

Pro/ENGINEER<sup>®</sup> Wildfire<sup>™</sup> 2.0  
Installation and  
Administration Guide

**DOC-U0134-EN-340**

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Registration numbers and issue dates follow. Additionally, equivalent patents may be issued or pending outside of the United States. Contact PTC for further information.

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# About This Guide

Before you install Pro/ENGINEER, be sure to read this guide for installation instructions. This guide is designed to meet two goals:

- To help you install and set up your license management software
- To help you install and maintain Pro/ENGINEER Wildfire 2.0

The primary audience for this guide is system administrators who are installing Pro/ENGINEER for the first time. In general, this guide is intended for technical staff members who are experienced in application installations and have a good understanding of operating systems.

## How to Use This Guide

This guide supplements the online instructions that are provided when you install Pro/ENGINEER and other PTC products, using PTC.Setup. To aid you in the installation process, complete step-by-step procedures are provided here.

Post installation instructions and reference information are also given.

## Related Documentation

The following document may be helpful as you use the *Pro/ENGINEER Wildfire 2.0 Installation and Administration Guide*:

*FLEXlm End Users Guide*, which discusses the third-party license management software that is used to distribute Pro/ENGINEER licenses.

# Technical Support


Contact PTC Technical Support via the PTC Web site, phone, fax, or e-mail if you encounter problems using your software. For more information, see *Opening and Tracking a Call to Technical Support* in the *PTC Customer Service Guide* enclosed with your shipment. This guide can also be found under Related Links on the PTC Web page at [www.ptc.com/olm/index.htm](http://www.ptc.com/olm/index.htm).

You must have a Service Contract Number (SCN) before you can receive technical support. If you do not have a number, contact PTC License Management using the instructions in your *PTC Customer Service Guide*.

## Documentation for PTC Products

PTC provides documentation on the product CD-ROM in the following forms for Pro/ENGINEER Wildfire 2.0:

- Help Center with context-sensitive Help, a global search facility, and quick links to helpful information.
- *PTC Customer Service Guide* and the *Pro/ENGINEER Wildfire 2.0 Installation and Administration Guide* and other books in PDF files. To view and print the books, you must have the Adobe Acrobat Reader installed.

After you install the PTC Help component, you can drag  from the Pro/ENGINEER menu bar to any item on the interface to get Help. To access the Help Center, click **Help > Help Center**.

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## Documentation Conventions

PTC documentation uses the following conventions:

Convention	Item	Example
Bold	Menu paths, dialog box options, buttons, and other selectable elements from the user interface.	Click <b>File &gt; Save</b> . <b>Assignee</b> check box. Click <b>OK</b> .
Courier	User input, system messages, directories, and file names.	Processing completed.
Courier with less-than and greater-than symbols (< >)	Variables for which the user substitutes an appropriate value	output=<LOADPOINT>



# 1

## Overview

This chapter describes the materials in your software shipment and the installation utility, PTC.Setup. It also explains what steps to take before you install the license server and product software.

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# What You Receive

PTC (Parametric Technology Corporation) sends the following materials related to your software order:

- **Shipment Confirmation Letter**—Before receipt of your PTC software, you receive the shipment confirmation letter via fax or e-mail. This correspondence introduces you to the software distribution process. The Sales Order Number (SON) is included in the letter for new software orders. Instructions are provided in the letter for requesting a License Pack using that number. It also contains a complete list of the software you ordered and the material being shipped.
- **License Pack**—This pack contains the license codes necessary to install the software at your site. Instructions for requesting your License Pack are included in the Shipment Confirmation Letter and the *PTC Customer Service Guide*.
- **Packing Slip**—The packing slip accompanies your shipment and references the Sales Order Number (SON). It lists the software you ordered and the items that were sent with your software shipment.
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- **Hardware and Software Configuration Notes**—To provide the most recent information, PTC provides notes on each product CD-ROM and on the PTC web site:

Online Hardware Configuration Notes for Enterprise Partners:  
[www.ptc.com/partners/hardware/current/support.htm](http://www.ptc.com/partners/hardware/current/support.htm)

Online Software Configuration Notes for Enterprise Partners:  
[www.ptc.com/cs/doc/index.htm](http://www.ptc.com/cs/doc/index.htm).

## Note

To access the online Software Configuration Notes, a customer support account is necessary.

Refer to the READ THIS FIRST document for steps on how to access information on the CD-ROM.

- **PTC Customer Service Guide**—Use this guide for descriptions of services from Technical Support, the Customer Care Center, and the PTC Web site.

- *Pro/ENGINEER Wildfire 2.0 Installation and Administration Guide*—Use this guide for information on license management, installation of software, and software maintenance.

## Before You Proceed

Make sure you have your License Pack, which contains the required license codes to install your software.

### Note

An online copy of your License Pack is highly recommended. Maintaining license information in file format allows you to import your license codes using the installation utility, PTC.Setup. Importing the file ensures accuracy and eliminates the need to supply the data manually.

## Receiving Your License Pack

Both new customers and customers who are updating their software receive their PTC License Packs by electronic mail. If you do not have an e-mail address, the License Pack is sent by fax.

## New Software Orders, Reconfigurations

After your order has been processed and shipped, you receive a shipment confirmation letter by electronic mail or fax. At that time, you are asked to contact PTC License Management to configure the purchased products.

For more information on PTC License Management visit [www.ptc.com/olm/index.htm](http://www.ptc.com/olm/index.htm).

## Maintenance Shipments

You can obtain an electronic copy of your License Pack via e-mail or by visiting PTC on the Web.

A License Pack for a maintenance release shipment contains all qualifying licenses for the site specified. Depending on your site's requirements, one License Pack might contain license information for multiple servers.

Maintenance Release users who are updating their PTC software can also request electronic copies of their License Packs using the PTC License Pack Generator at [www.ptc.com/olm](http://www.ptc.com/olm). Click **Retrieve existing license packs**. You are asked to supply your Sales Order Number (SON) and to select a license pack type.

### Note

The License Pack information reflects the information in your customer order. If your configurations have changed since the maintenance release was shipped, contact PTC License Management for a new License Pack.

## Storing Your License Pack Online

To store your License Pack online:

1. Obtain an electronic copy of your License Pack that PTC sends via e-mail. This contains your license codes.
2. Save your License Pack information in a text file in only ASCII format. On Windows, you can use Notepad or WordPad as a text editor. On UNIX, you can use vi.

### Note

The previous step is highly recommended but not required.

## Setting Language Defaults

To run the installation utility and Pro/ENGINEER in a language other than English, set the value of the language environment variable, LANG, before you start the installation. To set the value of LANG, see Setting the System Language Environment Variable on page B-21 .

## Using PTC.Setup for Installation

You install Pro/ENGINEER and its software components, including PTC License Server and PTC software products, using PTC.Setup. PTC.Setup is a graphical installation utility with Help. The main screen displays the following items:

- The main product group that includes **PTC License Server**, **Pro/ENGINEER**, **Collaboration Tools** (on Windows), and **Structural and Thermal Simulation**.
- The secondary product group under **Other Products** in the PTC.Setup product selection screen. This includes **PTC Application Manager** (on UNIX), **PTC Distributed Services**, **PTC Help**, and **Pro/Web.Publish**.

Navigation in PTC.Setup is easy. Click the required component on the PTC.Setup product selection screen to start the installation. Use the **Next** button to continue. The **Next** button is not available on the PTC.Setup product selection screen. You must select a product to proceed to the next


screen. Use the **Back** button to return to previous screens to make changes.





### Note

When you begin an installation by clicking on the required component, an error message is displayed if the required security privileges are not satisfied.

You can access the READ THIS FIRST document, the *Pro/ENGINEER Wildfire 2.0 Installation and Administration Guide*, and the services and support information from the **Help** list. This list is available on all the screens of the PTC.Setup installation utility.

## Selecting Product Features

In all the screens other than the PTC.Setup product selection screen, click  before each of the product components to choose the following commands from the list:

- **Install this feature**—Install the component.
- **Do not install this feature**—Do not install the component.  changes to  if a component is not installed.
- **Install all sub-features**—If a product component has subcomponents, you can install them by selecting this option. The icon  changes to  to indicate that the components will be installed.

## Starting PTC.Setup

If your Windows system has autorun enabled for your CD-ROM drive, PTC.Setup starts automatically. If your UNIX system automatically mounts the CD-ROM, just load the CD-ROM, change to a directory with write permissions, and execute the `<cdrom>/setup` command where `<cdrom>` is the mounted CD-ROM location of the workstation.

If PTC.Setup does not start automatically, use the procedures in the following sections.

### Windows

To start PTC.Setup on Windows, choose one of these methods:

- Start Windows Explorer, browse to the CD-ROM drive, and double-click the `setup.exe` icon.
- At an MS-DOS prompt, type the following command:

```
<cdrom>:\setup.exe
```

where `<cdrom>` is the CD-ROM drive letter.

- From the task bar, select **Start > Run**, and enter the following command:

```
<cdrom>:\setup.exe
```

## UNIX

To start PTC.Setup on UNIX, follow these steps:

1. Change to a directory where you have write permissions (for example, /tmp).
2. At a command prompt, type the following command:

```
<cdrom>/setup
```

where <cdrom> is the location of the CD-ROM. In UNIX systems, you mounted the CD-ROM to this directory.

3. If a /cdrom directory does not already exist, create one using the following command:

```
mkdir /cdrom
```

If your UNIX system does not automatically mount the CD-ROM, see Loading and Mounting the CD-ROM on UNIX on page B-8 for step-by-step instructions.

## Generating a PTC.Setup Trail File

You can record your menu selections in the PTC.Setup installation utility in a trail file to replay them at a later time. You can use this trail file to install the software again with similar settings. Create a trail file by specifying the `-uilog` argument upon startup of PTC.Setup from a command prompt.

```
Windows <cdrom>\setup.exe -uilog
```

```
UNIX <cdrom>/setup -uilog
```

When starting PTC.Setup with the `-uilog` argument, a trail file named `ps_tr1.txt.1` is created in the directory from where you started PTC.Setup.

### Note

You must have appropriate permissions to write to the directory from where you start PTC.Setup.

If the `ps_tr1.txt.1` file already exists, a new trail file named `ps_tr1.txt.2` is created. Further trail files are named using this naming convention.



## Replaying the PTC.Setup Trail File

To replay the PTC.Setup trail file, you must first rename the trail file using the <filename>.txt naming convention. For example, rename the pc\_tr1.txt.1 file to runme.txt. To replay the trail file, use this new file name with the -uitrail argument at the command prompt.

```
Windows <cdrom>\setup.exe -uitrail runme.txt
```

```
UNIX <cdrom>/setup -uitrail runme.txt
```

Specify the full path to the runme.txt file so that this file is correctly accessed with the -uitrail argument.

You can also specify both the -uilog and -uitrail arguments when running PTC.Setup. In such cases, the specified trail file is replayed, and at the same time, a new trail file is created that records the menu selections during the current installation.

The user interface of PTC.Setup opens by default when you run a trail file. You can hide the user interface when replaying a trail file by specifying the -nographics argument at the command prompt.

```
Windows <cdrom>\setup.exe -nographics -uitrail  
runme.txt
```

```
UNIX <cdrom>/setup -nographics -uitrail  
runme.txt
```

If PTC.Setup goes out of sequence when running a trail file, you are prompted for input where the trail file goes out of sequence. If a trail file goes out of sequence, you can choose to exit PTC.Setup by setting the value of the CONTINUE\_FROM\_OOS environment variable to false.

```
Windows set CONTINUE_FROM_OOS=false
```

```
UNIX setenv CONTINUE_FROM_OOS false
```

## Creating a CD Image of a Customized Installation

You can create a smaller CD image of the PTC products and components of your choice from the PTC software CD. You can include Pro/ENGINEER with only certain components to customize your installation. For example, you can leave out the Pro/TOOLKIT component. To create a CD image, specify the `-makecd` argument when running PTC.Setup from the command prompt.

```
Windows <cdrom>\setup.exe -makecd
```

```
UNIX <cdrom>/setup -makecd
```

When you start PTC.Setup with the `-makecd` argument from the command prompt, the installation is similar to the normal process. Instead of installing the products, an image is created in the specified directory.

## Disabling File Registration (Windows)

Pro/ENGINEER objects appear with a PTC icon in Windows Explorer because of file registration. If you double-click such an object in Windows Explorer, the object opens in a Pro/ENGINEER session. You can disable file registration for the Pro/ENGINEER objects when installing Pro/ENGINEER by specifying the `-nofilereg` argument when running PTC.Setup from the command prompt.

```
Windows <cdrom>\setup.exe -nofilereg
```

# 2

## Quick-Start Installation

This chapter provides a quick-start approach for experienced users who have previously installed license management and product software on license server, license client, and node-locked machines. For step-by-step installation instructions using the PTC.Setup utility, read Chapter 3, Installing PTC License Server, and Chapter 4, Installing and Starting Pro/ENGINEER.

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# Installing Software on a License Server

If you update your software to a newer release, you must update your License Pack. PTC License Server is always the first component to be installed. Installation of PTC License Server allows subsequent products to locate and use the license information.

## Note

You must have the administrative privileges to install the license management software on a license server.

## Installing FLEXlm

Using the PTC.Setup installation utility, follow this process to install PTC License Server, and Pro/ENGINEER on the license server:

1. Obtain an electronic copy of your License Pack, which contains your license codes.
2. Save your License Pack information in a text file, ASCII format only.

## Note

This step is highly recommended but not required.

3. To use Pro/ENGINEER Wildfire 2.0, perform license simplification to upgrade your License Pack to version 25 or later, if you have not already done so. See Simplified License Management Process on page A-2 for details.
4. Start PTC.Setup, the installation utility.
5. Install FLEXlm, the PTC License Server, into its own directory.
6. Import the license file from step 2 into PTC.Setup. Note that PTC.Setup starts the license server after installation is complete.

## Note

Although the procedure is longer, you can manually enter the license information listed in your License Pack. If you type your license information into PTC.Setup's FLEXlm license editor, you can type in the keywords: `__HOSTNAME__` and `__PCTD_PATH__`. When you save the license file, PTC.Setup automatically replaces `__HOSTNAME__` and `__PCTD_PATH__` with the correct values. For complete details, see Using the FLEXlm License Editor on page 3-8.

7. Optionally, the `EXTERNAL_NAME` attribute in the feature line gives you the choice to provide a user-defined name or an alias for a floating license-to-run.
8. Supply optional configurations (for example, Windows shortcuts).

9. Install *FLEXlm*. The license server starts automatically.

For triad configurations, repeat these steps for Triad Partners 2 and 3.

**Note**

Upon installation of the first triad partner, an error message the server could not be started appears. This is normal. The triad is operational only if at least two of the three partners are installed and started.

## Installing Pro/ENGINEER

1. Start PTC.Setup, the installation utility.
2. If the license server is also a license client, install Pro/ENGINEER into its own directory.
3. Define the platforms, languages, and components that the product software uses.
4. Specify the location of the license file (that is, the server host name). Provide the host name, an IP (Internet Protocol) address, or a fully qualified domain host name. Host name restrictions are dependent on the operating system. Alternatively, specify the location of the `license.dat` file (that is, the full path to the license file).
5. Define the command to run Pro/ENGINEER (for example, `proe`). No file name extension is necessary.
6. Attach or associate the licenses listed within your license information file to the startup command so that the product software can read the license data on the server specified. Multiple licenses can be attached to a single command name.
7. Supply optional configurations (for example, Window shortcuts).
8. Start Pro/ENGINEER.

## Installing Software on a License Client

When you are installing Pro/ENGINEER and any of its components on a license client, you do not install PTC License Server. Instead, you specify the server from which this license client should obtain available licenses.

1. Start PTC.Setup, the installation utility.
2. Install the product software into its own directory.
3. Define the platforms, languages, and components that Pro/ENGINEER will use.

4. Specify the host name of the server that maintains PTC License Server. Provide either the IP address or the fully qualified domain host name.
5. Define the command to run Pro/ENGINEER (for example, `prowildfire2`). No extension is necessary.
6. Attach or associate the licenses listed within your license information file to the startup command so that your product software can read the license data on the server specified. Multiple licenses can be attached to a single command name.
7. Supply optional configurations (for example, Window shortcuts).
8. Start Pro/ENGINEER.

## Installing Software on a Node-Locked Machine

PTC License Server is not required on node-locked machines (independent workstations) that use counted locked licenses. Using the PTC.Setup installation utility, install Pro/ENGINEER and point to the node-locked license file.

Repeat the steps listed in Installing Software on a License Server on page 2-2.

## Where Your Software Is Installed

The PTC.Setup installation utility defines and installs software into a default installation directory that you can modify for your environment during installation.

The default path is as follows:

Windows `C:\Program Files\<productname>`

UNIX `/system_directory/ptc`  
where `system_directory` is platform-specific.

PTC License Server (FLEXlm), the product software, and any components are installed into separate subdirectories within the `ptc` directory.

# 3

## Installing PTC License Server

This chapter explains how to start the installation utility, PTC.Setup, and how to install PTC License Server so that you can control usage of licenses for PTC software products.

PTC uses FLEXlm from Macrovision as its license server. Unless an uncounted node-locked license is used, you must install PTC License Server before you install your PTC software. PTC License Server is included on your CD-ROM. For the latest information about which version of FLEXlm is appropriate for your installation, see the READ THIS FIRST that is included with your shipment.

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## Before You Proceed

Before you begin, perform the following steps:

- Check the READ THIS FIRST document for any required machine setting changes.
- Obtain the online copy of your License Pack, Version 25 or later.

### **Note**

To use Pro/ENGINEER Wildfire 2.0, you must perform license simplification, if you have not already done so. You must use a License Pack of Version 25 or later, which is compatible with Pro/ENGINEER Wildfire 2.0.

- Review your License Pack to make sure your license information accurately reflects your order.

### **Note**

The *FLEXlm End Users Guide* is available on the Pro/ENGINEER CD-ROM.

## Finding the PTC Host ID

You can obtain the PTC Host ID by starting PTC.Setup from any PTC CD-ROM. When PTC.Setup is started, the PTC Host ID of the machine is automatically displayed in the lower-left corner of the main screen.

PTC License Server uses the PTC Host ID to assign license codes.

### **Note**

A PTC Host ID is necessary only when a feature is locked to a specific machine or to multiple machines.

To download a copy of the PTC `ptchostid` utility and to view online instructions on how to run this tool, visit the PTC Web site at [www.ptc.com/olm](http://www.ptc.com/olm). Click **Determining a Machine's CPU ID** that is located on the PTC Global Services **Order & License Support** page. Platform-specific instructions are given.

## Windows Requirements

For Windows XP, Windows 2000, and Windows NT 4.0, you must have administrative privileges to install PTC License Server.

Your Windows system must use the Windows NTFS (Windows NT File System).



You must have TCP/IP (Transmission Control Protocol/Internet Protocol) installed and configured correctly on your Windows system before installing the software.

## UNIX Requirements

PTC.Setup lets you install the software with either root- or user-level privileges. For maximum security, Macrovision recommends that you install PTC License Server with root privileges but run the server with user privileges.

## Installing PTC License Server

You must install PTC License Server on at least one machine to control usage of floating licenses. This machine might not have an installation of the product software.

### **Note**

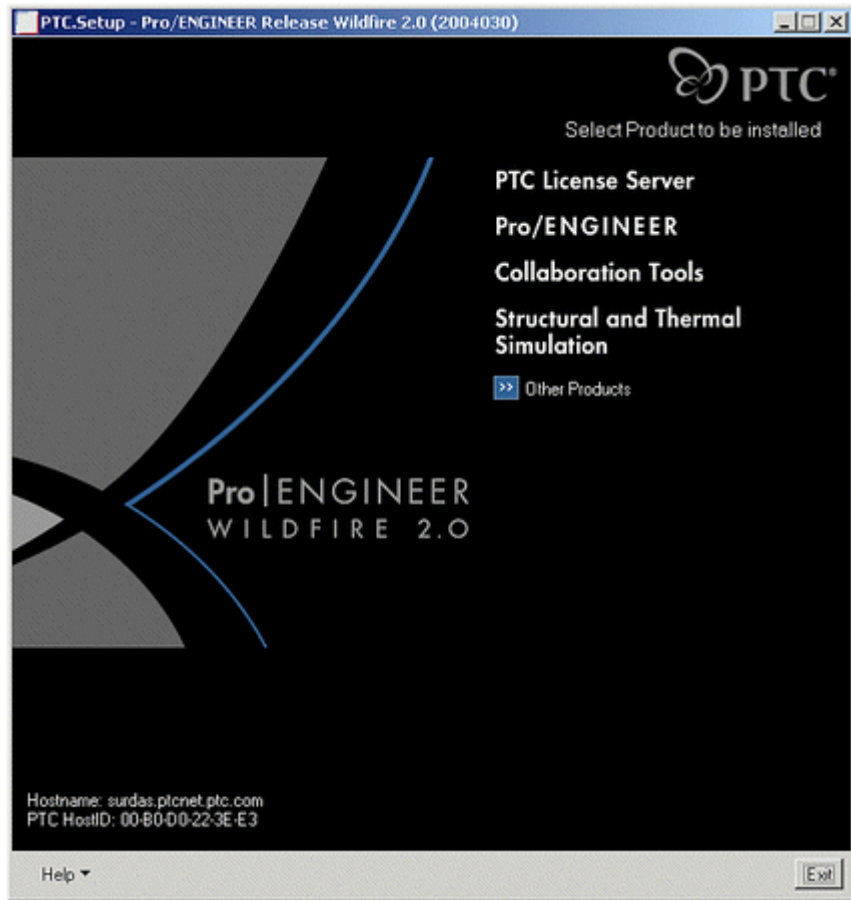
The machine on which you install PTC License Server must have a static IP (Internet Protocol) address configuration and not a DHCP (Dynamic Host Configuration Protocol) configuration.

License management software is not required for a license client. This client requests a license from the server.

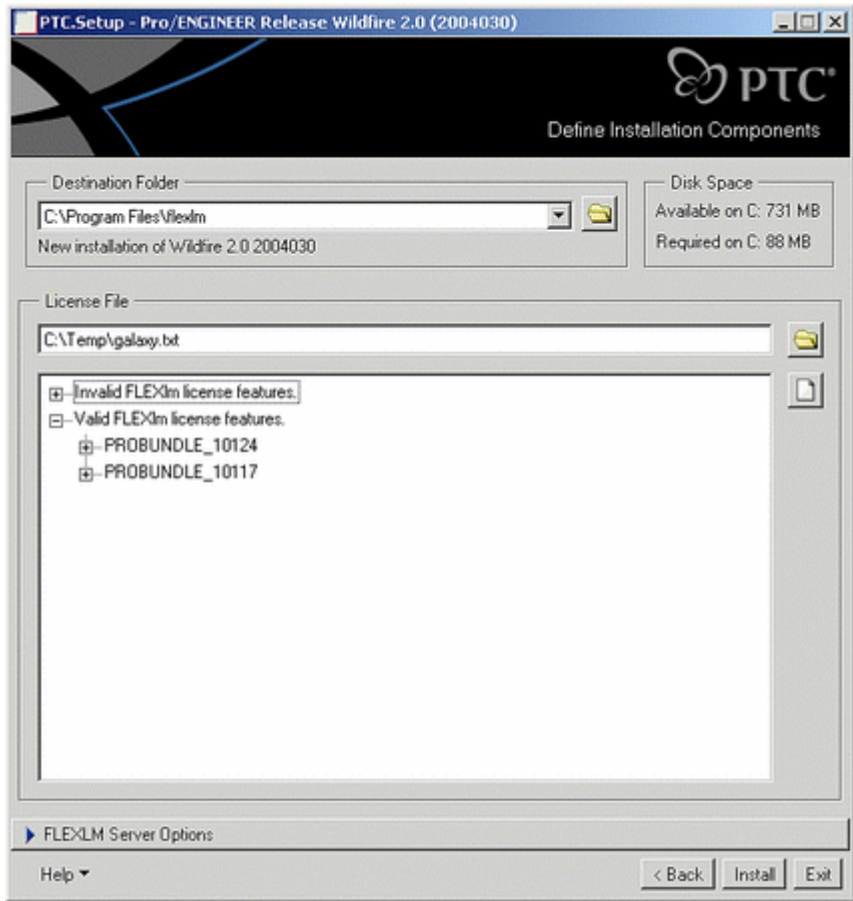
During installation, you can click **Cancel** at any time to stop the installation.

To install PTC License Server, perform the following steps:

1. Obtain an online copy of your License Pack and save your license file as an ASCII file. For more information, see Receiving Your License Pack on page 1-3.
2. Start the PTC.Setup installation utility. The Welcome screen appears followed by the PTC.Setup product selection screen.



3. Click **PTC License Server** to start the installation of *FLEXlm*. The **Define Installation Components** screen appears.



4. Define the following parameters:

- **Destination Folder**—Type a destination folder to install PTC License Server or keep the default value. The destination folder must be new and cannot be an existing folder.

**Note**

On Windows, you can have only one installation of PTC License Server on a machine. When you start installing PTC License Server, PTC.Setup looks for an existing PTC License Server installation. If an installation is found, you are forced to use the existing PTC License Server directory as the installation directory. This ensures that you do not install multiple PTC License Servers on the same machine.

