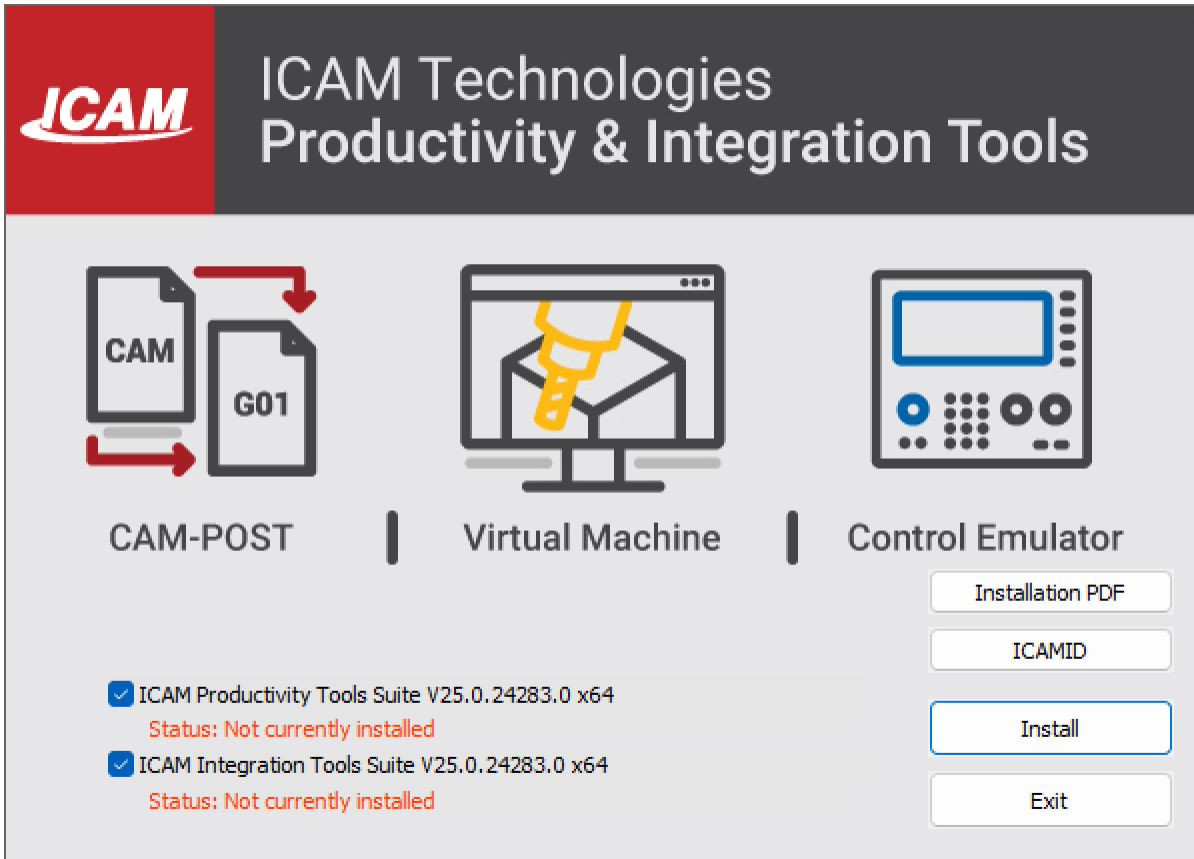




ICAM Technologies
CNC Manufacturing
Software Solutions



CAM-POST

Installation Guide

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Revision No. 2024-08-13

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Introduction

Thank you for choosing CAM-POST, ICAM Technologies Corporation's advanced NC post-processing development product. CAM-POST generates NC data output that supports a wide variety of multi-axis machines. This document describes the steps necessary to install the ICAM License Server, the CAM-POST NC post-processor, and ICAM-developed dedicated post-processors. This document is primarily intended for IT personnel. It is divided into the following sections.

Licensing of CAM-POST V25

This first section details the CAM-POST licensing process.

Installation of a License Server

This section describes the steps necessary to install the ICAM License Server on a server computer that resides on the same LAN as the client computers that will be running the CAM-POST post-processor.

Installation of a License Client

This section describes the steps necessary to install CAM-POST and any dedicated post processors on a client computer, where licensing is managed by a server computer running the ICAM License Server.

Installation of a Node-Locked Client

This section describes the steps necessary to install CAM-POST and any dedicated post processors on a computer, where licensing is managed by a Node-Locked license unique to that computer.

License Server Debugging

This section describes solutions to some common networking issues that can occur when using a license server.

ICAM Technical Support

ICAM Technical Support contact details are listed in this section

1. Licensing Overview

CAM-POST GENER, QUEST, and other ICAM Productivity Tools require a valid license to run. Each license identifies an ICAM program or option, the number of simultaneous uses allowed of the license, and the date range in which the license is active. When an ICAM product is started, it communicates over your network with the license server program and checks out the appropriate licenses, making them unavailable for anyone else.

ICAM supports both **Cloud** and **Local** license servers. With cloud licenses, the ICAM license server program runs in a computer managed by ICAM on the Internet. With local license, the ICAM license server program runs on a computer within your local network.

There are two types of local license servers: **Node-locked** and **Floating**. Node-locked licenses are locked to a specific computer (i.e.: your desktop or laptop computer) on which both the ICAM license server and the ICAM products are run. Floating licenses are shared by a group of computers on your local network, with the ICAM license server typically running on a separate computer that is ideally up 24/7. Cloud licenses are always floating, allowing you to access the license from anywhere there is an Internet connection.

There are three limits placed on licenses:

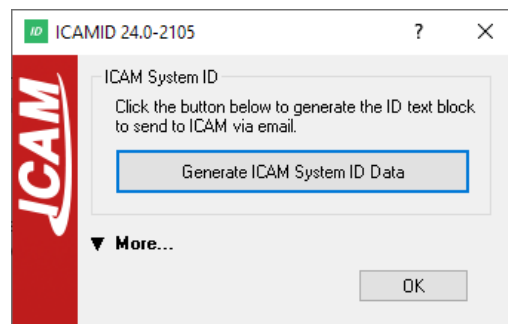
- The first limit is **range of dates** in which the license is valid. The start date is typically the date on which the license is used and an end date is depends on the type of license. Leased license have an end date that matches the lease end date. A permanent license has the string “unlimited” as an end date, meaning not limited.
- The second limit is the **number of copies** of software that are available for simultaneous use. If, for example, two copies of CAM-POST GENER are licensed, then at any given time, no more than two NC programs can be post-processed. You must exit the GENER program to free up the license.
- The third limit, for **cloud** and **floating** license methods, is the **number of client computers** that are entitled to check out licenses. For example, a 2/10 license permits up to ten different computers to share two CAM-POST licenses. The license server log file lists each new computer as it is encountered on a first come/first served basis. Once this limit is reached, new computers (i.e., those not already on the list) will be refused access. **Node-locked** licenses have a client count of 1 (one) that restricts the licenses to be used on the same computer as the license server.

1.1. Licensing of CAM-POST

Prior to CAM-POST V25 installation, please register your computer with ICAM’s Licensing department. This process can be done in three easy steps:

1. Determine the System ID of the server machine or node-lock machine
2. Send the System ID to ICAM’s licensing department
3. Save a copy of the ICAM licensing key file sent to you

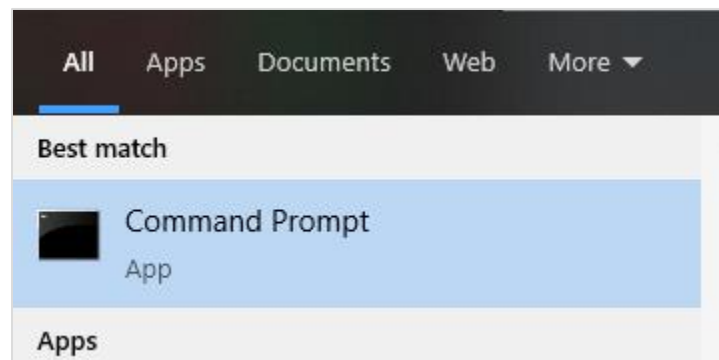
Select a server computer on which you will install the License Server, or for Node-Locked licenses, select the computer on which the CAM-POST software will be installed. Please download ICAMID (*icamid.exe*) from ICAM’s WebFTP link <https://icamtechnologies.cachefly.net/tools/icamid.exe>. And then run this executable file to get your ID. When you run the “icamid.exe file”, you will get a pop-up window to generate your ICAM system ID.



The application will generate a text file with the necessary information. Email this file to keyfiles@icam.com. Please include your name and company name as well as a phone number that we can call if necessary. You will receive a key file (*icamls.key*) by return email. Save this file in a secure location.

Check the hop-count number from Server side. If your server is not at the same LAN as client stations, please use below method to confirm hop-count number.

- Input “cmd” in the Windows Search field, open Command Prompt application



- Type “tracert target host name IP address”, enter. Please save screenshot named “tracert_to_client”

```

C:\WINDOWS\system32>tracert 192.168.1.2

Tracing route to chinalap.icam.local [192.168.1.2]
over a maximum of 30 hops:

  1    <1 ms    <1 ms    <1 ms    chinalap.icam.local [192.168.1.2]

Trace complete.

C:\WINDOWS\system32>

```

Please send generated ICAMID.txt file and screenshot of “tracert_to_client” to ICAM.

1.2. License Key File Update

The first license file you receive from ICAM will be time-restricted. This license will be upgraded to an unlimited license towards the end of the 90 day post-processor warranty period. ICAM’s Licensing Department will send a replacement license key file to the attention of the individual who received the original license key file.

First rename the old *icamls.key* file in the ICAM Floating License Server installation directory, and then replace it with the new *icamls.key* file.

- On Windows systems, the floating license server will automatically load the updated license information at the next point in time when there is no license activity. You can also manually stop and restart the ICAM Floating License Server from the Services Administrative Tools (described on page 15).

Make sure (by running the License Manager) that there are no licenses currently checked out before manually stopping and restarting the License Server.

2. License Server Installation

Licenses permit the shared use of a restricted number of CAM-POST licenses by a group of computers connected on a local area network (LAN). You must first install the ICAM License Server. Once the server is installed and running, you can proceed to the client computer installations.

ICAM’s License Server is designed to work within a local area network (LAN) setting. The basic configuration is for 1 (one) floating license, shared by a maximum of 5 (five) different computers, each of which is within 1 (one) network hop of the server. The maximum supported round-trip network latency between clients and server is 150ms. The first five computers to request licenses from the server will be registered as valid clients; attempts by other computers to obtain licenses will be denied.

It is possible to request additional licenses, clients or hops. Please contact your ICAM sales representative (sales@icam.com) for details.

The minimum requirements for the ICAM license server are:

1. An ICAM supported Microsoft Windows system
2. A LAN adapter or device
3. A working TCP/IP network environment

You must log on as the administrator to install the license server. This is because it runs as a Windows “service” and only the administrator is allowed to install services. Because Windows does not allow a service to be updated while it is running, the currently installed release of the server, if running, will be automatically stopped during the installation of the new release. Applications that have licenses checked out may fail to reacquire their license after the server is restarted. ICAM recommends therefore that an upgrade of the floating license server only be done when licenses are not in use (i.e., not checked out).

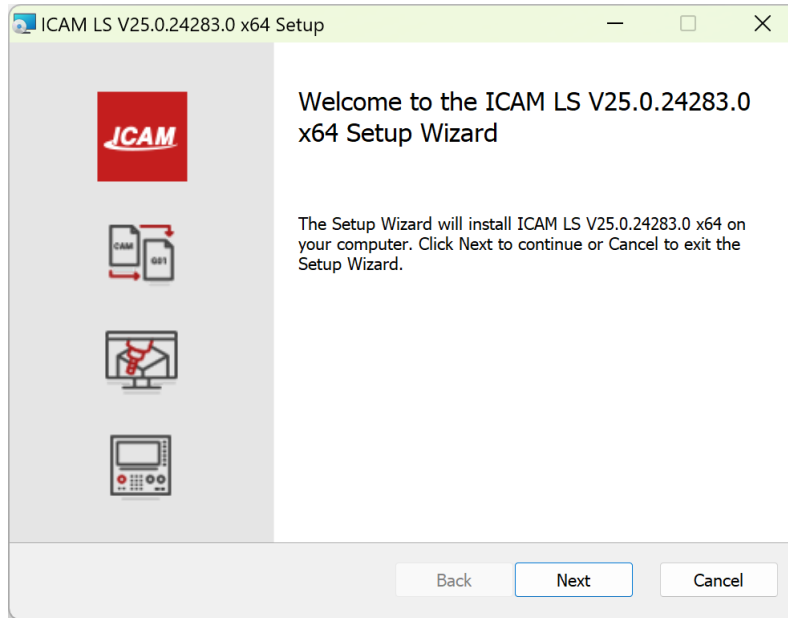
2.1. Windows Server Installation

This section shows a typical first time installation of an ICAM license server. Your installation should be similar. If you encounter difficulties, see “**Error! Reference source not found.**” **Error! Bookmark not defined.** for more details on new installations, and “Update Windows Server Installation” on page 16 for details on the license software upgrades process.

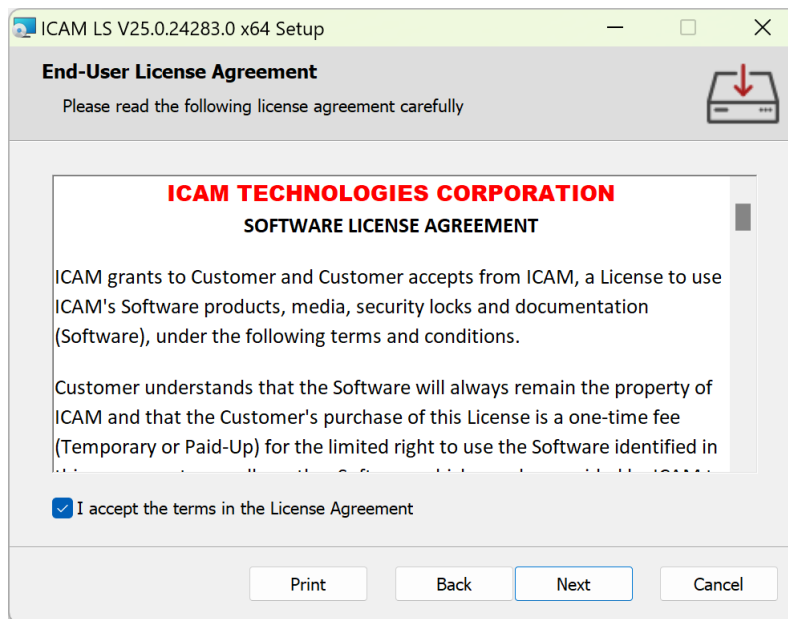
Before proceeding with the installation, ensure that you have received an *icamls.key* file from ICAM’s licensing department.

Please execute “*icamls_250-xxxx_win64.msi*”

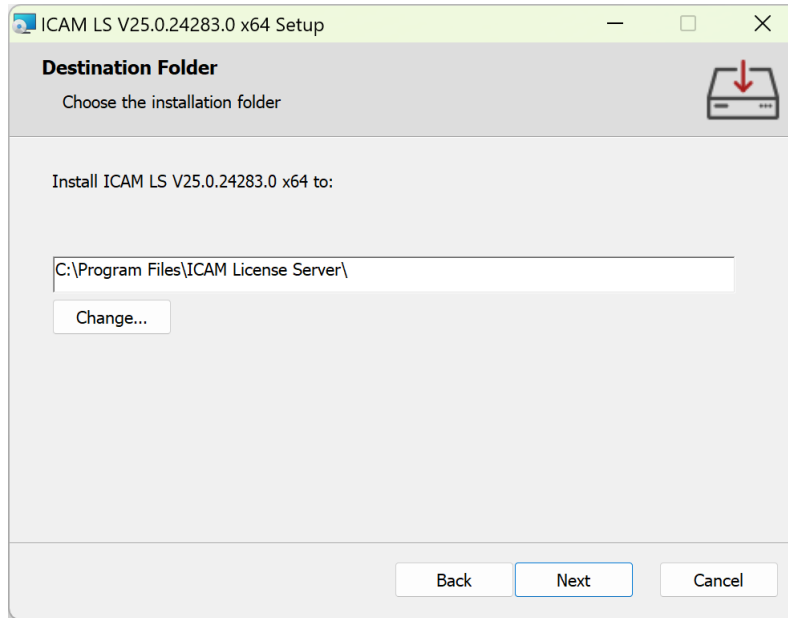
- a. Welcome page: Setup Wizard



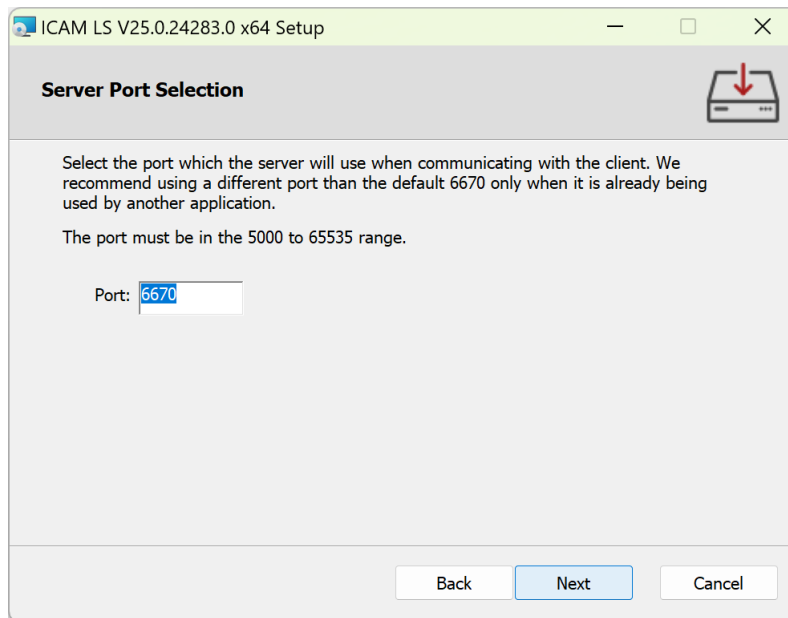
- b. Read and check the box to accept the ICAM Technologies Software License Agreement.



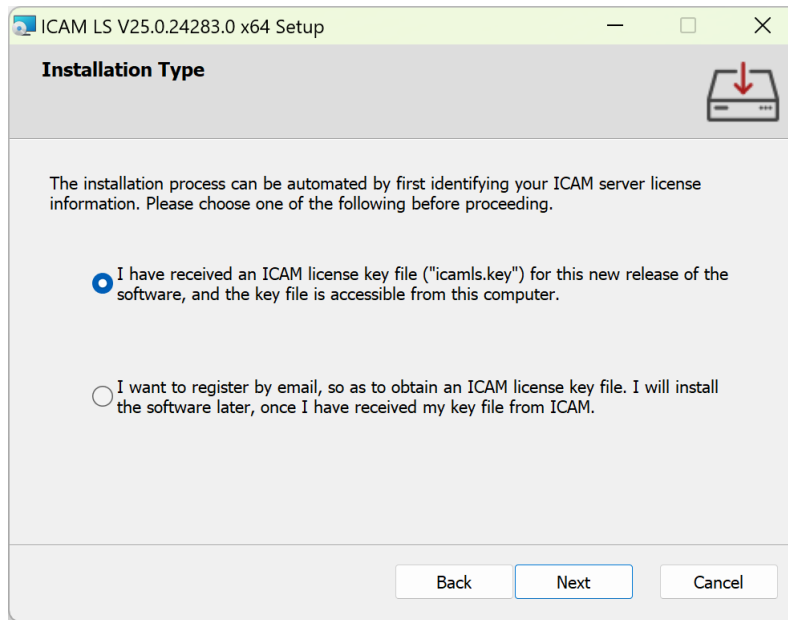
- c. Check the destination folder. Use the file browser if necessary, to select an alternate location to install the floating license service. **The service must be installed on a local location drive.** Do not install the server on a remote (i.e., networked) drive since the drive might not be mounted before Windows tries to start the server.



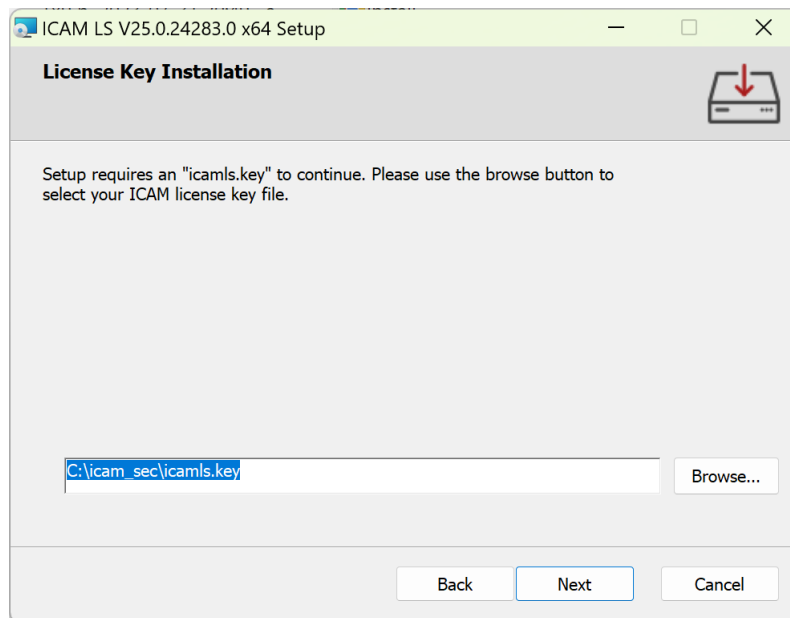
d. Select the server port



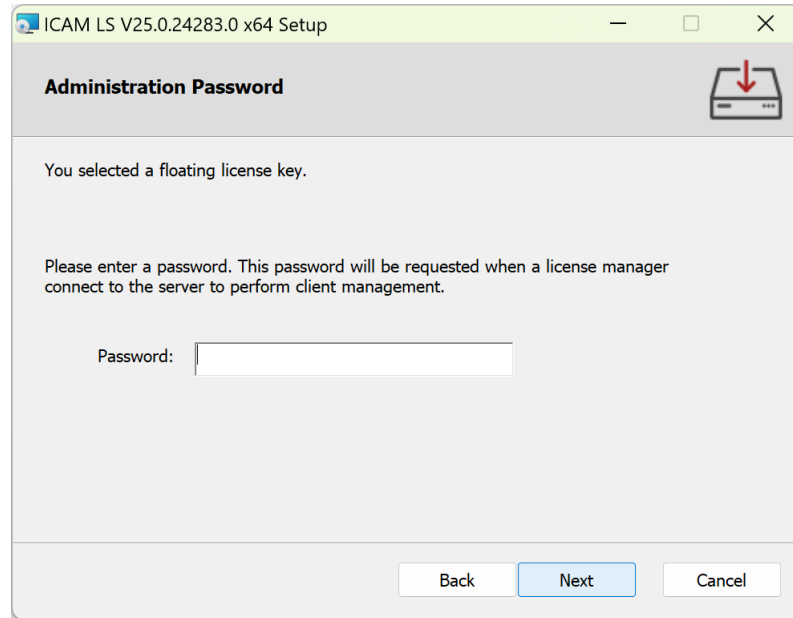
e. Choose **I have received an ICAM license key** option.



