ptc

ptc mathcad®

Installation and Administration Guide

12.0.1.0

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About This Guide

How to Read This Guide

The *PTC Mathcad Prime 12.0.1.0 Installation and Administration Guide* is written primarily for the system administrator — the person responsible for installing and maintaining PTC Mathcad and any FLEXnet Publisher administering PTC Mathcad licenses. It assumes you have a basic familiarity with Windows and network administration.

For PTC Mathcad installation, this installation and administration guide targets the Windows platform. Dialog box titles, menu options, and other elements mentioned in this guide reflect Windows operation, navigation, and object names.

For the System Administrator

The following sections contain important information for persons installing and administering PTC Mathcad and FLEXnet Publisher:

Installing PTC Mathcad on page 9	Instructions for performing an installation of PTC Mathcad.
Before You Begin on page 10	An introduction to the concepts covered and terminology used in this manual.
License Management on page 17	Instructions for installing and configuring a FLEXnet Publisher license server.
Installing and Configuring PTC Diagnostic Tools on page 38	Instructions for installing and configuring the PTC Diagnostic Tools utility.

For the End User

End-users of PTC Mathcad must refer to the PTC Mathcad Help as their primary source of information, although the following sections of this guide may be of interest as well:

Before You Begin	An introduction to the concepts covered and terminology used in this manual.
Borrowing Licenses	Instructions for borrowing a PTC Mathcad license.

Other Sources of Information

You can refer to the following sources of information as you install, configure, and license PTC Mathcad across your enterprise.

- PTC Mathcad Customer Support Site—Contains information on obtaining and managing licenses as well as a searchable Knowledge Base.

  https://www.ptc.com/support/mathcad.htm
- *PTC Mathcad Prime 12.0.1.0 Installation and Administration Guide*—Contains last-minute changes to the product and documentation:

  http://www.ptc.com/appserver/cs/doc/refdoc.jsp. Use this web site to search for the relevant document.
- *Installing Creo 13.4.0.0: Creo Parametric, Creo Direct, Creo Layout, Creo Simulate, and Creo Options Modeler*—Includes additional information about installing and using FLEXnet Publisher, including information on using FLEXnet Publisher on platforms other than Windows.

  http://www.ptc.com/appserver/cs/doc/refdoc.jsp. Use this web site to search for the relevant document.
- *FLEXnet Licensing End User Guide*—Includes additional information about installing and using FLEXnet Publisher.

Technical Support

Contact PTC Technical Support if you encounter problems using the software. Contact information for PTC Technical Support is available on the PTC eSupport Portal where you must login before you can explore the many options under the Tools, Resources, and your user name tabs.

You must have a customer number to receive technical support. If you do not have a customer number, click the Contact tab on the Customer Support Guide page and explore the different methods of contacting PTC.

Comments

We welcome your suggestions and comments on our documentation. Please submit your feedback to mathcad-documentation@ptc.com.

When you submit feedback, remember to include the version number and name of the documentation piece with your comments.

Before You Begin the Installation

This section provides information you should be familiar with before you begin the installation, such as system requirements, coexistence and upgrade, file conversion, and compatibility.

Online Help

The PTC Mathcad Prime 12.0.1.0 Help is now available, by default, on ptc.com.

When you press F1, or click the Help button  in PTC Mathcad Prime 12.0.1.0, your internet browser opens to the Help on Ptc.com. Having the Help on Ptc.com makes it easier to make updates outside of the release schedule.

During installation, the PTC Installation Assistant Customize button allows you to install Help locally. You can change the default Help path by opening **PTC Mathcad Options**, selecting the **Set the path for accessing Help at an alternate location** checkbox, and specifying the path to the local Help folder.

For PTC Mathcad Prime 12.0.1.0, the default path to the local English Help is:

%Program Files%/PTC/Mathcad Prime 12.0.1.0/help/en

What You Receive

- *PTC Mathcad Prime 12.0.1.0 Read This First*—Notifies you of any changes you must make, such as machine settings and recommended operating system patches.
- PTC Mathcad Prime 12.0.1.0 DVD—Contains the installation program for PTC Mathcad. This package contains the PTC Mathcad program and associated Help.
- *PTC Mathcad Prime 12.0.1.0 Installation and Administration Guide* (this document)—Provides information on license management, installation of software, and software support.

Order of Installation

If you need to install both PTC Mathcad and FLEXnet Publisher, you can install them in any order.

System Requirements

For system requirements, see the *PTC Mathcad Prime 12.0.1.0 Platform Support*

Coexistence and Upgrade

PTC Mathcad Prime 12.0.1.0 can be installed side-by-side with any previous versions of PTC Mathcad Prime.

The following limitations apply:

- You must install the products in an ascending order (PTC Mathcad Prime 7.0.0.0, PTC Mathcad Prime 8.0.0.0, PTC Mathcad Prime 9.0.0.0, PTC Mathcad Prime 10.0.0.0, PTC Mathcad Prime 10.0.1.0, PTC Mathcad Prime 11.0.0.0, PTC Mathcad Prime 11.0.1.0, PTC Mathcad Prime 12.0.0.0, and then PTC Mathcad Prime 12.0.1.0).
- If you have more than one version of PTC Mathcad Prime installed on your computer, by default PTC Mathcad Prime files open with the latest version. If you want files to open in an older version, then you must set file association manually. Right-click a file, select **Open with**, and then click the desired program from the shortcut menu.
- Integration of all previously installed PTC Mathcad Prime versions with Windchill Workgroup Manager, Windchill ProjectLink, PTC Pro/ENGINEER, Creo Elements/Pro, and Creo Parametric will no longer work.
- If you previously registered an older version PTC Mathcad Prime with Windchill Workgroup Manager (using the Application Management utility), then you must repeat the procedure and register PTC Mathcad Prime 12.0.1.0.
- If you have several versions of PTC Mathcad Prime installed on your computer and you would like to remove some, you must uninstall all of them in descending order. Then install only the ones you want in ascending order.
- After installing PTC Mathcad Prime 12.0.1.0, you can only use its XMCD, MCD Converter to convert legacy worksheets into the latest version of PTC Mathcad Prime.

XMCD, MCD File Conversion

PTC Mathcad Prime 12.0.1.0 includes an XMCD and MCD file converter. Use this tool to convert your legacy worksheets to MCDX format.

Compatibility

PTC Mathcad Prime 12.0.1.0 is backward compatible. This means that you can use it to open `MCDX` files created using all previous versions of PTC Mathcad Prime, starting with PTC Mathcad Prime 1.0 and ending with PTC Mathcad Prime 12.0.0.0.

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Installing PTC Mathcad

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Before You Begin

Before installing PTC Mathcad, ensure that all the required system components are installed.

Note

PTC Mathcad cannot be installed from an encrypted folder. You must decrypt the installation folder to proceed.

The PTC Installation Assistant

PTC Installation Assistant installs PTC Mathcad Prime 12.0.1.0. You can perform the following tasks, using PTC Installation Assistant:

- Download and install PTC Mathcad Prime 12.0.1.0 from PTC.com
- Perform a simple installation. Alternatively, customize the installation to add specific features and configurations
- Reconfigure an existing installation

Accessing PTC Installation Assistant

You can access PTC Installation Assistant from the PTC Mathcad Prime 12.0.1.0 DVD in your software shipment. You can also download the Assistant by following the link on your PTC Software Order Confirmation e-mail. After downloading the installation package, extract the contents to a folder on your computer or onto a network server location, depending on how you want to configure your installation.

Starting PTC Installation Assistant

Start PTC Installation Assistant by running `setup.exe` from the root directory of either the PTC Mathcad Prime 12.0.1.0 DVD or the downloaded installation files. You can run the Assistant in English, French, German, Italian, Spanish, Simplified Chinese, Traditional Chinese, Korean, Japanese, and Russian. If you are starting the Installation Assistant from a DVD, the program starts automatically if your computer has `autorun` enabled for your DVD drive. If the Installation Assistant does not start, follow one of these methods:

- Start Windows Explorer, browse to the DVD drive, and double-click the `setup.exe` icon.
- At an MS-DOS prompt, type `<dvdrom>:/setup.exe`, where `<dvdrom>` is the DVD drive letter.

- From the taskbar, select **Start** ▸ **Run**, and enter `<dvdrom>:/setup.exe`.