- **Disk Space**—This area displays the available disk space and the space requirements for each component.
  - **License File**—Specify a license file by browsing to the encrypted license file. You can also drag your license file into the **License File** text box. The large box under the **License File** text box displays the information in the license file.
5. Optionally, click **FLEXlm Server Options** to specify the following items:
    - Directory in which you can create links.
    - Server process owner (UNIX only).
    - License server startup options.
    - Command line arguments. This gives the administrator the control over the server processes. See *FLEXlm End Users Guide* for details.
    - Start of the license server if the system is rebooted.
  6. Click **Install** to start the installation of the license server. Upon completion, PTC.Setup starts the license server.

**Exception:** Triad installations require that you configure two other license servers.

**Note**

On Windows systems, the **PTC License Management tools** program is added to the **Start > Programs** menu. For more information, see *Lmtools Utility (Windows Only)* on page B-3.

## Supplying Your License Information

You can use one of the following methods to supply the license information that is specific to your site or individual workstation.

- Import the license information from disk (RECOMMENDED).
- Drag your license file into the **License File** text box.
- Manually enter the license information using a text editor.

After you provide your license information, PTC.Setup automatically saves this file within the *FLEXlm* installation directory.

**Restriction:** Do not combine your PTC license file with license files of other software vendors on the same *FLEXlm* license server. Although *FLEXlm* can handle combined license files, PTC license files use a vendor-specific Host ID making them incompatible with license files

using a FLEXlm Host ID. The PTC.Setup utility reads combined vendor license files as invalid.

**Note**

If you want to manually specify your license file information, click **Back**. For detailed information, see *Entering Your License File Information Manually* on page 3-8.

For FLEXlm triad installations, edit the license file before you install each of the license servers. To do so, type the hostname of each of the triad partner. If this is not done, the license files will be different on each of the three triad partners, resulting in the failure of the license server startup.

## Completing the FLEXlm Installation

The **Installation Progress** screen displays the status of installation. You can also do one of the following operations:

- Click **Cancel** to cancel the installation.
- Click **Back** and review information.
- Click **Next** to install the next selected component.

The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.

Click **Exit** to quit the PTC.Setup installation utility.

## Repeating Steps for Triad Installations

To configure the two other license servers, repeat the aforementioned steps in the sections *Installing PTC License Server* on page 3-3.

**Note**

PTC and Macrovision recommend that the Triad license servers be at the same geographical site and the same subnet. Refer to the *FLEXlm End Users Guide* for further details.

## Verifying License Server Activity

Before configuring your software, verify that PTC.Setup has started the FLEXlm license server by running the `ptcstatus` command on the license server machine. PTC.Setup installed the `ptcstatus` command in the `/bin` directory of the FLEXlm installation directory (for example, on Windows `C:\ptc\flexlm\bin\ptcstatus`). For Triad installations, two of the three partner machines must be configured before the information is displayed in the `ptcstatus` output.

To run the FLEXlm server, you must have Windows administrator or UNIX user privileges. For additional information see Machine-Specific Configuration on page B-3.


Output from the `ptcstatus` utility displays the feature name (for example, `PROE_38265`), a user-defined name or alias if one was supplied, the number of licenses in use, the number of available licenses, and any restrictions (for example, the license is locked to a particular machine).

## Entering Your License File Information Manually

If you do not have an electronic copy of your License Pack, you can enter your license file information manually. To do so, type your license information into the License File Editor directly.

### Using the FLEXlm License Editor

To enter your license codes manually, follow these steps:

1. In the **Define Installation Components** dialog box, click  under **License File**.
2. The **FLEXlm license editor** dialog boxes opens and is empty. You can either import the file or enter each line of your license file in the **FLEXlm license editor**. From the **File** menu, you can:
  - Import your license file from another location.
  - Append the contents in the FLEXlm license editor with a file on your system.
  - Save your license information.
  - Create a copy.

Use the **Open** dialog box to import or append your license file if your license information (ASCII format) is on your system.

3. Alternatively, type each line of your license information as it appears in your PTC License Pack. Replace generic text where appropriate. Start with the line that begins after `#Start: License File for CPUID`. Format the text exactly as shown in the License Pack with justification indents. The text is case-sensitive.

#### Note

You do not have to type any lines that begin with a crosshatch (#). This text in your License Pack is strictly informational.

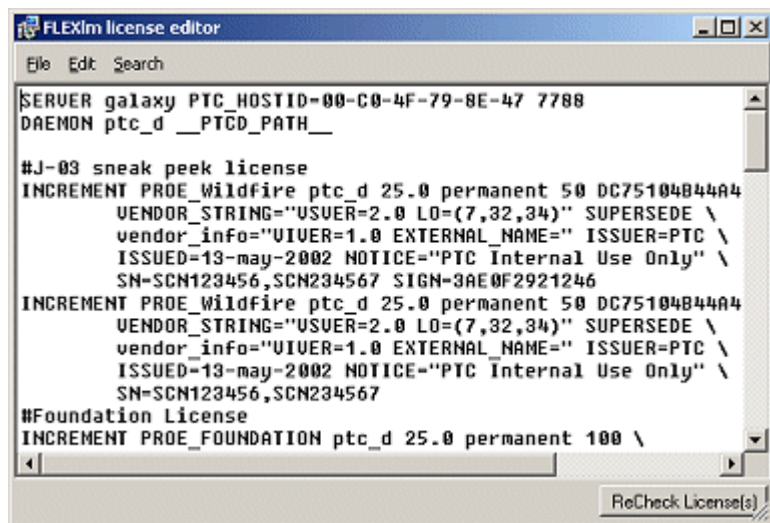
4. If you type them in, PTC.Setup will replace the two generic strings, `__HOSTNAME__` and `__PTCD_PATH__`, including the underscore characters with the correct value after you select **File > Save** from the **FLEXlm license editor**.

In your License Pack, the default server line format is as follows:

```
SERVER __HOSTNAME__ PTC_HOSTID=(Your CPUID) 7788
```

To install PTC License Server, only one vendor daemon line is needed per license server.

When you are finished, the **FLEXlm license editor** should look similar to the next window.



```
FLEXlm license editor
File Edit Search
SERVER galaxy PTC_HOSTID=00-C0-4F-79-8E-47 7788
DAEMON ptc_d __PTCD_PATH__

#J-03 sneak peek license
INCREMENT PROE_Wildfire ptc_d 25.0 permanent 50 DC75104044A4
  VENDOR_STRING="USUER=2.0 LO=(7,32,34)" SUPERSEDE \
  vendor_info="UIVER=1.0 EXTERNAL_NAME=" ISSUER=PTC \
  ISSUED=13-may-2002 NOTICE="PTC Internal Use Only" \
  SN=SCN123456,SCN234567 SIGN=3AEOF2921246
INCREMENT PROE_Wildfire ptc_d 25.0 permanent 50 DC75104044A4
  VENDOR_STRING="USUER=2.0 LO=(7,32,34)" SUPERSEDE \
  vendor_info="UIVER=1.0 EXTERNAL_NAME=" ISSUER=PTC \
  ISSUED=13-may-2002 NOTICE="PTC Internal Use Only" \
  SN=SCN123456,SCN234567
#Foundation License
INCREMENT PROE_FOUNDATION ptc_d 25.0 permanent 100 \

ReCheck License(s)
```

PTC.Setup verifies whether the entered information is correct. If an invalid license is listed, an error message appears. You cannot proceed until all the licenses are listed in the valid license column. For further information, see Appendix D, Troubleshooting Tips.





# 4

## Installing and Starting Pro/ENGINEER

This chapter explains how to install your newly purchased software. The procedures are for new installations only. If you are updating or modifying an installation, refer to Chapter 11, Updating and Modifying an Installation.

You may need to change some machine settings before installing a particular software component. This information is located in the READ THIS FIRST document, which is included with your software package.

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# Installing Pro/ENGINEER

You install Pro/ENGINEER after you have installed PTC License Server. You can install your product software on a license server, a license client, a node-locked machine, or on any combination of these machines.

## **Note**

Usage of uncounted, node-locked licenses does not require PTC License Server.

Four major steps are required for successful installation of your product software:

- Defining your installation components, including the installation directory
- Specifying the location of the license servers or license file
- Defining the command names and attaching available features
- Starting the software

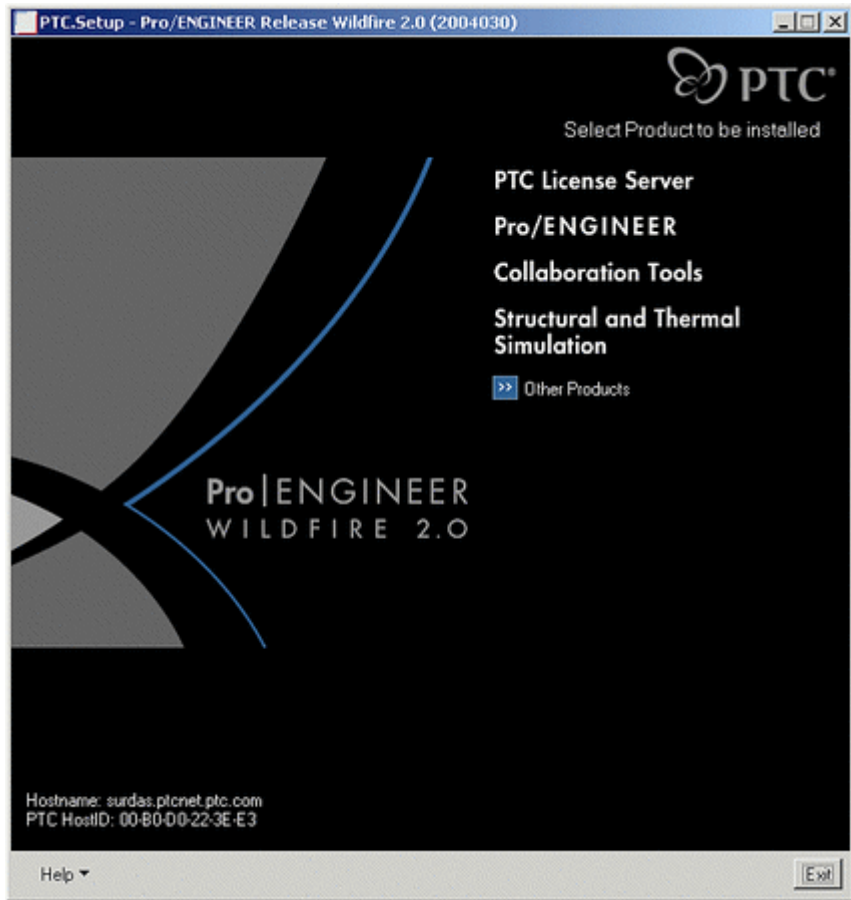
## Upward Compatibility

Pro/ENGINEER is upward compatible. That is, Pro/ENGINEER files (parts, assemblies, drawings) created in a previous release of Pro/ENGINEER can be retrieved and saved using Pro/ENGINEER Wildfire 2.0.

## Defining the Installation Components

1. Insert the product software CD-ROM on your Windows operating system. Insert and mount the product software CD-ROM on your UNIX system. For step-by-step instructions, see Loading and Mounting the CD-ROM on UNIX on page B-8.

The PTC.Setup Welcome screen appears followed by the product selection screen.



2. Click **Pro/ENGINEER**. The **Define Installation Components** screen appears.

At this point, you have installed *FLEXlm* either on the license server or on the license client.

**Note**

When you update to a new release of a PTC product, you must update your License Pack to match the product release.

On UNIX, the **Accept License Agreement** screen appears. Accept the JRE license agreement and click **Next** to proceed. The **Define Installation Components** screen then appears.


3. Define the following installation parameters:


- **Destination Folder**—For new installations, keep the default installation directory, for example, C:\Program Files\proeWildfire2.0, or specify the full path. PTC.Setup creates the specified new directory. You can also select a different installation directory.

For new installations, the directory that you specify must be new or empty.

**Note**

On Windows, you can have only one installation of a Pro/ENGINEER datecode on a machine. If you install the same datecode again, PTC.Setup looks for the existing Pro/ENGINEER datecode installation. If such an installation is found, you are forced to use the existing Pro/ENGINEER installation directory as the installation directory. This ensures that you do not have multiple installations of the same Pro/ENGINEER datecode on the same machine.




- Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Choose the components that you want to install by clicking  next to each of the components. Select one of the following commands from the list:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

**Note**

If a product component has subcomponents, you can install them by selecting **install all sub-features** from the list that appears when you click . The icon  changes to  to indicate that the components will be installed.

The available components are:

**Pro/ENGINEER**—This installs the files necessary to run the software for Pro/ENGINEER Wildfire 2.0.

**Pro/ENGINEER Help Files**—Keep this component to install the Pro/ENGINEER Help files in the product installation directory. To view context-sensitive Help, you must install these HTML files. If you install the Help files in the Pro/ENGINEER load point, you do not have to specify their location. Pro/ENGINEER automatically detects their location when the program is in use.

**Note**

To install the PTC Help files in a common Help directory, go back and select **PTC Help** from **Other Products** in the product selection screen. Selecting PTC Help enables you to install Help in a directory other than the Pro/ENGINEER load point, for example, C:\Program Files\ptchelp\wildfire2.0. You define the common Help directory during the installation of Pro/ENGINEER in the **Help Files Search Path** screen.

**PTC.Setup**—Select this component to install PTC.Setup for reconfiguration of the software after the installation. This utility allows you to make configuration changes without running PTC.Setup from the CD-ROM.

**Options**—Select this component to install ModelCHECK, the required J2RE component, Mold Component Catalog, Pro/Plastic Advisor, Pro/NC-GPOST, VERICUT, and Distributed Pro/BATCH.

**Note**

You can install only the Distributed Pro/BATCH client by selecting **Do not install this feature** for all other components, including Pro/ENGINEER. Make sure to do this if you plan to use Distributed Pro/BATCH with a Distributed Services Manager. In order to use Distributed Pro/BATCH in standalone mode, you must install Pro/ENGINEER.

**API Toolkits**—Select this component to optionally install the files necessary to run the Application Program Interface toolkits like Pro/J.Link, Pro/Web.Link, and Pro/TOOLKIT.

**Interfaces**—Select the various interface tools, specifically the files for Pro/INTERFACE for CADD5, Pro/INTERFACE for CATIA, Pro/CDT, and Pro/FEMPOST.

**Platforms**—Select the platforms, for example, sun4\_solaris\_64. Your machine's architecture is automatically selected as the default platform.

**Languages**—Select the required languages. English is always installed by default. You cannot disable this installation.

**Disk Space**—Consider the available disk space displayed and the required space to install the selected features.

4. Click **Next** after you have selected the components to install and the destination folder.
5. The **Flexlm license servers** screen appears. See the next page.

## Specifying the Location of the License Information

The PTC.Setup installation utility can access your license information on a remote license server or on a local machine. Your next task is to specify the locations of the license servers or license files that you want this installation of your product software to access.

If you attempt to access your license information from a machine without a valid version of *FLEXlm*, an error message tells you to update your license server.

### Note

Pro/ENGINEER Wildfire 2.0 requires *FLEXlm* version 8.4a or later.

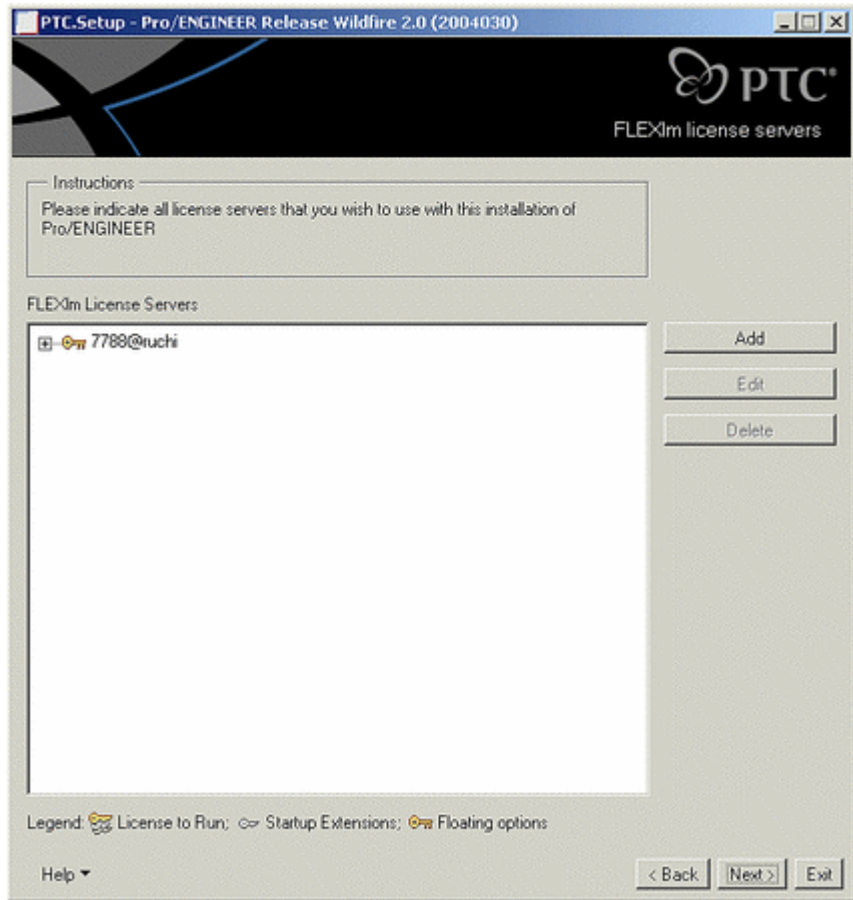
## Specifying the License Server

Depending on the location of your license server, you must provide PTC.Setup with the location of your licensing information.

- If PTC License Server resides on the same machine on which you are installing the software, and you have used the default communications port for the license server, you do not have to specify the license server. PTC.Setup detects the server name and populates the **Flexlm License Servers** list box.
- If PTC License Server resides on a different machine, you must specify the license server. See the sections, *Obtaining a License from a Server or Servers*, and *Obtaining a Locked License from an Individual License File*.

### Note

In order to use Structural and Thermal Simulation (formerly Pro/MECHANICA) with Pro/ENGINEER in integrated mode, you must include the Structural and Thermal Simulation license servers in the list of servers.



## Specifying the License Client

If you are installing the software on a license client without FLEXlm installed, the **Flexlm License Servers** list box is initially blank. To enable this installation to obtain floating licenses from a remote server, you must define the servers that are distributing the licenses. See Obtaining a License from a Server or Servers on page 4-8. If this installation is to read a license file for locked licenses, you must specify the full path to and the name of the license file. See Obtaining a Locked License from an Individual License File on page 4-9.

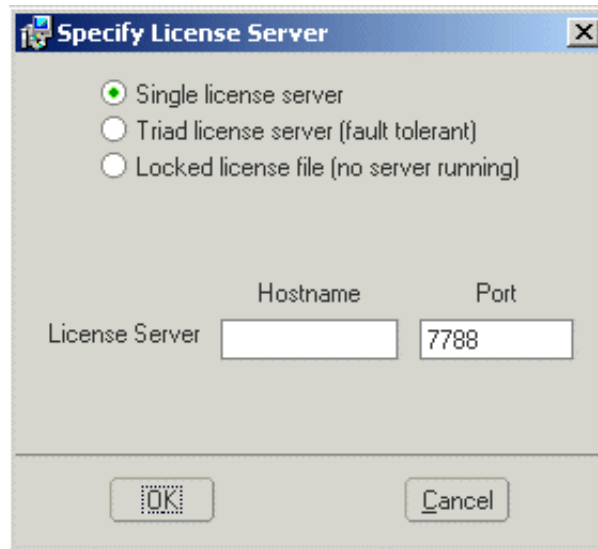
### Note

You cannot run the software without checking out a license. This means that Pro/ENGINEER cannot be installed without a license. Pro/ENGINEER Wildfire 2.0 uses FLEXlm 8.4a as its license server.

## Obtaining a License from a Server or Servers

To obtain a license from a server or servers:

1. Click **Add** in the **Flexlm license servers** screen (see the previous screen). The **Specify License Server** dialog box opens.



2. Click one of the server options and enter the requested information.
  - **Single license server**—Specifies a single server for the licenses. Type the host name and the communications port number if it is different from the default. This information identifies the server, for example, *aberdeen*, from which this installation obtains its license codes.
  - **Triad license server (fault tolerant)**—Specifies a Triad configuration of three Triad partners. As long as two or more partners are running, the licenses are served. If two or more partners are not functioning, the server stops serving the licenses.

Define all three license servers. Each Triad partner server must have the same license file.

### Note

The order of the server list (Triad Partner 1, Triad Partner 2, Triad Partner 3) must be the same on all the three license servers.



PTC recommends that the Triad license servers be at the same site. For further information on redundant license servers, see the *FLEXlm End Users Guide*.

#### **Note**

Do not specify the host name of the client nodes. Specify only the license server that controls usage of the licenses. You can use the **Specify License Server** dialog box to configure the clients to access multiple servers or license files across your network.

- **Locked license file (no server running)**—For locked license files, see the section, Obtaining a Locked License from an Individual License File on page 4-9.
3. Click **OK** to add the server and communications port information to the **Flexlm License Servers** list box. For example, 7788@aberdeen.
  4. Click **Next** to open the **Windows Preferences** screen on Windows and the **Optional Configuration Steps** screen on UNIX.

### Obtaining a Locked License from an Individual License File

To obtain a locked license from an individual license file on your local machine or on the network:

1. Click **Add** in the **Flexlm License Servers** screen. The **Specify License Server** dialog box opens.
2. Click **Locked license file (no server running)**.
3. Perform one of the following actions:
  - Specify the full path to your license file on your local or NFS-mounted disk, for example, C:\Program Files\flex\license.dat.
  - Click the folder icon, navigate the folder hierarchy, and select the correct license file.
4. Click **OK** to add the license file path information to the **Flexlm License Servers** list. The list when expanded displays the license features available on the selected server.
5. Click **Next**. The **Windows Preferences** screen appears if you are working on Windows. On UNIX, the **Optional Configuration Steps** screen appears.

# Configuring a Windows Installation

If you are installing Pro/ENGINEER on Windows, you can choose to do the following optional tasks:

- Add additional license configurations.
- Configure the installation while working with other products.
- Configure Pro/ENGINEER as an Object Linking and Embedding (OLE) server.
- Create Windows shortcuts to start Pro/ENGINEER.
- Configure Pro/ENGINEER distributed services.
- Configure your Remote Batch Server.
- Specify the full path to your Help installation directory. (Specifying the load point and installing the Help files are necessary steps to enable the users of clients to view Help.)

After you complete each optional configuration, click **Next** to proceed.

## Adding License Configurations

Click the **Additional license configurations** check box to create a license configuration. Perform the following steps:

1. Add the additional configurations by clicking **Add** in the **License configurations** dialog box.

The **Select Licenses** dialog box opens. A license configuration called Pro/ENGINEER is always created by default.

### Note

`Configuration Description` is a user-defined label name that is displayed on Pro/ENGINEER startup if you have defined more than one license configuration. `Configuration Name` is a file name (`*.psf`) that stores the license configuration information. You can change this file name if required. Use alphanumeric characters to define the configuration name. `Configuration Description` can contain spaces and other characters that are not allowed in the `Configuration Name`.

The list of all available licenses is displayed under the **Available Licenses** section. These licenses could be of type license to run, startup extensions, or floating options.

2. Specify the licenses by highlighting the required license and moving it to the **Selected Licenses** column. The **Select Licenses** section displays the set of all licenses to run and the startup extensions and floating licenses.

## Enabling Interoperability with Other Products

Click **Configure Other Product Interoperability** to enable interoperability with other products.

- **Pro/INTRALINK integration (optional)**—Specify a path only if you run Pro/INTRALINK on this license client along with Pro/ENGINEER. You can also specify a Pro/INTRALINK startup command. If you specify an existing and valid Pro/INTRALINK directory, you can select a Pro/INTRALINK startup command from the list of available commands. If you have not installed the Pro/INTRALINK client, you can specify the required Pro/INTRALINK installation directory and the required Pro/INTRALINK startup command.
- **Locate Other Installation Locations (optional)**—Specify paths only if you run PTC Application Manager and Structural and Thermal Simulation on this license client in conjunction with Pro/ENGINEER. If none of these optional modules are attached to the command you assigned to start Pro/ENGINEER, you can leave the lines blank or configure them later by rerunning PTC.Setup. If Pro/PHOTORENDER has been purchased as an optional module, enter the full path to the Graphic Library directory.
- If you plan to make Pro/ENGINEER a PTC Object Linking and Embedding (OLE) server and you want to use the startup command with the PTC OLE server, click **Next** to open the **PTC OLE Server** screen.

### Note

You can install both Pro/ENGINEER and Mechanica in the same installation session. In such a case, if you have already installed Pro/ENGINEER, the Mechanica load point value is automatically used in the Pro/ENGINEER load point directory during the installation of Mechanica. If you have already installed Mechanica, the Pro/ENGINEER load point value is automatically used in the Mechanica load point directory during the installation of Pro/ENGINEER. You need not specify a separate directory for Mechanica or Pro/ENGINEER installation.

