

# Gc GibbsCAM® 14

Version 14 : September 2020

# Installation



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### Introduction

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- "System Requirements" on page 7
- "Contacting 3D Systems GibbsCAM" on page 8
- "Links to Online Resources" on page 45

### Welcome

Congratulations on your purchase of GibbsCAM 14, version 14.0, the most productive CAM system available. This guide contains all the information you need to install the system and begin using the software. If you have any problems with the installation procedure, contact your reseller or the 3D Systems Technical Support department; they will be happy to assist you with the installation process.

GibbsCAM 14 ships on a flash drive. When you insert the flash drive, your language and platform should be automatically detected. (A different installer is available for each supported language.) In addition, customers who are current on Maintenance can download the appropriate installer from the Gibbs Online Services website, <a href="https://online.gibbscam.com">https://online.gibbscam.com</a>.

The contents of the flash drive are accessed through an interface that should launch when the flash drive is inserted. For information on this tool, see "File Layout" on page 10.

Your order contains a Product Code. In the registration process, the Product Code and other information are supplied to obtain a license file. Licensing is secured by hardware key or Network License Option (NLO). At first startup, GibbsCAM will prompt you to supply the license file. All steps in this process are thoroughly explained in "Registration" on page 23.

If you want to migrate settings and preferences from a installation of GibbsCAM, run the Migration Tool *before* running the newly installed release for the first time. For complete information, see "Migrating from Previous Releases" on page 41.

#### What Your Order Should Contain

All orders should contain the following

- Packing slip with your Activation Number on it
- Cover letter
- Installation flash drive for GibbsCAM 14

This flash drive (also called the "product media") contain GibbsCAM software for all product modules and options as well as documentation, sample part files, training videos, and extra software. For more information, see "File Layout" on page 10.

In addition, all new customers will receive a USB hardware key.

### Important Information About Security

GibbsCAM security is provided by a license file that is linked to unique information from your computing environment, such as the serial number of a hardware key or a unique identifier over a network. The license file authorizes use of GibbsCAM products only when the hardware key is present and recognized by the corresponding driver, or when the license server is running and it validates the unique identifier.

GibbsCAM security is normally activated through the Internet. If you do not have Internet access available, you can activate security using e-mail or regular mail. Please allow adequate time to have the license file sent to you.

Method Estimated Time

E-mail during Gibbs business hours

Same business day if received before 2:00PM

Pacific Time

E-mail after hours Next business day

Regular mail 1-2 business days plus regular mail shipping time

# System Requirements

The requirements to run GibbsCAM do not have specific values. The requirements vary depending upon the operating system you use and the complexity of your part. We have a list of basic guidelines, seen below, that are common to all users. We also offer minimum supported requirements based upon your operating system, and we describe a recommended system.

Operating System Windows 10 or Windows Server 2019. A 64-bit OS platform is required. Please install the latest available OS service packs and patches through Windows Update.

Microsoft .NET Framework This release requires Microsoft .NET Framework. Most machines will already have this (for example, if Office is installed), but if it is lacking, then the GibbsCAM installer will tell you what is needed.

Hardware

Minimum system requirements depend on the operating system. There are also recommended hardware requirements. Please remember that the more complex a part, the higher your system requirements.

- "Minimum Requirements" on page 8
- "Recommended System" on page 8
- At least 8 GB of free disk space is required to install the software.
- A flash drive is required to read the GibbsCAM product media. However, you can also download installers and other files from the GibbsCAM website.

Video Please install the latest available driver for your video card. The standard Windows

**Drivers** drivers are typically not adequate, because of the GibbsCAM application's

advanced use of OpenGL and video RAM. We strongly recommend that you keep

your system up-to-date with fully installed and updated drivers.

**Network** The Network Licensing Option (NLO) can be set up on 64-bit versions of any of the

**Licensing** following platforms: Windows Server (2016 or 2019); Windows 7, 8, or 10.

### Minimum Requirements

Note: Although GibbsCAM 14 will run on older versions of Windows, we will no longer investigate or create solutions for problems specific to versions before Windows 10 or Windows Server 2019.

The requirements for running GibbsCAM on Windows 10 or Windows Server 2019 are as follows.

• Intel Core 2 or newer. This includes Core i3 / i5 / i7 / i9, Xeon, Pentium dual-core, and Celeron (1.7 GHz or faster)

AMD desktop Family 17h. This includes Ryzen and Threadripper.

**RAM** 4+ GB of total RAM.

**Video** A quality 3D accelerated video card with 1+ GB of video memory.

Card

#### Recommended System

A computer that matches or exceeds the following requirements will run GibbsCAM very comfortably. Please note that the larger or more complex your parts are, the more GibbsCAM will demand from your system.

Operating System Windows 10

**CPU** Intel: Core i9, i7, or i5 with four or more cores.

AMD: Ryzen or Threadripper

RAM 16 GB RAM

Video Card An NVIDIA video card with 2+ GB of video memory.

# Contacting 3D Systems GibbsCAM

Feel free to contact us by telephone, fax, or e-mail.

Telephone numbers for Technical Support:

(800) 654-9399

+1.805.523.0004

Fax number for Technical Support:

+1.805.523.0006

#### E-mail addresses:

- GibbsCAM.Support@3Dsystems.com
- GibbsCAM.Sales@3Dsystems.com
- GibbsCAM.Info@3Dsystems.com

### **Technical Support**

Technical Support is available to all users. Our Technical Support department is available to answer your questions Monday through Friday, 5:00AM to 5:00PM Pacific Time.

When contacting the Technical Support department, it is helpful if you know the following information:

- Type of computer
- Operation system
- · Amount of memory
- Version of GibbsCAM software. To find this, select Help menu item About.

If you need to send a file, you can zip the file and send it as an attachment in an e-mail. When sending files, it is extremely helpful to include a contact name and phone number and a brief description of any issues. If you have a file that is too large for e-mail, you can send the file to us via ShareFile. Contact your Reseller or Technical Support if you have any questions about ShareFile.

### Websites for 3D Systems GibbsCAM

3D Systems maintains a continuous permanent presence on the World Wide Web.

- The Gibbs website <a href="http://www.GibbsCAM.com">http://www.GibbsCAM.com</a> can be accessed by anyone with Internet access. The site contains useful files available for downloading. This website contains company news, product information, e-mail links, technical support utilities, and much more. It is the preferred means of connecting to Gibbs electronically.
- For Resellers and customers with a Gibbs Online Services account, additional websites, such
  as <a href="https://online.gibbscam.com">https://online.gibbscam.com</a>, provide access to software releases and release notes,
  updates to user guides, continuously updated documentation of GibbsCAM macros, and many
  other services and tools.

### Installation

- File Layout
- "Before Installing" on page 11
- "About the Installer" on page 14
- "File Locations" on page 14
- "Installing the System Files" on page 16

# File Layout

When the flash drive for GibbsCAM is inserted, the GibbsCAM Installer does not start automatically.

- To install the software, run AutoRun.exe and follow the instructions in "Installing the System Files " on page 16.
- To browse the files on the product media, use Windows Explorer. A summary of the files in the Content\ folder is provided below.

Activation Check\	Contains the	ActivationCheck	utility for testing	the connection to the
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License Activation Server.

Documentation\ Contains GibbsCAM user guides in PDF (portable document format). A

ReadMe file provides information on Adobe Reader, obtaining the latest

PDFs from https://online.gibbscam.com, and similar information.