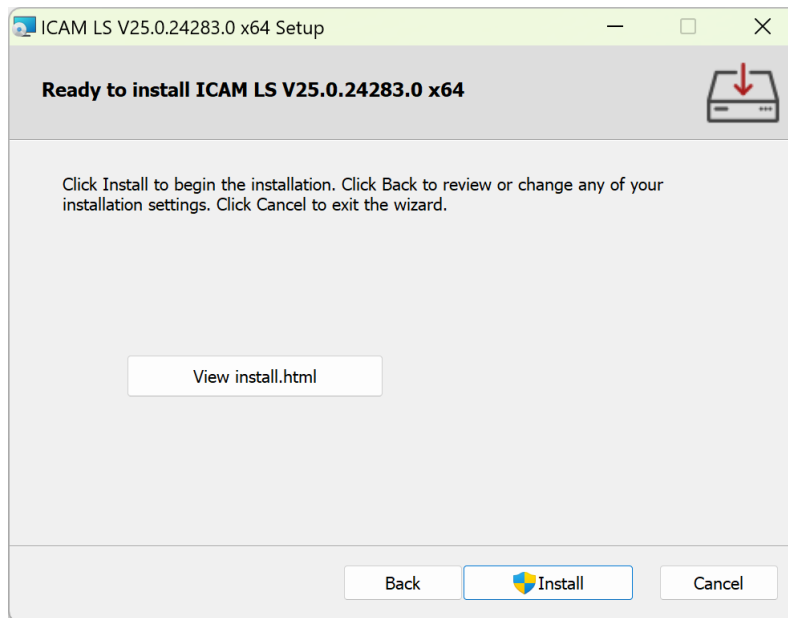
Use the file browser to locate the *icamls.key* file that was sent to you by ICAM's licensing department.

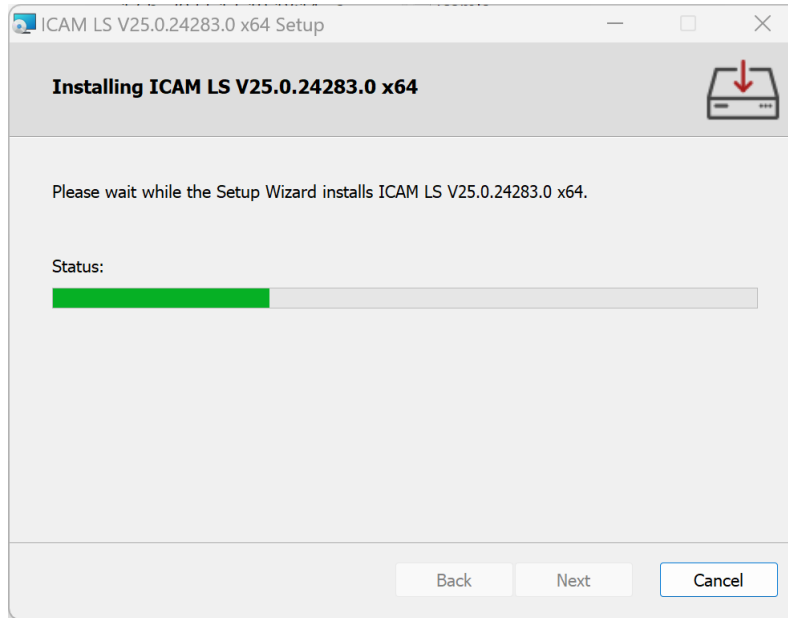


- f. Defined administration password according to your situation.

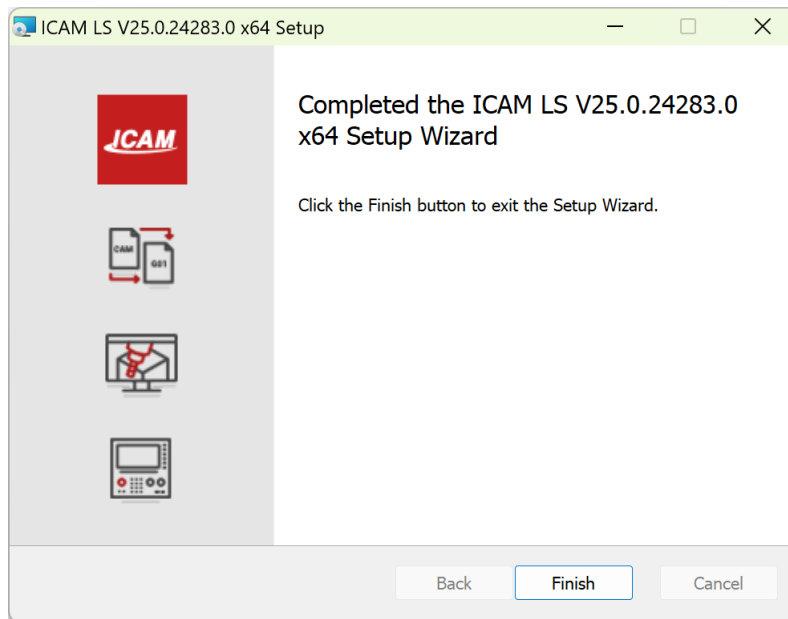


g. Press **Next** to install the software. You also can view installation log file.





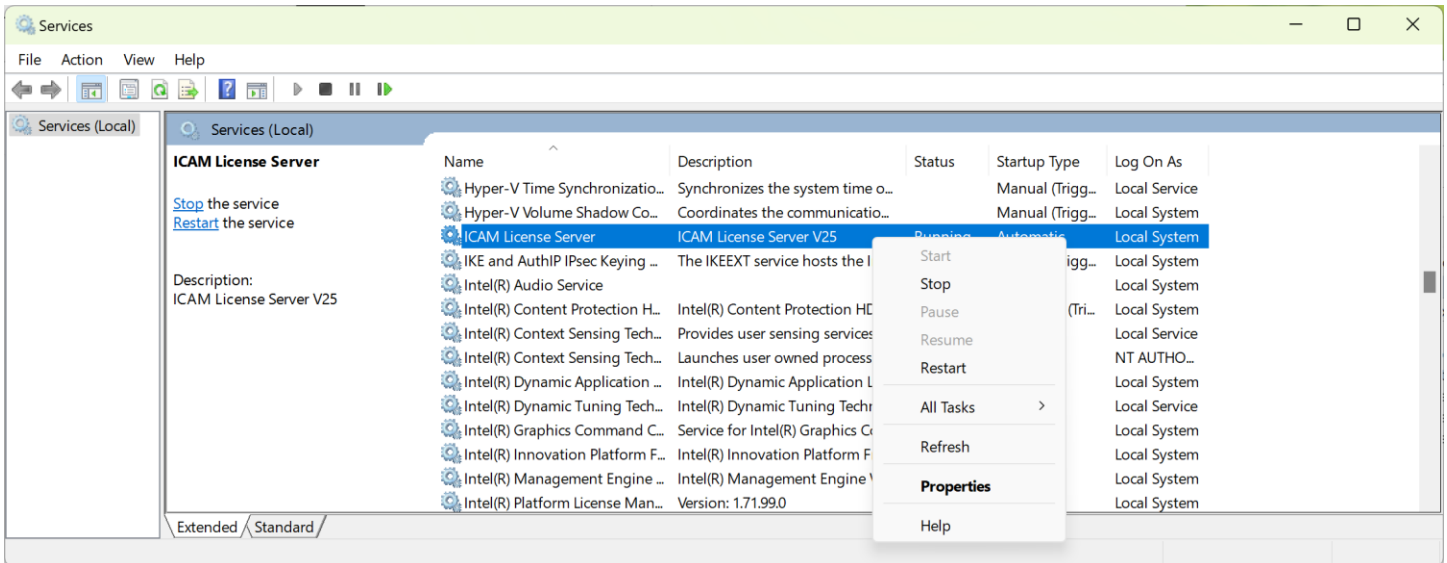
Select Finish to complete the installation.



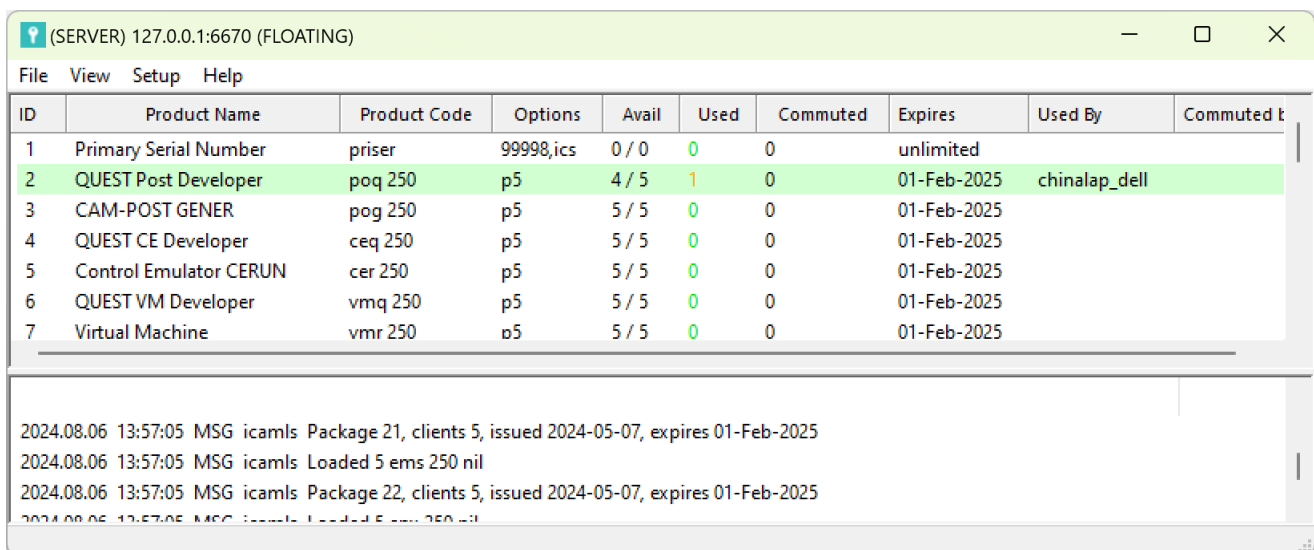
Run the License Server (LS) to confirm that the License Server is running. The LS can be run from the Windows Start menu » ICAM License Server V25 x64 » License Manager (SERVER). See "License Server Troubleshooting" on page 58 if the LS window does not list any licenses.

The installation procedure will stop any currently running ICAM license server before the installation of the new one, and will start the new license server once the installation has completed. If the service cannot be stopped, you will be asked to reboot your computer before continuing the installation.

You can also start and stop the server manually. To do so, double-click “Services” Control Panel (i.e., meshed gears) icon, either in the main services window or in the “Administrative Tools” subfolder. A window will appear looking similar to the one shown below. Click with the right-mouse-button on “ICAM License Server” to access a pop-up menu used to start and stop the server.



Once the installation is completed, you should check that your license information has been correctly read from the *icamls.key* file and is ready for use. To do so, run the “License Manager (SERVER)” from the “ICAM License Server V25 x64” Start menu folder. You should see a window that looks similar to the one below.



Each line in the top half of the window lists a licensed product and its options, the maximum number of licenses that are available and the actual number in use including the hostname or IP address of the computer that has the license checked out. The bottom half of the window traces the activity of the server. There are various setup options available from the Setup menu. One can be used to specify a different key file (effective following the

next reboot or service restart). Another defines how long the server should wait before reclaiming a license from any process that appears to be inactive. A third defines log information settings.

See “License Server Troubleshooting” on page 58 if the license manager window does not list any licenses.

2.2. Update Windows Server Installation

The installation procedure is different when installing an incremental update to the current floating license server release. In this case, you will be given one or more of the following options:

- The **Change** and **Repair** choices are only available if the floating license server release matches the installed release. Choose Modify to add or remove individual components. Choose Repair to reinstall and replace missing, corrupted or modified files in your license server installation directory.
- The **Upgrade** choice is only available if the floating license server release is more recent than that of the currently installed release. Upgrade will install the latest release of the floating license server into your installation directory.
- The **Remove** choice can be selected to uninstall the floating license server.

If you use the **Change** choice to install the floating license server, you are responsible for creating the *icamls.key* file yourself and manually starting the server after it is installed.

Use the **Upgrade** or **Repair** choices to ensure that your ICAM license server is running at the most recent software release. The installation procedure will stop the currently running license server before the installation of the new one, and will start the new license server once the installation has completed. If the service cannot be stopped, you will be asked to reboot your computer before continuing the installation.

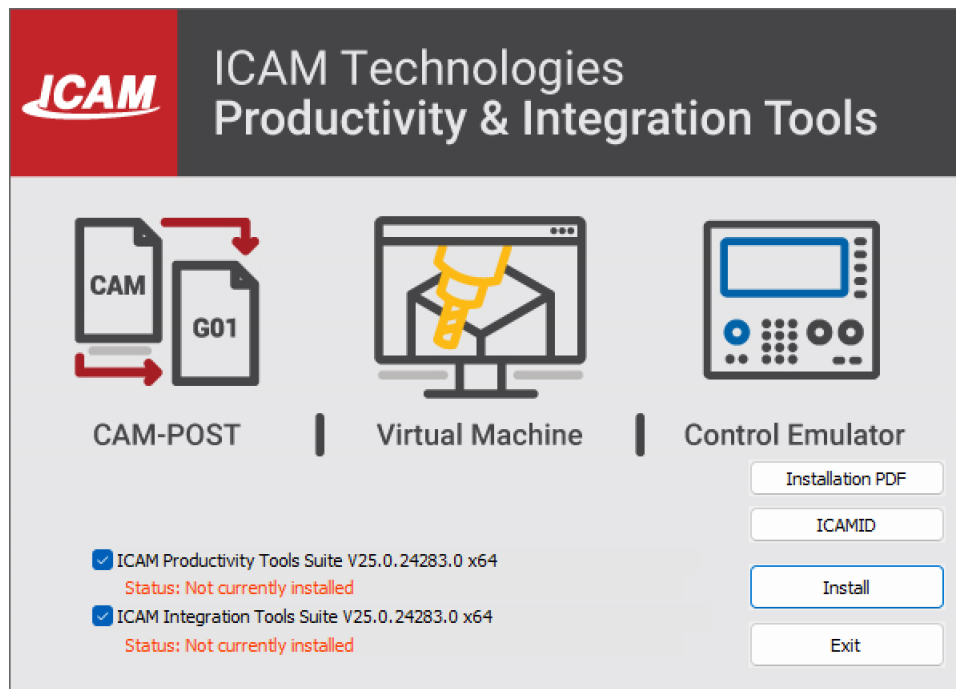
3. CAM-POST Cloud Installation

Cloud licenses are floating licenses handled by ICAM and can be accessed from anywhere there is an Internet connection.

3.1. Typical Windows CAM-POST Cloud Installation

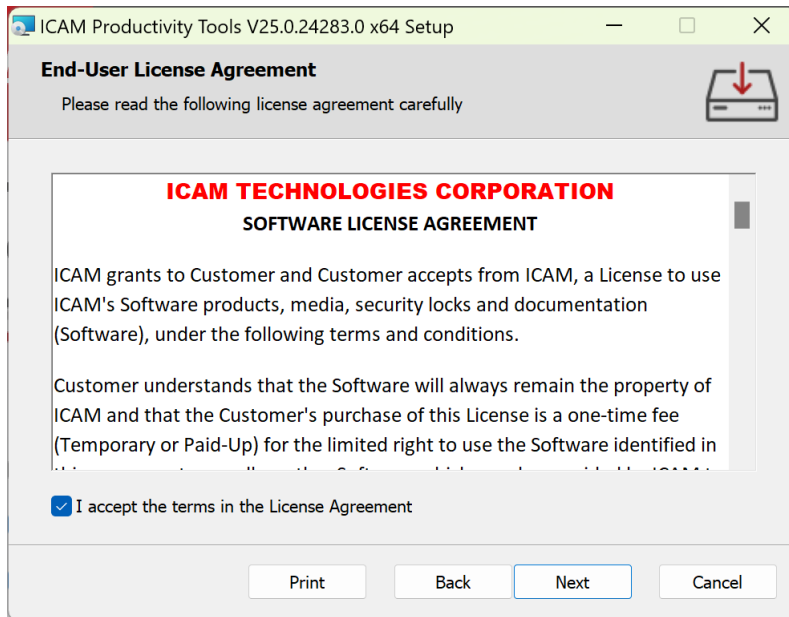
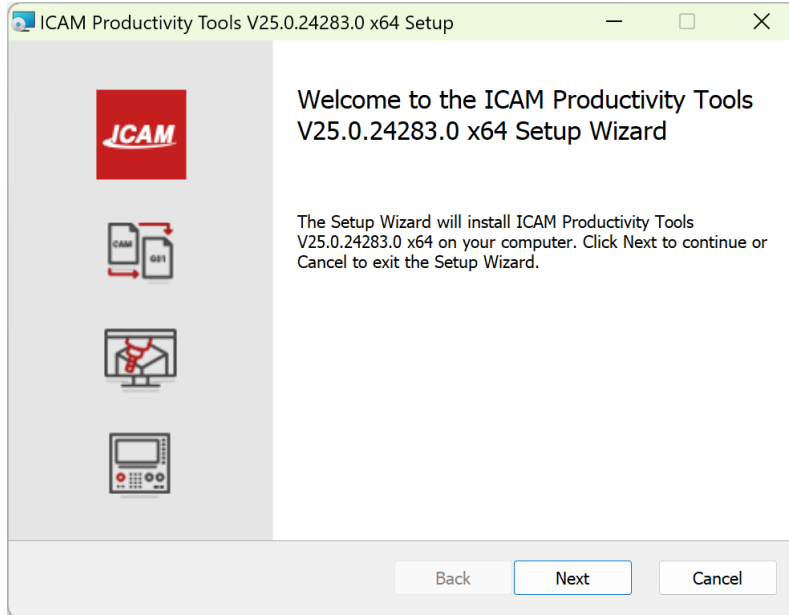
This section shows a typical first time installation of CAM-POST on a client computer. Your installation should be similar. If you encounter difficulties, see “New Windows CAM-POST Client Installation” on page 36 for more details on new installations, and “Update Windows CAM-POST Client Installation” on page 38 for details on the client software upgrades process.

ICAM software includes two parts of installation: ICAM Productivity Tools and Integration Tools.



3.1.1. ICAM Productivity Tools installation

1. Read and select **check box** to accept the ICAM Technologies Software License Agreement.

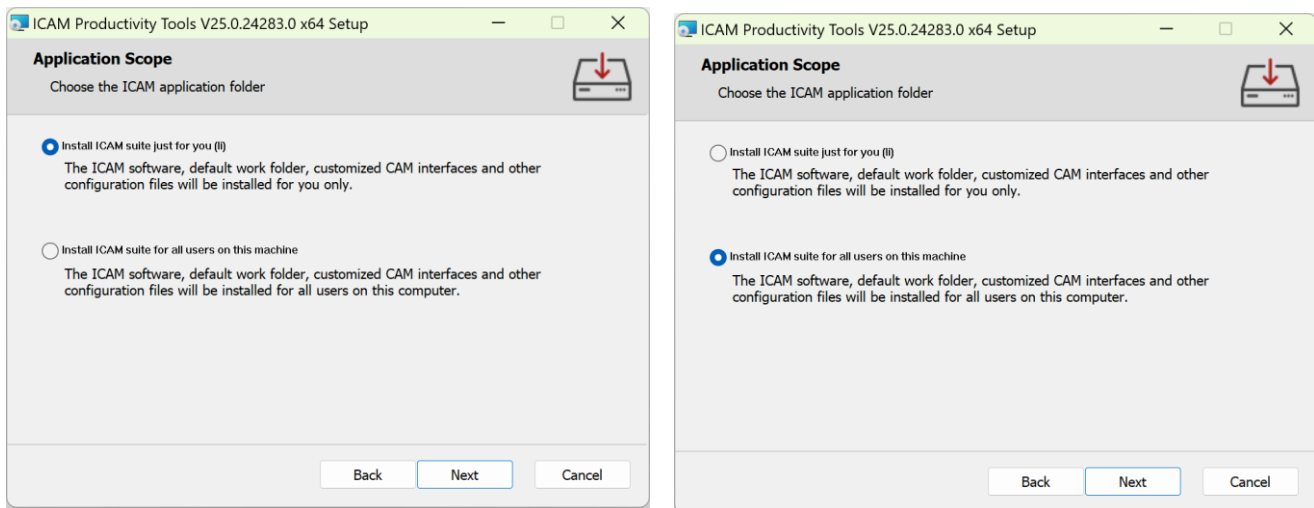


2. Installation scope

During the installation, you will be given the choice to install the software “just for you” (i.e., the current user) or to install the software “for all users” of the computer. Your response will affect the Start menu and Desktop shortcuts as well as where the application data is located.

Application data includes:

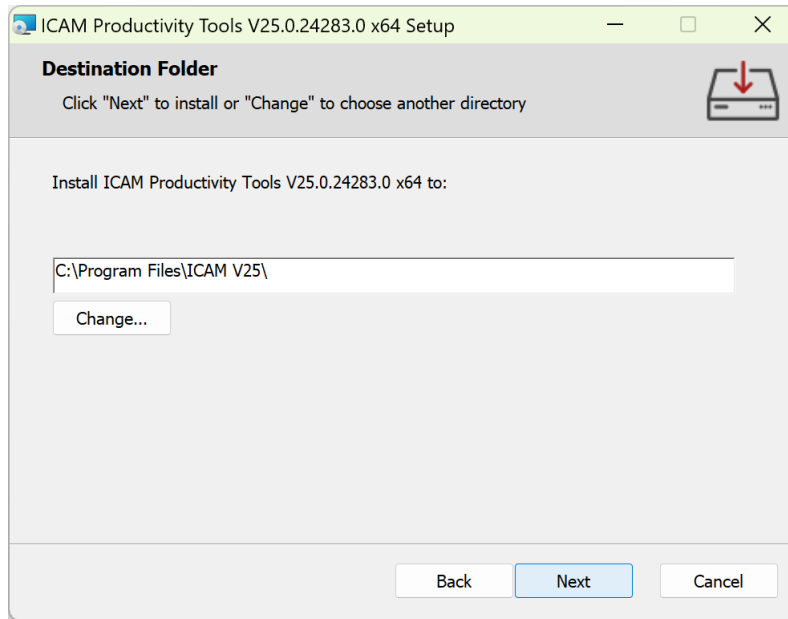
- The *ICAM.DEF* configuration file
- The *dwords.dat* keywords file
- The *work* folder containing the *campost.dbf* database
- The *kit* folder containing customized interface kits (initially empty)
- Any custom files included with the installation



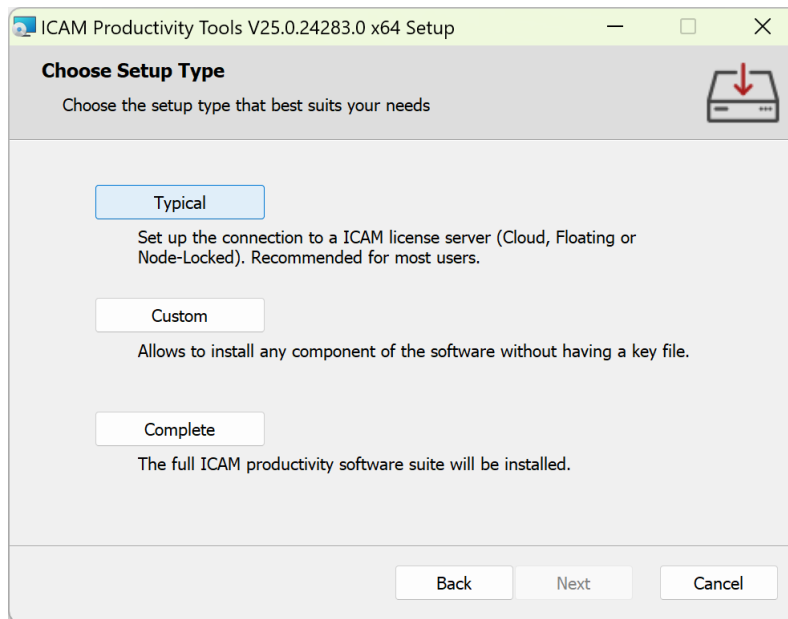
If you are installing for a single user, then these files will be installed in your “C:\Users\user(name)\AppData\Roaming\ICAM\250” roaming profile. If installing for all users, then these files will be installed in the “C:\Users\ProgramData\ICAM\250” common application data profile.

ICAM run-time products (i.e., CAM-POST GENER, Virtual Machine and Control Emulator CERUN) do not require Administrator rights to be used. The ICAM developer product (i.e., QUEST) and configuration utility (i.e., CONFIG) will require administrative rights, or at least the right to modify files in the “ProgramData\ICAM\250” folder, if the software is installed for all users of the computer. Developer and configuration software do not require Administrator rights if installed for a single user.

