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**Product Version: CAMWorks 2022 SP2** 



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# 1. **CAMWORKS: INTRODUCTION**

#### What is CAMWorks?

CAMWorks is a CAM application developed by Geometric Americas, Inc. It works as an Add-in in CAD applications of *SOLIDWORKS* as well as *CAMWorks Solids*. CAMWorks works seamlessly within the *SOLIDWORKS/CAMWorks Solids* environment.

This Installation Guide Manual gives detailed information on the various aspects involved in installing/upgrading the CAMWorks application.

### Registering on the CAMWorks Website (For first time users)

When you become a CAMWorks customer, you will receive a unique identification number *CPD* (*Copy Protection Device*) or Serial Number from your CAMWorks Reseller. This CPD number is required for registering on the CAMWorks website.

Follow the link <a href="http://www.camworks.com/registration/">http://www.camworks.com/registration/</a> to create your Login ID.

#### **CAMWorks Installers**

Installer Packages for the latest *CAMWorks* versions can be downloaded from <a href="https://www.camworks.com">www.camworks.com</a>. You will need a valid login on this website to access these Installers. Contact your reseller if you need help with registering on <a href="https://www.camworks.com">www.camworks.com</a>.

For details on how to download the CAMWorks Installer Package files, refer Appendix A: Downloading CAMWorks Installer Package of this document.

6 CAMWorks: Introduction



# 2. System Requirements

Before installing *CAMWorks 2022*, ensure that the following system requirements are fulfilled:

### **Supported Microsoft Windows® Operating Systems**

- 64-bit version of Windows 10
- 64-bit version of Windows 7 (SP1 or higher)
  - \*\* Home editions of the above Operating Systems are not supported.

#### **Supported CAD applications**

CAMWorks runs as an Add-in within SOLIDWORKS ® or CAMWorks Solids. The following versions of 64-bit CAD applications support *CAMWorks 2022x64*:

- SOLIDWORKS 2022
- SOLIDWORKS 2021
- CAMWorks Solids 2022
- CAMWorks Solids 2021

#### **Hardware Requirements**

RAM	8 GB or more recommended
Video Card	Certified cards and drivers
Processor	Intel or AMD processors with SSE2 support. 64-bit operating system required.
USB port	User may choose to have CAMWorks license on a USB dongle (key). CAMWorks Hardware dongle (key) plugs into the USB port.
Network	Microsoft's Windows Networking and Active Directory network environments.
Install Media	Broadband Internet Connection

#### **Adobe Reader**

The CAMWorks Manuals and other documents are in PDF format. The Adobe Reader or equivalent application is necessary to view, read, navigate, search, and print the *CAMWorks* Manuals.

After *CAMWorks* is installed, you can access the CAMWorks Tutorials by selecting the following path:

<Drive>:\Program Files\CAMWorks2022x64\CAMWorks\_VC141\Lang\English\Manuals
All tutorial documents are listed under Manuals.



# 3. CAMWORKS INSTALLATION INFO

#### Latest CAMWorks Version

The latest version of *CAMWorks 2022* available is the *CAMWorks2022x64-SP2* version. All officially released CAMWorks versions are available for download in the <u>CAMWorks Downloads</u> section under <u>Downloads Area</u> of the CAMWorks website (<a href="http://www.camworks.com">http://www.camworks.com</a>).

# **CAMWorks Setup Program**

The installer for *CAMWorks* application installs the following:

i. CAMWorks Application and System Files

These files are typically installed at the following folder location:

Drive:\Program Files\CAMWorks2022x64

ii. The Help Manuals in Adobe PDF format

#### iii. Data files:

- Technology Database files (TechDB.cwdb, TechDB.mdb)
- API Files
- o Sample part models and assemblies.
- o Example Parts and assemblies
- o EDM Cutting Conditions
- Tutorial post processors. (To obtain <u>customized post processors</u> for your machine tools, contact your CAMWorks Reseller.)

Up on installation, these files are typically copied at the following folder location: Drive:\CAMWorksData\CAMWorks2022x64

# Supplementary Programs in the CAMWorks Installer Package

# Mandatory Software Programs/ Utilities installed along with CAMWorks

When the *CAMWorks* Installation Wizard is run, the following three software programs will always be installed along with the *CAMWorks 2022x64* application:

i. Hardware Dongle License Driver (Sentinel Driver)

This refers the Sentinel Driver essential for CAMWorks to read the Hardware Dongle license. The current version is **Sentinel Protection Installer 7.6.9**  $\blacksquare$ .



#### ii. CAMWorks License Manager

This application is essential for managing the license used for running the *CAMWorks* application. This application can manage both FlexLM Software and Hardware Dongle based licenses.

# Optional Programs available in CAMWorks Installer Package for Installation

When you run the *CAMWorks Installation Wizard*, the options to install the following software programs will be available in its Component Selection page:

#### i. CAMWorks Feed and Speed Library

This Feed/Speed Library has a modifiable database containing over 1.7 million combinations representing over 1100 materials. *CAMWorks* accesses this library to automatically calculate feeds and speeds.

**Note:** From *CAMWorks 2021x64 SP0* version onwards, the updated 64-bit CAMWorks Feed and Speed Library with a SQL based database engine will be installed. This application replaces the 32-bit version with an MS Access based engine that was shipped with previous versions on CAMWorks.

#### ii. CAMWorks Virtual Machine

CAMWorks Virtual Machine is a 3D solid based Machine Simulation application used for accurate verification of material removal and for checking the post processed code that will run on the machine. It is automatically installed/updated along with the CAMWorks installation. To use this application, your CAMWorks license must be configured to run this application.

**Note:** In case your CAMWorks License is not configured to run the CAMWorks Virtual Machine application, you can uninstall this application from the Windows Control Panel.

#### iii. ShopFloor Document Manager

The ShopFloor Document Manager is a freeware standalone application that enables the view the information available within ShopFloor Files published using the CAMWorks application. Its primary function is to serve as an easy-to-use CAM collaboration tool between CAM programmers and Machinists on the Machine ShopFloor.

**Note:** The option to install this application is not available in the CAMWorks Installation Wizard as this application is usually used by machinists (and not CAM programmers). To install this application, you need to manually run the ShopFloorDocumentManager.exe file for installing this application from the ShopFloorDocumentManager folder of the CAMWorks Installer Package.



# 4. Installing CAMWorks 2022x64

# **Procuring CAMWorks Installer Package**

If you are a first-time user of CAMWorks, then register yourself on the CAMWorks website and create your Login ID as explained in the section: Registering on the CAMWorks website in Chapter 1 of this manual. Follow the steps given in Appendix A of this manual to download the zip package containing CAMWorks Installation files.

## **Installation Modes**

CAMWorks and associated applications available within the CAMWorks Installer Package can be installed using any one of the two installation modes.

#### **Manual Installation Mode**

Manual installation mode is recommended if you have a single-user license (viz, Node-locked (Standalone) or Hardware Dongle license). In this mode, the installation of CAMWorks and associated applications is performed by running the CAMWorks Installation Wizard. (This Wizard is launched by running the CAMWorks installer exe file present in the CAMWorks Installer Package. The details on how to perform manual installation of CAMWorks and associated applications is explained in the next section of this chapter: Running the CAMWorks 2022x64 Installation Wizard.

#### Silent Installation Mode

The CAMWorks silent installation mode is recommended if you have purchased a multiuser-license of the CAMWorks application (viz. *Floating Network*). Such a license necessitates the installing of CAMWorks on multiple Windows machines. Manually installing CAMWorks on all these machines by running the *CAMWorks Installation Wizard* can prove to be cumbersome. Additionally, every time a new CAMWorks Service Pack is released, the CAMWorks installation on all those machines will require individual upgrading. This issue can easily be addressed by using the **silent installation mode** for CAMWorks. In silent mode, the installation of CAMWorks and associated applications can be performed by the Network Administrator on multiple Window machines using batch files and/or Command Line arguments.

For details on silent installation of CAMWorks and associated programs, refer Appendix B: Silent Installation of CAMWorks & Associated Programs.

# Running the CAMWorks 2022x64 Installation Wizard

Given below are the steps to be followed to install CAMWorks and its <u>supplementary programs</u> using the *CAMWorks Installation Wizard*. Follow the simple instructions given in the *Installation Wizard* to complete the installation process of



the CAMWorks components.

- 1. Ensure that the system meets the <u>System Requirements</u> on the machines on which you intend to run CAMWorks.
- 2. If you have any version of *CAMWorks* application and/or the *Technology Database App* currently running on the system, then close these applications. The CAMWorks Installation Wizard will not run unless these applications are closed.

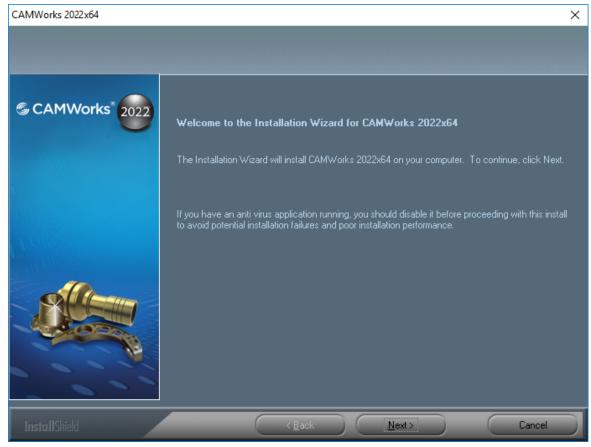
#### Note:

- If you have installed any previous version of *CAMWorks 2022* (for example: *CAMWorks 2022 SP1*) on your system, then its installation files will be overwritten. Ensure that this application is closed before you install the new version of CAMWorks.
- If any previous annual version of CAMWorks (for example: *CAMWorks* 2021 SPX) is installed on your system, it will not be affected by the installation of a newer annual version (*CAMWorks* 2022 in this case) as the newer annual version will be installed as a separate application.
- 3. Unzip the downloaded CAMWorks Installer Package and copy it to a drive on the system.
- 4. Open the unzipped *CAMWorks Installer Package* folder and run the *CAMWorks* 2022 installer ( CAMWorks2022x64\_Setup-XXX.exe ).

#### Note:

- For a hassle-free installation, it is recommended that you copy the whole unzipped Installation Package folder to the local machine.
- Do not use mapped drives to launch the CAMWorks installer.
- 5. When the Installation Wizard is displayed, click the Next button.