After you specify your optional input, click **Install**.

The steps, which are optional, vary for Windows and UNIX systems.

## Configuring the PTC OLE Settings

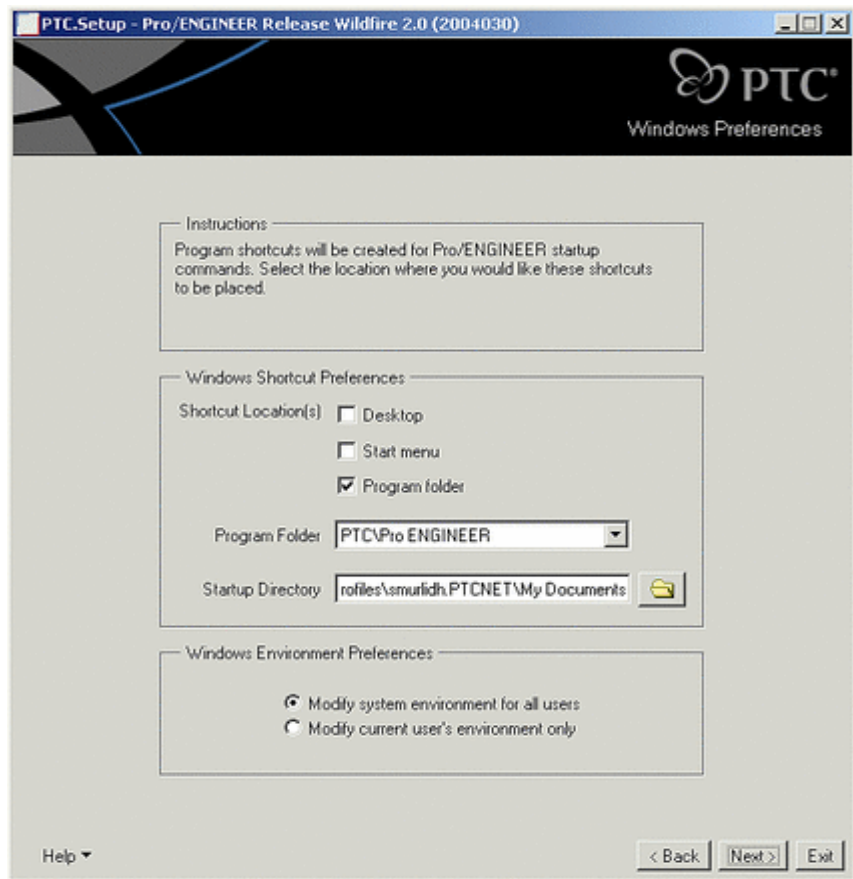
Click **OLE settings** on the **Optional Configuration Steps** screen to configure Pro/ENGINEER as an OLE server. This allows the user of the client application to import Pro/ENGINEER files (parts, assemblies, and drawings) into Microsoft documents (Word, Excel, and Power Point). This does not configure Pro/ENGINEER as an OLE container. That is, you cannot import Microsoft files into Pro/ENGINEER by performing this step. In the **PTC OLE Server** screen, you can:

- Specify the command used to start Pro/ENGINEER.
- Specify the default startup directory for Pro/ENGINEER. Typically, this is the Pro/ENGINEER working directory.
- Keep the Pro/ENGINEER language default unless you plan to use another language.
- Specify the startup directory of the PTC OLE Server. The Microsoft application program (that is, a PTC OLE container) starts searching for PTC objects (for example, Pro/ENGINEER parts) in this directory.
- Keep the PTC OLE Server language default unless you plan to use another language.

## Creating Windows Shortcuts

On Windows, you can configure the Windows shortcut preferences and path settings for Pro/ENGINEER.

You can set the following shortcut preferences:



- **Shortcut Location(s)**—You can start Pro/ENGINEER from the desktop, the **Start** menu, the **Start > Programs** menu, or any combination of these three options.
- **Program Folder**—If you select **Program folder** as the shortcut location, specify the name of the folder and option in the **Programs** menu.
- **Startup Directory**—Specify the name of the Pro/ENGINEER startup directory.

You can set the following Windows environment preferences:

- **Modify system environment for all users**—Sets the system PATH variable for all users on the system.

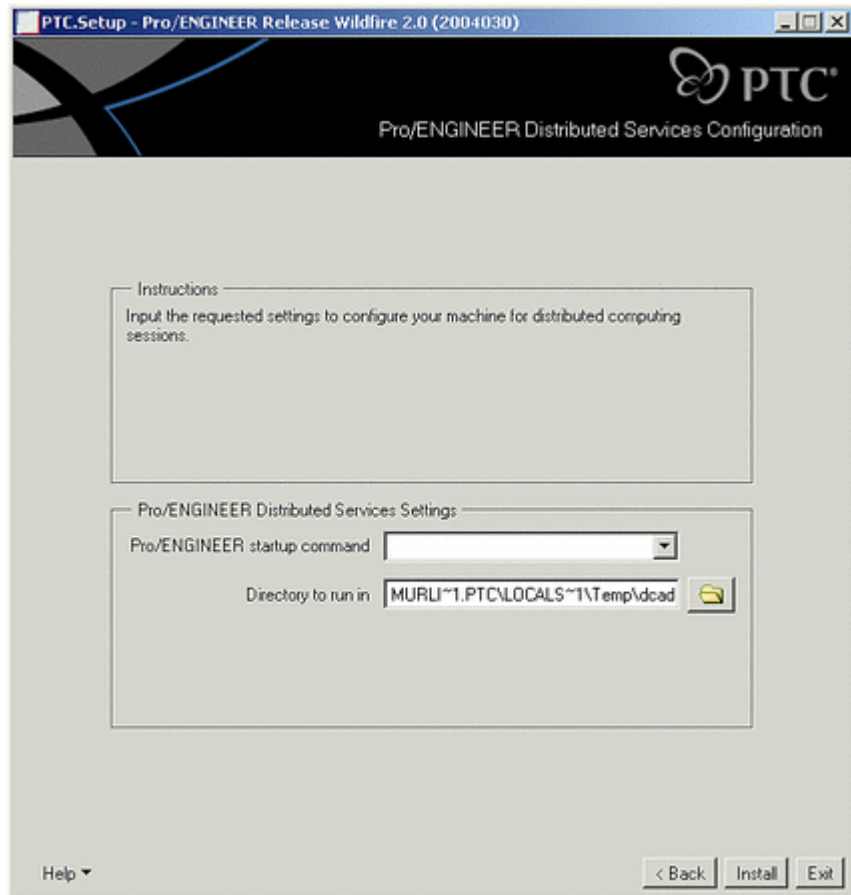
### Note

You must have the administrator privileges to set the system environment variable for all users.

- **Modify current user's environment only**—Sets the user's PATH variable for the current user on the system.

## Configuring Pro/ENGINEER Distributed Services

Click **Pro/ENGINEER distributed services configuration** on the **Optional Configuration Steps** screen to configure your Pro/ENGINEER workstation to participate in distributed processing sessions.



Supply the following information to configure your Pro/ENGINEER workstation to participate in distributed processing sessions:

- The Pro/ENGINEER startup command.
- The directory path to use as a temporary working area for the Distributed Computing Server. The temporary files are created here during a distributed computing session. You can also browse to the required location.

## Configuring Your Remote Batch Settings

Click **Remote batch settings** on the **Optional Configuration Steps** screen to configure the Pro/ENGINEER installation for use as a Remote Toolpath Computation Server. This enables remote batch jobs to be run on this machine. You start the Remote Batch Server after the installation process by running the `rbm_startup` script.

Supply the following information to configure the `rbm_startup` script:

- The Pro/ENGINEER startup command that is used to run remote batch jobs (for example, `proe_rb`).
- The maximum number of Pro/ENGINEER sessions to be started on this machine for processing jobs.
- The frequency of communication (in seconds) between Pro/ENGINEER and the Remote Batch Server.
- The RPC communications port number for communication with machines that are using this installation as a Remote Batch server.
- The directory in which Pro/ENGINEER runs when processing batch jobs.

## Specifying the Location of Your Help Files

### Note

Identifying the location of your Help files is not necessary if you installed the Pro/ENGINEER Help files within the product installation directory.

By selecting **PTC Help** under **Other Products** in the PTC.Setup product selection screen, you can install the Pro/ENGINEER help files in a location other than the Pro/ENGINEER installation directory.

### Note

This procedure identifies the location of the HTML files. It does not install the Help files. In order for the Help and the online reference documentation to be visible from a Web browser, the Help search

paths to the Help installation directory must be supplied here. See Chapter 8, Installing PTC Help for details.

1. Click **Help files search path** on the **Optional Configuration Steps** screen to specify the directory that contains or will contain your product's Help files.
2. In the **Help Files Search Path** screen, specify a common master Help directory, such as C:\Program Files\ptchelpWildfire2.0.
3. Add the Help installation directory by clicking **Add**.
4. Specify the URL to the Help installation directory on your Web server, for example, `http://<servername>/<path>/ptchelpWildfire2.0`. Or, browse to or enter the full path to the load point of a local machine that contains or will contain the product Help files, for example, C:\Program Files\ptchelpWildfire2.0.
5. Click **OK** and **Install**. You can **Edit** and **Delete** this location.

**Note**

Context-sensitive Help for Pro/ENGINEER products is available on the product CD-ROM.

## Configuring a UNIX Installation

Optional configuration steps follow for your installation of Pro/ENGINEER on UNIX systems. You can accept or clear the following items:

- Add additional license configurations.
- Configure the installation while working with other products.
- Create a symbolic link to the commands that start your software.
- Set the Design Conferencing Server.
- Configure Pro/ENGINEER distributed services.
- Configure your Remote Batch Server.
- Specify the full path to your Help installation directory (specifying the load point and installing the Help files are necessary steps to enable clients to view Help).

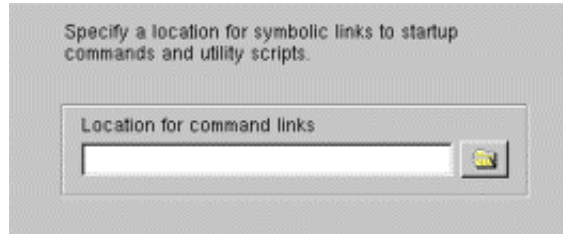
After you complete each optional configuration, click **Next** to proceed.



## Creating Links

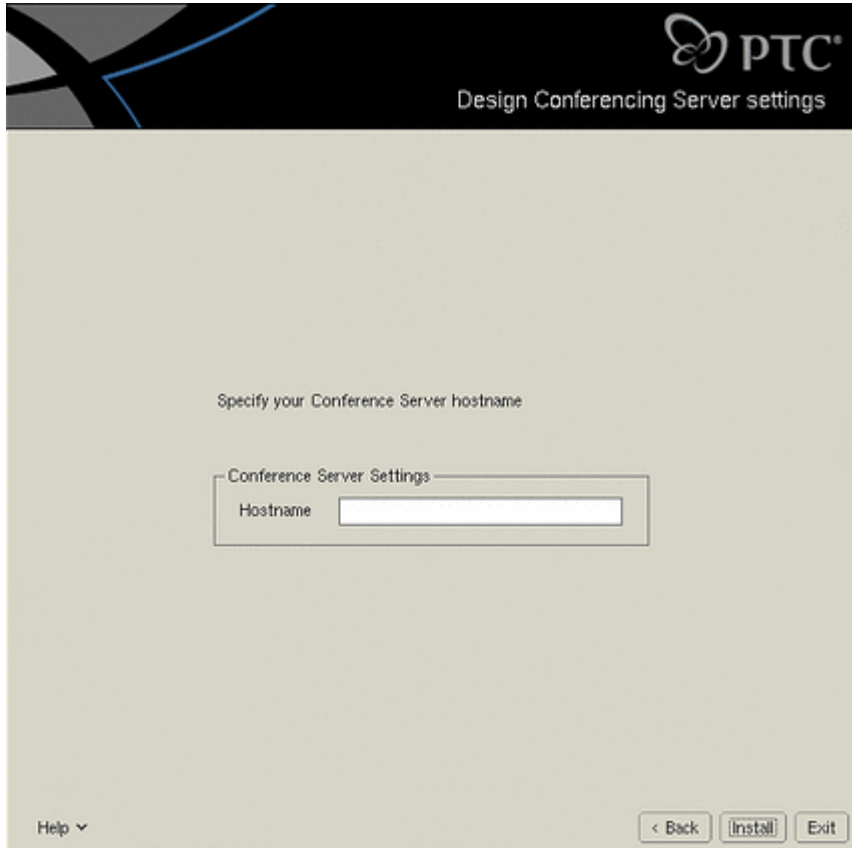
Click **Create links to product startup commands** on the **Optional Configuration Steps** screen to create a link from the /bin directory in your installation directory to another directory on your UNIX system. (If this other directory is in your path environment setting, then simply entering the command name starts Pro/ENGINEER.)

To create a link, use the **Startup Command Links** screen to type the full path or browse to the directory in which you want the link created.

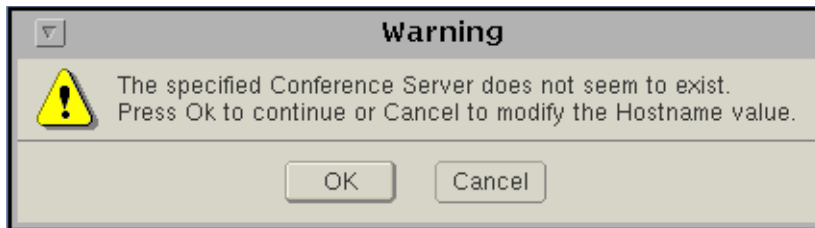


## Setting Up the Design Conferencing Server

Click **Design Conferencing Server settings** on the **Optional Configuration Steps** screen to specify the host name for the Conference Server.



The Conference Server can run on a Windows system only. Thus, on an UNIX system, you need to connect to the Conference Server running on a Windows system. You can do this by specifying the host name of the Conference Server. PTC.Setup validates the host name you specify. If the validation fails, the following error message appears.



You can continue the installation process even if you do not specify a valid host name. For information on installing the Conference server on a Windows system see Chapter 5, *Installing Collaboration Tools (Windows Only)*.

## Completing the Pro/ENGINEER Installation

After you have configured the installation, do one of the following operations:

- Click **Back** and review information.
- Click **Install** to begin installation. The **Installation Progress** window displays the status of the installation.
- Click **Next** to install the next selected component.
- Click **Exit** to exit PTC.Setup.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions. During copying, you may be prompted to insert another CD-ROM. Either insert the CD-ROM or provide the path to the CD-ROM. If the installation fails due to some reason, a `ptcsetup.log` file is created in the `temp` directory that gives a report of all the errors that occurred during installation.

For procedures, see *Specifying the Location of the License Information*, and *Configuring the PTC OLE Settings* discussed earlier in this chapter.

## Configuring Pro/ENGINEER Startup (Windows Only)

When you configure a Pro/ENGINEER startup on Windows, an executable file named `proe.exe` and one or more configuration files (`.psf`) are created for each startup configuration. On Windows, the configuration file contains a section where you can specify and set user-defined environment variables. This user-defined information is preserved during reconfiguration and update installations of Pro/ENGINEER. A configuration file is created when you complete the Pro/ENGINEER installation.

You can run `<loadpoint>\bin\proe.exe` to start the screen that displays a list of the available startup configurations. The screen does not appear if there is only one `.psf` file available in the `bin` directory.

The configuration file is created in the `<loadpoint>\bin` directory.

**Note**

The configuration file must exist only in the <loadpoint>\bin directory.

The startup command is a combination of the startup executable and the configuration file. For example,

```
proe.exe <filename>.psf
```

where <filename> is the name of the configuration file.

Following is a sample configuration file for Windows. The text is the default information that is used when you start Pro/ENGINEER. The bold text following the // USER - PSF section is considered user-defined information. This user-defined information is used when starting Pro/ENGINEER.

## Note

Modify only the last text line of this sample configuration file.

```
// PTC - PSF file: proe
//
ENV=PATH+=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\deflib
ENV=PATH+=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\lib
ENV=PRO_COMM_MSG_EXE=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\
OBJ\pro_comm_msg.exe
ENV=CDRS_DATA=%PRO_DIRECTORY%
ENV=PRO_IMAGE_CONVERTER=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\obj
\convert_image.exe
ENV=PRO_PHOTORENDER=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\obj\PhotoRender.exe
ENV=GALAXYHOME=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%
ENV=SPG_DIRECTORY=%PRO_DIRECTORY%
ENV=PROTABLE_DIRECTORY=%PRO_DIRECTORY%\protable
ENV=PROTAB=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\OBJ\protab.exe
ENV=CLHOME=%PRO_DIRECTORY%\text\pcldata
ENV=CV_ENV_HOME=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\CV102
ENV=LM_LICENSE_FILE=7788@static
ENV=PROE_FEATURE_NAME=PROE_INHOUSE
RUN=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\nms\nmsd.exe -timeout 300
RUN=%PRO_DIRECTORY%%PRO_MACHINE_TYPE%\obj\xtop.exe

// USER - PSF
// Add User specific environment or run applications below here
ENV=DPS_DEBUG=10
```

You can set the value of an environment variable or specify the invocation of a third-party application under the // USER - PSF section of the configuration file.

In the case of UNIX, you cannot edit the .psf files.

## Specifying Environmental Variables

To specify the value of an environmental variable in the configuration file:

- Use the ENV or RUN entry to specify the value of an environment variable or run an external application.

- Use the equal sign (=) following the text ENV to change the existing value of the variable.
- Use the plus and equal to signs (+=) to prefix a value to an existing value of the variable.
- Use the minus and equal to signs (-=) to suffix a value to an existing value of the variable.
- Use the RUN entry to run an external command on startup.

## Using the Configuration File When Running Pro/ENGINEER

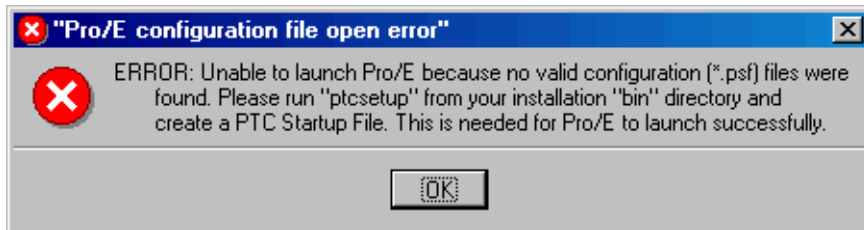
The configuration file is used as an argument when you run the `proe.exe` executable to start Pro/ENGINEER.

### Note

When you run Pro/ENGINEER from the command line, specify the configuration file as the first argument followed by any other argument, such as, a trail file.

If you do not specify the configuration file when running Pro/ENGINEER, a dialog box opens with a list of available configuration files. Select one of these configuration files.

If you run Pro/ENGINEER without creating a configuration file, the following error message appears:



If you create only one configuration file, Pro/ENGINEER uses this configuration file by default.

## Generating a Debug Log File

You can run the `proe.exe` executable in the debug mode by setting the value of the environment variable `APPL_STARTUP_LOG` to `true`. On Windows a debug output log file named `applstarter.log` is created in the `C:\` drive. On UNIX, the debug output log file, `applstarter.log`, is created in the `\tmp` directory. You can also use the `APS_LOG` environment variable to set an alternative log file path.

The debug output log file contains the environment variables that you have set.

## Starting Pro/ENGINEER

After your license management and product software has been installed, start Pro/ENGINEER.

### Windows

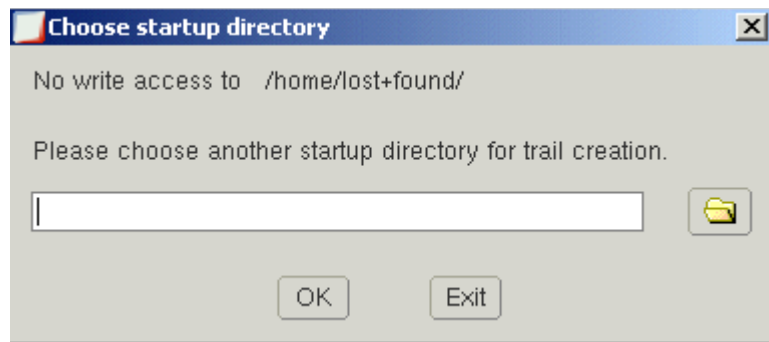
Run Pro/ENGINEER on Windows using the shortcut defined on your desktop or from the **Start** menu click **Programs > Ptc > Pro ENGINEER > proewildfire2.0**.

### UNIX

From a UNIX prompt use `<loadpoint>/bin/proe` to start Pro/ENGINEER or navigate to the Pro/ENGINEER installation directory and run the command that you defined during the installation process. For example, `/opt/ptc/proeWildfire2.0`.

## Directory Permissions to Start Pro/ENGINEER

After you install Pro/ENGINEER, if you start it from a directory without write permissions, the following dialog box opens:



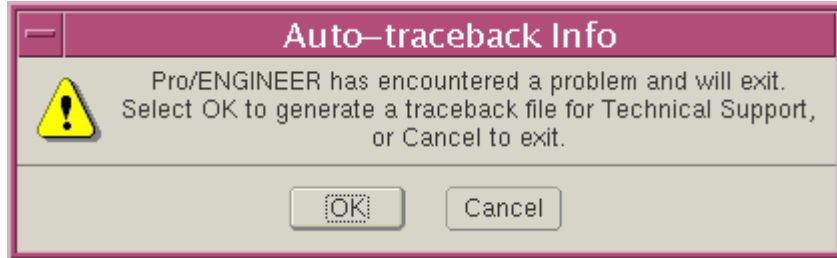
To continue, specify another directory with write permissions. The working directory remains the same, but the trail files are stored in the new working directory that you have specified.

### Note

You cannot start Pro/ENGINEER from a directory without write permissions unless you specify an alternative directory to store the trail files.

## Generating a Traceback Log File

In the event of a premature exit, Pro/ENGINEER can output a stack trace of your last operations if you set the `auto_traceback` configuration option to `yes`. The default value is `no`. By default, this information is stored in the `traceback.log` file in the startup directory. The following dialog box opens to indicate the premature exit of Pro/ENGINEER:



The `traceback.log` file can sometimes be useful to Technical Support to resolve the premature exit issue. If you click **Cancel**, Pro/ENGINEER exits without creating the `traceback.log` file. If you click **OK**, the following dialog box opens:



Pro/ENGINEER exits after creating the `traceback.log` file in the current working directory.

### Note

If you start Pro/ENGINEER from a directory without write permissions, the `traceback.log` file is stored in the directory that you have specified using the **Choose startup directory** dialog box.



## Removing Pro/ENGINEER (Windows Only)

You can remove your Pro/ENGINEER software application through the Control Panel. This procedure is for Windows systems only.

1. From the **Start** menu, click **Settings > Control Panel**.
2. Double-click the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box opens.
3. In the program application list, click the specific release of Pro/ENGINEER you want to remove.
4. Click **Remove**. The **PTC Uninstall** dialog box opens.
5. Click **Uninstall** or **Cancel** to escape. You are presented with a series of confirmation statements asking permission to remove files.
6. Click **Uninstall** to proceed. Upon completion, Pro/ENGINEER is removed.



# 5

## Installing Collaboration Tools (Windows Only)

This chapter explains how to install Collaboration Tools. Collaboration Tools include the PTC Conference Server and the PTC Conference Center, and the Groove software. This chapter also explains how to start the PTC Conference Server and PTC Conference Center.

<b>Topic</b>	<b>Page</b>
Installing Collaboration Tools	5 - 2
Completing the Collaboration Tools Installation	5 - 5
Starting PTC Conference Server	5 - 6
Design Conferencing Licensing Scheme	5 - 7
Removing Collaboration Tools	5 - 8

# Installing Collaboration Tools

To install Collaboration Tools, you must have administrative privileges. Successful installation of your software involves the following steps:

- Defining your installation components, including the installation directory
- Performing optional configuration steps
- Starting the software

## **Note**

On 32-bit Windows systems, install Collaboration Tools on your computer directly using the PTC.Setup utility. On UNIX, Linux, and 64-bit Windows systems, select a remote 32-bit Windows system to install Collaboration Tools. In such a case, you are automatically connected to the PTC Conference Server on the remote Windows system as soon as you start the PTC Conference Center.

