CTC SOFTWARE

A SYMETRI COMPANY

CTC BIM Suites
Installation and Configuration Guide

Includes:

BIM Project Suite™
BIM Manager Suite™
BIM Batch Suite™
BIM Data Suite™ (with Project Activity Logger)
SuperDoor Configurator™
Casework Configurator™

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CTC BIM Suites Overview

IMPORTANT: There are two separate installers available for CTC BIM Suites: 1) the "single user" installer and 2) the "multi-user" installer. Both of these installers will be discussed in this document. The "single user" installer allows you to install and run the software without requiring you to have administrative privileges on the computer, however only the user who ran the installer will see the software available. Other users on the same computer will each have to install the software for themselves. The "multi-user" installer requires administrative privileges to install it on the computer, but then any user who logs into the computer can use the software.

IMPORTANT: All products available from CTC Software are available in "single user" and "multi-user" types, however **you must only use one of these types on any single computer**. You may not, for example, have the multi-user HIVE software installed and the single user CTC BIM Suites software installed on the same computer at the same time.

WARNING: Installing a multi-user installer will remove all single user installs for all users on the workstation. While a user that had the single user version installed will still see it appear in their Apps list, the single user software will get disabled by the multi-user installer.

The BIM products from CTC Software™ offer many utilities for enhancing the productivity of users of Revit® software from Autodesk®. Revit users typically launch these tools from within the Revit software.

These tools are available for purchase in suite packages, and typically each of the suites contains both free tools and paid ("premium") tools. Although written to function correctly with the international community in mind wherever possible, CTC Software products are only tested on English USA versions of Revit running on English USA versions of Windows.

The setups will install the tools for all versions of Revit supported. For example, the "CTC BIM Suites 2026" setup will install the suites for Revit 2026, Revit 2025, Revit 2024, Revit 2023, and Revit 2022.

The installation and configuration of these suites is fairly straightforward. This guide will explain how the installation works, how to set up and configure licensing and how to change the configuration on the Revit workstations after the suite has already been installed.

General Security Requirements Summary

The single user installer **DOES NOT** need to be run by someone who is logged in with administrative privileges on the computer to which the software is being installed. The multi-user installer **DOES** need to be run by someone who is logged in with administrative privileges.

Revit Workstations

In accordance with Autodesk standards for add-ins, during the installation the user does not get to choose where the suites will be installed on their local hard drives.

For the single user installer, the majority of files will be installed to the user's personal "Roaming" folder in the %AppData% environment variable. This includes the add-ins themselves as well as common and support files. Typically these are located under folders such as (or in subfolders within these):

%AppData%\CTC Software
%AppData%\Autodesk\Revit\Addins

For the multi-user installer, the majority of files will be installed to the ProgramData folder in the %ProgramData% environment variable. This includes the add-ins themselves as well as common and support files. Typically these are located under folders such as (or in subfolders within these):

%ProgramData%\CTC Software
%ProgramData%\Autodesk\Revit\Addins

For either installer, where application-wide settings need to be stored such that they are applicable to any users that login to the computer, these will be stored in the *C:\Users\Public* folder, typically somewhere under:

C:\Users\Public\CTC Software

BIM Data Suite Project Activity Logger Service

If using PAL, the TCP port **5058** must be open on all computers and the connections between them.

Special BIM Data Suite Download may be Needed

If you will be using BIM Data Suite to send project snapshot data or Project Activity Logger data to your SQL database server, you will need to download the free server components installer.

You can download the installer from this link.

Upgrading the Software

When upgrading a Revit workstation to a new release, typically manually uninstalling an old version is NOT required. Running the latest setup is all that normally should be needed. It will replace the previous version with the new version.

Licensing

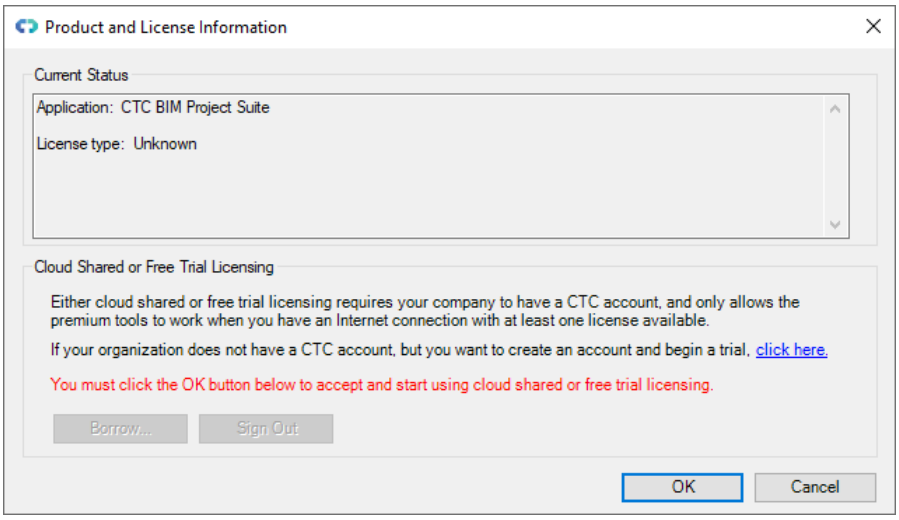
The free tools have light background colors on the ribbon button icons, and have no licensing requirements. The tools with dark background colors on the ribbon button icons do require licensing, but are available for a free trial when the first premium tool within the suite is used the first time.

IMPORTANT: Any licensing errors that occur will be logged to:

C:\Users\Public\CTC Software\License Settings\LicensingErrors.txt

Activating Cloud-Based Licensing

Unless the licensing is pre-configured during installation (see below), the first time a user launches one of the tools that require licensing they will see the *Product and License Information* dialog:

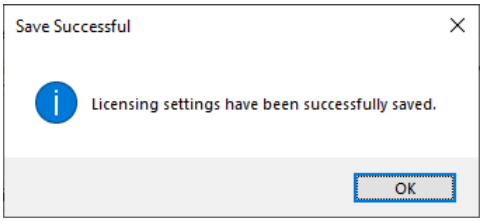


The user guide that comes with the suite contains a section called *License Activation and Management* which discusses how the licensing works for the user, including the use of this dialog (also discussed below).

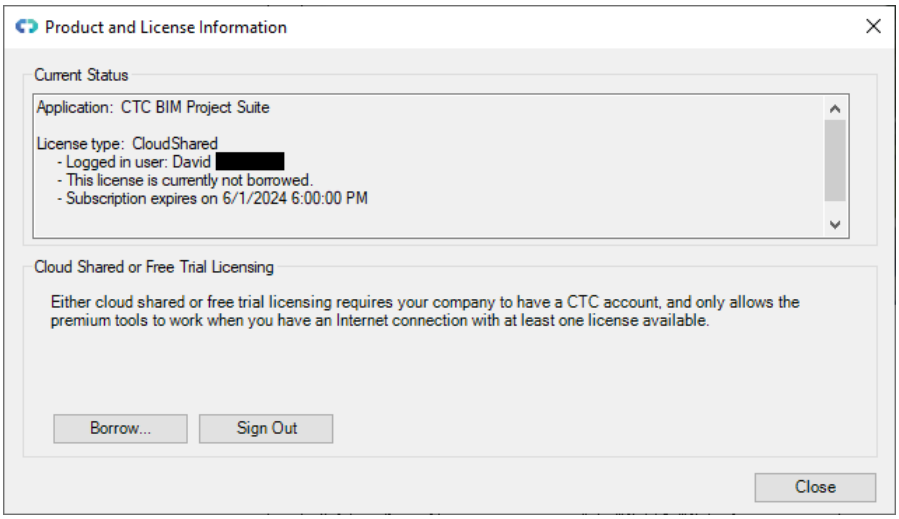
CTC Software products support only cloud-shared licensing, and also free trial licenses that use CTC's cloud licensing engine. The user must click the OK button to activate the cloud licensing and acknowledge using a CTC cloud account.

Once they click the OK button, they may be asked to login using the system default browser if they aren't already logged in from using another CTC product.

Either way, once the user has logged in, the product will be configured for cloud shared licensing:



and the licensing screen will be updated to show:



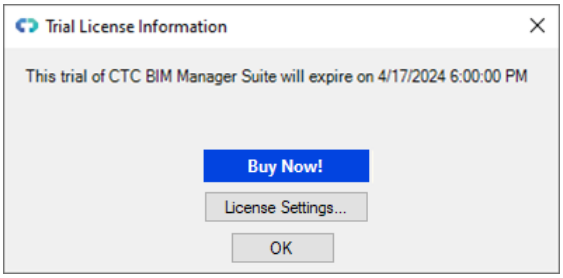
At this point, the user may borrow a license for offline use (if permitted by the administrator). They may also Sign Out from the cloud licensing system in case a different user needs to sign in on this computer.

Free Trial Licenses

Trial licenses allow you to use the software (including premium tools) without any special licensing for a limited time, typically 14 days. The software will generally be fully functional during the trial, with a few exceptions where functionality will be limited during a trial.

Any Internet connection and a CTC account is required to use trial licensing.

If a trial license is being used, the first time within each Revit session that the first tool from a suite is launched that requires licensing, a dialog like the following is displayed:



Clicking the "License Settings…" button will display the *Product and License Information* dialog, shown above.

Purchased Cloud Shared Licenses

Cloud shared licensing allows multiple users to share licenses. For example, if you have 20 users but only a maximum of 5 of those 20 need to use the software at the same time, you may choose to purchase only 5 cloud shared licenses.

Any Internet connection is required to use cloud shared licenses.

Only the maximum number of licenses purchased for a software product can be in use at the same time by different users on different computers. When one extra user tries to run the software, they are informed that no licenses are

available, and they will have to try to run the software again later after another user has closed all the tools for a product (suite) and the other user's license is then automatically returned to the cloud license server.

A user never uses up more than one license for a product while on a single computer. For example, if the user has Revit 2023 running and starts a premium tool that gets a license for "BIM Project Suite" from the license server, and while that tool is running they start up another Revit session *on that same computer* – even for a different version of Revit – and launch another premium tool from the same suite, only 1 license will still be considered in use by that user. The license is not returned to the server until all instances of the premium tools from that suite have been shut down for all instances of Revit that are running on that computer for that user.

If, however, the user leaves the tool running which has checked out a license and they go to another computer and start up another licensed tool for the same product, then another license will be retrieved on that second computer, and the user will then be consuming **two** licenses. So licenses are specific to the *combination* of user, computer and CTC product.

If the administrator allows it, a user may "borrow" a license from the CTC cloud server for a fixed number of days. When a license is borrowed, it is temporarily locked to the computer of the user that borrowed the license. This allows that user to use the software when not connected to the Internet, which can be useful, for example, if they are leaving to go on a business trip. However, it also temporarily removes one of the available floating licenses for all the remaining users to share.

The license will automatically be available again on the CTC cloud server even if the user who borrowed it doesn't connect to the CTC cloud server after the period in which it was borrowed comes to an end. The license will also stop working on their workstation after the period in which it was borrowed comes to an end, even if they don't connect to the license server via an Internet connection.

IMPORTANT: **A borrowed license CAN NOT be forcibly returned to the CTC cloud server.** It will be automatically available on the CTC cloud server when the borrow time has expired, or when the user who borrowed it connects to the CTC cloud server and manually returns the borrowed license from their computer early.

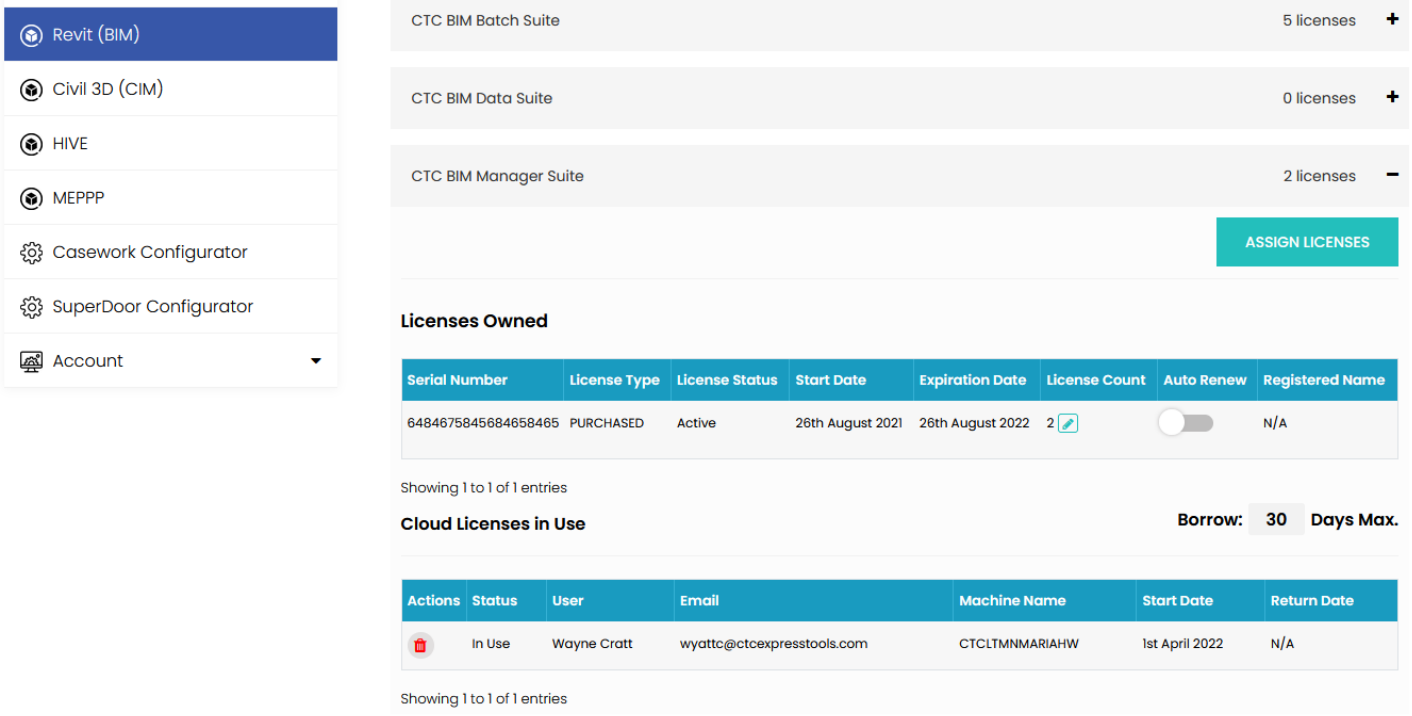
CTC provides the license management in CTC's cloud, and you can manage your license usage from the CTC portal. For example, you control who is allowed to use each product (suite), you can see who is currently using licenses, and you can even revoke a non-borrowed license from a user. This can be useful if another user urgently needs a license. You can also see who has borrowed a license, and when that borrowed license will expire. This is explained in the next section.

Managing Cloud Shared Licenses

CTC Products can be managed in the CTC Software portal (https://ctcsoftware.com/portal/licensing). All of the licenses owned by your organization will be listed under the 'Licensing' tab. A minimum role of either **Organization Admin** or **License Admin** must be assigned to anyone who will be managing licenses for the organization.

NOTE: Licenses will not be available to any of your users until they have been assigned licenses in the portal. This does not include free tools in the product. Free tools will be always available, regardless of licensing status.

Users must configure their product on their workstation to use Cloud Shared Licensing before the licenses will be available to them. This can be done using the "Product and License Information" dialog (seen above), or by using configuration files (discussed below).



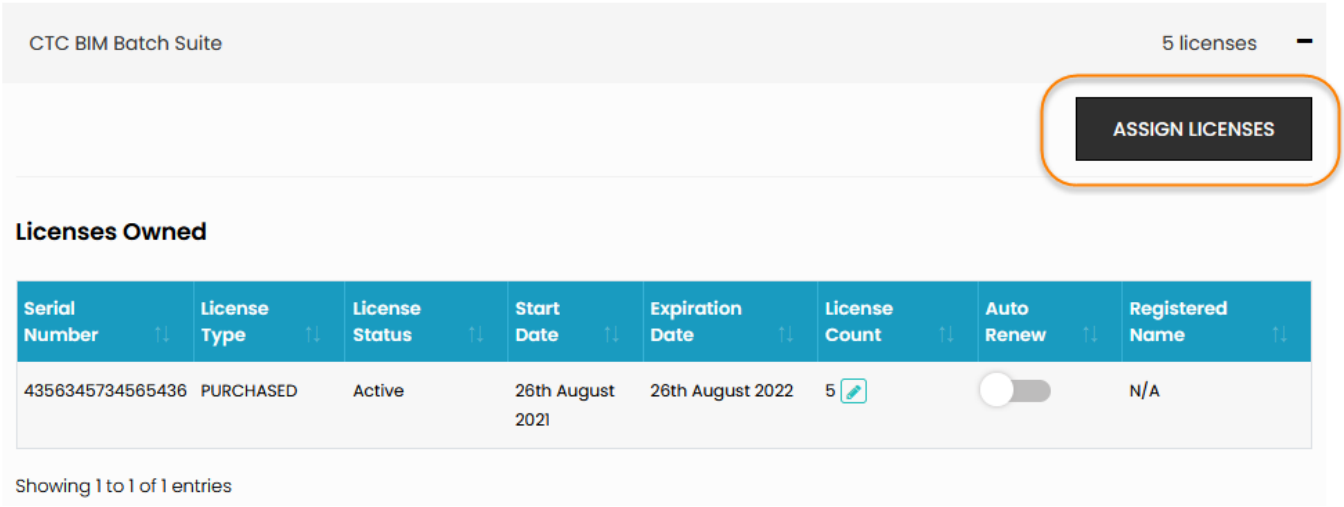
In the above example, this organization owns 5 seats of BIM Batch Suite and 2 seats of BIM Manager Suite. This means that at any given time, a maximum of 5 users can run a licensed tool from BIM Batch Suite simultaneously, regardless of how many users have been assigned beyond the count purchased. Likewise, only two can use BIM Manager Suite licensed tools at the same time.

This means that if 10 users have been assigned a BIM Batch Suite license, only 5 users can use premium tools in the product at the same time. If a 6th simultaneous user attempts to use a premium tool in BIM Batch Suite, they will be alerted that no license is available at that time.

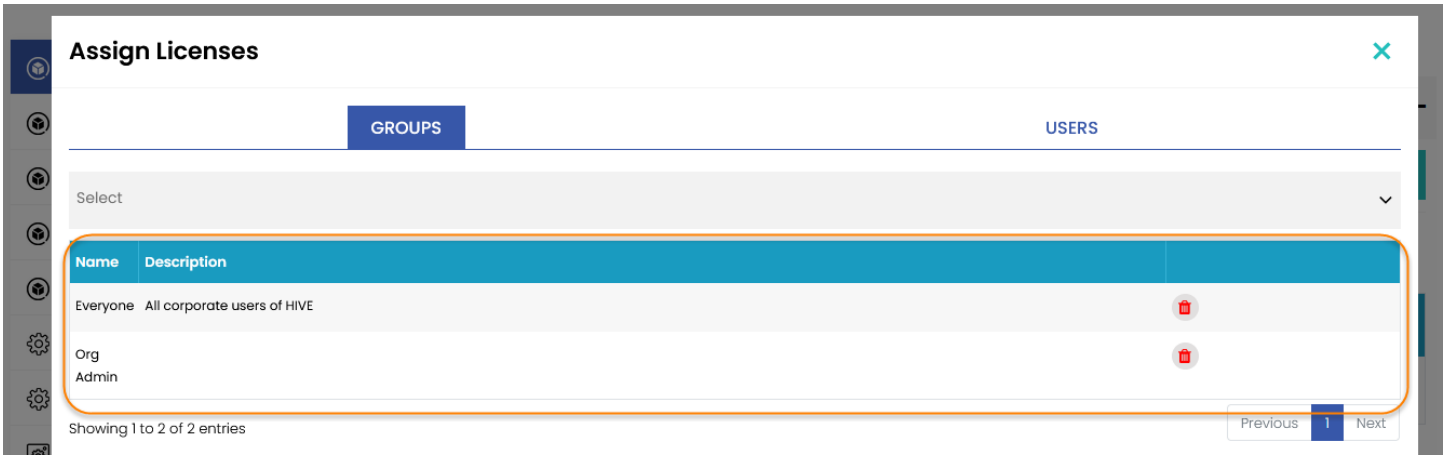
Assigning Licenses to Groups and Users

Licenses can be assigned directly to a user account, or to a group. *Assigning to groups may be a much easier way to manage which users have access to which licenses.*

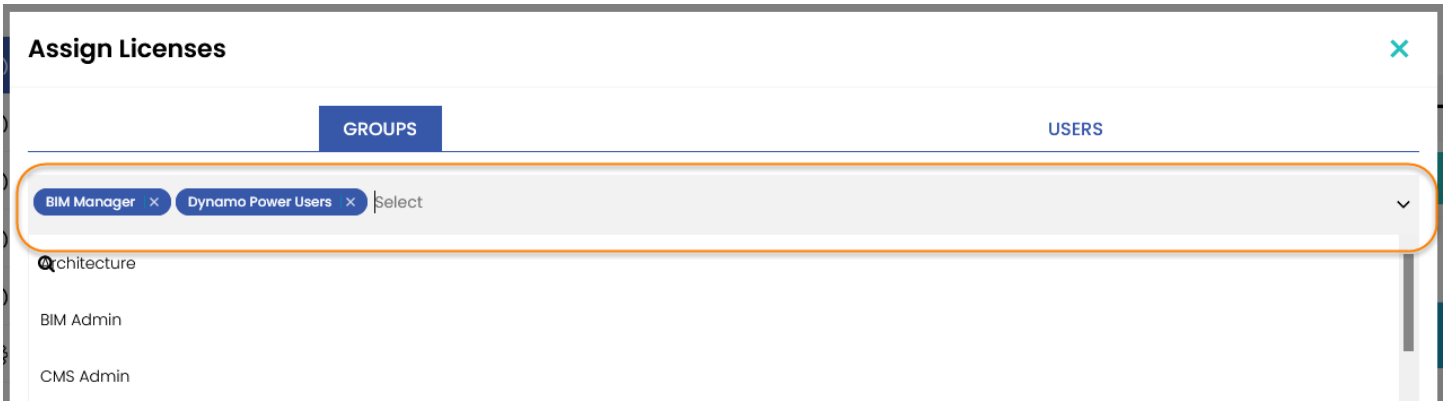
Begin by expanding one of the product rows and clicking on 'Assign Licenses:'



The Group and User selection form will present assignments that may have already been made in the list below the selector. This can also be used to remove assignments by clicking on the red trashcan icon.

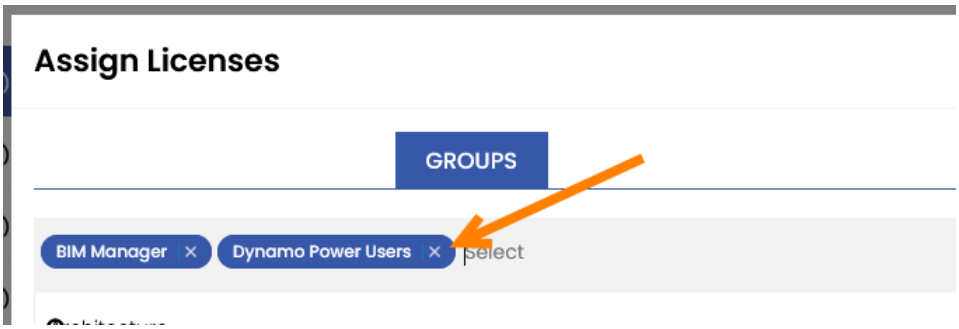


The first tab presents group assignments. The second tab presents user assignments. To add to the list of assignments, click in the selector dropdown below the GROUPS and USERS tabs, and choose items from the selection list.



Hint: type the first few characters of a name to filter the list.

To remove a group or user during the add process from the temporary list, click the X on the right of the "pill."



Once satisfied with the selections, click the SAVE button to update the assignments.

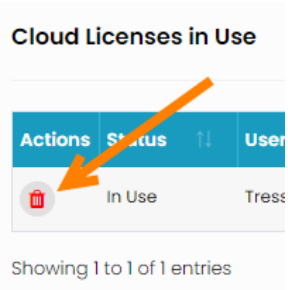
Revoking a License

It may be necessary to temporarily force a checked out license that is currently in use on a workstation back into the pool. This can be used to ensure that a license is available to a user whose task may be urgent.

NOTE: Revoking a license will be effective immediately. The user currently using the license will no longer be able to continue using premium tools until a license becomes available again. They will get a message telling them they no longer have a license. While they will not be able to continue doing useful things with the software, it should still allow them to save their work, such as any settings they may have changed.

Expand the product row for the CTC suite to see the list of cloud licenses in use.

Find the user in question and click the trashcan icon.