Changing the Installation Default Language

To run the PTC Installation Assistant in languages other than the default language of the operating system, start the command prompt and use the following command:

```
<dvdrom>:/setup.exe -LANG:<lang>
```

For example, to run PTC Installation Assistant in Chinese, specify `chs` for `LANG` at the command prompt:

```
<dvdrom>:/setup.exe -LANG:chs
```

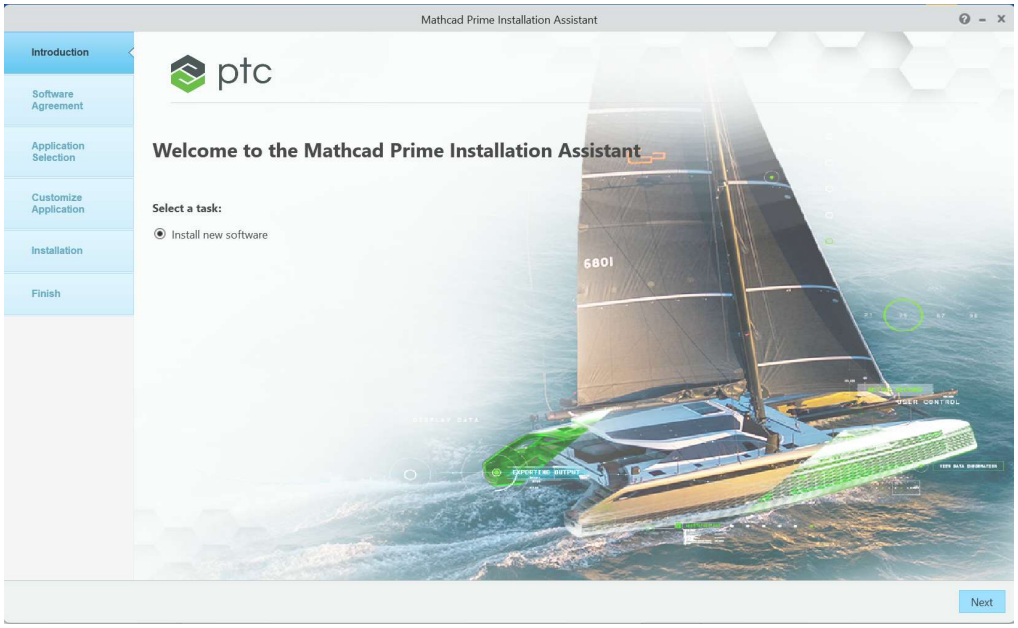
All of the values for the `LANG` variable follow:

- Chinese Simplified—`chs`
- Chinese Traditional—`cht`
- French—`french`
- German—`german`
- Italian—`italian`
- Japanese—`japanese`
- Korean—`korean`
- Spanish—`spanish`
- Russian—`russian`
- English—`C`

Installing PTC Mathcad

1. Start the **Mathcad Prime Installation Assistant**. The **Introduction** screen appears.
2. Click **Install new software**.

   If you want to install additional PTC Mathcad Help languages on top of an existing installation, click **Install or add new software**. Click **Next**.



3. The **Software Agreement** screen appears. To print the license agreement, click .
4. Accept the PTC Customer Agreement and click **Next**. The **Application Selection** screen appears.
5. In the **Application Selection** screen,
   - Specify an installation folder or retain the default folder.
   - Select PTC Mathcad
   - Select **Diagnostic Tools** that collects and sends reports to PTC on the performance and usage of PTC Mathcad

     Verify the list of applications and check whether you are installing the correct version of the software and whether the disk space requirements are met. Click **Next**.
6. In the **Customise Applications** screen, select one or more applications from the list:
   - **XMCD, MCD Converter**.
   - **Install Local Help** and language.

> **Note**
>
> PTC Mathcad installation always installs the PTC Diagnostic Tools utility. You can disable PTC Diagnostic Tools reporting once you have configured your license. If you intend to use PTC Mathcad with a 30-day, full functionality license or use PTC Mathcad Express with no license, reporting is always enabled. For more information on PTC Diagnostic Tools, refer to Installing and Configuring PTC Diagnostic Tools on page 38.

7. Click **Install**.
8. Click **Finish** to close the applications after the installation is complete.

> **Note**
>
> To configure licenses, see License Management.

Installing a Maintenance Release

If you have installed an earlier release of a PTC Mathcad Prime application, use the steps below to install a newer maintenance release.

1. Start the **Mathcad Prime Installation Assistant**. The **Introduction** screen appears.
2. Click **Upgrade existing software**.
3. The **Software Agreement** screen appears. To print the license agreement, click .
4. Accept the PTC Customer Agreement and click **Next**. The **Application Selection** screen appears.
5. In the **Application Selection** screen,
   - Specify an installation folder or retain the default folder.
   - Select PTC Mathcad. The **Status** indicates the update version.
   - Select **Diagnostic Tools** that collects and sends reports to PTC on the performance and usage of PTC Mathcad

     Verify the list of applications and check whether you are installing the correct version of the software and whether the disk space requirements are met. Click **Next**.

If you have the previous version of PTC Mathcad installed you will receive a message to confirm overriding existing installation.

6. In the **Customise Applications** screen, select one or more applications from the list:
   - **XMCD, MCD Converter**.
   - **Install Local Help** and language.
7. Click **Install**.
8. Click **Finish** to close the applications after the installation is complete.

Additional Information

Installing a maintenance release will uninstall the previous PTC Mathcad Prime version of the respected release. For example, if you install PTC Mathcad Prime 12.0.1.0, it will uninstall PTC Mathcad Prime 12.0.0.0. All core installation file, installed help center, the **XMCD, MCD Converter**, and template files are removed and the maintenance release respective files are added.

If you want to keep your template files:

- Before installing a maintenance version, save your template files in a location outside your PTC Mathcad Prime installation folder.
- After the installation is complete, copy the templates to the default templates folder.

When installing a maintenance release of PTC Mathcad Prime, the custom settings are retained. This includes: custom functions, quick access toolbar, spell check and dictionary, PTC Mathcad Prime options, and license information.

Running PTC Mathcad and PTC Mathcad Help in Other Languages

You can run PTC Mathcad Prime and PTC Mathcad Prime Help in the following languages: English, French, German, Italian, Japanese, Korean, Russian, Spanish, Simplified Chinese, and Traditional Chinese.

Running PTC Mathcad in Other Languages

By default, PTC Mathcad Prime uses the Windows 10 language settings. To override this setting, run MathcadPrime.exe with the `culture` command. For example, the following command runs PTC Mathcad Prime in US English and the Imperial measurement system:

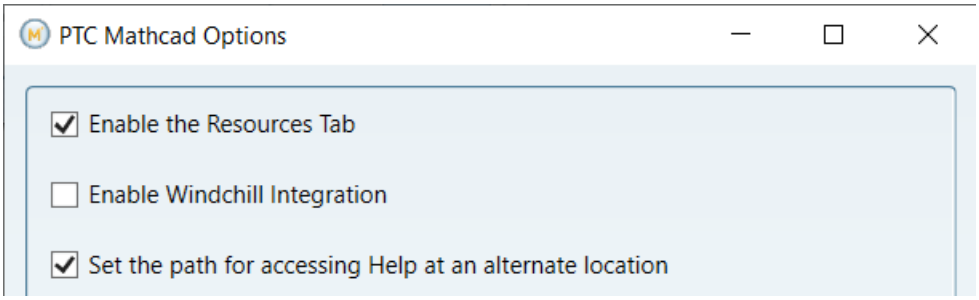
```
MathcadPrime.exe" /culture:en-US
```

All available language codes, except for US English, include a metric default for paper and margin settings, and document templates. You can use the following language codes:

Language	Code
US English	en-US
International English	en
French	fr-FR
German	de-DE
Italian	it-IT
Japanese	ja-JP
Korean	ko-KR
Russian	ru-RU
Spanish	es-ES
Simplified Chinese	zh-CN
Traditional Chinese	zh-TW

Running PTC Mathcad Help in Other Languages

To run Help in a different language, click  ▸ **Options** . The **PTC Mathcad Options** dialog box opens. Click the **Set the path for accessing Help at an alternate location** check box, then change the language code in the box below.



The following languages are available:

Language	Code
English	en
French	fr
German	de
Italian	it
Japanese	ja
Korean	ko
Russian	ru
Spanish	es

Language	Code
Simplified Chinese	zh_CN
Traditional Chinese	zh_TW

If you want to use local Help instead, install your desired language locally. For more information, refer to Installing PTC Mathcad on page 11.

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License Management

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About License Management

You can purchase PTC Mathcad licenses on a subscription basis. Please note that as of January 1, 2019, PTC no longer sells perpetual products. The specific license types are as follows:

- A floating license (server)—For administering floating licenses only from a license server. Licenses are allocated to workstations from a common pool, on a first-come-first-serve basis.
- A locked license (workstation)—For use on a workstation, without a license server. Locked licenses must be reallocated from one workstation to another through the PTC Customer Support Web site.
- A registered-user license (server)—For administering locked licenses from a server, rather than individual workstations. Registered-user licenses are allocated to workstations with an options file, provided by the FLEXnet Publisher installer. For instructions on how to edit the options file, see Editing the Options File.
- A home-use license (workstation)—Granted as a support entitlement (in the quantities indicated below) for active support accounts. Home-use licenses are term licenses, set to expire at the end of the current support period. If you renew your support contract, you are able to reissue your home-use licenses.

  Home-use licenses are restricted to the same users accessing the purchased licenses and must be installed on personal computers not located or used in the workplace. Home-use licenses are not allowed to be used in the workplace by additional users. Permitted users can perform commercial and production work with home-use licenses on their personal computers.

	Perpetual	Subscription
PTC Mathcad Express	N/A	N/A
PTC Mathcad Professional		
Individual	1	2
Floating	2	3
PTC Mathcad Education		
Student Edition	0	0
Professor Edition	1	1
University Edition	1 per every 10 licenses	1 per every 10 licenses

Note

There is no home use for any PTC Mathcad licenses sold within a package.