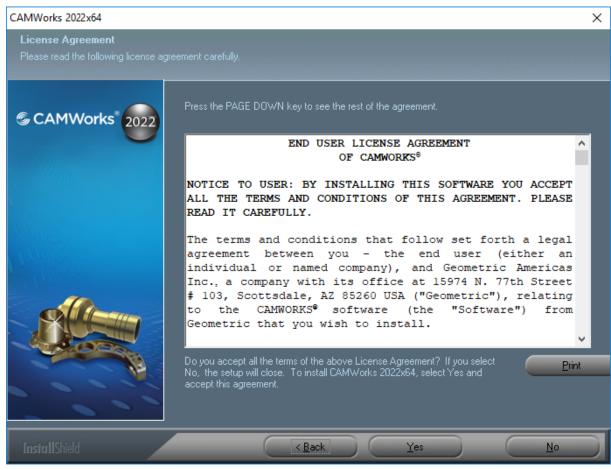




**Welcome Screen of CAMWorks installation Wizard** 

6. The *Installation Wizard* will then display the *End User License Agreement* for CAMWorks. Click the *Yes* button to proceed.





End User License Agreement displayed within CAMWorks Installation Wizard

- 7. The Installation Wizard will now display the CAMWorks Feedback Program page. As the name suggests, this page of the Installation Wizard displays information on the CAMWorks Feedback Program. This is an initiative from Geometric Americas, Inc. (the developer of the CAMWorks suite of products) whereby you can opt to give feedback on your CAMWorks usage pattern.
  - To opt in or opt out of this feedback initiative, check/uncheck the corresponding checkbox labelled *Opt in to participate in CAMWorks Feedback Program* at the bottom of this page and then click the *Next* button.





**CAMWorks Feedback Program Page in CAMWorks Installation Wizard** 

- 8. The *Installation Wizard* will now display the *Component Selection* page. This page provides the following information and options:
  - The mandatory software programs that will be installed by the *Installation Wizard*

(The mandatory programs cannot be deselected from installation. The ticks placed in the corresponding checkboxes are read-only.)

# Note (Applicable only when upgrading the CAMWorks Installation on a License Server):

If the CAMWorks Installation Wizard is run on a CAMWorks License Server, whether the checkbox option for CAMWorks License Manager program will be checked or unchecked will depend on whether the CAMWorks License Service is still running on that License Server. This checkbox option will be checked only once the CAMWorks License Service still running on the License Server is stopped. You must restart the CAMWorks License Service once installation is complete.



- List of CAD applications in which the CAMWorks version being installed can be run as an Add-In
- List of the optional software programs that will be installed by the *Installation Wizard* (if selected for installation by placing a check in the corresponding checkboxes)
- The hard disk space required to install each listed software program
- Total hard disk space required to install the selected software programs



**Component Selection Page of the CAMWorks Installation Wizard** 

In the *Optional Components* group box, select the programs that you wish to install. Once done, click on the *Next* button.

9. The *Installation Wizard* will now display the *Language Selection* page. The *English* language version of *CAMWorks* will always be installed. Select the other languages in which you wish to view the *CAMWorks* user interface by placing a check in the corresponding language option check boxes and click *Next*.

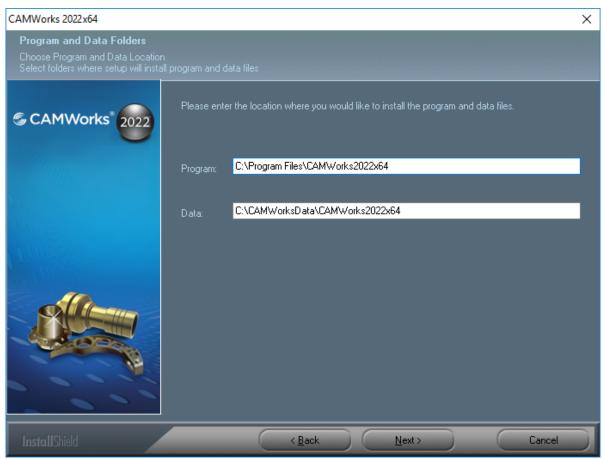




Language Selection page of the CAMWorks Installation Wizard

10. The *Installation Wizard* will prompt you set the location for the CAMWorks installation files and data files. Default locations will be displayed within the *Program and Data Folders* page of the *CAMWorks Installation Wizard*.





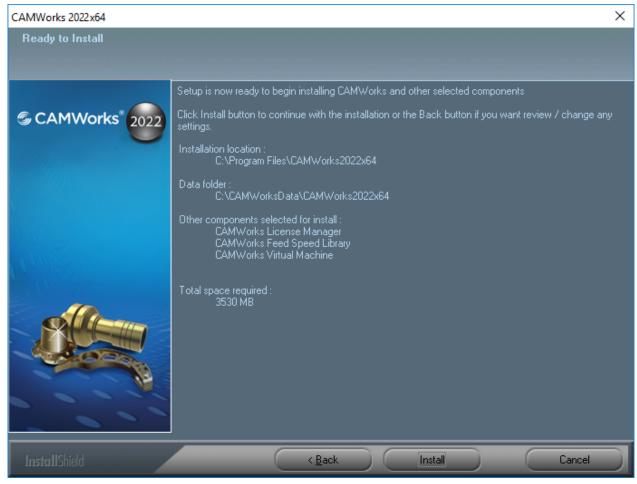
Set Folder locations for CAMWorks Installation Files and Data files

You can either retain these default locations or change the folder locations for these files. Click the *Next* button to proceed.

Note: The *Program and Data Folders* Page in the Installation Wizard will not be displayed if you are upgrading a CAMWorks annual release to a newer Service Pack as the files in the previously set locations will be overwritten.

11. The Wizard will now display the **Ready to Install** page. This page provides information on the location where the files will be installed/copied, the language versions (other than English) in which CAMWorks 2022x64 will be installed, the software programs that will be installed and total disk space required to install those programs. Click on the **Install** button.





Ready to Install page of the CAMWorks Installation Wizard

- 12. The *Installation Wizard* will commence the installation process. Once *CAMWorks2022x64* is installed, it will begin installing the other software components that were selected for installation.
- 13. During the installation process, the following software applications will always be installed by the *CAMWorks Installation Wizard*:
  - Sentinel Driver
  - CAMWorks License Manager
- 14. The following software programs will be installed only if they were selected for installation in the <u>Component Selection page</u> of the *CAMWorks Installation Wizard*:
  - Feed and Speed Library
     ShopFloor Document Manager
  - CAMWorks Virtual Machine
- 15. If the <u>Feed and Speed Library</u> was selected for installation in the <u>Component Selection page</u> of the *CAMWorks Installation Wizard*, then a separate *Installation*



Wizard for installing the Feed and Speed Library will be launched. Follow the simple steps given within this Installation Wizard to complete the installation process. Once completed, the user interface will revert to CAMWorks 2022x64 Installation Wizard.

16. Once the installation is complete, the *Installation Wizard* will display the page indicating successful installation of *CAMWorks*. This page provides options to view the *CAMWorks ReadMe* file and *Enable performance feedback*. Place a check in the corresponding checkboxes for these options to enable the settings. Click the *Finish* button to exit the *Wizard*.



Click 'Finish' button once installation is complete to exit the CAMWorks Installation
Wizard

If you have checked the option to view the *ReadMe* file, this document will be displayed once the *Installation Wizard* closes.

17. If you purchased a floating (multi-user) license, then repeat above steps on all the systems on which you intend to run the *CAMWorks* application.



# 5. IMPORTANT SETTINGS AFTER CAMWORKS INSTALLATION

# **Activating the CAMWorks License**

The CAMWorks application requires a valid license for running. Depending on your requirements, you can purchase a standalone (for single user) or floating network (for multiple users) license from your CAMWorks Reseller.

Once the CAMWorks application is installed for the first time, the next step is to activate the license. License Activation is covered in the **CAMWorks\_License\_Activation\_Guide.pdf** document. This document is present in the **CAMWorks Installer Package**. After installing CAMWorks, you can also access this document <Drive>:\Program Files\CAMWorks2022x64\

CAMWorks\_VC141\Lang\English\Manuals.

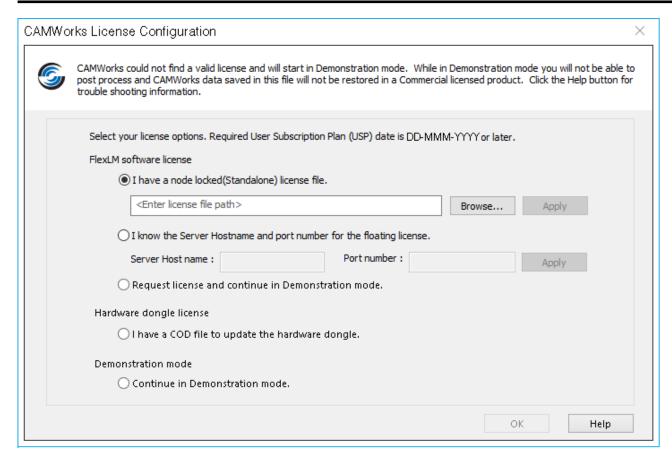
Based on the license type that you have purchased, read the applicable section of this document to learn how to activate your *CAMWorks* license.

#### Note:

The license settings for CAMWorks will be retained when you upgrade your existing CAMWorks installation. You need to reset your CAMWorks license settings only when your current license or *Update Support Plan* expires.

In case you have not activated the license or if valid license is not available, then the following dialog box will be displayed when you <u>launch CAMWorks as an Add-In within CAMWorks Solids/ SOLIDWORKS</u>.





**CAMWorks License Configuration Dialog Box** 

Use this form to either request a license or to configure a license. Refer to the *License Activation Guide* for details.

# **Upgrading Multiple Versions of CAMWorks**

#### **Annual CAMWorks Releases and Service Packs**

Major annual CAMWorks versions (for example: *CAMWorks 2018, CAMWorks 2019, CAMWorks 2020, etc.*) are released periodically. Service Pack upgrades for these major annual versions too are subsequently released. (For example: *CAMWorks 2021 SP0, CAMWorks 2021 SP1, CAMWorks 2021 SP2* etc.)

Before you install/upgrade a newer version of CAMWorks and associated applications, it is important to understand the how the installation/ upgradation process overwrites/retains the annual versions/service packs.