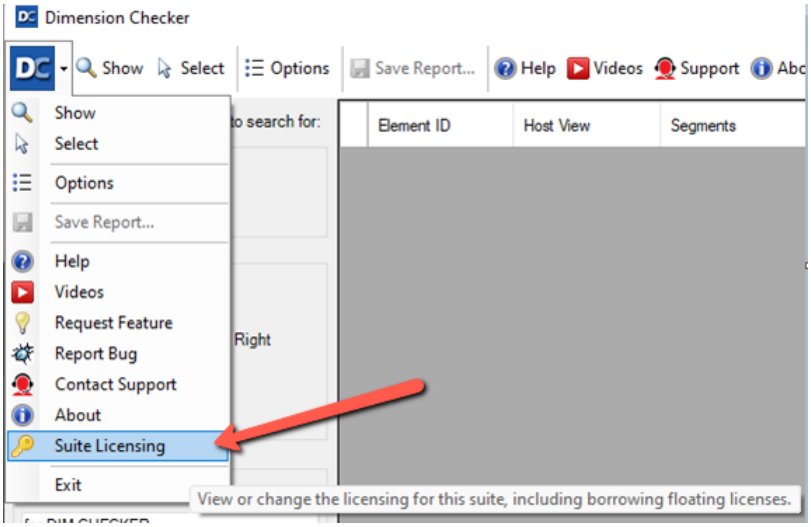


Cloud Shared Licensing Workstation Usage

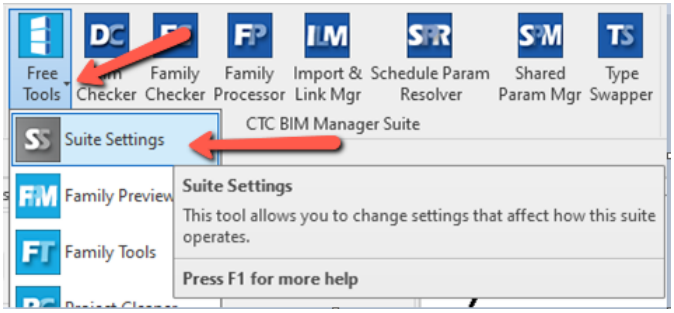
If your organization has set up access to cloud shared licensing, all that is needed to use the tools is to configure it and log in using a CTC Software user account.

Configuring the workstation tools can be done either by deploying a configuration file (discussed below), running the installer with command-line parameters (also discussed below) or by interactively using the *Product and License Information* screen.

This screen will appear the first time a premium tool is used, or can be accessed from within a premium tool using the Suite Licensing drop-down menu choice:



Also, from any suite it can be accessed from the free Suite Settings tool:



The *Product and License Information* screen for first time use was shown above.

When successfully applied, the status at the top of the screen will update to show:

- The product name
- Who is logged in
- Whether the license is a trial or purchased license
- The trial or subscription expiration date
- Whether or not the license is currently borrowed, and if borrowed, the borrow expiration date

Borrowing a Cloud Shared License

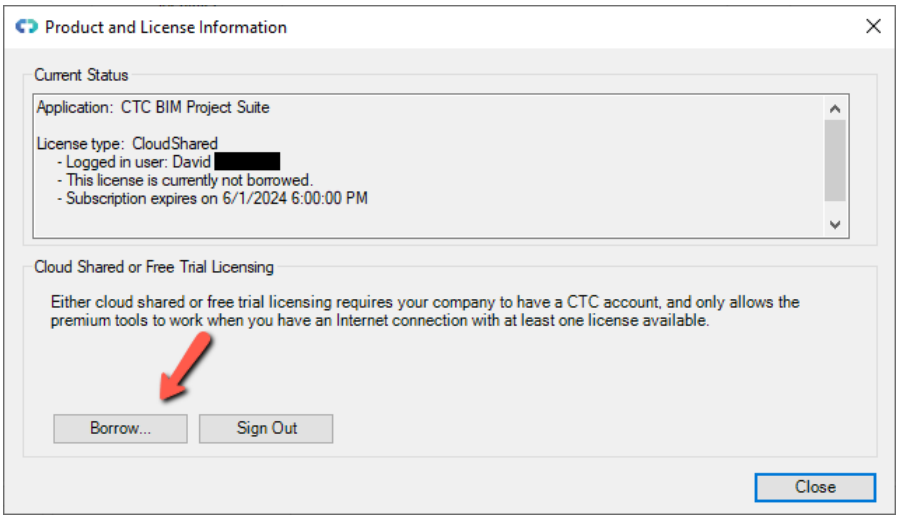
If a license is needed in anticipation of being disconnected from the Internet, borrowing a license can ensure that the CTC tools are available for use when offline.

IMPORTANT: For normal use of the software, where you have a standard Internet connection, you DO NOT need to borrow a license. Borrowing a license is normally only needed when you know you will need to use the software at a time when you won't have a reliable Internet connection. While you have a license borrowed, that is one less shared license available to all other users.

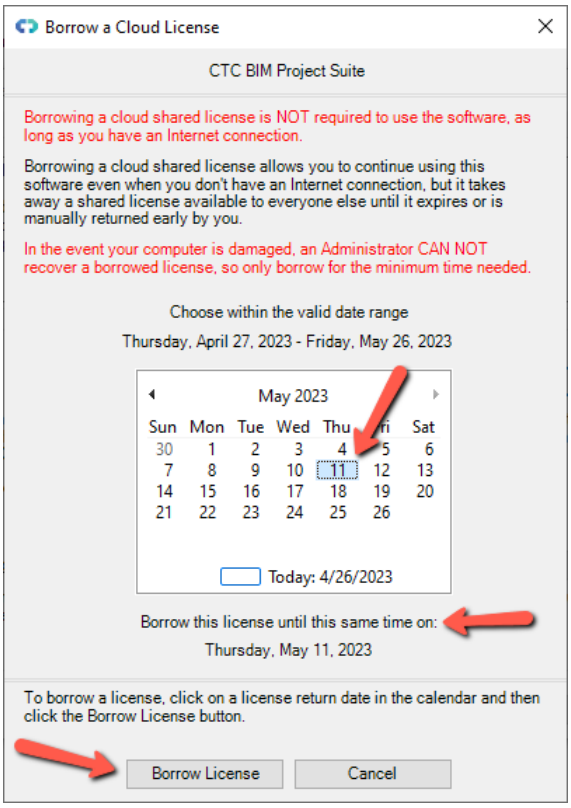
NOTE: Borrowing is only available for purchased cloud shared licenses. **Borrowing is not available for trial licenses.**

IMPORTANT: In the event your computer is lost, stolen or damaged (e.g. a hard drive crash) **an administrator CAN NOT recover a borrowed license.** In that case, the license will be unavailable to all users until the borrow period has naturally expired. *As such, you only want to borrow a license for the barest minimum amount of time needed.*

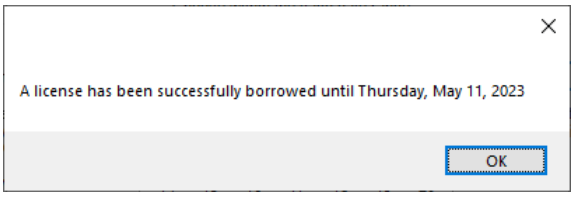
Begin by opening the *Product and License Information* screen from either the main pulldown menu of a premium tool, or from the Suite Settings add-in. From here, click the 'Borrow…' button to begin the process of choosing the length of time to borrow a Cloud Shared license.



The date selector should appear:

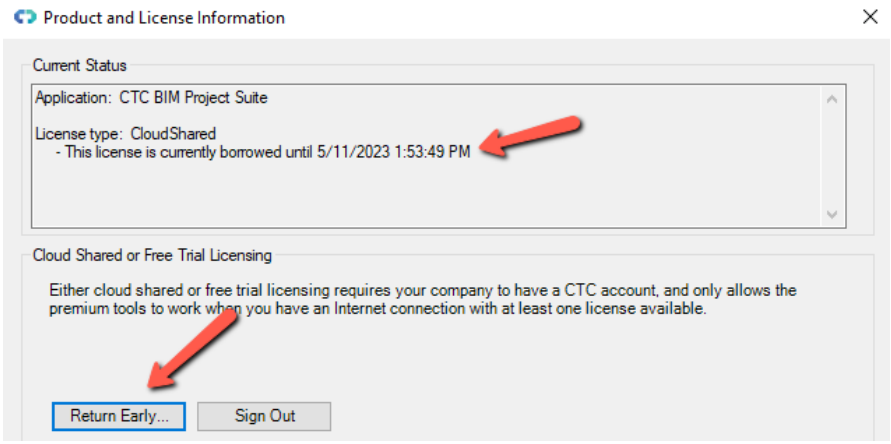


Confirm the date selection and click the *Borrow License* button. A success message should appear.

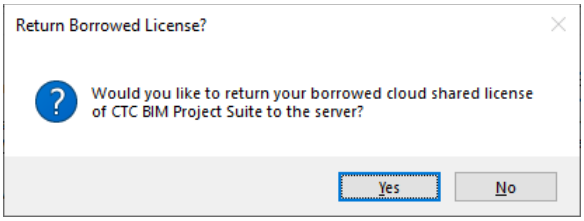


Returning a Borrowed Cloud Shared License Early

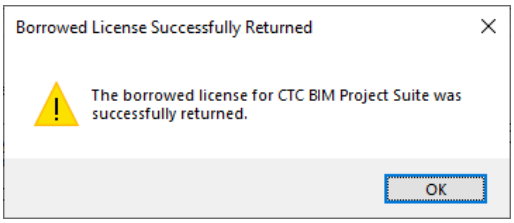
To return the license early, in the *Product and License Information* form, find the *Return Early…* button and click it.



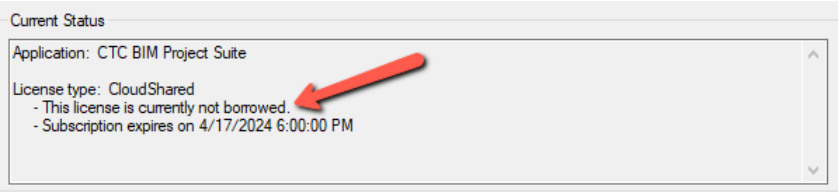
A prompt will appear confirming that the license should be returned.



Click the Yes button, then you should see:



The license status should now show a ‘not borrowed’ message.



General Licensing Notes

The user guide that comes with each suite contains a section called *License Activation and Management* which discusses how the licensing works from the user's perspective, including going into more detail about the use of the *Product and License Information* dialog, and how to do things like borrowing licenses and returning them early.

The section below called *Pre-selecting Cloud Shared Licensing* explains in detail how license configuration settings are stored in a file on the workstations, and how they can be modified after the suite has been installed by deploying a configuration file to the workstation.

The CTC Software suite system allows the client workstations to be installed and also configured for licensing silently during installation, using a variety of methods, including command-line parameters provided to the MSI installer packages.

This is explained in detail later in this document, in the section called *Custom Installation (Using Command-Line Parameters)*

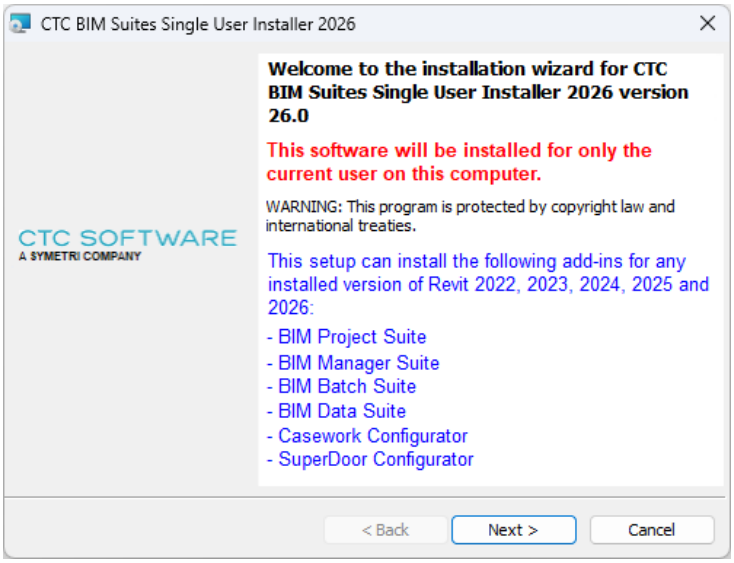
Revit Workstation Installation

To perform an installation, first download the setup program zip file from https://www.ctcsoftware.com/**.** Once the download is complete, unzip the files.

Standard Interactive Installation Using the Single User Setup Program

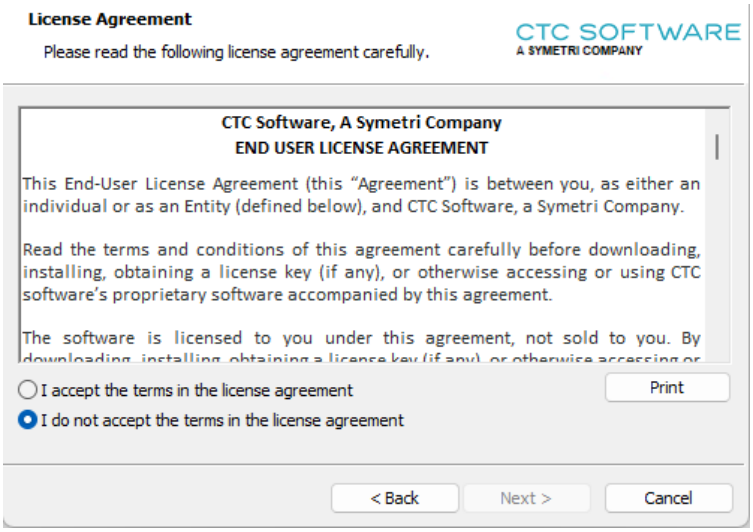
A standard installation simply involves running the interactive setup program, accepting all of the default values, and then starting up Revit. This setup can be installed by any user, whether they have Administrative privileges or not, but it will only install the software for that one user. To install the software for multiple users on the same computer requires Administrative privileges, requires using the Multi-User setup program instead, and is discussed in the next section.

Double-click the installation **CTCBIMSuitesSingleUserSetup.msi** file to begin the installation process. First, you should see a screen that looks like this:



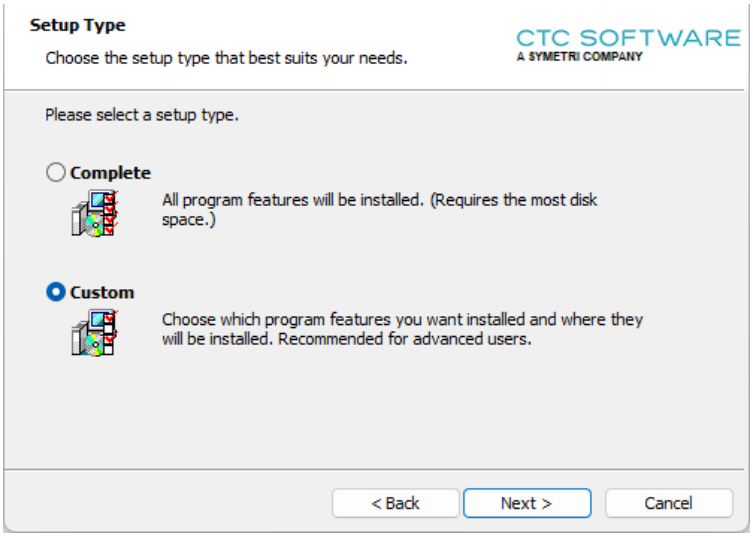
This is a standard welcome screen. Click the “Next” button to proceed.

The next screen should look like this:

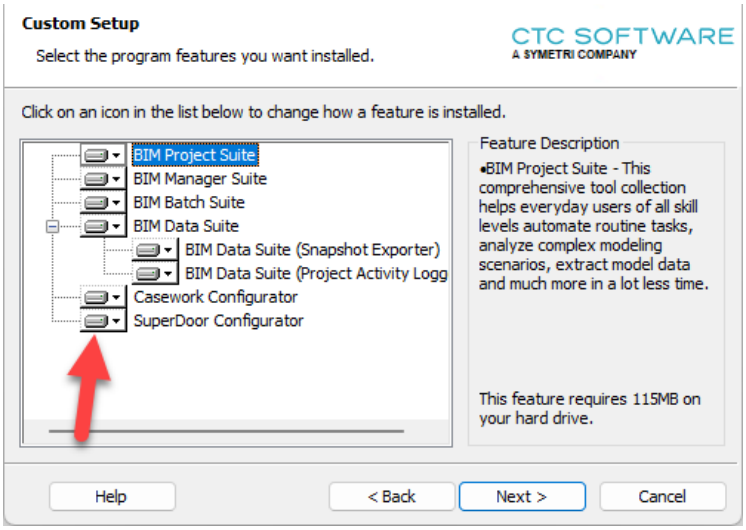


This is the license agreement screen. In order to be able to move forward with the installation, you must read the software license agreement and then click the "I accept the terms in the license agreement" option. You will then be allowed to click the "Next" button, which needs to be done to proceed with the installation.

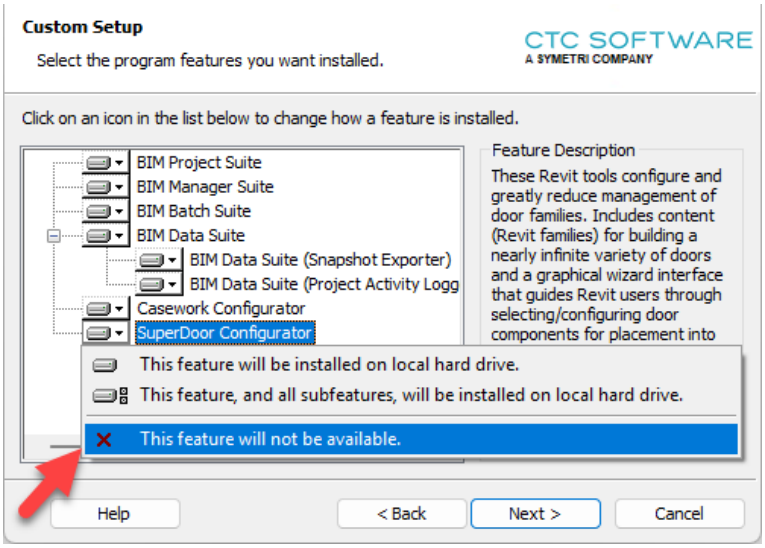
The next screen lets you control which components are installed. If you choose the "Complete" option, all the suites in this setup will be installed for you. If you choose the "Custom" option, you will have the ability to turn on or off each suite, as desired:



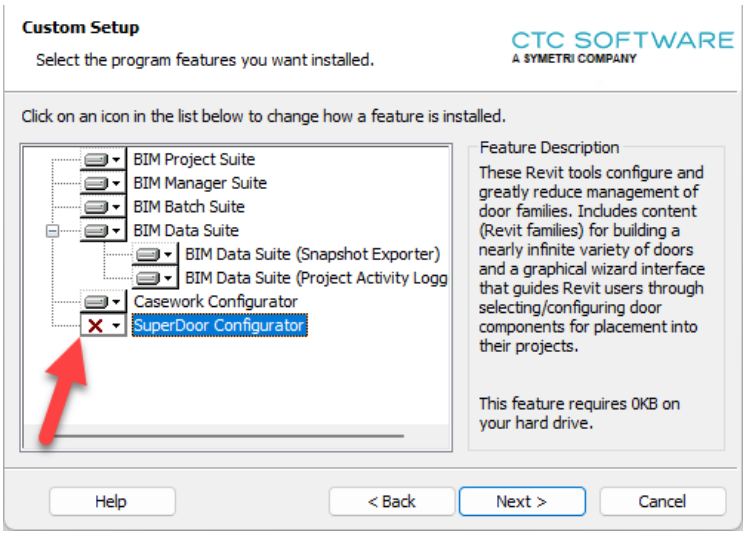
When the Custom option is selected, clicking the Next button, by default, as is the case with the normal "Complete" option, we can see that all products will be installed:



To turn off a product, click the dropdown button next to it and select the “This feature will not be available” choice. For example, if we want to turn off (select to not install) the SuperDoor Configurator product, we would click the down arrow button next to it (seen above), then:



Once “This feature will not be available” choice is selected, SuperDoor Configurator will be marked as not to be installed.

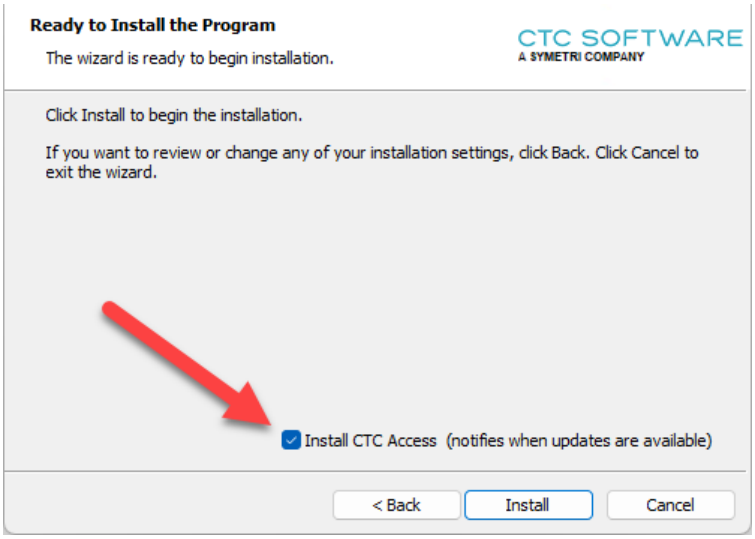


In this example, moving forward all the suites except SuperDoor Configurator will be installed.

Next is the standard confirmation screen. It provides one last chance to cancel this process without anything being installed. It can also show you the option to install the *CTC Access* application.

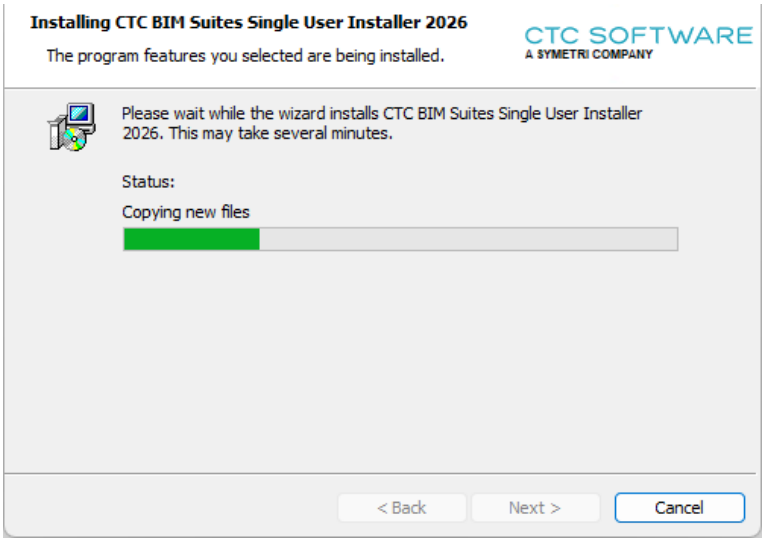
The *CTC Access* application is a separate tool which will alert the user when new versions of applications from CTC Software become available, and will make it easy for the user to download those updates.

The next screen should look like this:



IMPORTANT: Uninstalling CTC BIM Suites <u>will not</u> uninstall the *CTC Access* application. This item must be uninstalled separately.

Click the “Next” button to proceed. The screen during the actual installation should look like this:



A file called CTCInstallLog.txt can be found in the installation folder once the setup completes.

Single user installer example: **%AppData%\CTC Software\CTC BIM Suites**
Multi-user installer example: **%ProgramData%\CTC Software\CTC BIM Suites**

Checking that log can be useful when verifying something like a silent installation (discussed below) worked correctly.

When the installation is complete, the final screen will indicate a successful install.

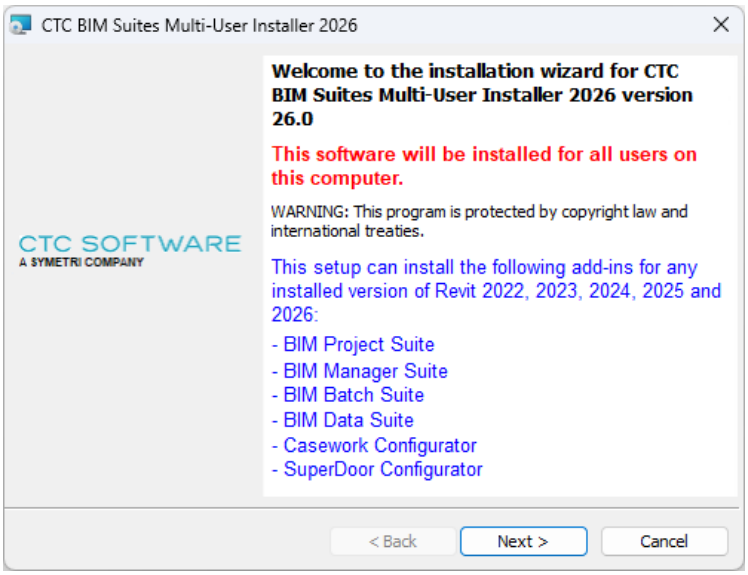
Click the “Finish” button to complete the installation process.

If the “Read the Installation and Configuration Guide” checkbox option is selected, this document will be displayed.