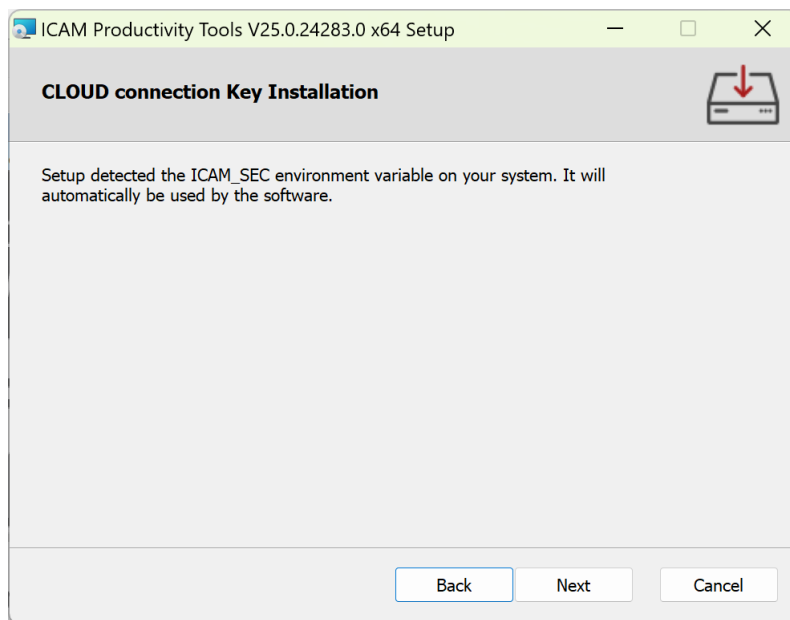
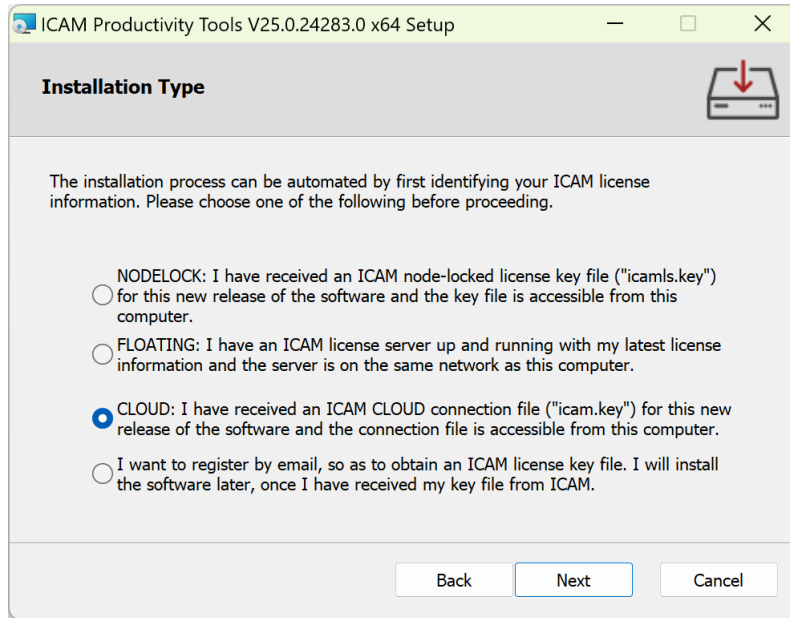
- Use the file browser if necessary to select an alternate location to install the CAM-POST software. CAM-POST can be installed on a local or network drive.



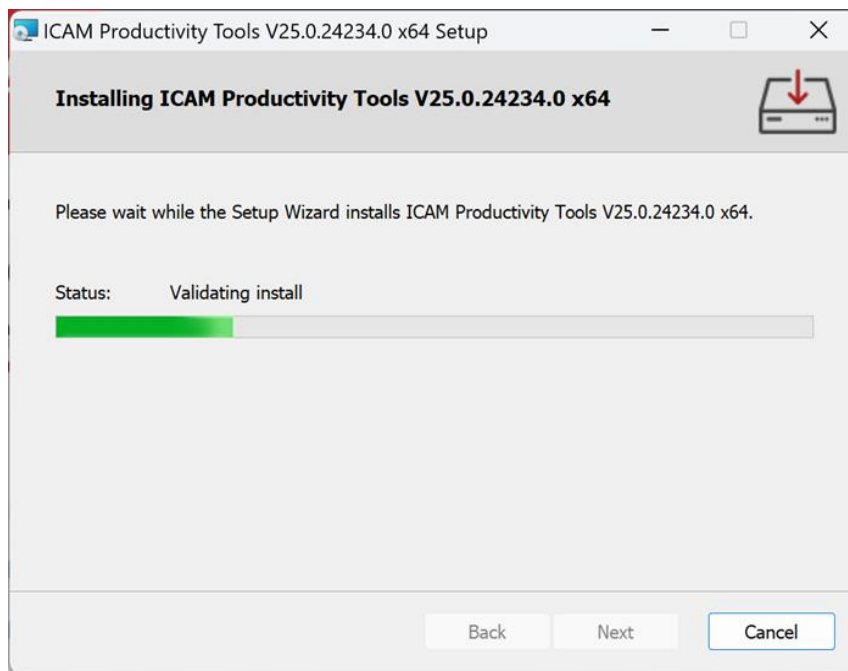
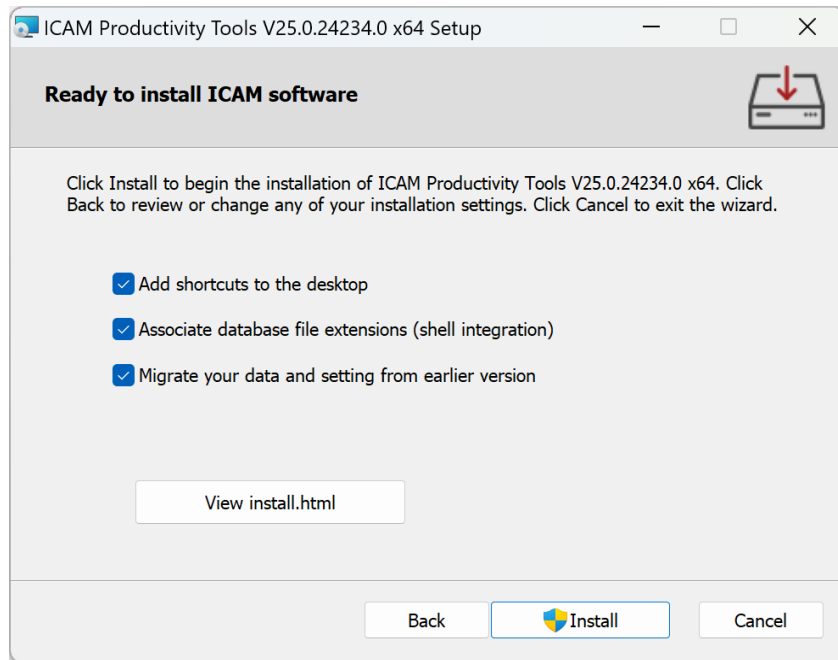
- Select **Typical** option and press **Next** to install the software.



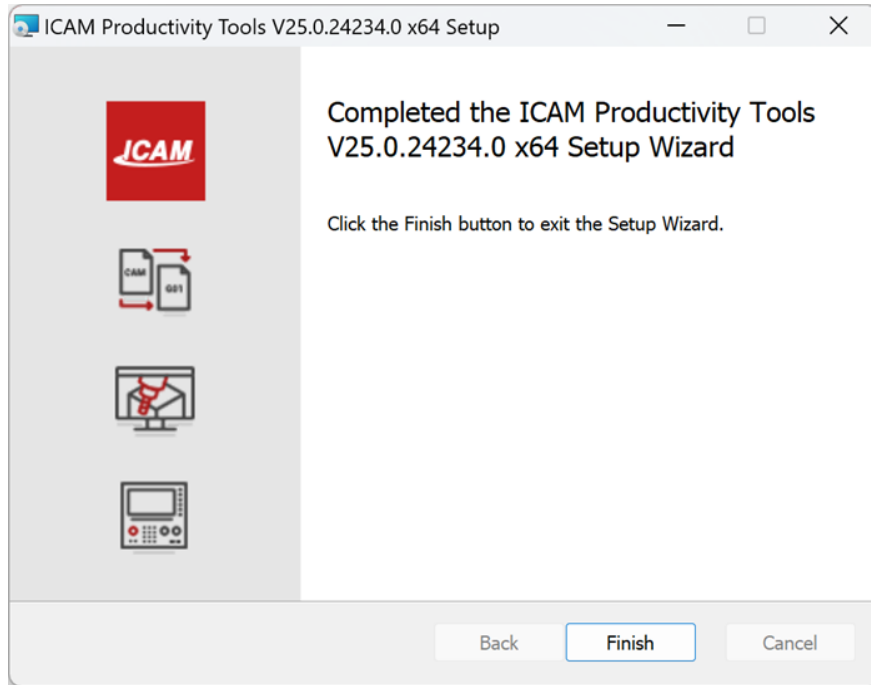
- Choose the CLOUD option.



6. Install software. You have the option to install desktop icons, and associate database file extensions. And also, you can migrate your data and setting from an earlier version. Neither option is necessary for a successful install. You can view the installation log file in this step.

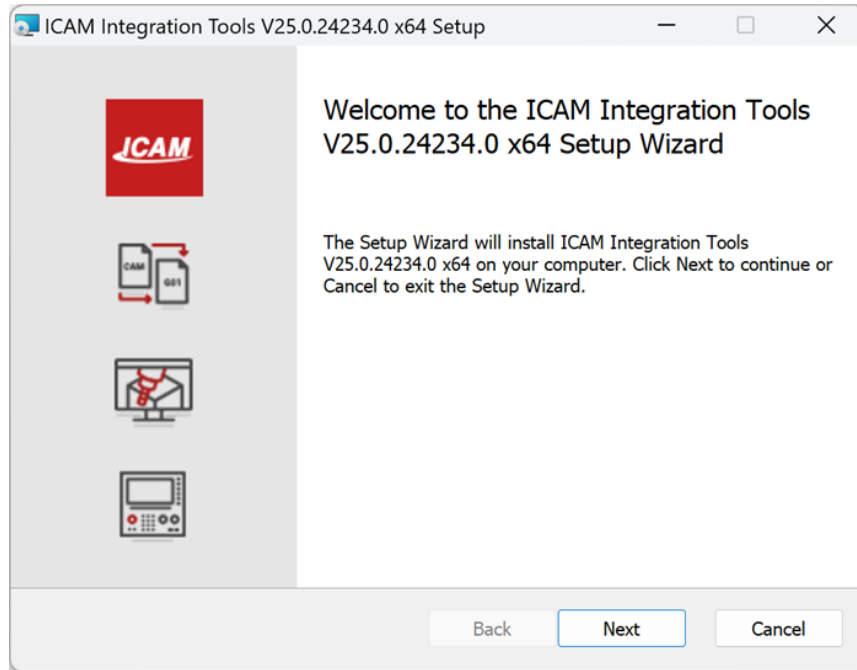


7. Select **Finish** to complete the installation.

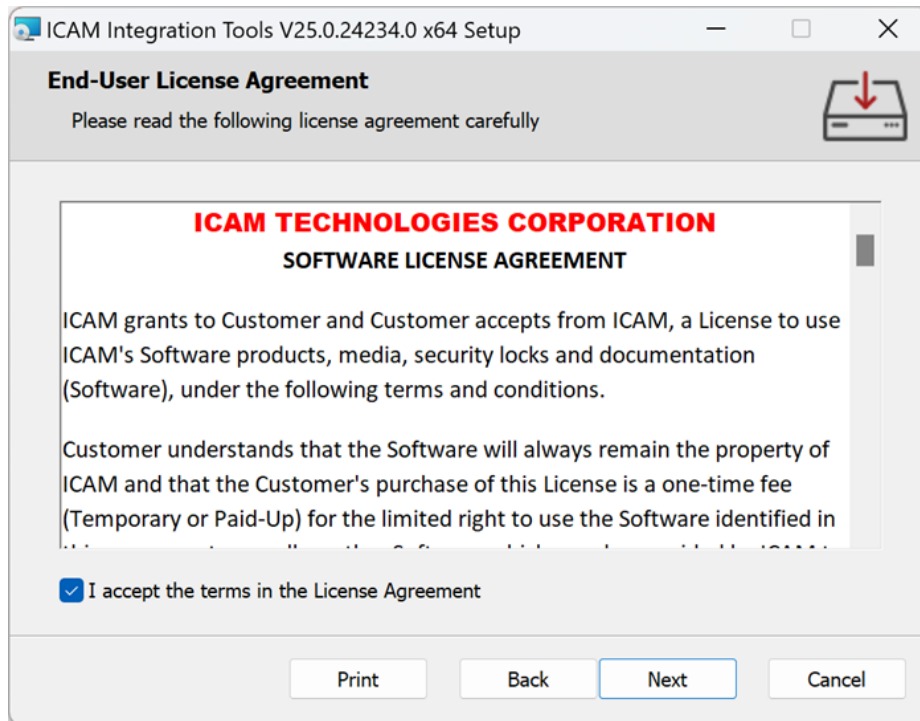


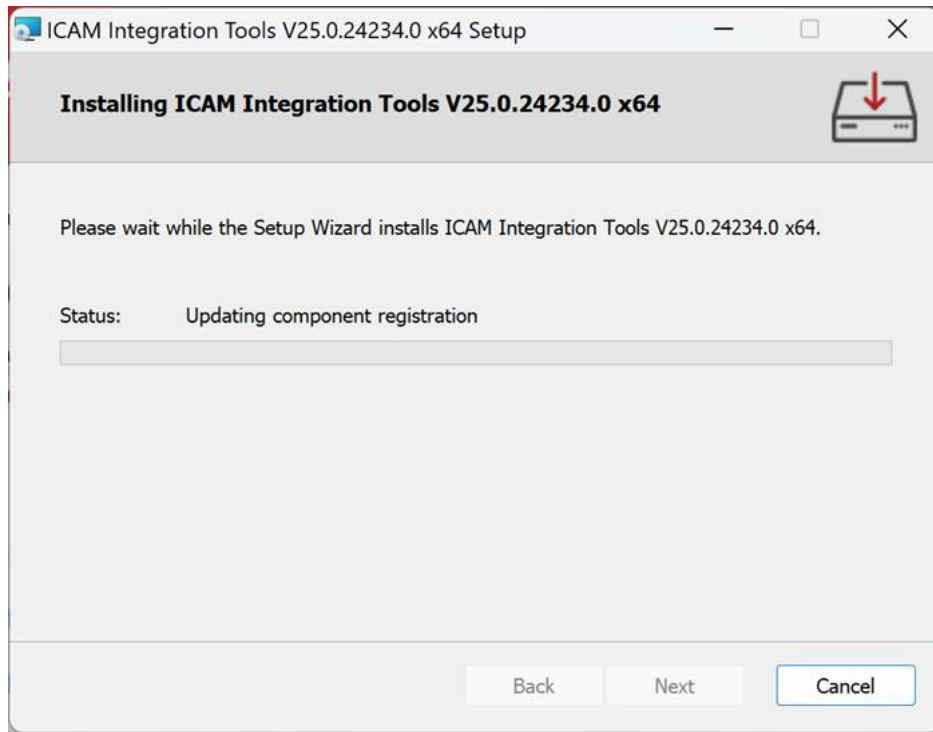
3.1.2. ICAM Integration Tools installation

Follow Installation Setup Wizard step by step to install the ICAM integration tools:

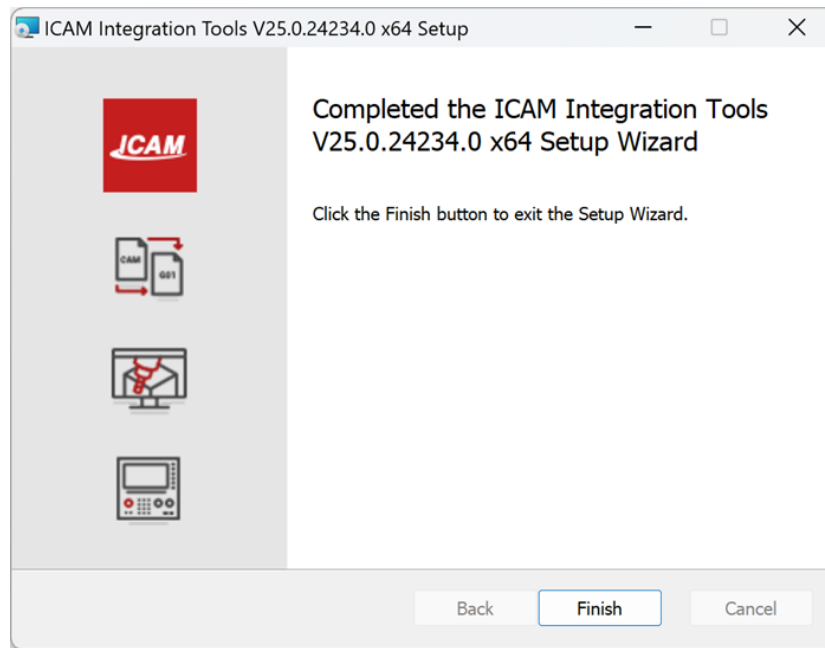


Accept the License Agreement checkbox and click **Next** to install:





By clicking Finish button, you will finish installing the ICAM Integration Tools V25.



3.2. Using a Cloud License

A cloud license contains the web address, port number and security identifier that uniquely identify your cloud license server. This key file must be selected during the CAM-POST installation process. The installer will confirm that there is a good connection to the license server.

A key file for a cloud license would appear as follows:

005 35.238.180.21:50000 d30bc6da-068b-4d59-9eff-16449530bbee

Once the key file has been setup and the license server daemon started, you are ready to use CAM-POST.

4. CAM-POST Client Installation

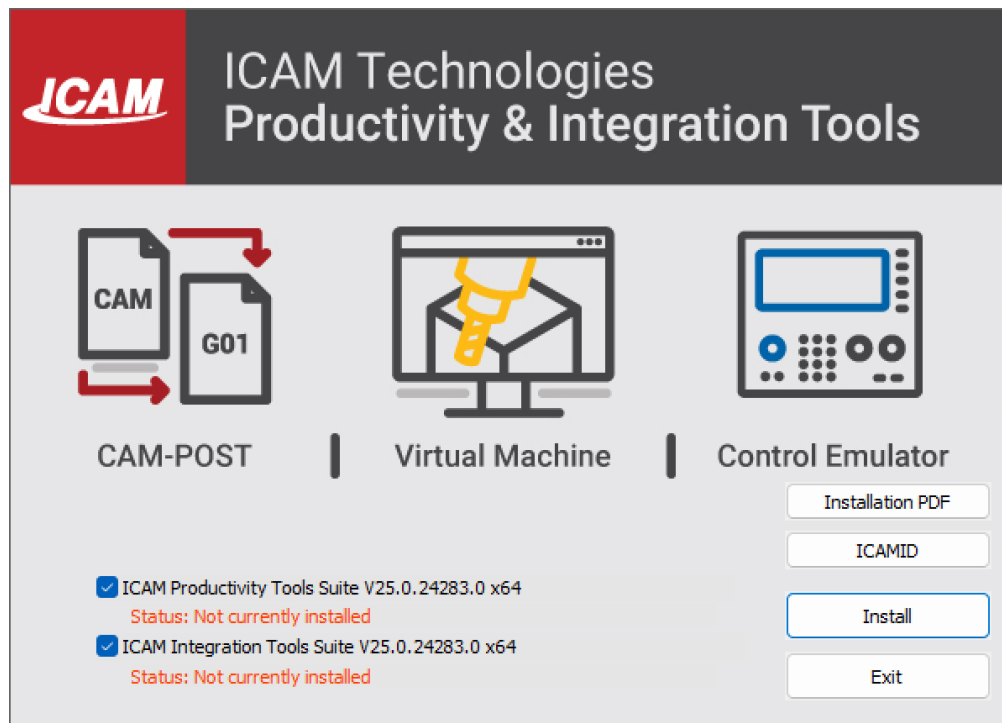
Do not proceed with a client installation until you have first installed the license server and have confirmed that the licenses are installed and ready for use.

Execute “*icam_250-xxxx_win64.exe*” to install CAM-POST application.

4.1. Typical Windows CAM-POST Client Installation

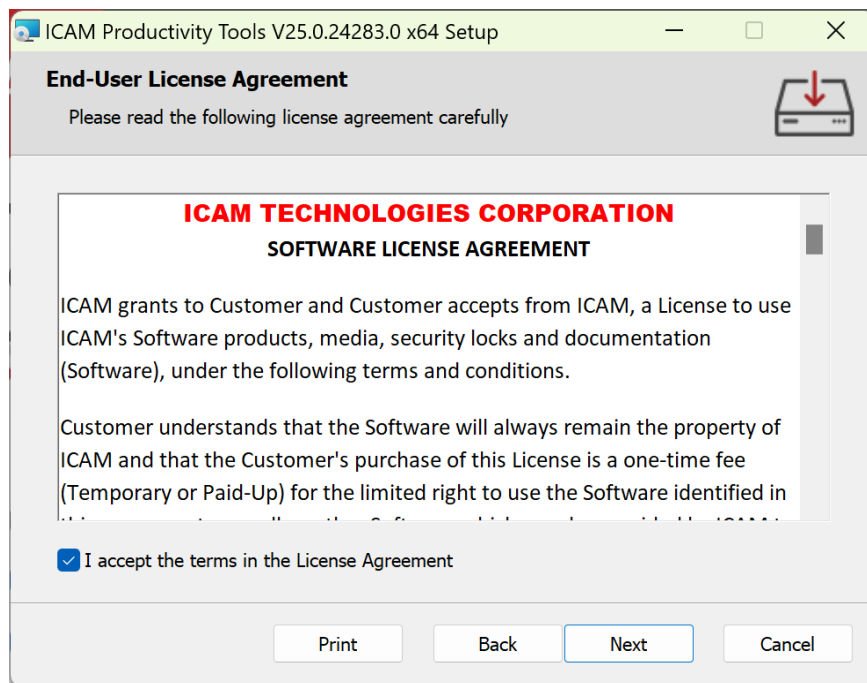
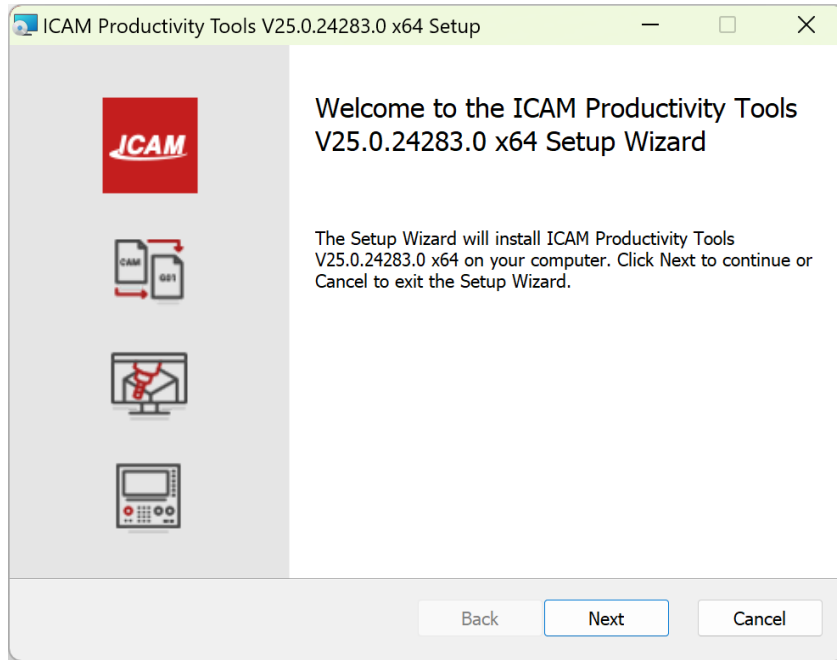
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ICAM software includes two parts of installation: ICAM Productivity Tools and Integration Tools.