Extras\ Contains miscellaneous items, including:

- Shortcut for downloading the Adobe Reader software.
- Shortcut for downloading the Excel Viewer software.
- The NPT Threading Processes\ folder contains saved process files that you can import into your parts for threading.
- Utility for AVI Files\ contains a website link and an executable (TSCC. EXE) that will install the codec necessary to view the AVI files that are provided by 3D Systems. If you experience difficulties viewing our videos, please run this installer.
- Forms, such as the GibbsCAM-Post\*.pdf files for ordering custom post processors, and a GibbsCAM-ContactForm.pdf form for updating contact information.

Installers\ Contains files for installing GibbsCAM 14, v14.0. For more information,

see "Installing the System Files" on page 16.

Predator\ Contains files for installing a version of the Predator CNC Editor and Predator Virtual CNC Viewer.

The version of Predator software that is included on the GibbsCAM 14 flash drive is a light version of the product. When you install the light version, use the serial number "LIGHT" to activate it. The light version is a very functional editor with no limitation on the size of the edited file. To understand the differences between the light version and the full-function version, see the Predator CNC Editor Feature Grid PDF file in the Extras\ folder. Please visit <a href="http://www.predator-software.com">http://www.predator-software.com</a> for more information or if you are interested in upgrading to the full-function version of the product.

Samples\

Contains sample part files, Machine Sim models, custom MDDs, and similar files. These files require a significant amount of hard disk space. Sample part files are also available from <a href="https://online.gibbscam.com">https://online.gibbscam.com</a>.

Tools\

Contains files for special installations on machines that might not run the GibbsCAM application:

SOLIDWORKS Add-In Installer. If you need to install the SOLIDWORKS Add-In on a workstation that does not run GibbsCAM, run the installer (\*.msi file) provided here. The CAD Transfer Add-In for SOLIDWORKS must be installed on the system where SOLIDWORKS 2011 or later is installed for GibbsCAM to recognize part features while importing a SOLIDWORKS part.

**NLO Installer.** If you will be installing GibbsCAM NLO Server, running the installer (\*.msi file) is the first step for installing Network Licensing.

online.GibbsCAM.url www.GibbsCAM.url

Opens a browser window for <a href="http://www.GibbsCAM.com">http://www.GibbsCAM.com</a> (requires login).

# **Before Installing**

Before you install the software, ensure that you meet the system requirements and that you have installed the most recent service pack for your operating system and the latest drivers for your video card.

At some point before installing the new software, be sure to review the *Release Notes* (available online from http://www.GibbsCAM.com) to check for any last-minute information.

### If a Version of GibbsCAM Is Already Installed

If you already have a version of GibbsCAM installed on your system:

- You should not uninstall the previous software.
- If you want to install multiple instances of the same version of GibbsCAM, see "Running Multiple Instances of the Product" on page 19.
- Be aware that the installer associates all .vnc files with the newly installed version of GibbsCAM. If you want to open an existing part in an older version of GibbsCAM, simply drag the file to a shortcut or to the program window, or use the Open dialog.
- Also be aware that if an older file is opened and saved in a newer version of GibbsCAM, it can
  no longer be used in an older version. If necessary, you can work around this by using File > Save
  a Copy to save the part as an older version.
- Before starting a newly installed version of GibbsCAM, users may want to run the Migration Tool to migrate their settings and preferences from a previous release. The installation process ends with a link to Migration Tool.

### **Before Installing Network Licensing Option (NLO)**

For complete information on GibbsCAM Network Licensing Option, see "Network Licensing" on page 33.

### Before Installing With a Hardware Key

If you have a hardware key, attach it before running the installer.

Most users have the Rainbow Sentinel hardware key licensing scheme, which is a square, tan parallel port key or a purple USB key that gets attached to the computer.

Newer users may have the Aladdin HASP hardware key which is a white parallel port key or a very dark purple USB key.

The time-based system is also a HASP key but is either a blue parallel port key or a black USB key.

If you use the HASP key, please do not use the "HASP HL" drivers. Please use the "HASP4" drivers. The HL drivers cause an incompatibility with the GibbsCAM system. Unfortunately this is beyond our control as the incompatibility can be from hardware, software, or the OS. If you have installed the HL drivers please download and install the HASP Device Driver GUI Installation drivers from here: <a href="https://www.aladdin.com/support/hasp/hasp4/enduser.aspx">www.aladdin.com/support/hasp/hasp4/enduser.aspx</a>.

#### **USB Kev**

If you use a USB key, place it into a USB port on your computer when you install the GibbsCAM software. The key can be hot-swapped. USB ports do not allow more than one device to be plugged into a port. You can purchase a USB hub to provide additional ports.



#### **Parallel Port Key**

If you use a parallel port key, attach it to your computer before you run GibbsCAM; the proper drivers for your system are installed automatically. Make sure the computer is turned off before attaching the hardware key. The hardware key should be placed in the parallel port (LPT1, or LPT2) in the back of your computer. The parallel port is the same port in which you plug your printer. A printer can be plugged into the hardware key.



### Before Installing Across a Network

When installing GibbsCAM across a network to a system that has never had a version of GibbsCAM or the hardware key drivers, we recommend that you install the drivers first, to avoid

encountering errors. If you encounter this error, simply click OK and continue the installation process; then, after the process ends, install the hardware key drivers.

### About the Installer

The installer lets you do any of the following:

- Repair or uninstall an existing installation of GibbsCAM 14.
- Install the GibbsCAM 14 base components and, optionally, one or more add-ins:
  - GibbsCAM add-ins include ProAXYZ Posting support.
  - CAD Transfer add-ins include Autodesk Inventor, Solid Edge, SOLIDWORKS, and many others.

When the base components are installed, the GibbsCAM PDFs and the Moorpark engraving font are automatically installed, and a desktop shortcut to the GibbsCAM 14 application is created.

### **File Locations**

The GibbsCAM installer writes files to three different locations, because different kinds of data are accessed for different purposes:

- User data changes with each user.
- · Global data applies to all users.
- Install data includes generic data and unmodified Reporter templates.

The installer is the only program that writes install data. The installer and the GibbsCAM application write global data and install data. However, if the installer is re-run, it will not affect user data and global data files that have been changed by the application.

Folders containing the three types of data are detailed below. If you customize these files or upgrade your version of GibbsCAM frequently, then accessing and copying these files can become quite important. The GibbsCAM Migration Tool is the preferred method for migrating settings and preferences from previous GibbsCAM releases.

The following table shows the folder hierarchy.

#### **User Data Files**

User Data includes such files as: sysdef.rsc (entries in dialogs), UIState.dat (location and sizes of windows), and a Plugins\ folder (data entered in plug-ins). Even users with limited privileges can migrate User Data from a previous release using Migration Tool.

#### Global Data (Program Data) Files

Global data, also called *program data*, includes the bolt and tap tables, the CutDATA file (Material.txt), your communication setup data (protocol.txt), a file that stores the Hole Wizard data (prefs.rsc), a folder that contains your custom MDDs, the PostHASTE Library folder that contains PostHASTE library files, and Reporter templates that have been modified or customized.

The program data folder is the location where all customizable VMMs, MDDs, macros, and plugins should reside. Although the installation folder contains read-only *template* versions of these files — in other words, the original versions as shipped, before any customization — the intent is for each seat of GibbsCAM to have its own potentially customizable version of these files residing under the program data folder. Only users with Administrator privileges can migrate program data files from a previous release using Migration Tool.

The location of the CutDATA file can also customized within GibbsCAM: On the File menu, click Preferences and see the Files tab.

#### **Installation Data Files**

Installation files are read-only. They include generic versions of Global and User data files, the default user-interface (\*.cui) files, and the Reporter templates. Generic Reporter templates are located in the...\PlugIns\Data\Report\ folder.

Only users with Administrator privileges can migrate installation files from a previous release using the Migration Tool, and not all installation files can be migrated.