Standard Interactive Installation Using the Multi-User Setup Program

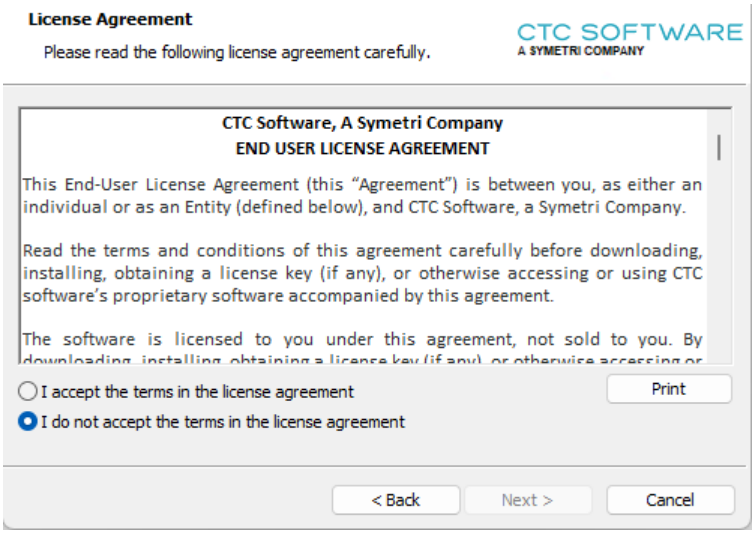
A standard installation simply involves running the interactive setup program, accepting all of the default values, and then starting up Revit. **This setup can only be installed if the user has Administrative privileges on the computer**. It will install the software for all users that login to the computer. To install the software without requiring Administrative privileges on the computer requires running the Single User installer instead, which is discussed in the previous section. That installer will only install the software for the current user who runs that setup.

Double-click the installation **CTCBIMSuitesMultiUserSetup.msi** file to begin the installation process. First, you should see a screen that looks like this:



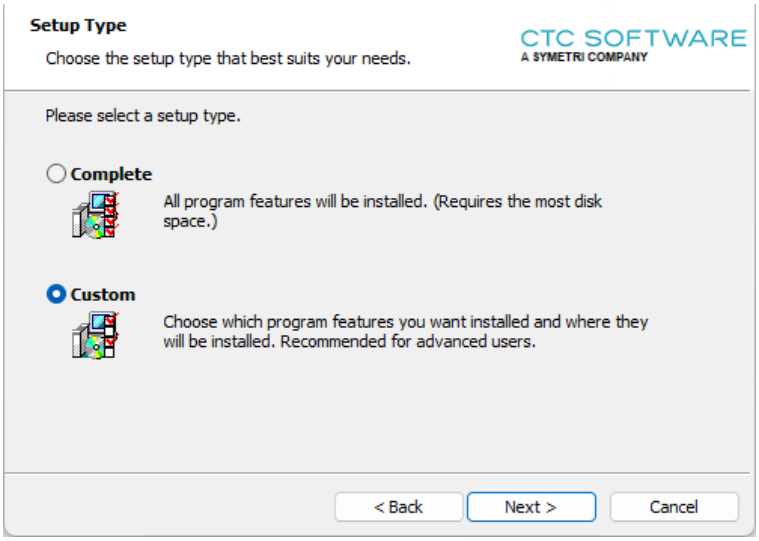
This is a standard welcome screen. Click the "Next" button to proceed.

The next screen should look like this:

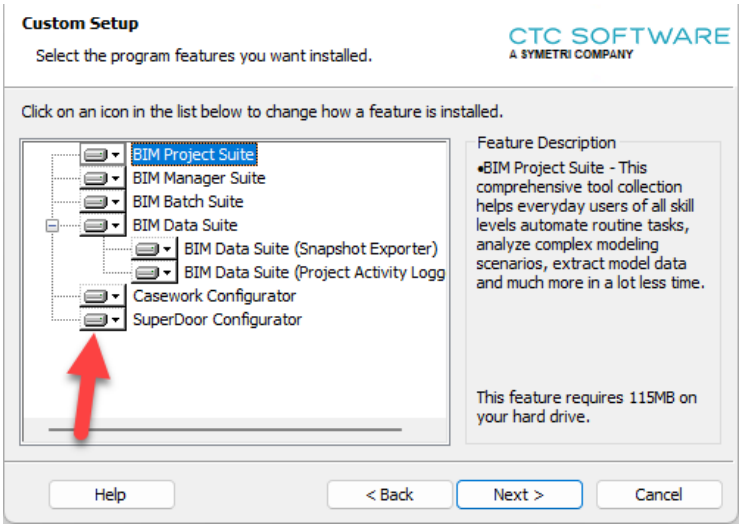


This is the license agreement screen. In order to be able to move forward with the installation, you must read the software license agreement and then click the "I accept the terms in the license agreement" option. You will then be allowed to click the "Next" button, which needs to be done to proceed with the installation.

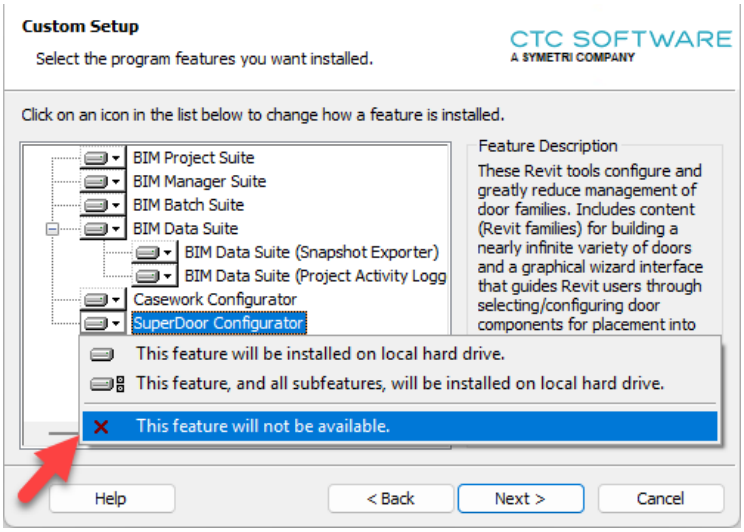
The next screen lets you control which components are installed. If you choose the “Complete” option, all the suites in this setup will be installed for you. If you choose the “Custom” option, you will have the ability to turn on or off each suite, as desired:



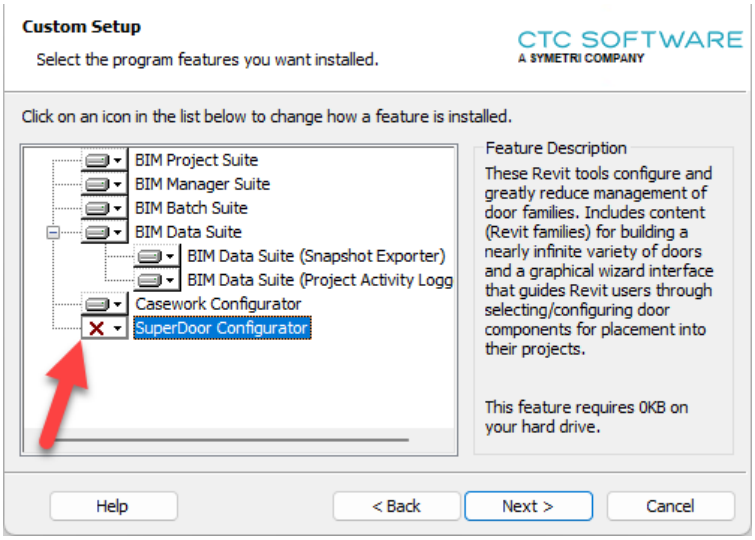
When the Custom option is selected, clicking the Next button, by default, as is the case with the normal “Complete” option, we can see that all products will be installed:



To turn off a product, click the dropdown button next to it and select the “This feature will not be available” choice. For example, if we want to turn off (select to not install) the SuperDoor Configurator product, we would click the down arrow button next to it (seen above), then:



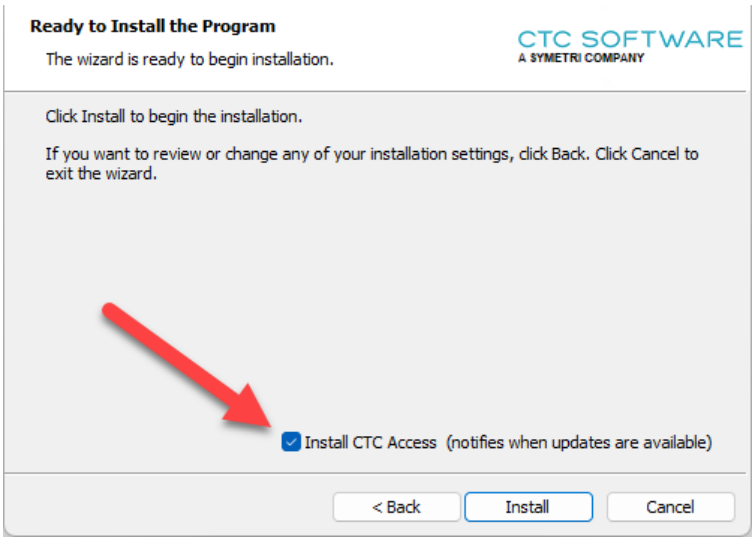
Once "This feature will not be available" choice is selected, SuperDoor Configurator will be marked as not to be installed.



In this example, moving forward all the suites except SuperDoor Configurator will be installed.

Next is the standard confirmation screen. It provides one last chance to cancel this process without anything being installed. It also shows you the option to install the *CTC Access* application.

The *CTC Access* application is a separate tool which will alert the user when new versions of applications from CTC Software become available, and will make it easy for the user to download those updates.



IMPORTANT: Uninstalling CTC BIM Suites will not uninstall the *CTC Access* application. This item must be uninstalled separately.

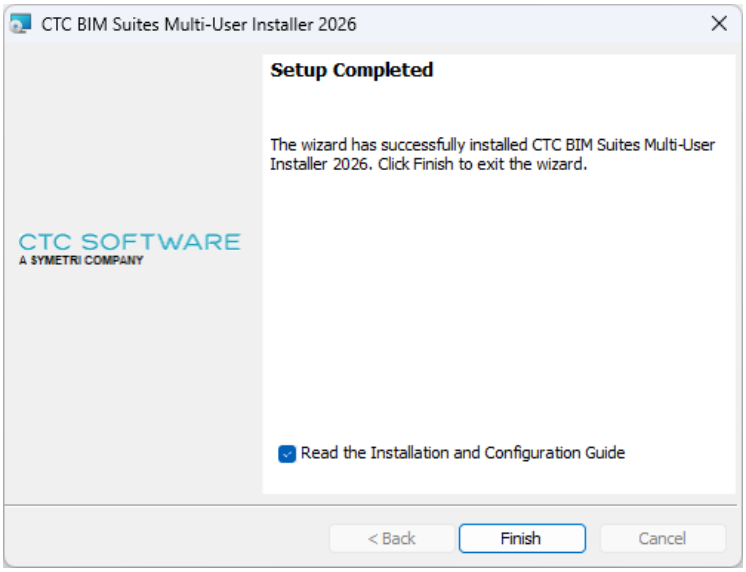
Click the "Next" button to proceed.

A file called CTCInstallLog.txt can be found in the installation folder once the setup completes. For this installer, it's located in this folder:

%ProgramData%\CTC Software\CTC BIM Suites

Checking that log can be useful when verifying something like a silent installation (discussed below) worked correctly.

When the installation is complete, the final screen should look like this:

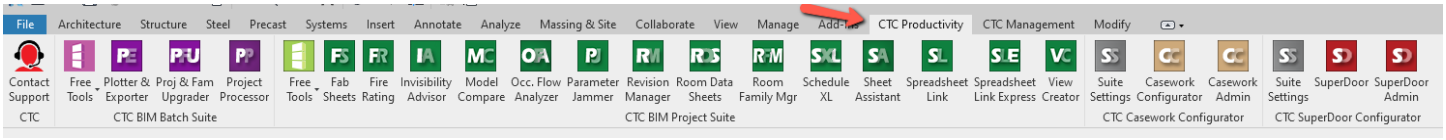


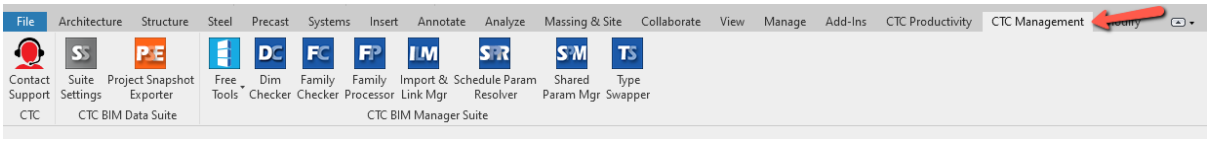
Click the "Finish" button to complete the installation process.

If the checkbox option is selected, this document will be displayed.

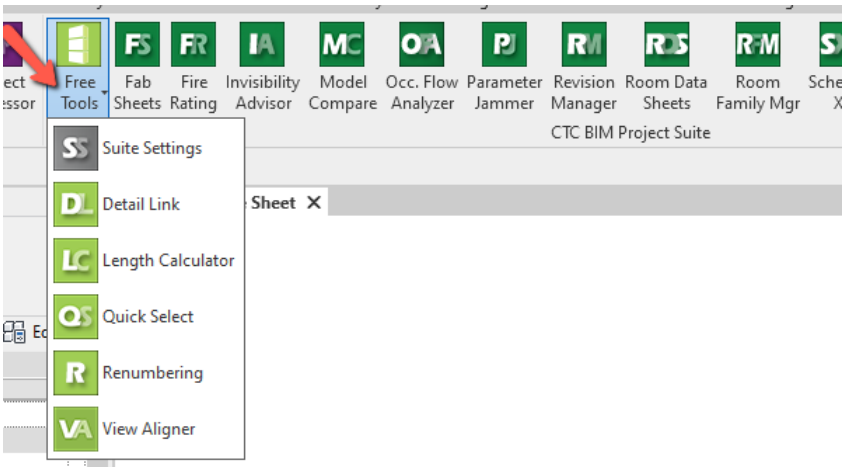
Regardless of which installer is used, the next time the user starts the Revit software and opens a project or family document, default tabs will appear in the ribbon at the top of the Revit window for the CTC tools. Either the user or an administrator can control which product's tools appear and on which ribbon tab(s). This will be explained below.

Here are example images of how the tools will look in Revit by default when installed on a computer for the first time:



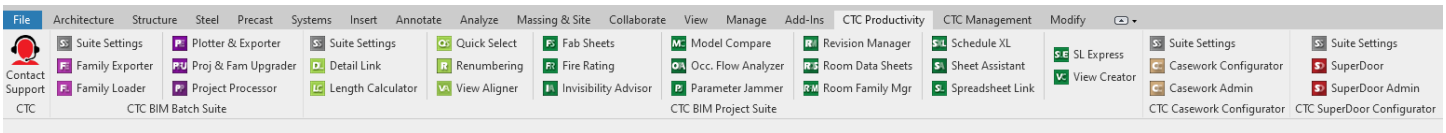


Free tools can be found within the left-most drop-down button within each product's panel. For example:



The icons are color-coded. The icons with the light background color indicate free tools, whereas the icons for the "Premium" (paid) tools have a dark background color. The premium tools (darker buttons) require licensing.

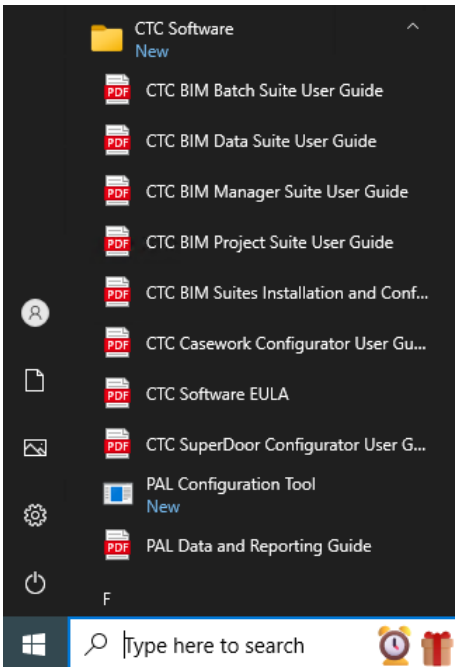
Note that it is possible to use the "Suite Settings" free tool to turn off some buttons, or to host them natively on the ribbon panel instead of within drop-down buttons. When hosted on the ribbon panel, they can also be set to be small as well, to save space while having them all be visible at the same time. For example, this is what it looks like when small icons are used:



The "CTC Productivity" and "CTC Management" tabs can also be renamed, or the tools can be placed on the generic "Add-Ins" tab as well.

The use of the Suite Settings tool is also described in the detail within the user guides for each suite.

Once the workstation software is installed, the Start Menu will include some shortcuts to the documentation:



Custom Installation (Using Command-Line Parameters)

IMPORTANT: For any installer action to be successful, you must make sure ALL running instances of Revit are shut down. Any running instance of Revit may prevent the installation from working correctly.

Silent Installation

The msi installers for the Revit workstations support performing silent installations. A silent installation does not show any dialogs on the screen during the install.

IMPORTANT: While a non-silent (interactive) installation of CTC BIM Suites will cleanly remove the old conflicting products which had separate installers (e.g. CTC BIM Project Suite installer, CTC BIM Manager Suite installer, CTC BIM Batch Suite installer, CTC BIM Data Suite installer, SuperDoor Configurator installer and Casework Configurator installer) **this is not the case for a silent installation**. If you plan to do a silent installation of CTC BIM Suites, CTC Software **strongly** recommends uninstalling any old conflicting products first. It is much cleaner to uninstall the old products first before installing CTC BIM Suites silently. The old products can be uninstalled silently as well. Uninstalling old products is not necessary if simply upgrading to a newer version of the same product.

IMPORTANT: A silent installation of a multi-user installer must be done from an elevated ("As Administrator") process.

A silent installation is accomplished by using the command-line parameter: /q

For example, the command to install the software silently would be one of these:

Single user installer example: **msiexec /i CTCBIMSuitesSingleUserSetup.msi /q**
Mutli-user installer example: **msiexec /i CTCBIMSuitesMultiUserSetup.msi /q**

IMPORTANT: By choosing to do a silent installation, you are automatically agreeing to the software license agreement.

The silent installation may take a minute or so to complete.

Turning Off Specific Products (Suites) During Silent Installs

By default, as is consistent with the interactive installer, all suites will be installed when doing a silent installation. However, individual products (suites) can be turned off during silent installs as well, using additional command-line parameters.

Product to Not Install	Parameter
BIM Project Suite	deselect_bps=1
BIM Manager Suite	deselect_bms=1
BIM Batch Suite	deselect_bbs=1
BIM Data Suite Project Snapshot Exporter*	deselect_bds=1 or deselect_bdspse=1
BIM Data Suite Project Activity Logger*	deselect_bds=1 or deselect_bdspal=1
Casework Configurator	deselect_cc=1
SuperDoor Configurator	deselect_sd=1

*Using the deselect_bds parameter will deselect both Project Snapshot Exporter and Project Activity Logger.

So for example, if during the silent installation we want to not install SuperDoor Configurator and also not install BIM Batch Suite, we would give a command like the following:

Single user installer example: **msiexec /i CTCBIMSuitesSingleUserSetup.msi /q deselect_sd=1 deselect_bbs=1**
Multi-user installer example: **msiexec /i CTCBIMSuitesMultiUserSetup.msi /q deselect_sd=1 deselect_bbs=1**

IMPORTANT: If you want to silently add or remove a suite after the software has already been installed, **you must silently uninstall the software and silently reinstall it with different command-line arguments.** Running a repair or re-running the installer with a command-line like that above, but with different parameters, will NOT change which suites are installed.

Deselecting Installation of the CTC Access Application

By default, the *CTC Access* application will be installed during this installation process. The *CTC Access* tool provides alerts to users when new versions of applications from CTC Software become available, and make it easy for them to download those updates. You can prevent this application from being installed when running this installer by providing the following command line parameter: installctcaccess=0

For example:

Single user installer example: **msiexec /i CTCBIMSuitesSingleUserSetup.msi /q installctcaccess=0**
Multi-user installer example: **msiexec /i CTCBIMSuitesMultiUserSetup.msi /q installctcaccess=0**

Preselecting Cloud Shared Licensing

If you want to pre-configure the software to use cloud shared licensing (or a cloud-based trial license), the following command-line parameter can be used:

cloudsharedlicensing=true

For example:

Single user installer example: **msiexec /i CTCBIMSuitesSingleUserSetup.msi /q cloudsharedlicensing=true**
Multi-user installer example: **msiexec /i CTCBIMSuitesMultiUserSetup.msi /q cloudsharedlicensing=true**

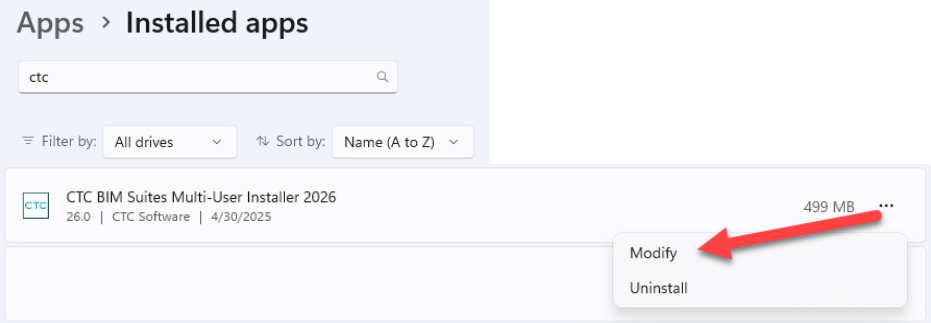
When this is pre-selected, the user will not be prompted to activate cloud shared licensing. At most they will be asked to login before they can continue using a premium tool.

Changing Which Suites are Installed After Initial Installation

IMPORTANT: You cannot change which suites are installed after initial installation using a silent command-line execution, for example from a script. To **silently** change which suites are installed after initial installation, you must silently uninstall the software, then silently re-install it with the proper command-line arguments, described above.

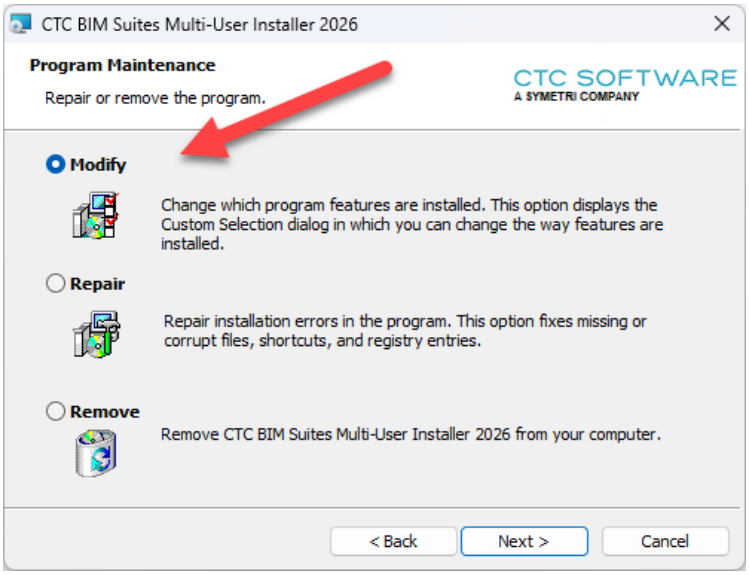
If you want to add or a remove a suite after the initial installation is complete, interactively you can do this in one of two ways:

1) Select the Modify choice from the Windows Apps list:



2) Run the same version of the msi installer again, as is currently installed

Both approaches will eventually lead you to this screen:



Selecting the Modify option and then pressing the Next button will allow you to turn on or off different suites to have installed, as the original interactive installer did. Proceeding forward from there will apply the changes.

Repairing an Existing Installation

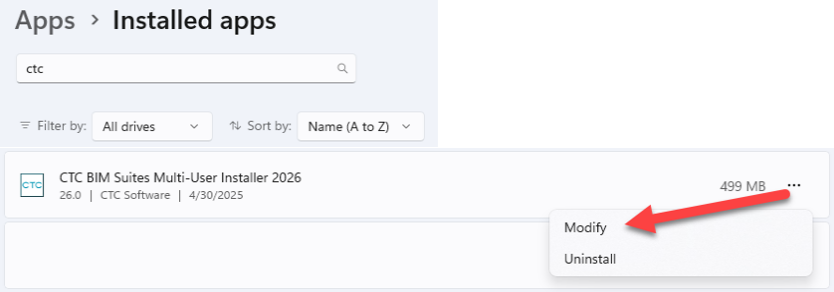
If you accidentally delete some of the installed files, or some of them become corrupt, you can repair an existing installation using one of 3 techniques:

1) Silently, using the following command-line:

   Single user installer example: **msiexec /fa CTCBIMSuitesSingleUserSetup.msi /q**
   Multi-user installer example: **msiexec /fa CTCBIMSuitesMultiUserSetup.msi /q**

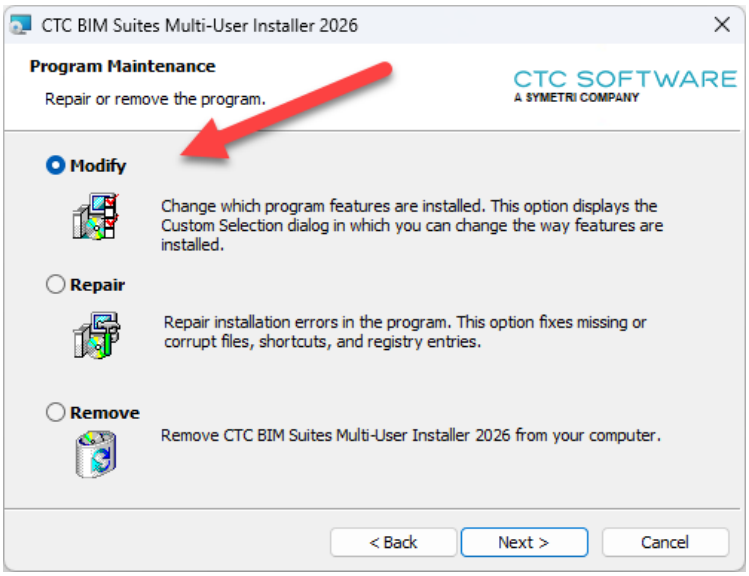
   Tip: The old Control Panel "Programs and Features" dialog will offer a "Repair" choice that quickly and silently does the repair as well, but from an interactive starting point.