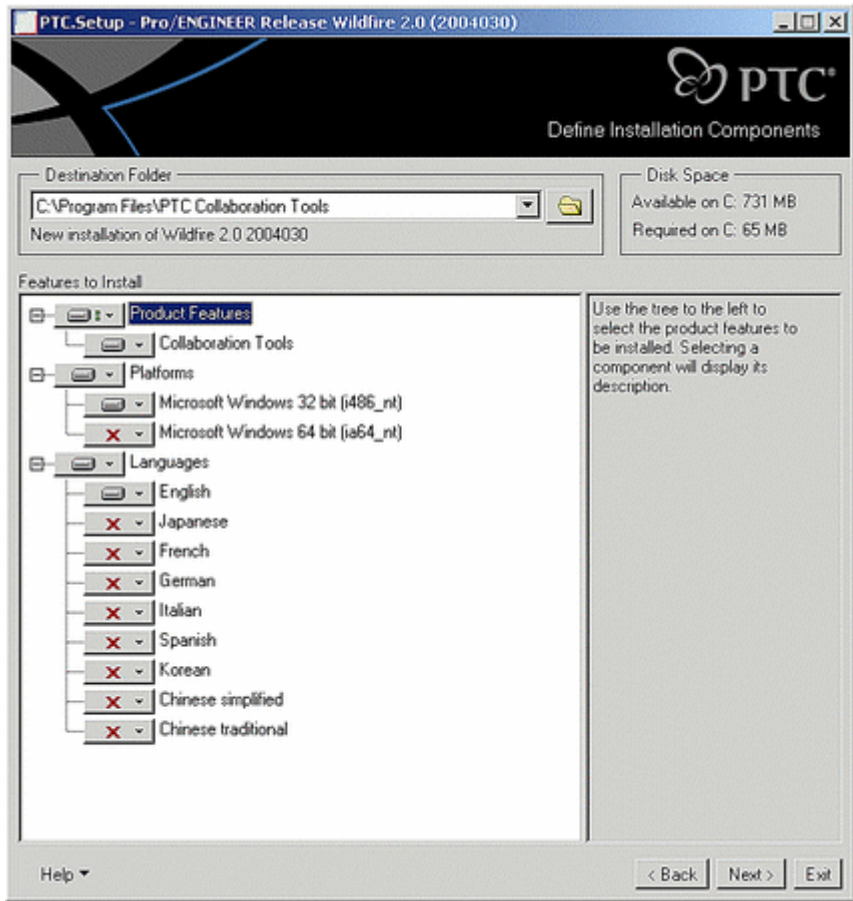
## Defining the Installation Components

To install Collaboration Tools, follow these steps:

1. Start PTC.Setup using the steps in Starting PTC.Setup on page 1-5. During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.
2. Select **Collaboration Tools** from the PTC.Setup product selection screen. The **Define Installation Components** screen appears.

## **Note**

When you perform an update or install a new release of a PTC product, you must update your license information.





3. Define the following parameters:

- **Destination Folder**—For new installations, keep the default installation directory, for example, C:\Program Files\PTC Collaboration Tools, or specify the full path. PTC.Setup creates the specified new directory. You can also select a different installation directory.

**Note**

For 32-bit Windows systems, install Collaboration Tools in a folder where Pro/ENGINEER is not installed.


- Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Choose the components that you want to install by clicking  next to each component. Select one of the following commands from the list:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

**Note**

If a component has subcomponents, you can install them by selecting **install all sub-features** from the list that appears when you click . The icon  changes to  to indicate that the components will be installed.

The available component is **Collaboration Tools**. The disk space required for the product is displayed. For new installations, the directory must be new or empty.

**Platforms**—Select the platform for the installation. Your machine's architecture is automatically selected as the default platform.

**Languages**—Select the required languages.

4. Click **Next**. The **Windows Preferences** screen appears.

## Performing Optional Configuration Steps

Setting shortcut preferences and path settings for Collaboration Tools are optional configuration steps.

1. Click **Next** in the **Define Installation Components** screen to open the **Windows Preferences** screen.
2. Set the following shortcut preferences:
  - **Shortcut Location(s)**—You can start Collaboration Tools from the **Desktop**, the **Start** menu, the **Program** menu, or any combination of these three options.
  - **Program Folder**—If you select **Program Folder** as the shortcut location, select the name of the folder from the **Program Folder** list.
  - **Startup Directory**—Specify the name of the Collaboration Tools startup directory.

3. Set the following Windows environment preferences:
  - **Modify system environment for all users**—Sets the system PATH variable for all users on the system.
  - **Modify current user's environment only**—Sets the user's PATH variable for the current user on the system.
4. Click **Install**. The **Installation Progress** screen appears.

## Completing the Collaboration Tools Installation

When you see the **Installation Progress** screen, you can also do one of the following operations:

- Click **Cancel** to stop the installation.
- Click **Back** to review information.
- Click **Exit** to quit the PTC.Setup installation utility.

During installation of Collaboration Tools, you are prompted to install the Groove software. See the next section, Installing Groove.

## Installing Groove

During the installation process of the Conference Server, a Groove Wizard appears. The Groove software enables the peer-to-peer connectivity and the security functions of Collaboration Tools.

1. Click **Next** to continue the installation of Groove software.
2. Click **Next** to create the default destination folder. Or, click **Browse** to select a different destination folder.
3. Click **Next** to create the user data folder. Or, click **Browse** to select a different folder.
4. Click **Next** to create the system data folder. Or, click **Browse** to select a different folder. The **Installation Options** screen appears.
5. Choose one or more of the following installation options:
  - **Install Groove for All Users**—Allows all users to run the Groove software.
  - **Add Groove to Desktop**—Creates a shortcut for Groove software on your desktop.
6. Click **Next**.
7. Specify the Program folders. Click **Next**.

8. The **Check Setup Information** screen appears with the installation information for the Groove software. Click **Back** to go to the previous windows and change the installation settings. Click **Next**.

The **Setup Status** screen appears and displays the status of the installation.

9. Click **Finish** on the **Groove Setup** screen to complete the installation of Groove software.
10. After you have configured the installation, do one of the following in the PTC.Setup installation utility:
  - Click **Back** and to review the information that you have specified earlier.
  - Click **Install** to begin installation. The **Installation Progress** window displays the status of the installation. Click **Cancel** to stop the installation.
  - Click **Next** to install the next selected component.
  - Click **Exit** to quit PTC.Setup.

**Note**

PTC recommends that you use the version of Groove software supplied with the PTC software. PTC does not support the updating of the Groove software outside the PTC.Setup installation utility.

If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.

## Starting PTC Conference Server

The PTC Conference Server starts when you start the PTC Conference Center in one of the following ways:

- Start the standalone PTC Design Conferencing application using the shortcut on your Windows desktop. From the Windows **Start** menu, click **PTC > Collaboration Tools > Conference Center**.
- From a Pro/ENGINEER session, click **Applications > Conference**.

When you start the PTC Conference Center, it looks for a PTC Conference Server. If the PTC Conference Server does not start, do one of the following:

- On UNIX, select a remote server.
- On Windows, start the server locally.



# Design Conferencing Licensing Scheme

A license extension, called `Collaboration_Extension` (DCX), is bundled with the Pro/ENGINEER license.

A Design Conferencing Participant (DCP) License is also available, which allows you to participate in a shared session without using the collaboration license extension.

You can configure a Pro/ENGINEER startup command to include the collaboration license extension. With this license, you have full access to the PTC Conference Center, shared spaces within a Pro/ENGINEER session, and the ability to initiate shared Pro/ENGINEER sessions.

Within a conference session, the collaboration extension license is verified when you take one of the following actions:

- Start a Pro/ENGINEER session.
- Browse through the shared spaces.

To release the collaboration extension license, you must close the Pro/ENGINEER session or exit the conference.

## Design Conferencing Participant License

The Design Conferencing Participant (DCP) license allows you to do the following:

- Use the PTC Conference Center to access the basic features of Design Conferencing.
- Join and participate in a Pro/ENGINEER shared session that is initiated by a participant with a DCX license.

Restrictions for Design Conferencing Participants follow:

- You cannot initiate a shared session of Pro/ENGINEER but can join a session of an initiator with the DCX license.
- You can participate in a shared session only when the DCX license of the initiator is added to the conference license pool.
- You cannot start Pro/ENGINEER outside the shared session that you have joined. In such a case, an error message is displayed.
- The Pro/ENGINEER shared session ends with a warning message when all the participants with DCX licenses have left the shared session.

## Removing Collaboration Tools

You can remove Collaboration Tools through the Control Panel. This procedure is for Windows systems only.

1. Exit all the applications running on your system and check if you are still running the Conference Server.
2. From the **Start** menu, click **Settings > Control Panel**.
3. Double-click the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box opens.
4. In the program application list, click the release of Collaboration Tools you want to remove.
5. Click **Remove**. The **PTC Uninstall** dialog box opens.
6. Click **Uninstall** or **Cancel**. You are presented with a series of confirmation statements asking permission to remove files.
7. Click **Uninstall** to proceed. The Collaboration Tools are removed.

## Uninstalling Groove

When you uninstall the Collaboration Tools, the Groove uninstaller is also started.

### **Note**

Do not uninstall the Groove software by selecting the **Groove uninstall** command on the **Add/Remove programs** window. It must be uninstalled along with the Collaboration Tools.

When the Groove software is uninstalled correctly, the account information along with shared spaces is preserved.

# 6

## Installing Structural and Thermal Simulation

This chapter explains how to install the Structural and Thermal Simulation product powered by Mechanica. The procedures are for new installations only. You may need to change some machine settings before installing a particular software component. This information is located in the READ THIS FIRST document, which is included with your software package. For information on supported platforms and configurations, refer to [www.ptc.com/partners/hardware/current/support.htm](http://www.ptc.com/partners/hardware/current/support.htm).

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# Installing Structural and Thermal Simulation

To install Structural and Thermal Simulation (Mechanica), you need licensing information from PTC. If you plan to run the software in the integrated mode, it is assumed that you have already obtained licensing information while installing Pro/ENGINEER. If you plan to run it independently, see Chapter 3, Installing PTC License Server, to learn how to install PTC License Server.

You can install your product software on a license server, a license client, a node-locked machine, or on any combination of these machines.

## Note

Usage of uncounted node-locked licenses does not require PTC License Server.

Following are the major steps required for successful installation of your software:

- Defining your installation components, including the installation directory

## Note

You can install both Pro/ENGINEER and Mechanica in the same installation session. In such a case, if you have already installed Pro/ENGINEER, the Mechanica load point value is automatically populated in the Pro/ENGINEER load point directory during the installation of Mechanica. You need not specify a separate directory for Mechanica installation.

- Specifying the location of the license server or servers or license file
- Starting the software

## Note

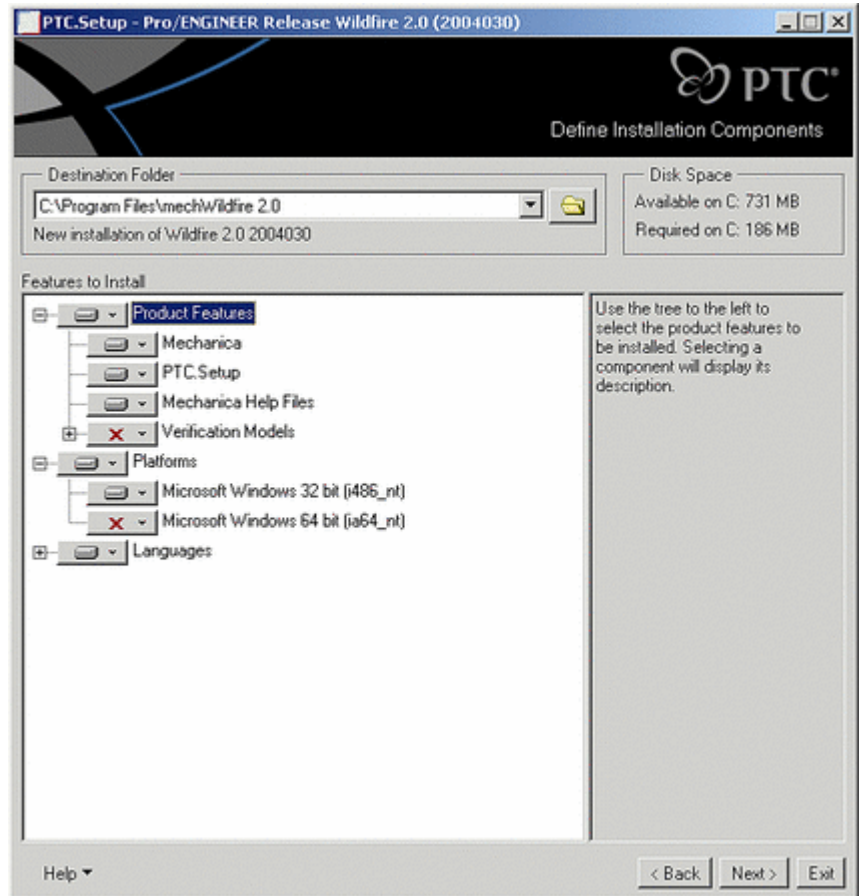
If you use Structural and Thermal Simulation in the integrated mode, you must configure the Pro/ENGINEER command by specifying the respective Mechanica directory path. If you have not defined the directory path in the **Product Interoperability Configuration Screen** while installing Pro/ENGINEER, you can specify it now by rerunning the PTC.Setup installation utility. See Enabling Interoperability with Other Products on page 4-11 for further details.


## Defining the Installation Components


1. Start PTC.Setup using the steps outlined in Starting PTC.Setup on page 1-5. The PTC.Setup product selection screen appears with a list of products.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

2. Click **Structural and Thermal Simulation**. The **Define Installation Components** screen appears.






3. Specify the following parameters:
  - **Destination Folder**—For new installations, keep the default installation directory (for example, C:\Program Files\mechWildfire2.0) or specify the full path. PTC.Setup creates the specified directory. You can also select a different installation directory. For new installations, the directory that you specify must be new or empty.
  - Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Define the components that you want to install by clicking  next to each component. Select one of the following commands from the list:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

**Note**

If a product component has subcomponents, you can install them by selecting **install all sub-features** from the list that appears when you click . The icon  changes to  to indicate that the components will be installed.

Select the following Structural and Thermal Simulation components that you want to install:

**Mechanica**

**PTC.Setup**

**Mechanica Help Files**

**Verification Models**

The Mechanica, PTC.Setup, and Mechanica Help Files components are selected by default. When you select a component, the list of subcomponents appear along with the required disk space. Some products may not have subcomponents.

**Platforms**—Select the platform for the installation. Your machine's architecture is automatically selected as the default platform.

**Languages**—Select the required languages.

4. Click **Next** after you have selected the components. The **Flexlm license servers** screen appears.

## Specifying the Location of the License Server or File

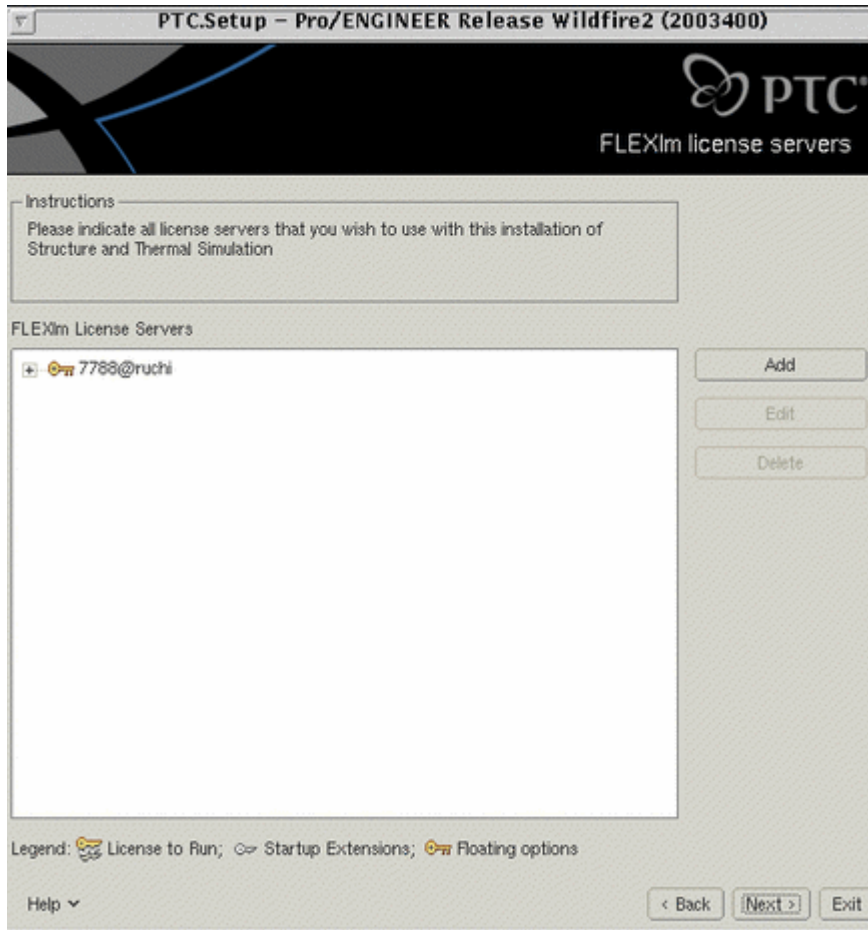
The PTC.Setup installation utility can access your license information on a remote license server or on a local machine. Your next task is to specify the locations of the license servers or license files that you want this installation of your product software to access.

If you access your license information from a machine without a valid version of PTC License Server, an error message tells you to update the license server. Refer to the READ THIS FIRST document for the latest information about the PTC License Server.

### Specifying the License Server

Depending on the location of PTC License Server, provide PTC.Setup with the location of your licensing information.

- If PTC License Server resides on the same machine on which you are installing the software, and you have used the default communications port for the license server, you do not have to specify the license server. PTC.Setup detects the server name and populates the **Flexlm License Servers** list box of the following screen.
- If PTC License Server resides on a different machine, you must specify the license server. See the sections, *Obtaining a License from a Server or Servers* on page 6-7, and *Obtaining a Locked License from an Individual License File* on page 6-9.



If PTC License Server resides on a different machine, you must specify where this installation can obtain its licensing information. See the sections Obtaining a License from a Server or Servers and Obtaining a Locked License from an Individual License File.

In order to use Structural and Thermal Simulation in integrated mode with Pro/ENGINEER, you must include the Pro/ENGINEER license servers in the list of servers.

### Specifying the License Client

If you are installing the software on a license client without PTC License Server installed, the **Flexlm License Servers** section is initially blank. To enable this installation to obtain floating licenses from a remote server, you must define the servers that are distributing the licenses.



See Obtaining a License from a Server or Servers on page 6-7. If this installation is to read a license file for locked licenses, you must specify the full path to and the name of the license file. See Obtaining a Locked License from an Individual License File on page 6-9.

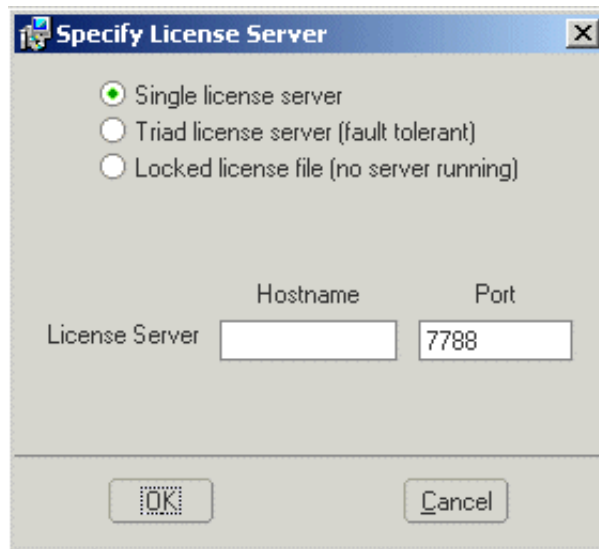
**Note**

Structural and Thermal Simulation cannot be installed without a license. It uses FLEXlm as its license server.

## Obtaining a License from a Server or Servers

To obtain a license from a server or servers:

1. Click **Add** in the **Flexlm License Servers** screen. The **Specify License Server** dialog box opens.



2. Click one of the server options and enter the requested information.
  - **Single license server**—Specify a single server for the licenses. Enter the host name and the communications port number if it is different from the default. This information identifies the server, for example, *aberdeen*, from which this installation obtains its license codes.
  - **Triad license server (fault tolerant)**—Specify a Triad configuration of three Triad partners. As long as two or more partners are running, the licenses are served. If two or more Triad partners are not functioning, the server stops serving the licenses.

Define all three license servers. Each Triad license server must have the same license file.

**Note**

The order of the server list (Triad Partner 1, Triad Partner 2, Triad Partner 3) must be the same on all the three license servers.

PTC recommends that the Triad license servers be at the same site. For further information on redundant license servers, see the *FLEXlm End Users Guide*.

**Note**

Do not specify the host name of the client nodes. Specify only the license server that controls usage of the licenses. You can use the **Specify License Server** dialog box to configure the clients to access multiple servers or license files across your network.

- **Locked license file (no server running)**—For locked license files, see the section, *Obtaining a Locked License from an Individual License File* on page 6-9.
3. Click **OK** to add the server and communications port information to the **Flexlm License Servers** section. For example, *7788@aberdeen*.
  4. Click **Next**. The **Optional Configuration Steps** screen appears. Further steps are optional and vary for Windows and UNIX systems.

**Note**

On Windows, you can configure the Windows shortcut preferences and path settings for Structural and Thermal Simulation.

## Obtaining a Locked License from an Individual License File

To obtain a locked license from an individual license file on your local machine or on the network:

1. Click **Add** in the **Flexlm license servers** dialog box. The **Specify License Server** dialog box opens.
2. Select the **Locked license file (no server running)** option (see previous dialog box).
3. Perform one of the following actions:
  - Specify the full path to your license file on your local or NFS-mounted disk, for example, `C:\Program Files\flex2001\license.dat`.
  - Click the folder icon, navigate the folder hierarchy, and select the correct license file.
4. Click **OK** to add the license file path information to the **Flexlm License Server** section of the **Flexlm license servers** screen.
5. Click **Next**. The **Optional Configuration Steps** screen appears on UNIX and the Windows Preferences screen appears on Windows. Further steps are optional and vary for Windows and UNIX systems.

## Configuring a Windows Installation

The following input is optional when you configure your installation on Windows systems. You can:

- Specify additional license configuration.
- Create Windows shortcuts to start Structural and Thermal Simulation.
- Specify the full path to your Help installation directory (specifying the load point and installing the Help files are necessary steps to enable the users of clients to view Help). See the next section for details.
- Specify the executable file for the Web browser to display Help if Internet Explorer does not start.

## Specifying the Location of Your Help Files

### Note

Identifying the location of your Help files is not necessary if you installed the Mechanica Help files within the product installation directory.

By choosing **PTC Help** under **Other Products** in the PTC.Setup product selection screen, you can install the Mechanica Help files in a location other than the Mechanica installation directory.

### Note

This procedure identifies the location of the HTML files. It does not install the Help files. In order for the Help and the online reference documentation to be visible from a Web browser, the Help search paths to the Help installation directory must be supplied here. See Chapter 8, Installing PTC Help for details.

1. Click **Help files search path** on the **Optional Configuration Steps** screen. In the **Help Files Search Path** dialog box, specify the directory that contains or will contain your product's Help files. You can specify a common master Help directory, such as `C:\Program Files\ptchelpWildfire2.0`.
2. Add the Help installation directory by clicking **Add**.
3. Type the URL to the Help installation directory on your Web server, for example, `http://<servername>/<path>/ptchelpWildfire2.0`. Or, browse to or enter the full path to the load point of a local machine that contains or will contain the product Help files (for example, `C:\Program Files\ptchelpWildfire2.0`).
4. Click **OK** and **Install**. You can **Edit** or **Delete** this location.

### Note

Context-sensitive Help for Mechanica products is available on the product CD-ROM.

## Configuring a UNIX Installation

The following input is optional when you configure your installation on UNIX systems. You can:

- Create a symbolic link to the commands that start your software.
- Specify the full path to the PTC Application Manager.

- Specify the full path to your Help installation directory (specifying the load point and installing the Help files are necessary steps to enable clients to view Help). See Specifying the Location of Your Help Files on page 6-10.
- Specify any additional license configuration.
- Specify the location of your Web browser executable file that you want to use to display Help.

For step-by-step instructions, see Configuring a UNIX Installation on page 4-16.

## Completing the Installation

The **Installation Progress** screen displays the status of installation. You can also do one of the following operations:

- Click **Cancel** to cancel the installation.
- Click **Back** and review information.
- Click **Next** to install the next selected component.

The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.

Click **Exit** to quit the PTC.Setup installation utility.

## Starting Structural and Thermal Simulation

After your license management and software has been installed, start Structural and Thermal Simulation. The method that you use to start Mechanica depends on the platform and the operating mode.

### Windows

To work in the integrated mode, double-click the icon that starts Pro/ENGINEER. After Pro/ENGINEER opens, activate a part or an assembly and click **Applications > Mechanica**. To work in the independent mode, use the shortcut defined in the program group by double-clicking on the associated icon. The shortcuts are defined as `mstruct` for Structure and `mtherm` for Thermal.

## UNIX

To work in the integrated mode, start Pro/ENGINEER by entering the command name that you defined during the installation process. After Pro/ENGINEER opens, activate a part or an assembly and click **Applications > Mechanica**. To work in the independent mode, from a UNIX prompt, type the appropriate command name. Use the commands `mstruct` for Structure and `mtherm` for Thermal.