#### Reporter File Locations

Excel (\*.xlsx) and text (\*.txt) files can reside in up to three different locations:

- User data folder. The default location of this folder is:
   C:\Users\
   <username>\AppData\Roaming\3D Systems\GibbsCAM\
   If a particular user has Reporter files here, they take precedence over other Reporter files.
- Global data folder. The default location of this folder is:

  C:\ProgramData\3D Systems\GibbsCAM\<version>\PlugIns\Data\Report\.

  If the Global data folder contains Reporter files, they will take precedence over Reporter files in the Installation data folder but will be overriden by Reporter files in the User data folder, if any.

Installation data folder. The default location of this folder is:
 C:\Program Files\*\3D Systems\GibbsCAM\<version>\PlugIns\Data\Report\.
 Reporter files here are always present and cannot be deleted.

Imagine Company A, which prefers a custom Tool Summary report over the default GibbsCAM-supplied summary. Company A places the files T1Sum.txt and T1Sum.x1sx in the Global data folder (default C:\ProgramData\...). At company A, this is the version that most users will receive when they use the GibbsCAM Tool Summary command or they pick Tool Summary from the Reporter dialog. The Migration Tool will migrate this report from version to version.

Now imagine a user named Lee, who works for Company A. Lee has made additional changes to the Tool Summary Report, and saves these custom versions of T1Sum.txt and T1Sum.x1sx in the User data folder (default C:\Users\Lee\AppData\...). Whenever Lee uses the Tool Summary command or picks Tool Summary from the Reporter dialog, the result will use these additional changes. The Migration Tool will migrate this report from version to version.

#### Existing Communications, CutDATA and Library Files

Installing a new version of GibbsCAM creates a default material database, a blank communications file, default PostHASTE library files, and default Reporter templates. Once the new version is installed, you can copy protocol.txt, material.txt and the Library\ folder to the new GibbsCAM folder.

#### **User Access To AppData Folders**

Windows marks user AppData\ folders as invisible; limited users cannot see them. If you do not use Migration Tool, you may need an administrator's assistance to find and modify these folders.

# **Installing the System Files**

Before you install the software, be sure to review "File Layout" on page 10 and "Before Installing" on page 11.

If you will be using the Network Licensing Option (NLO):

•

The GibbsCAM application software must be installed on each client machine, using either the
interactive installation wizard or the installer run in "silent" mode. The application software must
be installed before the license files generated by 3D Systems GibbsCAM are installed.

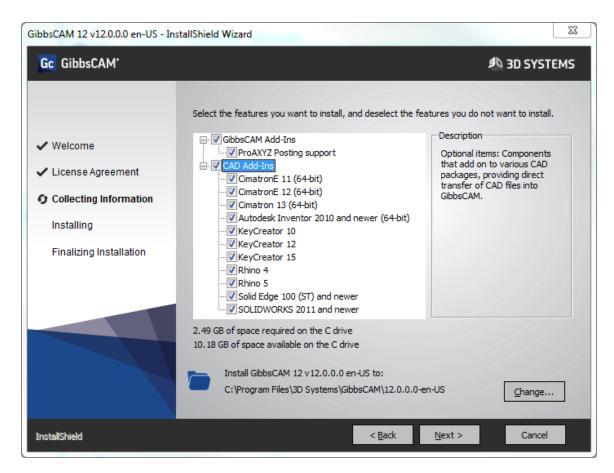
If you are upgrading from a previous release, consider running the GibbsCAM Migration Tool after you install but *before* your first launch of the newly installed software. For more information, see "Migrating from Previous Releases" on page 41.

### **Step-By-Step Instructions**

The following instructions assume you want to use the fully interactive installation wizard. If, instead, you prefer to install non-interactively without the wizard, see "Silent Installation Mode" on page 19.

#### To Install the System Files

- 1. Insert the product installation flash drive into a USB port.
  - The installer should run automatically when you insert the media.
- 2. If prompted to do so, click Yes to give permission to the User Account Control dialog to install the software.
  - The installer automatically detects your computer's environment (such as language and platform) and launches the appropriate setup wizard.
- 3. In the Welcome step: If you are installing the application software on this machine, click Next to continue. If, instead, you are setting up a Network License installation, click Cancel and refer to "Network Licensing" on page 33.
  - You will need to accept the terms of the GibbsCAM Software License Agreement to continue the installation.
- In the Collecting Information step, optionally specify add-ins to install and optionally change the installation location (not recommended). When you are satisfied with your choices, click Next.



This release requires Microsoft .NET Framework. Most machines will already have this (for example, if Office is installed), but if it is lacking, then the GibbsCAM installer will tell you what is needed. If you need either or both, they are available for download from the Microsoft website.

- 5. In the next step, click Install.
  - If prompted by the User Account Control to use administrator privileges, click Yes.
- 6. The final question to answer is whether to launch Migration Tool after installation. The default is yes, to help remind you to migrate your old settings and preferences before starting the new version of GibbsCAM software. For more information on Migration Tool, see "Migrating from Previous Releases" on page 41.
- 7. When the installation is complete, click Finish to close the setup.

#### To Launch the Application

To launch the GibbsCAM application, do one of the following:

- In Start > Programs, select the GibbsCAM item.
- Double-click the desktop shortcut to the GibbsCAM executable.
- Double-click a \*.vnc file.

The first time you launch GibbsCAM, the following dialog appears:



If you are installing GibbsCAM for the first time, you must register the software. For more detailed information on registering the software, see "Registering GibbsCAM" on page 23.

### Running Multiple Instances of the Product

GibbsCAM 14 natively supports simultaneously running multiple instances of the application — either different versions or different instances of the same version. If you want to install multiple instances of the same version GibbsCAM version, such as differently localized instances, make a copy of the existing instance in a different folder (such as C:\Program Files\\*\GibbsBackup\, where "\*" might be "Gibbs" or "3D Systems"), and then re-run the installer. First uninstall the previous instance, and then install the new one.

There is no problem running multiple versions of GibbsCAM at the same time. However, an earlier version might be unable to open parts saved in a later version. You can use the File > Save As Copy option to save the part as if it were a previous version. (But: See the Readme file about saving TMS files to versions before GibbsCAM 12.)

*Reminder:* For best results migrating settings and preferences from a previous release, each user should run the Migration Tool *before* starting a newly installed version of GibbsCAM. For more information, see "Migrating from Previous Releases" on page 41.

#### Silent Installation Mode

The process for installing in the background changed at GibbsCAM 12 to use InstallShield. Previously called "unattended" or "quiet" installation, it is now called "silent" installation.

### Accepting All Defaults

The simplest and easiest way to use silent installation mode is to accept all defaults. To do this, you use the /s flag with no other flags or parameters, in this form:

```
<installername>.exe /s
```

For example, to silently install GibbsCAM 13.0.7.10 in English with all defaults: GibbsCAM\_x64\_v13.0.7.10\_en-US.exe /s

### Uninstalling

To uninstall silently, use the /x /s flags, in this form: <installername>.exe /x /s

For example, to silently uninstall Japanese-language GibbsCAM 13.0.9.2: GibbsCAM\_x64\_v13.0.9.2\_ja-JP.exe /x /s

### Customizing a Silent Installation: Using an \*.ISS File

You can also customize which options you install, which locations you install to, to not run Migration Tool, or other nondefault choices. To do this, you use an \*.ISS file that contains the customizations, in conjunction with the GibbsCAM installer \*.exe file. Note that when you perform a silent installation, the version of the installer executable must match the version of the installer executable that was used to record the \*.ISS file.