2) Select the Modify choice from the Windows Apps list:



3) Run the same version of the msi installer again, as is currently installed

Both approaches 2 and 3 will eventually lead you to this screen, where you should proceed with the Repair option:



Copying Tool Settings to Other Computers

If you have a “master” computer set up with the tools installed, and you have configured some tool-specific settings to be different than the default settings, for example default settings in the Options tab of some add-ins, you may want to copy those settings to the computers of other users, so everyone starts with the same settings.

To do this, copy tool-specific subfolders found in these locations:

User-specific: **%AppData%\CTC Software**
Application-wide: **C:\Users\Public\CTC Software**

to their respective locations on the other computer(s) or for other user(s) %AppData% folders.

Detecting the Version Installed

A text file called "SuiteVersion.txt" with only the Suite version (e.g. "25.0") in it can be found in the main installation folder. For example:

Single user installer example: **%AppData%\CTC Software\CTC BIM Suites\SuiteVersion.txt**
Multi-user installer example: **%ProgramData%\CTC Software\CTC BIM Suites\SuiteVersion.txt**

For example, the contents of this file may be useful for checking in a script to see what version has been installed.

The installed suite version can also be seen in the "About" dialog for any of the tools.

Digitally Signed Code

All CTC Software products are digitally signed. The MSI setup programs from CTC will automatically install the CTC digital certificate file into the Windows Trusted Publishers certificates section for the computer.

If the CTC add-ins are deployed using another method, such as if embedded in an Autodesk deployment, the CTC certificate will NOT automatically get installed into Windows, and the user will be prompted to allow the CTC add-in to load the first time they launch the Autodesk product.

The CTC digital certificate file, CTCCodeSigningCertificate.cer, can be found in the main installation folder:

Single user installer example: **%AppData%\CTC Software\CTC BIM Suites**
Multi-user installer example: **%ProgramData%\CTC Software\CTC BIM Suites**

This file can be added to the Trusted Publisher’s store in any normal manner, for example via Group Policy.

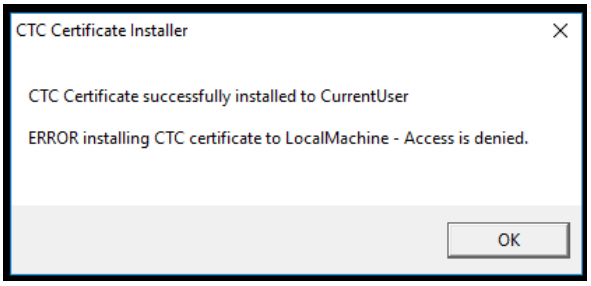
CTC Certificate Installer Utility

CTC also provides a small utility to add the CTC Certificate to Windows, which can be used for non-MSI deployments. This program is called **CTCCertificateInstaller.exe** and is located in the same folder as the certificate file, as seen above.

IMPORTANT: For this program to work, the CTCCodeSigningCertificate.cer certificate file must be in the same folder as this program.

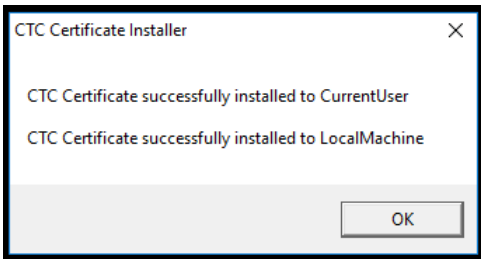
In order for this program to install the certificate such that it will work for all users who login to the computer, it must be run with the highest privileges (e.g. run "As Administrator"). If it is not run "As Administrator" it will only install the certificate for the currently logged in user.

When run as a regular user, a window appears when complete showing this:



In this case, when the current user starts up the Autodesk product(s), no messages from Autodesk will interrupt the startup process for any CTC products. However, if another user logs into this machine, they will see the dialog asking what to do with the signed add-in that was found, as seen above.

When the program is run "As Administrator", a window appears when complete showing this:



In this case, regardless of who logs into the computer, the Autodesk product for the add-ins will open smoothly, without asking the user what to do.

The CTCCertificateInstaller.exe program supports the following command-line parameters:

/Q – quiet. In quiet mode, no dialog window is ever displayed.

/L – Log file location. If a log file is specified, the results seen in the example dialogs above will be written to a new text file specified, overwriting any previous file that may have been there previously.

Example:

CTCCertificateInstaller.exe /Q /L "C:\My Folder\My Cert Installer Log File.txt"

(The /Q and /L may be lowercase)

Post-Installation Configuration

Once installed, you can change how the software behaves after the installer has completed.

Pre-selecting Cloud Shared Licensing

For a new computer, if you don't pre-configure the software to use cloud-shared licensing, the first time they are run the premium tools will stop to prompt the user to activate cloud-shared licensing. You can pre-configure the use of cloud-shared licensing either by using a command-line parameter on the MSI during the installation, or by deploying configuration files to the workstation, for example via Group Policy.

The files must be deployed to this folder: **C:\Users\Public\CTC Software\License Settings**

The file names (for the appropriate suite) must be from the following list:

CTC BIM Project Suite Licensing.txt
CTC BIM Manager Suite Licensing.txt
CTC BIM Batch Suite Licensing.txt
CTC BIM Data Suite Licensing.txt
CTC SuperDoor Configurator Licensing.txt
CTC Casework Configurator Licensing.txt

Each text file must contain only this text:

Licensing=CloudShared

Note: Regular users without special privileges can typically change files in this folder. For a truly secure environment, it may be desirable to change the permissions on these files so regular users cannot edit them.

Controlling Ribbon Button Visibility and Using Active Directory Group Memberships

It may be desirable to turn off some buttons in the Revit ribbon for specific users. For example, some tools have an Administration button, and it may be that some specific users should not be allowed to have that button available on the Revit ribbon.

There are 2 ways to control the availability of specific ribbon buttons for a Revit user:

1) Direct settings text file
2) Using Active Directory group memberships (user-specific regardless of workstation, also controls other things)

Only 1 of these methods can be used. The Active Directory group membership settings file (Method 2) also allows controlling which users can do things such as changing licensing settings and/or borrowing a license, as well as access the button for downloading the latest installation program for the currently running suite, and other settings.

Method 1: Direct settings text file

This method is the simplest, and may be better for use by smaller organizations or for those organizations who want to give ribbon button visibility control directly to the user. This method is also used out-of-the-box. It provides a very simple, self-explanatory text file. It is called **Ribbon Button Visibility Settings.txt**.

Single user installer example:

%AppData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files\Ribbon Button Visibility Settings.txt

Multi-user installer example:

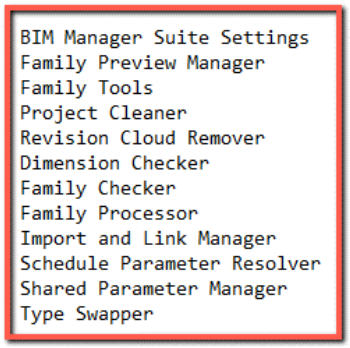
%ProgramData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files\Ribbon Button Visibility Settings.txt

This file gets manipulated by the Suite Settings tool.

Changing this file affects all installed versions of Revit that are supported by the software.

This file looks like this:

```
# Instructions:
#
#  - Any line that begins with a pound sign (#) is a comment line and will be ignored.
#
#  - The purpose of this file is to define which Revit ribbon buttons will be available to users of this suite.
#
# Master List:
# -------------------------------------------
# BIM Manager Suite Settings
# Family Preview Manager
# Family Tools
# Project Cleaner
# Revision Cloud Remover
# Dimension Checker
# Family Checker
# Family Processor
# Import and Link Manager
# Schedule Parameter Resolver
# Shared Parameter Manager
# Type Swapper
# -------------------------------------------
#
#  - Only the buttons listed below that are not commented out (start with a #) will be added to the Revit ribbon.
#
#  - These button names must EXACTLY match those defined in the master list above.
```



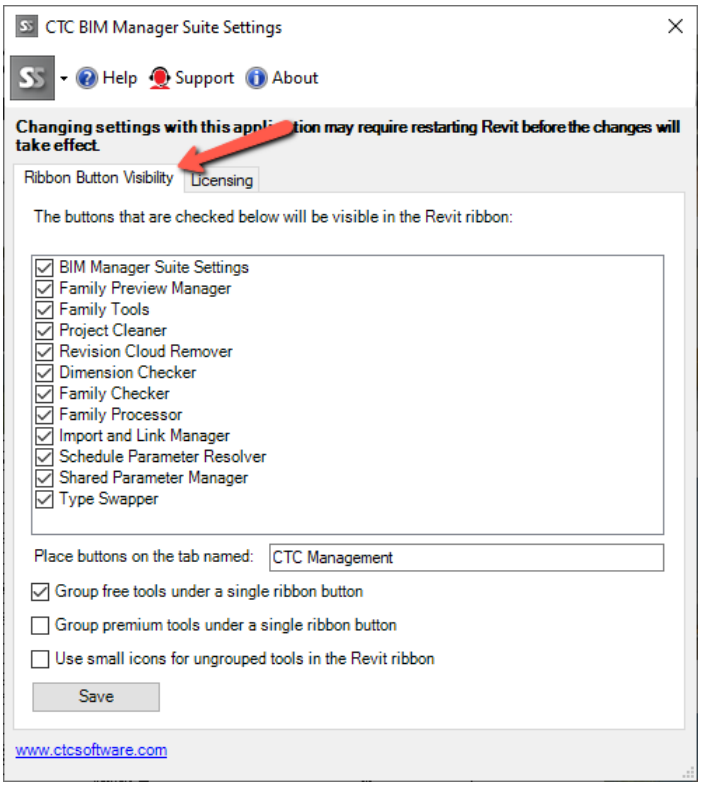
```
BIM Manager Suite Settings
Family Preview Manager
Family Tools
Project Cleaner
Revision Cloud Remover
Dimension Checker
Family Checker
Family Processor
Import and Link Manager
Schedule Parameter Resolver
Shared Parameter Manager
Type Swapper
```

To remove a button from the user's Revit ribbon, simply delete its name from the bottom portion of the file, or prefix that line with a pound sign (#) to comment it out.

IMPORTANT: This file will get overwritten if installing a new **or updated** version of the suite. This is to help ensure buttons for any new tools get added to the list, in particular for most users who don't turn off any buttons, which happens the majority of the time. Periodically pushing out the correct version of this file for a user by using a mechanism such as Group Policy or a login script may be appropriate.

Note: Regular users without special privileges can typically change files in this folder. For a truly secure environment, you may wish to change the permissions on this file so the user cannot edit it and save those changes themselves.

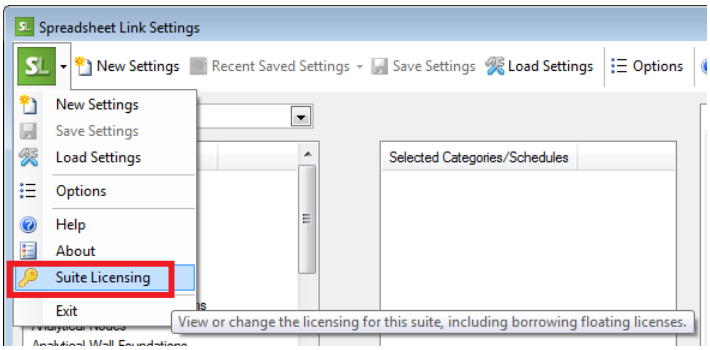
The first item on the list is the *Suite Settings* tool. If this tool is available to the user, it will allow them to turn on and off buttons themselves unless Method 2 (Active Directory, see below) has been implemented and forbids doing that, or if the user doesn't have permissions to change the settings file. The Suite Settings tool does that by simply modifying the text file, and looks like this:



Removing the Suite Settings (first) item from the list will remove this tool itself from the user's Revit ribbon bar.

Also note that the ability to control on which tab the buttons appear can be set here as well in the *Place buttons on the tab named* field. Leaving the field blank will put the buttons on the default "Add-Ins" tab.

Changing licensing settings or borrowing a network floating license can also be accomplished using the "Licensing" tab of this add-in. However, each premium add-in also has a *Suite Licensing* menu choice which provides an alternate path to changing the licensing functionality. It is therefore possible to not allow the Suite Settings button to be available while still providing a means for the Revit user to do things like borrow and return a license. They would just need to do it from within any premium tool.



Method 2: Using Active Directory Group Memberships

Active Directory group membership can be used to determine the availability of individual ribbon buttons as well as the ability to do things such as change licensing settings or to borrow a license.

This approach applies these settings, defined in one place, for all versions of Revit.

This approach ensures the settings for all users are applied to them no matter which workstation a user logs into, provided the Active Directory configuration file is the same on each workstation.

Unlike Method 1, this method must be manually deployed and configured. It is not put in place immediately during installation, nor does it have an application such as Suite Settings to change the configuration settings. The configuration settings can only be changed by editing the file with a text editor such as Notepad.

In the software installation folder, a self-explanatory template text file for configuring these settings will be found. The installation folder where this template file can be found is typically like one of the following:

Single user installer examples:

%AppData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files\CTC BIM Project Suite Settings.txt
%AppData%\CTC Software\CTC BIM Suites\CTC BIM Manager Suite Common Files\CTC BIM Manager Suite Settings.txt

Multi-user installer examples:

%ProgramData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files\CTC BIM Project Suite Settings.txt
%ProgramData%\CTC Software\CTC BIM Suites\CTC BIM Manager Suite Common Files\CTC BIM Manager Suite Settings.txt

The template file must be copied to the **C:\Users\Public\CTC Software\Suite Settings** folder in order for it to take effect when Revit is started. Instructions at the top of these files explain that.

When copied to the correct folder, the final full file name will be like one of these:

C:\Users\Public\CTC Software\Suite Settings\CTC BIM Project Suite Settings.txt
C:\Users\Public\CTC Software\Suite Settings\CTC BIM Manager Suite Settings.txt

The default settings in this file match how the system works when not using this file, with the exception that it assumes Active Directory group membership should be used for controlling the visibility of Revit ribbon buttons instead of the default Method 1 approach, described above.

Here is an example of the default contents for the file for BIM Manager Suite:

```
# Instructions:
#
#  - To be used, this file must be manually deployed to the folder:  C:\Users\Public\CTC Software\Suite Settings
#
#  - Any line that begins with a pound sign (#) is a comment line and will be ignored.
#
#  - It may be worth permissioning the deployed copy of this file so regular users cannot edit it.
#
#  - This file affects the settings for this product for all versions of Revit
#
#
# Active Directory-based access syntax (only security groups from Active Directory are supported):
#
#  <function> = <Comma-delimited list of Active Directory Groups whose members can use this functionality>
#
#               Leave blank to not allow any users to access this functionality, e.g. <function> =
#               To allow all users access, the Everyone group is fastest to check:  <function> = Everyone
#               (Domain Users also works, but would be slower.  Authenticated Users does not work)
#
#  Changing the list of groups for a functionality in this file requires restarting Revit for
#  the changes to take effect.
#
#  Adding a user to an Active Directory Group requires them to log out and log back in for
#  group membership to work
#
#  Groups must be defined in the same domain to which the current Revit user is logged in.


# This setting controls who can change the license type (trial, node-locked, cloud shared or network
# floating and the network server name)
AllowChangingLicensingSettingsADGroups = Everyone

# This setting controls for whom the licensing 'Borrow' button is available
# Does not affect Options File settings on the actual license server.
AllowBorrowingAFloatingLicenseADGroups = Everyone

# This setting controls for whom the "Download Latest Suite Installer" button on the About dialog is available
AllowDownloadingLatestInstallerADGroups = Everyone

# This setting controls for whom the "Buy Now!" button on the About and Licensing dialogs is available
AllowBuyNowButton = Everyone


# This section controls how ribbon buttons are made available to users.  Manual button visibility means the
# RibbonButtonVisiblitySettings.txt file in the suite installation folder is used.  This is the file that is
# edited by the Suite Settings add-in.  If the value for manual settings below is false, the user will also
# not be able to edit that list in the Suite Settings add-in.  If both values below are false, the user
# will have access to all available tool buttons.
# If both settings below are true, ONLY manual button visibility will be used.

AllowManualRibbonButtonVisibilityChanging = false
UseActiveDirectoryForRibbonButtonVisibility = true


# This setting controls how buttons that exist but are not specified in the section below
# will be made available to users.  For example, new tools that exist after updating the software.
ShowUnspecifiedRibbonButtonsADGroups = Everyone


# This section defines who can access each ribbon button for this suite (which buttons are visible)
# based on Active Directory group memberships.
# The latest list of available tool buttons can always be found in the master copy of this file, which
# is in the installation folder.  That master copy may be changed whenever the software is updated.

BIM Manager Suite Settings = Everyone
Family Preview Manager = Everyone
Family Tools = Everyone
Project Cleaner = Everyone
Revision Cloud Remover = Everyone
Dimension Checker = Everyone
Family Checker = Everyone
Family Processor = Everyone
Import & Link Mgr = Everyone
Schedule Parameter Resolver = Everyone
Shared Parameter Manager = Everyone
Type Swapper = Everyone
```

As the comments in the settings file show, it is possible to control access to borrowing licenses using Active Directory group memberships while still allowing the user to control which ribbon buttons are available.

Also as mentioned in the file, multiple Active Directory groups can be used to grant access to any item. For example:

AllowBorrowingAFloatingLicenseADGroups = BIM_Managers, Domain Admins

In this case, regular daily users of Revit would not be able to borrow a license; the buttons for doing that would be disabled. Only BIM managers or domain administrators could do that.

Note: Nested Active Directory group membership checking **is supported.**

For the example above, if Jeff is a member of the *SeniorManagement* Active Directory group, and that group is a member of the *Domain Admins* group, but Jeff is not directly a member of the *Domain Admins* group, Jeff would still be able to borrow a license.

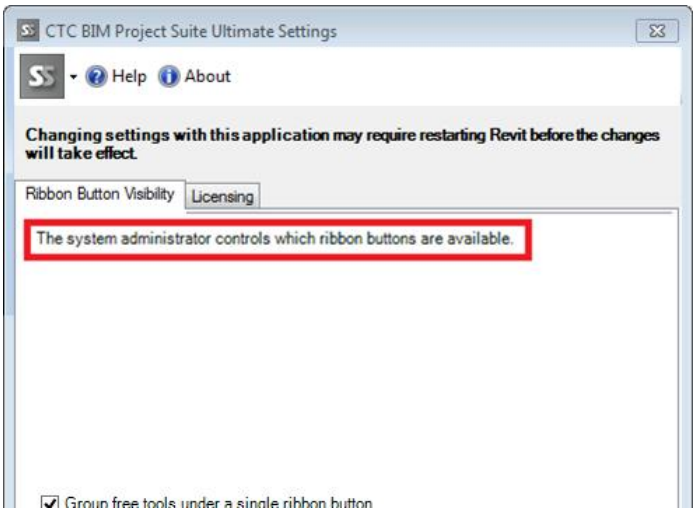
At the bottom of the file is the list of valid button names that will be visible only to those members of the specified Active Directory group(s) for each button.

This list may change when new versions of the suite are released. For example, more buttons may be available in a later release should more tools be added to the suite. Any button that is available in the suite but that is not specifically listed at the bottom of this file is considered an "unspecified" button.

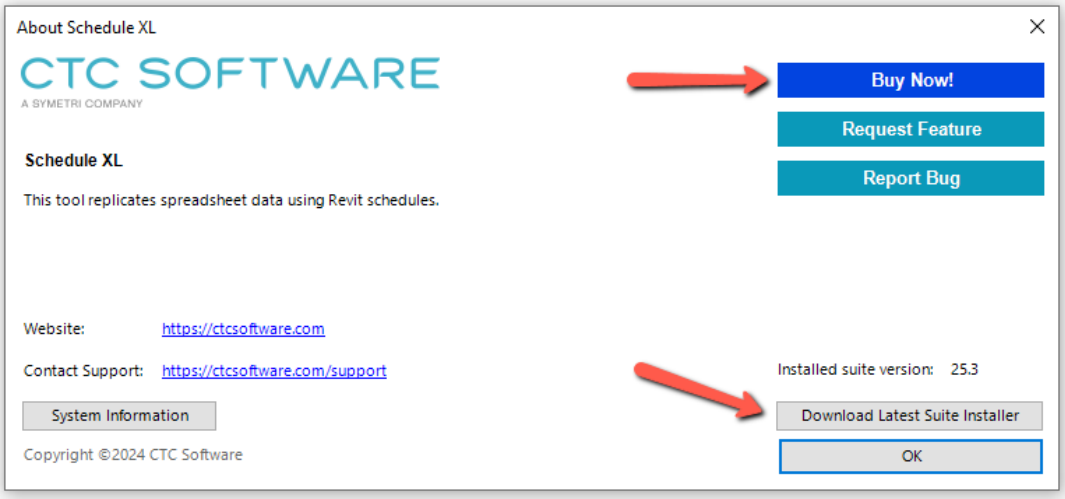
The ShowUnspecifiedRibbonButtonsADGroups setting allows specifying which, if any, users can see buttons that haven't been specifically configured.

IMPORTANT: When a new version of the suite is installed, the person responsible for maintaining and deploying this security file should review the master copy of this file (found in the installation folder) to see if any new buttons are available, and update the copy of the file being used on the Revit workstation(s) to include those new button definitions and define the security groups that are allowed to use those new buttons, as appropriate.

When using Active Directory to control which ribbon buttons are available to the user, the Suite Settings dialog prevents the user from trying to change which buttons are available. The dialog looks like this:



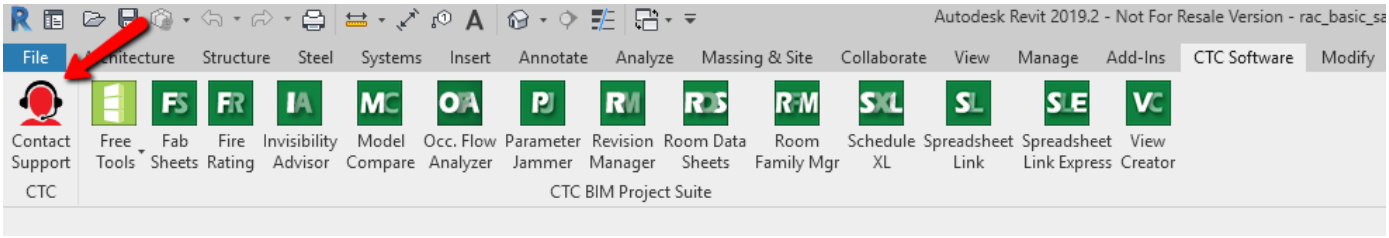
This is what an About dialog looks like when the Revit user is allowed to see the "Buy Now" button and the "Download Latest Suite Installer" button (the default):

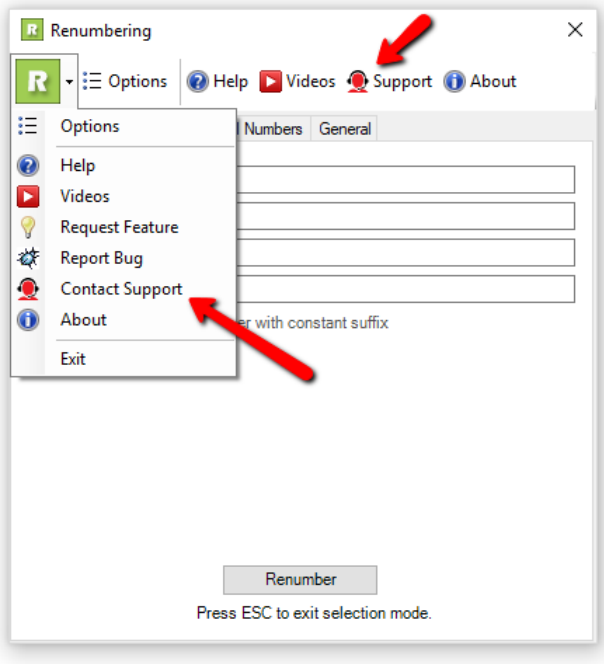


These buttons can only be hidden when using the Active Directory configuration file system. It may be desirable to hide the download button to help control exactly which version of a suite is installed.

Managing the Contact Support Button Visibility

The *Contact Support* button can be found in both the Revit ribbon as well as within each tool:





The first time Revit is run with a CTC suite installed, a configuration file is created which controls the visibility of this button:

C:\Users\Public\CTC Software\Suite Settings\Contact Support Settings.xml

Which looks like this:

```
<?xml version="1.0" encoding="utf-8"?>
<CTCSupportSettings xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <Version>1</Version>
  <CTCSupportButtonVisible>true</CTCSupportButtonVisible>
  <CTCSupportURL>https://ctcsoftware.com/support</CTCSupportURL>
</CTCSupportSettings>
```

As some organizations may want to control how support for Revit users is handled (e.g. internally) this tool can be turned off. Changing the highlighted value to: **false**
will prevent this button from being visible in either the ribbon or from within the tools.

If this file is deployed to Revit workstations before the first time Revit is run with a CTC suite installed, the deployed file will be used. Errors in the file will result in the button being displayed, which is the default behavior.