## Removing Structural and Thermal Simulation (Windows Only)

You can remove your Structural and Thermal Simulation software through the Control Panel on Windows systems. To do so, follow these steps:

1. From the **Start** menu, click **Settings > Control Panel**.
2. Double-click the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box opens.
3. In the program application list, highlight the specific release of Structural and Thermal Simulation that you want to remove.
4. Click **Remove**. You see the **PTC Uninstall** dialog box.
5. Click **Uninstall** or **Cancel** to escape. You are presented with a series of confirmation statements asking permission to remove files.
6. Click **Uninstall** to proceed. Structural and Thermal Simulation is removed.

# Installing PTC Application Manager (UNIX Only)

This chapter explains how to install PTC Application Manager and application libraries of models and textures on a UNIX system. The PTC Application Manager utility installs a toolbar for easy access to your desktop applications when using Pro/ENGINEER.

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# Installing PTC Application Manager

PTC Application Manager is a toolbar utility on your UNIX system. Similar to the Windows **Start** menu, PTC Application Manager provides a menu that enables you to easily start and close applications on UNIX systems. You can configure the menu to include any application, including applications that are not developed by PTC. One key benefit is that Application Manager can be configured to activate Pro/ENGINEER from Pro/INTRALINK.

PTC Application Manager includes a menu command for each application it starts, giving you easy access on your desktop to those applications.

## Note

To view PTC Application Manager in a language other than English, you must set the language variable before installing your software. For more information, see Setting Language Defaults on page B-20.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

## Note

After installation, the optional settings can be reconfigured from the PTC Application Manager's **Start > Preferences** menu.

1. Under **Other Products**, click **PTC Application Manager** from the PTC.Setup product selection screen.
2. The **Define Installation Components** screen appears.
3. Define the following:
  - **Destination Folder**—For new installations, keep the default installation directory, for example, `/opt/ptc/appmgrWildfire2.0`, or specify the full path. PTC.Setup creates the specified new directory. You can also select a different installation directory.  
  
For new installations, the directory that you specify must be new or empty.
  - **Features to install**—Select the components and the subcomponents to install for PTC Application Manager.
  - **Platforms**—Select the platform for the installation. Your machine's architecture is selected as the default platform.
  - **Languages**—Select the required languages.
4. Click **Next**. The **Configure Application Manager Settings** screen appears.



# Configuring PTC Application Manager

You can optionally create Application Manager **Start** menu commands and customize settings when you configure PTC Application Manager. Each PTC.Setup tab lets you configure a different aspect of your PTC Application Manager installation.

To add or delete the names of programs from the **Start** menu after installing the PTC Application Manager,

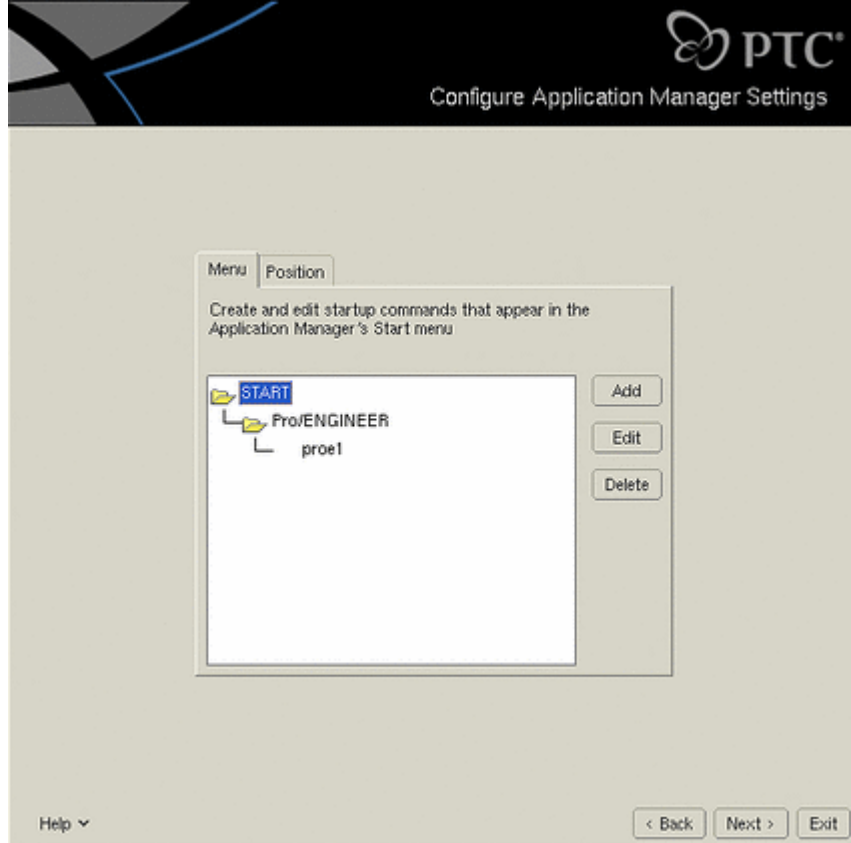
1. Click **Preferences**. The **PTC Application Manager** dialog box opens.
2. The Start menu page lists commands for the PTC Application Manager Start menu. Use the following commands to configure the Start menu:

Command	Action
<b>New Command</b>	Prompts for the name of a program or a command script. Adds that name to the list of available programs.
<b>Modify Command</b>	Modifies the name of the program on the list.
<b>Delete Command</b>	Deletes the selected program from the list.
<b>Apply</b>	Applies the changes to the PTC Application Manager for the current session.
<b>OK</b>	Saves changes to <code>config.apm</code> , a configuration file that preserves the list for later sessions.

You can do the configuration dynamically when you start PTC Application Manager.

## Creating Start Menu Commands

You can add the startup commands for the Application Manager **Start** menu (for example, the command `proeWildfire2.0`). With these commands, you can start and close applications easily using Application Manager.



1. Click **Add** in the **Configure Application Manager Settings** screen. The **Application Manager Configuration** dialog box opens.
  - a. In the **Type** box, keep Pro/ENGINEER (default) or choose another product from the list.
  - b. In the **Label** box, type the text you want to appear in the **Start** menu of the Application Manager.
  - c. In the **Command line** box, browse to or type the full path and the name of the command that you want the label to execute (for example, C:\ptc\proe\bin\proe.bat). This command executes the specified license and product type.

2. Click **OK** in the **Application Manager Configuration** dialog box. You can **Edit** or **Delete** existing commands.

**Note**

After installation, you can add, modify, and delete commands from the Application Manager **Start > Preferences** menu.

## Customizing the Application Manager Location

You can customize the appearance of PTC Application Manager as follows:

1. Click the **Position** tab as seen in the figure on the previous page, to customize the position of the PTC Application Manager.
2. Specify where you want the toolbar to appear on your desktop: horizontal top, horizontal bottom, vertical left, or vertical right.

## Using Auto Hide

You can also activate **Auto Hide** to display the Application Manager as a thin line. The Application Manager reappears when you move the pointer over the thin line.

## Specifying Optional Configurations

After you have configured PTC Application Manager, you can specify the optional configuration steps as follows:

1. Click **Next** in the **Configure Application Manager Settings** screen to open the **Optional Configuration Steps** screen.
2. Click the **Create links to product startup commands** checkbox.
3. Click **Next** and specify a location to store the command links and utility scripts.

## Completing PTC Application Manager Installation

After you have configured the installation, do one of the following operations:

- Click **Back** to review the information that you have specified earlier.
- Click **Install** to begin installation. The **Installation Progress** screen displays the status of the installation.

- Click **Next** to install the next selected component.
- Click **Exit** to exit PTC.Setup.

During installation, you can click **Cancel** in the **Installation Progress** screen at any time to stop the installation.

The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.

# 8

## Installing PTC Help

This chapter provides an overview of the Help Center that you receive on the Pro/ENGINEER software CD-ROM. This chapter also explains how to install the Help system by itself rather than with Pro/ENGINEER software.

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# Overview of the Help Center

The Help Center provides quick access to documentation for Pro/ENGINEER in the Pro/ENGINEER browser. The Help Center features:

- Context-sensitive Help organized by functional areas. Structural and Thermal Simulation (Mechanica) information is integrated with the Pro/ENGINEER Help topics.
- PTC Reference Documentation such as the *PTC Customer Service Guide* and the *Pro/ENGINEER Wildfire 2.0 Installation and Administration Guide*. To view and print these PDF books, you must have Adobe Acrobat Reader installed.
- A global search facility and quick links to helpful information.

## Accessing Help

After you install the PTC Help component, you can access Help in an active session of Pro/ENGINEER in the following ways:

- Drag  from the main menu bar to any item on the user interface.
- Click **Help > Help Center**. On the Help Center home page, you can use the menu bar, click a quick link, or click a functional area.

## Viewing the Help Center

In an active session of Pro/ENGINEER, you can view the Help Center in the Pro/ENGINEER browser. Outside Pro/ENGINEER, you can use the Pro/ENGINEER browser or any of the following Web browsers:

- Internet Explorer 6.0 with SP1 or later
- Mozilla 1.4

You can view the Mechanica independent mode help using Netscape 6.2 in addition to the above Web browsers.

## Installing PTC Help

Using PTC.Setup you can install the Help Center in the product installation directory, elsewhere on your system, in a common Help directory, or on a Web server. When you install Pro/ENGINEER, you can install the Help Center in the product installation directory by default (for example, `C:\Program Files\ptchelpWildfire2.0`). See the procedure in Chapter 4, *Installing and Starting Pro/ENGINEER*.

## Installing the Help Center in a Common Help Directory

A common Help installation directory is advantageous when multiple PTC products are used. To install the Help Center in a common Help directory, follow these steps:


1. Start PTC.Setup using the steps outlined in Starting PTC.Setup on page 1-5.


During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

To easily administer many client machines, install the Help Center on a network file server's hard disk. To service remote clients not on the local network, install the Help Center on a Web server's hard disk.

2. Under **Other Products**, click **PTC Help** on the PTC.Setup product selection screen.
3. The **Define Installation Components** screen appears.
4. Define the following parameters:
  - **Destination Folder**—For new installations, keep the default installation directory (for example, `C:\Program Files\ptchelp\wildfire2.0`) listed or specify the full path. PTC.Setup creates the specified new directory. You can also select a different installation directory.

For new installations, the directory that you specify must be new or empty.

- Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Choose the components that you want to install by clicking  next to the appropriate component. Select one of the following commands from the list that appears:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

Available are the Pro/ENGINEER Help files and the Mechanica independent mode Help files.

**Platforms**—Select the platform for the installation. Your machine's architecture is automatically selected as the default platform.

**Languages**—Select the required language.

5. After you have selected your components, click **Install**. The **Installation Progress** screen announces the status of installation. You can also do one of the following operations:
  - Click **Cancel** to cancel the installation.
  - Click **Back** and review information.
  - Click **Next** to install the next selected component.The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.
6. Click **Exit** to quit the PTC.Setup installation utility.

## Installing the Help Center on a Web Server

When installing the Help Center on a Web server, you must place the files within the Web server's document root directory (as specified during the Web server's installation).

Configure your Web server to distribute files from the installation directory as described in the previous section. If you installed the Help Center in the `C:\Program Files\ptchelpWildfire2.0` directory, then point the Web server to that directory and set an alias of your choice.

For example, if you configure a Web server named Titan to distribute `C:\Program Files\ptchelpWildfire2.0` with the alias `/help`, then specify `http://titan/help` as the Help path in the **Help Location** window.



# Installing Pro/Web.Publish

This chapter explains how to install Pro/Web.Publish. With Pro/Web.Publish you can set up your Web server and publish objects you created using Pro/ENGINEER. Installing Pro/Web.Publish is optional.

With Pro/Web.Publish, you can export assemblies, process assemblies, and manufacturing processes to a directory in a Web browser.

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Configuring Your Web Server	9 - 2
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# Overview

Installation of Pro/Web.Publish involves two processes:

1. Configuration of your existing Web server. The procedures differ depending on what kind of Web server you have:
  - Apache Web Server (UNIX)
  - Microsoft Internet Information Server (Windows NT)
  - Microsoft Peer Web Services (Windows NT)
2. Installation of Pro/Web.Publish as a user with write permission to the Web server.

Locate the configuration procedure for your Web server in the following sections and, after configuration, install Pro/Web.Publish.

## Configuring Your Web Server

### **Note**

For all configuration procedures in this section, the variable `<path>` represents the full path to the installation directory for your Web server.

### Apache Web Server

1. After downloading the Apache Web Server ([www.apache.org](http://www.apache.org)), create the following directories in the `apache_x.x.x` directory:
  - `server_root`
  - `home`where `apache_x.x.x` is the directory downloaded from the Apache Web site.
2. Copy the `conf` directory from the `apache_x.x.x` directory into the `server_root` directory created in the previous step.

- In the `server_root/conf` directory, create copies of the configuration files as indicated in the following table. The original file and the copy must both reside in the `server_root/conf` directory.

Name of the Original File	Name of the Copied File
<code>httpd.conf-dist</code>	<code>http.conf</code>
<code>access.conf-dist</code>	<code>access.conf</code>
<code>srm.conf-dist</code>	<code>srm.conf</code>

- Edit the `http.conf` file according to your user status.

As a root user, locate the following lines:

```
User nobody
Group #-1
```

Replace `nobody` with `root` and replace  `#-1` with `sys` for the previous lines.

As a nonroot user, locate the following line:

```
Port 80
```

Replace `80` with a free communications port number that is greater than `1023` for the previous line.

- Use a text editor to replace configuration lines in your `http.conf` file as indicated in the following table. Save the file.

Line	Text to Replace	Text Replacement
<code>ServerAdmin you@your.address</code>	<code>you@your.address</code>	The administrator's electronic mail address
<code>ServerRoot /usr/local/etc/httpd</code>	<code>/usr/local/etc/httpd</code>	The full path to your server_root directory (.../apache_x.x.x/server_root)
<code>#ServerName new.host.name</code>	<code>new.host.name</code>	The server host name

- Use a text editor to replace configuration lines in your `access.conf` file as indicated in the following table. Save the file.

Line	Text to Replace	Text Replacement
<code>&lt;Directory&gt; /usr/local/etc/httpd/ htdocs</code>	<code>/usr/local/etc/httpd/ htdocs</code>	The full path to the home directory created in step 1
<code>&lt;Directory&gt; /usr/local/etc/httpd/ cgi-bin</code>	<code>/usr/local/etc/httpd/ cgi-bin</code>	The full path to the <code>cgi-bin</code> subdirectory in the Apache Web Server directory

- Use a text editor to replace configuration lines in your `srml.conf` file as indicated in the following table. Save the file when you have finished editing it.

Line	Text to Replace	Text Replacement
<code>&lt;Directory&gt; /usr/local/etc/httpd/ htdocs</code>	<code>/usr/local/etc/httpd/ htdocs</code>	The full path to the home directory created in step 1
<code>#ScriptAlias /cgi-bin/ /usr/local/etc/httpd/ cgi-bin/</code>	<code>/usr/local/etc/httpd/c gi-bin</code>	The full path to the <code>cgi-bin</code> subdirectory in the Apache Web Server directory

- Use a text editor to add the following line to the `mime.types` file in the `server_root/conf` directory:

```
image/cgm cgm
```

- Save the file after you have finished editing it.
- Change directory to the Apache Web Server directory and start the Web server by entering the following command:

```
<path>/src/httpd-<platform>  
<path>/server_root/conf/httpd.conf
```

where `<platform>` is the platform on which you are running the Web server (for example,

```
/disk1/apache_1.2.0/src/httpd-irix -f  
/disk1/apache_1.2.0/server_root/conf/httpd.conf).
```

## Microsoft Servers

The following section describes how to configure the Microsoft Internet Information Server and Microsoft Peer Web Server.

1. Rename the `... \InetPub\wwwroot` directory to `... \InetPub\home`.
2. Create a directory called `cgi-bin` and a file called `mime.typ` in the `<path>\InetPub` directory.
3. From the Windows desktop, click **Start > Programs**.
4. From the Internet Information Services (IIS), select:
  - Microsoft Internet Information Server (Common)
  - Internet Services ManagerFor Peer Web Services, select:
  - Microsoft Peer Web Services (Common)
  - Internet Services Manager
5. In the **Internet Services Manager** dialog box, double-click the server name on the line where *www* appears under the **Service** option. The **WWW Service Properties** dialog box opens.
6. Click the **Directories** tab from the **WWW Service Properties** dialog box.
7. Change the value of **Default Documentation** from `Default.htm` to `index.html` and select the **Enable Default Document** and **Directory Browsing Allowed** check boxes.
8. Change the location of the document root directory by double-clicking the `... \InetPub\wwwroot` listing.
9. In the **Directory Properties** dialog box, change the directory from `... \InetPub\wwwroot` to `... \InetPub\home` and click **OK**.
10. Click **Add** from the **WWW Service Properties** dialog box. A new **Directory Properties** dialog box opens.
11. Select the **Virtual Directory** and **Execute** check boxes and enter `cgi-bin` for the **Alias** and `<path>\InetPub\cgi-bin` for the directory.
12. Click **OK**.
13. Click **Apply** in the **WWW Service Properties** dialog box.

14. Click **OK**.
15. If necessary, install plug-ins for your Web browser to allow viewing of CGM and VRML files.

## Installing Pro/Web.Publish

1. Under **Other Products**, choose **Pro/Web.Publish** from the list of available software components. The **Specify Web Server Paths** screen appears.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

2. Under **Pro/Web.Publish Configuration**, define the following parameters if the PTC.Setup utility cannot detect the information:
  - **Cgi-bin Directory**—This is the directory from which your server has permissions to execute programs. Your Web server must be configured to recognize this directory when referenced as `http://<server>/cgi-bin`. Type the full path to the directory you want to use or browse the folder hierarchy and specify the directory.
  - **Web Server MIME File**—Type the location of the MIME type file on the Web server. Or, click the folder icon and browse to and specify the file. This file, which is usually called `mime.typ` on Windows and `mime.types` on UNIX platforms, is located in the configuration directory of the Web server. PTC.Setup adds the following lines to this file:

```
image/cgm          cgm
x-world/x-vrml     wrl vrml
```

- **Document Root Directory**—Enter the location of the directory where your HTML files are stored on your Web server or click the folder icon, browse, and specify the directory. This is the directory from which your Web server reads documents when they are referenced as `http://<server>/`. This directory was specified during configuration of your Web server.

3. The **Installation Progress** screen displays the status of installation. You can also do one of the following operations:
  - Click **Cancel** to cancel the installation.
  - Click **Back** and review information.
  - Click **Next** to install the next selected component.
  - Click **Exit** to quit the installation setup utility.

The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.





# 10

## Installing and Starting PTC Distributed Services

This chapter explains how to install and start PTC Distributed Services Manager (DSM).

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Completing the Distributed Services Manager Installation	10 - 9
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Removing Distributed Services Manager (Windows Only)	10 - 10

# Installing Distributed Services Manager

You install Distributed Services Manager after you have installed PTC License Server. You can install your product software on a license server, a license client, or on any combination of these machines. Successful installation of your product software requires three major steps:

- Defining your installation components, including the installation directory
- Specifying the location of the license servers
- Starting the software

To view Distributed Services Manager in a language other than English, you must set the language variable, `LANG`, before running your software. For more information, see [Setting Language Defaults](#) on page B-20.

## Defining the Installation Components

1. Start PTC.Setup using the steps outlined in [Starting PTC.Setup](#) on page 1-5. The PTC.Setup product selection screen appears.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

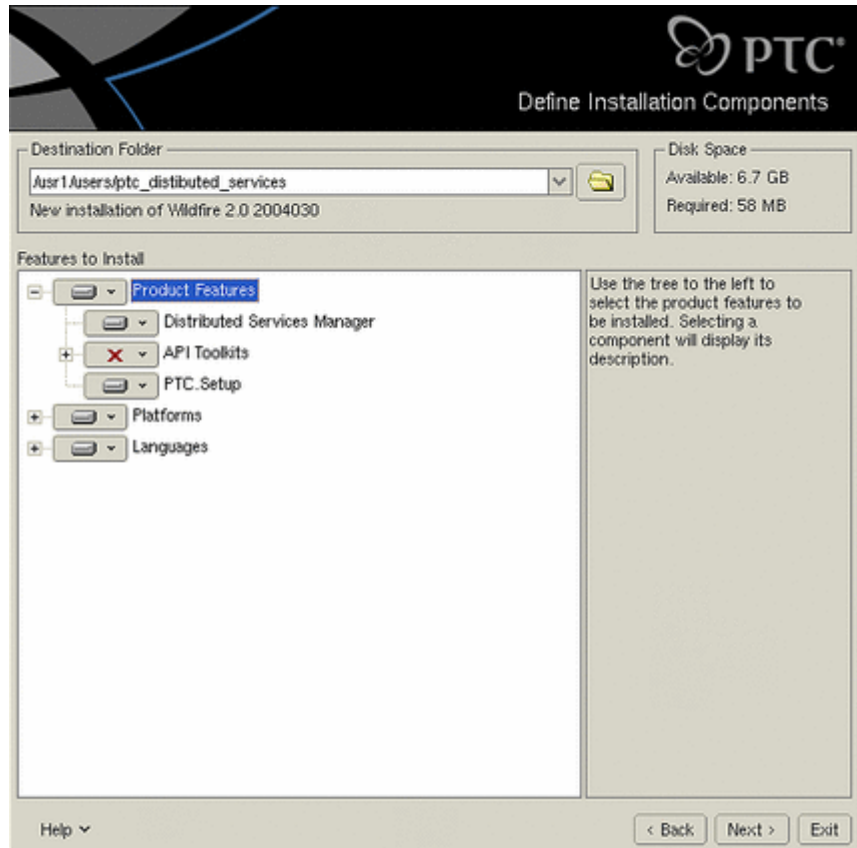
2. Under **Other Products**, click **PTC Distributed Services**. The **Accept License Agreement** screen appears. Accept the agreement to proceed.

At this point, you must have already installed PTC License Server.

### **Note**

When you perform an update or install a new release of a PTC product you must update your license information.


The **Define Installation Components** screen appears.




3. Define the following parameters:

- **Destination Folder**—For new installations, keep the default installation directory, for example, `C:\Program Files\ptc_distributed_services`, or specify the full path. PTC.Setup creates the specified new directory. You can also select a different installation directory.

For new installations, the directory that you specify must be new or empty.

- Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Choose the components that you want to install by clicking  next to the appropriate component. Select one of the following commands from the list:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

The available product components are:

**Distributed Services Manager**—Select this component to install the files to run the software. The amount of disk space required is also displayed.

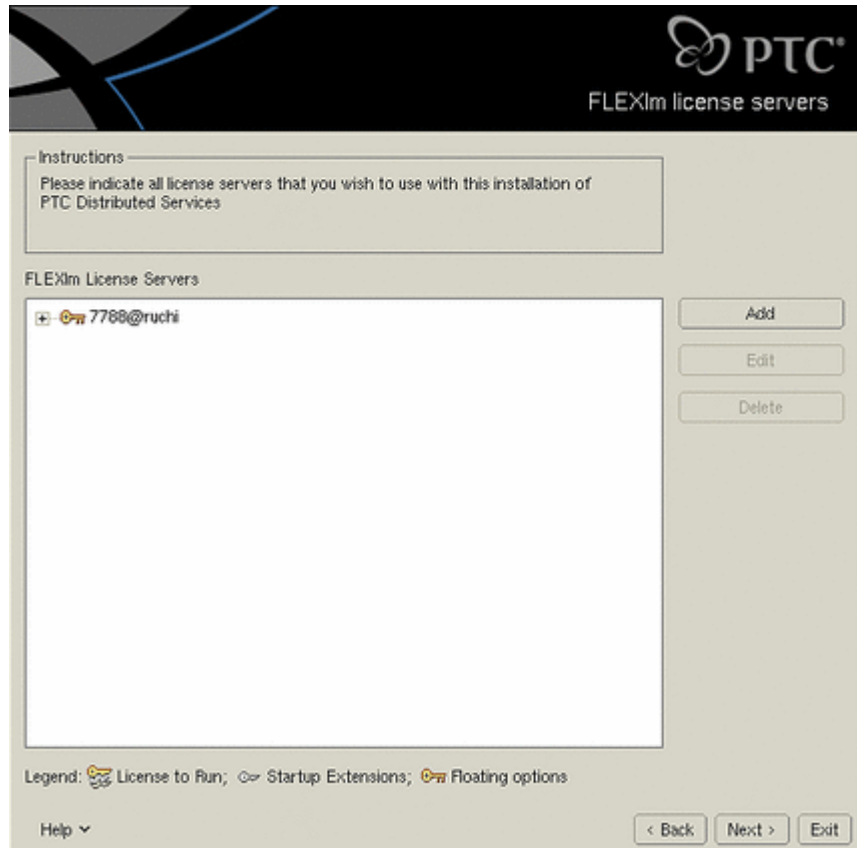
**API Toolkits**—Select this component to optionally install the Application Programming Interface toolkits like C API and Java API. The API allows you to build Distributed Services applications.

**PTC.Setup**—Select this component to install PTC.Setup for future configuration of the software. With this utility, you can make configuration changes without running PTC.Setup from the CD-ROM.