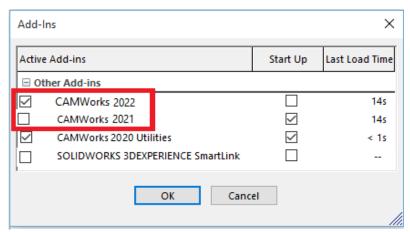
• If you have installed a new annual *CAMWorks version* when a previous annual version is already present on your system, then the new version will be installed as a fresh installation. Older annual versions of *CAMWorks* cannot be upgraded to the newer versions. Only service packs of an annual version can be upgraded.



#### **Example 1:**

If you have *CAMWorks 2021 SPX* installed on a Windows machine and proceed to install *CAMWorks 2022 SP1*, then *CAMWorks 2022 SP1* will be installed as a separate application. No installation files associated with *CAMWorks 2021 SPX* will be overwritten. You cannot upgrade *CAMWorks 2021* to *CAMWorks 2022*.

When you launch CAMWORKS Solids/ SOLIDWORKS CAM and view the Add-Ins dialog box, the annual CAMWorks versions currently installed will be listed separately. Select the desired CAMWorks version by placing a check in the checkbox for that version in the SOLIDWORKS/ CAMWorks Solids Add-Ins dialog box.



CAMWorks Annual Releases listed separately in Add-Ins of SOLIDWORKS/ CAMWorks Solids

 If you have a CAMWorks annual version installed on a Windows machine, then you can upgrade it to newer Service Packs released for that specific annual version. Existing files of the current CAMWorks installation will be overwritten.

You can have multiple major annual versions of CAMWorks installed on one machine, but you can have only one Service Pack of a major annual CAMWorks version installed at one time.

#### Example 2:

If you have *CAMWorks 2021 SPX* installed on a Windows machine and proceed to install *CAMWorks 2021 SPX*, then existing installation files associated with *CAMWorks 2021 SPX* will be overwritten with *CAMWorks 2021 SPX* files. This upgraded CAMWorks version can be further upgraded to a newer Service Pack when the Service Pack becomes available.



### Silent/ Manual Mode for Upgrading CAMWorks to a Newer Service Pack

As explained in the previous section, once any annual CAMWorks version is installed, it can be upgraded to higher service packs when the Service Packs are made available.

When you install any CAMWorks annual version and applications on a Windows system for the first time, you can choose to either install it <u>silently</u> (using batch scripts/files or command line arguments) or <u>manually</u> (by running the *Installation Wizard*). Upgrading of installed CAMWorks versions to newer Service Packs too are to be performed either silently or manually.

Choose the <u>silent/manual</u> mode of installation/ upgradation after taking into consideration the following factors:

- <u>Manual mode</u> of installation/upgradation is recommended if you have a single-user license (viz, *Node-locked (Standalone)* or *Hardware Dongle* license).
- <u>Silent mode</u> of installation/upgradation is recommended if you have purchased a multiuser-license of the CAMWorks application (viz. *Floating Network*).

#### Note:

CAMWorks versions installed via <u>silent mode</u> can be upgraded either via <u>manual mode</u> or <u>silent mode</u>. Similarly, <u>upgradation of CAMWorks versions</u> that were installed <u>manually</u> can be done via <u>manual mode</u> or <u>silent mode</u>.

#### **Manual Mode of Upgrading CAMWorks and Associated Programs**

The process of manually upgrading an installed CAMWorks version is same as the <u>manual installation process of running the CAMWorks Installation Wizard</u> as explained in <u>Chapter 4</u> of this document.

#### **Silent Mode of Upgrading CAMWorks and Associated Programs**

Irrespective of whether the first-time installation of an annual CAMWorks version and associated applications was done via <u>silent</u> or <u>manual</u> mode, if desired, all subsequent upgrades to newer service packs can be performed silently.

For details on how to perform silent upgradation of CAMWorks and associated programs, refer the following sections in <u>Appendix B</u>:

- Command for Simple Silent Installation/Upgradation of CAMWorks
- Syntax & Illustrative Example for CAMWorks Silent Installation/ Upgradation
- Command to Silently Install/Upgrade CAMWorks Virtual Machine
- Command to Silently Install/Upgrade CAMWorks License Manager Program
- Command to Silently Install/Upgrade CAMWorks Feed & Speed Library



# Launching CAMWorks as an Add-In within the CAD Application

CAMWorks is fully integrated with SOLIDWORKS/CAMWorks Solids and can be loaded as an Add-In within this environment when selected.

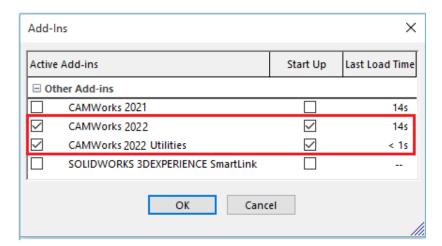
- After you install CAMWorks 2022, activate the CAMWorks License in case it is not already activated. Refer the section <u>Activate the CAMWorks license</u> of this manual for details.
- 2. Launch SOLIDWORKS/CAMWorks Solids. The CAMWorks logo will be displayed to indicate that CAMWorks 2022 has also been launched as an Add-In within the SOLIDWORKS/CAMWorks Solids environment.



Logo displayed when CAMWorks is launched as an Add-In in SOLIDWORKS

- 3. If the CAMWorks logo does not display, it usually indicates that CAMWorks was not launched as an Add-In within SOLIDWORKS/CAMWorks Solids. In such a case:
  - i. Click on the **Options** button on SOLIDWORKS/CAMWorks Solids and select **Add-Ins** from the dropdown menu.
  - ii. The *Add-Ins* dialog box will be displayed. If *CAMWorks 2022* is listed in *Active Add-Ins*, then it indicates that it was successfully installed.





CAMWorks 2022 Release listed in Add-Ins of SOLIDWORKS/ CAMWorks Solids

- iii. Place a check in the checkbox to the left of *CAMWorks 2022* listed in *Active Add-Ins*.
- iv. Click OK to close the dialog box. CAMWorks 2022 will now be launched within the SOLIDWORKS/ CAMWorks Solids environment.
- 4. Open a part file or start a new part document in SOLIDWORKS/CAMWorks Solids.
- 5. The CAMWorks Command Manager will display in the Command Manager area. Tabs for accessing the CAMWorks Machining trees are available in the vertical toolbar on the left.

Note: To learn how to use CAMWorks, we recommend that you go through the exercises given in the CAMWorks tutorials. To open a tutorial, select CAMWorks2022x64\CAMWorks\_VC141\Lang\
English\Manuals and pick the applicable tutorial.

# **Technology Database (TechDB) Settings and Updates**

The **TechDB™** is the intelligence behind the machining automation in CAMWorks. The settings for the TechDB are given in the **TechDB\_Settings\_Guide.pdf** document. This document is present in the *CAMWorks Installer Package*. After installing CAMWorks, you can also access this document <*Drive*>:\*Program Files*\*CAMWorks2022x64*\*CAMWorks\_VC141*\\
Lang\English\Manuals.

# **TechDB Settings (For First-time users)**

The TechDB is available in three database formats viz. SQLite, MS Access and SQL-Server with SQLite being the default format linked to CAMWorks. You can



optionally choose to link CAMWorks to the other database formats. Once CAMWorks is installed, depending on your CAMWorks license type (single-user or floating network) and database format preference, the TechDB settings will need to be customized. Refer the following sections of the **CAMWorks\_TechDB\_Settings\_Guide.pdf** document for specific settings:

- Chapter 2 for relocating the TechDB repository on a network drive
- Chapter 3 for creating a common Technology Database repository for all the client machines after the licensing mechanism of the floating network has been activated
- Chapter 4 for linking CAMWorks to a SQL Server-based TechDB instead of the default SQLite based TechDB
- Appendix C for linking CAMWorks to an MS Access based TechDB instead of the default SQLite based TechDB

### TechDB Settings after upgrading existing CAMWorks Installation

If you have an existing version of CAMWorks and install/upgrade to a newer CAMWorks annual Release or Service Pack, then you will need to import customized TechDB data present in the previous version of CAMWorks into the TechDB associated with the new version. Importing data is critical if you have added/modified the data within the TechDB to suit your facility's machining standards and requirements.

The steps involved in importing depending on the TechDB database format from which the TechDB data will be exported from and imported into. The various chapters and appendices within the *TechDB Settings Guide* document (*CAMWorks\_TechDB\_Settings\_Guide.pdf*) document provide step-by-step instructions for the data importing procedure for the various supported TechDB database formats.

## Prerequisite for using MS Access Based TechDB with CAMWorks

If you link your CAMWorks installation to an MS Access based TechDB (TechDB.mdb) instead of the default SQLite based TechDB (TechDB.cwdb), then you require one the following applications installed on the system on which the MS Access based TechDB (TechDB.mdb) will reside:

## 64-bit MS Access Database Engine

The 64-bit Microsoft Access Database Engine can be <u>downloaded for free from</u> <u>the Microsoft website</u>. All 64-bit MS Access Database Engines from <u>MS Access</u> <u>Database Engine 2010</u> to the latest version are supported.

Note: 32-bit Microsoft Access Database Engines are not supported.



32-bit or 64-bit versions of MS Access Application (Full/Runtime)

Though both 32-bit and 64-bit versions of Microsoft Access are supported, the 64-bit version of MS Access is recommended. All versions of MS Access application from MS Access 2010 SP2 (Full/Runtime) to the latest version (both 32-bit and 64-bit) are supported. The Runtime version can be downloaded for free from the Microsoft website.

Note: Installer for Runtime version of Microsoft Access 2010 SP2 can be downloaded from the Miscellaneous Downloads section in Downloads Area of the CAMWorks website.

# Language Settings for CAMWorks User Interface

**Supported Languages in which the CAMWorks UI is available:** 

The CAMWorks user interface is available in the following languages (provided those language options were selected in the CAMWorks Installation Wizard at the time of installing/upgrading the CAMWorks application):

- English (default)
- French
- Chinese Traditional
- Korean
- Turkish

- German
- Japanese
- Portuguese Brazilian Russian
- Czech
- Italian

- Spanish
- Chinese Simplified
- Polish
- Default Language of CAMWorks UI when launched as an Add-In

When CAMWorks is launched as an Add-In within SOLIDWORKS/CAMWorks Solids, the language in which its user interface will be displayed depends on the language in which the Windows OS is currently being run.