- A 30-day, full functionality license that does not require a license server.

PTC Mathcad requires the use of a license server for floating and registered-user licenses. Locked license files and 30-day, full functionality license files reside on the workstation, and they do not require a license server.

If you have server-based licenses and want to run PTC Mathcad while disconnected from your network — for example, on a laptop while out of the office — temporarily borrow a license from the server. This borrowed license is stored on the workstation, so PTC Mathcad does not need to access the license server at startup. For instructions on how to borrow licenses, see Borrowing Licenses.

Note

If you have a locked or home-use license file, you do not need to install and configure FLEXnet Publisher. Save your license file to the `License` folder of the PTC Mathcad installation on the appropriate workstation.

Using PTC Mathcad Express

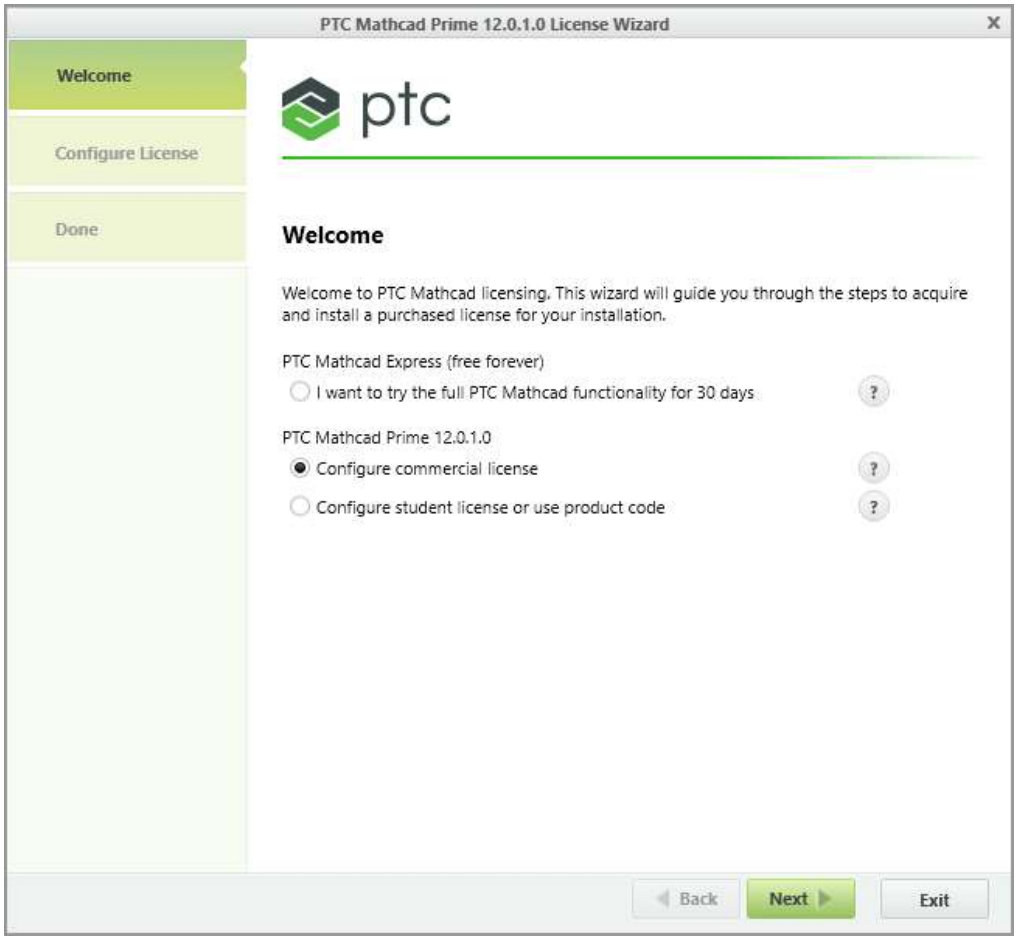
With PTC Mathcad Express, you can try out the basic features of PTC Mathcad before you purchase a licensed version of the product. Premium features of PTC Mathcad are locked for use. The locked features are marked with a lock icon. To use PTC Mathcad Express, you do not need a license. If the License Wizard opens when you start PTC Mathcad, you can click **Exit**. An indicator bar beneath the ribbon shows that you are running PTC Mathcad Express. To purchase a license and to make all the locked features available, click **Upgrade**.

Obtaining a License

When started, PTC Mathcad searches for a license. If available, the license is allocated to the workstation, and then PTC Mathcad opens. If a license is not available, PTC Mathcad Express opens. For the first use, the **PTC Mathcad Prime License Wizard** opens. This section provides step-by-step instructions on how to obtain a license and activate PTC Mathcad.

Obtaining a 30-Day, Full Functionality License

1. Start PTC Mathcad. If you open PTC Mathcad for the first time, the **PTC Mathcad Prime License Wizard** opens.



If **PTC Mathcad Prime License Wizard** does not open, click the **Activate** button, at the top of the worksheet.

Alternatively, click the PTC Mathcad button , and then click **Options**. In the **PTC Mathcad Options** dialog box, click the **License** tab, and then click **Get License**.

2. In the **PTC Mathcad Prime License Wizard**, select **I want to try the full PTC Mathcad functionality for 30 days** and click **Next**. The **Login** screen appears.
3. If you have a PTC.COM user account, type in your user name and password and click **Next**.

   If you do not have a user account, click **I am new to PTC.COM and need to create an account**, and then click **Next**. In the **Create PTC Account** screen, fill in the required information and click **Create Account**.
4. In the **Acquire License** screen click **Acquire license**. A license file is generated via the internet and is automatically downloaded to your computer.

5. Click **Exit**. A counter for the remaining term of your 30-day, full functionality license appears.

Obtaining a Student or a Product Code Driven License

1. Start PTC Mathcad. If you open PTC Mathcad for the first time, then **PTC Mathcad Prime License Wizard** opens.
2. If you want to purchase a PTC Mathcad license, close the **PTC Mathcad Prime License Wizard**, click **Upgrade** below the ribbon, and follow the on-screen instructions to purchase a PTC Mathcad license and to receive a product code.

   If you already purchased a PTC Mathcad license, proceed to the next step.
3. After you have obtained a product code, open PTC Mathcad.
4. If the **PTC Mathcad Prime License Wizard** does not open, click **Activate**.

   Alternatively, click the PTC Mathcad button , and then click **Options**. In the **PTC Mathcad Options** dialog box, click the **License** tab, and then click **Get License**.
5. In the **PTC Mathcad Prime License Wizard**, in the **Welcome** screen, select **Configure student license or use product code** and click **Next**. The **Login** screen appears.
6. If you have a PTC.COM user account, type in your user name and password and click **Next**.

   If you do not have a user account, click **I am new to PTC.COM and need to create an account**, and then click **Next**. In the **Create PTC Account** screen, fill in the required information and click **Create Account**.
7. On the **Provide Information** screen, enter the product code from your PTC Fulfillment Confirmation letter and verify the Host ID.
8. Click **Next**. The **Acquire License** screen appears.
9. Click **Acquire License**. The PTC Mathcad License Wizard retrieves your license file and displays the licensed products.
10. Click **Exit**.

Configuring PTC Mathcad to Work with a Commercial License File

1. Start PTC Mathcad.

2. If you open PTC Mathcad for the first time, the **PTC Mathcad Prime License Wizard** opens automatically. If **PTC Mathcad Prime License Wizard** does not open, click **Activate**, at the top-right corner of the worksheet.
3. In the **PTC Mathcad Prime License Wizard**, in the **Welcome** screen, select **Configure commercial license** and click **Next**. The **Configure License** screen appears.
4. Under **Choose the license configuration**, select the relevant option:
   - **Server**—specify the **Server** name and the **Port**.
   - **File**—point to the license file.
   - **Source List**—specify the **Source List**.
5. Click **Configure License**.
6. Click **Next**. The list of the licensed products appears.
7. Click **Exit**.

Alternatively, click the PTC Mathcad button , and then click **Options**. In the **PTC Mathcad Options** dialog box, click the **License** tab, and select the relevant option. Click **Apply** and **Exit**.

Obtaining a Floating or Registered-User License File

To obtain your license files, use your PTC user account to log on to the PTC Customer Support site at https://www.ptc.com/support/mathcad.htm. If you do not have a PTC user account, follow the instructions on the Web site to create one. After you log in, start the PTC Installation Assistant, and then click **Configure New Software**. Enter the Sales Order Number from your Fulfillment Confirmation letter to process your request. You must provide the Host ID for each server in your request.

To determine the Host ID for a server:

1. At a command prompt, enter `ipconfig /all`.
2. Find the 12-digit number labeled “Physical Address”, in the form XX-XX-XX-XX-XX-XX.

3. In PTC Installation assistant, type the previous number in the **Host ID** box.

> **Note**
>
> The Host ID or MAC address identifies the active network adapter on a workstation. PTC Mathcad attempts to match the Host ID in a locked or home-use license file against all detected MAC addresses at startup. As long as any available address matches, PTC Mathcad starts.

After you complete your request, your licenses arrive by email as attachment files. To use your licenses, save the license file to your server, as a `*.dat` file. Then, install FLEXnet Publisher.