- To create an \*.ISS:
  - Run the interactive GibbsCAM installer with the  $\frac{r}{r}$  flag to record an \*.ISS file. The file specified in the  $\frac{f1"}{filename}$ .ISS" flag captures all parameters and paths supplied in this interactive installation. For details, see below.
- To install silently using an \*ISS:

  Run the GibbsCAM installer with the /s flag and the /f1"<filename>.ISS" flag. This silently installs GibbsCAM using parameters in the \*.ISS file. For details, see below.

#### A. To create an ISS file

- 1. Run the installer with flags /r and /f1 (and, optionally, /f2).
- 2. Supply information to the interactive installer.
- 3. When you click Finish, the \*. ISS file is fully recorded and can be used for future silent installations.

#### Step 1 has the following form:

<installername>.exe /r /f1"<path>\<ISSfilename>"

Example A1

To use the GibbsCAM 13.0.6.8 English-language installer to generate an ISS file named Auto12068.ISS located in folder D: \temp\, you would open a command prompt, change directories to the installer location, and enter the following command:

GibbsCAM\_x64\_v13.0.6.8\_en-US.exe /r /f1"D:\temp\Auto12068.ISS"

Example A2

To use the GibbsCAM 13.0.10.0 French-language installer to generate an ISS file named MonGC13.ISS located in folder H: \Gibbs\, you would enter the following command: GibbsCAM x64 v13.0.10.0 fr-FR.exe /r /f1"H:\Gibbs\MonGC13.ISS"

#### B. To silently install GibbsCAM using an ISS file

- 1. Run the installer with flags /s and /f1 (and, optionally, /f2).
- 2. If necessary, authorize the UAC (user account control) to install to the location specified in the \*.ISS file.

#### Step 1 has the following form:

<installername>.exe /s /f1"<path>\<ISSfilename>"

#### Example B1

To use the GibbsCAM 13.0.8.2 Latin-American Spanish-language installer to silently install using the parameters in an ISS file named myGC. ISS located in the same folder as the installer, you would open a command prompt, change directories to the installer location, and enter the following command:

GibbsCAM x64 v13.0.8.2 es-MX.exe /s /f1"myGC13.ISS"

#### Example B2

To use the GibbsCAM 13.0.9.10 English-language installer to silently install using the parameters in an ISS file named GC\_SilentInstall.ISS located in folder F:\GibbsData\, you would open a command prompt, change directories to the installer location, and enter the following command:

```
GibbsCAM_x64_v13.0.9.10_en-US.exe /s /f1"F:\GibbsData\GC_
SilentInstall.ISS"
```

#### C. If you want to write out a log file

#### For example:

- GibbsCAM\_x64\_v13.0.6.8\_en-US.exe /r /f1"D:\temp\Auto12068.ISS"
  /f2"D:\temp\Log12068.txt"
- GibbsCAM\_x64\_v13.0.9.10\_en-US.exe /s /f1"F:\GC\_SilentInstall.ISS"
  /f2"tempLogFile.txt"

# Installing Sample Package Files

Because the GibbsCAM system is extensible, there may be times when you install additional files that you have received third parties or that you have downloaded from 3D Systems. In most cases, the sample parts (\*.vnc files) can reside anywhere, but other files, such as custom MDDs or VMMs, must reside in the appropriate location within the global data folder for GibbsCAM.

The sample package for Custom Drill Cycles provides a good example. A sample set of macros is available to illustrate custom drill cycles for Variable Peck.

These macros, along with the custom MDDs to support them, can be downloaded from the Macros wiki (<a href="https://GibbsCAMMacroWiki.3DSystems.com">https://GibbsCAMMacroWiki.3DSystems.com</a>). For example, in the web page for the category Custom Drill Cycles, you can download the following items.

- Example macros for: Variable-peck drilling by Distance or Percentage; Fagor style variable-peck drilling; Pecking/drilling of Tapered squares; and Peck chamfering.
- MDDs (\*.mdd files) supporting custom drill cycles for: 3-axis vertical mill, 5-axis vertical mill, and 2-axis horizontal lathe.
- Sample parts (\*.vnc files) illustrating the use of custom drill cycles.
- A single \*.zip file containing all the files mentioned above.

Installing a sample package for custom drill cycles is simple. In your global data folder (such as C:\ProgramData\3D Systems\GibbsCAM\14.<x>.<y>.\):

- 1. Under its Macros\ folder, create new subfolder CustomDrillCycles\ and move the Gibbs.\*.Generic\ folders into it.
- 2. Change to its MDD\ folder and move the sample \*.mdd files into it.
- 3. Place the sample part files (\*.vnc) wherever you like.

#### After your

C:\ProgramData\...\Macros\CustomDrillCycles\Gibbs.PeckDistance.Generic\ folder is populated and your C:\ProgramData\...\MDD\ folder contains the sample MDD referenced by the part, simply open a sample part and look at each of its processes. For example:

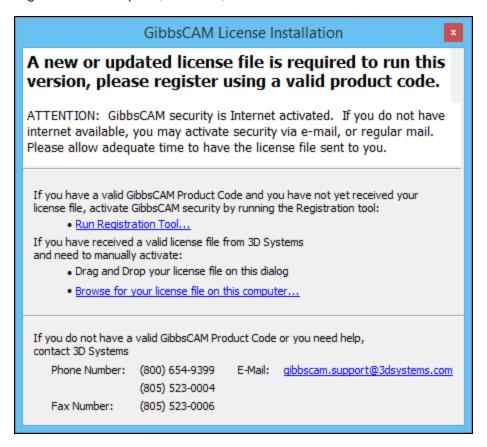
- In the 3-axis Mill part, Milla.vnc, the Holes process dialog's Drill tab offers a pull-down of custom drill cycles under <a href="Entry/Exit Cycle">Entry/Exit Cycle</a> when the bottommost option button is selected. To view or adjust parameter values, click User Cycle Data.
- In the 2-axis Lathe part, Lathe2a.vnc, the Holes process dialog offers a pull-down of custom drill cycles under <a href="Entry/Exit Cycle">Entry/Exit Cycle</a> when the bottommost option button is selected. To view or adjust parameter values, click the <a href="User Cycle">User Cycle</a> Data the button.
- In the 5-Axis part, Mill5a.vnc, the Drilling Options tab shows pull-down options when Custom Cycle is selected. To view or adjust parameter values, click the Define Custom Data button.

# Registration

- Registering GibbsCAM
- "Registration Tools" on page 29
- "License Updates" on page 31

# Registering GibbsCAM

When a fresh installation of GibbsCAM is first started, it reports that no license file is found. After registration is complete, however, GibbsCAM will continue on to run as usual.



The <u>License Installation</u> or <u>License Update</u> dialog lets you drag a license onto the dialog for application installation, browse the computer for a license file, or run the Registration Tool to obtain a license file through the Gibbs Activation Service.

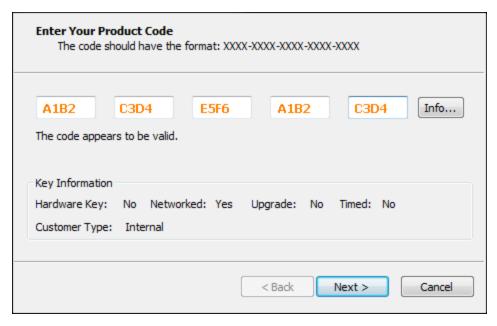
If you already have a license file for v13 or earlier, however, you can simply drag and drop it
onto this dialog, or click Browse for your license file on this computer... to navigate to it and select it.