- If the Windows OS is being run in one of the supported languages for CAMWorks, then on launching CAMWorks, its user interface will be displayed in that corresponding language.
  - For example, if the Windows OS is being run in German language, the CAMWorks user interface too will be available in German language by default.
- If the Windows OS is being run in a language which is not one of the supported languages for CAMWorks, then on launching CAMWorks, its user interface will be displayed in the English language.
  - For example, if the Windows OS is being run in Arabic (not a supported language), then on launching CAMWorks, its user interface will be displayed in English.

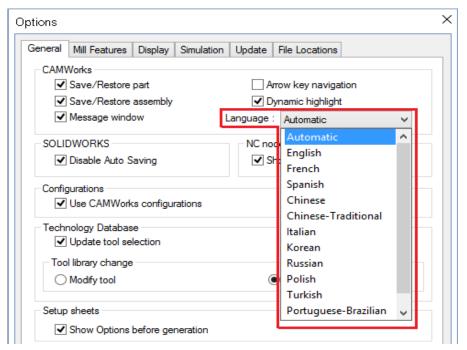


#### Viewing CAMWorks User Interface in a specific Supported Language of Choice

If required, the default language settings of *CAMWorks* can be overridden in order to view its user interface in a specific <u>supported language</u> (provided that <u>language option was selected for installation in the CAMWorks Installation Wizard</u> at the time of installing/upgrading the CAMWorks application).

#### Following are the steps:

- 1. After launching CAMWorks as an Add-In, open a part or assembly file.
- 2. The CAMWorks Command Manager (ribbon bar) will be displayed. Click on the CAMWorks Options command icon on the CAMWorks Command Manager.
- 3. The *Options* dialog box will be displayed. Ensure that the *General* tab of this dialog box is active.
- 4. Within the group box labelled *CAMWorks*, click on the *Language* dropdown list. All supported languages that have been installed will be displayed in this list.



Language options in General Tab of Options Dialog Box

- 5. Select the language in which you wish to view the *CAMWorks* user interface and click the *OK* button of this dialog box.
- 6. Restart the *CAMWorks* application. Its user interface will now be displayed in the supported language option which was selected. Henceforth, every time you launch the *CAMWorks* application as an Add-In, it will continue to display in the selected language and will remain independent of the language of the Windows OS.



Note: If you wish to revert to linking the language of the CAMWorks user interface to the Windows OS, then select the *Automatic* option in the *Language* dropdown list in *General* tab of *Options* dialog box.

# **Customization after CAMWorks Installation**

#### **Customized Post Processors**

When you install *CAMWorks*, post processor files intended for the machining modules of CAMWorks (viz. the Mill, Turn, Mill-Turn and Wire-EDM machining) are also installed. These files are installed in the *Posts* folder inside your *CAMWorks Data* folder.

**Example:** Drive:\CAMWorksData\CAMWorks2022x64\Posts

These example post processors are meant for sample machines and may sometimes not suit your actual machining requirements. In such a case, you need to procure customized post processors to suit your requirements.

Note: Contact your authorized CAMWorks Reseller for more information on obtaining and/or customizing post processors for your machine tools. Additional mill and turn post processor files (.lng and .ctl files) can be installed in any folder with write permissions.

## **Customizing Technology Database**

The *Technology Database* supplied with *CAMWorks* contains data that is considered generally applicable to most machining environments. To gain full advantage of *CAMWorks*, you need to customize the TechDB data and input additional knowledge that represents your expertise and your facility's capabilities.

To understand how to customize the data within the Technology Database, refer the *Technology Database Tutorial*. This PDF document can be accessed from by selecting <Drive>:\Program Files\CAMWorks2022x64\

 $CAMWorks\_VC141\Lang\English\Manuals.$ 

## **Adding EDM Machines and Models**

If you are using the CAMWorks module named *Wire EDM*, then after installing CAMWorks, you can add EDM Post files, machines, and models as per your requirements. These steps are explained in detail in the **Appendix A: Linking EDM Post Files & Adding EDM Machines/Models** section of the *Wire EDM Tutorial manual*. After installing CAMWorks, this manual can be accessed from the Windows *Start* menu by selecting <Drive>:\*Program Files*\*CAMWorks2022x64*\



CAMWorks VC141\Lang\English\Manuals.

# Importing Feed/Speed Data into 64-bit Feed & Speed Library

From CAMWorks 2021x64 SP0 version onwards, the 64-bit CAMWorks Feed and Speed Library with a SQL based database engine will be installed. This application replaces the 32-bit Feed and Speed Library with a MS Access based engine that was shipped with previous versions on CAMWorks. In the technology Database, feed and speed data will be picked from the 64-bit CAMWorks Feed and Speed Library now shipped with CAMWorks. If you had customized feed and speed data in the 32-bit Feed and Speed Library, then you will need to import it into the 64-bit Feed and Speed Library.

For details on how to import the data, refer *Chapter 5: Importing Feed Speed Data into Feed & Speed Library* of the *TechDB Settings Guide*. This PDF document can be accessed from Windows *Start* menu by selecting <Drive>:\*Program Files\CAMWorks2022x64\CAMWorks\_VC141\Lang\English\Manuals\Technology Settings Guide* 

# **Installing Optional Programs**

Several optional programs that work in supplementary capacity to CAMWorks are available on the CAMWorks website. Some of these software programs require a license in order to use them. Refer <a href="Appendix D: Installing Optional Programs">Appendix D: Installing Optional Programs</a> for a list of all such optional software programs along with their description, licensing info and installation info.

# **Uninstalling CAMWorks & Associated Software Utilities**

# **Uninstallation Modes for CAMWorks and Associated Programs**

Similar to the CAMWorks <u>installation modes</u> (<u>silent/manual</u>), the uninstallation of CAMWorks and associated programs too can be performed in silent and manual modes.

### 1. Manual Uninstallation of CAMWorks and Associated Programs

CAMWorks and associated programs can be uninstalled manually using the Add/Remove Programs functionality present in the Windows Control Panel. When you uninstall CAMWorks manually, the Hardware Dongle License Driver utility too will also be automatically uninstalled. Except for this utility, the following CAMWorks utilities/programs must be separately uninstalled using the Add/Remove Programs functionality in the Windows Control Panel:

- CAMWorks License Manager
- CAMWorks Virtual Machine
- Feed and Speed Library



#### 2. Silent Uninstallation of CAMWorks and Associated Programs

For CAMWorks and associated programs, Similar to the <u>silent installation</u> <u>mode</u> the uninstallation of these programs too can be performed in silent mode by using batch scripts/files or command line arguments.

How to perform silent uninstallation of CAMWorks and associated applications in given in the next Appendix (<u>Appendix C: Silent Uninstallation of CAMWorks and Associated Programs</u>) of this document.



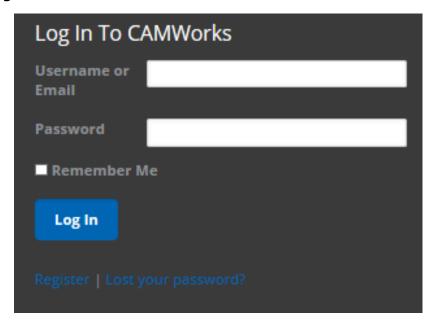
# APPENDIX A: DOWNLOADING CAMWORKS INSTALLER PACKAGE

The *CAMWorks Installer Package* (zip file) which contains installers for the CAMWorks application, associated files and utilities is available in the <u>Downloads</u> Area of the CAMWorks website.

#### Step 1: Download Installer Package from CAMWorks website

Following are the steps to download the CAMWorks Installer Package:

- 1. Open the website <a href="https://www.camworks.com">www.camworks.com</a>.
- 2. Click on the Login link at the top of the webpage.
- 3. Login using the *Username* and *Password*.



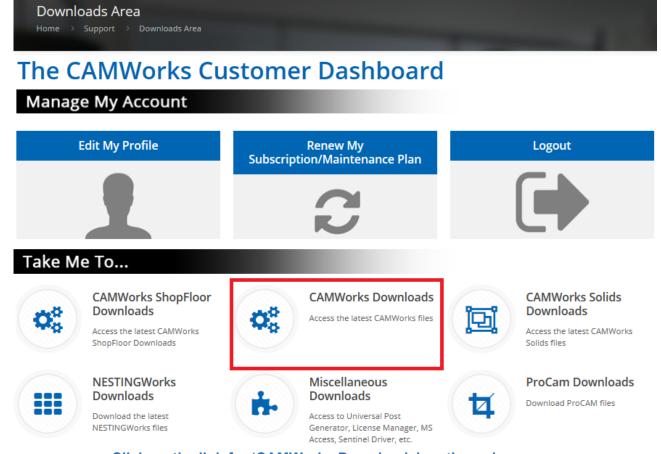
4. After successfully logging in, click on the Downloads Area link.



Click on the Downloads Area link



5. The *Downloads Area* page will be displayed. Click on the link for *CAMWorks Downloads*.



Click on the link for 'CAMWorks Downloads' on the web page

- The <u>CAMWorks Downloads</u> webpage will be displayed. Click on the link for *CAMWorks 2022x64* or any other CAMWorks version that you wish to download.
- 7. Clicking on this hyperlink takes you to the pop-up section of the webpage containing links to download the following files associated with the *CAMWorks 2022* application:
  - i. **64-bit installer package** of CAMWorks in .zip format. This is the *Installer Package* file for CAMWorks.
  - ii. PDF documents:
    - a. What's New
    - b. Release Notes
    - c. Resolved Issues
    - d. CAMWorks Installation Guide



- e. CAMWorks License Activation Guide
- f. CAMWorks TechDB Settings Guide
- q. Resolved Issues
- 8. The CAMWorks Installer Package (.zip file) can be downloaded directly on to the hard drive of the computer system on which you intend to run CAMWorks or it can be downloaded on a Network drive.

## Step 2: Unzip the downloaded CAMWorks Installer Package zip folder

After you download the 64-bit *CAMWorks Installer Package* (which is in .zip file format) from the CAMWorks website, copy it to the system on which you intend to install/upgrade the CAMWorks application and unzip the downloaded zip file.

#### Note:

- For hassle-free installation, it is recommended that you copy the whole unzipped Installer folder to the local machine on which you intend to install CAMWorks.
- Do not use mapped drives to launch the CAMWorks Installer on the local machine.