4.1.1. ICAM Productivity Tools installation

8. Read and select **check box** to accept the ICAM Technologies Software License Agreement.

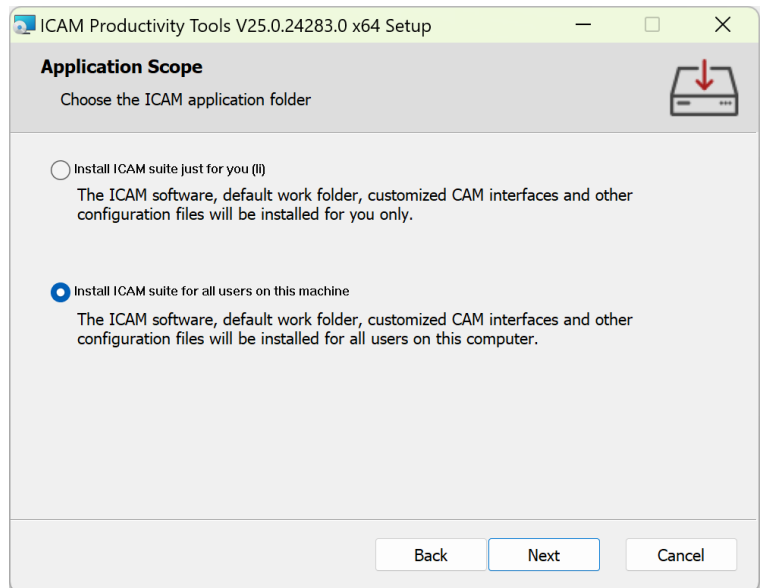
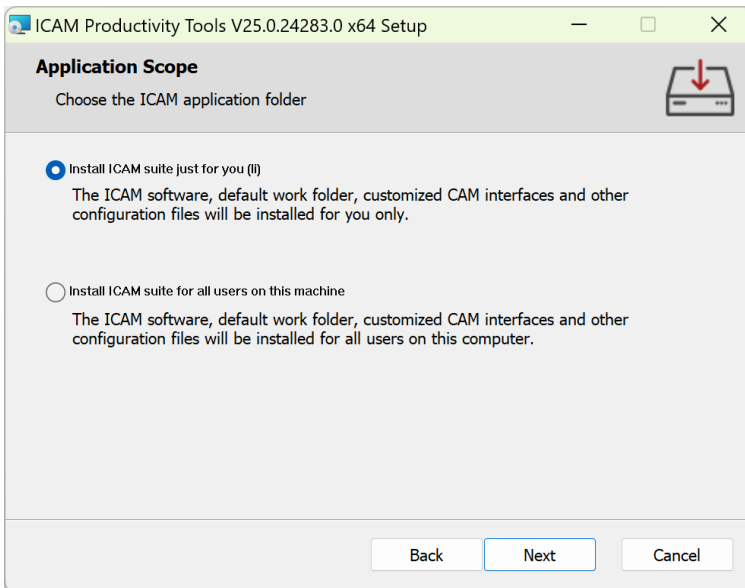


9. Installation scope

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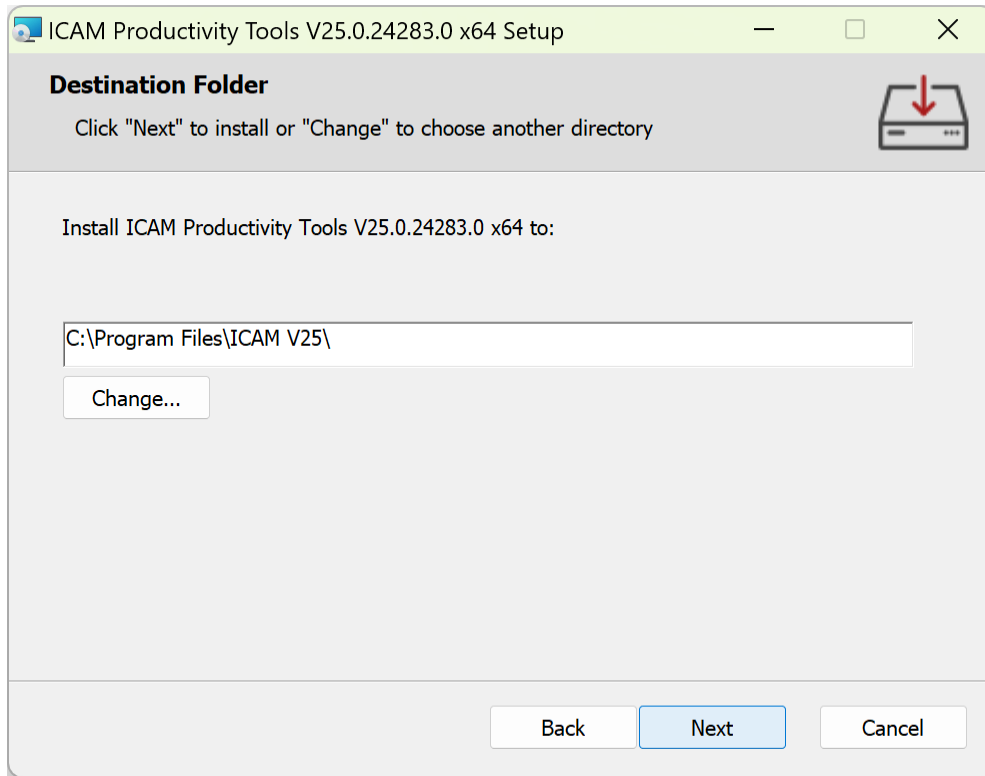
- The *ICAM.DEF* configuration file
- The *dwords.dat* keywords file
- The *work* folder containing the *campost.dbf* database
- The *kit* folder containing customized interface kits (initially empty)
- Any custom files included with the installation



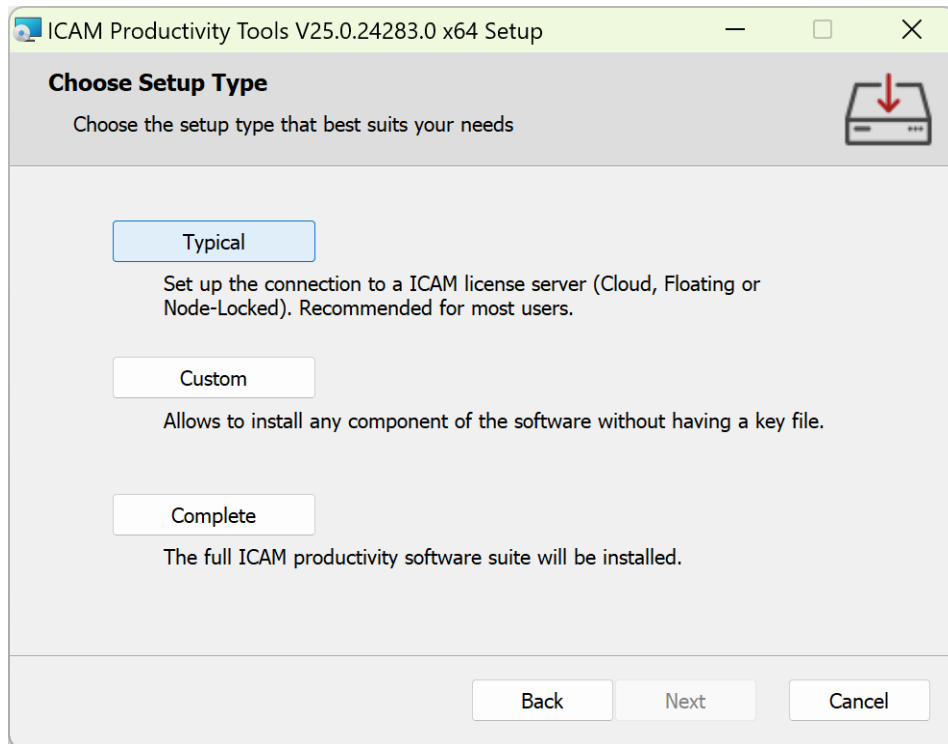
If you are installing for a single user, then these files will be installed in your “C:\Users\user(name)\AppData\Roaming\ICAM\250” roaming profile. If installing for all users, then these files will be installed in the “C:\Users\ProgramData\ICAM\250” common application data profile.

ICAM run-time products (i.e., CAM-POST GENER, Virtual Machine and Control Emulator CERUN) do not require Administrator rights to be used. The ICAM developer product (i.e., QUEST) and configuration utility (i.e., CONFIG) will require administrative rights, or at least the right to modify files in the “ProgramData\ICAM\250” folder, if the software is installed for all users of the computer. Developer and configuration software do not require Administrator rights if installed for a single user.

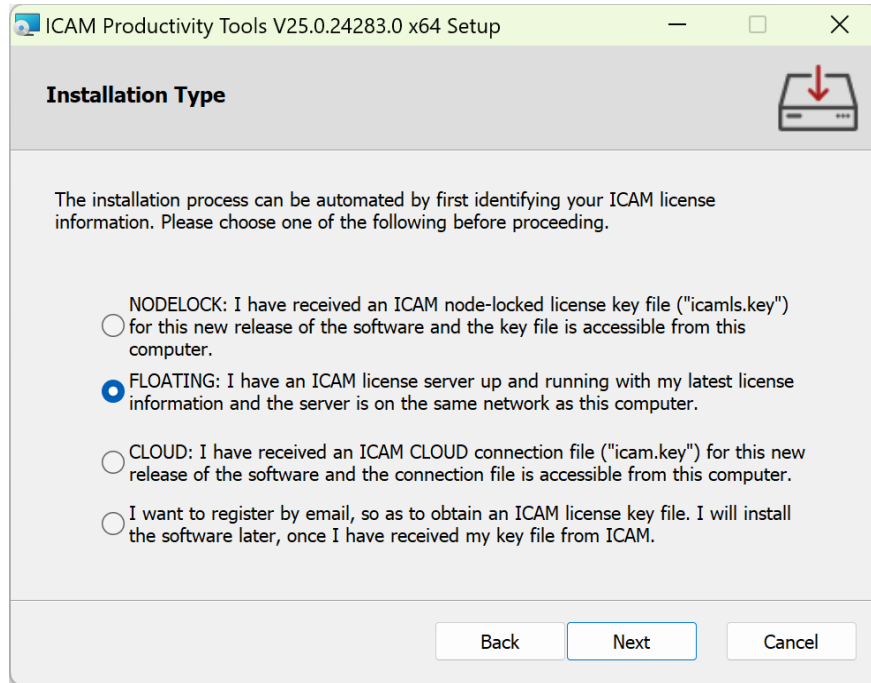
10. Use the file browser if necessary to select an alternate location to install the CAM-POST software. CAM-POST can be installed on a local or network drive.



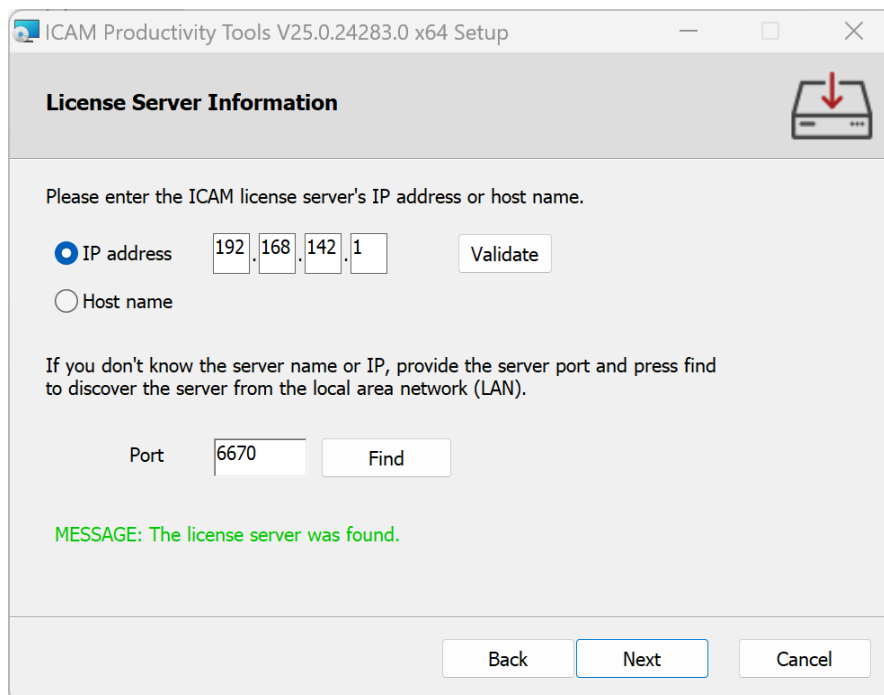
11. Select **Typical** option and press **Next** to install the software.



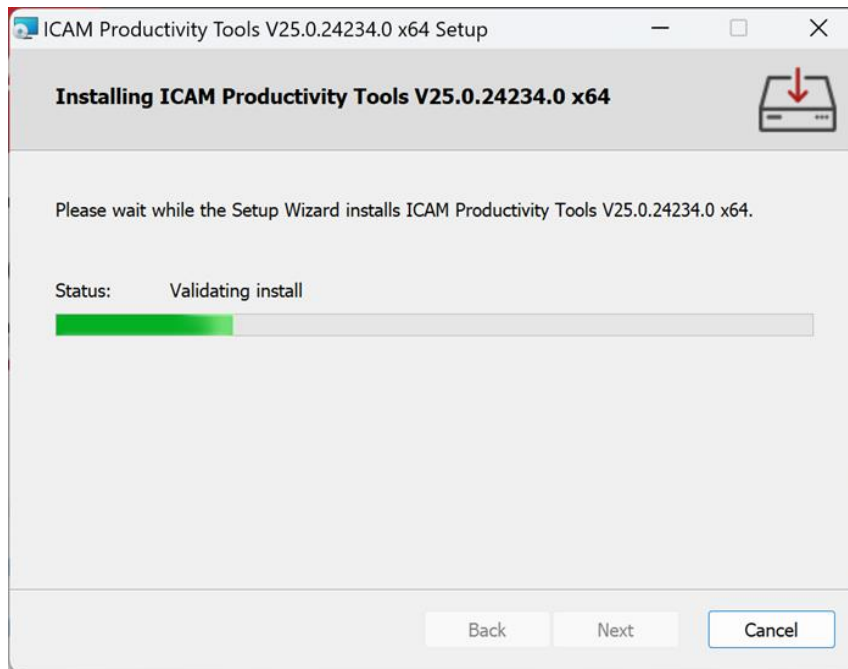
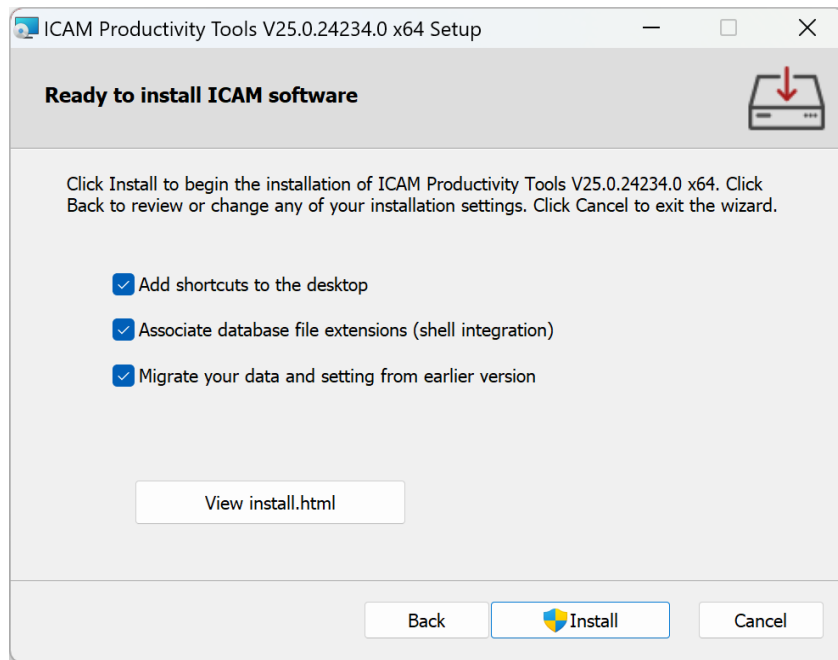
12. Choose the **FLOATING** option.



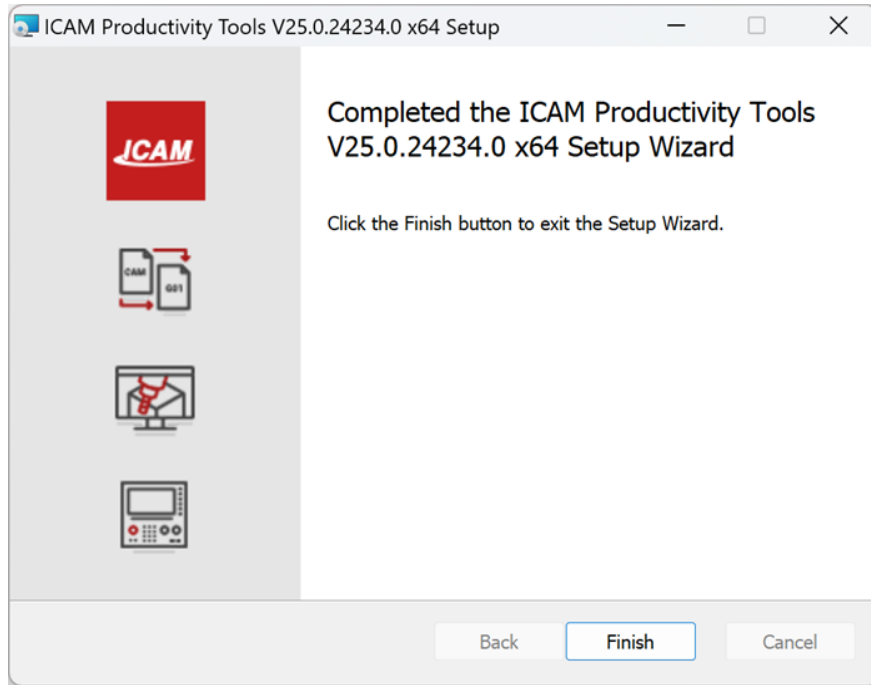
13. Locate the ICAM Floating License Server IP address automatically if you already installed License Server. Otherwise by typing the IP address of the server computer, or by typing the hostname of the server computer. If you are not sure of this information, and if the server is on the same LAN as the client machine, then press the Validate button to automatically scan for a running server. ICAM recommends using IP addresses instead of Hostnames for superior performance (this avoids the use of a DNS server). Press **Next** to contact the server and obtain licensing information. If you have any issue to validate license server, please refer to the chapter 7 [License Server Troubleshooting](#).



14. Install software. You have the option to install desktop icons, and associate database file extensions. And also, you can migrate your data and setting from an earlier version. Neither option is necessary for a successful install. You can view the installation log file in this step.

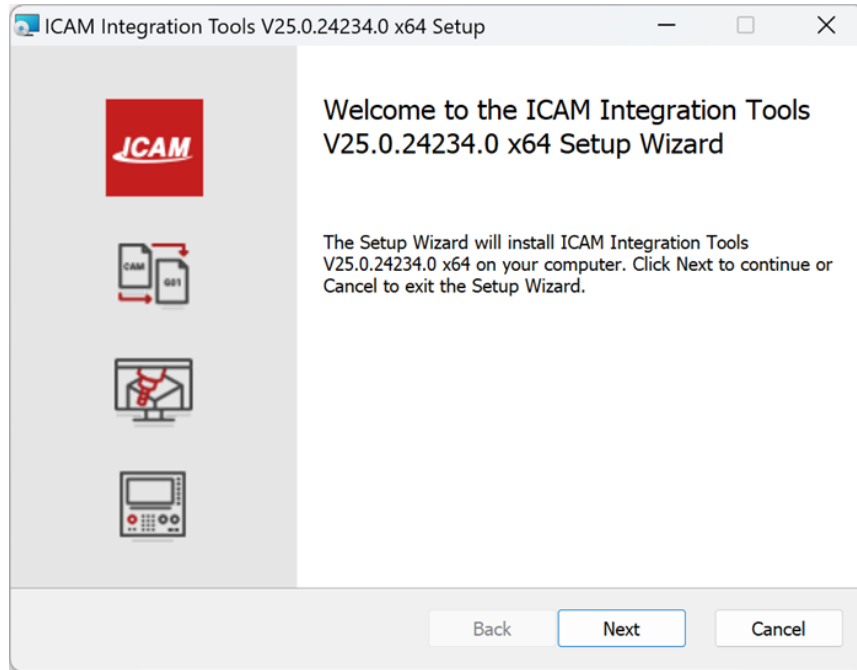


15. Select **Finish** to complete the installation.

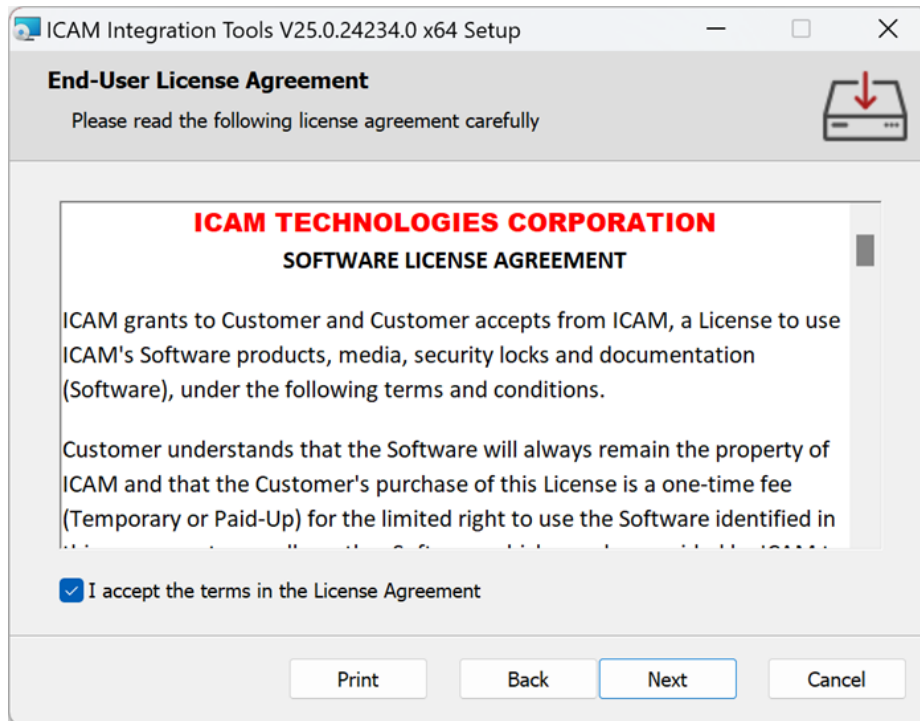


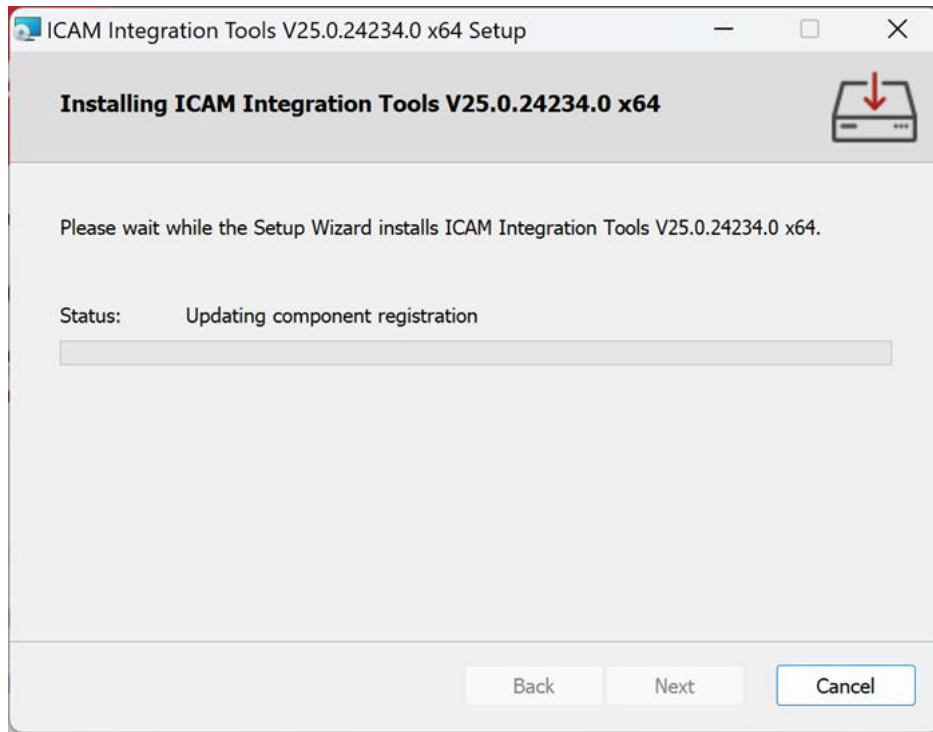
4.1.2. ICAM Integration Tools installation

