface installation files are located in the solidworks folder of your VERICUT installation. For a typical VERICUT installation, the files would be located in C:\Program Files\CGTech\VERICUT 9.0\windows64\solidworks.

The list of installation files is shown below:

- VericutAddin.dll
- register-VericutAddin_dll.bat
- unregister-VericutAddin dll.bat
- register-Vericut-addin-to-SW-64.reg
- VericutAddin.bmp
- Vericut.ico

Once, all of the files are copied to the VericutAddin folder described above, you need to register the files with Windows and also with 'SolidWorks'.

You can register the VericutAddin.dll with SolidWorks by double left clicking on provided 'register-Vericut-addin-to-SW-64.reg' file. The SolidWorks-to-VERICUT Interface is only designed to support **64 Bit** Solidworks.

You also need to register the VericutAddin.dll location with Windows by double left clicking the provided register batch file, register-VericutAddin dll.bat.

NOTE: The VericutAddin.dll file must be located in the same folder as the register-VericutAddin_dll.bat file as described above.

Please keep in mind, for both of these above mentioned registering processes; you need to have administrative privileges on the computer. If everything goes successfully, you should be able to see the Vericut Addin in the addin-manager dialog of SolidWorks.

Environment Variables

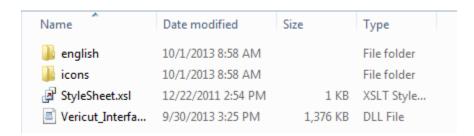
The following environment variables need to be defined for the SolidWorks-to-VERICUT Interface to work.

Environment Variable Name	Description
LSHOST	Name of the License Server.
LSFORCEHOST	Alternate name for the License Server.
APPDATA	Full-path to the 'Application Data' directory. User preferences for the interface are being stored here in exclusive sub-directory for the interface. It is recommendable to continue with system define value of this variable.

Configuring the SURFCAM-to-VERICUT Interface

Start by copying the interface files from your VERICUT installation to the public user folder. You'll need to copy all the files that are in the surfcam folder.

Default VERICUT installation location:
C:\Program Files\CGTech\VERICUT 9.0\windows64\surfcam



Next, store the interface files at:

"C:\Users\Public\SURFCAM\SURFCAM6\UserApps\VERICUT" location, on your machine.

NOTE: You will have to create 'UserApps' and 'VERICUT' directories manually.

Change 'SURFCAM.INI' file in order for Surfcam to get the location of addin dll.

SURFCAM.INI file can be found at "C:\Users\Public\SURFCAM\SURFCAM6\Config" location. Please, right click and open the file in notepad. You have to look for 'Specify Plug-Ins option' section. And make the following changes into it.

Before making any changes, please back up the file by saving with different name.

;______Specify Plug-Ins option _____ UserApplications=1 UserApp1=C:\Users\Public\SURFCAM\SURFCAM6\UserApps\VERICUT\Vericut_Interface.dll,"VE RICUT Interface"

Save the file.

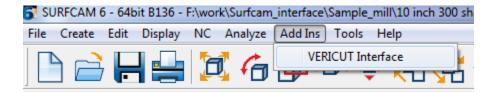
Define the required environment variables to locate the VERICUT installation directory and set the surfcam language.

CGTECH_INSTALL = C:\cgtech82x
CGTECH PRODUCTS = C:\cgtech82x\windows64

LSHOST = localhost

If you are using VERICUT single Platform then an additional variable needs to be defined for the interface.

- CGTECH_SINGLE_PLATFORM=YES
- 4. To launch the interface select Add Ins > VERICUT Interface



VERICUT Settings

In order to locate 'Vericut' installation directory, interface needs to have value for 'Vericut' product directory and 'Vericut' install directory. Both values can be defined as environment variable 'CGTECH_PRODUCTS' and 'CGTECH_INSTALL', respectively. However, defining value explicitly to 'CGTECH_INSTALL' variable is optional. It can be derived from 'CGTECH_PRODUCTS' variable value.

If any of the variable remains undefined at the end, execution returns back from there and interface dialog does not open up.