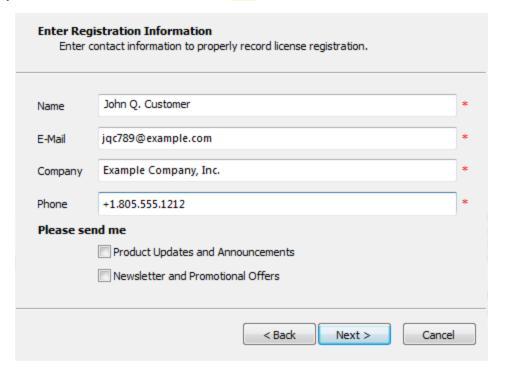
**Reseller Activation -** If your Reseller will be assisting you with your installation, have your registration files (and hardware keys, if any) ready in advance.

### **Running the Registration Tool**

- 1. Click the Run Registration Tool... link.
- 2. Enter your Product Code from your order materials and click Next.



3. Enter your customer information and click Next.



4. Complete your registration using one of the following methods. If you do not have an e-mail account, enter the e-mail address of your reseller.

Registration Type	Purpose
Internet Registration	Register online. This is the quickest, easiest way.
E-Mail Registration	If you are in a secured network environment.
Offline Registration	If you have no Internet access.

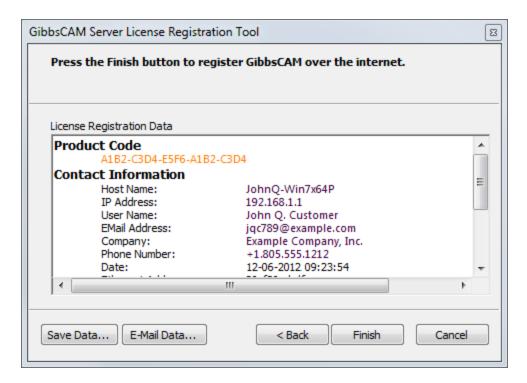
#### **Internet Registration**

If the Registration Tool determines that the computer can directly contact the Gibbs Activation Service, the final page of the Registration Tool lets you click Finish to automatically obtain a license file.

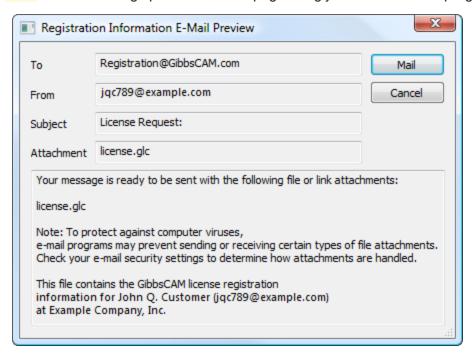


#### E-Mail Registration

If the Registration Tool determines that the computer cannot directly contact the Gibbs Activation Service but has access to e-mail, the final page of the Registration Tool lets you click Finish to send the license registration data to Gibbs as an e-mail attachment.



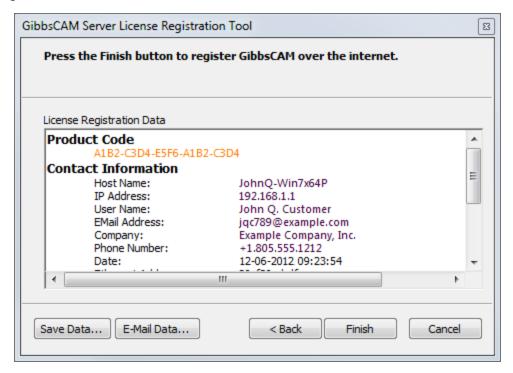
Clicking the Finish button will bring up an e-mail form page using your default e-mail program.



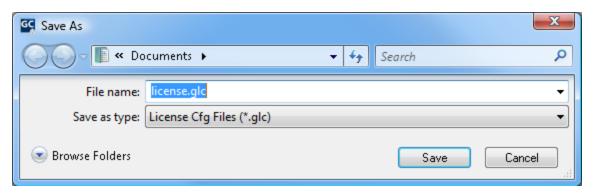
Follow the e-mail program's directions to send the license registration data. 3D Systems GibbsCAM will process your license registration as quickly as possible. When you receive it, see Completing E-Mail or Offline Registration.

#### Offline Registration

If the Registration tool determines that the computer cannot directly contact the Gibbs Activation Service and lacks access to e-mail, then the Registration Tool will prompt you to click Finish to save license registration data to a file:



When you click Finish, the Save As dialog prompts you to save your license registration data to a file:



After you save your registration data file, you can send it to 3D Systems GibbsCAM in several ways:

A computer with e-mail access

If you have access to a computer with e-mail access, e-mail the file to GibbsCAM.Registration@GibbsCAM.com.

Your Reseller Your reseller may be able to assist you in your activation. If your Reseller can

assist you, have your registration files and (and hardware keys, if any) ready in advance.

#### Regular Mail

Copy the registration file to a CD, flash drive, DVD or floppy disk and mail it to:

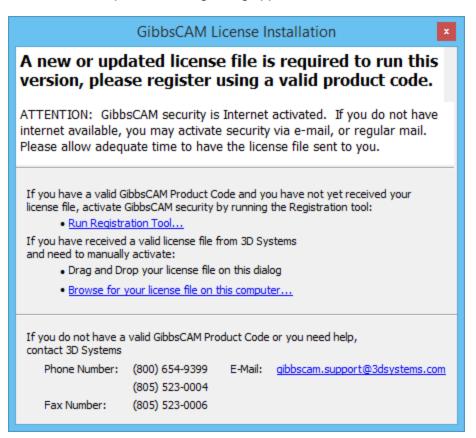
GibbsCAM Support c/o 3D Systems 323 Science Drive

Moorpark, CA 93021 USA

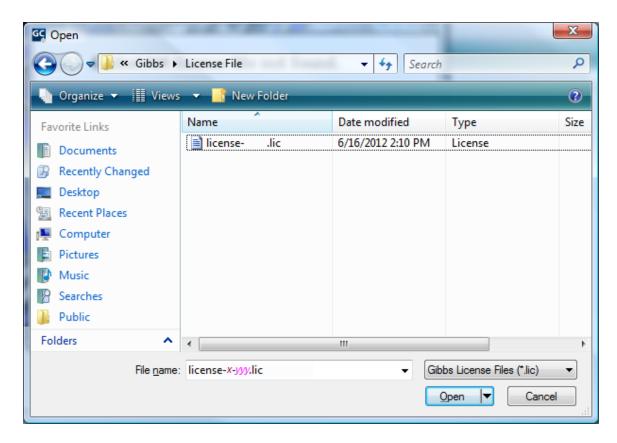
Note: Please allow adequate time for your license file to be returned to you. Your media will not be returned.

#### Completing E-Mail or Offline Registration

5. After you receive your license file from 3D Systems, save it on your computer and launch GibbsCAM. On first startup, the following dialog appears:



6. You can either drag and drop the license file onto that dialog or click the Browse for your license file on this computer... link, which opens a dialog that lets you navigate to the file and select it:



7. After you locate and open the license file, you should see a message dialog resembling the following:



8. When you click OK, GibbsCAM starts; your installation of GibbsCAM 14 has been authenticated.

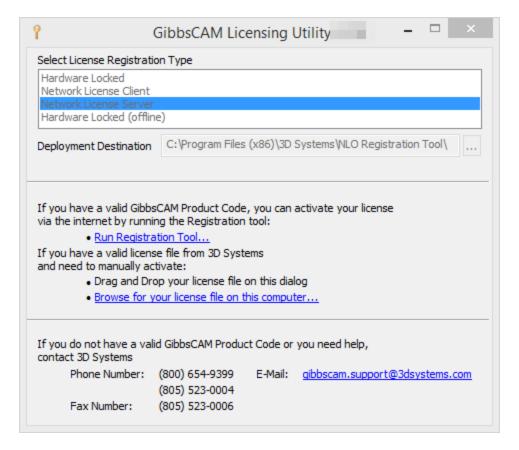
# **Registration Tools**

Two registration utilities are provided:

- RegistrationTool.exe See Standalone Licensing Utility
- ActivationCheck.exe See "Verifying Activation Server Connectivity" on page 31

### **Standalone Licensing Utility**

The Registration Process can also be activated without running GibbsCAM. Look for Registration Tool in the GibbsCAM\ folder in the Windows Start menu. You can also access the standalone registration from the GibbsCAM installation folder. You can do this easily by searching for RegistrationTool.exe.