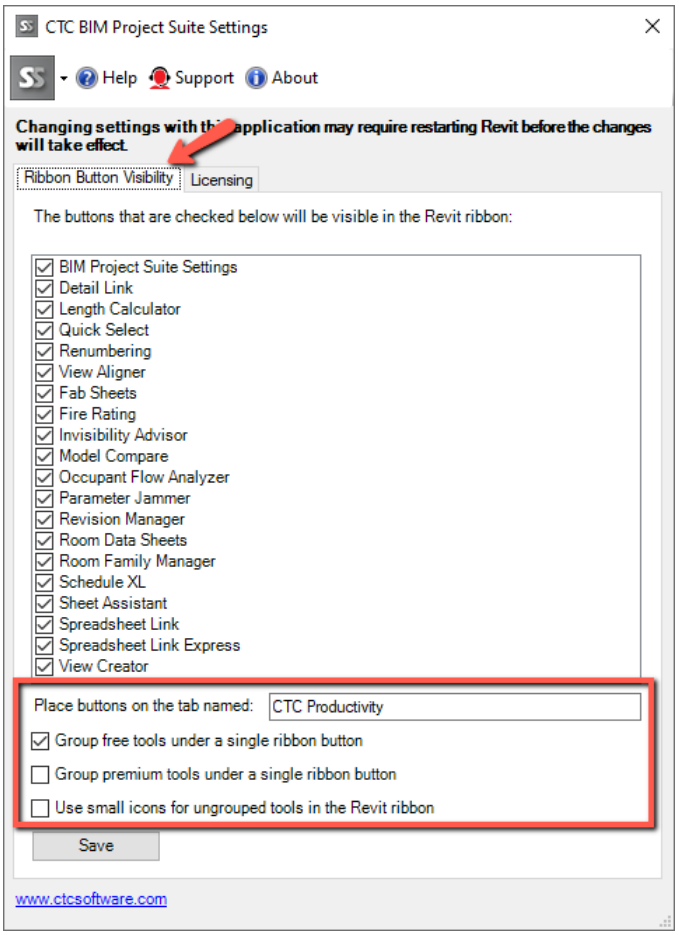
If turned off, the support link in the About dialog (seen above) for each tool will also be hidden.

Managing the Revit Ribbon Tab Used and Button Appearance

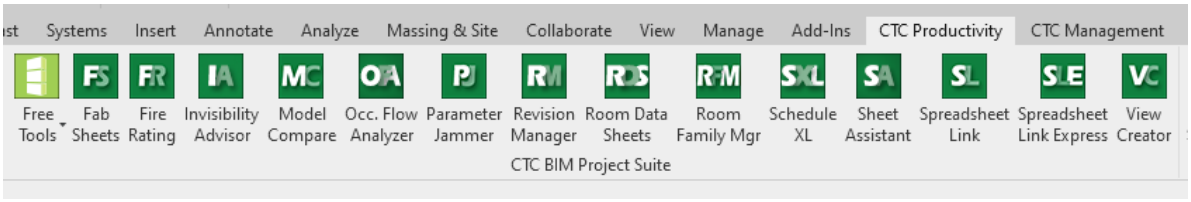
The CTC Software suites offer many tools which assist with managing the Revit ribbon.

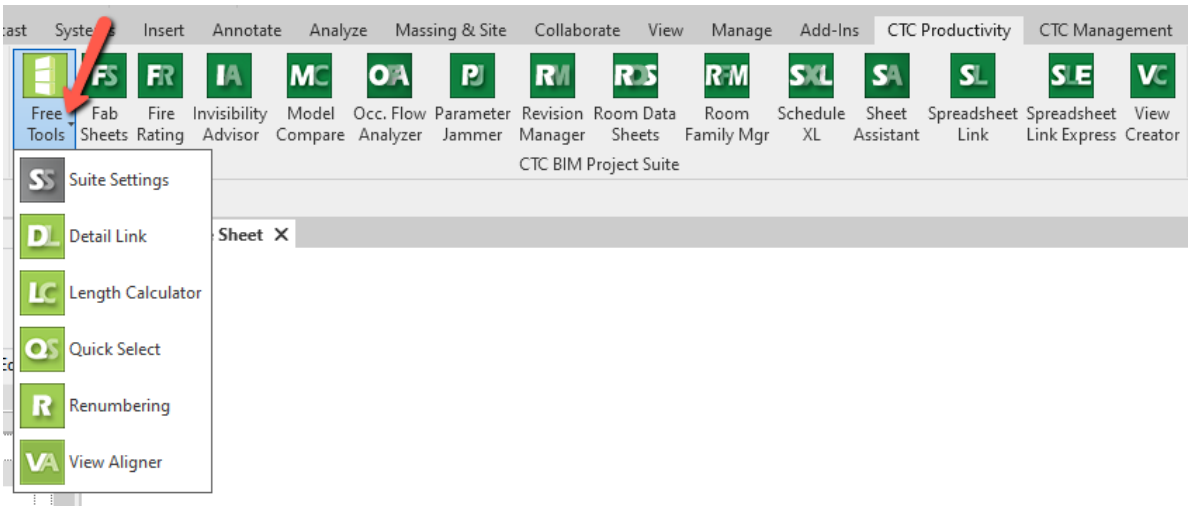
Using the Suite Settings Program

The Suite Settings program lets the user specify how the buttons to which they have access appear. The default settings for BIM Project Suite are shown in this image:



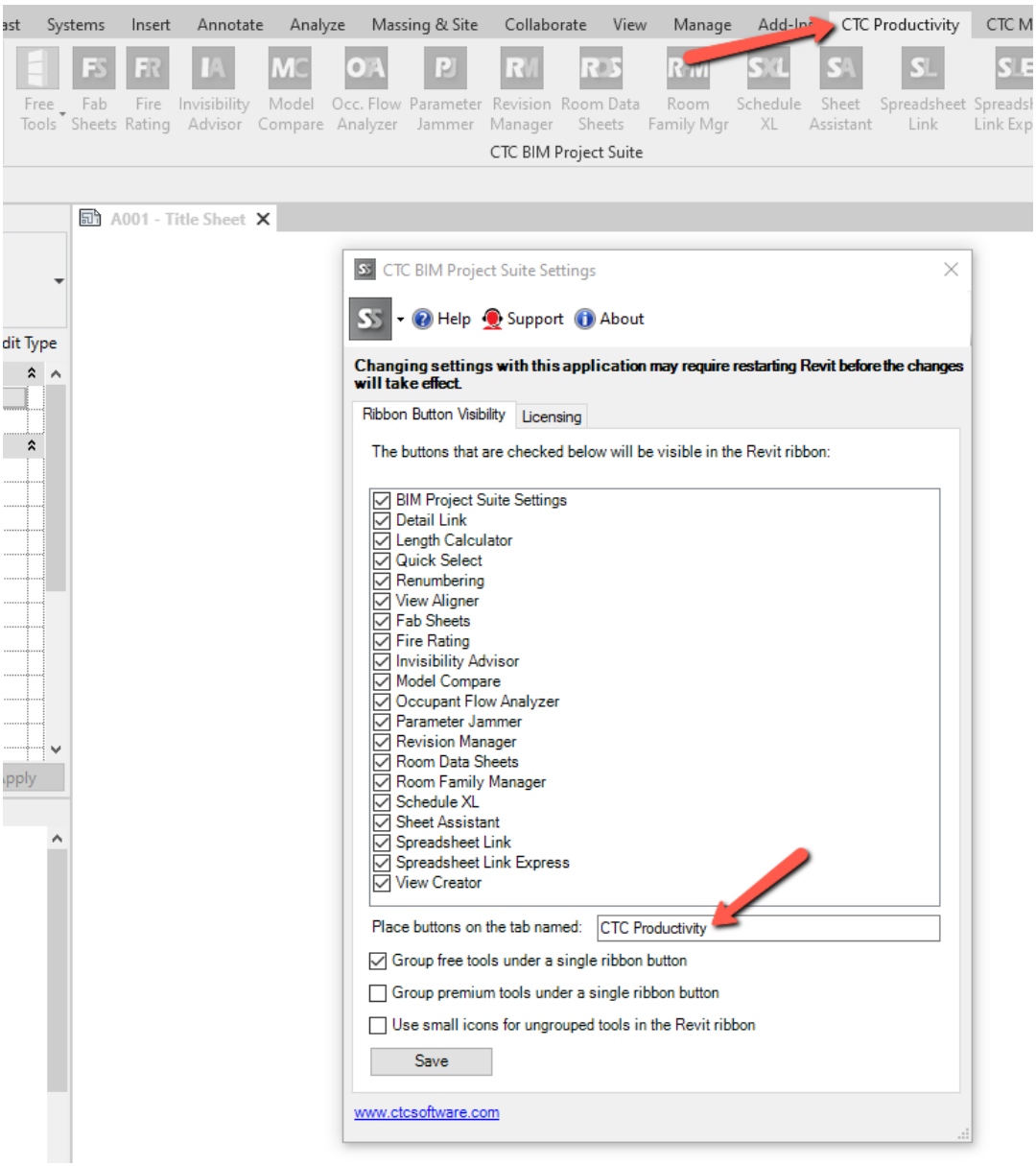
This is how they appear in Revit:



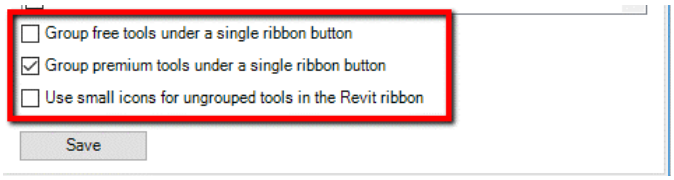


NOTE: If only one tool is visible within a group when grouping is enabled, the group dropdown button will NOT appear. Instead, only that one tool's icon will appear in its place.

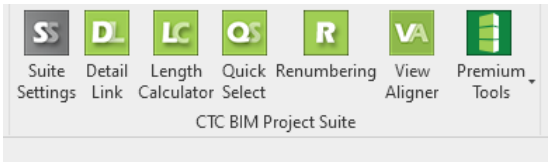
The Suite Settings program lets the user control on which ribbon tab the tools will appear:



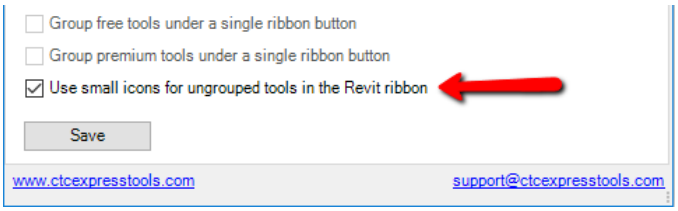
The Suite Settings program also lets the user group or ungroup either free or premium tools:



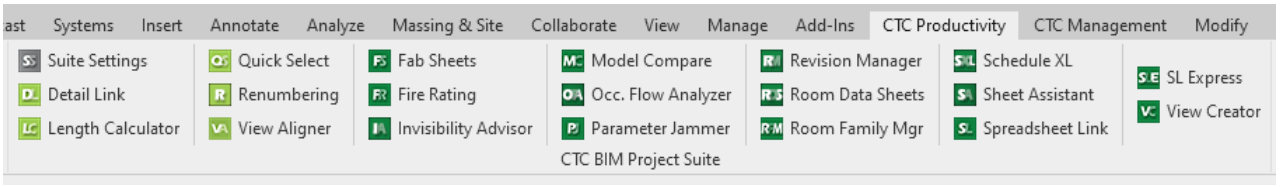
The results of these settings look like this:



The user can also specify to use small icons for those buttons hosted directly on the Revit ribbon, instead of using the default large icons:



The results of these settings look like this:



Using the Icon Settings Configuration File

The settings for ribbon button icon appearance (size, tab name, groupings) are stored in a text file located in folders such as:

Single user installer location examples:

%AppData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files
%AppData%\CTC Software\CTC BIM Suites\CTC BIM Manager Suite Common Files

Multi-user installer location examples:

%ProgramData%\CTC Software\CTC BIM Suites\CTC BIM Project Suite Common Files
%ProgramData%\CTC Software\CTC BIM Suites\CTC BIM Manager Suite Common Files

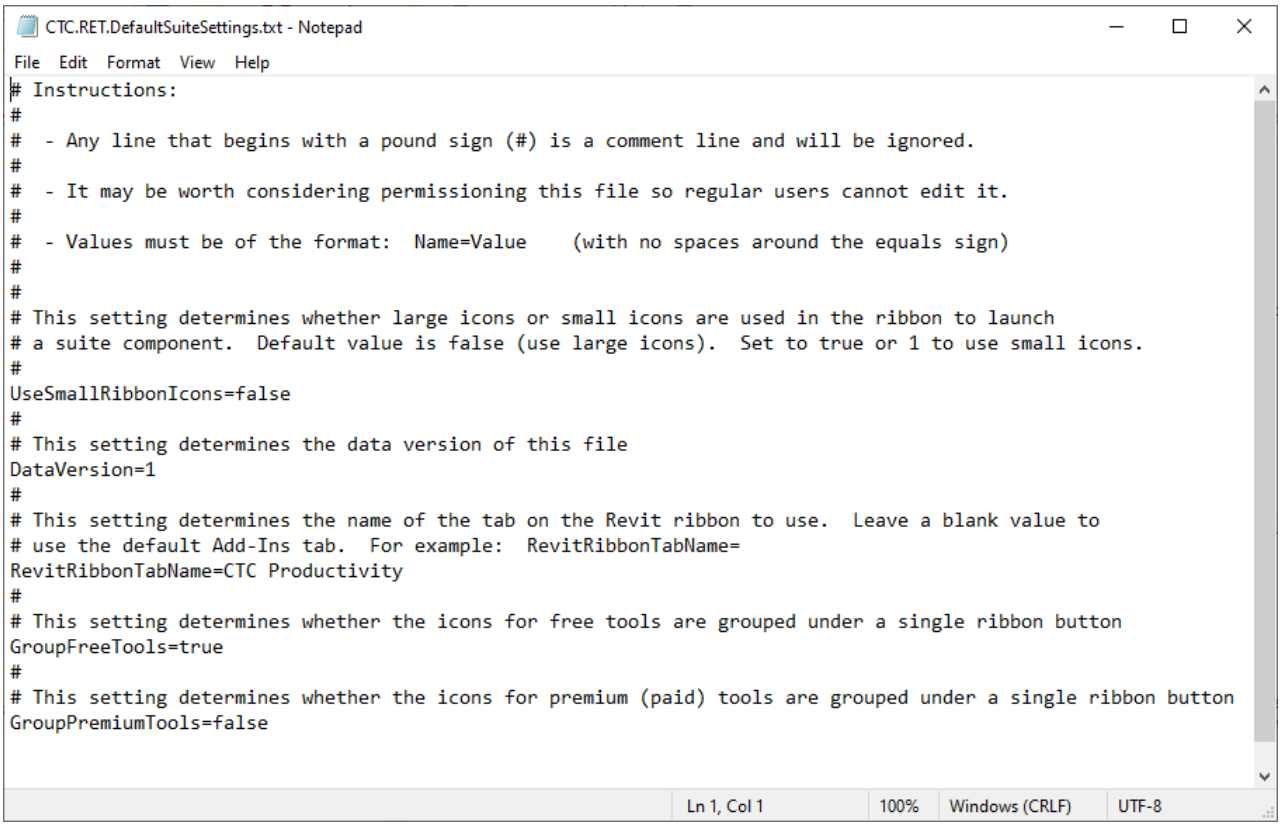
They have file names such as:

CTC BIM Project Suite Icon Settings.txt
CTC BIM Manager Suite Icon Settings.txt

These files get manipulated by their respective Suite Settings tools.

NOTE: These files will not appear in their folders until Revit is started the first time after the software is installed. These settings will apply to their respective suite regardless of which version of Revit is launched, and **will not** be overwritten if an updated version of the suite is installed.

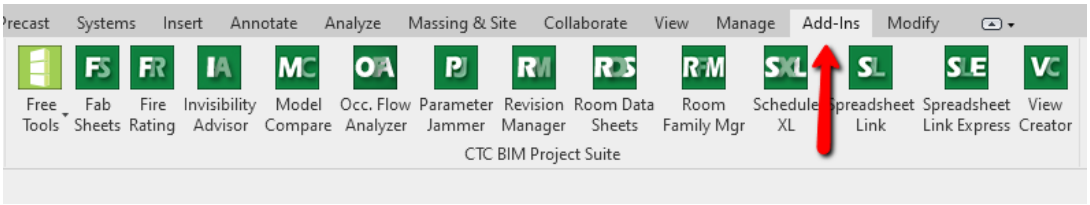
The default file for all suites looks like this (the RevitRibbonTabName may change depending on the suite):



For example, this setting:

`RevitRibbonTabName=`

(with no value provided) puts the buttons on the default Add-Ins tab, and appears this way in Revit:



Deploying Default User Settings

Most CTC plug-ins have settings which the user can control. Some have even more settings which can be overridden by an administrator by pushing out various settings files (described below).

The general user settings for most tools are stored in a location with the following pattern:

%AppData%\CTC Software\<Tool Name>\<Tool Name> User Settings.xml

For example:

C:\Users\<UserName>\AppData\Roaming\CTC Software\Project Cleaner\Project Cleaner User Settings.xml

A user settings file for a tool is typically not created until the tool is launched the first time by that user. Once these files are created and configured for a user, they can be copied to the Roaming folder for other users (e.g. via login script, Group Policy, etc.) to provide default user settings, should the desired settings be different than the standard settings that come with the tool.

Controlling Family Processor

The Family Processor tool, available in BIM Manager Suite, allows users to make many changes to one or more family files.

A settings file, which can be pushed out to workstations, controls some of the options in Family Processor.

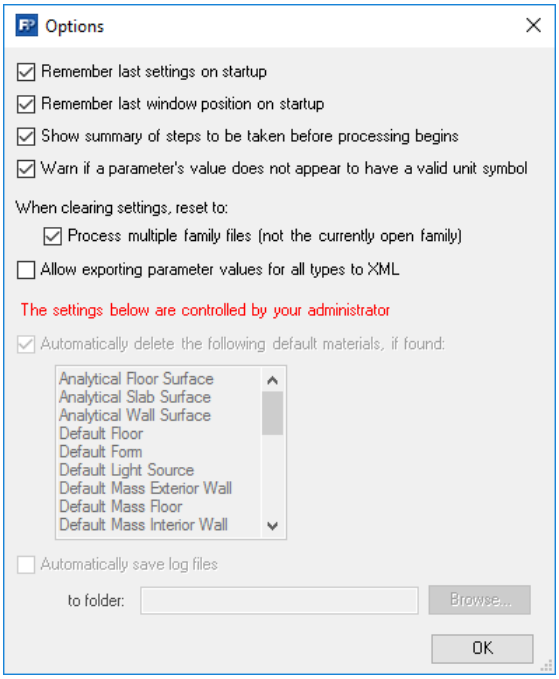
This settings file is initially created on Family Processor startup, and is located here:

C:\Users\Public\CTC Software\Family Processor\Family Processor Options.xml

The contents of this file look like this:

```
<?xml version="1.0" encoding="utf-8"?>
  <AutoDeleteDefaultMaterials>true</AutoDeleteDefaultMaterials>
  <AutoSaveLogFiles>false</AutoSaveLogFiles>
  <AutoSaveLogFilesToFolder />
</FamilyProcessorOptions>
```

If the current user does not have permission to update this file, the options in Family Processor will alert them that they cannot change these settings:



Controlling Model Compare

The Model Compare tool, available in BIM Project Suite, allows users take data "snapshots" of a project file and compare the differences. These snapshots can also be scheduled to run, for example after regular business hours.

It has several settings files which control how it operates. Most of these files are simple XML or text files whose settings are self-explanatory.

These files are all stored in the **C:\Users\Public\CTC Software\Model Compare** folder. These files can be pushed out by a system administrator to control the behavior of Model Compare.

IMPORTANT: The default versions of these files may not appear until after the Model Compare tool is launched the first time.

ModelCompareDefaultSettings.xml

This file controls much of how the main Model Compare add-in runs. These are the default values of interest:

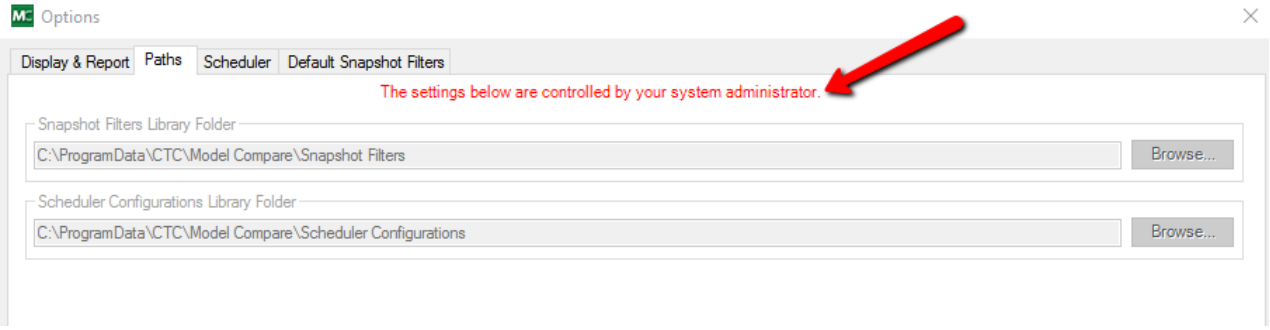
```
<DefaultSnapshotFilterSettingsFile>C:\Users\Public\CTC Software\Model Compare\ModelCompareDefaultSnapshotFilters.xml</DefaultSnapshotFilterSettingsFile>
<CreateScheduledSnapshotLogFiles>true</CreateScheduledSnapshotLogFiles>
<AutoDeleteOldLogFiles>true</AutoDeleteOldLogFiles>
<AutoDeleteLogFilesOlderThanDays>14</AutoDeleteLogFilesOlderThanDays>
<ScheduledSnapshotLogFilesFolder>C:\Users\Public\CTC Software\Model Compare\Scheduler Logs</ScheduledSnapshotLogFilesFolder>
<WorkToDoFolder>C:\Users\Public\CTC Software\Model Compare\Next Scheduled Work To Do</WorkToDoFolder>
<ShowTakeSnapshotToolbarButton>true</ShowTakeSnapshotToolbarButton>
<ShowEditFiltersLibraryToolbarButton>true</ShowEditFiltersLibraryToolbarButton>
<ShowEditScheduleConfigsToolbarButton>true</ShowEditScheduleConfigsToolbarButton>
<ShowSchedulerToolbarButton>true</ShowSchedulerToolbarButton>
<FolderBrowserShowsSavedUNCPaths>true</FolderBrowserShowsSavedUNCPaths>
<SnapshotFiltersLibraryFolder>C:\Users\Public\CTC Software\Model Compare\Snapshot Filters</SnapshotFiltersLibraryFolder>
<SchedulerConfigurationsLibraryFolder>C:\Users\Public\CTC Software\Model Compare\Scheduler Configurations</SchedulerConfigurationsLibraryFolder>
<DateFormat>yyyy-MM-dd</DateFormat>
<DefaultFileNameComponentSeparatorCharacter>_</DefaultFileNameComponentSeparatorCharacter>
<FileNameIllegalCharacterReplacementCharacter>-</FileNameIllegalCharacterReplacementCharacter>
<ShowSchedulerInstructions>true</ShowSchedulerInstructions>
```

The name of each setting should be fairly self-descriptive.

The highlighted options cannot be edited within the Model Compare add-in itself. They can only be edited by modifying this file in a text editor, such as Notepad. The *WorkToDoFolder* is the folder in which the add-in looks for work to do on Revit startup. A file may be placed there by the scheduler which tells it what to do in terms of the project file to open and what to plot and/or export from that project.

When *FolderBrowserShowsSavedUNCPaths* is true (the default) any "favorite" UNC paths **that don't have drive letters mapped** and are saved in Windows will be available under the "This PC" node when browsing for folders. However, when this is set, if the "Network" node is expanded, domain computers will not be visible.

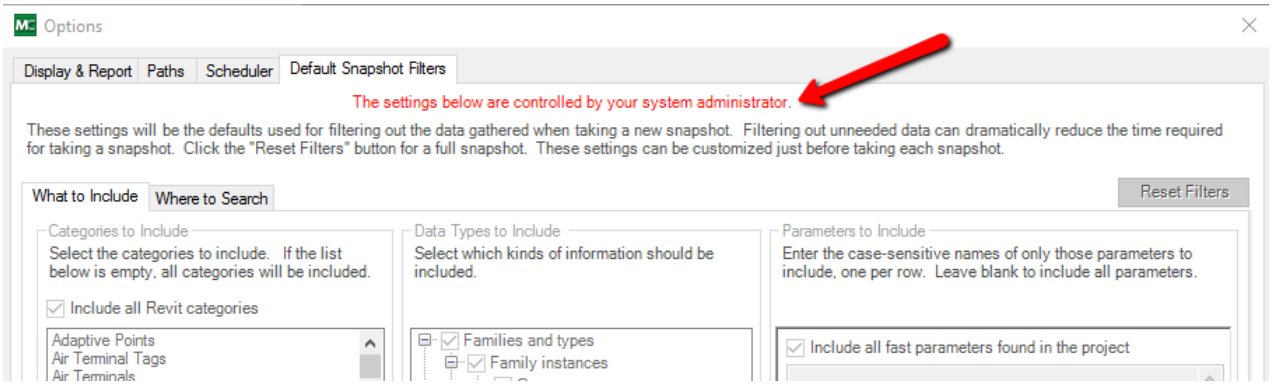
If this file is not writeable by the user, whether by file permissions or simply setting the ReadOnly attribute, the user will not be able to make changes to these settings, and will see a notification such as:



ModelCompareDefaultSnapshotFilters.xml

This file contains the default snapshot filters that will be used whenever the user clicks the "Take Snapshot" button. The user can always change the filter settings to use for actually taking their snapshot, these are just the default values that appear when they first specify to take a snapshot.