Follow Installation Setup Wizard step by step to install the ICAM integration tools:

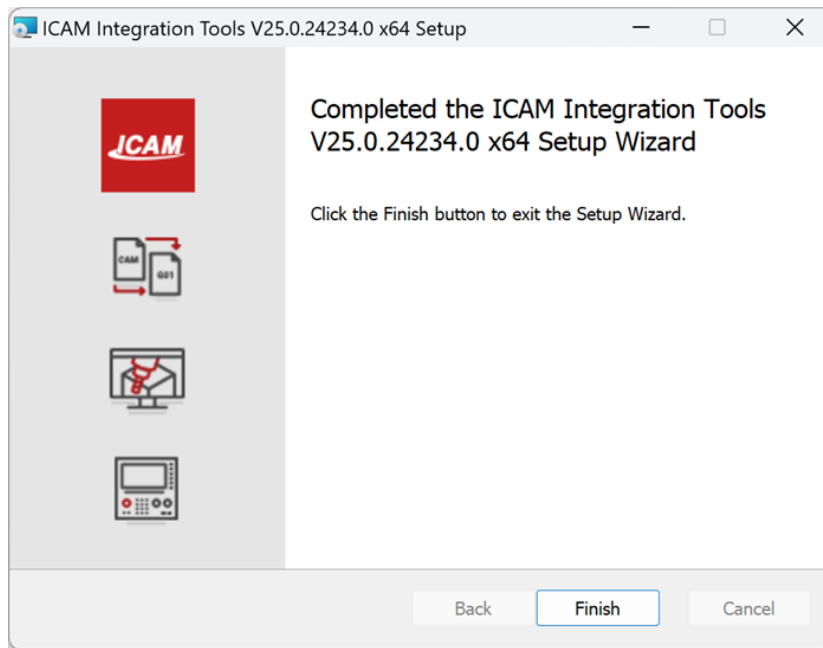


Accept the License Agreement checkbox and click **Next** to install:





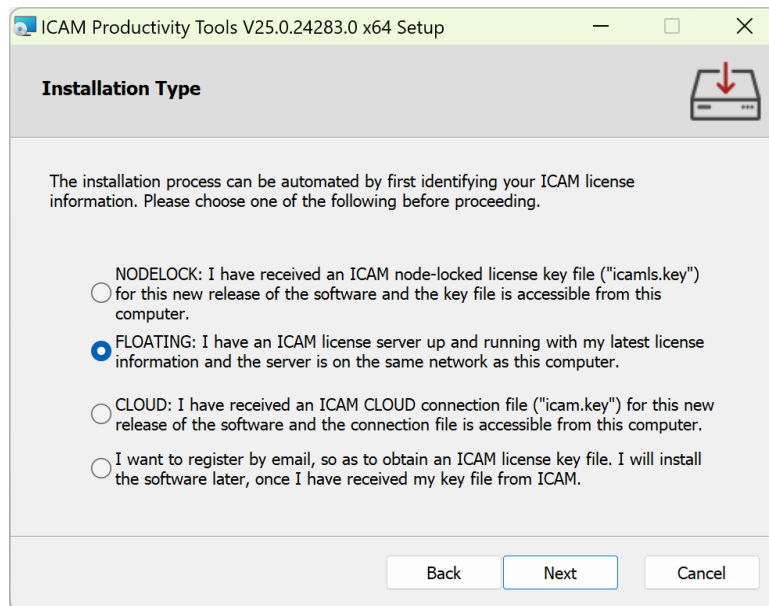
By clicking Finish button, you will finish installing the ICAM Integration Tools V25.



4.2. New Windows CAM-POST Client Installation

This section describes the steps of the client installation in more detail.

When installing a new version, the installer determines which software components to install by checking with a running ICAM license server. You will be given the following choices. You must select the second radio button “FLOATING: I have an ICAM license server” when installing CAM-POST on client computers. The complete list of choices and their actions are:



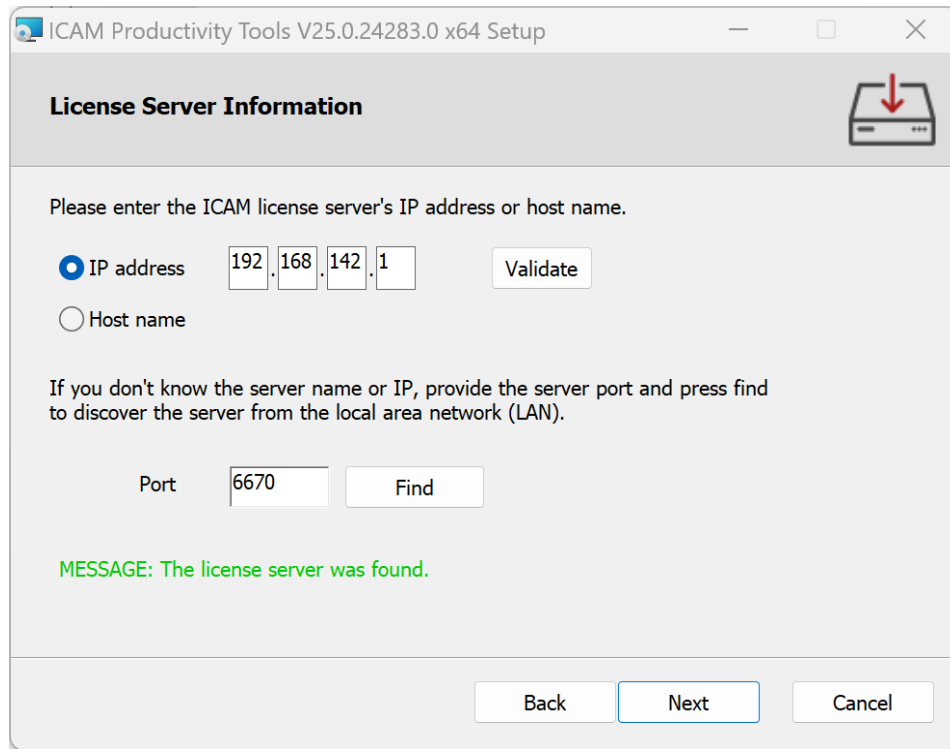
1. Install using a key file that you have received from ICAM.

This option is used with node-locked licenses and is described in detail in “New Windows CAM-POST Node-Locked Installation” on page 51.

2. Install using license information obtained from an ICAM floating license server.

This process is called a “client” installation, since it installs CAM-POST on a client computer that is “served” by the floating license server computer. The same computer can be used as both a server and a client. Always install or upgrade the license server first before installing or upgrading CAM-POST on a client computer.

The installer will probe (i.e., attempt to communicate with) the server over your LAN, so it is important that the network, server computer and ICAM server software all be up and running before proceeding with a client installation. The message box shown at right will appear during the installation if the server does not respond to the probe. This can happen for a number of reasons, the most common one being that the server and client computers are not on the same LAN (i.e., there is a network router or hub between them).



Following the **Validate** option, a dialog will appear listing the IP address of the server (or an IP of 0.0.0.0 if the server could not be found). If you type in a different IP address or the host name of the server computer, you must click on the **Validate** button to validate your choice. In any case, you cannot proceed to the actual installation until the server has been successfully probed. Once this has been done, you can select the **Next** button to begin installing the software. The server will automatically tell the installation program what software components to install.

A license key file, pointing to the server computer, will be automatically created by the installer in the installation directory – “C:\Program Files\ICAM\Server” by default.

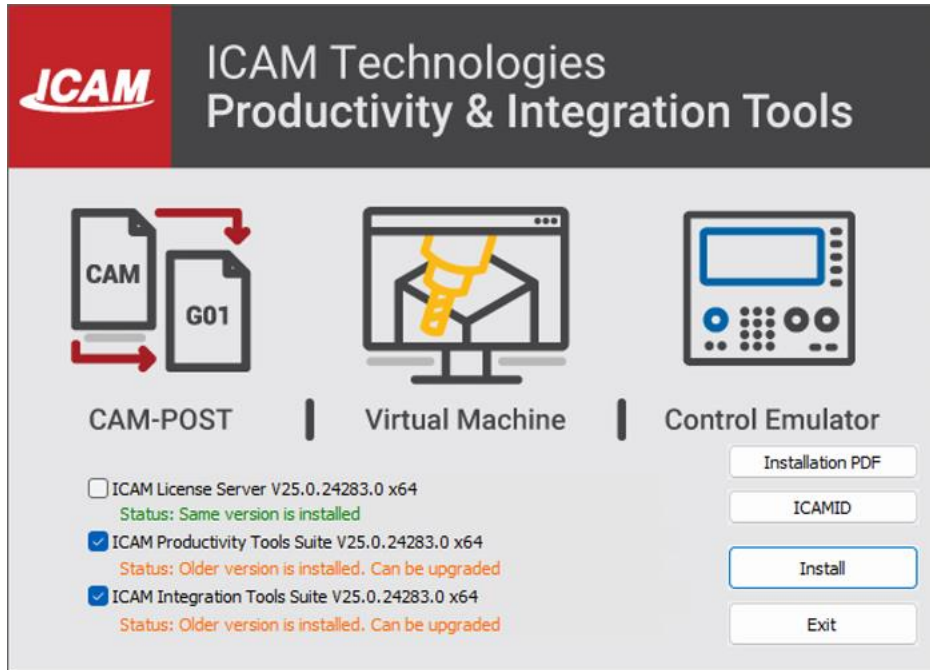
3. Register by e-mail or fax, so as to obtain a license key file.

This option is used with node-locked licenses and is described in detail in “New Windows New Windows CAM-POST Node-Locked Installation” on page 51.

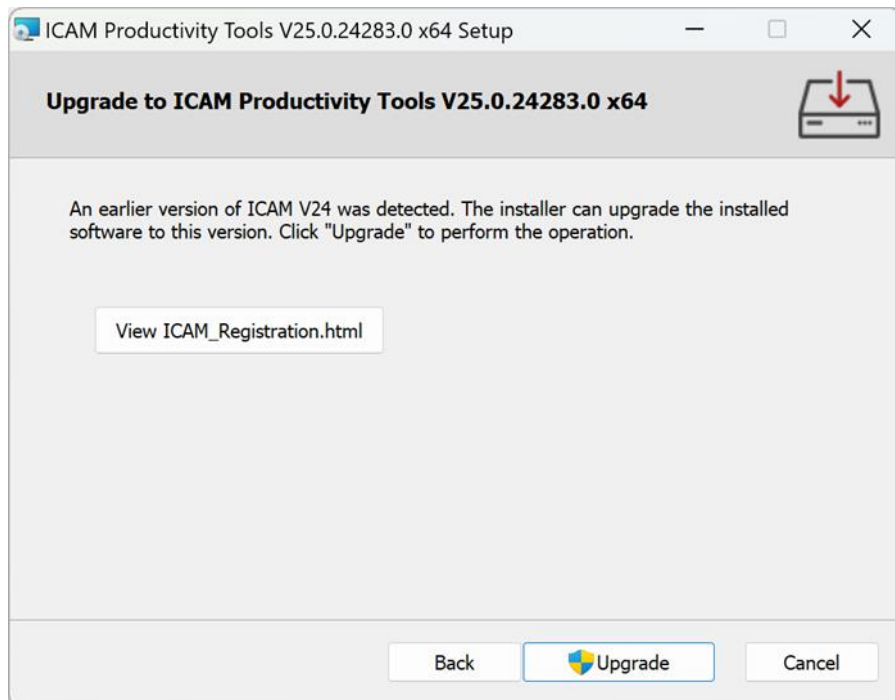
Once the installation has been completed, you are ready to use CAM-POST.

4.3. Update Windows CAM-POST Client Installation

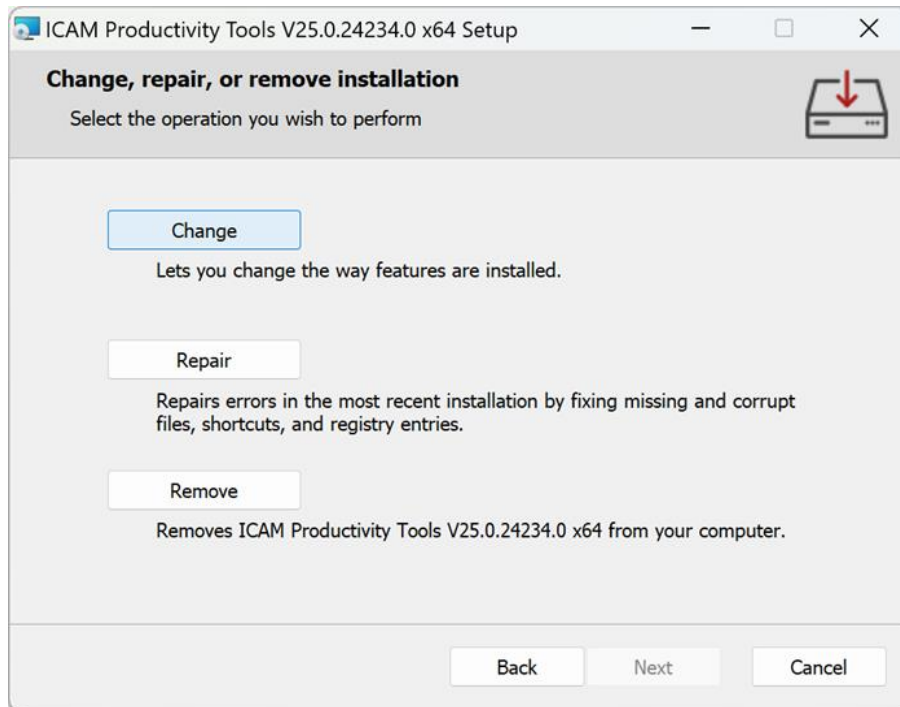
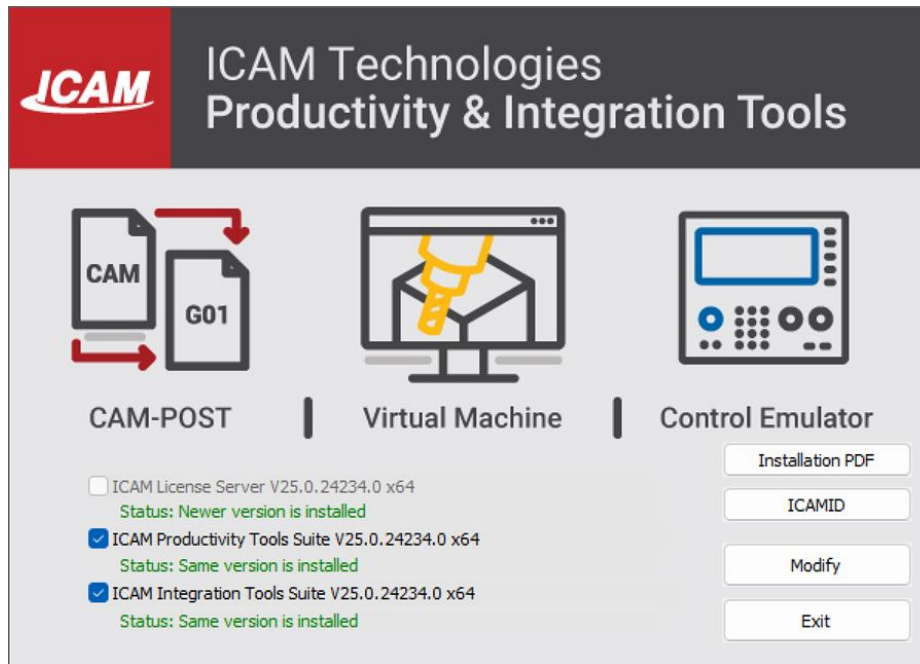
The installation procedure is different when installing an update to the current release (i.e., when installing a V25 update after already earlier installing V25). You can select update which suite (ICAM Productivity Tools or ICAM Integration Tools):



- The **Upgrade** choice is only available if the V25 software release is more recent than that of the installed V25 release. Upgrade will install the latest release into your installation directory.



If the V25 software release is same version as installed release, **Change/Repair/Remove** options are available.



Use the **Repair** choices to ensure that CAM-POST is running the most recent software release. Use the **Change** choice to add or remove kits, language files and other CAM-POST components, without affecting other ICAM software installed on your computer.

Because Windows does not allow an executable file to be updated while it is running, you must ensure that no copies of CAM-POST are running on your computer before updating the software.

Once the installation has been completed, you are ready to use CAM-POST.

4.4. Using a Floating License

Client computers are not registered with ICAM when using the Floating License Server. Instead, the client computer communicates with the server computer to check-out and return licenses. In order to do this, ICAM software running on the client computer must know the name or IP address of the server computer. This information is stored in the installation directory in a file named *icam.key*, which the ICAM installer will create. If for some reason this file is missing, you must create it using VI or some other text editor.

Follow these instructions exactly when creating the key file

The key file must contain a single line, starting with three 0 (zero) characters in a row (no spaces before or between them), followed by a single space (not a tab), and then either the IP address or the host name of the server. This can optionally be followed by a : (colon) and the port number used for communications with the server. The “:port” field can be omitted if the server is using port **6670**. The following two lines show both methods of defining the server IP address, however only one method should be used in the key file:

```
000 192.168.1.2:6670
```

```
000 myserver:6670
```

See the Node-Locked licensing description above for the procedure to follow if the key file is not named *icamls.key* or if it is not placed in the installation directory.

Once the key file has been setup and the license server daemon started, you are ready to use CAM-POST.

5. CAM-POST Node-Locked Installation

Node-locked licenses permit the use of *CAM-POST* and other ICAM software on a specific computer. A node-locked license for one computer cannot be used on a different computer. Node-lock licensing is available for all ICAM products.

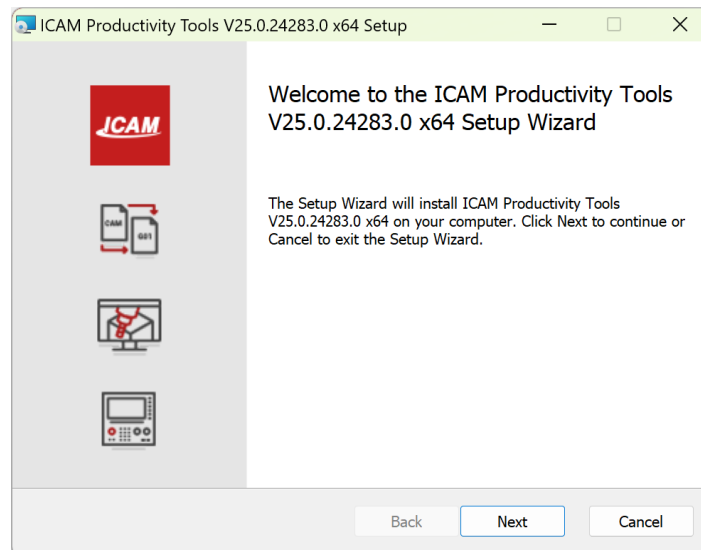
5.1. Typical Windows CAM-POST Node-Locked Installation

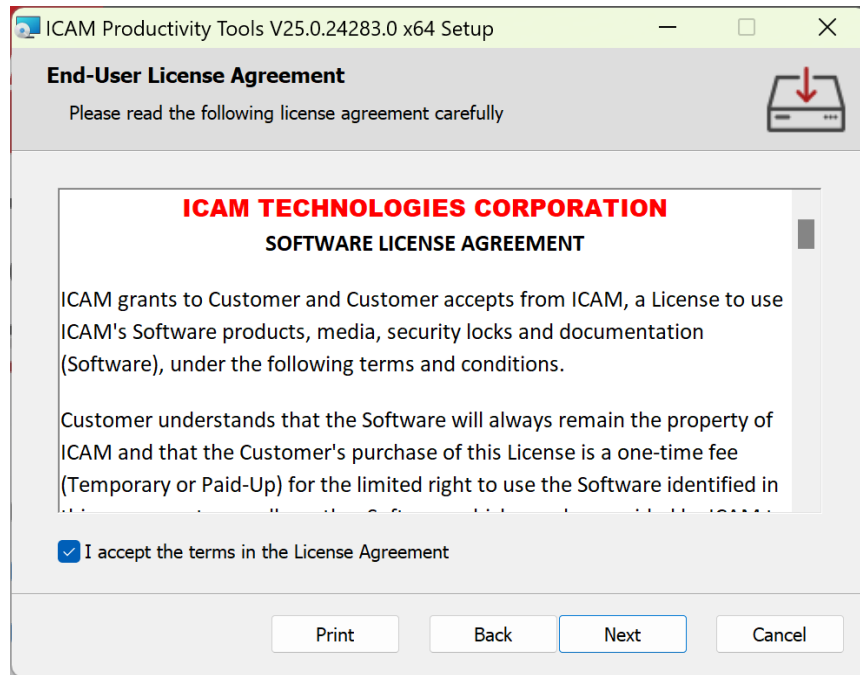
This section shows a typical first time installation of CAM-POST on a node-locked licensed computer. Your installation should be similar. If you encounter difficulties, see “New Windows CAM-POST Node-Locked Installation” on page 51 for more details on new installations, and “Update Windows CAM-POST Node-Locked Installation” on page 52 for details on the software upgrade process.

Before proceeding with the installation, ensure that you have received an *icams.key* file from ICAM’s licensing department.