The Licensing Utility allows you to send license registration data and obtain and manage licenses for several different types of GibbsCAM installations:

- The Hardware Locked type is equivalent to the license installation from running GibbsCAM from a non-NLO GibbsCAM installation.
- The Network License Client type is equivalent to the license installation from running GibbsCAM from an NLO GibbsCAM installation.
- The Network License Server type installs the NLO server and license to a folder you specify.
- The Hardware Locked (offline) type installs a non-NLO client license to a folder you specify. This
  may be useful when pre-generating licenses for computers that may not have Internet access
  and can only be used with removable hardware key licenses. To generate an offline license,
  follow these steps:
  - Specify a deployment destination for the offline license in Licensing Utility.

- b. Attach the hardware key that you intend to use on the offline computer.
- c. Click the Run Registration Tool... link and generate the offline license file following instructions in "Running the Registration Tool" on page 24. This action generates a license file in the specified folder.
- d. Move the generated license-x, xxx, clm file to the offline computer.
- e. Start GibbsCAM.
- f. Drag and drop the license file onto the GibbsCAM License Installation dialog (or use the Browse for your license file on this computer... link).

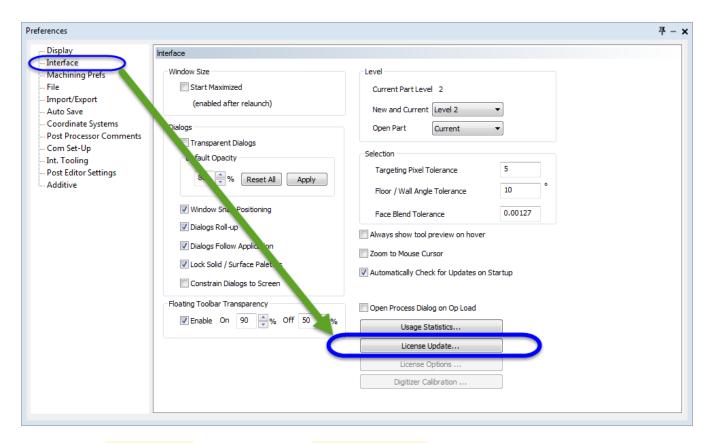
### **Verifying Activation Server Connectivity**

ActivationCheck.exe is a simple utility that checks for connectivity with the Gibbs Activation Service. You can find this application in the Bin\ folder of your GibbsCAM installation folder or by using the Start button's Search feature.



# **License Updates**

If you need to update or change your license file to add options to your license, you can connect to the Gibbs Activation Service from the File > Preferences dialog, Interface tab.



Click the License Update button to open the Update Registration dialog.

To update your Product key and license, follow the steps for "Running the Registration Tool" on page 24.

# **Network Licensing**

In this release, GibbsCAM licensing is handled differently from version 12 and before. These changes mainly affect NLO (Network License Option).

#### What Remains the Same

As before, GibbsCAM Network Licensing (NLO) establishes a network license server that maintains a software key for each GibbsCAM product option purchased from 3D Systems. These software keys (or "licenses") are distributed to nodes across a network to enable the workstations (nodes with installed 3D Systems application software) to run the purchased module options. NLO is an alternative to hardware keys: When a client runs the GibbsCAM application software, a software key is "checked out" from the license server. There is no limit to the number of GibbsCAM seats installed on the network, only a limit to the number that can be used concurrently with each license server. Each client's license file (\*.cml) can be created and installed through the Internet or, if the workstation lacks Internet access, by electronic or physical mail.

#### What Changed

GibbsCAM NLO now uses Cimatron License Manager (CimLM) instead of Reprise License Manager (RLM). This change affects all customers using GibbsCAM NLO.

*Important:* If you use CimLM to serve licenses for Cimatron products, you cannot use the same machine to serve licenses for GibbsCAM products. The server software must be installed on separate machines with different IP addresses.

#### Operating Systems Supporting CimLM

Cimatron License Server requires Windows Server 2008 R2 or Windows 7 ("NT 6.1") or later. Although this includes desktop platforms like Windows 8 ("NT 6.2"), Windows 8.1 ("NT 6.3"), and Windows 10, we recommend Windows Server (2008 R2, 2012, 2012 R2, 2016, or 2019) if more than five users will be simultaneously connected to the license server.

#### Overview of Network License Installation

Installation of the Network License Option (NLO) is a two-phase process: In Phase 1, you set up the server. In Phase 2, you install and register the client software on each node. For condensed steps, see below; for details, see "NLO Step 1 - Setting Up The Server" on page 35.

#### Condensed Steps: To Set Up the License Server

1. With Administrator privileges, on the machine that will be serving GibbsCAM licenses – which must not be the same machine as one that serves Cimatron licenses -, run the installer setup file:

LicenseServer setup 8.<x>.<y>.<z>.exe to install the License Server software, Registration Tool, and support files.

This installer setup file can be downloaded from Gibbs Online (online.gibbscam.com) and elsewhere.

- 2. From the folder where you installed the License Server software (default C:\Program Files\3D Systems\License Server\ ), run RegistrationTool.exe.
- 3. When the Licensing Utility window appears:
  - a. For License Registration Type, choose Network License Server (the third choice.
  - b. For Deployment Destination, enter or browse to a writable folder.
  - c. Either:
    - Browse for an existing \*.cml license file on your computer;

Or, if you do not yet have a \*.cml file:

Click the Run Registration Tool link and then, in the Server License Registration Tool window, enter (or copy-

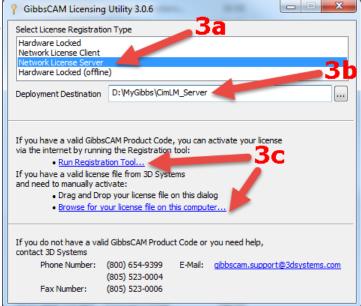
and-paste) your 20-character product license code.

For details, see "NLO Step 1 - Setting Up The Server" on page 35.

#### Condensed Steps: To Install The Client Software

- 1. Install the GibbsCAM application software on the client machine. For instructions on installing the software, see "Installing the System Files" on page 16.
- 2. Ensure that the License Server is running on the license server machine and that the client can connect to it, and then register GibbsCAM on the client machine.

For details, see "NLO Step 2 - Install the Client Software On Each Node" on page 37.



### NLO Step 1 - Setting Up The Server

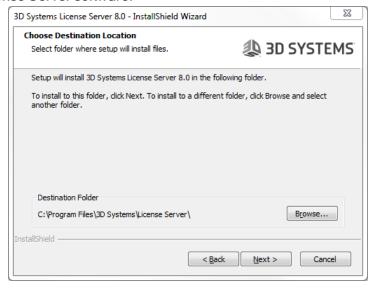
Before you begin: On the machine where you will install the License Server, you must have administrator privileges. The installer setup file 3D\_Systems\_License\_NLO\_Server\_v8.<x>.<y>.<z>.exe must be available. This can be downloaded from <a href="https://online.gibbscam.com">https://online.gibbscam.com</a> (under Software Downloads, click the Tools link) or it can be loaded from the product media in folder \Content\NLO Registration\.