## **Components of the Unzipped CAMWorks Installer Package**

The unzipped folder is the **CAMWorks Installer Package** and contains the following:

- 1. The CAMWorks folder containing the MSI-based installer for installing the CAMWorks application.
- 2. The CAMWorksFeedSpeedLib folder containing the installer
  - CWFeedSpeedLibraryV11 for CAMWorks Feed and Speed Library.
- 3. The ShopFloorDocumentManager folder containing the exe-based installer ShopFloorDocumentManager.exe for ShopFloorDocument Manager utility.
- 4. The CAMWorksVirtualMachine folder containing the CAMWorksVirtualMachine 2021x64 installer for the CAMWorks Virtual Machine program.

CAMWorks
CAMWorksFeedSpeedLib
CAMWorksVirtualMachine
LicenseManager
Prerequisites
ShopFloorDocumentManager
CAMWorks\_Installation\_Guide.pdf
CAMWorks\_TechDB\_Settings\_Guide.pdf
CAMWorks2022x64\_Setup-SP1.exe
CWAppsInstaller.ini
CWAppsInstaller.xml
License\_Activation\_Guide.pdf

Contents of the Downloaded Zip Folder



- 5. The LicenseManager folder containing the CWLicenseManager\_YYYYDDMM and CheckLicenseManagerService installers for the CAMWorks License Manager program.
- 6. The Prerequisites folder containing pre-requisite components to be installed prior to CAMWorks installation
- 7. The A CAMWorks\_Installation\_Guide.pdf document in PDF format which explains how to install the *CAMWorks* application.
- 8. The ACMWorks\_License\_Activation\_Guide.pdf document in PDF format which explains how to activate/update the CAMWorks License.
- 9. The A CAMWorks\_TechDB\_Settings\_Guide.pdf document in PDF format which explains how to setup the Technology Database.
- 10. The exe file CAMWorks2022x64\_Setup-XXX.exe for launching the *Installation Wizard* for installing the *CAMWorks* application and supplementary programs.
- 11. Configuration settings files ( CWAppsInstaller.ini and CWAppsInstaller.xml).



# APPENDIX B: SILENT INSTALLATION OF CAMWORKS & ASSOCIATED PROGRAMS

### What is a Silent Installation?

A silent installation is the installation of a software program that requires no user interaction. This is typically done by executing actionable batch files. It provides the following benefits:

- Can be performed without disturbing the end user of that machine
- Ideal for installing the same software application(s) on several machines of a network at once
- Ensures that all machines on the network have identical installation settings

Silent installations are usually performed by Network Administrators.

# Need for a Silent Installer for CAMWorks Application

The default installation process for installing/ upgrading CAMWorks is a 'non-silent' or attended installation. You will be prompted (in the form of buttons and checkboxes) by the CAMWorks Installation Wizard to agree to the End User's License Agreement, indicate the folder where the application is to be installed, opt in or out of the CAMWorks Feedback Program, select the languages to be installed, select supplementary applications or utilities to be installed, indicate whether you wish to view the ReadMe file once the installation is complete, etc.

If your facility has multiple user-licenses of the CAMWorks application, then this installation/ upgrading activity needs to be performed on all the Windows machines on which the CAMWorks application is installed. The 'non-silent' mode of installation can prove to be cumbersome. This issue can easily be addressed by using a silent installer for CAMWorks.

From *CAMWorks 2020* version onwards, the functionality for creating a silent install process for the CAMWorks application is supported. As the installer for the CAMWorks is an MSI-based installer, a batch file for the silent installation process can be created. Up on execution, the batch file will perform silent installation without the need for any manual intervention or clicking of any button within the *Installation Wizard*.

This Appendix explains the commands to be used in the Windows Command Prompt for executing silent installation of CAMWorks and associated applications /programs available within the CAMWorks Installer Package.



## Factors to be considered when Installing/Upgrading CAMWorks Silently

### 1. Simple Silent Installation/Upgradation of CAMWorks

A simple silent installation/ upgradation of CAMWorks entails installing/upgrading the CAMWorks version in English language only (and not installing/upgrading any supplementary software programs).

For details on the commands for simple silent installation/upgradation, refer the following topic within this appendix: <u>Command for Simple Silent Installation/Upgradation of CAMWorks</u>.

### 2. Full-fledged Silent Installation/ Upgradation of CAMWorks & Associated Programs

When writing the script for the batch file for silent installation/upgradation of CAMWorks and associated programs, the following settings and options need to be considered.

(Click on the below hyperlinks to jump to the corresponding topic detailing syntaxes and examples for associated commands.)

- Folder location for installation files and data files
- Language Selection Settings
- Opting in or out of CAMWorks Feedback Program
- Enabling or disabling performance feedback
- Selection of the associated CAMWorks applications that are to be installed silently along with CAMWorks
  - CAMWorks Virtual Machine
  - CAMWorks License Manager
  - CAMWorks Feed & Speed Library
  - ShopFloor Document Manager

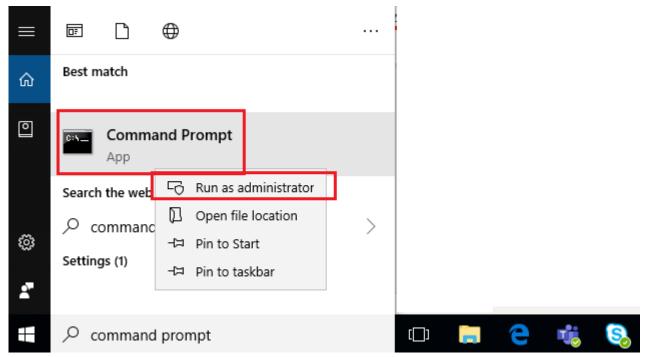
### 3. Windows Command Prompt / File explorer/ Task Scheduler

The batch files you create for silently installing/upgrading CAMWorks and associated programs require Administrator rights. Batch files can be executed using any one of the following options:

- To execute in *Windows Command prompt*, open the Windows command prompt with Administrator rights and run the batch file.
- If you intend to execute the batch file from *Windows File Explorer*, then right-click on the batch file and select *Run as Administrator* from the context menu.



• You can create a scheduled task using *Task Scheduler* functionality of Windows.



**Command to Open Windows Command Prompt in Administrator mode** 

```
Administrator: Command Prompt
Microsoft Windows [Version 10.0.16299.1146]
(c) 2017 Microsoft Corporation. All rights reserved.
C:\WINDOWS\system32>
```

**Command Prompt Window** 

### 4. Unzipped CAMWorks Installer Package

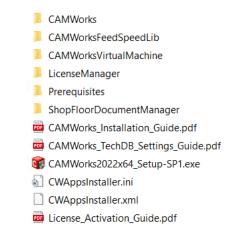
Before executing the commands associated with silent installation or upgradation, the *CAMWorks Installer Package* needs to be unzipped and copied to a drive.

Unzip the <u>downloaded CAMWorks Installer Package</u> and note the folder location. For all examples in this appendix, the folder location of the unzipped CAMWorks Installer Package will be:

### C:\Installers\ CAMWorks2022x64-XXX

(where "XXX" indicates the Service Pack)





**Contents of the Unzipped CAMWorks Installer Package** 

### **Recommendations for Silently Upgrading CAMWorks**

### 1. Recommendation for Silently Upgrading a Manually Installed CAMWorks Version

Both manually installed and silently installed CAMWorks versions can be upgraded to newer Service Packs via silent mode upgradation. However, it is highly recommended that a silent upgradation of CAMWorks be executed only if the installation of the currently installed CAMWorks version too was performed silently.

CAMWorks versions that were installed <u>manually</u> too can be upgraded to newer Service Packs silently as long as utmost care is taken to ensure that the correct installer attributes/properties and associated values are added in the batch files/scripts/ command line arguments for silent upgradation.

### 2. Recommendation for Creating Backups before Silently Upgrading CAMWorks

Upgrading to a newer CAMWorks version overwrites existing installation files and data files. Hence, before upgrading, it is critically important to ensure that backups of customized data files such as the TechDB, post processors, EDM Machines & Models etc. are created.

When upgrading to a newer Service Pack via silent mode, the first line of the command line argument/batch file/script you create for upgrading must contain code for silently uninstalling the currently installed version. Writing this line of code ensures that the necessary backups of data files are created before the CAMWorks version is upgraded.

Within this appendix, in all the illustrative example codes provided for upgrading CAMWorks, the first line of code is for uninstalling CAMWorks. This line of code ensures that the necessary backups are created.

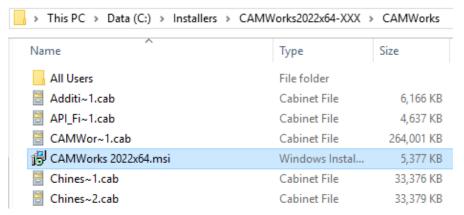


### **Commands for Silent Installation & Upgradation**

### **Interpreting Syntaxes for CAMWorks Silent Installation/ Upgradation**

In all the command line argument syntaxes given in this appendix for installing/upgrading CAMWorks, the interpretation will be as follows:

• Folder\_Path\_to\_CAMWorks\_MSI\_File\_within\_CAMWorks\_Installer\_Package will indicate the folder path to the sub-folder within the CAMWorks Installer Package containing the \*.msi file for installing the CAMWorks application. This sub-folder is named "CAMWorks" and the msi file is named CAMWorks 2022x64.msi.



CAMWorks MSI based installer within 'CAMWorks' folder of the Installation Package

- Folder\_Path\_1 will indicate the folder location where the CAMWorks Installation files are to be located post installation
- Folder\_Path\_2 indicates the folder location where the CAMWorks Data files are to be located post installation
- The installer attribute "ARPSYSTEMCOMPONENT=1" present in the syntax and illustrative examples for CAMWorks silent installation will ensure that the CAMWorks application, once installed, is <u>not included</u> in the list of installed programs in the *Windows Control Panel*. To ensure CAMWorks is listed in the *Add/Remove Programs* interface, omit this attribute from the script.
- The first line of code present in the syntaxes and illustrative examples for CAMWorks silent upgradation will be for uninstalling the currently installed CAMWorks version. This line of code ensures that backups of all customized data files such as TechDB, Post Processors, EDM Machines & Models etc. are created before the upgradation overwrites the original files.