**Platforms**—Select the platform for the installation. Your machine's architecture is automatically selected as the default platform.

**Languages**—Select the required languages.

4. Click **Next** after you have selected your components. The **Flexlm license servers** screen appears.



## Specifying the Location of the License Server

The PTC.Setup installation utility can access your license information on a remote license server or on a local machine. Your next task is to specify the locations of the license servers that you want this installation of your product software to access.

### Note

PTC does not provide locked licenses for Distributed Services Manager.

Distributed Services Manager uses two different license features: DS\_MANAGER and DS\_SERVICE. You need both to fully use the Distributed Services Manager. The Distributed Services Manager will not be able to receive any incoming tasks without the DS\_MANAGER license feature and it will not be able to process incoming tasks without the DS\_SERVICE license feature. After specifying the license servers, click **Server Info** to verify that both these license features are available.

If you access your license information from a machine without a valid version of FLEXlm, an error message tells you to update PTC License Server. Refer to the READ THIS FIRST document for the latest information about FLEXlm.

## Specifying the License Server

Depending on the location of PTC License Server, provide PTC.Setup with the location of your licensing information.

- If PTC License Server resides on the machine on which you are installing the software, and you have used the default communications port for the license server, you do not have to specify the license server. PTC.Setup detects the server name and adds it to the **Flexlm License Servers** list box.
- If PTC License Server resides on a different machine, you must specify the license server. See the following section Obtaining a License from a Server or Servers on page 10-6

## Specifying the License Client

If you are installing the software on a license client without PTC License Server installed, the **Flexlm License Servers** list box is initially blank. To enable this installation to obtain floating licenses from a remote server, you must define which servers are distributing the licenses. See Obtaining a License from a Server or Servers on page 10-6.

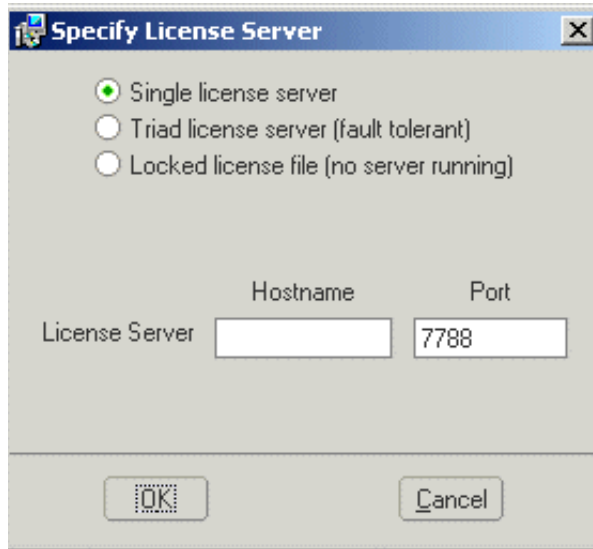
### Note

You cannot run the Distributed Services Manager installer without a license.

## Obtaining a License from a Server or Servers

To obtain a license from a server or servers:

1. Click **Add** in the **Flexlm license servers** screen (see the previous screen). The **Specify License Server** dialog box opens.



2. Click one of the server options and enter the requested information.
  - **Single license server**—Specifies a single server for the licenses. Type the host name and the communications port number if it is different from the default. This information identifies the server, for example, `aberdeen`, from which this installation obtains its license codes.
  - **Triad license server (fault tolerant)**—Specifies a Triad configuration of three Triad partners. As long as two or more partners are running, the licenses are served. If two or more partners are not functioning, the server stops serving the licenses. Define all three license servers. Each Triad license server must have the same license file.

**Note**

The order of the server list (Triad Partner 1, Triad Partner 2, Triad Partner 3) must be the same on all the three license servers.

PTC recommends that the Triad license servers be at the same site. For further information on redundant license servers, see the *FLEXlm End Users Guide*.

**Note**

Do not specify the host name of the client nodes. Specify only the license server that controls usage of the licenses. You can use the **Specify License Server** dialog box to configure the clients to access multiple servers or license files across your network.

On Windows systems, either the fully qualified server name or the IP address must identify the server.

3. Click **OK** to add the server and communications port information to the **Flexlm License Servers** list box. For example, 7788@aberdeen.
4. Click **Next**. Further steps are optional and vary for Windows and UNIX systems.

## Performing Optional Configuration Steps

Setting shortcut preferences and creating links to startup commands are optional.

### Setting Shortcut Preferences (Windows Only)

Set the following shortcut preferences:

- **Shortcut Location(s)**—You can start the Distributed Services Manager from the desktop, the **Start** menu, the **Start > Programs** menu, or any combination of these three options.
- **Program Folder**—If you select **Program folder** as the shortcut location, specify the name of the folder and option in the **Programs** menu.
- **Startup Directory**—Specify the name of the Distributed Services Manager startup directory.

You can set the following Windows environment preferences:

- **Modify system environment for all users**—Sets the system `PATH` variable for all users on the system.

**Note**

You must have the administrator privileges to set the system environment variable for all users.



- **Modify current user's environment only**—Sets the user's PATH variable for the current user on the system. Click **Install**. The **Installation Progress** screen appears. See the section **Completing the Distributed Services Manager Installation** on page 10-9.

## Creating Links to Startup Commands (UNIX Only)

Command names are the script names that PTC.Setup uses to enable you to start the software from your workstation. These scripts maintain the relationship between licensing on the server and your client software command. On Windows, for example, the default command name, `ptcdsm`, results in the creation of an executable file and, optionally, a shortcut icon. This icon is linked to the executable that starts Distributed Services Manager. On UNIX, the standard startup command `ptcdsm` is created in the `bin` directory.

By keeping the default **Create links to product startup commands** checked, you can create a link from the `/bin` directory in your installation directory to another directory on your UNIX system. (If this other directory is in your path environment setting, then simply entering the command name starts Distributed Services Manager.)

To create a link, use the **Startup command links** screen to type the full path or browse to the directory in which you want the link created.

1. Click **Create links to product startup commands** in the **Optional Configuration Steps** screen and click **Next**. The **Startup Command Links** screen appears.
2. Type the full path or browse to the directory in which you want the link created.
3. Click **Install**. The **Installation Progress** screen appears.

See the next section to complete the installation.

## Completing the Distributed Services Manager Installation

The **Installation Progress** screen displays the status of installation. In this screen you can also do one of the following operations:

- Click **Cancel** to cancel the installation.
- Click **Back** and review information.
- Click **Next** to install the next selected component.

The **Installation Progress** screen announces a successful installation. If the installation fails, a `ptcsetup.log` file is created in the `temp` directory. It reports all the errors during installation.

Click **Exit** to quit the PTC.Setup installation utility.

## Starting Distributed Services Manager

After your license management and product software has been installed, start Distributed Services Manager.

### Windows

Click **Start > PTC > PTC Distributed Services > Distributed Services Manager** to start Distributed Services Manager.

### UNIX

From a UNIX prompt, navigate to the Distributed Services Manager installation directory and execute the command `ptcdsm`. For example, `/opt/ptc/ptc_distributed_services/bin/ptcdsm`.

## Removing Distributed Services Manager (Windows Only)

You can remove your Distributed Services Manager software through the Control Panel. This procedure is for Windows systems only.

1. From the **Start** menu, click **Settings > Control Panel**.
2. Double-click the **Add/Remove Programs** icon. The **Add/Remove Programs** dialog box opens.
3. In the program application list, highlight the release of Distributed Services Manager to remove.
4. Click **Remove**. You see the **PTC Uninstall** dialog box.
5. Click **Uninstall** or **Cancel** to escape. You are presented with a series of confirmation statements to remove files.
6. Click **Uninstall** to proceed. Distributed Services Manager is removed.

# Updating and Modifying an Installation

This chapter explains how to update or modify PTC software on your system. The procedures in this chapter are for updating and modifying of installations only.

**Note**

- Because FLEXlm, PTC License Server, was implemented in Release 20, you can update Release 20 and later versions with Pro/ENGINEER Wildfire 2.0.
- Each time you update your software, you must update your license file. New license codes are not required if you are updating to a new build of Pro/ENGINEER within the same release.

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Updating License Codes	11 - 3
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# Updating Pro/ENGINEER

An update installation is needed in the following cases:

- Upgrading your PTC software to the next major release (for example, Release 2001 to Wildfire 2.0)
- Upgrading your current release to a later release
- Updating the current datecode to include additional software

Update installations overwrite the outdated files in your Pro/ENGINEER installation directory with files from the most recent release or build.

After you install Pro/ENGINEER Wildfire 2.0, you can perform incremental updates. An incremental update adds only newly selected components to the existing installation. The components of the existing installation remain unchanged.

## Note

When performing incremental updates, if the current installation is corrupt, you cannot update the installation to replace missing or corrupt files for the same datecode. In such cases, uninstall and reinstall Pro/ENGINEER.

If you update an existing installation with a different release of the software, all components of the existing installation are replaced with the new components.

Before updating an installation, load and mount the software CD-ROM and start the PTC.Setup installation utility. New license information is required when you update to the next release.

To update the product software on remote servers, node-locked machines, or license clients, repeat the steps in Chapter 4, Installing and Starting Pro/ENGINEER.

During installation, you can click **Cancel** at any time to stop the installation. PTC.Setup copies files and sets file permissions.

# Modifying Pro/ENGINEER

Modifying Pro/ENGINEER implies creation of new startup commands and reconfiguration of existing software components. No new license information is required when you modify an installation.

If you are modifying an existing installation of Pro/ENGINEER, you can start PTC.Setup by using the `ptcsetup` command, in the `bin` directory of your installation path (`C:\Program Files\proe\bin`).

You can also rerun the PTC.Setup installation utility from the CD-ROM and make modifications.

## Obtaining a New License Pack

If you are installing a new, major release of Pro/ENGINEER, you must update PTC License Server before you install your new software.

It is highly recommended that you obtain an electronic copy of your new PTC License Pack. Using PTC.Setup, you can quickly and easily import either the new license file or append the existing license file with your new license codes.

For information on how to obtain your License Pack online, see Receiving Your License Pack on page 1-3.

## Updating License Codes

You can update FLEXlm, PTC License Server, with your new license file when updating your PTC software.

### Note

If the license server also has Pro/ENGINEER installed, the installed `ptcsetup` utility can be used to update licensing information.

Perform the following steps:

1. Start the PTC.Setup installation utility. The PTC.Setup product selection screen appears after the Welcome screen.
2. Click **PTC License Server**. The **Define Installation Components** screen appears.
3. Keep the default installation directory for PTC License Server if this is where your FLEXlm software resides.
4. Specify a license file by browsing to the folder that contains the encrypted license file. You can also drag your license file into the **License File** text box. The large box under **License File** displays the information contained in the license file.

### Note

To proceed, you need the new licensing information in your PTC License Pack. If you have not already done so, request a new License Pack. For detailed information, see Receiving Your License Pack on page 1-3.

There are several ways to update an existing license file. However, it is strongly recommended that you import the new license file. The new license file contains all of your new license codes as well as any

that are still in effect. Note that importing the new license file overwrites the existing file.

You can also import and append the existing license file with your new license data. For information on how to append a license file or manually enter your license codes by typing the information or by using the License Wizard, see Chapter 3, Installing PTC License Server.

5. Optionally, click **Flexlm Server Options** to specify the following:
  - Directory in which you can create links.
  - Server process owner (UNIX only).
  - The license server startup options.
  - The command line arguments. This gives the administrator the control over the server processes. See *FLEXlm End Users Guide* for further details.
  - Start the license server if the system is rebooted.
6. Click **Install** to start the installation of the license server. Upon completion, PTC.Setup starts the license server.
7. Click **Next** to install the next selected component or exit PTC.Setup.

PTC.Setup restarts the FLEXlm license server. For Triad configurations, two of the three partner machines must be running before licenses can be distributed.

## Updating and Modifying Pro/Web.Publish

Updating Pro/Web.Publish requires only that you update your existing Pro/Web.Publish installation. You do not have to reconfigure your Web server.

### **Note**

To update or modify Pro/Web.Publish, you must have write permissions on the Web server.

To update an installation of Pro/Web.Publish, start PTC.Setup using the Pro/ENGINEER CD-ROM or the `ptcsetup` command if you installed this utility. To update the product software, repeat the steps in Chapter 9, Installing Pro/Web.Publish.

To modify an installation of Pro/Web.Publish, start PTC.Setup and change the configuration information you specified during installation.

# A

## License Management Software

This appendix discusses license management software and describes the benefits of PTC License Server. License simplification is explained for new and existing Pro/ENGINEER users.

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Benefits of Using FLEXlm	A - 7
Understanding Timeout Parameters	A - 9
Using the Ptcflush Utility	A - 10
License Borrowing	A - 11

# Overview of PTC Licensing

PTC software including PTC optional applications must be licensed for use. Licensing authorizes the installed software to run. PTC supports the following types of licenses:

- **Commercial**—Commercial licenses are not time-sensitive licenses.
- **Evaluation**—Evaluation licenses limit your use of the software to a specified time period.
- **Educational**—Educational licenses, which are used at educational institutions, are time-sensitive licenses (also known as student licenses). Also, the objects created in an educational or student version of Pro/ENGINEER are not compatible with the commercial version.

Depending on the product, the licenses can be either locked, extended, floating, or borrowed.

- **Node-locked license**—A node-locked license restricts the use of the software to a particular machine (independent workstation). A node-locked license also restricts the `DISPLAY` setting on UNIX workstations.

## Note

Node-locked licenses are not available for all PTC products, such as Pro/INTRALINK.

- **Floating license**—A floating license can be used on any one of a group of machines on your network.
- **Extended license**—An extended license makes floating licenses available for locked modules.
- **Borrowed license**—A borrowed license allows you to work temporarily on your machine without being connected to the license server. Refer to License Borrowing on page A-11 for details.

## Simplified License Management Process

Pro/ENGINEER provides an easy license configuration, installation, and tracking process. This process provides flexibility in configuring your licenses and minimizes the number of generated Service Contract Numbers (SCNs). You can combine all the Pro/ENGINEER licenses and options into a single SCN along with the Pro/INTRALINK or Structural and Thermal Simulation licenses. You can also assign a single SCN to the required license server.

Each PTC product is defined in the license file with a unique feature name. This license file format follows a standard approach by using the



PTC License Server. Floating licenses can be configured to be acquired when you start Pro/ENGINEER.

**Note**

License configuration is a part of the installation process.

Visit [www.ptc.com/olm/lis\\_faq](http://www.ptc.com/olm/lis_faq) for the License Simplification Overview.

## License Simplification—Advantages

- **Increased flexibility in managing PTC licenses**—With the license configuration process integrated into the installation process, you can alter the assignment and configuration of functions without contacting the PTC License Management team.
- **Fewer licensing rules**—Licenses are assigned to a machine through a SCN (Service Contract Number).
- **Stable number of licensing SCNs**—With no licensing requirements for SCNs, you have significantly fewer SCNs to manage. License changes do not force you to change the SCN.
- **Reduced time associated with licensing PTC products**—You and PTC do not need to research and maintain the tight control over the multiple types of licenses based on how you purchased the products originally.
- **Reduced system administration time for license changes**—With the use of common feature names in licenses, updates to the client are reduced as the licenses are moved between servers. The feature name and the startup commands remain the same.

## License Simplification—General Information

- License simplification is integrated with all products of the Pro/ENGINEER family and is available in Pro/ENGINEER 2001 datecode 2001440 and later.
- To use Pro/ENGINEER Wildfire 2.0, you must perform license simplification, if you have not already done so, to receive a new license pack of version 25 or later that is compatible with Pro/ENGINEER Wildfire 2.0.
- Use the License Support Web tool called Reconfigure Software Licenses on the PTC **Order and License Support** page at [www.ptc.com/olm/index.htm](http://www.ptc.com/olm/index.htm). Use this tool to upgrade to the new licensing scheme. The tool automatically consolidates the licenses into a selected Service Contract Number (SCN) and returns an updated license file.

## License Simplification—Technical Information

- License simplification has changed the license file format and the PTC.Setup utility.

### Note

Pro/ENGINEER requires FLEXlm version 8.4a or later for license simplification.

- The format of the FLEXlm feature line in the license file has two changes due to license simplification:
  - The SCN is no longer a part of the feature name and is moved below the SN tag in the feature line.
  - A new classification of floating license called a License Extension is available for all locked modules and extensions. This new classification is identified by the keyword **STARTUP** in the Vendor String.

License extensions are available for checkout only at runtime, that is, when starting a base license. You cannot add or release the License Extension using the **Tools > Floating Modules** dialog box.

The following license file is an example of a license-to-run license and a floating license bundle under the license simplification scheme. The new areas described earlier appear in bold:

```
INCREMENT PROE_FlexEng ptc_d 25.0 01-jan-04 \  
    1CCBD4992306440F61A0 VENDOR_STRING="VSVER=2.0 BORROW LO=(0, \  
    3, 6, 7, 10, 17, 19, 32, 34, 40, 45, 51, 52, 55, 62, \  
    63, 66, 69, 71, 73, 97, 106, 108, 115, 126, 127, \  
    128, 158) BORROW" HOSTID=PTC_HOSTID=00-CC-DD-33 SUPERSEDE \  
    vendor_info="VIVER=1.0 EXTERNAL_NAME=" ISSUER=PTC \  
    ISSUED=09-nov-2003 NOTICE=" PTC_CUSTOMER, 000" \  
    SIGN=1234568 BORROW=120  
INCREMENT 10118 ptc_d 25.0 01-jan-04 AC2BD4A9DB54B88A6429 \  
    VENDOR_STRING="VSVER=2.0 STARTUP BORROW LO=()" SUPERSEDE \  
    ISSUER=PTC ISSUED=09-nov-2003 \  
    NOTICE="PTC_CUSTOMER, 000" BORROW=120  
INCREMENT PROBUNDLE_10118 ptc_d 25.0 01-jan-04 \  
    5C9B8499D4B428AA6E42 VENDOR_STRING="VSVER=2.0 BORROW\  
    LO=(32, 52, 63)" HOSTID=ANY SUPERSEDE ISSUER=PTC \  
    ISSUED=09-nov-2003 NOTICE=" PTC_CUSTOMER, 000" BORROW=120
```

- Using the PTC.Setup utility, you can define startup commands with additional license extensions or floating options. When you add license extensions, or floating options, to a startup command, a value is assigned to the PROE\_FEATURE\_NAME variable. This variable is defined in the Pro/ENGINEER startup command. The following example shows valid syntax for a UNIX operating system.

PROE FEATURE NAME before license simplification:

```
setenv PROE_FEATURE_NAME PROE_1274228
```

PROE FEATURE NAME after license simplification:

```
setenv PROE_FEATURE_NAME PROE_FlexEng (10118,32)
```

In addition to checking the PROE\_FlexEng license, the availability of the bundle 10118 and the floating option 32 is also checked. If some bundles or options are not available, a warning appears listing them.

- During a session, if a license is lost and you try to recover the license-to-run, Pro/ENGINEER attempts to reacquire the license-to-run and all other options specified in the startup command.
- The output of the Ptcstatus utility provides the location of the SCN in the license file. You can use the Ptcstatus utility in two modes:
  - **Normal mode**—Run the Ptcstatus utility at the command line without any arguments.  

```
ptcstatus
```
  - **Verbose mode**—Run the Ptcstatus utility at the command line with the -v argument.  

```
ptcstatus -v
```

The following output illustrates the difference between the two Ptcstatus utility modes:

### Ptcstatus Normal Mode

```

Displaying status for license file: 7788@static
License Server: static

      License                In Use                Free
      -----                -
PROE_FlexEng                Uncounted, Locked
Foundation_Adv              0                    2
Pro/SURFACE *               0                    2
Behavioral_Modeler          0                    2
Pro/PlasticAdvisor          0                    2
ModelCHECK                  0                    1
Tool_Design_SET *           0                    2
* = License Extension - Available only on startup

```

### Ptcstatus Verbose Mode

```

Displaying status for license file: 7788@static
License Server: static
ptc_d FLEXlm version: 8.4a

      License                In Use                Free  Version  Expire  SCN
      -----                -
PROE_FlexEng                Uncounted              24.0  None     FlexEng Locked
                                to
                                00-10-83-FF-B5-
                                75

Foundation_Adv              0                    2     24.0    None     12345
Pro/SURFACE *               0                    2     24.0    None
Behavioral_Modeler          0                    2     24.0    None
Pro/PlasticAdvisor          0                    2     24.0    None
ModelCHECK                  0                    1     24.0    None
* = License Extensions - Available only on startup

```

- You can specify a name for a license instead of its default name by changing the value of the attribute `EXTERNAL_NAME` in the feature line of the license file.

For example, to change the feature `PROE_FlexEng` to `My License Name` in a license file, specify the value of the `EXTERNAL_NAME` attribute as shown in the original and changed files.

Original license file:

```
INCREMENT PROE_FlexEng ptc_d 25.0 1-jan-04\
  4C5570EB8496F36B500F  VENDOR_STRING="VSVER=2.0 BORROW \
  LO=(3,7,10,17,34,40,45,51,55,62,66,69,71,73,106,115,126,163)" \
  SUPERSEDE vendor_info="VIVER=1.0 BORROW=120 \
  EXTERNAL_NAME="ISSUER=PTC \
  ISSUED=17-feb-2003 NOTICE="PTC Internal Use Only"
```

Changed license file:

```
INCREMENT PROE_FlexEng ptc_d 25.0 1-jan-04\
  4C5570EB8496F36B500F  VENDOR_STRING="VSVER=2.0 BORROW \
  LO=(3,7,10,17,34,40,45,51,55,62,66,69,71,73,106,115,126,163)" \
  SUPERSEDE vendor_info="VIVER=1.0 \
  EXTERNAL_NAME=My License Name"ISSUER=PTC BORROW=120 \
  ISSUED=17-feb-2003 NOTICE="PTC Internal Use Only"
```

Notice the text after the `EXTERNAL_NAME` attribute in the changed license file. With this change, the output of the `Ptcstatus` utility displays the new name, `My License Name`, instead of `PROE_FlexEng`.

## PTC License Server

Macrovision Corporation's *FLEXlm* license management software is integrated with PTC software. For more information, visit [www.macrovision.com](http://www.macrovision.com).

## Benefits of Using FLEXlm

Using *FLEXlm* to control usage of licenses offers the following key advantages:

- **Single-Server Solution**—*FLEXlm* can manage PTC software and other vendor applications without conflict. Note that the PTC license file cannot be combined with the license files of other vendors.

- **Immediate License Recovery**—If there is a premature exit of the licensed software (for example, the system shuts down), the *FLEXlm* license server automatically reclaims the PTC license.
- **Increased Flexibility**—System administrators can reserve or deny licenses based on user name, host name, display name, or IP address. For more information refer to Chapter 5, The Options File, in the *FLEXlm End Users Guide*.
- **Centralized License Storage**—PTC customers can store all PTC licenses for all PTC products in a single file for each license server.
- **Multiple Licenses for a Single Command**—One command can be used to execute multiple licenses of PTC software based on availability.
- **License Borrowing**—Using *Flexlm* 8.4a or later, you can borrow licenses from a license server and run a licensed application on a remote client without being connected to the license server.

## Downward License Compatibility Using FLEXlm

*FLEXlm* license servers have downward compatibility with PTC applications using *FLEXlm*. For example, a Pro/ENGINEER Wildfire 2.0 license can run Pro/ENGINEER 2001 software, because both releases of the software use *FLEXlm* licensing.

*FLEXlm* cannot serve licenses to an installation using Pro/SERVER (Release 19 and earlier). However, Pro/SERVER and PTC License Server can run on the same machine in parallel.

## Running FLEXlm with Other Applications

You can use *FLEXlm* to run PTC products as well as other applications. Each vendor application that uses *FLEXlm* has its own `lmgrd` or *FLEXlm* daemon. The *FLEXlm* daemon starts the vendor daemon (for example, `ptc_d`), which controls the usage of licenses. Macrovision strongly recommends that the `lmgrd` daemon program be run as a nonprivileged (not root) user on UNIX systems.

Note that you cannot combine a PTC license file with a license file of another vendor. Do not, for example, combine PTC feature lines with those of other vendors in a single license file. This action causes the licenses to be invalid.

If all applications and vendor daemons are *FLEXlm* 6.1 or later, `lmgrd` can process multiple license files. This is true even when the Host IDs are different (as long as the license files refer to the same node). Refer to the chapter on multiple license files in the *FLEXlm End Users Guide*.

# Understanding Timeout Parameters

Timeout parameters enable the license client and the license server to communicate with one another so that licenses are released and available upon request.

You can reconfigure the `TIMEOUTALL` parameter within a specified range, as described in the next section, Changing the Inactivity Timeout Parameter.