Before installing or modifying NLO Server, ensure that the firewall service is started (Services (Local) > Windows Firewall, Status = Started). If this machine has an older version of 3D Systems License Server 8.0 installed, uninstall it. Then, run the NLO installer. After the installation/modification is complete, you can stop your firewall service if necessary.

1. Run the executable to install the License Server software.

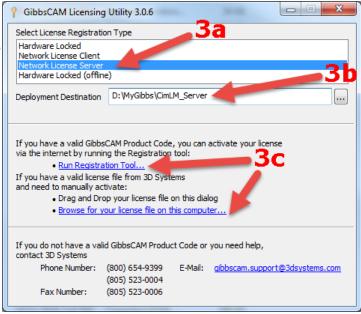
The steps are as follows:

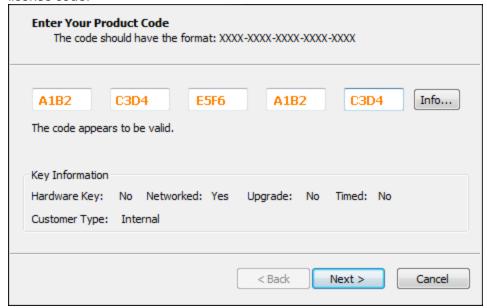
- (a) UAC: Yes;
- (b) Select the language you prefer;
- (c) For **Welcome**: Click Next;
- (d) For **Destination Folder**: Browse to or accept a folder and click Next;
- (e) Click Install.
- 2. From the folder where you installed the License Server software, run RegistrationTool.exe.
- When the Licensing Utility window appears



:

- For License Registration Type, choose Network License Server (the third choice.
- b. For Deployment Destination, enter or browse to a writable folder.
- c. Do one of the following:
  - If you do not already have a \*.cm1 license file on your computer: Click the Run Registration Tool link and then, in the Server License Registration Tool window, enter (or copy-and-paste) your 20-character product license code:





When the activation is complete, a license file, license-<customer\_id>-<server\_number>-L.cml, is created in your deployment directory.

 Or, if you already have a \*.cml license file on your computer, use the <u>Browse</u> link to find and select it.

# NLO Step 2 - Install the Client Software On Each Node

Before you begin: Make sure the license server machine is running the License Server software and that the client machine (workstation) has a network connection to it.

- 1. On the client machine (workstation), install the GibbsCAM software, using the same product code that was used for installing the server. For step-by step-instructions, see "Installing the System Files" on page 16.
- 2. Register GibbsCAM for this client workstation.

You can do this manually at any time by running the Registration Tool. Or, if you launch GibbsCAM, it will display the License Installation dialog to prompt you for the product code.

Use the same product code that was used for the server. On NLO client machines, you are not prompted for contact information.

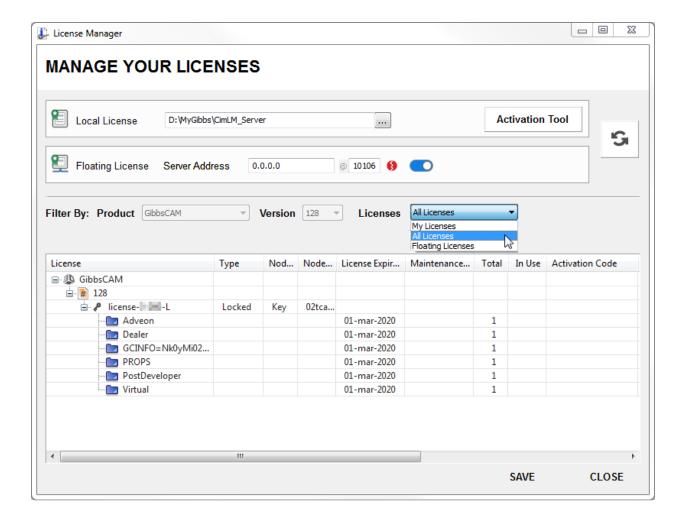
- 3. After you enter the product code, click Activate Product to complete the license deployment.
  - The license data will be retrieved from the Gibbs Activation Service and placed in the appropriate Activation Data folder.
- 4. Repeat the previous steps (installing the GibbsCAM software and registering the product code) for each GibbsCAM client of the license server machine.

# **Tools for Managing and Monitoring Licenses**

#### License Manager

From the License Server\ folder(C:\Program Files\3D Systems\License Server\ is the default), run CimLicManager.exe.

Result: The License Manager window appears.



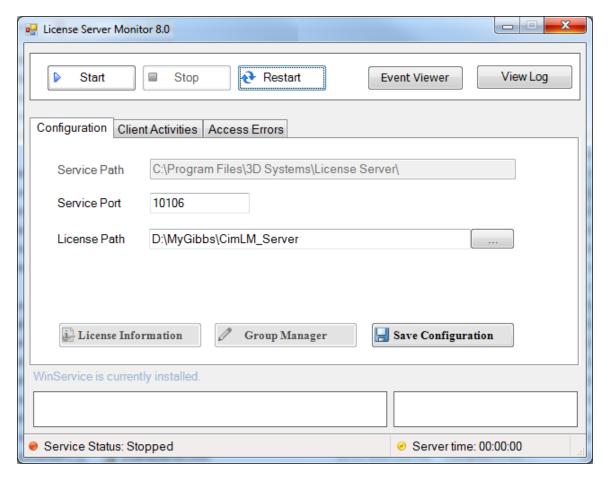
#### In it, you can:

- 1. View or change the local license folder.
- 2. View or change the server address and port.
- 3. See details on the product versions and modules for which this server is serving licenses.

#### **License Server Monitor**

From the License Server\folder(C:\Program Files\3D Systems\License Server\is the default), run "CimService Monitor.exe".

Result: The License Server Monitor window appears.



#### In it, you can:

- 1. Start, stop, or restart the License Server.
- 2. Run the system Event Viewer.
- 3. View a log of all actions taken by the License Server.
- 4. Configure some aspects of the License Server, such as its port and path.

# Frequently Asked Questions on NLO

· Question: How can I find out more about License Server management and tuning?

Answer: Online help is supplied in the folder where you installed the License Server software. The filename of the online help file is LicenseServer.chm

Question: Can I activate if I don't have an Internet connection?

Answer: Yes. The Internet activation process simply automates the process of requesting, creating, and installing the license file on the client computer, but there is a procedure for activating without a live Internet connection. It uses the same registration process as the live connection.

Question: Can the same machine serve licenses for both GibbsCAM and Compost?

Answer: Yes. but with a caveat.

If you use NLO on one machine for multiple products: If you have licenses for two or more GibbsCAM products served by a single machine, such as licenses for both GibbsCAM and Compost, then all such license files must have the same start and end dates. If the start dates or end dates mismatch, then one license file might overwrite another.

Question: Can the same machine serve licenses for both GibbsCAM and Cimatron?

Answer: No, not at this release. If you use CimLM to serve licenses for Cimatron products, you cannot use the same machine to serve licenses for GibbsCAM products. The server software must be installed on separate machines with different IP addresses.

# **Maintenance**

The following are miscellaneous topics that can be helpful in some circumstances after you have installed GibbsCAM.