If this file is not writeable by the user, whether by file permissions or simply setting the ReadOnly attribute, the user will not be able to make changes to these settings, and will see a notification such as:



FileOpenDialogAutomation.txt

This file controls how pop-up dialogs are automatically dismissed when a Revit file is opened during scheduled snapshot processing. The default file is written based on the **English** version of Revit, but can be edited to work in other languages.

While detailed instructions are provided in the file itself, here is a small example:

```
TitleContains=Audit Warning
ButtonAction=Yes

TitleContains=Opening Worksets
ButtonAction=OK

TitleContains=Copied Central Model
ButtonAction=Close
```

This one is a special case. If buttons to activate have an underscore below one of the characters in the text on the button, that allows for a hotkey combination to activate the button using just the keyboard. For example, some dialogs may have an underscore below the "C" in "Close" – like this: Close

Wherever you see the underscore, you must prefix that letter with an & symbol in the configuration file, like this:

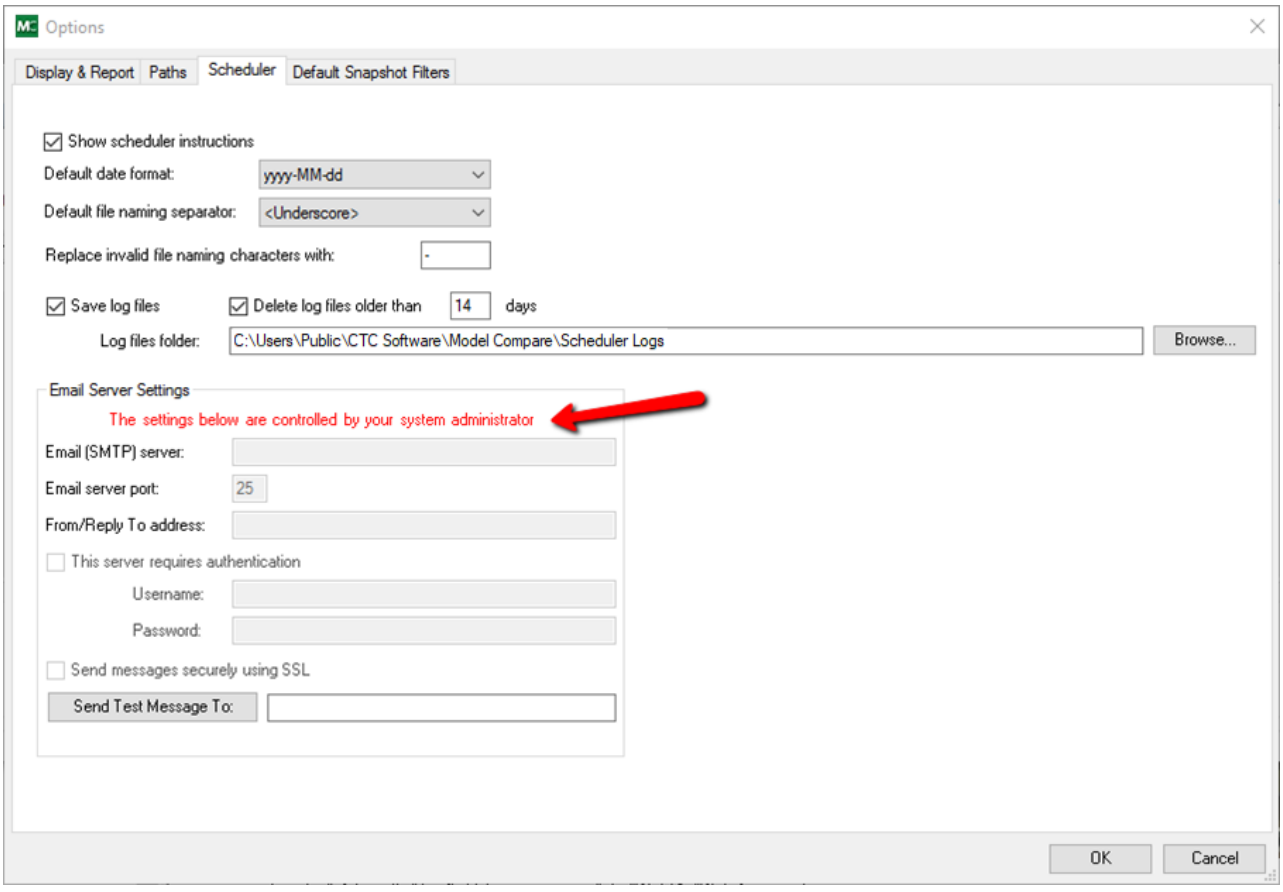
TitleContains=Structural Analytical Model Upgrade
ButtonAction=&Close

When using Model Compare if you see an (English) window that pops up during processing and doesn't go away automatically, please contact support@ctcsoftware.com with that information and screen image so the necessary rule can be added to the next release of Project and Families Upgrader.

But in the meantime, you can edit this file yourself to prevent a dialog from appearing which would then stop the scheduled processing.

Email SMTP Server Settings.xml

This file controls how the email SMPT server is defined for Model Compare to use for sending emails (e.g. sending log files). It is where settings seen on the "Email Server Settings" area of the "Scheduler" tab of the Options are stored. If this file is not writeable by the user, whether by file permissions or simply setting the ReadOnly attribute, the edit controls will be disabled and the user will see the following:



The main contents of this file are as follows (default values shown):

```
<ApplicationDisplayName>Model Compare</ApplicationDisplayName>
<EmailServer />
<EmailServerPort>25</EmailServerPort>
<EmailFromAddress />
<EmailFromDisplayText>Model Compare</EmailFromDisplayText>
<EmailServerRequiresAuthentication>false</EmailServerRequiresAuthentication>
<EmailServerAuthUserName />
<EmailServerAuthPassword />
<EmailServerSendUsingSSL>false</EmailServerSendUsingSSL>
```

The highlighted items cannot be edited within the application. For some email servers, when providing a valid "from address" it will force the "from display text" in the emails sent to match the user name for that email account. However, some mail servers do not require providing an existing "from address," so if a made-up from address is provided, perhaps "modelcompare@mydomain.com" then the text set here will be seen in the "From" field of email messages sent.

IMPORTANT: The "EmailServerAuthPassword" value **cannot** be edited directly in this file using a text editor. This is because Model Compare stores that password in an encrypted format. Here is an example demonstrating this:

```
<ApplicationDisplayName>Plotter and Exporter</ApplicationDisplayName>
<EmailServer>MyMailServer</EmailServer>
<EmailServerPort>25</EmailServerPort>
<EmailFromAddress>PlotterAndExporter@mydomain.com</EmailFromAddress>
<EmailFromDisplayText>Plotter and Exporter</EmailFromDisplayText>
<EmailServerRequiresAuthentication>true</EmailServerRequiresAuthentication>
<EmailServerAuthUserName>MyUserName</EmailServerAuthUserName>
<EmailServerAuthPassword>e78N9k8ueGGqBOYzpCU3J8vcA86eFwJLPcxXioAz0Ig=</EmailServerAuthPassword>
<EmailServerSendUsingSSL>false</EmailServerSendUsingSSL>
```

The add-in will need to be used to specify the password, but the other values in this file may be edited with a text editor at a later time, if desired.

TaskSchedulerDefaultSettings.xml

This file controls the default values that are applied when a new Model Compare configuration file is added to the list for processing when defining a scheduled task. These are the default settings.

```
<SaveLogFiles>true</SaveLogFiles>
<SaveLogFilesFolder>C:\Users\Public\CTC Software\Model Compare\Export Logs</SaveLogFilesFolder>
<DeleteOldLogFiles>true</DeleteOldLogFiles>
<DeleteOldLogFilesOlderThanDays>14</DeleteOldLogFilesOlderThanDays>
<EmailLogFiles>false</EmailLogFiles>
<EmailLogFilesRecipient />
<AutoRunLowestRevitVersion>true</AutoRunLowestRevitVersion>
<SpecificRevitEXEToRun />
<OpenRevitFilesWithAudit>false</OpenRevitFilesWithAudit>
```

These settings are self-explanatory, and correspond directly with the configuration file settings user interface in the scheduler.

TaskSchedulerClientSettings.xml

This configuration file controls how the add-in communicates with the task scheduler, **and generally should not be edited.**

ScheduledExecutableSettings.xml

This configuration file controls the program which launches Revit at a scheduled time. The following lines from this file may be reasonable to edit:

```
<ScheduledProcessorWritesLogFiles>true</ScheduledProcessorWritesLogFiles>
<ScheduledProcessorLogFilesFolder>C:\Users\Public\CTC Software\Model Compare\Scheduled Task
Logs</ScheduledProcessorLogFilesFolder>
<ScheduledProcessorLogFileDetailLevel>0</ScheduledProcessorLogFileDetailLevel>
<AutoDeleteOldScheduledProcessorLogFiles>true</AutoDeleteOldScheduledProcessorLogFiles>
<AutoDeleteScheduledProcessorLogFilesOlderThanDays>14</AutoDeleteScheduledProcessorLogFilesOlderThanDays>
<EmailScheduledProcessorLogFiles>false</EmailScheduledProcessorLogFiles>
<EmailSMTPServerSettingsFile>C:\Users\Public\CTC Software\Model Compare\Email SMTP Server
Settings.xml</EmailSMTPServerSettingsFile>
<EmailScheduledProcessorLogFilesToRecipientAddresses />
<RevitAddInKeepsScheduledLogFiles>true</RevitAddInKeepsScheduledLogFiles>
<LaunchRevitInvisibly>true</LaunchRevitInvisibly>
<RunBeforeScriptInvisibly>false</RunBeforeScriptInvisibly>
<RunAfterScriptInvisibly>false</RunAfterScriptInvisibly>
<MaximumRevitLaunchTimeOutInSeconds>0</MaximumRevitLaunchTimeOutInSeconds>
<RunRevitAsAdmin>false</RunRevitAsAdmin>
<RunBeforeScriptAsAdmin>false</RunBeforeScriptAsAdmin>
<RunAfterScriptAsAdmin>false</RunAfterScriptAsAdmin>
```

The scheduled processor log files are always saved in comma-delimited (*.csv) file format. These log files list things like what task is being processed, what project file is being processed, what version of Revit is about to be launched, etc.

A ScheduledProcessorLogFileDetailLevel of 0 will store only those events from the scheduler itself, as mentioned immediately above. A value of 1 will include the details of the taking of the snapshot as well.

By default, any script or program set to run before or after the export will be run visibly (e.g. with a visible window). These two settings can be changed here if it's desirable to have these run without a window. Running them with a window may be useful for testing or debugging a script, for example.

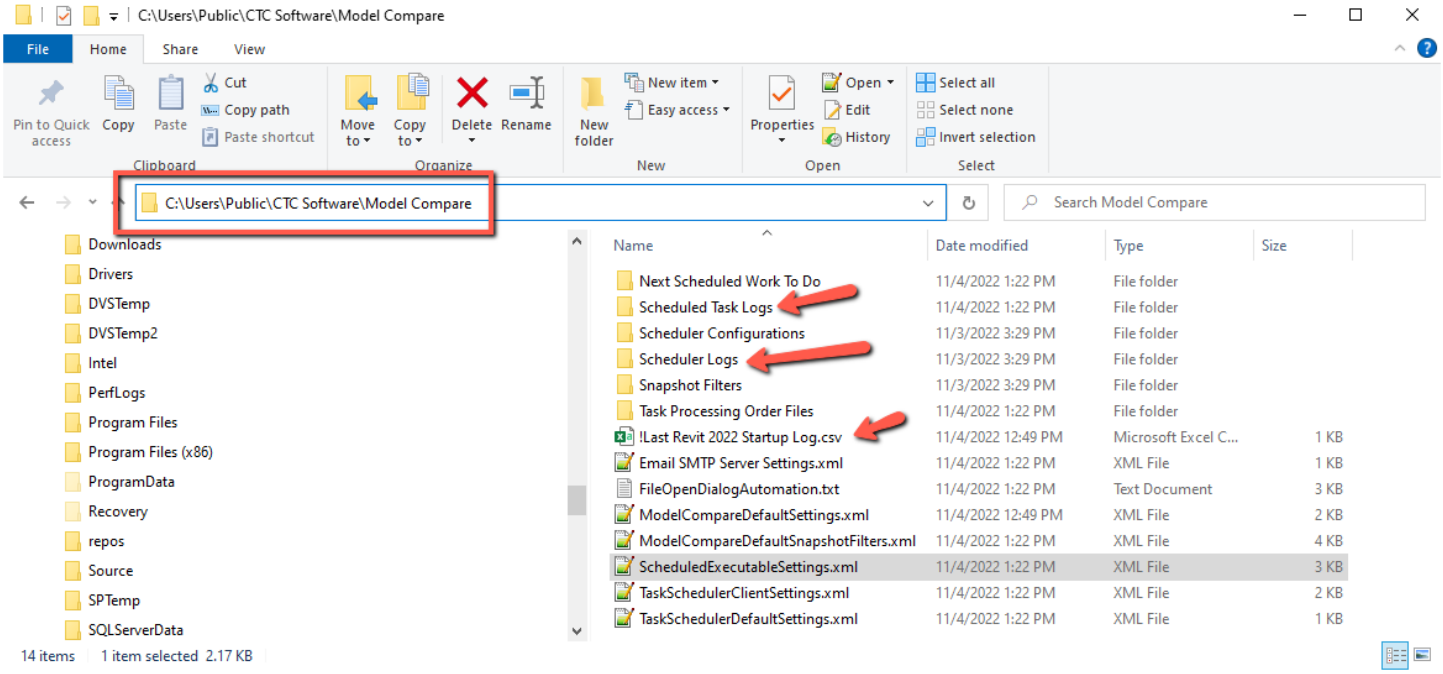
A MaximumRevitLaunchTimeOutInSeconds value of 0 will allow each Revit session opened (one per project file to process) to run as long as required. A value greater than zero will force the Revit process to be terminated if it runs for longer than the value specified.

RunRevitAsAdmin, RunBeforeScriptAsAdmin and RunAfterScriptAsAdmin control whether or not these things are run with the highest permissions the user has. Default values are False. On some systems (e.g. Windows 10 with User Account Control turned on) this can stop the scheduled processing by prompting whether or not it's ok to allow the software (including Revit) being launched to make changes to the system. However, if for some reason these do need to

be run with the highest privileges that can be accomplished by changing these values to true. They are false by default to ensure maximum security.

Scheduler Troubleshooting Tools

The primary tools for troubleshooting issues are the log files. These can be found in the following locations:



The “Scheduler Logs” folder contains the “mclog” XML files which have information about the actual snapshot creation process from a Revit project. These don’t usually list much information, but can include details about why a snapshot file couldn’t be created due to something like permissions issues.

The “Scheduled Task Logs” folder contains friendlier CSV files with similar information. These can readily be opened in spreadsheet software.

The “!Last Scheduled Revit 201x Startup Log.csv” files contain information generated when Revit starts up after the last time it was launched by the scheduler. These logs show what Revit did on startup, such as to where it copied a central file temporarily for opening as a new central file for processing, and other information about the processing that occurred within Revit as a result of the scheduler launching Revit.

The “!Last Revit 201x Startup Log.csv” files contain information generated the last time Revit started up, whether or not it was started by the scheduler. Most of the time these files report there’s no work for Model Compare to do, but the information will match the information found in the last **scheduled** startup log file if the scheduler was the last thing to launch Revit.

Controlling Plotter and Exporter

The Plotter and Exporter tool, available in BIM Batch Suite, allows users to plot and export from the currently open project (using the “Run Now” button) or they can schedule a plot and/or export to happen in the future.

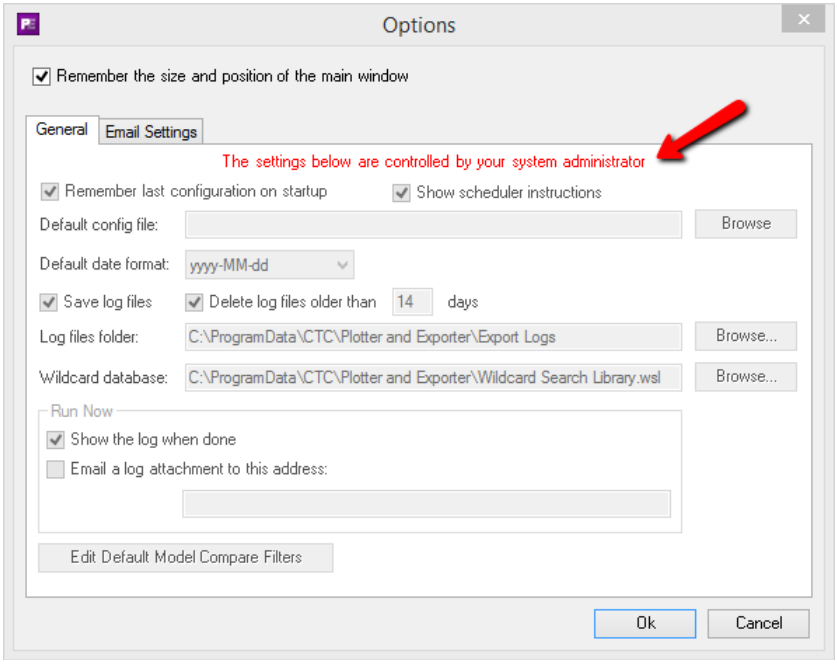
It has several settings files which control how it operates. Most of these files are simple XML or text files whose settings are self-explanatory.

These files are all stored in the **C:\Users\Public\CTC Software\Plotter and Exporter** folder. These files can be pushed out by a system administrator to control the behavior of Plotter and Exporter.

IMPORTANT: The default versions of these files may not appear until after the Plotter and Exporter tool is launched the first time.

PlotterandExporterDefaultSettings.xml

This file controls most of how the main Plotter and Exporter add-in runs. It is where settings seen on the “General” tab of the Options are stored. If this file is not writeable by the user, whether by file permissions or simply setting the ReadOnly attribute, the edit controls will be disabled and the user will see the following:



The main contents of this file are as follows (default values shown):

<DefaultConfigFile />
<RememberLastConfigOnStartup>true</RememberLastConfigOnStartup>
<CreateLogFiles>true</CreateLogFiles>
<AutoDeleteOldLogFiles>true</AutoDeleteOldLogFiles>
<AutoDeleteLogFilesOlderThanDays>14</AutoDeleteLogFilesOlderThanDays>
<LogFilesFolder>C:\Users\Public\CTC Software\Plotter and Exporter\Export Logs</LogFilesFolder>
<WildcardSearchLibraryDatabaseFileName>C:\Users\Public\CTC Software\Plotter and Exporter\Wildcard Search Library.wsl</WildcardSearchLibraryDatabaseFileName>
<DateFormat>yyyy-MM-dd</DateFormat>
<RunNowShowLogWhenDone>true</RunNowShowLogWhenDone>
<RunNowEmailLog>false</RunNowEmailLog>
<RunNowEmailToAddress />
<MaxTimeInSecondsToRetryPDFFileWriteStart>15</MaxTimeInSecondsToRetryPDFFileWriteStart>
<MaxTimeInSecondsToRetryPDFFileWriteComplete>15</MaxTimeInSecondsToRetryPDFFileWriteComplete>
<ShowSchedulerInstructions>true</ShowSchedulerInstructions>
<WorkToDoFolder>C:\Users\Public\CTC Software\Plotter and Exporter\Next Scheduled Work To Do</WorkToDoFolder>
<HideRunNowToolbarButton>false</HideRunNowToolbarButton>
<HideSchedulerToolbarButton>false</HideSchedulerToolbarButton>
<FolderBrowserShowsSavedUNCPaths>true</FolderBrowserShowsSavedUNCPaths>
<WildcardFilteringAllowUsingAdditionalParameters>true</WildcardFilteringAllowUsingAdditionalParameters>

<WildcardFilteringAdditionalParametersLibraryFileName>C:\Users\Public\CTC Software\Plotter and Exporter\WildcardFilteringAdditionalParametersLibrary.xml</WildcardFilteringAdditionalParametersLibraryFileName>

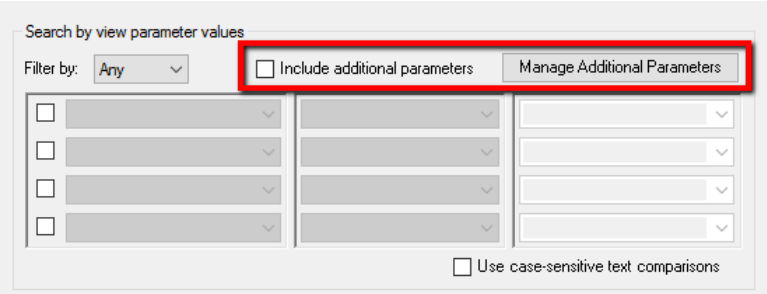
<WildcardFilteringIncludeAdditionalParametersByDefault>true</WildcardFilteringIncludeAdditionalParametersByDefault>
<WildcardFilteringWarnIfUnitSymbolsMissing>true</WildcardFilteringWarnIfUnitSymbolsMissing>

<WildcardFilteringExcludedParametersListFileName>C:\Users\Public\CTC Software\Plotter and Exporter\WildcardFilteringExcludedParametersList.txt</WildcardFilteringExcludedParametersListFileName>

The highlighted options cannot be edited within the Plotter and Exporter add-in itself. They can only be edited by modifying this file in a text editor, such as Notepad. The *WorkToDoFolder* is the folder in which the add-in looks for work to do on Revit startup. A file may be placed there by the scheduler which tells it what to do in terms of the project file to open and what to plot and/or export from that project.

When *FolderBrowserShowsSavedUNCPaths* is true (the default) any "favorite" UNC paths **that don't have drive letters mapped** and are saved in Windows will be available under the "This PC" node when browsing for folders. However, when this is set, if the "Network" node is expanded, domain computers will not be visible.

When *WildcardFilteringAllowUsingAdditionalParameters* is true, the user is allowed to edit the list of "additional parameters" from which they can choose when building a wildcard search for views or sheets, and control whether or not they are used in the list of choices. This is helpful because Plotter and Exporter allows building settings to use on many project files, and parameters in other project files may not be available as choices in the currently open project file. The highlighted controls below will be visible and accessible:



The *WildcardFilteringAdditionalParametersLibraryFileName* value controls the location of the file which lists the additional parameters add to the list of choices.

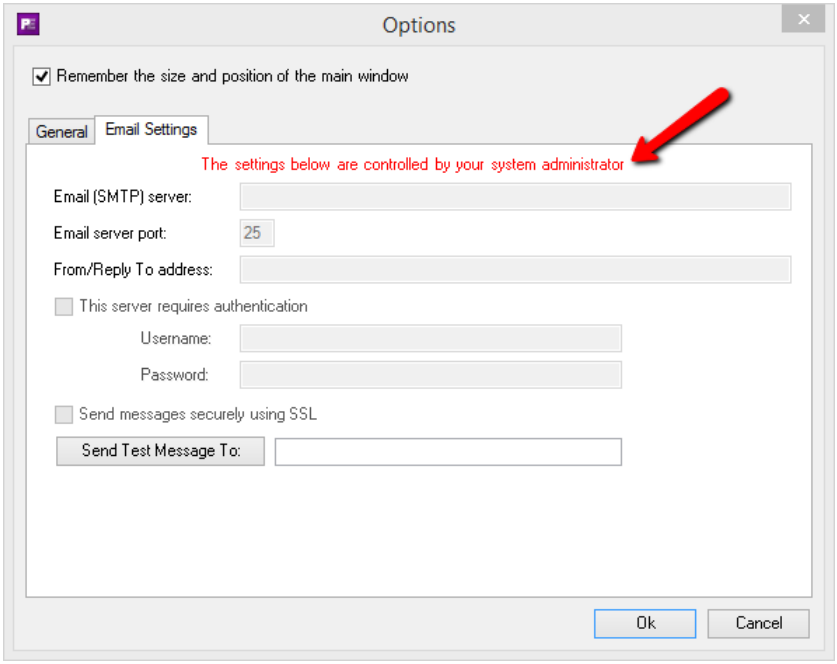
When *WildcardFilteringIncludeAdditionalParametersByDefault* is true, by default any additional parameters will be in the list of choices when the user starts the add-in. Even if *WildcardFilteringAllowUsingAdditionalParameters* is false (denying the user to control their use and their definitions) if *WildcardFilteringIncludeAdditionalParametersByDefault* is true, any parameters defined in the file will be on the list of choices. The user will simply not be able to get them out of the list of choices or change their definitions.

When *WildcardFilteringWarnIfUnitSymbolsMissing* is true, if the user enters a comparison value for a parameter whose type has units of measure, if the user doesn't enter units of measure, a warning will appear with a list of choices of valid units of measure which the user can copy and paste into the comparison value field.

The *WildcardFilteringExcludedViewParametersListFileName* and *WildcardFilteringExcludedSheetParametersListFileName* values control the file names whose contents list the names of parameters that should never be visible to the user. These may be common parameters that would never be needed for wildcard searching, and would otherwise just clutter the list of choices the user has to read.