If you intend to serve licenses from multiple servers, see Using Multiple License Servers before you obtain your license files.

Setting Up FLEXNet Publisher

This section provides information on how to install and use the license service.

Generating or Updating Licenses

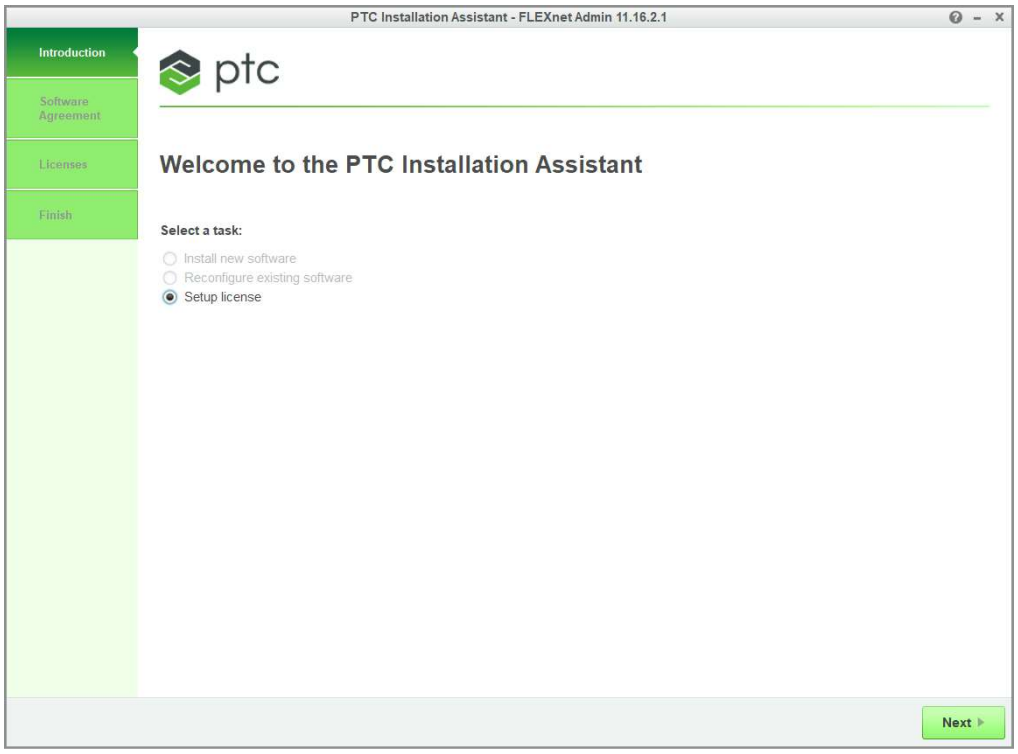
This section describes where to download the FLEXNet Publisher installation and how to generate or update licenses from the server.

> **Note**
>
> Obtain a license file before you install FLEXnet Publisher, as the installer validates your license file.

Perform the installation to a server on your network accessible by PTC Mathcad users. Otherwise, PTC Mathcad cannot obtain a license from the server.

After you have received an e-mail from PTC with the product codes for your software order, generate or update licenses using PTC Installation Assistant as follows:

1. Refer to the PTC License Server Hardware Notes and download the appropriate FLEXNet Publisher installer version for your environment.
2. Extract the ZIP file you downloaded and double-click `setup.exe` to start the Assistant. The Welcome screen appears.



3. Select **Setup license** to generate or install licenses.
4. Click **Next**. The **Software License Agreement** screen appears.
5. Read the PTC Customer Agreement text, click the **I accept the software license agreement** radio button, click the **Export Agreement** checkbox, and then click **Next**. The **License Identification** screen appears.

   The **License Summary** area shows the available license sources installed using the Assistant or the licenses found on the computer. The license availability is shown in the **Status** column.

Using the Simple License Entry Options

Use the **Simple License Entry** area on the **License Identification** screen and perform the following steps:

1. Type your sales order number or product code in the corresponding text box.
2. Click **Install Licensing**. If the sales order number matches your software order, all the available licenses corresponding to the sales order number are automatically generated into the license file.
   - For node-locked licenses, a single set of available node-locked license features are added to the license file and downloaded to the "`All users`"`/application data/ptc/licensing/` folder.

- For floating licenses, all the available licenses are added to the license file and the PTC FLEXNet Publisher license server is installed.

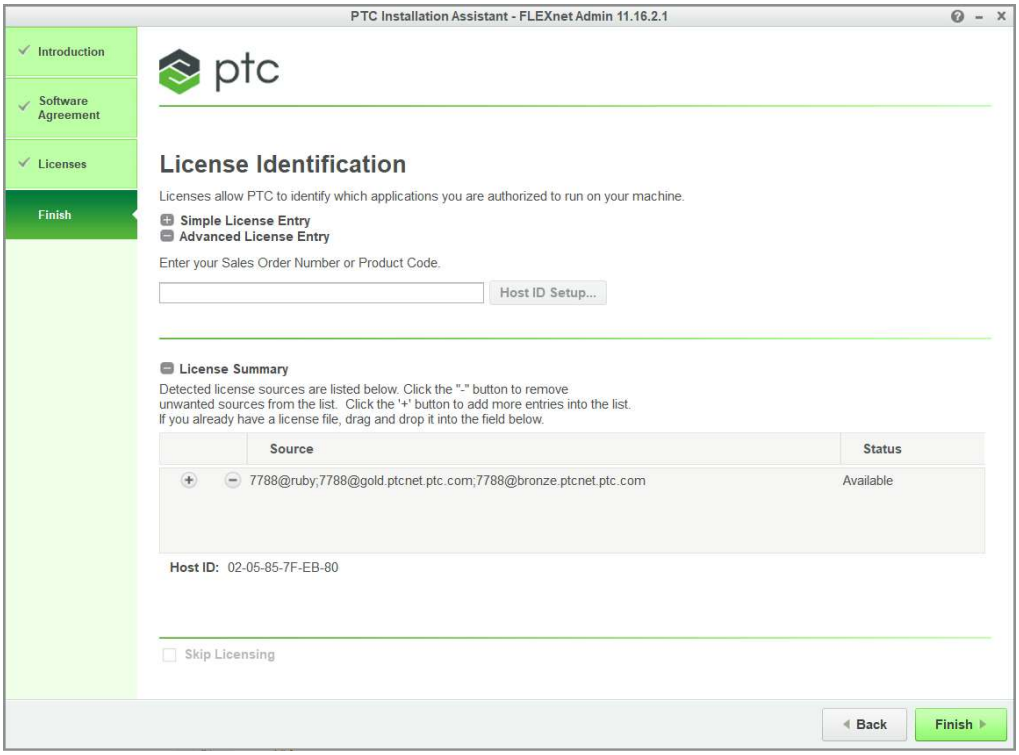
The complete path of the license file or the `port@hostname` value of the license server appears in the **Source** column of the **License Summary** area. This area displays all the license files or servers available for use on your computer.

3. To complete the license setup, click one of the following buttons depending on the options you have selected on the Welcome screen:
   - Click **Finish** to close the Assistant if you have selected **Setup license**.
   - Click **Next** if you have selected **Install new software** to proceed with the installation.

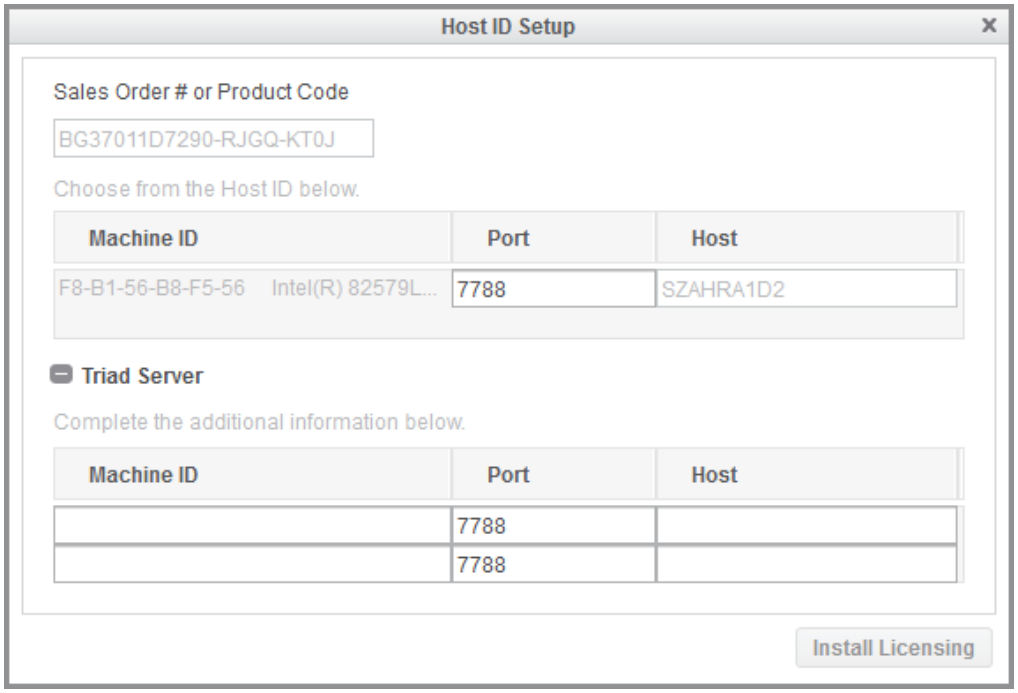
Using the Advanced License Entry Options

Use the **Advanced License Entry** area on the **License Identification** to edit the default license port and for the setup of a Triad license server as follows:

1. Click ⊕ next to **Advanced License Entry** to expand the area.



2. Type your Sales Order Number or your product code in the corresponding text box.
3. Click **Host ID Setup** to open the **Host ID Setup** dialog box.