Interface Language

Environment variable 'CGTECH_SURFCAM_LANGUAGE' is used to define location path of the local file, and environment variable 'CGTECH_SURFCAM_LOCALE' is used to define name of the language, which user prefers to display on the interface. At least, one of these two variables needs to be defined to have desired language on the interface.

When the interface in launched, there is a check for environment variable 'CGTECH_SURFCAM_LANGUAGE'. If it is defined, interface loads the 'SurfcamRes.local' file found at that location. If 'CGTECH_SURFCAM_LANGUAGE' variable is NOT defined, execution moves on to check the 'CGTECH_SURFCAM_LOCALE' environment variable to get the language name.

In this case, interface tries to look for 'SurfcamRes.local' file at the location where 'Vericut_Interface.dll' is saved, under the directory, named same as specified language. If, 'CGTECH_SURFCAM_LOCALE' environment variable is also not found, the default language is taken as 'English'. Also, if local file for specified language is not found, 'English' would be considered as application language.

Environment variables (shown with typical settings)

Environment Variable Name	Variable Value
CGTECH_INSTALL	C:\Program Files\cgtech\ <i>VERICUT x.x.x</i>
CGTECH_PRODUCTS	C:\Program Files\cgtech\VERICUT x.x.x\windows or C:\Program Files\cgtech\VERICUT x.x.x\windows64
LSHOST	server_name
CGTECH_SURFCAM_LANGUAGE	C:\Users\Public\SURFCAM\SURFCAM6\UserApps\VERICUT\english
CGTECH_SURFCAM_LOCALE	English

Configuring the Teamcenter Interface (TCI)

This section documents the necessary steps make to the Teamcenter Interface to work in your environment. There are several configuration steps that need to be completed and several software versions that must be met. These instructions apply only when connecting VERICUT with Teamcenter.

Software Prerequisites

The Teamcenter Interface has several software version requirements.

- Siemens software prerequisites:
 - o NX version 10 or higher
 - o Teamcenter version 10 or higher
 - MRL (Manufacturing Resource Library) version3.1.5 or higher, if MRL is being used
 - o SFC (ShopFloor Connect) version 2017.4 or higher
- VERICUT software prerequisites:
 - o VERICUT 9.0 or higher
 - o NXV Interface
 - o Teamcenter Interface

License Prerequisites

The Teamcenter Interface requires an additional software license from Siemens to work:

• (TCM55072) Siemens 3rd party CAM access to Teamcenter MRL license

Configuration

- SFC (ShopFloor Connection) Configuration
 - Contact technical support for help in configuring SFC to work with the Teamcenter Integration
 - This process must be done in order for the interface to work properly.
- Local Computer Configuration
 - Ensure the correct environment variables are set for the current version of NX that is being used.

Variable	Value
UGII_BASE_DIR	C:\Program Files\Siemens\NX 10.0\
UGII_ROOT_DIRC	:\Program Files\Siemens\NX 10.0\UGII

o These variables should be set correctly from the installation of NX

- VERICUT Configuration
 - Ensure the following variables are set correctly in the vericut.bat and toolman.bat files

Variable	Value
CGTECH_TC_WORKPLACE	Used to set Teamcenter workplace.
	Expected value - vericut
CGTECH_TC_NXP_TYPE	Defines Teamcenter item type for NX Projects
	Expected value - MENCMachining
CGTECH_TC_TOOL_TYPE	Defines Teamcenter item type for NX Tools
	Expected value - MENCTool

NOTE: A workplace named 'vericut' should be defined when SFC is configured. If a different workplace name is used during the configuration that name should be used for this variable. If different item types are used in Teamcenter for NX CAM projects and cutting tool assemblies, those item names need to be entered as values for the above variables.

Configuring the VERICUT TDM Systems Interface

VERICUT connects to the TDM Systems tool management database using a Dynamic Link Library (DLL) supplied by TDM Systems. It is mandatory to use the DLL supplied with your specific TDM installation since the DLL is both specific to the TDM version and to the Oracle database version.