Timeout Parameter	Value	Description
Inactivity timeout (TIMEOUTALL)	120 minutes (default)	This parameter prevents a license from remaining idle. If the license client is inactive for a specific period, the license can be reclaimed by the license server and used by another license client. In Pro/ENGINEER, the inactivity timeout default is 120 minutes.  Activity is measured as active menu selections.  You can change the default of 120 minutes so that the parameter ranges from 20 minutes (minimum value) to infinity (maximum value).
Validation that the license is available	1 minute	After each 1 minute interval, the next time you select a menu, the license client communicates with the license server. The license client queries the server whether the license is still available. The application has a minimum of 1 minute to validate the license.
Validation retries	None	The first time a license client cannot validate its license the application's graphical user interface will freeze. You are immediately given the following three options:  Click <b>Retry</b> to request a license from an active license server.  Click <b>Save File(s)</b> .  Click <b>Exit</b> to close the application without saving the file or files.
Startup	10 seconds	Upon starting a session, the license client requests a license and has 10 seconds in which to have the request validated.

## Changing the Inactivity Timeout Parameter

You can set the `TIMEOUTALL` parameter that determines how long the system allows a license to remain idle before it is reclaimed by the license server. To change the default inactivity timeout parameter, you must update the `FLEXlm` option file, `ptc.opt` in `<ptc License Server loadpoint>/flexlm/licensing`. The default is 120 minutes. Edit the default parameter

```
TIMEOUTALL 7200
```

by changing 7200 seconds (120 minutes) to another value in seconds.

The minimum value is 20 minutes (or 1200 seconds) and the maximum value is infinity. To make infinity the default, remove the `TIMEOUTALL` parameter from the `ptc.opt` file. If you set a minimum value to less than 20 minutes, the system defaults to 20 minutes.

## Suppressing the Regained Network License Dialog Box

Beginning with Pro/ENGINEER 2000i, you can disable the **Regained Network License** dialog box using a configuration option. In the `config.pro` file, set the `suppress_license_loss_dialog` option to `yes`. The default is `no`. If you lose or regain your network license-to-run license Pro/ENGINEER, a status message appears but a dialog box does not.

## Using the Ptcflush Utility

The `Ptcflush` utility is necessary only when a license client application shuts down in a way that does not break the TCP/IP connection between the license server and the client. This situation most commonly occurs when a client exits prematurely, or does not respond, or when the network connection between the license server and the license client is interrupted. Normally, it is not necessary to use `Ptcflush` utility.

You are allowed to use the `Ptcflush` utility once every 12 minutes. The syntax is as follows:

```
% ptcflush feature_name hostname port handle
```

Execute the `ptcstatus` command to list the `<feature host port handle>` information and copy and paste this listing at the command prompt to run `Ptcflush`.



To flush a license in use, for example, type

```
% ptcflush PROE_2 titan 7788 101
```

using the feature name and not the user-defined name if you assigned an alias.

### Note

On UNIX systems, you can use root privileges to flush user licenses. However, you must flush licenses individually. You cannot flush multiple licenses simultaneously.

## License Borrowing

With license borrowing for all supported platforms, you can use Pro/ENGINEER applications on clients without being connected to the license server. The license server must be running Flexlm 8.4a or later and must use the License Pack of version 25. With license borrowing, you can:

- Choose from a pool of available licenses
- Specify the expiration date of the license
- Work remotely on design and manufacturing projects

To borrow licenses, you must request that PTC insert a borrowing keyword in the feature line of your license file. License borrowing is enabled only on request. You can configure your licensing on your license server, and not through License Management. See the *FLEXlm End Users Guide* for details. Following is an example of a license file with the license borrowing keyword:

```
INCREMENT_PROE_FOUND_WLO ptc_d 25.0 1-jan-04\  
2CC530AB6B9FDB2EAAA3 VENDOR_STRING="VSVER=2.0 BORROW \  
LO= (3, 7, 10, 17, 19, 34, 40, 45, 51, 55, 62, \  
66, 69, 71, 73, 106, 115, 126, 163) " \  
HOSTID=PTC_HOSTID=00-C0-4F-8E-F2-7D SUPERSEDE BORROW=120 \  
Feature_Key=BORROW  
vendor_info="VIVER=1.0 EXTERNAL_NAME=" ISSUER=PTC \  
ISSUED=18-Dec-2003 NOTICE="PTC Internal Use Only"
```

## Initiating License Borrowing

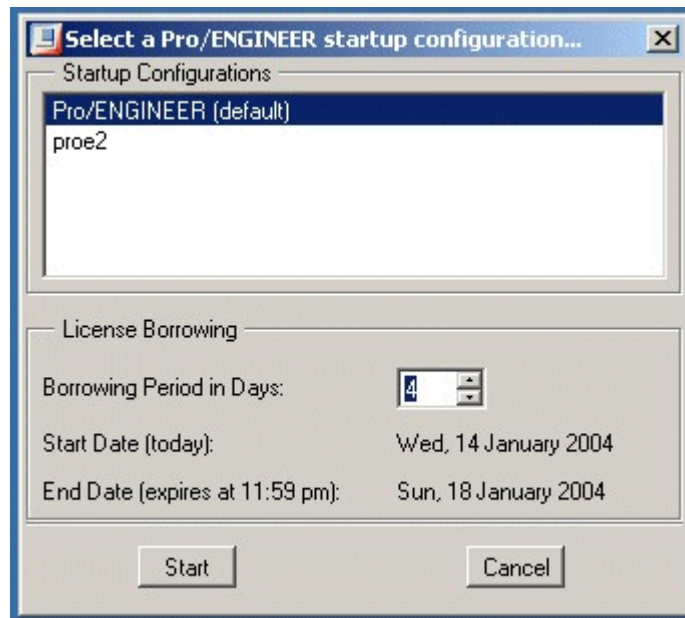
You can initiate license borrowing by:

- Executing a batch file available in the \<proe\_loadpoint>\bin directory
- Specifying the command-line argument to borrow licenses as discussed in the *FLEXlm End Users Guide*

### proe\_borrow.bat File

Connect to the appropriate PTC License Server and use the `proe_borrow.bat` file to initiate license borrowing. Use the following procedure:

1. Browse to the \<proe\_loadpoint>\bin directory and run the `proe_borrow.bat` file on Windows. On UNIX, this file is called `proe_borrow`. This file opens a dialog box in which you can specify a startup configuration.



2. Under **Startup Configurations**, select the required startup configuration.

3. Specify the number of days that you want the borrowed license.  
The start date for borrowing the license is today's date. The end date is based on the number of days that you request.
4. Click **Start** to start Pro/ENGINEER in the Borrow Configuration mode.
5. After starting Pro/ENGINEER, click **Tools > Floating Options** to select the additional floating options that you would like to add to the borrowed license.
6. Configure the borrowed license to create the required borrowed license.
7. Exit Pro/ENGINEER.

On Windows, the license is created on the local machine in the registry under current user. On UNIX, the license is created in the \$HOME/.flexlmrc directory. The LM\_BORROW environment variable is created and contains all your borrowed licensing information.

8. Disconnect from the license server and use the borrowed license.

#### **Note**

A borrowed license can contain multiple borrowed configurations that can expire at any time. Each time you start Pro/ENGINEER using the borrowed license, Pro/ENGINEER checks for and removes the expired borrowed license files. You can borrow licenses again, if required.

### **Determining the Borrowed License Status**

You can run Ptcstatus for the following information on borrowed license status:

- Licenses that have been borrowed
- Expiry for each of the borrowed licenses
- License server information for borrowing licenses
- Local borrowed license information



# B

## System Administration Information

This appendix describes general system administration information, including system management utilities and machine configuration settings.

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# Temporary Directories

Pro/ENGINEER uses the temporary directory as defined by your system environment to store Pro/ENGINEER parts. You can modify the location of the temporary directory by setting the temporary directory environment variable in the Pro/ENGINEER startup window before you run Pro/ENGINEER. On Windows systems, this environment variable is TMP. On UNIX systems, this environment variable is TMPDIR.

# System Management Utilities

This section briefly describes Pro/ENGINEER and FLEXlm utilities. The files listed in the next two tables, Pro/ENGINEER Utilities and FLEXlm Utilities, are installed into the bin directory of your installation directory. On UNIX systems, symbolic links may have been made to these files from a user-specified directory. Further information can be found in the *FLEXlm End Users Guide*.

## Pro/ENGINEER Utilities

You execute the Pro/ENGINEER commands, listed next, from the `\<proe loadpoint>\bin` directory when the license server is running. The load point is the directory where the software is installed.

Command	Function
ptchostid	Returns the PTC Host ID with required formatting used for FLEXlm license codes.
proewildfire 2	Runs Pro/ENGINEER. Can be user-defined.
ptcflush	Releases licenses. This may be necessary if there are network problems. Formerly called proflush.
ptcsetup	Runs PTC.Setup from disk. Allows you to reconfigure an existing installation without running PTC.Setup from the CD-ROM. The command, located in the bin directory, is created during installation. You use <code>ptcsetup</code> for modifications or reconfigurations only. It cannot install your PTC software.
ptcstatus	Displays information on the current usage and availability of licenses.

## FLEXlm Utilities

You execute the FLEXlm commands, listed next, from the `\<flexlm loadpoint>\flexlm\bin` directory when the license server is running.

Command	Function
lmtools	Runs the PTC License Management tools utility <code>lmtools.bat</code> on Windows systems only. Functionality includes customer configuration of the FLEXlm service, starting and stopping the lmgrd license server(s), server and licensing status, as well as diagnostic tools. On Windows systems, the shortcut icon created in <b>Start &gt; Programs &gt; PTC License Management tools</b> starts the Lmtools graphical user interface. The <code>lmutil</code> script provides the same information in text-based format for UNIX users
lmutil	Provides optional arguments to check the server and licensing status. Refer to the <i>FLEXlm End Users Guide</i> .
ptcshutdown	Shuts down a license server process for administrative maintenance of the license server. On Windows systems, you can also use the FLEXlm Control Panel to stop a license server process.
ptcstartserver	Starts a license server process. On Windows systems, you can also use the FLEXlm Control Panel to start a license server process. See License Administration Tools in the <i>FLEXlm End Users Guide</i> .

### Lmtools Utility (Windows Only)

With FLEXlm 7.0 and later, a `lmtools.bat` program is added to the FLEXlm installation directory on Windows platforms only. The `lmtools.bat` program runs the PTC License Management tools utility that is started from the **Start > Programs > PTC License Server tools** menu. Functionality includes starting and stopping the FLEXlm license server from the **Start/Stop/ReRead** tab.

## Machine-Specific Configuration

The sections that follow describe machine configuration procedures so that you can take full advantage of Pro/ENGINEER features.

## Hewlett-Packard Company

Machine configuration changes may be necessary to run PTC software on Hewlett-Packard machines. For complete details, go to the Hewlett-Packard technical support area and read Frequently Asked Questions and Tuning HP-UX for Pro/ENGINEER.

## Silicon Graphics, Inc.

Machine configuration changes may be necessary to run PTC software on Silicon Graphics, Inc. machines.

### Silicon Graphics 4Dwm Windowing Environment

Pro/ENGINEER supports the 4Dwm windowing environment on Silicon Graphics machines. Certain resource files may need to be updated in order to use this windowing environment. These updates can be made manually or you can use the script called 4Dwm-setup in the <loadpoint>/install/unix directory to have Pro/ENGINEER make the appropriate changes for you.

Specify resources in the /usr/lib/X11/app-defaults/4Dwm and /usr/lib/X11/app-defaults/Toolchest files. Updates can also be made in the \$HOME/.Xresources file as well as in files for individual users.

### Overlay Planes

Systems from Silicon Graphics must be equipped with a graphics adapter with at least four overlay planes, and the 4Dwm windowing environment should be used. To avoid unnecessary damage to the underlying graphics windows, Pro/ENGINEER uses the overlays for the user interface. SGI systems with four or more overlay planes can support the user interface in the overlay.

## Sun Microsystems, Inc.

Machine configuration changes may be necessary to run PTC software on Sun Microsystems machines. For complete details, see [www.sun.com/technical-computing/ISV/PTCFaq.html](http://www.sun.com/technical-computing/ISV/PTCFaq.html).



## Overlay Planes

A Creator3D or Elite3D graphics adapter is required for the use of overlay planes. In addition, the overlay visual must be the default visual. Use the command:

```
ffbconfig -propt
```

to determine if overlay is the default visual. If overlay is not your default visual, you must set overlay visual as the default visual.

## How to Set Overlay Visual as the Default Visual

1. In a command window, log in as root on the machine to be set.
2. Enter the command:

```
ffbconfig -defoverlay true
```

3. Log out as root from the command terminal and restart the session manager.

## Setting the Gamma Correction Value

Default colors can appear washed out in a Pro/ENGINEER installation on a Sun workstation. To rectify this, run the `set_solaris_gamma` script in the `<loadpoint>/bin` directory. Running the `set_solaris_gamma` script sets the gamma correction value for the graphics card to 1.5 from the default value of 2.20.

## Pro/ENGINEER in X Windows

Information on using Pro/ENGINEER in a UNIX X Windows environment follows.

### Display Devices Supported

Pro/ENGINEER operates in an X Windows environment on computers from the following companies:

- Hewlett-Packard
- SGI
- Sun Microsystems, Inc.

Using the **Node-locked License** option, the display device must be the same machine as the license (the X-client Pro/ENGINEER and the X-server must be running on the licensed machine).

However, for those who use floating licenses, the display device and the computer running Pro/ENGINEER can be different. For example, you can use an HP as a server running Pro/ENGINEER and an SGI as the display device. Only the display device counts as a user against the total number of licenses available.

You can also use an X-terminal as the display device. In this case, you must ensure that the display terminal can properly display Pro/ENGINEER.

## Running on a Remote Computer

In a floating license configuration, all the computers listed previously may be used as X display devices. To run Pro/ENGINEER on one machine and the X-server on another, follow the instructions from the manufacturer.

## How to Start Pro/ENGINEER on a Remote System

1. On the X-server, open a window and set `xhost+`.
2. From the X-server, log in remotely to the machine on which you want to execute Pro/ENGINEER.
3. On the remote machine, type:

If using `csch`:

```
setenv DISPLAY <xserver_machine_name>:0
```

If using `sh`:

```
DISPLAY=<xserver_machine_name>:0  
export DISPLAY
```

4. Run Pro/ENGINEER.

## X-Terminal Path Name and Command

When running in an X Windows environment, Pro/ENGINEER needs the X Windows terminal emulator command used to open system windows for editing relations, entering datum point arrays, and so on. The full path name and the command must be provided for your system. For example, the command for Solaris is `shelltool`. Enter the path and name:  
`/bin/shelltool`.

Use the configuration file option:

```
terminal_command_path_and_name
```

## Pro/ENGINEER through OpenGL

You can enable remote display of OpenGL to start Pro/ENGINEER only when you work across two computers that use the same UNIX operating system. PTC recommends that you run the same OpenGL library versions on both these computers. If the OpenGL library versions are different on two computers with the same UNIX operating system, Pro/ENGINEER does not use OpenGL to start up but instead uses X Windows. In this case, a warning message in the Pro/ENGINEER Startup window indicates that performance may be affected.

### Note

Remote display of OpenGL is possible only on platforms that are certified to run Pro/ENGINEER.

PTC recommends a fast ethernet connection to use OpenGL remotely. This enhances the performance of graphical operations such as preselection highlighting, sketcher, and so on.

## Graphics Configuration

For Pro/ENGINEER graphics support information, refer to the PTC Hardware Configuration Notes. Connect to the PTC home page at [www.ptc.com/partners/hardware/current/proe.htm#gi](http://www.ptc.com/partners/hardware/current/proe.htm#gi)

## General Plotter Information

PTC supplies software that writes plot files in plotter format. You can specify a plot command in the `config.pro` file. The physical connection, however, is the responsibility of the computer and plotter vendors, because they are hardware and system software experts. Depending on the hardware configuration, the system software may require a different setup.

In general, connection to the plotter is by RS232 cable with null modem configuration (pins 2 and 3 reversed, pin 7 ground). If this is the connection, the computer and plotter communicate using `xon` and `xoff`. It is usually necessary on UNIX to establish an entry in `/etc/printcap` to let UNIX know the characteristics of the connection. A typical `printcap` entry is as follows:

```
hp7585|plotter|hp:\
:lp=/dev/ttyb:sd=/usr/spool/lpd:br#9600:\
:sf:pl#0:pw#0:mx#0:sh:lf=/usr/adm/lpd-errs:
```

If you have difficulty in set up, contact the customer support department of your hardware vendor.

**Note**

Pro/ENGINEER does not support any HPIB interfacing.

## Loading and Mounting the CD-ROM on UNIX

Most UNIX systems mount the CD-ROM after it is loaded into the CD-ROM drive. For users whose machines do not mount automatically, the following instructions explain how to load and mount the CD-ROM locally and remotely.

**Note**

Sun Solaris 2.x has automatic CD mounting. For information specific to how PTC products run on Sun Microsystems hardware, visit [www.sun.com/technical-computing/ISV/PTCFaq.html](http://www.sun.com/technical-computing/ISV/PTCFaq.html). This site also describes how to edit the `config.pro` file to adjust Pro/ENGINEER fonts.

On Sun Solaris, after you have mounted the CD-ROM, you cannot unmount it if:

- You have started PTC.Setup using the CDE File manager.
- The PTC.Setup help is open.

## Determining the SCSI ID of the CD-ROM Drive

You specify the SCSI identification number of your CD-ROM drive when you mount the CD-ROM file system to your UNIX workstation.

If you already know the SCSI ID of your CD-ROM drive, proceed to the next section, How to Load and Mount the CD-ROM Locally.

For external CD-ROM drives, the SCSI ID can be found on the back of your CD-ROM drive. Look for a single-digit switch. The displayed number is the SCSI ID number.

For internal CD-ROM drives, use the following table to find the command or commands you need to enter to determine the SCSI ID of the CD-ROM drive (the bold # is the ID).

Platform	Command and Output	SCSI ID
HP HP-UX	<p>Insert the CD-ROM into the drive and use the <code>diskinfo</code> command.</p> <p>Become root user.</p> <p>For each file in the <code>/dev/rdsk</code> directory, at the command line type <code>/etc/diskinfo /dev/rdsk/&lt;device file name&gt;</code><sup>1</sup> for the device file identified as <code>type:CD-ROM</code>. The SCSI ID is to the right of the letter <i>t</i> in this example of a device file name, <code>c0t3d0</code>. Note that the identified device file name is the same file name that is used in the command to mount the CD-ROM.</p>	
SGI IRIX	<pre>hinv   grep CDROM</pre> <p>CDROM: unit 3 on SCSI controller 0</p>	<p><b>3</b> (unit #)</p>

<sup>1</sup>Replace `<device>` with each item in the `/dev/dsk` directory.

**Note**

The inclusion of a platform in this table does not indicate support for that platform. This information is included to help you determine the SCSI ID for CD-ROM drives that is remotely mounted to your workstation. See the Hardware Configuration Notes for information on supported systems and platforms.

## How to Load and Mount the CD-ROM Locally

1. Turn on the CD-ROM drive and insert the CD-ROM.
2. If the `/cdrom` directory does not already exist, create it using the following command:

```
mkdir /cdrom
```
3. Use the next table to find your UNIX workstation platform. Enter the command listed for your platform to mount the CD-ROM drive. Substitute the crosshatch (#) with the SCSI ID of your CD-ROM drive (see Determining the SCSI ID of the CD-ROM Drive).

Platform	CD Device Mounting Commands
HP <sup>1</sup>	<code>/etc/mount -F cdfs -o ro,cdcase /dev/dsk/c?t#d0a /cdrom</code>
SGI MTFS <sup>2</sup>	<code>mount -t iso9660 -o ro /dev/scsi/sc0d#l0b /cdrom</code>

- <sup>1</sup> Replace the question mark (?) with the Interface Card Instance Number and replace the crosshatch (#) with the device's SCSI ID number.
- <sup>2</sup> The SGI device name uses the lowercase alpha character *l*, not the numeric 1.

## How to Load and Mount the CD-ROM Remotely

### Note

Mount the CD-ROM drive using NFS version 2. In machines that support NFS 3, an extra argument must be added to the mount command to force the use of NFS 2.

1. Load and mount the CD-ROM on the remote UNIX system to which the CD-ROM drive is connected. Use the procedure in the section, How to Load and Mounting the CD-ROM Locally.
2. Before a remote UNIX system can allow access to the CD-ROM from your local UNIX workstation, you must export the CD-ROM file system. A line needs to be added to a file on your local UNIX workstation and, in some cases, a command needs to be executed.
3. Use the following table to look up the platform of the remote UNIX system and add the line in the Line to Add column to the file in the File to Edit column. You need write permissions to edit the files.
4. After you have made the changes, if necessary, execute the command listed in the Command column.

Platform	File to Edit	Line to Add	Command
HP-UX	/etc/exports	/cdrom -ro	exportfs /cdrom
SGI	/etc/exports	/cdrom	exportfs /cdrom
SUN	/etc/dfs/dfstab	share -F nfs -o ro /cdrom	shareall

5. If the /cdrom directory does not already exist on your local UNIX workstation, create it using the following command:
 

```
mkdir /cdrom
```
6. You mount the CD-ROM mount directory from the remote UNIX system to your local workstation. Use the following table to look up the platform of your local UNIX workstation and execute the command for your UNIX platform. In the command you execute, substitute <node> with the name of the remote UNIX system to

which the CD-ROM drive is connected and substitute <cdmount> with the CD-ROM mount directory used on the remote UNIX system.

Platform	Remote Mounting Command
HP	<code>/etc/mount -o ro,hard &lt;node&gt;:&lt;cdmount&gt; /cdrom</code>
SGI <sup>1</sup>	<code>mount -o ro,hard &lt;node&gt;:&lt;cdmount&gt; /cdrom</code>
SUN <sup>1</sup>	<code>mount -o ro,hard &lt;node&gt;:&lt;cdmount&gt; /cdrom</code>

<sup>1</sup> If you experience problems using PTC.Setup from a remote-mounted CD-ROM, you can try remounting the remote CD-ROM for SGI and Sun systems using the command

```
mount -o ro,hard,vers=2 <node>:<cdmount> /cdrom
```

## Installing Libraries

Some applications come with libraries of models or textures for use in your models. For Pro/ENGINEER, all libraries except the Electrical Symbol, the Piping and Heating Symbol, and graphic libraries must be installed under the Pro/ENGINEER installation directory. The following subdirectories are automatically created in this common installation directory for each of the following libraries:

- **Objlib**—Basic Library
- **Connlib**—Connector Library
- **Fittinglib**—Pipe Fitting Library
- **Hmflib**—Human Factors Library
- **Mfglib**—Tooling Library
- **Moldlib**—Moldbase Library

### Note

The Electrical Symbol Library and the Piping and Heating Symbol Library must be installed into a directory called `library_syms` in the `symbols` directory of your Pro/ENGINEER installation directory.


If you are updating your installation, make sure that the installation directory you have chosen does not contain any models that you want to save. During an update installation, any library files you enter in the installation directory are deleted and replaced with the current version of the library you install. You might want to back up your existing library installation before updating it.


To install a library:

1. After starting PTC.Setup with the appropriate library CD-ROM, choose the library name from the list of available software components.
2. Click **Next** to confirm that you are installing that library.
3. Click **Next**.
4. Specify the following information:
  - **Destination Folder**—A default installation directory has been specified.

**Note**

For new installations, the directory you enter must be a new directory. If you specify an existing installation directory, PTC.Setup updates the software in that directory. A subdirectory under the main installation directory is recommended (for example, C:\ptc\libraries).

- Under **Features to Install**, click  before each of the components and provide the following information:

**Product Features**—Choose the components that you want to install by clicking  next to the appropriate component. Select one of the following commands from the list:

**Install this feature**—Install the component.

**Do not install this feature**—Do not install the component.

**Platforms**—Select the platform for the installation. Your machine's architecture is automatically detected and selected as the default platform.

**Languages**—Select the required language.

5. After you have selected your components, click **Install**. The **Installation Progress** screen displays the status of installation. You can also do one of the following operations:
  - Click **Cancel** to cancel the installation.
  - Click **Back** and review information.

Further configuration is required to access the installed library files.



# Using Fonts in Pro/ENGINEER

PTC provides 42 third-party TrueType fonts and the default PTC fonts with your software. In addition, you can also use any TrueType font available on Windows. The third-party TrueType fonts include 13 different font styles. If you are running Chinese Traditional or Chinese Simplified Pro/ENGINEER, you can use two additional TrueType fonts:

- Chinese Traditional
  - Monotype Hei Medium
  - Monotype Sung Light
- Chinese Simplified
  - Monotype HeiGB Medium
  - Monotype SungGB Light

New fonts appear in the current font list in Pro/DETAIL and Sketcher. PTC fonts are listed first, followed by the third-party fonts supplied by Agfa Corporation.

## Note

Only fonts provided by PTC are supported in Sketcher for the creation of features.

TrueType fonts are stored in the <loadpoint>/text directory. You can change this default location by placing the fonts in another directory and setting the value of the `pro_font_dir` config.pro option to this directory. Pro/ENGINEER uses the fonts in the directory specified by the `pro_font_dir` config.pro option.