5.1.1. ICAM Productivity Tools installation

1. Read and select **checkbox** to accept the ICAM Technologies Software License Agreement.

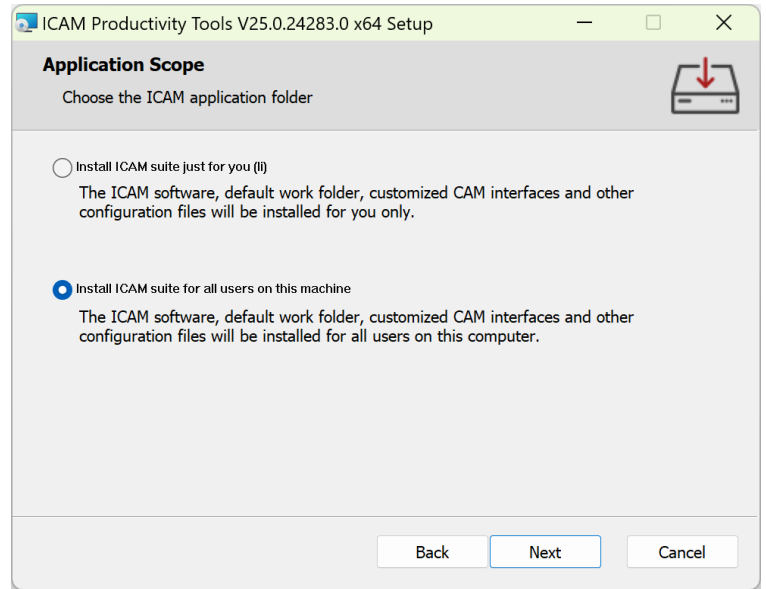
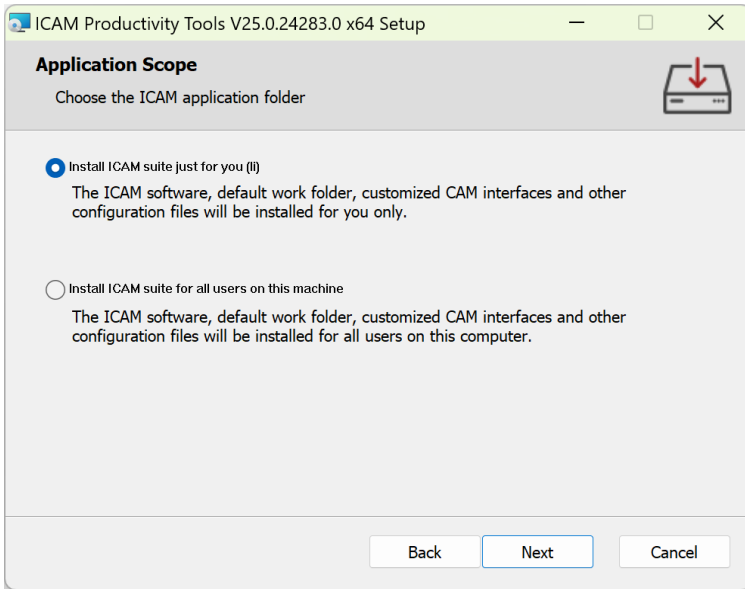




2. Installation scope

During a Windows installation, you will be given the choice to install the software “just for you” (i.e., the current user) or to install the software “for all users” of the computer. Your response will affect the Start menu and Desktop shortcuts as well as where the application data is located. Application data includes:

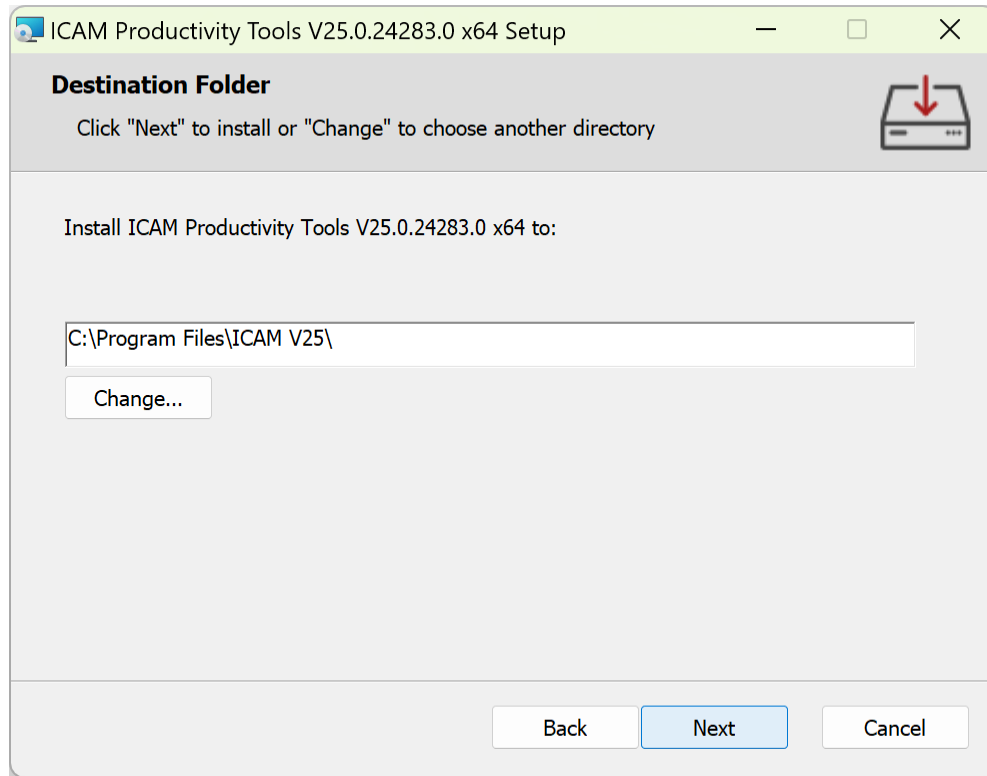
- The *ICAM.DEF* configuration file
- The *dwords.dat* keywords file
- The work folder containing the *campost.dbf* database
- The *kit* folder containing customized interface kits (initially empty)
- Any custom files included with the installation



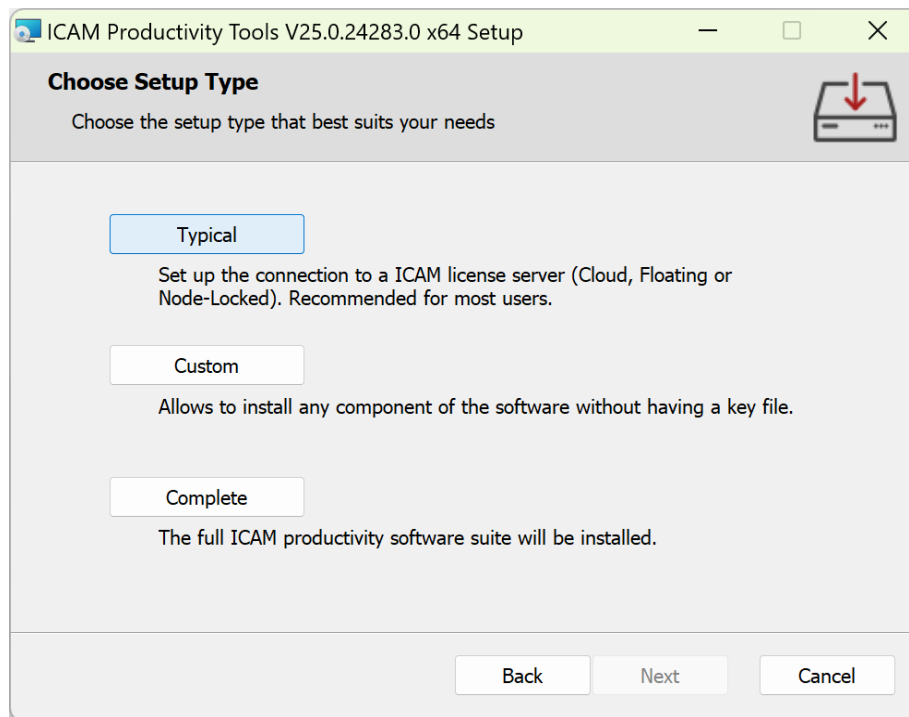
If installing for a single user, then these files will be installed in your “C:\Users\user\AppData\Roaming\ICAM\250” roaming profile. If installing for all users, then these files will be installed in the “C:\Users\ProgramData\ICAM\250” common application data profile.

ICAM run-time products (i.e., CAM-POST GENER, Virtual Machine and Control Emulator CERUN) do not require Administrator rights to be used. The ICAM developer product (i.e., QUEST) and configuration utility (i.e., CONFIG) will require administrative rights, or at least the right to modify files in the “ProgramData\ICAM\250” folder, if the software is installed for all users of the computer. Developer and configuration software do not require Administrator rights if installed for a single user.

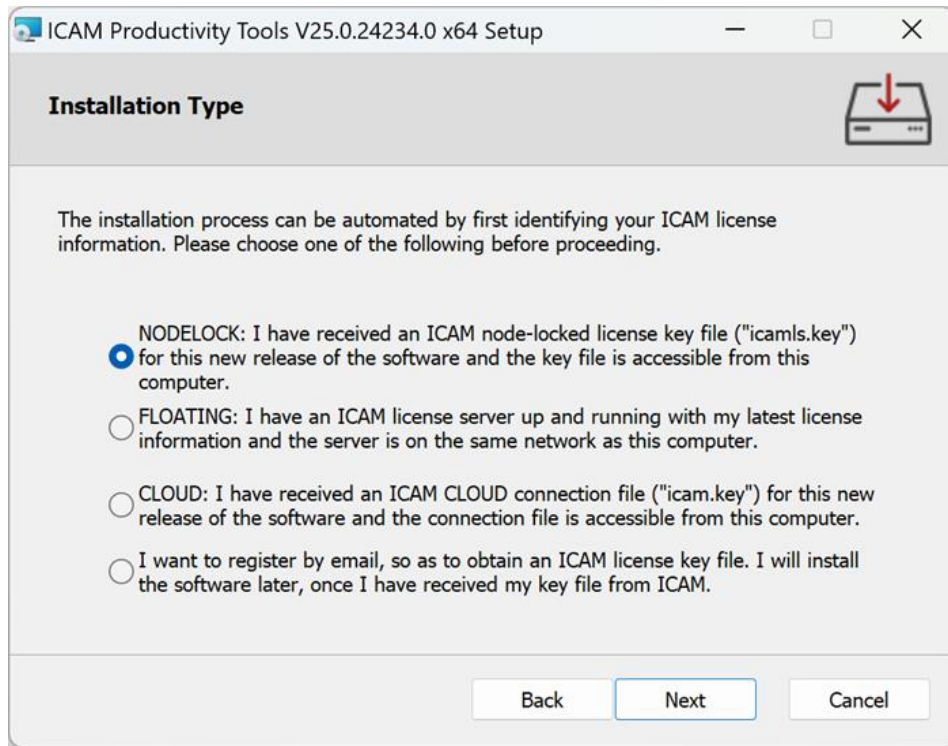
- Use the file browser if necessary to select an alternate location to install the CAM-POST software. CAM-POST can be installed on a local or network drive.



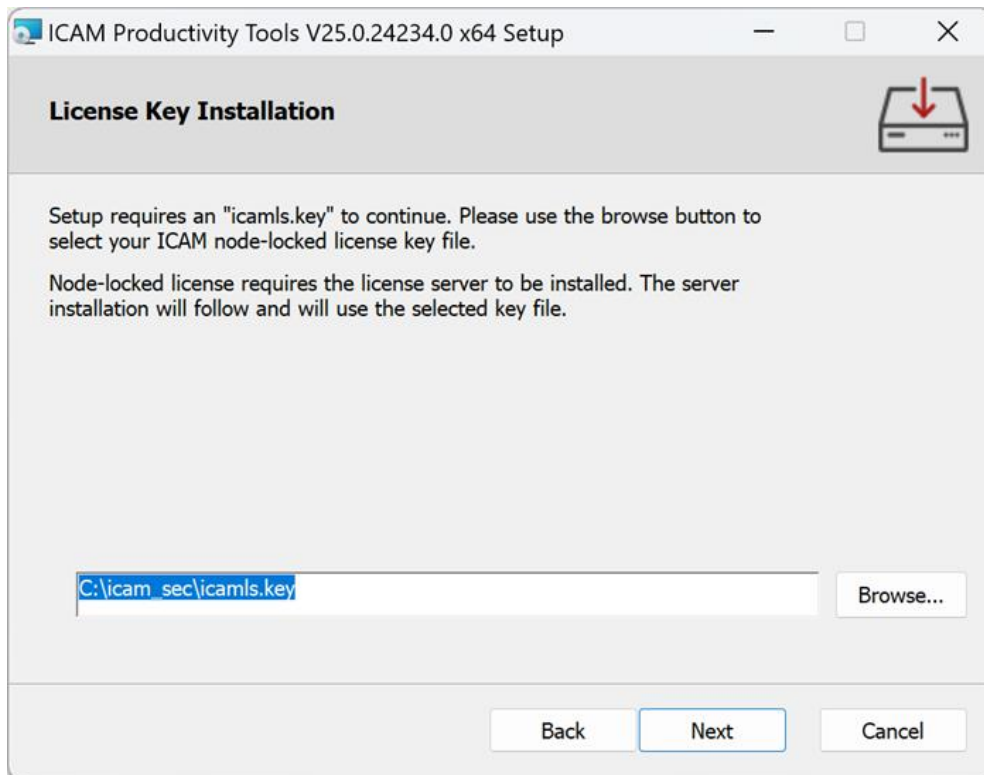
- Select "Typical" option and press **Next** to install the software.



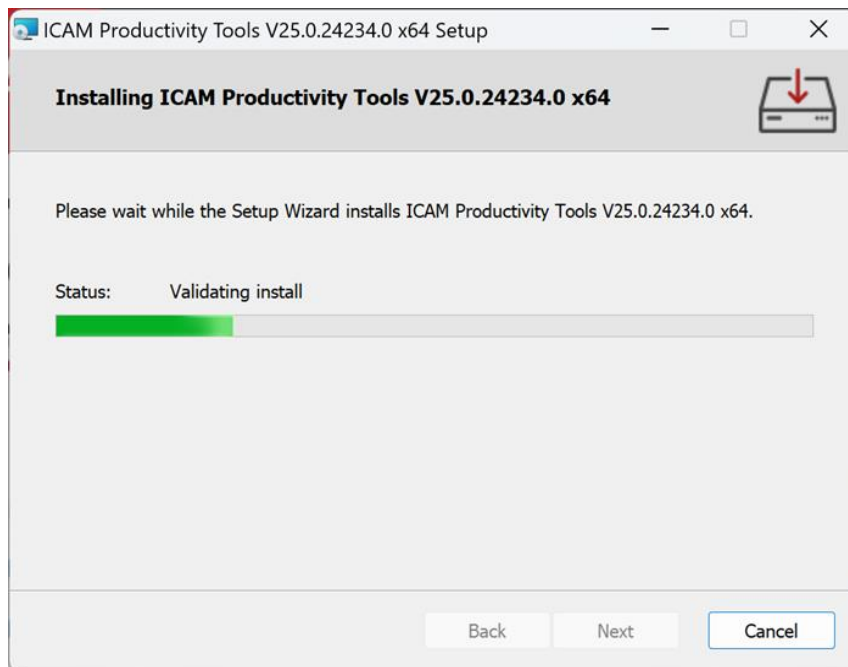
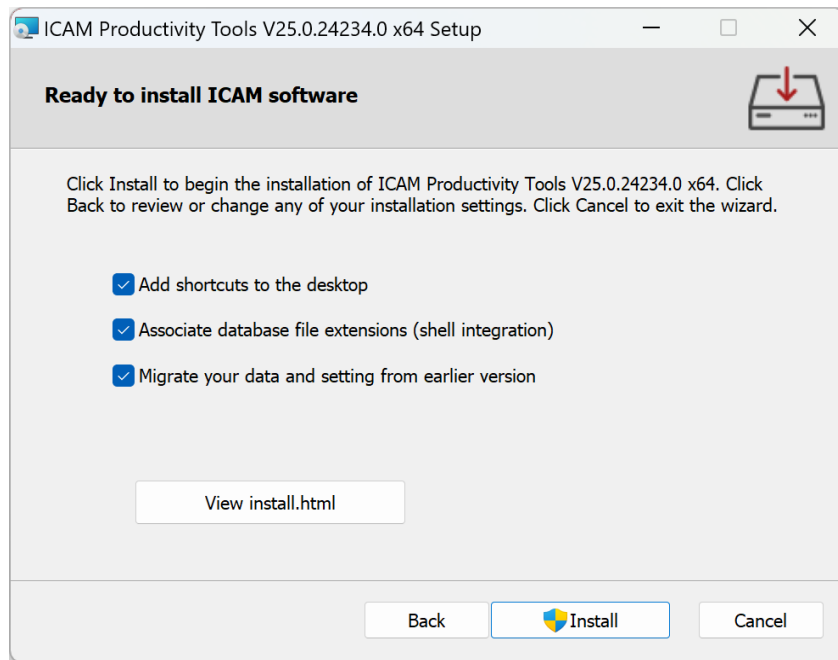
5. Choose the “NODELOCK” option.



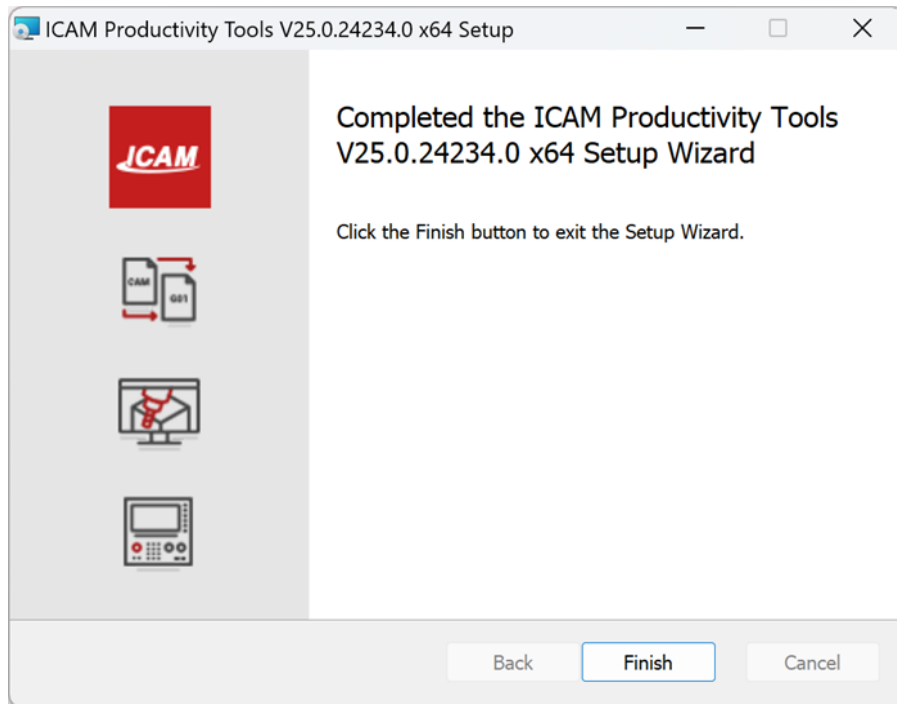
6. Use the file browser to locate the *icamls.key* file that was sent to you by ICAM’s licensing department.



7. Install software. You have the option to install desktop icons, and to enable a tool-tip display with Windows Explorer when a CAM-POST database file is selected. Neither option is necessary for a successful install. You can view the installation log file in this step.



8. Select **Finish** to complete the installation.



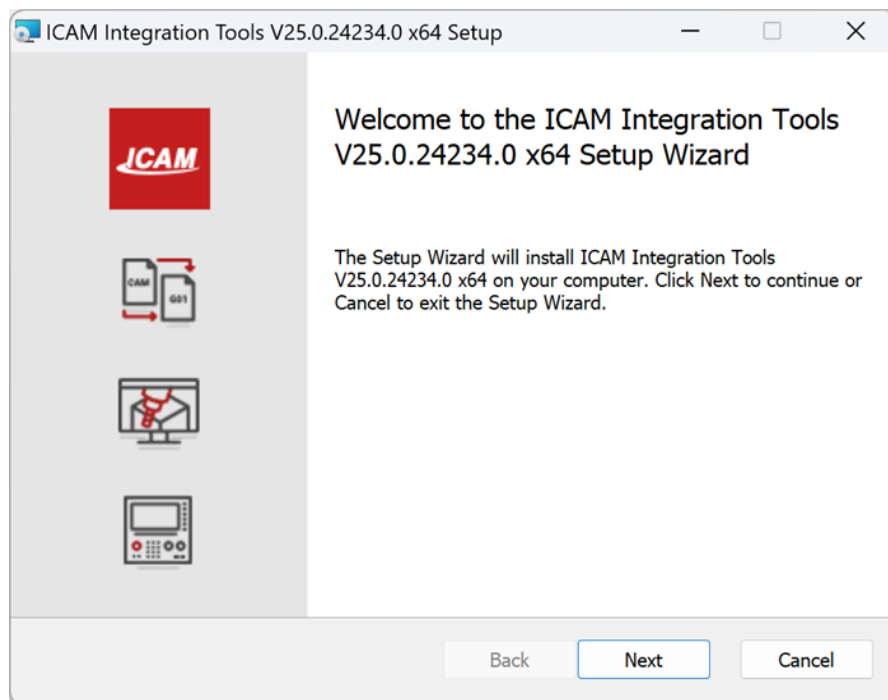
5.1.2. ICAM License Server Installation

The license key provided by ICAM requires a license server to be installed on the computer. Refer to the License Server Installation for more information.

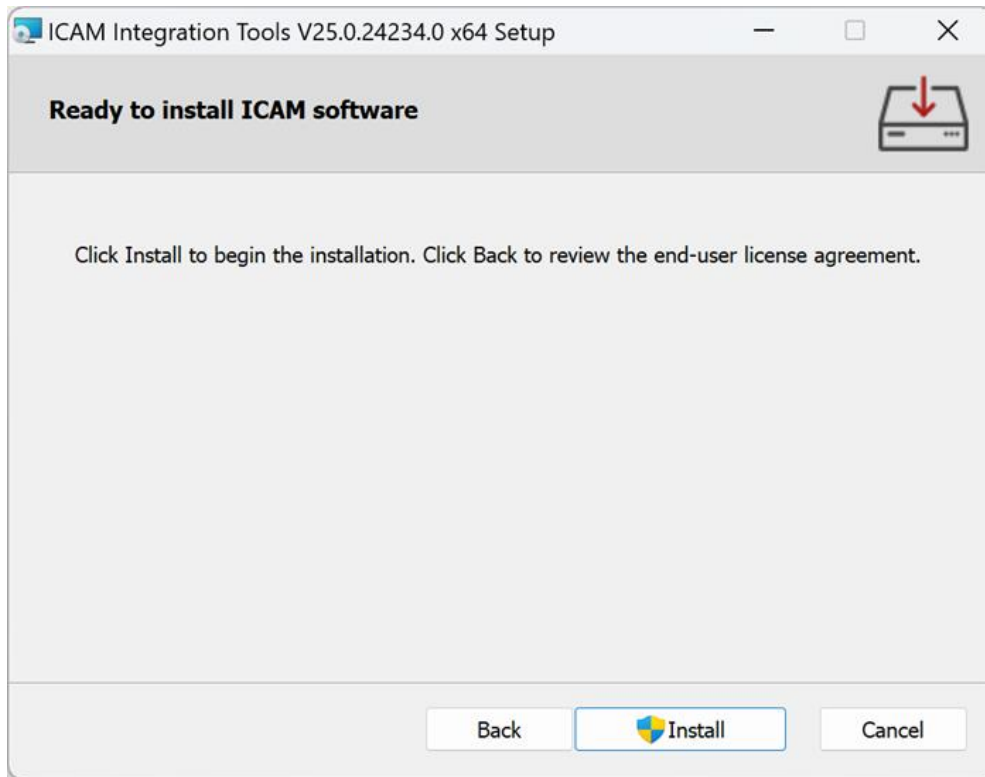
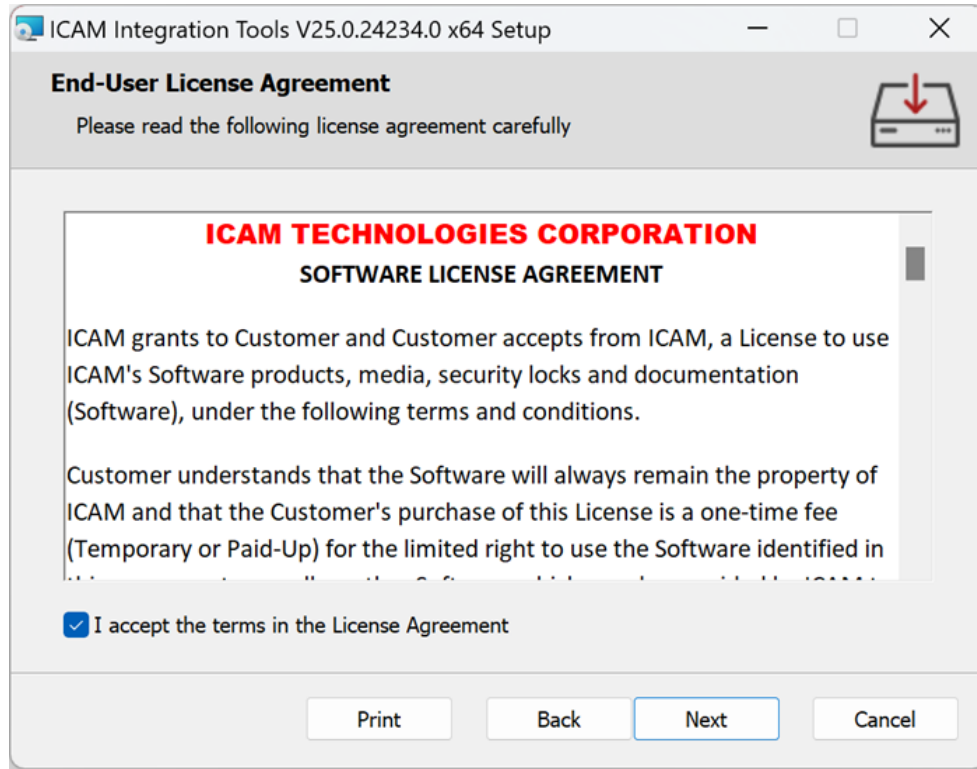
If the license server is already installed, continue to the next section.