The sales order number or the product code from the previous step appears in the dialog box. The **Machine ID**, **Port**, and the **Host** columns for the local computer are shown.

a. To change the default port for a single license, edit the number in the **Port** text box and click **Install Licensing**. Then skip to the last step in this section.

b. For triad server installations, follow these steps:

   i. Click ⊞ next to **Triad Server** to expand the area.

   ii. Provide the host ID, port number, and the host name for the other two servers.

   iii. Click **Install Licensing**. An authentication dialog box to connect to PTC.com may open if your user access has not already been validated. If so, provide your credentials and click **Log In**.

   The license server is installed and appears in the **License Summary** area of the **License Identification** screen.

4. To complete the license setup, click one of the following buttons depending on the options you have selected on the Welcome screen:

   - Click **Finish** to close the Assistant if you have selected **Setup license**.
   - Click **Next** if you have selected **Install new software** to proceed with the installation.

Specifying License Entry for Previously Generated License Files

Using the **License Summary** area, you can install licenses using the license files that you have already received as follows:

1. Drag and drop or type the path to the license file.
2. Click outside the **License Summary** area to begin the installation of the license server for floating licenses. For the node-locked licenses, this step checks the host ID of the local computer.

> **Note**
>
> Node-locked licenses that you specify using the **License Summary** area are not remembered in the subsequent sessions unless you add them specifically to the `PTC_D_LICENSE_FILE` variable.

3. Click the  or the  buttons in the **License Summary** area to add or remove license sources from the current session.

> **Note**
>
> Removing license sources does not delete or uninstall license files or the license server.

4. To complete the license setup, click one of the following buttons depending on the options you have selected on the Welcome screen:
   - Click **Finish** to close the Assistant if you have selected **Setup license**.
   - Click **Next** if you have selected **Install new software** to proceed with the installation.

License Service Utilities

PTC provides a suite of utilities with its FLEXnet Publisher installation, located in the `bin` folder:

lmtools	Starts the FLEXnet Publisher utility LMTOOLS, similar to the shortcut icon created in **Start ▸ Programs ▸ PTC ▸ PTC License Server ▸ PTC License Server Tools**. Functionality includes customer configuration of the license service, starting and stopping the lmgrd license server(s), server and licensing status, as well as diagnostic tools.
lmutil	Provides optional arguments to check the server and licensing status. Refer to the *FLEXnet Licensing End User Guide*.
ptcflush	Releases licenses. This may be necessary if there are network problems.
ptchostid	Returns the Host ID, with required formatting, used for license requests.
ptcsetup	Allows you to reconfigure an existing installation. Use ptcsetup for modifications or reconfigurations only. It cannot install FLEXnet Publisher.
ptcshutdown	Shuts down a license server process for administrative support of the license server. On Windows systems, you can also use LMTOOLS to stop a license server process. See License Administration Tools in the *FLEXnet Publisher Licensing End User Guide*.
ptcstartserver	Starts a license server process. On Windows systems, you can also use LMTOOLS to start a license server process.
ptcstatus	Displays information on server status and the current usage and availability of licenses.

Using the License Service Utilities

The FLEXnet Publisher installer automatically configures the license server. No additional configuration is required to begin serving PTC Mathcad licenses. However, as your needs change, you may need to perform support or configuration tasks on the FLEXnet Publisher. PTC provides a set of utilities in the `bin` folder of your FLEXnet Publisher installation for this purpose.

Note

If your organization already uses FLEXnet Publisher or FLEXlm to meter another application, read Licensing Both PTC Mathcad and Other Applications before proceeding.

Changing Your License File

If you receive a new license file, run the `ptcsetup` utility (`ptcsetup.bat`). When prompted, specify the new license file. The utility stops the current license server process, replaces the existing license file with the new one, and restarts the license server. This utility does not reinstall FLEXnet Publisher.

Checking the HOSTID of a Computer

To check the HOSTID of a computer, run the `ptchostid` utility (`ptchostid.bat`). This utility determines the ID for a computer and returns it in the desired format. Use this HOSTID when you request a license file.

Releasing Licenses

If you experience network disruptions, you may need to reclaim all licenses on the server and then allow users to reobtain them. To reclaim any licenses in-use, run the ptcflush utility (`ptcflush.bat`). You can run `ptcflush` only once every twelve minutes.

For a list of arguments allowed by `ptcflush`, run the utility from a command prompt. Values for all of the arguments can be obtained with the `ptcstatus` utility.

Stopping and Restarting the License Server Process

Occasionally, you may need to stop the license server process for administrative support. To do so, run the `ptcshutdown` utility (`ptcshutdown.bat`). After you have completed the support operation, you can restart the license server process with the `ptcstartserver` utility (`ptcstartserver.bat`).

Checking the Status of Your Licenses

To check the number of floating or registered-user licenses in use, run the `ptcstatus` utility (`ptcstatus.bat`). You can execute this utility in either normal or verbose mode (`ptcstatus -v`). Verbose mode provides additional information about your licenses, such as their version number and expiration date.

If you require more detailed information about the status of your licenses or license server, you can perform a status enquiry using the PTC License Server tools (`lmtools.exe`):

1. Start the PTC License Server tools from **Programs ▸ PTC ▸ PTC License Server** in the **Start** menu.
2. On the **Service/License File** tab, select **FLEXlm server for PTC**.
3. Click **Perform Status Enquiry**, located on the **Server Status** tab. If the service has been configured properly, you should see a status report that shows:
   - License server name.

- Port number used by the license service.
- License file in use.
- Status of the server and the PTC vendor daemon.
- Number of licenses in use and their assigned workstation. The report indicates borrowed licenses with the word linger, followed by the length of the borrowing period in seconds and in parentheses after the workstation information.

4. If the status report is incorrect, verify that the server has been configured properly. On the **Config Services** tab:
   - Click **FLEXlm server for PTC** in the **Service Name** list.
   - Confirm the path to the licensing service daemon (`lmgrd.exe`, located in the `i486_nt/obj` folder of your FLEXnet Publisher installation).
   - Confirm the path to the license file (`license.dat`, located in the `licensing` folder of your FLEXnet Publisher installation). If this information is incorrect, run the `ptcsetup` utility to point the license service to the proper license file.
   - Confirm the path to the log file used by the PTC license management service. The default is `ptclmgrd.log` in the `licensing` folder of your FLEXnet Publisher installation. If your license server hosts multiple services, you should create an individual log for each service.
   - Verify that **Use Services** is selected.
   - Double-check that paths to files are absolute and include the name of the file.

Editing the Options File

With the options file created, you can tailor the installation to your particular environment. The default options file contains two lines:

```
REPORTLOG +"C:/Program Files/FLEXnet Publisher/licensing/ptcreport.log"
TIMEOUTALL 7200
```

If you purchased a 5-seat floating PTC Mathcad license, you can edit the options file to add the lines:

```
INCLUDE MATHCAD HOST Eng1
INCLUDE MATHCAD HOST Eng2
INCLUDE MATHCAD HOST Eng3
INCLUDE MATHCAD HOST Eng4
INCLUDE MATHCAD HOST Eng5
```

`MATHCAD` is the metered application and `Eng1`, `Eng2`, ... are the specific workstations allowed to use PTC Mathcad.

Supported FLEXnet Publisher Keywords

The vendor daemon used by PTC Mathcad supports the full set of FLEXnet Publisher options file keywords. The following keywords may prove useful in administering licenses:

- BORROW_LOWWATER—Specifies the number of licenses that cannot be borrowed.
- DEBUGLOG—The log file used by the vendor daemon for debug information.
- EXCLUDE—Prevents access to the specified feature.
- EXCLUDE_BORROW—Prevents the borrowing of a license for the specified feature.
- EXCLUDEALL—Prevents access to all features served by the vendor daemon.
- GROUP—Defines a group of users for use with any options.
- HOST_GROUP—Defines a group of hosts for use with any options.
- INCLUDE—Allows use of the specified feature, if a valid license is available.
- INCLUDE_BORROW—Allows a user to borrow licenses.
- INCLUDEALL—Allows a user to use all features served by the vendor daemon.
- MAX—Limits usage for a particular feature or group, prioritizing usage among users.
- NOLOG—Turns off logging of certain items in the debug log file.
- REPORTLOG—Specifies the report log file to be written. This file can be read by `SAMreport`, available from Flexera Software.
- RESERVE—Reserves licenses for the specified feature for the specified user or group.
- TIMEOUTALL—Allows the server to reclaim inactive licenses after a specified number of seconds.