### Interpreting Illustrative Examples for CAMWorks Silent Installation/ Upgradation

For all illustrative examples of command line arguments given in this section for CAMWorks silent installation and upgradation, the following conditions will be applicable:

- The CAMWorks Installer Package will be located at C:\Installers\CAMWorks2022x64-XXX\CAMWorks
- Installation files are to be located in C:\Program Files\CAMWorks2022x64
- Data files are to be located in C:\CAMWorksData\CAMWorks2022x64
- Yellow highlights will indicate space character within the command line argument example

### **Command for Simple Silent Installation/Upgradation of CAMWorks**

The syntaxes and illustrative examples for silently installing/upgrading the CAMWorks version in English version only (and not installing/upgrading any supplementary software programs or utilities) are given below.

### **Syntax for Simple Silent Installation**

```
msiexec /i "Folder_Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" INSTALLDIR="Folder_Path_1"

DATADIR="Folder_Path_2" /qb-!
```

### Illustrative Example for Simple Silent Installation

```
msiexec /i "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\CAMWorks
2022x64.msi"

INSTALLDIR="C:\Program Files\CAMWorks2022x64\"

DATADIR="C:\CAMWorksData\CAMWorks2022x64\" /qb-!
```

### Syntax for Simple Silent Upgradation

```
msiexec_/x_"Folder_Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" /qb-!
msiexec_/i_"Folder_Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" INSTALLDIR="Folder_Path_1"
DATADIR="Folder_Path_2" /qb-!
```



### Illustrative Example for Simple Silent Upgradation

```
msiexec /x "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\CAMWorks 2022x64.msi" /qb-!
msiexec /i "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\CAMWorks 2022x64.msi"
INSTALLDIR="C:\Program Files\CAMWorks2022x64\"
DATADIR="C:\CAMWorksData\CAMWorks2022x64\" /qb-!
```

### **Installer Attributes for Specifying Languages to be Installed**

The CAMWorks user interface is <u>supported in 13 languages</u> other than English. During manual (non-silent) installation, the <u>CAMWorks Installation Wizard</u> allows you select the languages in its <u>Language Selection</u> page. When performing a silent installation, you can specify the languages other than English in which CAMWorks is to be installed. (The English language version is always installed.) This is done by assigning the binary value of "0" or "1" to the corresponding language specific attribute.

- Assigning a value of '0' to a Language attribute indicates that the specific language is not to be installed.
- Assigning a value of '1' to a Language attribute indicates that the specific language is to be installed.

### Language Attribute

Following are the Language attributes corresponding to the 13 supported languages for the CAMWorks application:

Sr. No.	Language	Corresponding Language Attribute
1.	Chinese Simplified	LOCALE_CHINESE
2.	Chinese Traditional	LOCALE_CHINESETRADITIONAL
3.	Czech	LOCALE_CZECH
4.	French	LOCALE_FRENCH
5.	German	LOCALE_GERMAN
6.	Japanese	LOCALE_JAPANESE
7.	Korean	LOCALE_KOREAN
8.	Italian	LOCALE_ITALIAN
9.	Polish	LOCALE_POLISH
10.	Portuguese-Brazilian	LOCALE_PORTUGUESEBRAZILIAN
11.	Russian	LOCALE_RUSSIAN
12.	Spanish	LOCALE_SPANISH
13.	Turkish	LOCALE_TURKISH



For syntax and illustrative example of command line argument for these attributes, refer the following section of this appendix: <u>Syntax & Illustrative</u> <u>Example for CAMWorks Silent Installation/Upgradation</u>.

### Installer Attribute for Specifying whether to Opt In/ Out of the CAMWorks Feedback Program

The CAMWorks Feedback Program is an initiative from Geometric Americas, Inc. (the developer of the CAMWorks suite of products) whereby users opt to give feedback on their CAMWorks usage pattern.

During manual installation, the CAMWorks Installation Wizard allows you opt in/out of the CAMWorks Feedback Program in its CAMWorks Feedback Program page. When performing a silent installation, you can specify whether you wish to opt in or out of the CAMWorks Feedback Program. This is done by assigning "0" "1" value of or to the installer attribute the binary OPTIN CW INFO PROGRAM.

- Assigning a value of '0' to the OPTIN\_CW\_INFO\_PROGRAM attribute indicates that the user wishes to opt in to the *CAMWorks Feedback Program*.
- Assigning a value of '1' to the OPTIN\_CW\_INFO\_PROGRAM indicates that the user wishes to opt out of the *CAMWorks Feedback Program*.

For syntax and illustrative example of how to use this installer attribute, refer the following section of this appendix: Syntax & Illustrative Example for CAMWorks Silent Installation.

### Installer Attribute for Enabling/Disabling CAMWorks Performance Feedback

If desired, you can enable or disable the *CAMWorks Performance Feedback* for your CAMWorks application.

During manual (non-silent) installation, the <u>CAMWorks Installation Wizard</u> allows you enable/disable the option to provide *CAMWorks Performance Feedback* in its <u>Installation Complete</u> page. When performing a silent installation/upgradation, you can specify whether you wish to enable or disable *CAMWorks Performance Feedback*. This is done by assigning the binary value of "0" or "1" to the installer attribute **ENABLEPERFORMANCEFEEDBACK**.

- Assigning a value of '0' to the ENABLEPERFORMANCEFEEDBACK attribute indicates that the user wishes to disable performance feedback.
- Assigning a value of '1' to the ENABLEPERFORMANCEFEEDBACK indicates that the user wishes to enable performance feedback.

For syntax and illustrative example of how to use this attribute, refer the next section of this appendix: Syntax & Illustrative Example for CAMWorks Silent Installation.



### Syntax & Illustrative Example for CAMWorks Silent Installation/ Upgradation

### Syntax of Command Line Argument for CAMWorks Silent Installation/ Upgradation

Suppose you want to install/upgrade CAMWorks with the following settings:

- i. Installation in three additional Languages other than default English (For example: *French*, *German* and *Japanese*)
- ii. Opt in to CAMWorks Feedback program
- iii. Disable CAMWorks Performance Feedback

### Syntax of Command Line Argument for Installing CAMWorks

For installing CAMWorks, the syntax for the Command Line argument will be:

```
msiexec /i "Folder_Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" INSTALLDIR="Folder_Path_1"

DATADIR="Folder_Path_2" LOCALE_LANGUAGE1=1 LOCALE_LANGUAGE2=1

LOCALE_LANGUAGE3=1 OPTIN_CW_INFO_PROGRAM=1

ENABLEPERFORMANCEFEEDBACK=0 /qb-!
```

### **Syntax of Command Line Argument for Upgrading CAMWorks**

For upgrading CAMWorks, the syntax for the Command Line argument will be:

```
msiexec /x "Folder Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" /qb-!
msiexec /i "Folder Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer_Package" INSTALLDIR="Folder_Path_1"

DATADIR="Folder_Path_2" LOCALE_LANGUAGE1=

LOCALE_LANGUAGE2=1 LOCALE_LANGUAGE3=1 OPTIN_CW_INFO_PROGRAM=1

ENABLEPERFORMANCEFEEDBACK=0 /qb-!
```

### Where:

- Language1, Language2 and Language3 indicate the names of the languages to be installed.
- OPTIN\_CW\_INFO\_PROGRAM is the attribute to which a binary number is assigned to indicate whether user wishes to opt in/out of the CAMWorks Feedback Program.
- ENABLEPERFORMANCEFEEDBACK is the attribute to which a binary number is assigned to indicate that the user wishes to enable or disable performance feedback.



Illustrative Example for CAMWorks Silent Installation/ Upgradation

### Illustrative Example for CAMWorks Silent Installation

```
msiexec /i "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\
CAMWorks 2022x64.msi" INSTALLDIR="C:\Program Files\CAMWorks2022x64\" DATADIR="C:\CAMWorksData\CAMWorks2022x64\" LOCALE GERMAN=1 LOCALE FRENCH=1 LOCALE JAPANESE=1 OPTIN CW INFO PROGRAM=1 ENABLEPERFORMANCEFEEDBACK=1 /qb-!
```

### Illustrative Example for CAMWorks Silent Upgradation

```
msiexec /x "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\
CAMWorks 2022x64.msi" /qb-!
msiexec /i "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\
CAMWorks 2022x64.msi"
INSTALLDIR="C:\Program Files\CAMWorks2022x64\"
DATADIR="C:\CAMWorksData\CAMWorks2022x64\" LOCALE_GERMAN=1
LOCALE_FRENCH=1 LOCALE_JAPANESE=1 OPTIN_CW_INFO_PROGRAM=1
ENABLEPERFORMANCEFEEDBACK=1 /qb-!
```

### Command to Silently Install/Upgrade CAMWorks Virtual Machine

### **Syntax for CAMWorks Virtual Machine Silent Installation/Upgradation**

If you want to silently install/upgrade the <u>CAMWorks Virtual Machine</u> application, then the syntax for the command line argument will be:

```
"Folder_Path_to_CAMWorksVirtualMachine_exe_File_in_CAMWorks_Installer

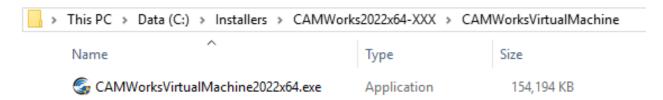
_Package" /s /v"INSTALLDIR=\"Folder_Path_1"

CAMWORKSDATAPATH=\"Folder_Path_2" SOURCEPRODUCT=solidworks /qb!

Where:
```

- Folder\_Path\_to\_CAMWorksVirtualMachine\_exe\_File\_within\_CAMWorks\_Installer\_Package indicates the folder path to the CAMWorksVirtualMachine sub-folder within the CAMWorks Installer Package containing the CAMWorksVirtualMachine2022x64.exe file for installing/upgrading the CAMWorks Virtual Machine application.
- Folder\_Path\_1 indicates the folder location where the CAMWorks Virtual Machine Installation files are to be located post installation
- Folder\_Path\_2 indicates the folder location where the CAMWorks Virtual Machine Data files are to be located post installation





CAMWorks Virtual Machine Exe based installer within 'CAMWorksVirtualMachine' folder of the Installer Package

### Illustrative Example for CAMWorks Virtual Machine Silent Installation/ Upgradation

Given here is an illustrative example of an actual command line argument for *CAMWorks Virtual Machine* installation/upgradation based on syntax given in the previous paragraph.