Email SMTP Server Settings.xml

This file controls how the email SMPT server is defined for Plotter and Exporter to use for sending emails (e.g. sending log files). It is where settings seen on the "Email Settings" tab of the Options are stored. If this file is not writeable by the user, whether by file permissions or simply setting the ReadOnly attribute, the edit controls will be disabled and the user will see the following:



The main contents of this file are as follows (default values shown):

```
<ApplicationDisplayName>Plotter and Exporter</ApplicationDisplayName>
<EmailServer />
<EmailServerPort>25</EmailServerPort>
<EmailFromAddress />
<EmailFromDisplayText>Plotter and Exporter</EmailFromDisplayText>
<EmailServerRequiresAuthentication>false</EmailServerRequiresAuthentication>
<EmailServerAuthUserName />
<EmailServerAuthPassword />
<EmailServerSendUsingSSL>false</EmailServerSendUsingSSL>
```

The highlighted items cannot be edited within the application. For some email servers, when providing a valid "from address" it will force the "from display text" in the emails sent to match the user name for that email account. However, some mail servers do not require providing an existing "from address," so if a made-up from address is provided, perhaps "plotterandexporter@mydomain.com" then the text set here will be seen in the "From" field of email messages sent.

IMPORTANT: The "EmailServerAuthPassword" value **cannot** be edited directly in this file using a text editor. This is because Plotter and Exporter stores that password in an encrypted format. Here is an example demonstrating this:

```
<ApplicationDisplayName>Plotter and Exporter</ApplicationDisplayName>
<EmailServer>MyMailServer</EmailServer>
<EmailServerPort>25</EmailServerPort>
<EmailFromAddress>PlotterAndExporter@mydomain.com</EmailFromAddress>
<EmailFromDisplayText>Plotter and Exporter</EmailFromDisplayText>
<EmailServerRequiresAuthentication>true</EmailServerRequiresAuthentication>
<EmailServerAuthUserName>MyUserName</EmailServerAuthUserName>
<EmailServerAuthPassword>e78N9k8ueGGqBOYzpCU3J8vcA86eFwJLPcxXioAz0Ig=</EmailServerAuthPassword>
<EmailServerSendUsingSSL>false</EmailServerSendUsingSSL>
```

The add-in will need to be used to specify the password, but the other values in this file may be edited with a text editor at a later time, if desired.

TaskSchedulerDefaultSettings.xml

This file controls the default values that are applied when a new Plotter and Exporter configuration file is added to the list for processing when defining a scheduled task. These are the default settings.

```
<SaveLogFiles>true</SaveLogFiles>
<SaveLogFilesFolder>C:\Users\Public\CTC Software\Plotter and Exporter\Export Logs</SaveLogFilesFolder>
<DeleteOldLogFiles>true</DeleteOldLogFiles>
<DeleteOldLogFilesOlderThanDays>14</DeleteOldLogFilesOlderThanDays>
<EmailLogFiles>false</EmailLogFiles>
<EmailLogFilesRecipient />
<AutoRunLowestRevitVersion>true</AutoRunLowestRevitVersion>
<SpecificRevitEXEToRun />
<OpenRevitFilesWithAudit>false</OpenRevitFilesWithAudit>
```

By default, the "SaveLogFilesFolder" value is the same as the regular log files folder. The setting in this file specifies where to save log files to for scheduled exports, whereas the "LogFilesFolder" value in the PlotterAndExporterDefaultSettings.xml specifies where to store logs when the "Run Now" button is clicked.

While not required to be the same folder, it's helpful to have them match so reviewing logs within the Plotter and Exporter add-in will easily show all the logs from both "Run Now" and scheduled exports in one, convenient list.

TaskSchedulerClientSettings.xml

This configuration file controls how the Plotter and Exporter add-in communicates with the task scheduler, **and generally should not be edited.**

ScheduledExecutableSettings.xml

This configuration file controls the program which launches Revit at a scheduled time. The following lines from this file may be reasonable to edit:

```
<ScheduledProcessorWritesLogFiles>true</ScheduledProcessorWritesLogFiles>
<ScheduledProcessorLogFilesFolder>C:\Users\Public\CTC Software\Plotter and Exporter\Scheduled Task
Logs</ScheduledProcessorLogFilesFolder>
<ScheduledProcessorLogFileDetailLevel>0</ScheduledProcessorLogFileDetailLevel>
<AutoDeleteOldScheduledProcessorLogFiles>true</AutoDeleteOldScheduledProcessorLogFiles>
<AutoDeleteScheduledProcessorLogFilesOlderThanDays>14</AutoDeleteScheduledProcessorLogFilesOlderThanDays>
<EmailScheduledProcessorLogFiles>false</EmailScheduledProcessorLogFiles>
<EmailSMTPServerSettingsFile>C:\Users\Public\CTC Software\Plotter and Exporter\Email SMTP Server
Settings.xml</EmailSMTPServerSettingsFile>
<EmailScheduledProcessorLogFilesToRecipientAddresses />
<RevitAddInKeepsScheduledLogFiles>true</RevitAddInKeepsScheduledLogFiles>
<LaunchRevitInvisibly>true</LaunchRevitInvisibly>
<RunBeforeScriptInvisibly>false</RunBeforeScriptInvisibly>
<RunAfterScriptInvisibly>false</RunAfterScriptInvisibly>
<MaximumRevitLaunchTimeOutInSeconds>0</MaximumRevitLaunchTimeOutInSeconds>
<RunRevitAsAdmin>false</RunRevitAsAdmin>
<RunBeforeScriptAsAdmin>false</RunBeforeScriptAsAdmin>
<RunAfterScriptAsAdmin>false</RunAfterScriptAsAdmin>
```

The scheduled processor log files are always saved in comma-delimited (*.csv) file format. These log files list things like what task is being processed, what project file is being processed, what version of Revit is about to be launched, etc.

A ScheduledProcessorLogFileDetailLevel of 0 will store only those events from the scheduler itself, as mentioned immediately above. A value of 1 will include the details of the export as well, which are the same as normally seen within the add-in at the end of a "Run Now" execution. These will include things like when the current printer settings are changed, which view is being exported to which file, etc.

If RevitAddInKeepsScheduledLogFiles is set to false, then the export logs will not be saved (will not appear in the "View Log" list within the add-in. In that case, only the export logs when the "Run Now" button was clicked would be available for viewing.

By default, any script or program set to run before or after the export will be run visibly (e.g. with a visible window). These two settings can be changed here if it's desirable to have these run without a window. Running them with a window may be useful for testing or debugging a script, for example.

A MaximumRevitLaunchTimeOutInSeconds value of 0 will allow each Revit session opened (one per project file to process) to run as long as required. A value greater than zero will force the Revit process to be terminated if it runs for longer than the value specified.

RunRevitAsAdmin, RunBeforeScriptAsAdmin and RunAfterScriptAsAdmin control whether or not these things are run with the highest permissions the user has. Default values are False. On some systems (e.g. Windows 10 with User Account Control turned on) this can stop the scheduled processing by prompting whether or not it's ok to allow the software (including Revit) being launched to make changes to the system. However, if for some reason these do need to be run with the highest privileges that can be accomplished by changing these values to true. They are false by default to ensure maximum security.

Dialog Automation Files

FileOpenDialogAutomation.txt
ConfigurationDialogAutomation.txt
ExportProcessingDialogAutomation.txt

These files are all of the same structure and control how pop-up dialogs are automatically dismissed when processing is in progress. They are written based on the **English** version of Revit, but can be edited to work in other languages.

While detailed instructions are provided in the files themselves, here is a small example:

```
TitleContains=Printing Setting Changed For Shaded Views
ButtonAction=Close

TitleContains=DGN Export Unsupported Elements
ButtonAction=CommandLink1

MessageContains=print settings will be used
ButtonAction=Close

TitleContains=Opening Worksets
ButtonAction=OK
```

This one is a special case. If buttons to activate have an underscore below one of the characters in the text on the button, that allows for a hotkey combination to activate the button using just the keyboard. For example, some dialogs may have an underscore below the "C" in "Close" – like this: Close

Wherever you see the underscore, you must prefix that letter with an & symbol in the configuration file, like this:

```
TitleContains=Structural Analytical Model Upgrade
ButtonAction=&Close
```

When using Plotter and Exporter if you see an (English) window that pops up during processing and doesn't go away automatically, please contact support@ctcsoftware.com with that information and screen image so the necessary rule can be added to the next release of Plotter and Exporter.

But in the meantime, you can edit this file yourself to prevent a dialog from appearing which would then stop the processing.

WildcardFilteringAdditionalParametersLibrary.xml

This file controls the additional parameters that users see when creating a wildcard search for views or sheets. These parameters may be those found in some projects, but not all projects, but should always be available for the user to choose from.

This file should only be edited using Plotter and Exporter itself, via the "Manage Additional Parameters" button on the wildcard definition screen.

WildcardFilteringExcludedViewParametersList.txt & WildcardFilteringExcludedSheetParametersList.txt

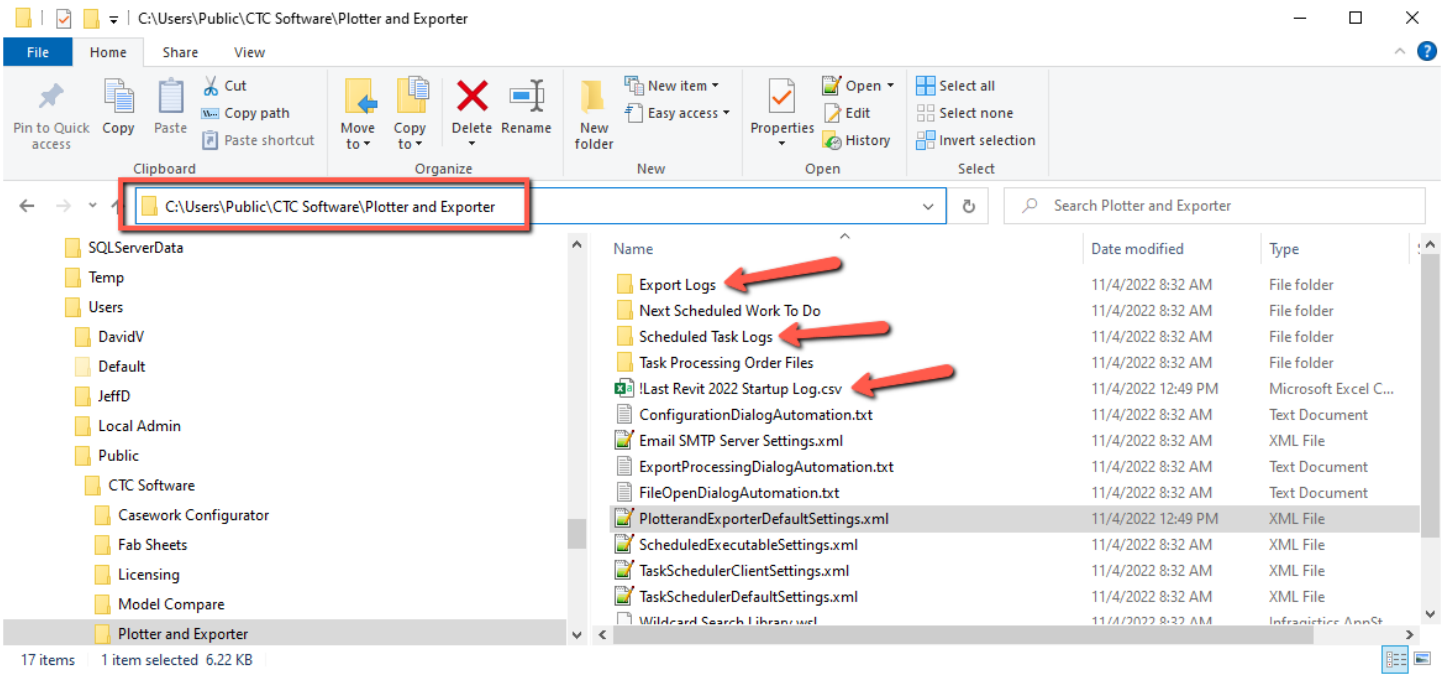
These are simple text files which lists parameters users should never see when building a wildcard search for views or sheets. These may be common parameters that would never be needed for filtering, and would otherwise just clutter the list of choices the user has to read.

This file can only be edited using a text editor, such as notepad. Its contents look like this (top few lines):

```
# Instructions:
#
#  - Any line that begins with a pound sign (#) is a comment line and will be ignored.
#  - This file contains a list of parameter names which, if found in the project for views
#    WILL NOT appear as choices from which to select parameters for filtering when building a
#    wildcard search for views.  This list *is* case-sensitive.
#
# Examples:
# ---------------------------------------------
# Annotation Crop
# Associated Datum
# Category
# ---------------------------------------------
#
Annotation Crop
Associated Datum
Category
<...>
```

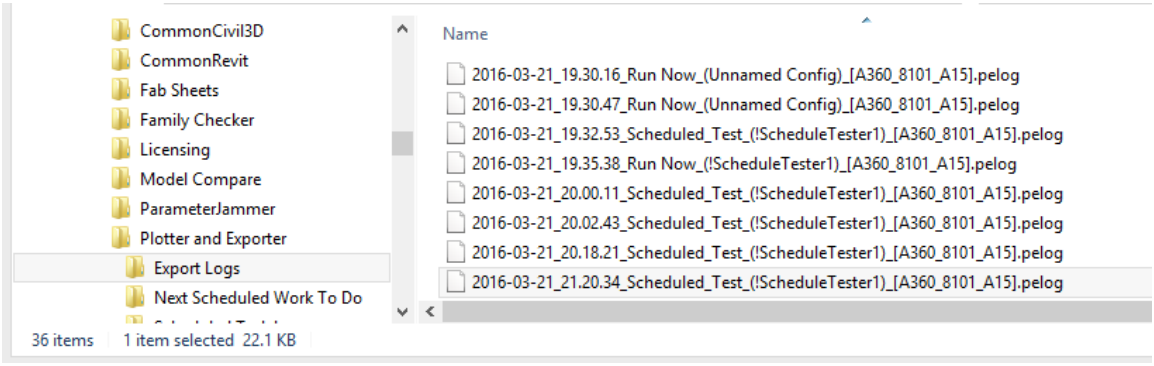
Troubleshooting Tools

The primary tools for troubleshooting issues are the log files. These can be found in the following locations:



The "Export Logs" folder contains the "pelog" files which have information about the actual export process from a Revit project. For example, they'll list which views or sheets were found, the locations and filenames of files generated, etc. Pelog files are in XML format, and are really only viewable in the Plotter and Exporter tool directly.

This is why all e-mailed log files are sent in comma-delimited (CSV) file format, so they may easily be opened and read in a spreadsheet program, such as Microsoft Excel, and do not require even having Revit installed to be able to be read. The files in the Export Logs folder may be from either the "Run Now" (manual) exports or the scheduled task (automated) exports.



The "Scheduled Task Logs" folder contains CSV files which are from the task scheduler. These logs contain information such as each of the configuration files and each of the project files being processed, the project files as they were found by the wildcard search, when and which version of Revit is launched for opening and processing each project file, etc.

The "!Last Scheduled Revit 201x Startup Log.csv" files contain information generated when Revit starts up after the last time it was launched by the scheduler. These logs show what Revit did on startup, such to where it copied a central file

temporarily for opening as a new central file for processing, and other information about the processing that occurred within Revit as a result of the scheduler launching Revit.

The "!Last Revit 201x Startup Log.csv" files contain information generated the last time Revit started up, whether or not it was started by the scheduler. Most of the time these files report there's no work for Plotter and Exporter to do, but the information will match the information found in the last **scheduled** startup log file if the scheduler was the last thing to launch Revit.

These logs can contain important information, for example if there's a general problem with the Plotter and Exporter such that it will never plot or export information until that general problem is fixed.

Controlling Project Snapshot Exporter

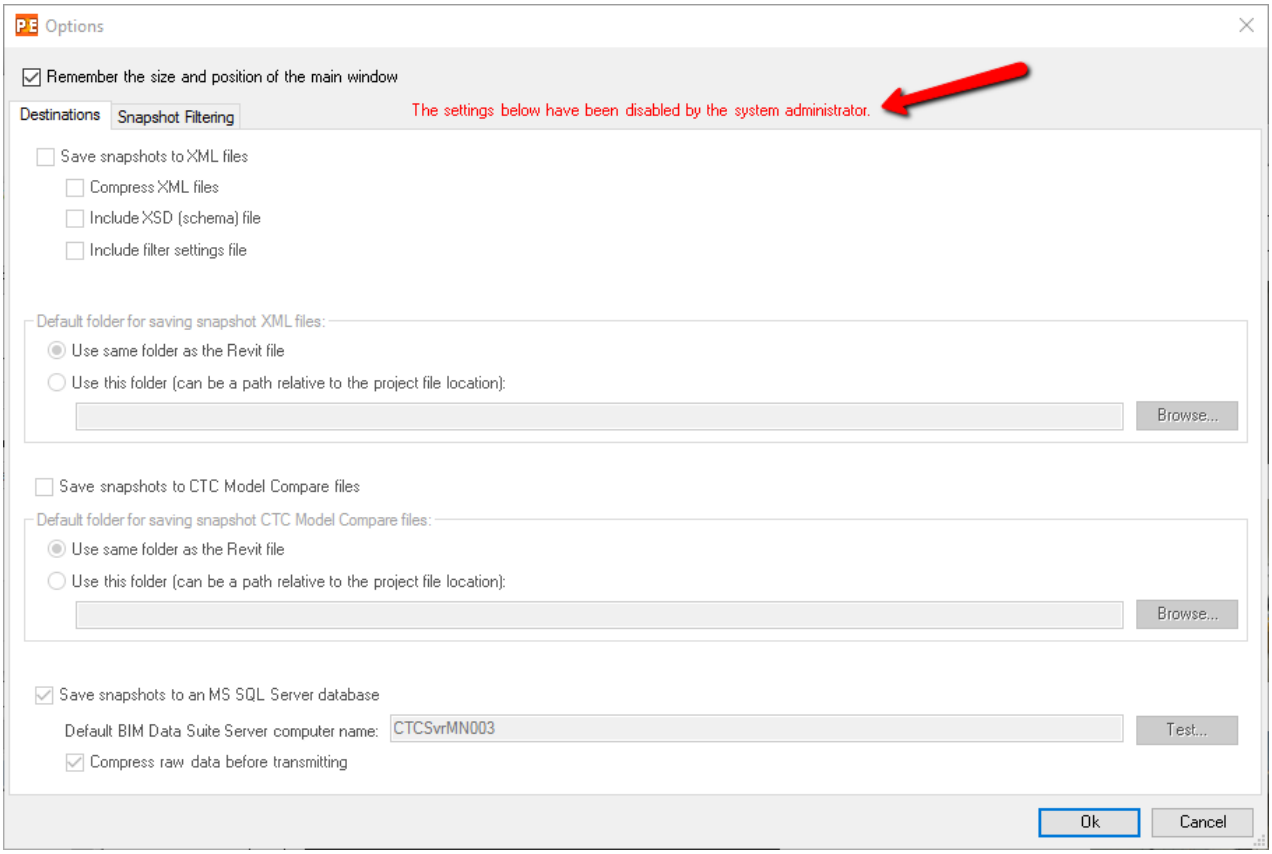
The Project Snapshot Exporter tool, available in BIM Data Suite, allows users to extract data from a Revit project and save that data to an XML file and/or Model Compare file and/or Microsoft SQL server database using BIM Data Suite Server.

The files for controlling Project Snapshot Exporter are initially created upon first running the tool, and are stored in the following folder:

C:\Users\Public\CTC Software\Project Snapshot Exporter

ProjectSnapshotExporterDefaultSettings.xml

This XML file controls the settings seen in the Options dialog. If the user does not have write permissions to this file (even if it's simply made read-only), they will not be allowed to change the options for this tool:



The settings in this file mirror the settings seen in the image above.

BIM Data Suite Server Connection Timeouts.xml

The settings in this file are self-explanatory, and control how long the tool will wait when sending data to the BIM Data Suite server for storage in a Microsoft SQL Server database. The default values should be high enough for even large data transmissions.

Controlling Projects and Families Upgrader

The Projects and Families Upgrader tool, available in BIM Batch Suite, allows users to upgrade project and family files to the current version of Revit being used.

Dialog Automation Files

FileOpenDialogAutomation.txt

This file will be created automatically the first time Projects and Families Upgrader is run. It is typically located in this folder:

C:\Users\Public\CTC Software\Projects and Families Upgrader

This file controls how pop-up dialogs are automatically dismissed when a Revit file is opened. The default file is written based on the **English** version of Revit, but can be edited to work in other languages.

While detailed instructions are provided in the file itself, here is a small example:

```
TitleContains=Audit Warning
ButtonAction=Yes

TitleContains=Opening Worksets
ButtonAction=OK

TitleContains=Copied Central Model
ButtonAction=Close
```

This one is a special case. If buttons to activate have an underscore below one of the characters in the text on the button, that allows for a hotkey combination to activate the button using just the keyboard. For example, some dialogs may have an underscore below the "C" in "Close" – like this: Close

Wherever you see the underscore, you must prefix that letter with an & symbol in the configuration file, like this:

```
TitleContains=Structural Analytical Model Upgrade
ButtonAction=&Close
```

When using Project and Families Upgrader if you see an (English) window that pops up during processing and doesn't go away automatically, please contact support@ctcsoftware.com with that information and screen image so the necessary rule can be added to the next release of Project and Families Upgrader.

But in the meantime, you can edit this file yourself to prevent a dialog from appearing which should then stop the processing.

Controlling Schedule XL

Schedule XL default settings can be set in two configuration files. These files are called: **GraphicsOptions.xml and Options.xml.** They are located in the folder: **C:\Users\Public\CTC Software\Schedule XL.**
In GraphicsOptions.xml, set defaults for cells, borders, titles, headers and font overrides.
In Options.xml, set the default state for automatic link updating to enabled or disabled.

Setting this file to a read-only state will prevent changes to these options in the application and will display a user message indicating that the settings are controlled by the administrator.

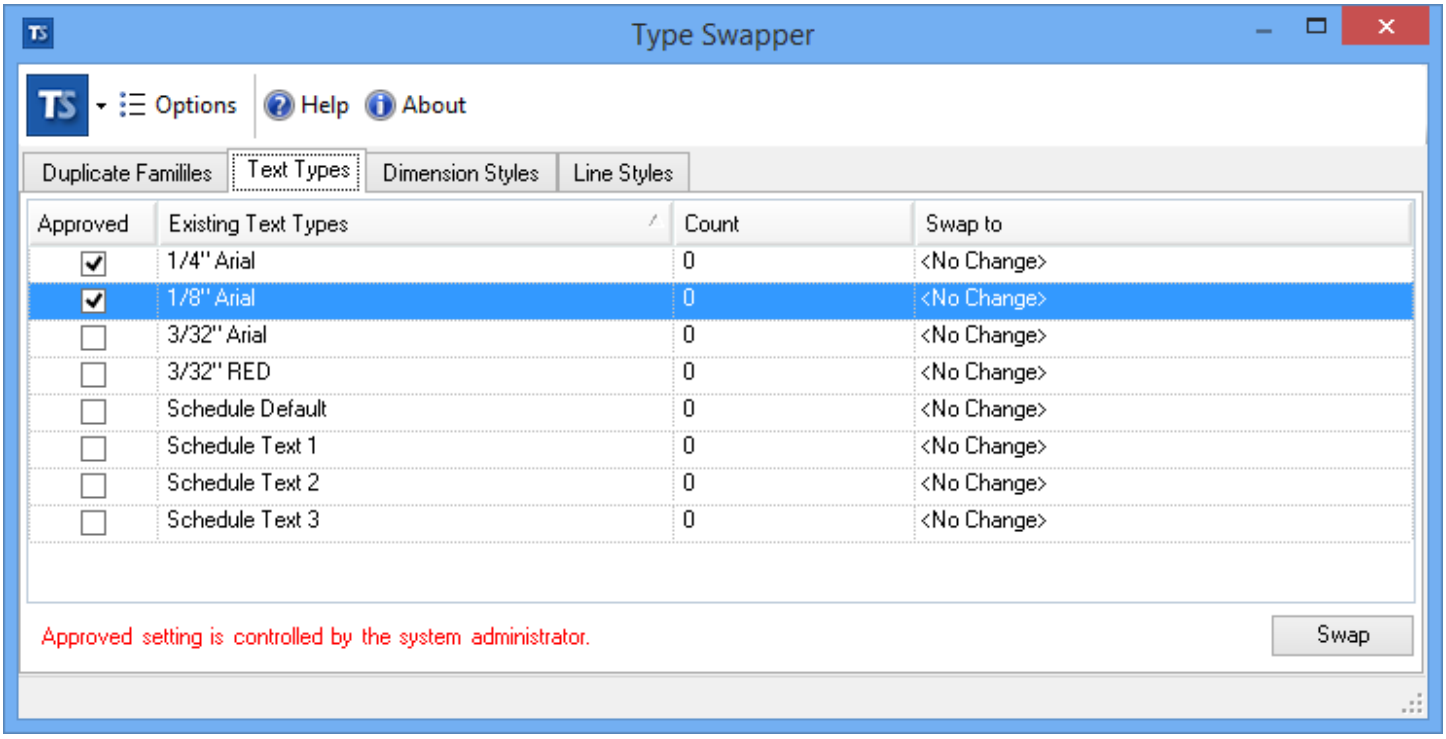
Controlling Type Swapper

The Type Swapper tool, available in BIM Manager Suite, has a separate settings file which controls how it operates. This settings file is created the first time Type Swapper is launched.