Copy the **TDMAPI.dll** from your TDM installation into the ...\windows\vericut folder of your VERICUT installation (for example, C:\Program Files\cgtech\x.x.x\windows\vericut, where x.x.x is the VERICUT release number, for example 9.0). An optional VERICUT license from CGTech is required in order for VERICUT to access tool data that resides in the TDM Oracle database. Once the license and DLL are in place VERICUT's TDM Systems Interface can then be invoked from the **Tool Manager > File** menu.

Creation of VERICUT tool information in the TDM database requires custom configuration services from TDM Systems, and an optional license from TDM Systems to enable creation of tool data for VERICUT.

The TDM configuration and installation instructions are part of the TDM install documents provided by TDM Systems.

Configuring the WinTool Interface

VERICUT has the ability to easily use 3D tooling generated from the WinTool tool data management system. WinTool is an independent tool database management system.

WinTool generates a .tls file for use in VERICUT's Tool Manager. This .tls file can be generated independently from VERICUT or from launching the WT-Tool Export executable (for example "C:\Program Files (x86)\WinTool\WT-VERICUT-Interface\WT-ToolExport.exe") via the WinTool icon from Tool Manager's Import ribbon.

The WinTool icon in VERICUT's Tool Manager is inactive, by default. Installation of the WinTool tool data management software is a requirement in order to use the WinTool icon within Tool Manager. The icon will automatically become active if WinTool software is installed and one of the following criteria are met. These criteria are checked in the following order:

- 'CGTECH_WINTOOL' environment variable (should be defined during WinTool installation)
- .exe file path is set in VERICUT Tool Manager's Preference dialog under CAD Tool Import Executables section
- Windows registry (should be defined during WinTool installation)

The WinTool configuration and installation instructions are part of the WinTool install documents by WinTool AG. For further details on the WinTool WT-ToolExport interface see the **WT-VERICUT-Interface-Manual-E.pdf** (for example: C:\Program Files (x86)\WinTool\WT-VERICUT-Interface\Docs\WT-VERICUT-Interface-Manual-E.pdf) or contact WinTool.

Installing the Model Interface Modules

The Model Interface modules (CATIA V4 Model Interface, CATIA V5 Model Interface, STEP Model Interface, and ACIS Model Interface) enable VERICUT to both read and, when combined with Model Export, write the designated model file formats. These modules do not require a CAD/CAM system be available for VERICUT to read or write any of the formats. The modules are available for both Windows 32 bit, and Windows 64 bit platforms. Each module is licensed separately.

Model interfaces are installed from a separate installer executable (not part of the VERICUT installer). The Model Interface installer is available for download from CGTech's website, and it is also distributed on the VERICUT 9.0 DVD. To download the model interface installer appropriate for your current VERICUT installation:

- 1. Click on the appropriate link below to start the download of the model interface installer for your VERICUT version:
 - http://www.cgtech.com/products/latest-release/vericut-download/model-interfaces
- 2. Unzip the model_interfaces_vx.x.x.zip file (where x.x.x is the VERICUT release number) to extract the installer executable to a folder.

To start the installation:

Double-click on installer executable (either the downloaded installer executable from step 2 above, or the installer executable on the VERICUT 9.0 DVD) to display the Installer window. Follow the instructions in the Installer to complete the installation process. Make sure to select the correct VERICUT installation folder, for example C:\Program Files\cgtech\VERICUT 9.0

NOTES:

- 1. You may need to have the latest Microsoft Windows updates installed (as of August 14, 2009) for the CAD Model Interfaces to work correctly.
- If you get the following error message "Error loading ACIS libraries!", or no error
 message at all try installing the Microsoft redistributable C++ run-time libraries.
 See the <u>Install Microsoft redistributable C++ Run-Time Libraries</u> topic above for
 additional information. You must have Administrator privileges to do the install.

VERICUT's CAD Model Interface modules should now be available if you are licensed to use them.

If errors occur, visit the <u>VERICUT Users' Forum</u> or contact CGTech technical support via our <u>website</u>, just click on the support link.