### **Conditions for Silent Installation/Upgradation**

Consider a *CAMWorks Virtual Machine* silent installation/upgradation for which the following conditions are applicable:

- The Installer Package is located in C:\Installers\CAMWorks2022x64-XXX
- The Installation files are to be located in C:\Program Files\CAMWorksVirtualMachine2022x64
- The Data files are to be located in C:\CAMWorksData\CAMWorks2022x64

### **Command Line Argument**

The command line argument to be input for executing *CAMWorks Virtual Machine* silent installation/upgradation subject to these conditions will be:

```
"C:\Installers\CAMWorks2022x64-XXX\CAMWorksVirtualMachine\
CAMWorksVirtualMachine2022x64.exe" /s /v"INSTALLDIR=\"C:\Program
Files\CAMWorksVirtualMachine2022x64\"
CAMWORKSDATAPATH=\"C:\CAMWorksData\CAMWorks2022x64\"
SOURCEPRODUCT=solidworks /qb!
```

## Command to Silently Install/Upgrade CAMWorks License Manager Program

**Syntax for CAMWorks License Manager Silent Installation/Upgradation** 

If you want to silently install/upgrade the <u>CAMWorks License Manager utility</u> <u>program</u>, then the syntax for the command line argument will be:

```
"Folder_Path_to_CAMWorksLicenseManager_exe_File_in_CAMWorks_Installer
```



```
_Package" -s -f1"Folder_Path_to_Setup.iss.install_for_CAMWorks_
License Manager in CAMWorks Installer Package"
```

#### Where:

- Folder\_Path\_to\_CAMWorksLicenseManager\_exe\_File\_in\_CAMWorks\_Installer\_Package
  indicates the folder path to the sub-folder within the CAMWorks Installer
  Package containing the \*.exe file for installing/upgrading the CAMWorks
  License Manager application. Within the CAMWorks Installer Package:
  - This sub-folder is named "LicenseManager"
  - The exe file is named *CWLicenseManagerSetup\_YYYYDDMM.exe*(Note that the date appended as a suffix to the exe file name is subject to change with each CAMWorks Version)



\*.exe and \*.iss Files within 'LicenseManager' folder of the CAMWorks Installer Package

• Folder\_Path\_to\_Setup.iss.install\_File\_for\_License\_Manager\_in\_CAMWorks\_Installer\_Package indicates the folder path to the Setup.iss.install file within LicenseManager subfolder of CAMWorks Installer Package for installing/upgrading the CAMWorks License Manager utility program.

### Illustrative Example for CAMWorks License Manager Silent Installation/ Upgradation

If the CAMWorks Installer Package is located at "C:\Installers\ CAMWorks2022x64-XXX", then the command line argument for installing/upgrading the CAMWorks License Manager based on syntax given in previous paragraph will be:

```
"C:\Installers \CAMWorks2022x64-XXX\LicenseManager\
CWLicenseManagerSetup_YYYYDDMM.exe"_-s_-f1"C:\Installers
\CAMWorks2022x64-XXX\LicenseManager\setup.iss.install"
```



### Command to Silently Install/Upgrade CAMWorks Feed & Speed Library

### Syntax for CAMWorks Feed & Speed Silent Installation/Upgradation

If you want to silently install/upgrade the <u>CAMWorks Feed & Speed Library</u> application, then the syntax for the command line argument will be:

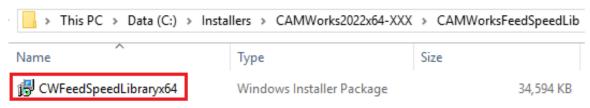
```
msiexec /i "Folder_Path_to_CAMWorksFeedSpeedLibrary_MSI_File_in_
CAMWorks_Installer_Package" INSTALLDIR="Folder_Path_1" /qb-!
```

### Where:

Folder\_Path\_to\_CAMWorksFeedSpeedLibrary\_MSI\_File\_in\_CAMWorks\_Installer\_Package
indicates the folder path to the sub-folder within the CAMWorks Installer
Package containing the Windows Installer Package (\*.MSI) file for
installing/upgrading the CAMWorks Feed & Speed Library application.

Within the CAMWorks Installer Package:

- This sub-folder is named "CAMWorksFeedSpeedLib"
- The Windows Installer Package file is named **CWFeedSpeedLibraryx64.msi**



\*.MSI File within 'CAMWorksFeedSpeedLib' folder of the CAMWorks Installer Package

• Folder\_Path\_1 indicates the folder location where the CAMWorks Feed & Speed Library Installation files are to be located post installation.

### Illustrative Example for Feed & Speed Library Silent Installation/Upgradation

If the CAMWorks Installer Package is located at "C:\Installers\CAMWorks2022x64-XXX", then the command line argument for installing/upgrading the CAMWorks Feed & Speed Library based on syntax given in previous paragraph will be:

```
msiexec /i "C:\Installers\CAMWorks2022x64-XXX\
CAMWorksFeedSpeedLib\CWFeedSpeedLibraryx64.msi" INSTALLDIR="C:\
Program Files\CAMWorksFeedSpeedLibrary\" /qb-!
```

Based on the Information given in this appendix, you can create batch files/scripts for executing silent Installation of CAMWorks and associated programs on the Windows machines on the Floating Network.



# APPENDIX C: SILENT UNINSTALLATION OF CAMWORKS AND ASSOCIATED PROGRAMS

In <u>Appendix B</u> of this document, how to perform silent installation of CAMWorks and associated programs was discussed. In this appendix, how to perform silent uninstallation of CAMWorks and associated programs will be explained in detail.

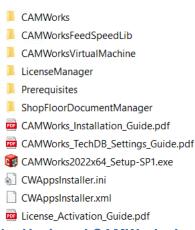
#### Note:

CAMWorks and its associated applications can be uninstalled silently irrespective of whether they were originally installed manually or silently.

## **Pre-requisites for Silently Uninstalling CAMWorks and associated Programs**

i. Folder Location of CAMWorks Installation Package

Commands for setting up the CAMWorks silent uninstallation process need to first be executed within the *Windows Command Prompt*. Before executing the commands associated with silent uninstallation, note the folder location of the *CAMWorks Installation Package*. (This is the folder containing the \*.exe and \*.msi files used for installing CAMWorks and associated programs on the Windows systems.)



**Contents of the Unzipped CAMWorks Installer Package** 

For illustrative examples shown in this appendix, the folder location of the unzipped *CAMWorks Installation Package* will be:

C:\Installers\ CAMWorks2022x64-XXX

(where "XXX" indicates the Service Pack)

ii. Running the Command Prompt with Admin Privileges



All the commands for silently uninstalling CAMWorks and/or associated components must be run in the Windows Command Prompt with Admin privileges.

```
Administrator Command Prompt

Microsoft Windows [Version 10.0.16299.1146]

(c) 2017 Microsoft Corporation. All rights reserved.

C:\WINDOWS\system32>
```

**Command Prompt Window** 

### **Important Note:**

For all the syntaxes and illustrative examples in this appendix for Command Line arguments in the *Windows Command Prompt*, the space character will be indicated using yellow highlights.

### **Command to Silently Uninstall CAMWorks**

If you want to silently uninstall the CAMWorks application, then the syntax for the command line argument that needs to be input is as follows:

```
msiexec /x "Folder_Path_to_CAMWorks_MSI_File_within_CAMWorks_
Installer Package" /qb-!
```

#### Where:

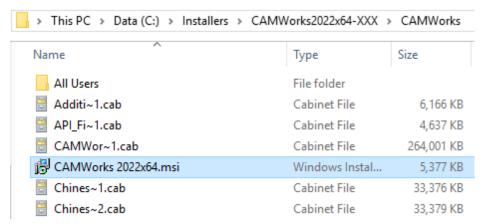
• Folder\_Path\_to\_CAMWorks\_MSI\_File\_within\_CAMWorks\_Installer\_Package indicates the folder path to the sub-folder within the CAMWorks Installer Package containing the \*.msi file for installing the CAMWorks application. Within the CAMWorks Installer Package, this sub-folder is named "CAMWorks" and the msi file is named CAMWorks 2022x64.msi.

### **Illustrative Example**

For example, if the *CAMWorks Installer Package* is located at "C:\Installers\ CAMWorks2022x64-XXX", then the command line argument for uninstalling *CAMWorks* based on syntax given in previous paragraph will be:

```
msiexec /x "C:\Installers\CAMWorks2022x64-XXX\CAMWorks\
CAMWorks 2022x64.msi" /qb-!
```





CAMWorks MSI based installer within 'CAMWorks' folder of the Installer Package

### **Command to Silently Uninstall CAMWorks Virtual Machine**

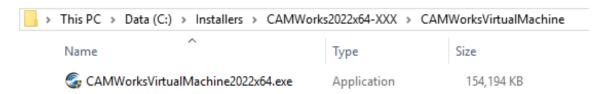
If you want to silently uninstall the <u>CAMWorks Virtual Machine</u> application, then the syntax for the command line argument that needs to be input is as follows:

```
"Folder_Path_to_CAMWorksVirtualMachine_exe_File_in_CAMWorks_Installer
Package" /x /s /v"/qn"
```

#### Where:

Folder\_Path\_to\_CAMWorksVirtualMachine\_exe\_File\_in\_CAMWorks\_Installer\_Package indicates the folder path to the sub-folder within the CAMWorks Installer Package containing the \*.exe file for installing the CAMWorks Virtual Machine application. Within the CAMWorks Installer Package:

- This sub-folder is named "CAMWorksVirtualMachine"
- The exe file is named CAMWorksVirtualMachine2022x64.exe



CAMWorks Virtual Machine Exe based installer within 'CAMWorksVirtualMachine' folder of the Installer Package

#### **Illustrative Example**

For example, if the *CAMWorks Installer Package* is located at "C:\Installers\ CAMWorks2022x64-XXX", then the command line argument for uninstalling *CAMWorksVirtualMachine* based on syntax given in previous paragraph will be:



"C:\Installers\CAMWorks2022x64-XXX\CAMWorksVirtualMachine\CAMWorksVirtualMachine2022x64.exe"/x /s /v"/qn"

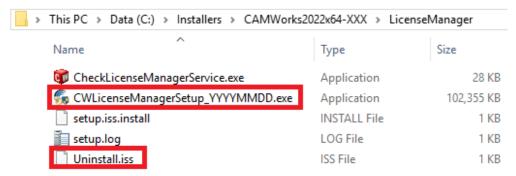
### Command to Silently Uninstall CAMWorks License Manager Program

To silently uninstall the <u>CAMWorks License Manager utility program</u>, the syntax for the command line argument that needs to be input is as follows:

```
"Folder_Path_to_CAMWorksLicenseManager_exe_File_in_CAMWorks_Installer
_Package"_/uninstall_/s_/f1"Folder_Path_to_Uninstall.iss_File_for_
License Manager in CAMWorks Installer Package"
```

### Where:

- Folder\_Path\_to\_CAMWorksLicenseManager\_exe\_File\_in\_CAMWorks\_Installer\_Package indicates the folder path to the sub-folder within the CAMWorks Installer Package containing the \*.exe file for installing the CAMWorks License Manager application. Within the CAMWorks Installer Package:
  - This sub-folder is named "LicenseManager"
  - The exe file is named *CWLicenseManagerSetup\_YYYYDDMM.exe* (Note that the date appended as a suffix to the exe file name may be subject to change with each new CAMWorks Version)
- Folder\_Path\_to\_Uninstall.iss\_File\_for\_License\_Manager\_in\_CAMWorks\_Installer\_Package
  indicates the folder path to the Uninstall.iss file within LicenseManager subfolder of CAMWorks Installer Package for uninstalling the CAMWorks License
  Manager utility program.