More information on using these and other keywords is available in the FLEXnet Publisher documentation.

Customizing a Registered-user License

If you purchased a registered-user license, you are bound by the license agreement to restrict PTC Mathcad usage to the proper number of workstations. One way to do this is with the RESERVE keyword:

```
RESERVE 1 MATHCAD HOST Eng1
```

This would reserve one PTC Mathcad license exclusively for the workstation `Eng1`. You can also create a group of user names or host names, using the GROUP or HOST_GROUP keywords.

Licensing Both PTC Mathcad and Other Applications

If you are already serving licenses for other applications with FLEXlm or FLEXnet Publisher for Windows, you can manage licenses for all your applications from one server. Install FLEXnet Publisher. After installation completes, FLEXnet Publisher displays all licenses served from the server. When configuring FLEXnet Publisher to meter PTC Mathcad, make sure the PTC Mathcad license service is selected on the **Config Services** tab.

Tip

To prevent name conflicts between PTC Mathcad license files and those for other applications, save your PTC Mathcad license files to a folder named "Mathcad" within your existing license folder.

Note

Do not merge your PTC Mathcad license with licenses of other software vendors into a combined license file for use on the same license server. Although the server can handle combined license files, license files from PTC use a vendor-specific HOSTID. The HOSTID makes PTC license files incompatible with license files using a FLEXnet Publisher HOSTID.

Using Multiple License Servers

FLEXnet Publisher supports the usage of multiple servers to administer licenses. With PTC Mathcad, you can use load-balancing or triad servers. However, you must provide information on your server set up when requesting licenses for use in multiple-server environments.

With load-balancing, you can split your licenses between any number of servers anywhere on your network. Triad servers are three servers located on the same subnet and physically close to each other. Proximity reduces the chance for delays due to network traffic. The servers must exchange periodic heartbeats with each other. As long as the FLEXnet Publisher service is running on two of the servers, it achieves quorum and administers licenses.

When generating either type of license, you must provide information for each server that will be administering licenses. In addition, when attempting to load-balance your licenses, you must specify how many licenses are allocated to each server.

To administer licenses on a load-balanced system:

1. Request license files for each server using the PTC Customer Support site. Allocate the desired number of licenses to each server.
2. Install FLEXnet Publisher on each license server. When prompted for the license file, use the file that corresponds to that server.
3. When you install PTC Mathcad, point each installation to the proper license server. If you install PTC Mathcad silently, create a version of `SilentInstall.bat` customized for each license server.

You can instead configure each workstation to query each server in a predetermined order, until PTC Mathcad obtains a license. See Configuring Workstations to Query Multiple Servers.

To administer licenses on a triad server:

1. Request your license file, following the instructions in Obtaining a 30-Day, Full Functionality License. Provide information for each server in the triad and designate which server will act as the "master."
2. When your license files arrive, copy them to the appropriate server. Edit the license file before you install each of the license servers, specifying the hostname of each of the triad partners. If this is not done, the license files will be different on each of the three triad partners and the license server will not start.
3. Install FLEXnet Publisher on each triad server.
4. When prompted for a server name during PTC Mathcad installation (or editing `SilentInstall.bat`), use the same server you designated as "master" in step 1.

Configuring Workstations to Query Multiple Servers

Configure workstations to query multiple servers, for example, if the license server uses a triad server configuration.

On each workstation, define a list of servers:

1. Click the PTC Mathcad Button , and then click **Options**. Click the **Licensing** tab.
2. In the **Source list**, specify the list of servers in the order that they should be queried. See the two examples below:

```
7788@Server1;7788@Server2[; ...]
```

```
7788@Server2;7788@Server1[; ...]
```

`Server1` and `Server2` are your license servers, and `7788` is the port the server uses to administer PTC Mathcad licenses.

Each workstation queries servers in the order listed when checking out a license. If a server is unavailable, the workstation queries the next server on the list until it either checks out a license or runs out of servers. If the workstation runs out of servers, PTC Mathcad uses the value of the predefined environment variable LM_LICENSE_FILE to acquire a license.

If you are serving licenses for multiple applications from the same server, you can use the environment variable `[VENDOR]_LICENSE_FILE` instead of `LM_LICENSE_FILE`. By doing so, you can specify exactly which servers each application that refers to the `[VENDOR]_LICENSE_FILE` environment variable should query, rather than forcing each of the applications mentioned above to query each server, regardless of whether that server has the appropriate license. For example, if you wanted to use two servers to serve licenses for another application but only one of those servers would serve PTC Mathcad licenses, you would set the following two environment variables:

```
LM_LICENSE_FILE=7788@Server1
[OTHERAPP]_LICENSE_FILE=27000@Server1;27000@Server2
```

This setting prevents PTC Mathcad from querying `Server2` for a license, since `Server2` has no PTC Mathcad licenses.

Tip

When using [VENDOR]_LICENSE_FILE, remember that FLEXnet Publisher checks LM_LICENSE_FILE before checking [VENDOR]_LICENSE_FILE. If you use both variables, LM_LICENSE_FILE should only list servers with licenses for all metered applications. Querying extraneous servers listed in LM_LICENSE_FILE slows PTC Mathcad down at startup.

Troubleshooting Your FLEXnet Publisher Installation

The following issues are common with installing, configuring, and running FLEXnet Publisher. If your problem is not listed, consult the Knowledge Base on the PTC Support site.

If you want to point PTC Mathcad at a different license server or file, click the PTC Mathcad Button, and then click **Options**. Click the **Licensing** tab and then click **Update License**. Supply the name of the new license server or location of the new license file to use.

License server machine is down or not running (-96, 7)

Causes: The license server or file name was most likely misspelled when specified or has changed, or the registry key containing this information is corrupt. PTC Mathcad waits for a license until the request times out and returns this error.

Solution: Enter the correctly spelled license server or file name. Restart PTC Mathcad without using the license switch.

Cannot write data to license server (-17, 13)

Causes: The FLEXnet Publisher is not accessible.

Solution: Confirm that the server is running and available by pinging it from the workstation, and confirm that the server can ping the workstation as well. If necessary, check that hostnames are resolving properly on your network with the Windows utility `nslookup.exe`. Verify that the server name is correct in the license file and that the host names are correct in any options file. Check that the port number specified in the license file (or any environment variable) corresponds to the server port used by FLEXnet Publisher.

Cannot connect to license server (-15, 570)

Causes: The license server process (`lmgrd.exe`) is stopped or disabled, or you are using the wrong license file for the PTC Mathcad service.

Solution: Check the **Config Services** tab for the license server process (indicated by the name specified in step 4 of Using the License Service Utilities). If necessary, reenable or restart the service. If the service is running, verify that it is using the license file supplied by PTC.

You may also have multiple license server processes running on the server. Consolidate all services under one license server process, or move the PTC Mathcad license service to another server.

Desired vendor daemon is down (-97, 121)

Causes: The vendor daemon is missing or in the wrong location, or you made a change to a Cadence license dongle on the PTC Mathcad server metering.

Solution: Check that the vendor daemon is located in the same folder as the FLEXnet Publisher daemon, `lmgrd.exe`; if it is not, find the file on the server and move it to this folder. If you made a change to a Cadence license dongle, reboot the server.

Note

This error may also occur if the FLEXnet Publisher daemon cannot create its temporary folder (`C:/FLEXlm`), or any of the files within it.

Invalid host (-9)

Causes: The volume serial number in your single-user license file is incorrect.

Solution: Request a replacement license file.

USER/HOST on EXCLUDE list for feature (-38, 147)

Causes: Comment lines in the options file (`ptc.opt`) are erroneously being interpreted as commands.

Solution: Delete the comment lines.

User based license has no specified users (-84)

Causes: The options file is missing, the hostname in the options file is not set properly, or you have more allowed users than licenses for a particular feature.

Solution: Confirm that the options file is in the same folder as your license file and that the hostname is set to the PTC Mathcad server metering.

If you have more allowed users than available licenses, either delete the appropriate number of INCLUDE lines in the options file, or contact PTC or your distributor to purchase extra licenses.

Borrowing Licenses

If you normally access a FLEXnet Publisher for a license when you run PTC Mathcad but occasionally need to use PTC Mathcad without network access, you can borrow a license from the server for use while disconnected from the network. The maximum borrowing period is 7 days.

Note

A license can only be borrowed from within PTC Mathcad.

1. To borrow a license, use your FLEXlm floating license to open PTC Mathcad.
2. Click the PTC Mathcad button , and then click **Options**. The **PTC Mathcad Options** dialog box opens.

3. Click the **Licensing** tab and then click **Borrow**.

Borrowed licenses are checked out from the available pool until they expire, regardless of whether the workstation using the borrowed license is running PTC Mathcad. If you have a pool of 25 floating licenses and borrow one, the workstations on your network can only use the remaining 24 licenses until the borrowed license returns to the pool.

Note

Borrowing a registered-user license also reduces the overall number of licenses. However, since the license is already allocated to the workstation, it does not reduce the number of licenses available to other users.

PTC Mathcad automatically selects the maximum borrowing period. To borrow a license for a shorter duration, select a different return date. Click **OK** to borrow the license.