This file is called: **Approved Type Settings.xml**
and is located in the folder: **C:\Users\Public\CTC Software\Type Swapper**

If Type Swapper cannot write to this file, even if it's just made read-only, the user will not have the ability to change the approved types and styles within the Type Swapper tool. This can be useful for enforcing company standards.

This is what it looks like when this settings file is not writeable. Note that the Approved column shows the settings, but do not allow the user to change those settings.



TypeSwappingDialogAutomation.txt

This file, also located in the **C:\Users\Public\CTC Software\Type Swapper** folder, controls how pop-up dialogs are automatically dismissed when swapping types.

NOTE: There are no settings in this file from the default installation, but you can add settings yourself if dialogs appear during the swapping of types that you would like to have be automatically dismissed. The default file is written based on the **English** version of Revit, but can be edited to work in other languages.

While detailed instructions are provided in the file itself, here is a small example to show how the structure of this file works:

TitleContains=Audit Warning
ButtonAction=Yes

TitleContains=Opening Worksets
ButtonAction=OK

TitleContains=Copied Central Model
ButtonAction=Close

This next one is a special case. If buttons to activate have an underscore below one of the characters in the text on the button, that allows for a hotkey combination to activate the button using just the keyboard. For example, some dialogs may have an underscore below the “C” in “Close” – like this: Close

Wherever you see the underscore, you must prefix that letter with an & symbol in the configuration file, like this:

TitleContains=Structural Analytical Model Upgrade
ButtonAction=&Close

Controlling SuperDoor

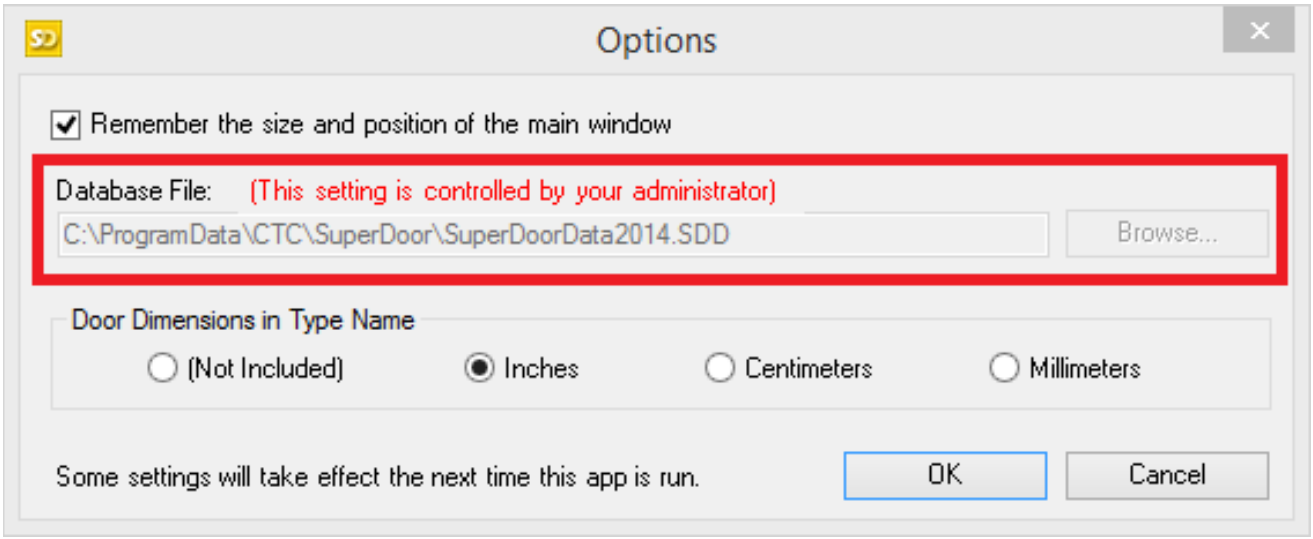
The SuperDoor tool, available in the CTC SuperDoor Configurator, has a separate settings file which controls how it operates. This settings file is created the first time SuperDoor is launched.

This file is called: **SuperDoor202x.settings**
and is located in the folder: **C:\Users\Public\CTC Software\SuperDoor Configurator**

The "202x" will match the version of Revit in which it is used, for example: SuperDoor2021.settings

If the SuperDoor addin cannot write to this file, even if it's just made read-only, the user will not have the ability to change the SuperDoor database being used by this tool. This can be useful for enforcing a single database be used by certain users.

This is what it looks like when this settings file is not writeable.



Configuring Project Activity Logger (PAL)

CTC Project Activity Logger Overview

The Project Activity Logger works silently within Revit to record actions taken within projects and log that information in a database. The types of activity that are recorded include opening projects, synch to central times, saving projects and changing views. In addition, many of the project file's properties are captured during these events.

Although Project Activity Logger is installed automatically, it will not do anything until it has been configured (see below for information about configuring PAL).

General Requirements Summary

The CTC Project Activity Server software must be installed on a computer that is accessible via a TCP/IP connection from the Revit workstation. It must be installed by someone with Administrative privileges on the computer. Project Activity Server is then responsible for writing data to the Microsoft SQL Server database. It is available in the CTC BIM Data Suite Servers installer.

IMPORTANT: In order for the Revit workstation to communicate with the Project Activity Server software, **TCP/IP port 5058 must be open** (not blocked by a firewall) on the Revit workstation, the server and all intermediate hardware.

Please refer to the ***CTC BIM Data Suite Servers Installation and Configuration* guide** for more information about installing and configuring both the server software and the Microsoft SQL Server database.

Please refer to the ***CTC BIM Data Admin User Guide*** for more information about using the CTC BIM Data Admin tool, which has its own installer and enables defining logical projects in the database and deleting old data from the database.

Business Intelligence tools such as Tableau or PowerBI can then be used to create reports from the data stored in the Microsoft SQL Server database. Any other reporting tools that work with MS SQL Server may be used as well.

Revit Workstations

The PAL client for Revit workstations automatically gets installed with the CTC BIM Suites installer, however the PAL client is completely disabled until it has been configured (see below).

In accordance with Autodesk standards for add-ins, during the installation the user does not get to choose where the software will be installed on their local hard drives.

The Project Activity Logger add-in will get installed to folders like the following examples. This example is for Project Activity Logger 2024 (CTC BIM Suites 2024):

Single user installer:

%AppData%\Autodesk\Revit\Addins\2024\CTC-Project-Activity-Logger.bundle\Contents
%AppData%\Autodesk\Revit\Addins\2023\CTC-Project-Activity-Logger.bundle\Contents
%AppData%\Autodesk\Revit\Addins\2022\CTC-Project-Activity-Logger.bundle\Contents
%AppData%\Autodesk\Revit\Addins\2021\CTC-Project-Activity-Logger.bundle\Contents
%AppData%\Autodesk\Revit\Addins\2020\CTC-Project-Activity-Logger.bundle\Contents

Multi-user installer:

%ProgramData%\Autodesk\Revit\Addins\2024\CTC-Project-Activity-Logger.bundle\Contents
%ProgramData%\Autodesk\Revit\Addins\2023\CTC-Project-Activity-Logger.bundle\Contents
%ProgramData%\Autodesk\Revit\Addins\2022\CTC-Project-Activity-Logger.bundle\Contents
%ProgramData%\Autodesk\Revit\Addins\2021\CTC-Project-Activity-Logger.bundle\Contents
%ProgramData%\Autodesk\Revit\Addins\2020\CTC-Project-Activity-Logger.bundle\Contents

The following folder will also contain files needed:

C:\Users\Public\CTC Software\Project Activity Logger

Post-Installation Configuration of PAL

Once installed, you can change how Project Activity Logger behaves by editing the configuration file:

C:\Users\Public\CTC Software\Project Activity Logger\PALClientSettings.xml

For example:

```
<?xml version="1.0" encoding="utf-8"?>
<PALClientSettings xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <QueuePath>C:\Users\Username\AppData\Local\CTC Software\PALQueue\</QueuePath>
  <LoggingPath>C:\ProgramData\CTC\Project Activity Logger\Log\</LoggingPath>
  <HostName>YourServerName</HostName>
  <LocalServiceVer>v1</LocalServiceVer>
  <CloudServiceURL>https://palapi.ctcsoftware.com/v1</CloudServiceURL>
  <DeleteLogFilesOlderThanDays>14</DeleteLogFilesOlderThanDays>
  <PostMode>Local</PostMode>
  <LogWarningsForPre2018>false</LogWarningsForPre2018>
  <SettingsVersion>1</SettingsVersion>
</PALClientSettings>
```

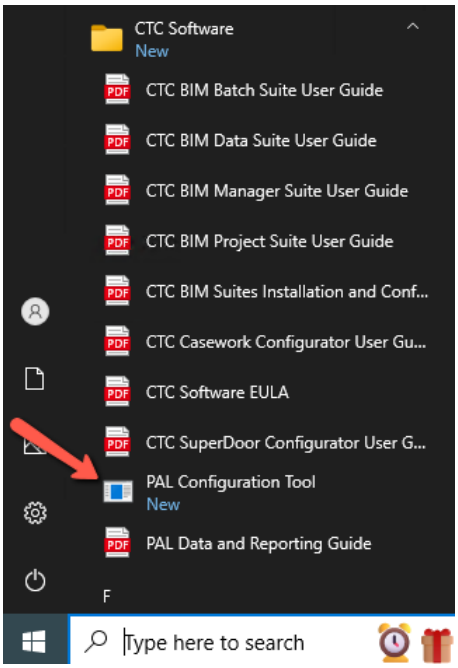
- **Queue Path** – Managed by the application.
- **LoggingPath** – A folder on the client machine for log files.
- **HostName** – Name of the Windows server on which the CTC Project Activity Server is installed.
- **LocalServiceVer** – Managed by the application.
- **CloudServiceURL** – Obsolete. Included for compatibility.
- **DeleteLogFilesOlderThanDays** – How many days of log files to keep (one log file is written each day).
- **PostMode** – Obsolete. Included for compatibility.
- **LogWarningsForPre2018** – For versions of Revit prior to 2018, the warnings dialog must be programmatically launched to collect warning information. Set this to false if you wish to turn off this behavior (warnings will not be captured).
- **SettingsVersion** – Managed by the application.

The settings file can be edited using a plain text editor such as notepad. You also may want to consider changing the permissions of this configuration file to prevent normal users from changing or deleting it.

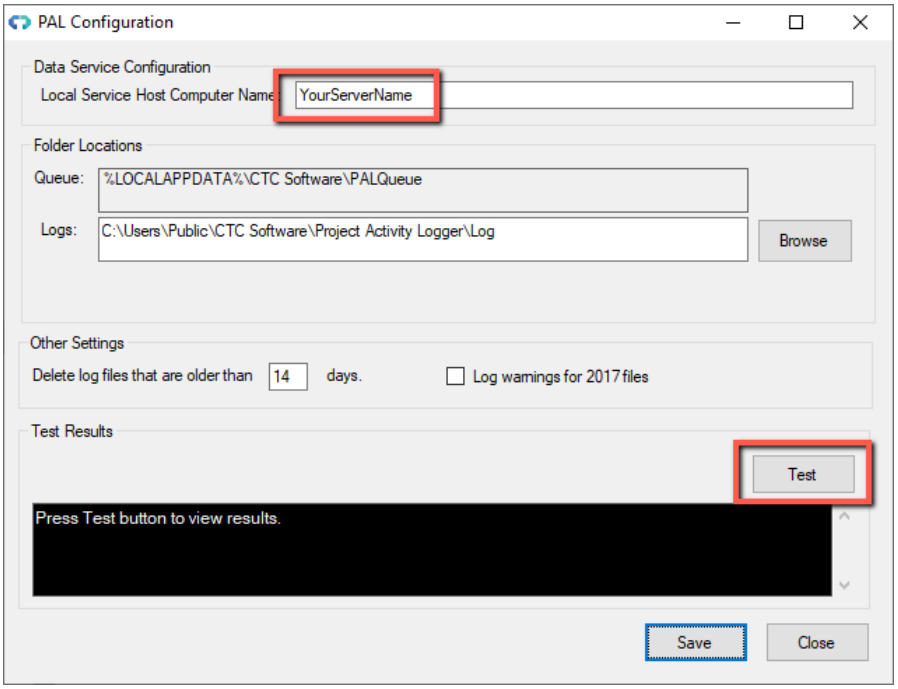
PAL Configuration Tool

A Configuration tool is available to edit the PALCientSettings.xml file. It also has the added benefit of allowing you to test whether your data service is accessible.

This tool can be launched from the Start Menu under CTC Software.



Testing the local service configuration:



If your test is successful remember to press the 'Save' before exiting the application.

Note:
You may want to change the permissions of this configuration file to prevent normal users from changing or deleting it.

Creating Project Activity Reports

While CTC provides the tools to get Revit activity information into a Microsoft SQL Server database via Project Activity Server, ultimately you will still need to create the reports you need.

Reports may be created using any Reporting tool which can pull data from SQL server.

CTC provides a sample file for use with Microsoft's *PowerBI* tool. The file can be found here:

C:\Users\Public\CTC Software\Project Activity Logger

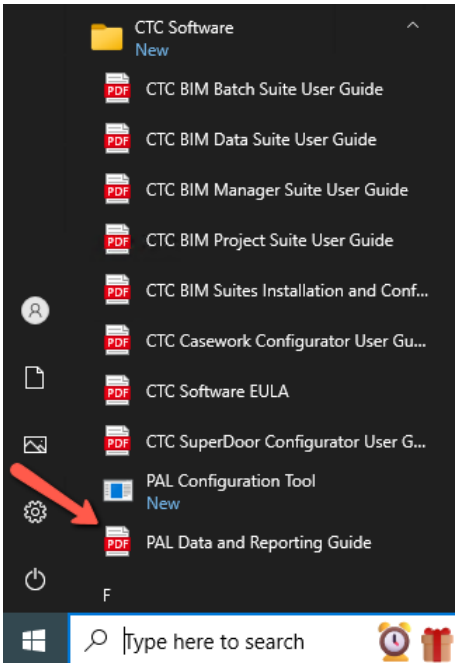
CTC Project Activity Example PowerBI Reports ODBC v21.0.0.pbix

IMPORTANT: Currently PowerBI reporting is only supported when using the local data storage mode. Also, this sample file will get deleted when uninstalling the software and overwritten with the defaults when upgrading the software. **If you intend to use this file for reporting, it is recommended that you move or rename the file.**

Please see the *CTC Project Activity Logger Data and Reporting Guide.pdf* for more information about using the sample PowerBI reports. This file is also located in:

C:\Users\Public\CTC Software\Project Activity Logger

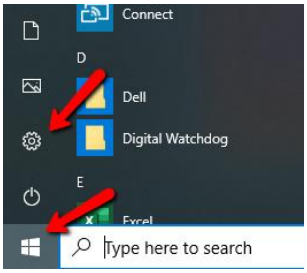
This guide is also available from the Start menu under CTC Software:



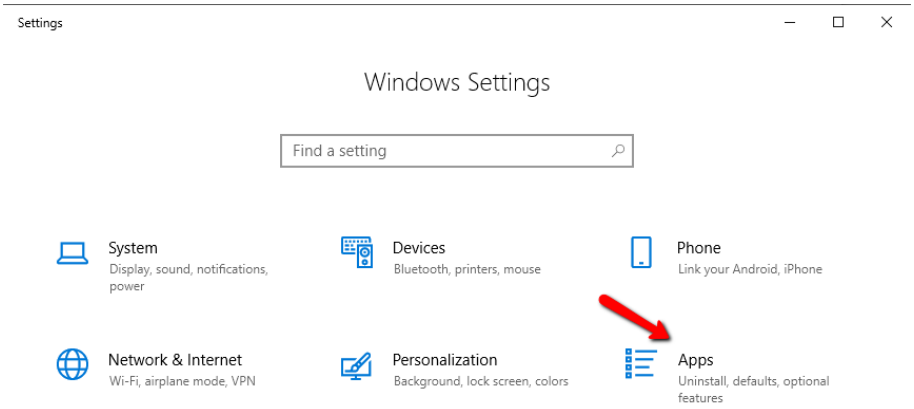
Revit Workstation Uninstallation

Using Apps & features

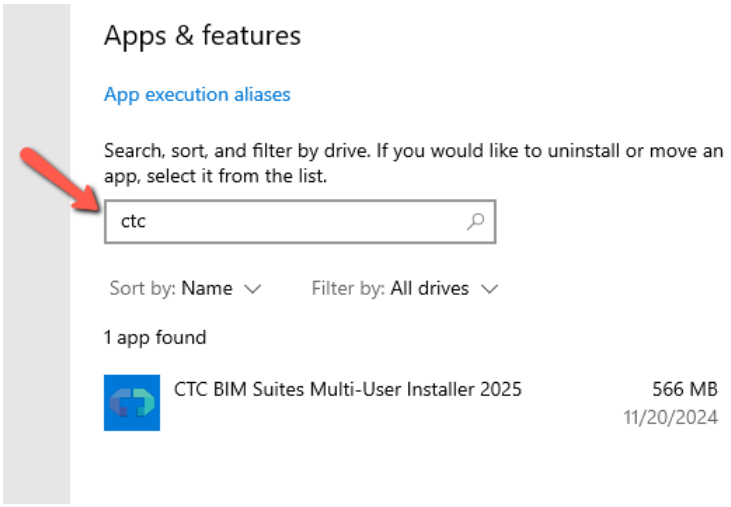
This is the preferred method for removing the suites from the workstations.



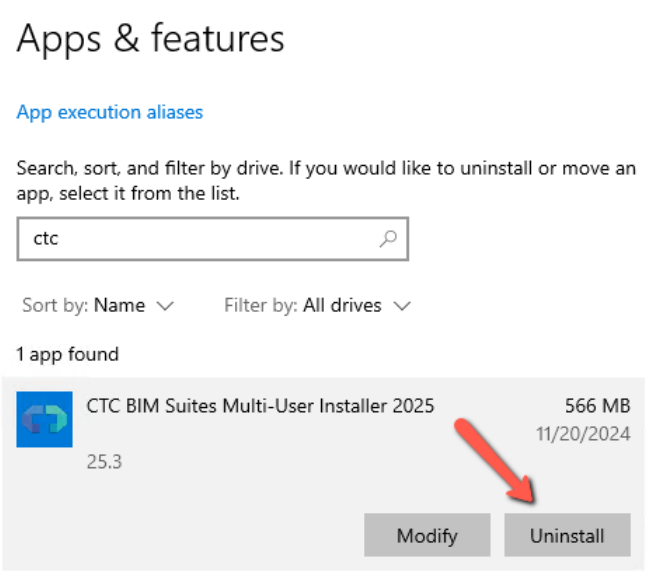
Select: Apps



Search for: ctc



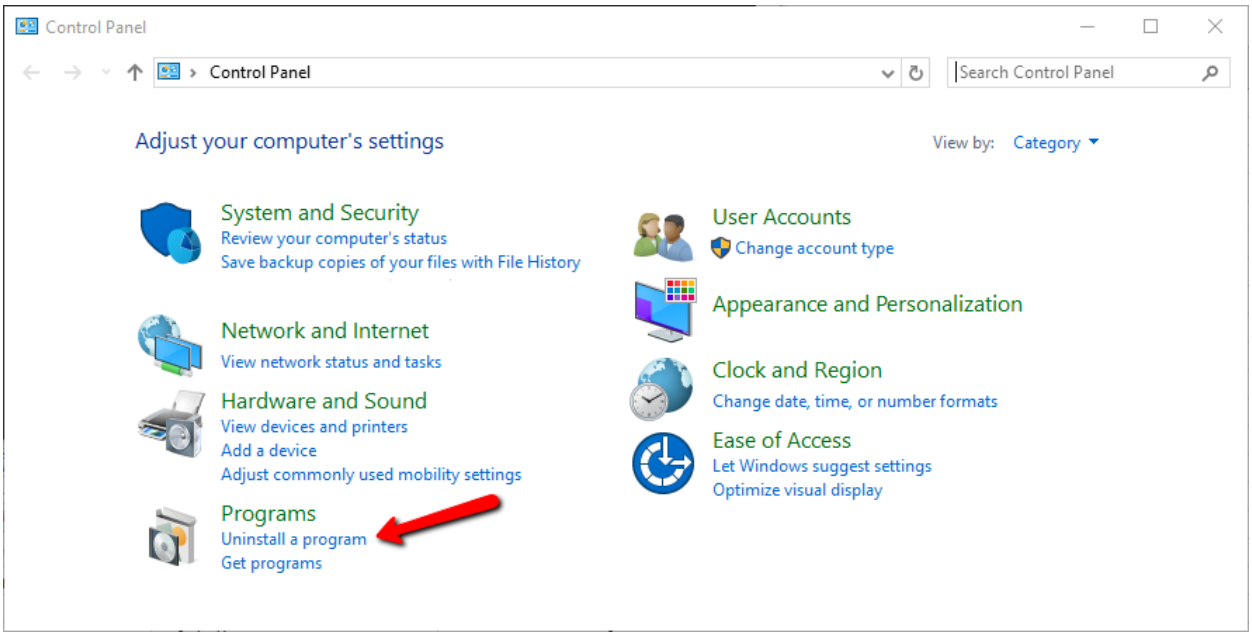
Select the product and click the Uninstall button.



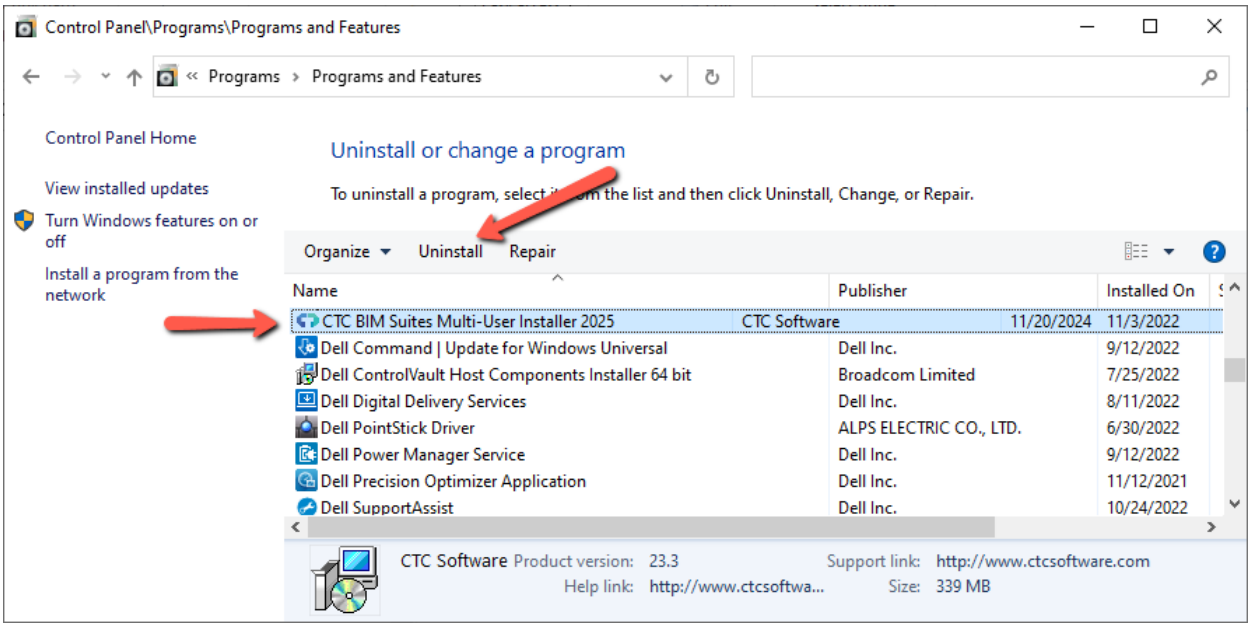
On the confirmation dialog that will appear, click the “Uninstall” button to begin the uninstallation process.

Using Control Panel

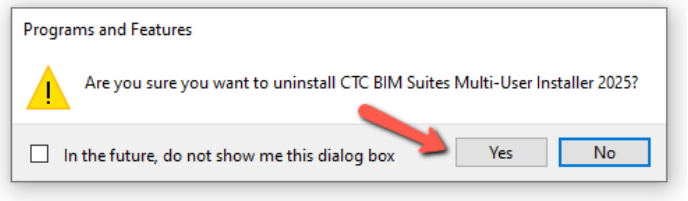
For older operating systems, this is typically found under “Add/Remove Programs.” For newer operating systems, it is usually listed under “Uninstall a program” –



Once on the “Uninstall or change a program” screen, click on the CTC add-in name that should be removed, then click on the “Uninstall” button on the toolbar:



You will be asked to confirm that you want to uninstall the product. Click the "Yes" button:



Once the uninstaller completes, the program will be uninstalled and it will be removed from the list of programs seen above.

Silent Uninstallation Using a Command Line

You can give a command like the following to uninstall the software from a workstation:

Single user installer example: **msiexec /x CTCBIMSuitesSingleUserSetup.msi /q**
Multi-user installer example: **msiexec /x CTCBIMSuitesMultiUserSetup.msi /q**

This could be executed from a script or possibly pushed out via a group policy.

IMPORTANT: The **original** msi file used to install the software must be in the current working directory when this command is executed, or the path to it must be explicitly specified in the command line.

Note that the silent uninstall may take a full minute or two to finish.