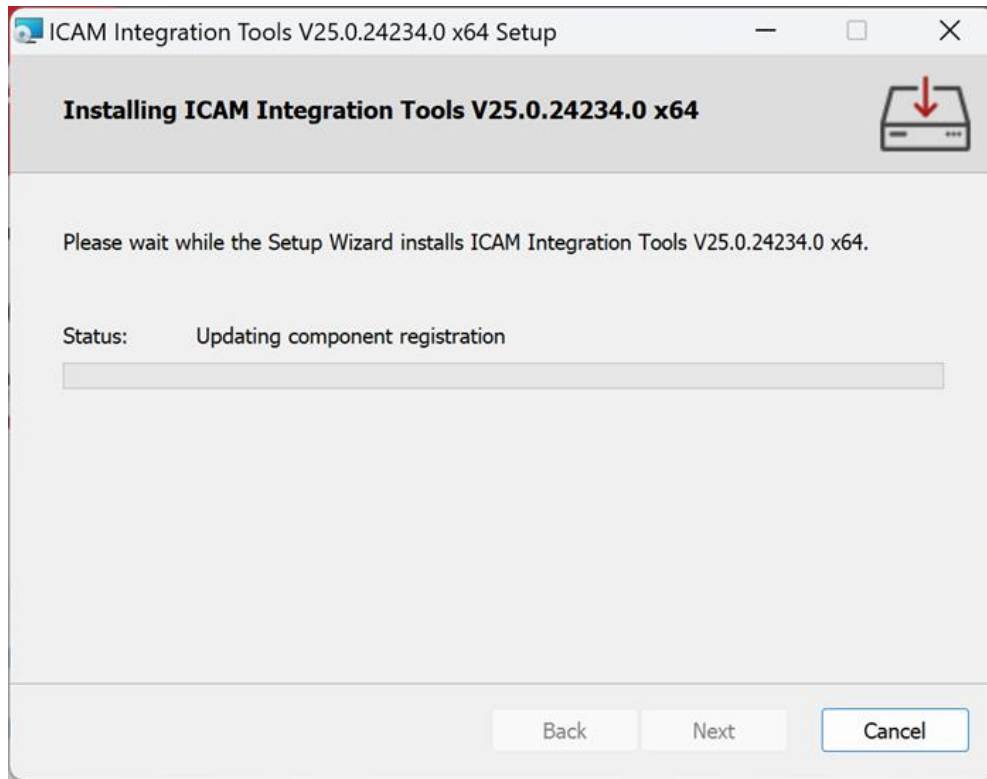
5.1.3. ICAM Integration Tools installation

Follow Installation Setup Wizard step by step to install the ICAM integration tools:

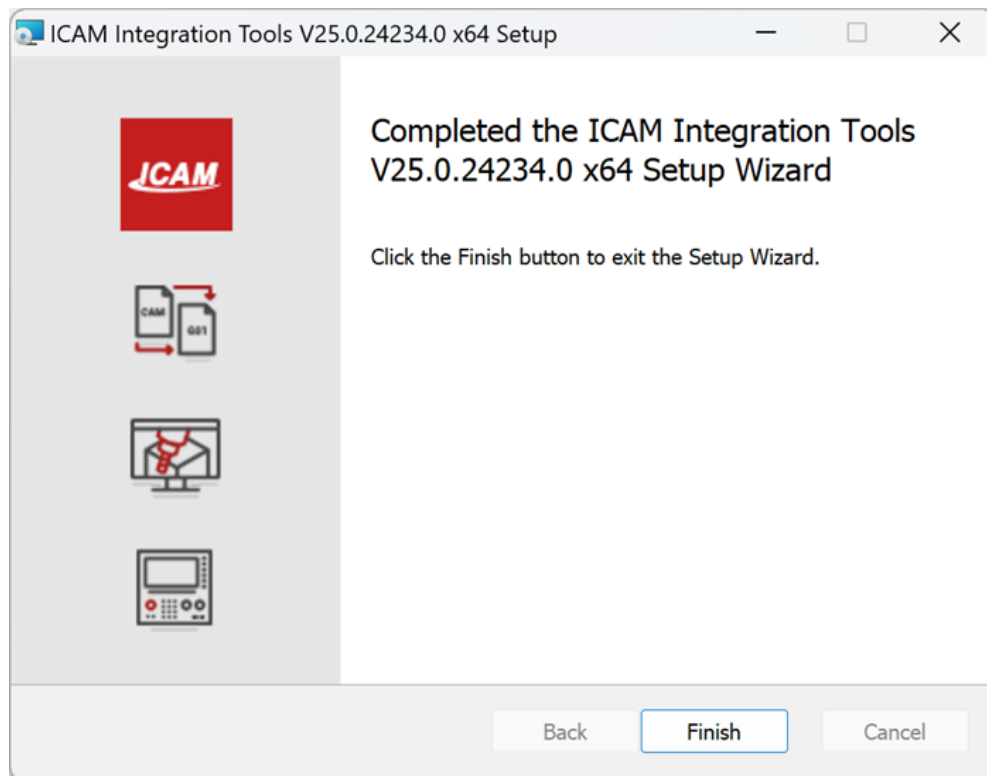


Accept the License Agreement checkbox and click **Next** to install:





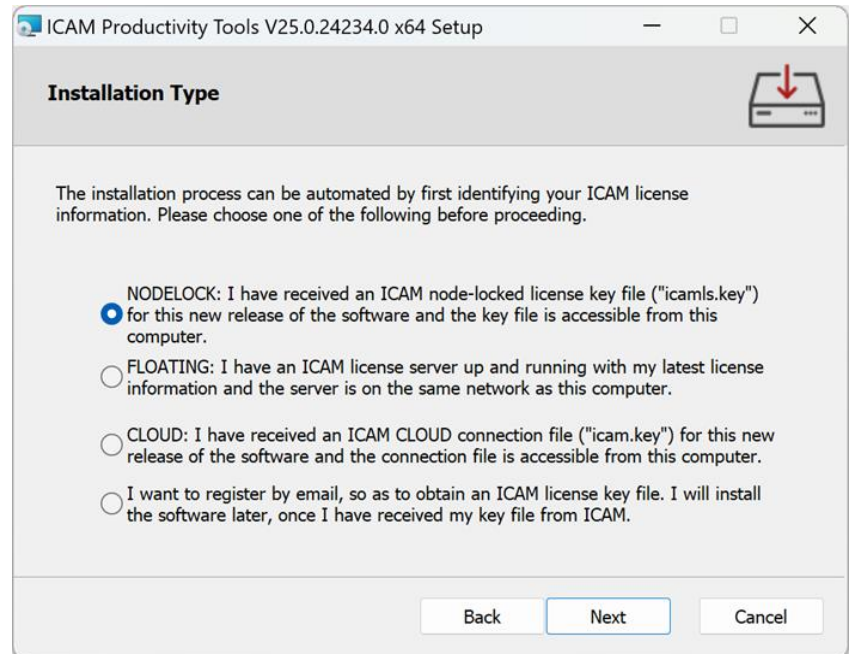
Click on the Finish button to successfully install ICAM Integration Tools V25.



5.2. New Windows CAM-POST Node-Locked Installation

This section describes the steps of the node-locked installation in more detail.

When installing a new version, the installer determines which software components to install by checking the *icamls.key* license file sent to you by ICAM’s licensing department. You will be given the following choices. You must select the first radio button “I have received an ICAM license key file” when installing CAM-POST with node-locked licensing. The complete list of choices and their actions are:



1. Install using a key file that you have received from ICAM.

Use this option when installing a node-locked license. Simply browse for and select the file sent to you by ICAM’s licensing department. The installer will install only the software components you are licensed to use. A copy of the license key file will be automatically created by the installer in the installation directory – “C:\Program Files\ICAM LICENSE SERVER” by default.

2. Install using license information obtained from an ICAM floating license server.

This option is used with floating licenses and is described in detail in “New Windows CAM-POST Client Installation” on page 36.

3. Register by e-mail or fax, so as to obtain a license key file.

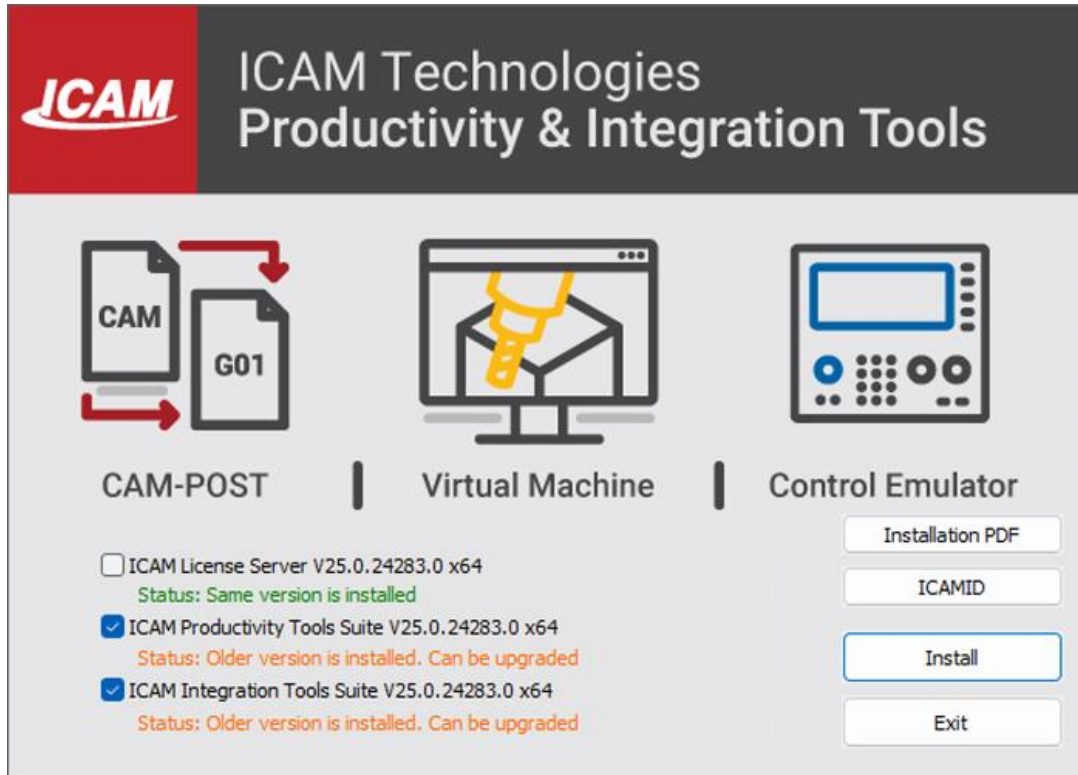
Select this action if you do not yet have a license key file. The installer will assist you by creating a key file request form named *install.log* in the installation directory, which you must e-mail or fax to ICAM. When you receive your license data by return e-mail, save the text file attachment to any directory on your computer. If you have been faxed back your license data, carefully type it in using Notepad (or any other text editor) and save it as a text file on your computer.

Once your key file has been obtained and saved as a file on your computer, restart the installation and this time select choice #1.

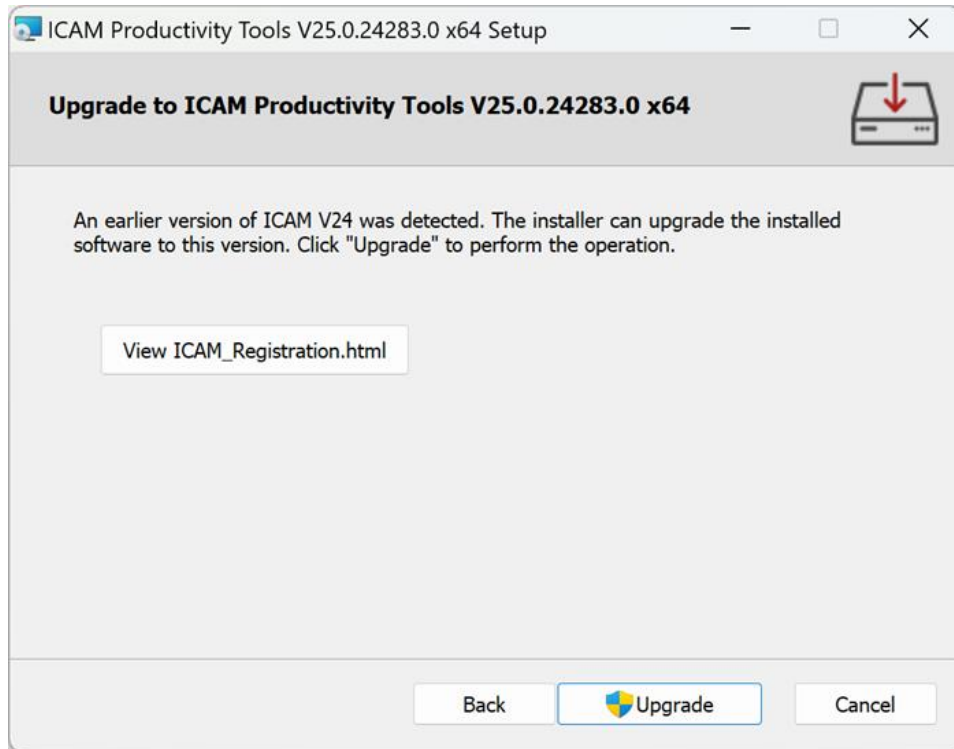
Once the installation has been completed, you are ready to use CAM-POST.

5.3. Update Windows CAM-POST Node-Locked Installation

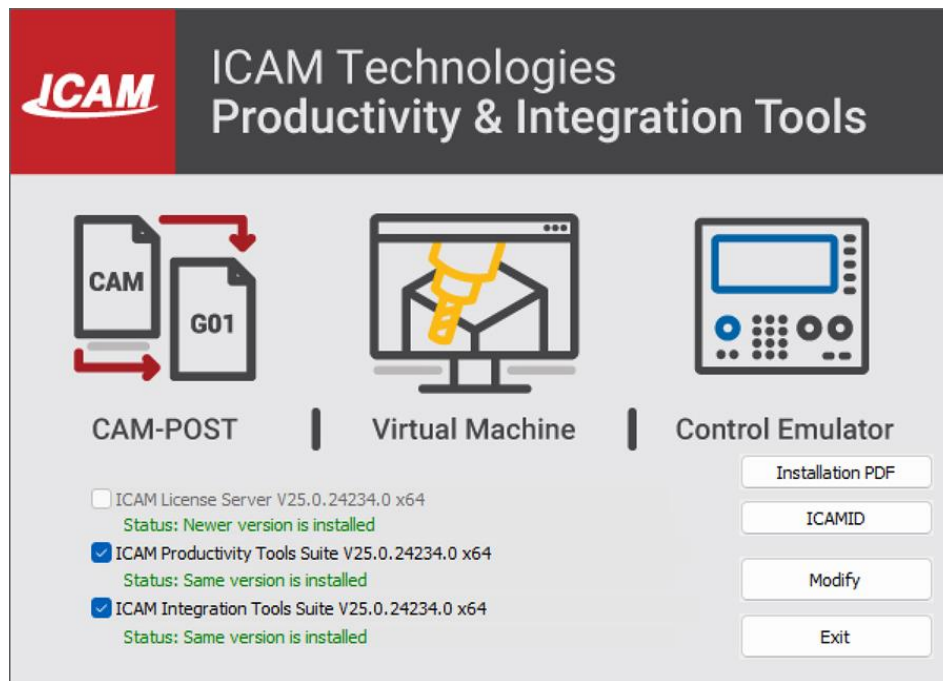
The installation procedure is different when installing an update to the current release (i.e., when installing a V25 update after already earlier installing V25). You can select update which suite (ICAM Productivity Tools or ICAM Integration Tools):

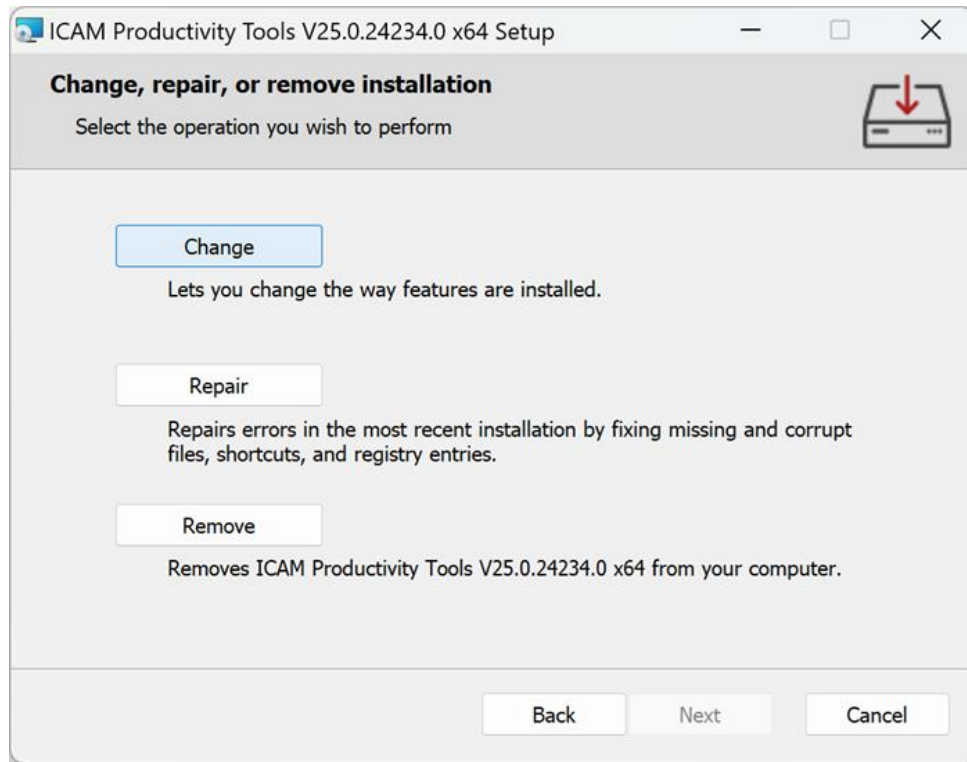


The **Upgrade** choice is only available if the V25 software release is more recent than that of the installed V25 release. Upgrade will install the latest release into your installation directory.



If the V25 software release is same version as installed release, **Change/Repair/Remove** options are available.





Use the **Repair** choices to ensure that CAM-POST is running the most recent software release. Use the **Change** choice to add or remove kits, language files and other CAM-POST components, without affecting other ICAM software installed on your computer.

Because Windows does not allow an executable file to be updated while it is running, you must ensure that no copies of CAM-POST are running on your computer before updating the software.

Once the installation has been completed, you are ready to use CAM-POST.

6. Dedicated Post-Processor Installation

Dedicated post processors are delivered in a CAM-POST exported file format, which is a single binary file with a ".dp" file type, containing the post processor. ICAM recommends that for ease of use, the **Import** facility (available from the GENER launch panel) be used to read the contents of the ".dp" file into the default CAM-POST database. The default database is named *campost.dbf* and can be found in the work subdirectory of the Appdata folder.

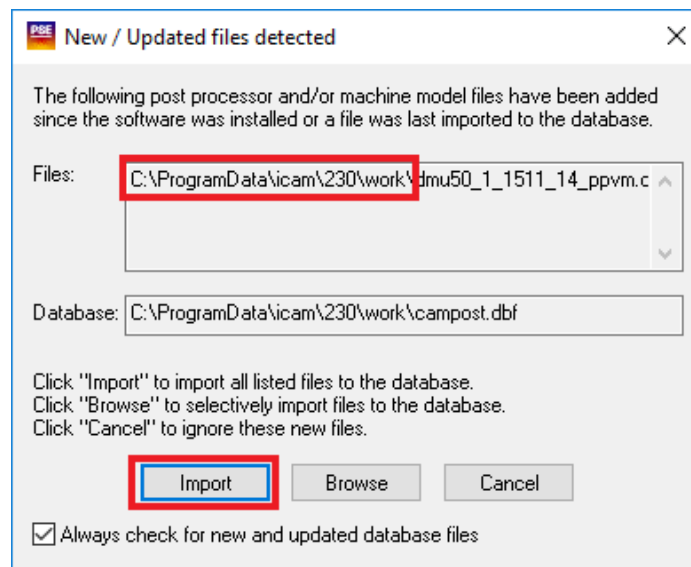
When first installing CAM-POST and your dedicated post processor, the dedicated post processor ".dp" file(s) will be stored in the same work directory. Do not be concerned if a *campost.dbf* database file is not present – the database is created the first time GENER is run on your system.

6.1. Auto import

When GENER is first run, you will be asked if you want to import your dedicated post processor(s) into the CAM-POST database. Select the **Import** button to read the dedicated post processors into the database.

- If this software installed for all users, please copy dedicated post to the following folder:

C:\ProgramData\ICAM\250\work



- If this software is installed just for you, you need to copy dedicated post to the following folder:

C:\Users\user\AppData\Roaming\ICAM\250\work

ICAM recommends that the "Always check" check box is left selected (this is the default setting). When selected, each time GENER is run, it will check the **work** folder for dedicated post processors that are newer than the last update of the database, and ask for confirmation before importing them in the same way as shown above. GENER will look by default to the CAM-POST work directory. However, if you use the **Browse** to find and import a dedicated post processor from a different location, then GENER will watch that location instead.

6.2. Manual import

If for some reason the automatic import fails to detect your new post processor, you can use **Import** on the GENER launch panel to start the process manually.

6.3. Dedicated Post Processor Updates

From time to time you may receive an updated version of your dedicated post processor. Typically, updated post processors are sent by email in the form of an attachment. These newer versions will be date stamped in the form:

ppname_yymm_dd.dp

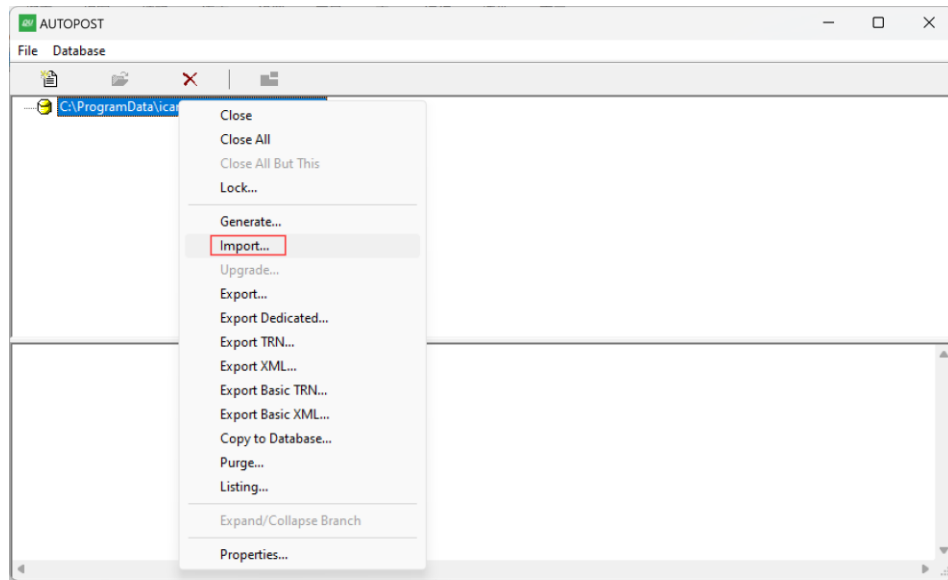
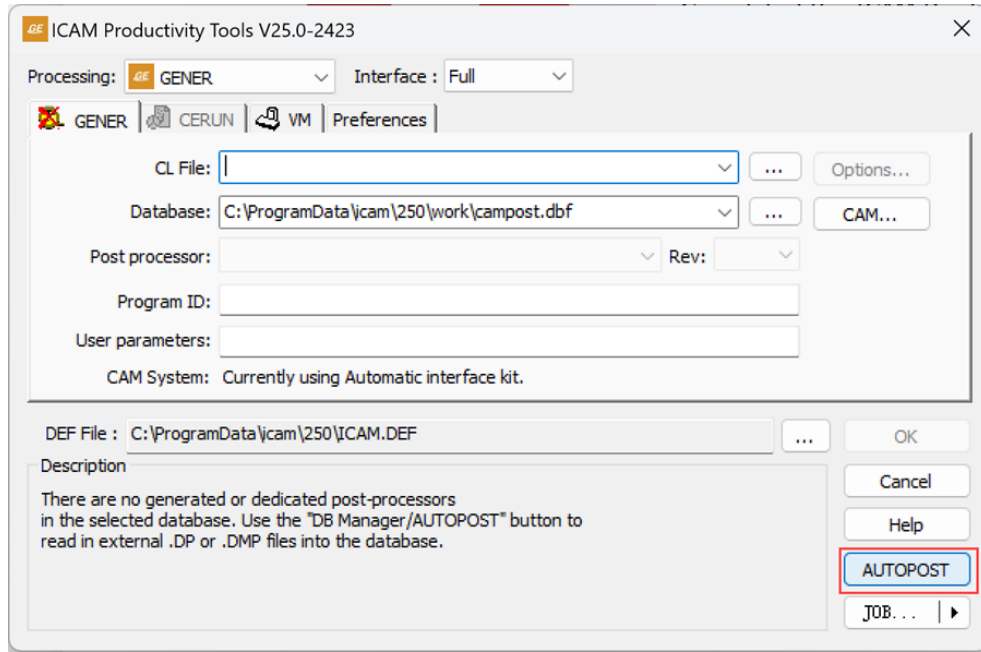
ICAM recommends that you save a copy of all revisions of dedicated post processors sent to you for safekeeping purposes.