<sup>\*.</sup>exe and \*.iss Files within 'LicenseManager' folder of the CAMWorks Installer Package

### **Illustrative Example**

If the CAMWorks Installer Package is located at "C:\Installers\ CAMWorks2022x64-XXX", then the command line argument for uninstalling CAMWorks License Manager application based on syntax given in previous paragraph will be:



"C:\Installers \CAMWorks2022x64-XXX\LicenseManager\
CWLicenseManagerSetup\_YYYYDDMM.exe" / uninstall /s /f1"C:\Installers
\CAMWorks2022x64-XXX\LicenseManager\ Uninstall.iss"

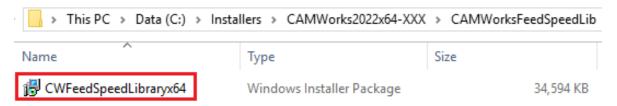
### Command to Silently Uninstall CAMWorks Feed & Speed Library

If you want to silently uninstall <u>CAMWorks Feed & Speed Library</u>, then the syntax for the command line argument that needs to be input is as follows:

```
msiexec /x "Folder_Path_to_CAMWorksFeedSpeedLibrary_MSI_File_in_
CAMWorks_Installer_Package" /qb-!
```

#### Where:

- Folder\_Path\_to\_CAMWorksFeedSpeedLibrary\_MSI\_File\_in\_CAMWorks\_Installer\_Package
  indicates the folder path to the sub-folder within the CAMWorks Installer
  Package containing the Windows Installer Package (\*.MSI) file for installing
  the CAMWorks Feed & Speed Library application. Within the CAMWorks Installer
  Package:
  - This sub-folder is named "CAMWorksFeedSpeedLib"
  - The MSI file is named CWFeedSpeedLibraryx64.msi



\*.MSI Files within 'CAMWorksFeedSpeedLib' folder of the CAMWorks Installer Package

### **Illustrative Example**

If the CAMWorks Installer Package is located at "C:\Installers\ CAMWorks2022x64-XXX", then the command line argument for uninstalling CAMWorks Feed & Speed Library based on syntax given in previous paragraph will be:

```
msiexec /x "C:\Installers\CAMWorks2022x64-XXX\
CAMWorksFeedSpeedLib\CWFeedSpeedLibraryx64.msi" /qb-!
```

Based on the Information given in this appendix, you can create batch files for executing the silent uninstallation process for CAMWorks and associated Programs on Windows machines on the Floating Network.



### **APPENDIX D: INSTALLING OPTIONAL PROGRAMS**

Several optional programs which work in supplementary capacity to CAMWorks are available on the <u>CAMWorks website</u>. Some of these programs require licensing in order to be run.

Given in this section is a list of all such optional software programs along with their description, licensing info and installation info.

### **Universal Post Generator**

CAMWorks uses a post processor to convert information into machine tool specific NC code. Each post processor is designed to generate quality NC code that meets the requirements of the machine control. The *Universal Post Generator* allows you to customize the post processor for both basic and complex code generation requirements.

### **Licensing for Universal Post Generator**

You do not need a separately purchased license to run the *Universal Post Generator*. To install this software, make sure you have CAMWorks installed on your system.

### **Installing Universal Post Generator by downloading Installer**

The *Universal Post Generator* application is provided as an Optional program in the CAMWorks DVD. Optionally, the latest version of *Universal Post Generator* application can be downloaded from the CAMWorks website.

Following are the steps to download and install *Universal Post Generator* from the CAMWorks website:

- 1. Open the website <a href="www.camworks.com">www.camworks.com</a>
- 2. Login using your *Username* and *Password*. In case you don't have them, then <u>register on the CAMWorks website</u> as explained in <u>Chapter 1</u> of this manual.
- 3. When you successfully login, the *Downloads Area* will be displayed. Click on the link for *Miscellaneous Downloads*.
- 4. The *Miscellaneous Files Downloads* webpage is displayed. Click on the hyperlink for *Universal Post Generator* in order download the installer.
- 5. After downloading the installer, run the installer and follow in instructions given in the Installation Wizard to install the program.



### **NESTINGWorks**

NESTINGWorks is an automatic, true-shape nesting program from Geometric Americas, Inc. that easily creates fast and efficient nested layouts. NESTINGWorks uses NestLib®, one of the fastest and most capable automatic true-shape nesting technology engines available in the industry. It is seamlessly integrated within SOLIDWORKS/CAMWorks Solids and allows nesting of flat or 3D solid or sheet metal parts and assemblies. The nested output is a SOLIDWORKS assembly file for each unique sheet layout. NESTINGWorks can be used to create efficient layouts of metal, wood, or composite based materials, producing the maximum number of parts from a single piece of raw material within minutes.

#### Note:

- The NESTINGWorks application is available only in the English Language version.
- The NESTINGWorks application is available only in 64-bit versions.

### **Licensing for NESTINGWorks**

NESTINGWorks cannot be run in the absence of a valid license. Geometric Americas Inc. does not provide any Trail period license or Evaluation license for the NESTINGWorks application. You will have to procure the license named **Nesting** from your authorized Reseller to use the NESTINGWorks application.

### **Installing NESTINGWorks by downloading Installer**

The latest versions of the NESTINGWorks application can be downloaded from the CAMWorks website.

Following are the steps to download and install NESTINGWorks from the CAMWorks website:

- 1. Open the website www.camworks.com
- 2. Login using the *Username* and *Password*. In case you don't have them, then register on the CAMWorks website as explained in Chapter 1 of this document.
- 3. When you successfully login, click on the *Downloads Area* button. The *Downloads Area* will be displayed.
- 4. Click on the link for NESTINGWorks Downloads.
- 5. Click on the appropriate hyperlink to download the NESTINGWorks installer.
- 6. After downloading the installer, run then installer to install the program. Follow the simple steps given in the Installation Program to complete the installation.



### **eDrawings**

eDrawings® is a software application that renders accurate representations of 2D and 3D product designs. It offers unique capabilities like point and click animations that makes it easy to view, interpret and understand 2D and 3D design data.

Being an email-enabled visualization and communication tool, eDrawings significantly eases sharing of product design information and helps in more effective collaboration of everyone involved in product development.

### **Creating eDrawings files**

eDrawings files provide representations of 3D models and 2D drawings created with many of the widely used CAD systems in the industry. These eDrawings files *ePRT*, *eASM*, *eDRW* are generated from CAD parts, assemblies or drawings using the eDrawings Publisher. eDrawings files are almost 95% smaller in size compared to the respective CAD models. These files can be opened and viewed using the eDrawings software application.

Sr. No.	SOLIDWORKS Document	Corresponding eDrawings File generated
1.	2D Drawing (*slddrw)	*.eDRW
2.	3D Part model (*.sldprt)	*.ePRT
3.	3D Assembly (*.sldasm)	*.eASM

### **Versions of eDrawings application**

### eDrawings Viewer

The *eDrawings Viewer* is a free version of the eDrawings application that allows you to view and print eDrawings files.

### • eDrawings Publisher

*eDrawings Publisher* is a free version of the eDrawings application used to generate eDrawings files which anyone can view. Such eDrawings Publishers are available for all major CAD platforms including *SOLIDWORKS/CAMWorks Solids*.

### eDrawings Professional

eDrawings Professional is a paid version of the eDrawings application used to generate eDrawings files which one can view, markup and measure using the application.

### **Licensing For eDrawings**



A valid license is required to run eDrawings application. Your CAMWorks license must be programmed to run the *CW Utilities* module.

### **Installing eDrawing application**

*eDrawings* is provided as an Optional Program in the CAMWorks DVD. Following are the steps to download the eDrawings application:

- 1. Visit the website: <a href="https://www.edrawingsviewer.com">www.edrawingsviewer.com</a>
- 2. Download and install the **eDrawings Viewer**, **eDrawings Publisher** or **eDrawings Professional** as per your requirements.



# TROUBLESHOOTING: POTENTIAL ISSUES WHEN UNINSTALLING CAMWORKS

Given below are potential troubleshooting issues that may occur when manually or silently uninstalling the *CAMWorks2022x64* application in manual mode/silent mode.

### **Troubleshooting 1: CAMWorks Program Files may not be Deleted**

After uninstalling the currently installed *CAMWorks 2022* version, check whether the CAMWorks Program Files present in the *CAMWorks2022x64* folder has been deleted or not. The typical folder location is:

### C:\Program Files\CAMWorks2022x64

In some cases, this CAMWorks Program Files folder (*CAMWorks2022x64*) will not get deleted on performing <u>manual uninstallation</u> if the <u>installation of CAMWorks</u> version was performed silently.

### Solution:

If the folder has not been deleted, then manually delete the *CAMWorks 2022x64* folder. It is safe to do so and will not affect future upgrades to the CAMWorks version. Even if you do not delete this folder, there will not be any issues as the files within this folder will be overwritten by the newly installed version, provided it is installed in the same location.

### **Troubleshooting 2: Multiple Listings of CAMWorks in Control Panel**

If a *CAMWorks 2022x64* version is installed, upgraded or uninstalled multiple times either <u>manually</u> or <u>silently</u>, then in some very rare cases, multiple listings of the *CAMWorks 2022x64* version may be observed in the *Programs & Features* window of the *Control Panel*.

Note that such multiple listings do not affect the functioning of *CAMWorks*.

### Solution:

Users can uninstall the *CAMWorks 2022x64* versions listed in the *Programs & Features* window one at a time to get rid of multiple listings. After all listings are uninstalled, reinstall the latest version of *CAMWorks 2022x64*.