Borrowed licenses appear in the status report with the text (linger: xxxxxx) appended to the end, where the six-digit number xxxxxx indicates the duration of the borrowing period in seconds. To generate a status report, read the section Using the License Service Utilities.

Transferring a License File to Another Server or Workstation

To transfer a license file to another computer, you must deallocate a current license, then request the license file for the new computer. To do so, use the **Reconfigure Software Licenses** option available at the PTC Customer Support Web site at https://www.ptc.com/appserver/lm/rsl/reconfig.jsp.

3

Installing and Configuring PTC Diagnostic Tools

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Using PTC Diagnostic Tools 40
Uninstalling PTC Diagnostic Tools 41

This chapter contains information on the PTC Diagnostic Tools utility.

Overview

The PTC Diagnostic Tools utility gathers and sends reports to PTC on the performance and usage of PTC Mathcad. It also reports the system information of a user. It serves as a medium to help PTC improve the quality of its products.

Installing PTC Diagnostic Tools

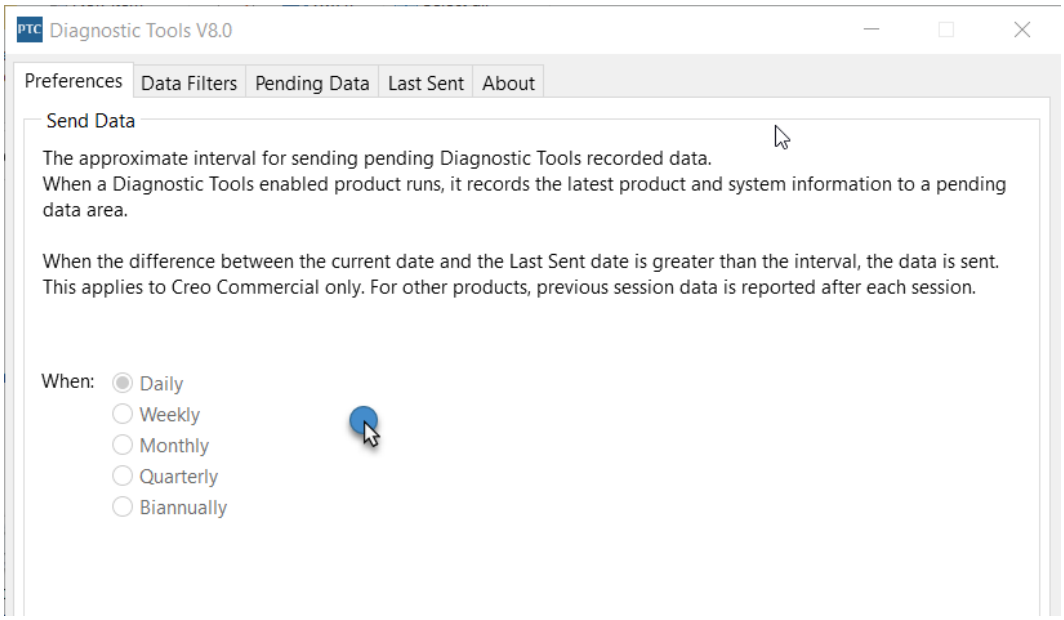
The PTC Diagnostic Tools utility is installed by default when you install PTC Mathcad. The diagnostic reporting is enabled by default for PTC Mathcad. A single installation of PTC Diagnostic Tools can be used with all the PTC applications for which you have enabled diagnostic reporting.

Note

If you are using PTC Mathcad with a 30-day, full functionality license, or use PTC Mathcad Express with no license, reporting is enabled by default and you cannot disable it. If you purchase a license, you can disable PTC Diagnostic Tools reporting via the **Options** dialog box.

Configuring PTC Diagnostic Tools

After installing PTC Diagnostic Tools, you can configure it as per your company's requirements. To open the **PTC Diagnostic Tools** dialog box, browse to the installation path or use a previously created shortcut.



The **Preferences** and **Data Filters** tabs display options that you can configure.

The **Pending Data** and **Last Sent** tabs display the data that is waiting to be sent, and data that was sent the previous time.

Preferences

Use this tab to specify the frequency of sending data.

Data Filters

Use this tab to specify the information that you want to collect.

Pending Data

Use this tab to view the collected system information under the **System Information** tab. A tab is added for each installed PTC product, such as PTC Mathcad Prime and Creo Parametric.

Click one of the two **Actions** buttons:

- **Send Now**—For the application tab that is active, sends the product and system information to the database. For example, if any the **Mathcad Prime** tab is active, it sends the product and system information for that specific version of PTC Mathcad Prime to the database.
- **Send via e-mail**—For the application tab that is active, enables you to send a report in HTML format to a designated PTC Technical Support Engineer. For example, if any **Creo Parametric** tab is active, you can send a report for that specific version of Creo Parametric to a PTC Technical Support engineer or to your e-mail address.

Last Sent

You can view product and system information that was last collected and transferred to PTC on the **Last Sent** tab.

Click **Send via e-mail** to send an aggregated report in ASCII format. The report is sent as an e-mail attachment to a designated PTC Technical Support Engineer or to your e-mail address.

Using PTC Diagnostic Tools

PTC Diagnostic Tools automatically collects information related to the application and system information and transfers it to PTC. For most PTC applications, the information transfer is based on the filter settings in the **Data Filters** tab and the

frequency settings in the **Preferences** tab. For PTC Mathcad, the information transfer is based on predefined filters and it is sent each time you close PTC Mathcad. For each session, PTC Diagnostic Tools checks for new data before the transfer. The information is automatically encrypted and transferred using the SSL methodology.

You can open the **PTC Diagnostic Tools** dialog box to view the pending data to be transferred to PTC on the **Pending Data** tab. You can click the **Send via e-mail** button to send the PTC Mathcad application-related and system information report in a HTML format to a designated PTC Technical Support Engineer and to your e-mail address. Both you and PTC Technical Support can then review the information simultaneously.

Uninstalling PTC Diagnostic Tools

You can remove PTC Diagnostic Tools independent of PTC Mathcad using the following steps:

1. Click **Start** ▸ **Control Panel** ▸ **Programs and Features**. The **Uninstall or change a program** screen appears.
2. In the application list, click **PTC Diagnostic Tools**.
3. Click **Uninstall**. A confirmation dialog box opens.
4. Click **Yes** to remove PTC Diagnostic Tools.

Note

Multiple PTC applications use the same installation of the PTC Diagnostic Tools. If another PTC application is using the tools, you will receive a notice listing active applications before uninstalling.

A

Installing PTC Mathcad in Silent Mode

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This appendix for system administrators provides information on how to perform a silent installation of PTC Mathcad.

Guidelines and Advantages of a Silent Installation

PTC Mathcad application installed for the first time using PTC Installation Assistant can be reinstalled during subsequent installation sessions in silent (nongraphics and noninteractive) mode. The silent installation process with command-line arguments uses an XML file with application-specific configuration settings. To perform a silent installation, provide the path to the corresponding XML file as an argument when running `setup.exe` from the DVD root directory at the command prompt. See Command Syntax for a Silent Installation on page 44 for more information.

Remember the following points for a silent installation:

- You must run the Assistant only from the DVD when installing PTC Mathcad application for the first time.
- You cannot generate and download a license or install PTC License Server in silent mode. The installer cannot connect to PTC.com in silent mode. However, you can edit the XML file to point to the location of the license file, define the server and port number, or define the list of triad license sources. For more details, see Editing the LICENSEPATHFORM Node.
- You cannot copy an existing installation while performing a silent installation.

Some of the advantages of a silent installation follow:

- You can efficiently mass-deploy PTC Mathcad across a large enterprise.
- You can source all the configuration settings, such as, installation location, list of triad license sources, and startup commands for installing PTC Mathcad from an XML file.

Workflow for a Silent Installation

A system administrator can follow the workflow described below for a silent installation of PTC Mathcad on a network location or on a client computer:

1. Perform a typical product installation with the configuration that you want to use for future installations.
    a. Open a command shell and run `setup.exe` from the root directory of the DVD. PTC Installation Assistant starts.
    b. On the Welcome screen click **Install new software**.

Note

- Downloading a license file or installing PTC License Server must be done in a separate installation session.
- A license source is not validated during the silent installation process. Hence, you must ensure the accuracy of the license source list that is configured in the commands (.psf files) for starting the PTC Mathcad application.

c. Select **I accept the license agreement** and click **Next**.

d. Select the applications to install, customize your installation, and specify any other site-specific configurations.

e. Click **Install** to begin the installation.

f. Click **Finish** to close the Assistant.

The XML file for PTC Mathcad is stored with a `.p.xml` extension at `<PTC Mathcad installation directory>/PTC Mathcad Prime 12.0.1.0/bin/pim/xml`.

2. Copy the XML file to a temporary location on your disk, for example, `D:/temp/ptc`, and edit it as required. See Editing the XML Files on page 45 for information on how to edit the various nodes of an XML file.
3. Perform a silent installation of PTC Mathcad using the command syntax as described in the next section.