Copy the new dedicated post processor to the CAM-POST installation **work** directory. The next time GENER is run; it will detect the updated post processor and ask for confirmation before importing it into the database. If for some reason the automatic import fails to detect your new post processor, you can use **Import** on the GENER launch panel to start the process manually as shown above.

GENER will use the most recently imported post processor by default. The GENER launch panel has a “revisions” input field that can be used for test and comparison purposes to choose an earlier revision of a dedicated post when multiple revisions have been loaded into the database.

Each updated dedicated post processor is fully self-contained and does not require the presence of other earlier releases of the same post processor in the database. If you must roll-back to an earlier release of a dedicated post processor, simply use **Import** on the GENER launch panel and select the specific revision of “.dp” file you want to use.

You also can manually import the products into the database file by using **DB Manager...**, and following the instructions under “**Manual import**”.



7. License Server Troubleshooting

A floating license implementation requires network communication between the floating license server software running on a server computer, and the CAM-POST software running on a client computer. Network communication between processes is often viewed as a hostile act, and your network firewall(s) may be configured to disallow communications between processes by default.

ICAM’s floating license configuration uses the following network resources:

- ICMP
- UDP ports 6670, 6671
- TCP ports 6670, 12473, 5555

ICAM’s floating license software restricts the number of network hops permitted and total round trip latency between server and client. The default network configuration is LAN (i.e., no routers or switches between client and server) and the default maximum network round trip latency limit is 150ms, both of which can be extended via licensing options. Open the *icamlm.key* file, normally located in the floating license server installation folder, and look for a line with the word “icamlm”.

- A hops extension will be identified by the letter “h” followed by a number in the range 0 to 9. An “h1” option (the default) restricts the server and client to the same LAN. Increasing “h” values permit more network hops. An “h0” is used for special site-wide licenses and eliminates the use of ICMP and hop counting.
- A time extension will be identified by the letter “t” followed by a value defining the upper limit in milliseconds on round-trip latency between server and client. A “t0” eliminates the test for network latency.

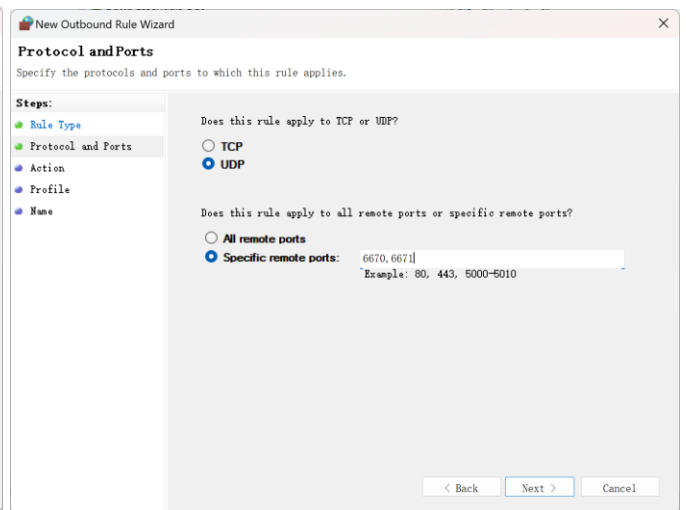
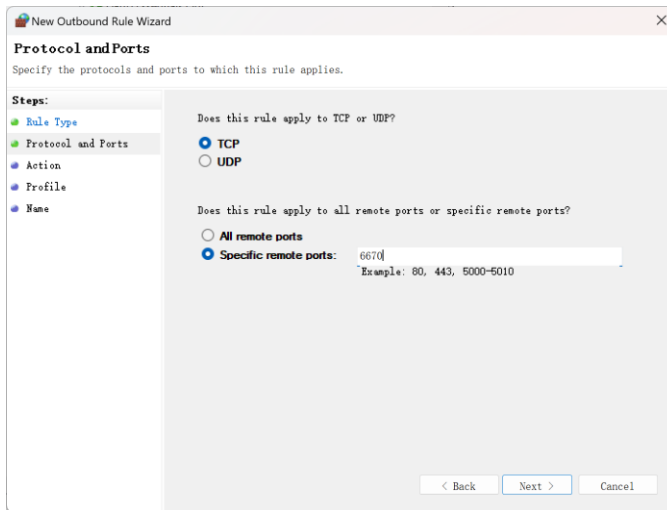
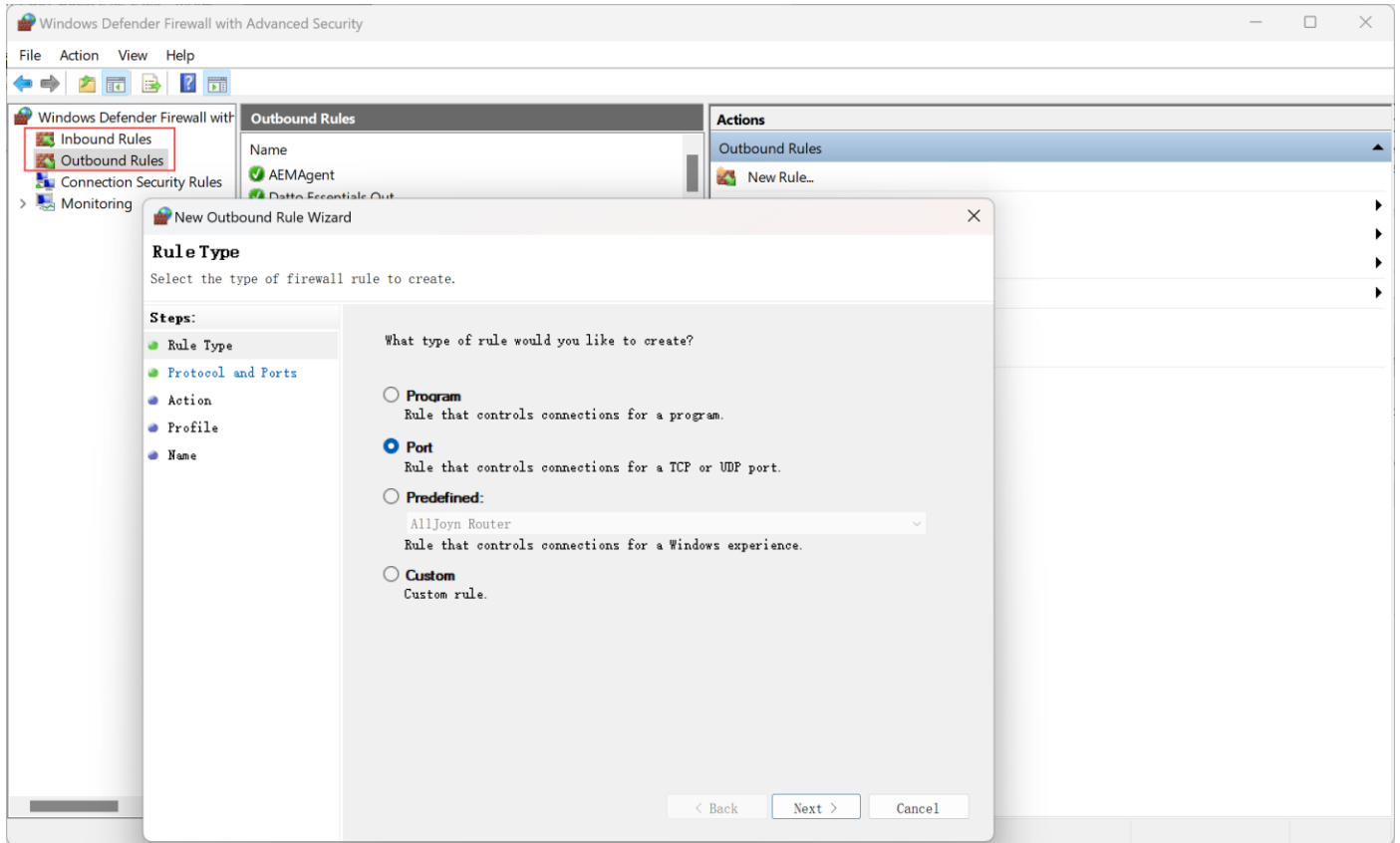
7.1. Server-Side Troubleshooting

Follow these steps to verify the operation of the floating license server

1. Find and note the following server information
 - a. ICAM ID
 - b. IP address or Hostname
2. Verify network firewall settings

Run the Windows Firewall Application. If the firewall is off, then there is nothing further to do here. If the firewall is on, then select the “Exceptions” tab, press **Add**, and add the floating license server *icamlm.exe* file to the list of exceptions. The server executable can be found in the “bin\win64” folder below the floating license server installation point. Typically: *C:\Program Files\ICAM License Server\bin\win64\icamlm.exe*

Add new rule for the port TCP 6670, UDP ports 6670, 6671



3. Verify that your *icamls.key* matches the ICAM ID of your server computer
 - a. Open the *icamls.key* file using a simple text editor. All lines between the { and } characters should be formatted as "001 **system # product options**". The system ID must exactly match the value (or one of the values) returned by running the ICAM ID utility on the server.

- b. If the system ID does not match, first verify that you have installed the server on the correct computer. If you are sure of the computer, then send the new ICAM ID along with a short note to ICAM's Licensing Department (keyfiles@icam.com) and attach a copy of the current key for reference purposes.
4. Verify that your *icamls.key* is up-to-date
 - a. Open the *icamls.key* with a simple text editor. The first line should be formatted as "**server25.0 # date1 date2 # "supercede" {**". The first date is the date at which the key becomes effective. This date can be in the future. The second date is either the expiration date of the key or the word *unlimited* for a perpetual license.
 - b. If the key has expired, then send a short note to ICAM's Licensing Department (keyfiles@icam.com) and attach a copy of the expired key for reference purposes.
5. Verify that the floating license server is reading the correct key file

The "HKEY_LOCAL_MACHINE\SOFTWARE\ICAM\KeyFile" registry symbol, if defined, specifies the full path and file name of the *icamls.key* file. This setting can be changed manually, or from the License Manager » Setup » *KeyFile Location* menu selection. If this registry key is not defined, then the *icamls.key* file will be read from the installation folder of the floating license server, as defined by the registry key "HKEY_LOCAL_MACHINE\Software\ICAM Technologies Corporation\ICAM Floating License". If the installation folder registry key is not defined, then the installation folder is defined as "../.." relative to the *icamlm.exe* program.

6. Verify that the floating license server is running

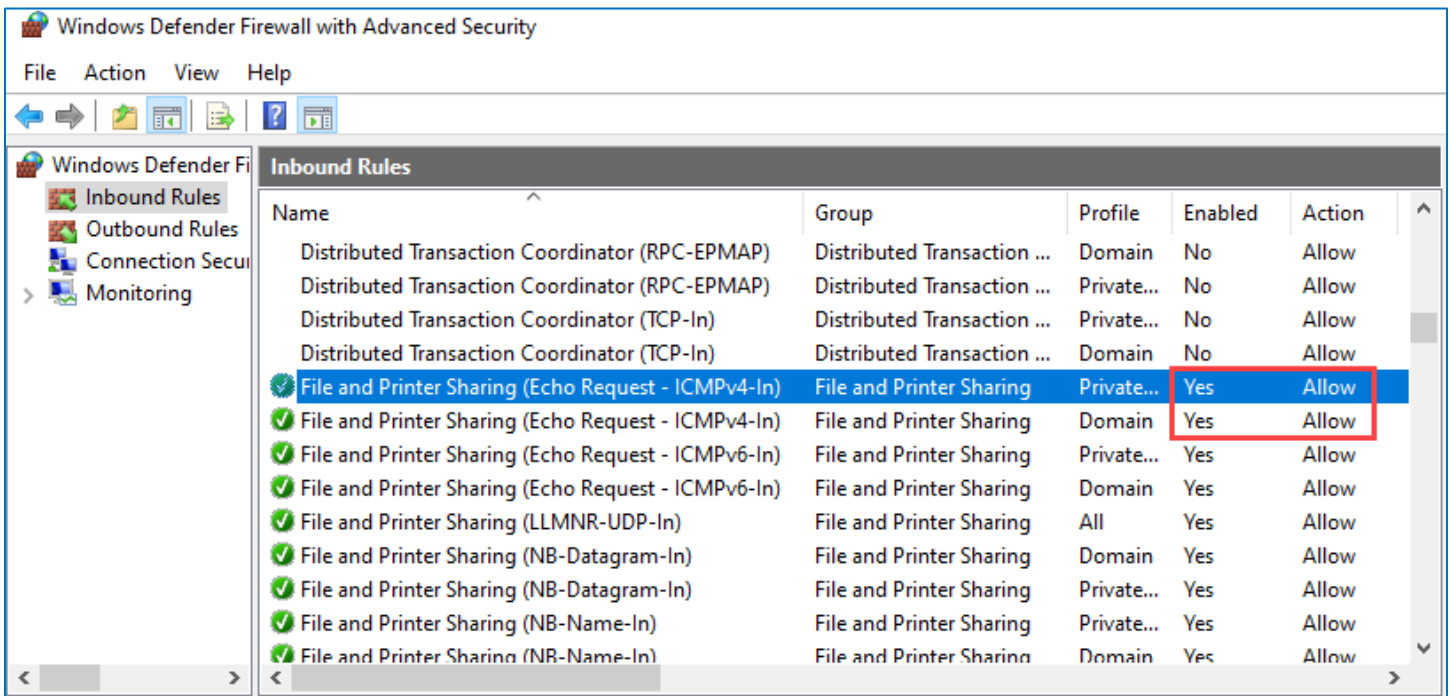
Start the Services manager (Control Panel » Administrative Tools » Services) and scroll down the service names column looking for a service named "ICAM Technologies LM". The status should be "Started" and the startup type should be "Automatic". Double-click on the service to change its startup properties. Right-click on the service to start or stop it.
7. Verify that the floating license server has loaded the license key file

Run the "License Manager (SERVER)" from the Windows Start » ICAM License Server x64. The upper half of the display lists the available licenses; the lower half is a trace of the most recent license activity. If some or all expected licenses are not available, then choose *Setup » Server Logs Status* from the menu bar and select the **V** button to view the log file, which you should check for diagnostic messages.
8. Use **PING** command, make sure the server can ping to client side.

7.2. Client-Side Troubleshooting

Please follow these steps if GENER outputs a licensing error when you try to run your post-processor.

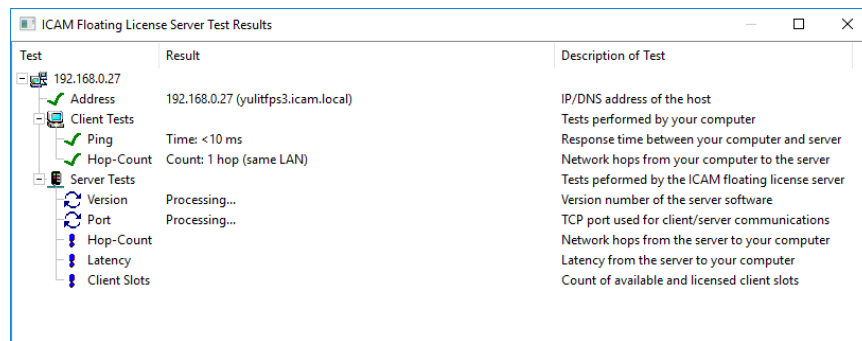
1. Investigate the details of the license diagnostic
 - a. Press the **More details** toggle on the licensing diagnostic message. On a floating license client computer, only a single line should be listed. The description on that line is the message that was received back from the server, or the diagnostic that occurred when a server connection failed.
 - b. Generally speaking, the “Fix” selection on the license diagnostic dialog is only useful in a node-locked environment.
2. Run through the Server-side troubleshooting steps (on page 58)
3. Verify network firewall settings
 - a. **On Windows systems**, run the Windows Firewall Application from the Control Panel. If the firewall is off, then there is nothing further to do here. If the firewall is on, then select the “Advanced” tab, and then the ICMP “Settings” button. A window will appear as shown at right. Make sure the **“Allow incoming echo request”** option is selected.



- b. If Windows Firewall is active, a **Windows Security Alert** may appear the first time that the floating license server attempts to communicate with GENER or the Floating License Manager utility. Windows will ask, “Do you want to keep blocking this program?” The “Unblock” button must be selected to allow communication between processes.

4. Test the Client side software on the Server

- a. In some installations, the floating license server computer is used as both a server and a client computer. If this is the case, test the operation of the post-processor from the server computer. If CAM-POST runs on the server computer, but not on a client computer, then a network connectivity issue is likely the culprit. If CAM-POST also has licensing errors on the server computer, then perform the client-side troubleshooting from the server first, before testing other client computers.
5. Verify that your *icam.key* file correctly identifies the server computer
 - a. Open the *icamls.key* file using a simple text editor. The file should contain a single line in the form “**000 #.#.#.#**” (where # is a whole number in the range 1-255) that defines the IP address of your server computer, or “**000 name**” that defines the hostname of your server computer.
 - b. If using server hostname identification, edit the *icamls.key* file and replace the hostname by the IP address of the server. Try running GENER again. If GENER runs using the IP address, then your DNS server is likely not working.
 - c. If running GENER from the server computer, change the *icamls.key* file entry to read “**000 127.0.0.1**” (this is a local loop-back device). If GENER runs using the local address, but not when using the hostname or IP address, then you have an error in system identification.
 6. Verify that CAM-POST is reading the correct key file
 - a. On all systems, the *icam_sec* environment variable, if defined, specifies the full path and filename of the *icam.key* file. If *icam_sec* is not defined, then the *icam.key* file will be read from the CAM-POST installation folder, defined as “../..” relative to the CAM-POST executable program.
 7. Verify that the Client computer can access the Server computer
 - a. **On Windows systems**, run the ICAMID utility (available from the Start » ICAM V25 x64). Select the **More...** toggle and enter either the server hostname or IP address in the Network Test input field. Press the **Ping!** button to check for connectivity.
 - b. If the server cannot be located via Ping, then ICMP might still be disabled on your computer – recheck the Firewall settings in step 3a.
 - c. If the server can be located, the **Test** button will become available. Press this button to have the ICAM ID utility perform a series of checks on the client and server side connections. A window will appear similar to the one below.



- i. The **Address** lists the IP and hostname of the server. ICAM recommends using IP addressing since it eliminates the additional overhead of communicating with a DNS server.
- ii. The **Client Ping** test gives an indication of network speed. This number, reported in milliseconds, should normally be well under 100. ICAM has a default 150ms restriction on network latency. Contact sales@icam.com to increase the latency limits.
- iii. The **Client Hop-Count** counts the number of hops (or jumps) between the client computer and the floating license server. A value of "1" means that they are both on the same LAN. Higher values indicate more hops through routers and switches. ICAM limits the hop count to 1 by default. Contact sales@icam.com to increase the hop count.
- iv. The **Server Version** will list the software version number of the floating license server if one is detected and is responsive.
- v. The **Server Hop-Count** measures the hops in the reverse direction, from server to Client. The same restriction on hops is applicable here. This information is only available if the server is detected. Contact sales@icam.com to increase the hop count.
- vi. The **Server Client Slots** is the count of the number of different computers that have successfully connected to the server and checked out licenses. If there are no free slots available, then restart the floating license service and try running GENER again. If the post processor now runs, then the problem is most likely due to insufficient client licenses. Contact sales@icam.com to increase the client count.

8. Still not working?

- a. Please contact ICAM Technical Support at support@icam.com for assistance.

8. FAQs

This section contains answers to some frequently asked questions.

Can I run more than one version of CAM-POST on my computer?

You can install and run different versions (e.g., V20, V21, V22) of CAM-POST on the same computer. Each version can have its own *icam.key* license file, or they can all share the same file. The key file – floating or node-locked – should have license entries for the most recent release of CAM-POST. Older releases of CAM-POST will run with a higher numbered license (e.g., V20 will run with a V21 license), but the opposite is not true. Newer releases of CAM-POST will not run with an older, lower numbered license (e.g. V22 will not run with a V21 license).

How often should I update my CAM-POST software?

If it's not broken, don't fix it. That said however, there are advantages to keeping your post-processor up-to-date. Newer versions (e.g., V21, V22) have new features that might improve productivity or simplify NC programming. Newer versions also have corrections to bugs. The Release Notes are a good place to start. They can be found in the Customer Area of ICAM's web site.

ICAM also develops interim releases containing incremental updates. These updates contain corrections to recently discovered bugs, and sometimes enhancements to support specific customer or machine tool requirements that just cannot wait to a new major version. Release notes are not available for interim releases.

How do I change my server or node-locked computer?

Node-locked licenses are created with a specific computer in mind. Similarly, a floating license is created for a specific server computer. During the initial installation period and while licenses are time limited, you can request a transfer of license from one computer to another at no cost to you.

Once you have received an "unlimited" license, you must officially request a license transfer from ICAM's Licensing Department (keyfiles@icam.com) to move the server or node-locked software from one computer to another. The Licensing Department will send you a license transfer form that must be filled out, signed and faxed back. You are entitled to two (2) no cost transfers per year while under an active maintenance contract.

How can I obtain IP or Hostname information?

On Windows systems, you can get a list of network adaptors by running the "ipconfig" command at a DOS shell prompt. This command lists the hostname (DNS Suffix) and IP address of each network adaptor on the computer. Make sure you select "physical" network adaptors when selecting the IP address to use in a client *icam.key* file.

```

C:\WINDOWS\system32\cmd.exe
C:\>ipconfig

Windows IP Configuration

Ethernet adapter Wireless Network Connection:

    Connection-specific DNS Suffix  . : ICAM.COM
    IP Address. . . . . : 192.168.2.102
    Subnet Mask . . . . . : 255.255.255.0
    Default Gateway . . . . . : 192.168.2.1

PPP adapter ICAM UPN:

    Connection-specific DNS Suffix  . :
    IP Address. . . . . : 192.168.1.206
    Subnet Mask . . . . . : 255.255.255.255
    Default Gateway . . . . . : 192.168.1.206

C:\>

```


How do I create **icam.key** file on the client station manually?

Client key files are not sent to you by ICAM's licensing department. You must create these files yourself, if they are not automatically created for you during the installation of CAM-POST on the client machines. A client *icam.key* file contains a single line of text only: the digits "000" followed by a space and then either the IP address of the server machine or its hostname. For example:

```
000 192.168.1.2:6670
```

```
000 myserver:6670
```

9. Technical Support

ICAM's highly skilled, motivated and experienced in CAM system / CAM-POST – NC Manufacturing Application Specialists are available at the following locations to provide the following services:

- Help you get started with CAM / ICAM Integration.
- Answers questions about the capabilities of CAM / CAM-POST software.
- Advice and recommendations on CAM NC Data output techniques.
- Verifying and reporting software problems.
- Requesting enhancements.
- Help creating and debugging macros.
- Seek for training in NC manufacturing post-processing.

9.1. Technical Support enquiries about this document:



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