- Migrating from Previous Releases
- "Installing Post Packages" on page 43
- "Undoing All Customizations" on page 43

# Migrating from Previous Releases

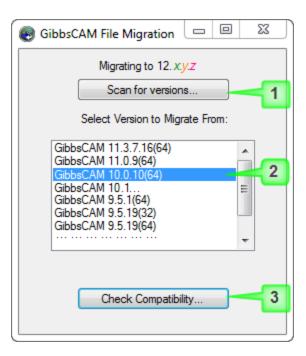
The GibbsCAM Migration Tool lets you detect all previously installed versions of GibbsCAM and copy compatible settings and preferences — UI and display settings, custom MDDs and VMMs, HSM settings, bolt and tap table data, macro configuration file, machine models, and so forth — from a specified previous version to the current release. The previous version is not modified.

For best results, run the Migration Tool before the first time you start a newly installed release of GibbsCAM. This allows old files to be migrated before they are blocked by new files created in the newly installed version.

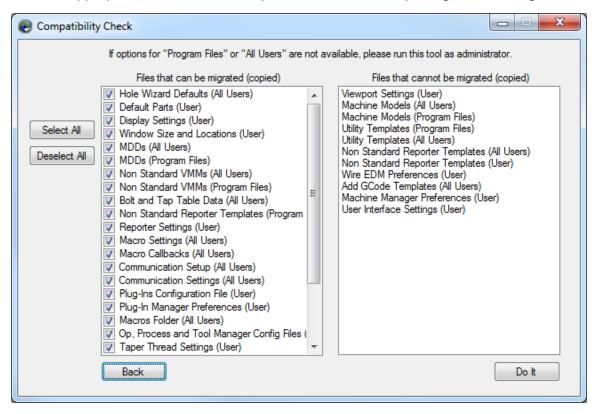
#### **Using the Migration Tool**

You can launch the tool from the Start menu: GibbsCAM > Migration Tool v14.x.y.z. To run this tool with Administrator privileges (recommended), navigate to its parent folder (default C:\Program files\3D Systems\...\Bin\), right-click the filename GibbsMigrationTool.exe, and choose context menu option Run as administrator.

1. The first dialog lets you scan your system for installed versions of GibbsCAM, select one from the list, and check it for compatibility.



2. The second dialog shows you the files that can and cannot be copied forward to the current release. Appropriate restrictions are respected if Administrator privileges are lacking.



**Note:** There is no ability to migrate plug-ins or material databases from previous releases. However, settings for Plug-In Manager can be migrated.

# **Installing Post Packages**

When you receive a post processor package as a .zip file from the GibbsCAM Post department, you can install it simply by dragging it onto a running instance of GibbsCAM or using File > Open. This extracts the contents of the package and copies files to the appropriate locations under the ProgramData\ folder:

- MDDs are extracted to the MDD\ subfolder of the global data folder normally C:\ProgramData\3D Systems\GibbsCAM\<version>\MDD\
- VMMs are extracted to the VMM\ subfolder of the global data folder normally C:\ProgramData\3D Systems\GibbsCAM\<version>\VMM\
- Post files are extracted to the Posts\ subfolder of the global data folder normally C:\ProgramData\3D Systems\GibbsCAM\<version>\Posts\
- Certain other special-purpose files (such as .txt files for GCode Files\ and macro files for CustomDrillCycles\) are also extracted to the correct folders.

When a post package is installed in this way, if the target folder already contains .mdd or .vmm files with identical names, the pre-existing versions are overwritten.

# **Undoing All Customizations**

Sometimes circumstances arise when you want to restore the as-shipped "factory" settings. For example, a particular user might want to remove all user-set preferences, such as customized defaults for interface background or lighting, or customized plug-in settings. Or, more broadly, a site might want to remove all site-customizable items, including the materials database, all custom MDDs and VMMs, and so forth.

Use this method only if you want to undo all customizations. Before wiping out extensive customizations, it is usually advisable to create a backup copy.

To undo user customizations, simply delete/move/rename the user data folder:
 C:\Users\<username>\AppData\Roaming\3D Systems\GibbsCAM\<version>.

Note: In releases prior to Version 11, the grandparent folder was named Gibbs\ rather than 3D Systems. For example, to suppress the customizations made by user "ChrisM" on GibbsCAM version 10.0.97, you could move this folder:

C:\Users\ChrisM\AnnData\Roaming\Gibbs\Gibbs\Gibbs\Gibbs\Gibbs\AnnData\Roaming\Gibbs\G

C:\Users\ChrisM\AppData\Roaming\Gibbs\GibbsCAM\10.0.97\

To undo site customizations, delete/move/rename the global program data folder:
 C:\ProgramData\3D Systems\GibbsCAM\<version>.

For example, to undo the site customizations made to GibbsCAM version 12.9.99, you could rename this folder:

C:\ProgramData\3D Systems\GibbsCAM\12.9.99\

### **Conventions**

GibbsCAM documentation uses two special fonts to represent screen text and keystrokes or mouse actions. Other conventions in text and graphics are used to allow quick skimming, to suppress irrelevancy, or to indicate links.

#### **Text**

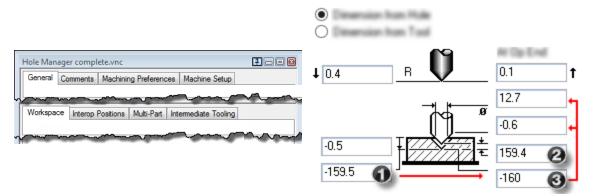
Screen text. Text with this appearance indicates text that appears in GibbsCAM or on your monitor. Typically this is a button or text for a dialog.

Keystroke/Mouse. Text with this appearance indicates a keystroke or mouse action, such as Ctrl+C or right-click.

Code. Text with this appearance indicates computer code, such as lines in a macro or a block of G-code.

#### **Graphics**

Some graphics are altered so as to de-emphasize irrelevant information. A "torn" edge signifies an intentional omission. Portions of a graphic might be blurred or dimmed to highlight the item being discussed. For example:



Annotations on a graphic are usually numbered callouts (as seen above), and sometimes include green circles, arrows, or tie-lines to focus attention on a particular portion of the graphic.

Faint green borders that outline areas within a graphic usually signify an image map. In online help or a PDF viewer, you can click a green-bordered area to follow the link.

# **Links to Online Resources**

Link	URL	Action / Description
Go	http://www.GibbsCAM.com	Opens the main website for GibbsCAM.
Go	https://online.gibbscam.com	Opens a restricted website containing materials available for download. Requires a GibbsCAM Online Services account; to set up an account, contact GibbsCAM Support.
Go	https://store.GibbsCAM.com	Opens the website for the GibbsCAM Student Store.
Go	https://GibbsCAMMacroWiki.3DSystems.com	Opens a wiki containing documentation and examples of GibbsCAM macros. Requires a GibbsCAM account.
<u>Go</u>	http://kb01.GibbsCAM.com	Opens a Knowledge Base article, Contour Operations Using Thread Mill Tools, that explains in detail the correct way to program Contour processes using Thread Mill tools.
<u>Go</u>	mailto:GibbsCAM.Support@3DSystems.com	Runs your email client to create a new message addressed to the 3D Systems Technical Support department for GibbsCAM.
<u>Go</u>	mailto:GibbsCAM.Registration@3DSystems.com	Runs your email client to create a new message addressed to the 3D Systems Registration department for GibbsCAM.
<u>Go</u>	mailto:GibbsCAM.Sales@3DSystems.com	Runs your email client to create a new message addressed to the 3D Systems Sales department for GibbsCAM.
<u>Go</u>	http://www.autodesk.com/inventor	Opens an external website that provides more information on Autodesk Inventor products.
Go	http://www.celeritive.com	Opens an external website that provides more information on VoluMill Ultra High-Performance Toolpath (UHPT) from Celeritive Technologies.
<u>Go</u>	http://www.predator-software.com	Opens an external website that provides more information on a CNC editor and a virtual CNC viewer from Predator Software, Inc.