Command Syntax for a Silent Installation

To perform a silent installation of PTC Mathcad, open a command shell, and run `setup.exe` from the root directory of the DVD as follows:

`<dvd>:/setup.exe –xml "<path to the .xml file stored in a temporary location>"`

Where `dvd` is the DVD drive letter or the location of the downloaded DVD image.

The arguments you can use with `setup.exe` during a silent installation follow:

Command Syntax	Description
`setup.exe` <no arguments>	Runs the installer interactively
`setup.exe –help`	Displays all the arguments to use with the installer
`setup.exe –v`	Displays the version of the installer
`setup.exe –xml <file1> –xml`	Performs a silent installation as per the

Command Syntax	Description
<file2>....	directives in the specified XML files
setup.exe –xml <file1> [-destination <directory>]	[Optional] Overrides the destination specified in the XML file
setup.exe –xml <file1> [-translate_lp_path_space <character>]	[Optional] Replaces the whitespace characters in the installation path in the XML file

Consider the example of performing a silent installation of PTC Mathcad. Open a command shell and enter the following command:

E:/setup.exe –xml "D:/temp/ptc/mathcad.p.xml"

- E—The drive letter
- D:/temp/ptc/mathcad.p.xml—The location for the mathcad.p.xml file

Locating the XML Files

On a successful installation, an XML file for PTC Mathcad is created. The file format is mathcad.p.xml. The file location is:<PTC Mathcad installation directory>/PTC Mathcad Prime 12.0.1.0/bin/pim/xml.

Editing the XML Files

You can edit and customize the XML file stored at <PTC Mathcad installation directory>/PTC Mathcad Prime 12.0.1.0/bin/pim/xml with the settings required for future installations. In such cases, copy the XML file to a temporary location and edit the nodes in the XML files using a text editor or an XML editor. The following sections describe the various nodes in the XML file that can be edited.

Note

PTC recommends you not to edit the XML files unless there is a specific need to do so.

The PTC Mathcad product version indicated in the XML file must be identical to the version in the setup.exe file. Mismatched versions will prevent the **Mathcad Prime Installation Assistant** from proceeding.

Editing the PROPERTY Node

You can edit the following name attributes of the PROPERTY node:

INSTALLBASE

Use the INSTALLBASE name attribute to change the root path for installing PTC Mathcad in the current session. The default value is usually the PTC folder under the Program Files folder.

- Before editing the INSTALLBASE name attribute, the PROPERTY node appears as shown:
  ```
  <PROPERTY name="[INSTALLBASE]">"F:Program Files/PTC"</PROPERTY>
  ```
- After editing the INSTALLBASE name attribute, the PROPERTY node appears as shown:
  ```
  <PROPERTY name="[INSTALLBASE]">"[PROGRAMFILES]/PTC"</PROPERTY>
  ```

  The [PROGRAMFILES] variable in the above example represents the default program location on a local computer. You can use this variable instead of the absolute path F:/Program Files to make the default program location accessible on all the computers.

LP

The LP name attribute designate the load path of the installed PTC Mathcad application folder. You can edit the path as required. For example, you can use the LP name attribute to remove the whitespace characters. Before editing the LP name attribute, the PROPERTY node appears as shown:

```
<PROPERTY name="[LP]">[INSTALLBASE]/PTC Mathcad/PTC Mathcad Prime 12.0.1.0</
PROPERTY>
```

After editing the LP name attribute, the PROPERTY node appears the same:

```
<PROPERTY name="[LP]">[INSTALLBASE]/PTC Mathcad/PTC Mathcad Prime 12.0.1.0</
PROPERTY>
```

See Command Syntax for a Silent Installation on page 44 for more information.

Editing the SHORTCUT Node

A SHORTCUT node represents shortcut definitions associated with certain package nodes. A SHORTCUT node is processed in order to create the shortcuts for a package that is being installed. In a SHORTCUT node, you must edit only the create attribute for each of the PROGRAMSMENU, STARTMENU, DESKTOP, and QUICKLAUNCH subnodes. A value Y set for the create attribute creates the shortcuts.

A sample SHORTCUT node in an XML file that creates a shortcut in the start menu, on the desktop and a quick launch shortcuts, is as shown:

```
<SHORTCUT allusers="Y" id="prime_shortcut" showenvironment="N">
<NAME>Mathcad Prime 12.0.1.0</NAME>
<PROGRAMSMENU create="Y"/>PTC Creo</PROGRAMSMENU>
<DESKTOP create="Y"/>
</SHORTCUT>
```

Editing the LANGUAGE Node

Note

Editing the LANGUAGE, PLATFORM, and PACKAGE nodes is not trivial. For editing these nodes you must manually edit the CDSECTION nodes. Instead, PTC recommends that you perform a template-based installation graphically with the required language, platform, and package settings.

A LANGUAGE node represents the languages supported on the DVD media for the installation of the PTC Mathcad Help. Individual LANGUAGE nodes are created in the XML file for each of the supported languages. You can edit the following attribute of the LANGUAGE node:

Attribute	Value
install	Set this attribute to Y or N depending on whether you want to install PTC Mathcad Help in that language. If the required attribute is set to Y do not change the install attribute.

A sample LANGUAGE node in an XML file follows:

```
<LANGUAGE install="Y" installed="N" name="usascii"
required="Y">English</LANGUAGE>
<LANGUAGE install="N" installed="N" name="japanese">Japanese</LANGUAGE>
```

Editing the PACKAGE Node

PACKAGE nodes in an XML file represent the required and the optional packages selected for the PTC Mathcad application on the **Customize** dialog box of the Assistant. There may be many PACKAGE nodes in an XML file. You can edit the following attribute of the PACKAGE node:

Attribute	Value
install	For a specific PACKAGE node, set this attribute to Y or N depending on whether you want to install the package with the PTC Mathcad application.

A sample PACKAGE node in an XML file follows:

```
<PACKAGE hidden="N" install="Y" label="Prime 12.0.1.0" name="prime_base" parent=""
required="Y"><MSI_NAME>prime_msi</MSI_NAME><FEATURE>PRIME_HELP</FEATURE></PACKAGE>
```

Editing the CDSECTION Nodes

Edit the CDSECTION node only if you want to edit the LANGUAGE, PLATFORM, or the PACKAGE nodes. Check for the following attributes before you edit the CDSECTION nodes:

- For each LANGUAGE node, locate the CDSECTION nodes with the language attribute reflecting the appropriate language.
- Then locate the CDSECTION nodes with the platform attribute reflecting the appropriate operating system.
- Finally locate the CDSECTION nodes with the name attribute reflecting the package to be installed with PTC Mathcad.

If all the attributes for the above nodes are to be considered for the installation, set the install attribute of the CDSECTION node to Y. Otherwise, set the attribute to N.

A sample CDSECTION node in an XML file follows:

```
<CDSECTION install="N" language="german" name="PRIME_HELP" size="43455884">ptc0.
cab</CDSECTION>
```

Editing the LICENSEPATHFORM Node

LICENSEPATHFORM nodes in an XML file represent the possible PTC Mathcad license types that you can set up during the silent installation. To set up a license, remove the comment marks around the relevant license type and edit its value.

To set up licenses in a silent installation, select the node you wish to remove its comments according to the required license type:

- For Server based installation for floating licenses, remove the comments from the following node, and edit it:

  ```
  <!-- Example for silent install with server based install
  <MSIARGUMENT>LICENSEPATHFORM="ServerAndPort" LICENSEPATH="7788@localhost"
  </MSIARGUMENT>
  -->
  ```

  A sample LICENSEPATHFORM node that defines the server and the port number in an XML file follows:

  ```
  <MSIARGUMENT>LICENSEPATHFORM="ServerAndPort" LICENSEPATH="7788@localhost"
  </MSIARGUMENT>
  ```

- For locked licenses, remove the comments from the following node, and edit it:

  ```
  <!-- Example for silent install with locked license file
  <MSIARGUMENT>LICENSEPATHFORM="FilePath"
  LICENSEPATH="c:/temp/ptc licensing/license.dat"</MSIARGUMENT>
   -->
  ```

A sample `LICENSEPATHFORM` node that defines the location of a license file in an XML file follows:

```
<MSIARGUMENT>LICENSEPATHFORM="FilePath"
LICENSEPATH="d:/temp/mathcad_licensing/license.dat"</MSIARGUMENT>
```

In this example, the `LICENSEPATH` attribute was edited.

- For defining a list of triad license sources, remove the comments from the following node, and edit it:

```
<!-- Example for silent install with triad license sources
<MSIARGUMENT>LICENSEPATHFORM="SourceList"
LICENSEPATH="7788@localhost;7788@host2;7788@host3"</MSIARGUMENT>
-->
```

A sample `LICENSEPATHFORM` node that a list of triad license sources in an XML file follows:

```
<MSIARGUMENT>LICENSEPATHFORM="SourceList"
LICENSEPATH="7790@localhost;7790@host2;7790@host3"</MSIARGUMENT>
```

In this example, the port numbers were edited.

Installing PTC Diagnostic Tools in Silent Mode

To silently install PTC Diagnostic Tools, you must copy the `qualityagent.xml` file found at `<mathcad_dvd>/pim/xml/` locally to your computer. Perform the silent installation at the command prompt.