The new TrueType fonts and their corresponding file names follow:

Font Name	File Name
Blueprint MT	bluprnt.ttf
Blueprint MT Bold	bluprntb.ttf
CG Century Schoolbook	schlbk.ttf
CG Century Schoolbook Bold	schlbkb.ttf
CG Century Schoolbook Bold Italic	schlbkbi.ttf
CG Century Schoolbook Italic	schlbki.ttf
CG Omega	cgomg.ttf

<b>Font Name</b>	<b>File Name</b>
CG Omega Bold	cgomgb.ttf
CG Omega Bold Italic	cgomgbi.ttf
CG Omega Italic	cgomgbit.ttf
CG Times	cgtime.ttf
CG Times Bold	cgtimebd.ttf
CG Times Bold Italic	cgtimebi.ttf
CG Times Italic	cgtimeit.ttf
CG Triumvirate	trium.ttf
CG Triumvirate Bold	triumb.ttf
CG Triumvirate Bold Italic	triumbi.ttf
CG Triumvirate Condensed Bold	triumcb.ttf
CG Triumvirate Italic	triumi.ttf
Garamond	garamd.ttf
Garamond Bold	garamdb.ttf
Garamond Italic	garamdi.ttf
Garamond Kursiv Halbfett	garamdbi.ttf
Garth Graphic	gargra.ttf
Garth Graphic Black	gargrabl.ttf
Garth Graphic Bold Italic	gargrabi.ttf
Garth Graphic Italic	gargrai.ttf
Grotesque MT	grotesq.ttf
Grotesque MT Bold	grotesqb.ttf
Microstyle Extended	microex.ttf
Microstyle Extended Bold	microexb.ttf

Font Name	File Name
Neographik MT	neograph.ttf
Sackers English Script	sackengs.ttf
Shannon	shanno.ttf
Shannon Bold	shannob.ttf
Shannon Extra Bold	shannoeb.ttf
Shannon Oblique	shannoo.ttf
Spartan Four MT	sparton4.ttf
Spartan One Two MT	sparton12.ttf
Spartan One Two MT Bold	sparton12b.ttf
Symbol	symbol.ttf
Triumvirate Inserat	triin.ttf

If required, you can purchase additional TrueType fonts. For information, contact the Agfa Monotype Corporation at [www.agfamonotype.com](http://www.agfamonotype.com).

When you work with Pro/ENGINEER, you use two categories of fonts:

- **Pro/ENGINEER fonts**—These fonts appear in Pro/ENGINEER graphics windows. They define alphanumeric characters and special symbols in text files. You can edit these files by:
  - Modifying the look of existing characters and symbols
  - Adding new symbols to the files
  - Creating new fonts
- **Hardware fonts**—These fonts appear in Pro/ENGINEER window headers. They are machine- and language-specific.

## Available System Fonts

To specify the font for menu items, set the configuration file option `menu_font`. The value for this option is the name of the font file, supported by the X-server running Pro/ENGINEER. To obtain the list of available fonts on UNIX machines, use the `xlsfonts` command. On Windows systems, the available fonts are listed in the Control Panel under Fonts. The font for text in Pro/ENGINEER window headers is determined by the current setting of your window manager.

## Extended ASCII Set

ASCII is the default font in all Pro/ENGINEER modules. You can modify ASCII characters. You can also replace ASCII with your own font as the default.

The extended ASCII character set used in the United States and Western Europe is supplied by Pro/ENGINEER through a combination of two font files, `ascii.src` and `latin_1.src`.

### Note

Characters through 146 are defined in `ascii.src`. The remaining characters are defined in `latin_1.src`.

To use the European LATIN\_1 characters, do one of the following procedures:

- Make sure your keyboard is set up for the appropriate language. A specific set of LATIN\_1 characters is available with each keyboard language setting.
- Use a key sequence specific to your machine type to produce the desired character. If necessary, contact your hardware vendor for additional information.

## Displaying the Text Symbol Palette

To display the **Text Symbol** palette:

1. Open a drawing and click **Insert > Note** to create a note.
2. Select a location on the drawing to place the note. The **Text Symbol** palette appears.
3. Click on a symbol in the palette.

Alternatively, you can create a new symbol. Pro/ENGINEER represents special symbols with standard ASCII characters.

To use special symbols in drawing notes, follow these steps:

1. Enter the sequence CTRL+A.
2. Enter the ASCII character that represents the special symbol.
3. Enter the sequence CTRL+B.

When you create a new symbol, you should either redefine an existing character to the new symbol or create a new special symbol font. You can add new special symbols to the font file, `special.src`, by defining the graphic representation.

## Exporting Special Symbols to IGES

Special symbols and their corresponding ASCII characters map to the IGES font table 1001. Only two symbols (Total Runout and the Least Material Condition) do not map to the 1001 table. They are supported by the 1003 font table. The configuration file option `use_iges_font_1003` determines which IGES font table outputs data to IGES. When you assign an ASCII character to a new symbol, select a character from either the 1001 or 1003 font table. Use 1001 or 1003 exclusively when you anticipate that a drawing will be exported in an IGES file. (Refer to your IGES documentation for more information on IGES font tables.)

## How to Edit Pro/ENGINEER Fonts or Create New Fonts

1. Edit an existing or create a new `.src` file, which resides in `<loadpoint>/text/<language>`.
2. Compile the font file by using the command `compile_font`.
3. Make the new font available locally or for all users.

## How to Modify a Pro/ENGINEER Font File

1. Copy the appropriate `.src` font file into your working directory. The `.src` files reside in `<loadpoint>/text/<language>`.
2. Modify the font file.
3. From the `<loadpoint>/text/<language>` area, copy the appropriate index file to your working directory.
4. Copy the `compile_font` command to your working area. If you are working on a UNIX machine, copy the executable `compile_font` to your working directory. The executable is in the following directory: `<loadpoint>/<machine_type>/obj`.
5. To compile the font, enter the following command for each font file you modify: `compile_font fontfilename.src`  
`fontfilename.fnt`

### **Note**

If you modify the ASCII font definitions, it alters the appearance of the default font in every Pro/ENGINEER module.

## How to Create a User-Defined Font File

1. Define a new font in a file with the extension `.src`. Store the new font in your working directory.
2. Create an index file that includes the new font file. Make sure the index file contains fonts with unique codesets.

3. Copy the `compile_font` command to your working area. If you are working on a UNIX machine, copy the executable `compile_font` from `<loadpoint>/<machine_type>/obj` into your working directory.
4. Enter the following command for each font file you create:  
`compile_font fontfilename.src fontfilename.fnt`
5. Recompile user-defined fonts whenever you install a new major release of Pro/ENGINEER.

You can include user-defined fonts as default or auxiliary fonts in drawings.

## How to Store a New Font

1. Store the updated index file with the `.src` and `.fnt` files in your local directory if the new font is for your personal use.
2. To make a new font available to all users, reference the font in the index and store the index and source files in the directory `<loadpoint>/text/<language>`. Store the `.fnt` file in the following directory:  
`<loadpoint>/<machine_type>/text/<language>`

## How to Set Your Font as the Default

1. Rename your file to `ascii.src`.
2. Recompile the `ascii.src` file using the `compile_font` command to produce a local `ascii.fnt` file.

## How to Create or Customize a Font

1. Copy or create font source files in the local working directory. In this example, the default primary ASCII and special symbol fonts are copied and renamed.

```
cp /usr/pro/text/usascii/ascii.src custom.src
```

(primary font with codeset 0)

```
cp/usr/pro/text/usascii/special.src symbols.src
```

(special symbols font with codeset 4)

2. Edit the source files to include all the required definitions and changes.

```
vi custom.src
```

```
vi symbols.src
```

3. Copy the `compile_font` script from the directory `<loadpoint>/<machine_type>/obj` into the same local working directory.

```
cp /usr/pro/sgi/obj/compile_font
```

4. Compile the font files.

```
compile_font custom.src custom.fnt
```

```
compile_font symbols.src symbols.fnt
```

5. Create a new index file to reference the compiled font files. Note that the index file name does not need to be the same as the primary font name. If the custom font created is not a primary font (codeset 0), be sure to include a font with a codeset of 0 in the index file. In this example, the new font index file references both customized font files (primary and special symbols).

```
myfont.ndx (new customized .ndx file)
```

```
custom (new custom primary font (codeset 0))
```

```
latin_1 (system extended ASCII font (codeset 2))
```

```
symbols (new special symbols font (codeset 4))
```

This font index file references the new customized special symbols font only. It uses the system default primary font.

```
myfont2.ndx (new customized .ndx file)
```

```
ascii (system default primary font (codeset 0))
```

```
latin_1 (system extended ASCII font (codeset 2))
```

```
symbols (new special symbols font (codeset 4))
```

You can use the new font in the following ways:

- For personal use of the new font, leave the `.src`, `.fnt`, and `.ndx` files in your local directory. Then reference the new font index file name in the detail setup file as an auxiliary font.

```
aux_font # myfont
```

In this command, `#` is the auxiliary font number (1 through 8).

- To use the font as a global auxiliary font, place the `.src` and `.ndx` files in the `<loadpoint>/text/<language>` directory.

Then put the compiled .fnt files in the directory  
<loadpoint>/<machine\_type>/text/<language>.

```
mv custom.src symbols.src myfont.ndx  
/usr/pro/text/usascii
```

```
mv custom.fnt symbols.fnt /usr/pro/sgi/text/usascii
```

- To set the new font as the system default, rename the primary source and compiled font (codeset of 0) files to `ascii.src` and `ascii.fnt`, respectively. The system `font.ndx` file already references the ASCII font file and, therefore, does not need to be modified. Locate the new `ascii.src` and `ascii.fnt` files in the appropriate directories (see the previous section that describes how to use the font as a global auxiliary font). Note that the system overrides the original `ascii.src` and `ascii.fnt` files, unless you first rename them.

The next time you start Pro/ENGINEER, it uses the new custom font as the system default font.

```
mv custom.src /usr/pro/text/usascii/ascii.src
```

```
mv custom.fnt /usr/pro/sgi/text/usascii/ascii.fnt
```

## Setting Language Defaults

Pro/ENGINEER supports English, French, Italian, German, Spanish, Chinese (Simplified and Traditional), Korean, and Japanese characters, with English as the default language.

### Note

Structural and Thermal Simulation supports only English, French, German, and Japanese characters.

To run the installation utility and Pro/ENGINEER in a language other than English, set the value of the system language environment variable, `LANG`, before you start the installation process. To set the value of the system language environment variable `LANG`, see [Setting the System Language Environment Variable](#) on page B-21 .

To run Pro/ENGINEER in a language other than the default language set by the system language environment variable `LANG`, set the standard language environment variable `PRO_LANG`. To set the value of the environment variable `PRO_LANG`, see [Setting the Standard Language Environment Variable](#) on page B-25 .



## Setting the System Language Environment Variable

To run Pro/ENGINEER in a language other than English, set the value of the system language environment variable LANG before you start Pro/ENGINEER. The default value of the LANG variable is obtained from the local platform setting. Setting the value of the LANG variable is essential because some languages, especially the Asian languages, use the system fonts and local system values.

- For Windows:

```
set LANG = <language>
```

where <language> is the language specification for your platform.

### Note

On Windows 2000 and Windows NT systems, you can also set the language environment variable by clicking **Start > Settings > Control Panel > System**. In the **System Properties** dialog box, click the **Environment** tab. Specify LANG in the **Variable** box and the appropriate language variable, for example, French, in the **Value** box.

- For UNIX (C Shell):

```
setenv LANG <language>
```

where <language> is the language specification for your platform. UNIX settings are case-sensitive.

### Note

Pro/ENGINEER and Pro/INTRALINK must be run in the same language.

The following tables list the values that you can specify for the LANG environment variable for different languages on different platforms.

Platform	Chinese Simplified	Chinese Traditional	French	German
HP HP-UX	zh_CN.hp15CN	zh_TW.big5	c-french c-french.iso88591 fr_CA.iso88591 fr_FR.iso88591 fr_FR.iso885915@ euro french french.iso88591	de_DE.iso88591 de_DE.iso885915 @euro german german.iso88591

<b>Platform</b>	<b>Chinese Simplified</b>	<b>Chinese Traditional</b>	<b>French</b>	<b>German</b>
SGI IRIX	zh_CN.eucgbk zh_CN.gbk zh_CN.ugb	zh_TW.big5	fr fr_BE fr_BE.ISO8859-15 fr_CA fr_CA.ISO8859-15 fr_CH fr_CH.ISO8859-15 fr_FR.ISO8859-15	de de_AT de_AT.ISO8859-15 de_CH de_CH.ISO8859-15 de_DE.ISO8859-15
SUN SOLARIS	chinese zh zh_CN.EUC	big5 tchinese zh_TW zh_TW.BIG5 zh_TW.big5	fr fr_BE fr_BE.ISO8859-1 fr_BE.ISO8859-15 fr_BE.ISO8859-15@euro fr_CA fr_CA.ISO8859-1 fr_CH fr_CH.ISO8859-1 fr_FR fr_FR.ISO8859-1 fr_FR.ISO8859-15 fr_FR.ISO8859-15@euro	de de_AT de_AT.ISO8859-1 de_AT.ISO8859-15 de_AT.ISO8859-15@euro de_CH de_CH.ISO8859-1 de_DE de_DE.ISO8859-1 de_DE.ISO8859-15 de_DE.ISO8859-15@euro
Microsoft Windows	chinese-simplified chs	chinese-traditional cht	french	german

<b>Platform</b>	<b>Italian</b>	<b>Japanese</b>	<b>Korean</b>
Default	italian	japanese	korean
HP HP-UX	it_IT.iso88591 it_IT.iso885915@euro italian italian.iso88591	ja_JP.eucJP japanese.euc	ko_KR.eucKR
SGI IRIX	it it_CH it_CH.ISO8859-15 it_IT.ISO8859-15	ja_JP.EUC	ko_KR.euc
SUN SOLARIS	it it_CH it_IT it_IT.ISO8859-15 it_IT.ISO8859-15@euro	ja ja_JP ja_JP.eucJP japan japanese	ko ko_KR.EUC korean
Microsoft Windows	italian	japanese	korean

<b>Platform</b>	<b>Spanish</b>	<b>English</b>
Default	spanish	C
HP HP-UX	es_ES.iso88591 es_ES.iso885915@euro spanish spanish.iso88591	C.iso88591 en_GB.iso88591 en_US.iso88591 english english.iso88591
SGI IRIX	es es_AR es_AR.ISO8859-15 es_ES.ISO8859-15 es_MX es_MX.ISO8859-15	en en_AU en_AU.ISO8859-15 en_CA en_CA.ISO8859-15 en_GB.ISO8859-15 en_US en_US.ISO8859-15

<b>Platform</b>	<b>Spanish</b>	<b>English</b>
SUN SOLARIS	es es_AR es_BO es_CL es_CO es_CR es_EC es_ES.ISO8859-15 es_ES.ISO8859-15@euro es_GT es_MX es_NI es_PA es_PE es_PY es_SV es_UY es_VE	en en_AU en_AU.ISO8859-1 en_CA en_CA.ISO8859-1 en_GB en_GB.ISO8859-1 en_GB.ISO8859-15 en_GB.ISO8859-15@euro en_IE en_IE.ISO8859-1 en_IE.ISO8859-15 en_IE.ISO8859-15@euro en_NZ en_NZ.ISO8859-1 en_UK en_US en_US.ISO8859-1 en_US.ISO8859-15 en_US.ISO8859-15@euro
Microsoft Windows	spanish	C

<b>Platform</b>	<b>German</b>
HP Linux	de_AT de_AT@euro de_CH de_DE de_DE@euro german

## Setting the Standard Language Environment Variable

To run Pro/ENGINEER in a language other than the default language set by the system language environment variable `LANG`, set the value of the standard language environment variable `PRO_LANG`. For example, to run Pro/ENGINEER in the French language, on a system with English as the default system language, set the value of the standard language environment variable `PRO_LANG` to `french`.

To run Pro/ENGINEER in a language other than the default system language, it is recommended to set the value of the standard language environment variable `PRO_LANG` instead of setting the value of the system language environment variable `LANG`.

The value of the environment variable `PRO_LANG` supersedes the value of environment variable `LANG` when you run Pro/ENGINEER.

- For Windows

```
set PRO_LANG = <language>
```

where `<language>` is the required language, for example, `french`.

- For UNIX (C shell)

```
setenv PRO_LANG <language>
```

where `<language>` is the required language, for example, `french`.

Values that you can specify for the environment variable `PRO_LANG` include:

Language	Value
French	<code>french</code>
German	<code>german</code>
Italian	<code>italian</code>
Spanish	<code>spanish</code>
Chinese Simplified	<code>chinese_cn</code>
Chinese Traditional	<code>chinese_tw</code>
Korean	<code>korean</code>
Japanese	<code>japanese</code>

## Using Asian Language Input Method Switch Keys

When you use the Asian languages along with English, you can switch the language input mode between the Asian language and English. Use the sequence of keystrokes in the next table to switch the input mode language.

Platform	Language	Key Sequence
HP	Chinese Simplified	Right META (Use the Right ALT key if no META key on the keyboard) for English to Chinese Simplified
		Left META (Use the Left ALT key if no META key on the keyboard) for Chinese Simplified to English
		F9 五笔 F10 五画
		F11 拼音 F12 字符
		SHIFT+F9 区位 SHIFT + F10 内码(Big5)
		SHIFT+F11 仓颉 SHIFT+F12 速成
	Chinese Traditional	CTRL+SPACE Chinese Traditional to English
		SHIFT+SPACE 全形/半形 input Switch
		F9 倉頡 F10 速成
		F11 注音 SHIFT+F11 內碼 (Big5)
		SHIFT+F9 全形
	Korean	Right ALT to activate Korean mode
		Left ALT to deactivate Korean mode
	Japanese	漢字 or Extend Char or Left ALT to activate or deactivate Japanese mode
		F9 Hirakana Input F10 Katakana Input
		SPACE or 変換 to convert to Kanji

Platform	Language	Key Sequence
SGI	Chinese Simplified	CTRL+SPACE to switch between Chinese and English input
		F1 全拼/二拼/三拼 Switch
		F2 五笔/钱码 Switch
		F3 全角/半角 Switch
		F5 常用/国标/区位/内码
	Chinese Traditional	CTRL+SPACE to switch between Chinese and English input
		F1 倉頡 F2 簡易
		F3 注音 F4 內碼
		F5 倚天 F6 智慧
		F7 視算 F8 全形/半形 input Switch
		F9 倉頡/簡易/注音/內碼/倚天/智慧/視算 Switch
	Korean	CTRL+SPACE to activate or deactivate Korean (no conversion necessary)
	Japanese	CTRL+ \ to activate or deactivate
		CTRL+ k to toggle between Hirakana and Katakana Input
		CTRL+ w to convert to kanji

Platform	Language	Key Sequence
SUN	Chinese Simplified	CTRL+ SPACE to switch between Chinese and English input
		F2 区位 F3 双拼
		F4 首尾 F5 全拼
		F6 金码 F7 智慧拼音
	Chinese Traditional	CTRL+SPACE to switch between Chinese and English input
		F5 注音 F6 倚天
		F7 電信 F8 倉頡
		F9 簡易 F10 注音
		F11 內碼 F12 全形
	Korean	CTRL+SPACE to activate or deactivate Korean input (no conversion necessary)
	Japanese	日本語 or CTRL+SPACE to activate or deactivate Japanese
SPACE to convert to Kanji		
Windows	Chinese Simplified	CTRL+SHIFT to activate or deactivate Chinese input
	Chinese Traditional	CTRL+SHIFT to activate or deactivate Chinese input
	Korean	Right ALT to activate or deactivate Korean input (no conversion necessary)
	Japanese	ALT+ 半角 / 全角 or ALT+~ to activate or deactivate Japanese input
		SPACE to convert to Kanji

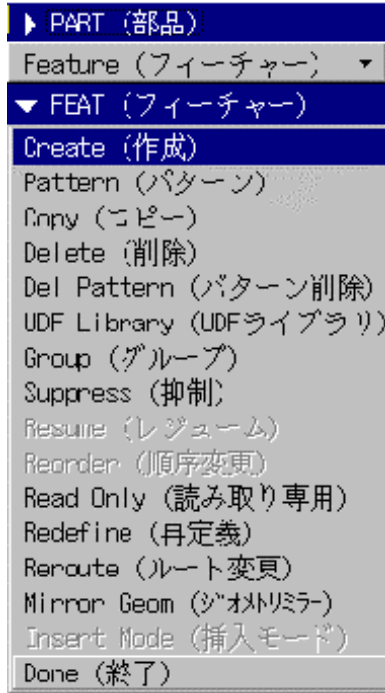


## Modifying the Configuration File for Multiple Languages

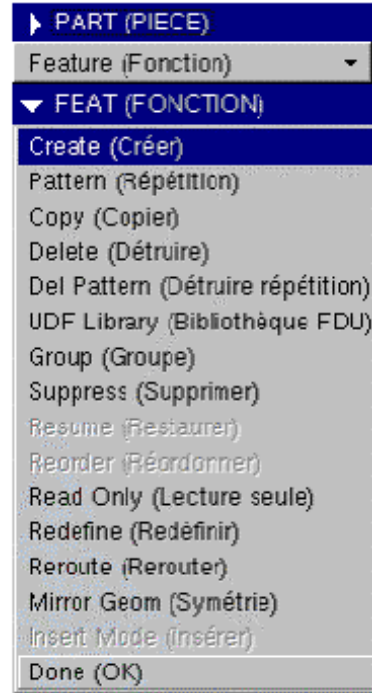
The configuration file, `config.pro`, controls many attributes of a Pro/ENGINEER session. The following table lists the attributes and their values for languages in the `config.pro` file:

<b>config.pro Attribute</b>	<b>Value</b>	<b>Description</b>
MENU_TRANSLATION	YES (default)	Displays menus in the set language
	NO	Displays menus in English
	BOTH	Displays menus in both English and the set language
HELP_TRANSLATION	YES (default)	Displays help in the set language
	NO	Displays help in English
MSG_TRANSLATION	YES (default)	Displays messages in the set language
	NO	Displays messages in English
DIALOG_TRANSLATION	YES (default)	Displays dialog boxes and top menus in the set language
	NO	Displays dialog boxes and top menus in English
SET_MENU_WIDTH	<integer>	Sets the menu width
DXF_IO_SJIS (From Pro/ENGINEER 2000i <sup>2</sup> only)	NO (default)	Imports or exports DXF file in EUC
	YES	Imports or exports DXF file in SJIS

For example, if you set the value of the MENU\_TRANSLATION attribute to BOTH in the config.pro file, then the Pro/ENGINEER menu appears in English and in the set language. The following figures show the Pro/ENGINEER menu in both English and in the set language, when you set the value of the MENU\_TRANSLATION attribute to BOTH.



English and Japanese



English and French

## Meeting Pro/ENGINEER Browser Requirements

The following sections describe the requirements for the Pro/ENGINEER browser. You can find information on Web browser support for Pro/ENGINEER at [www.ptc.com/partners/hardware/current/proewf2.htm](http://www.ptc.com/partners/hardware/current/proewf2.htm). For information on Web browser support for the Help system, see Viewing the Help Center on page 8-2.

### Browser Requirements for Windows

On Windows systems, you must have Internet Explorer version 6.0 with Service Pack 1 or later installed. When you start a Pro/ENGINEER session, Pro/ENGINEER checks for an installation of a compatible version of the Internet Explorer browser.

If this browser is not found, an error message appears and the Pro/ENGINEER session starts with the Pro/ENGINEER browser disabled.

The Pro/ENGINEER browser inherits the existing settings of Internet Explorer.

## Browser Requirements for UNIX

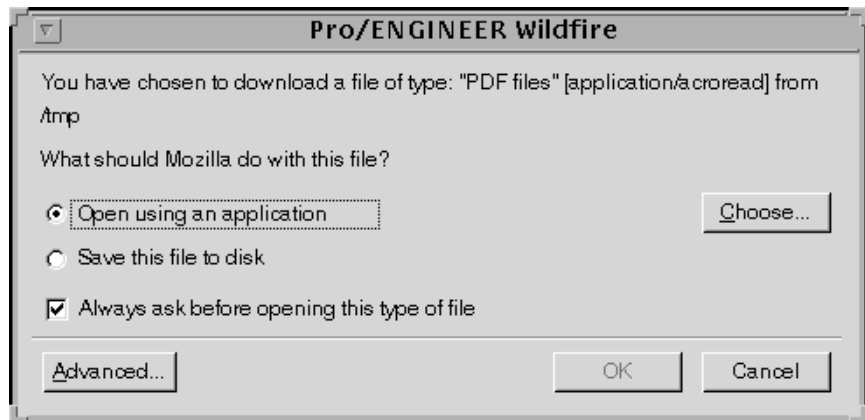
When installing Pro/ENGINEER on UNIX systems, an embedded version of the Mozilla browser is automatically installed. This browser has its own profile directory, at `$HOME/.ptcm140/ptc-browser`. Pro/ENGINEER does not use any existing settings of a separate Mozilla installation. To change the settings of this Pro/ENGINEER browser, click **Tools > Browser Options** in the Pro/ENGINEER window. The Mozilla-native **Preferences** dialog box opens.

## Opening a PDF File within the Pro/ENGINEER Browser

You can view a PDF document in the Pro/ENGINEER browser using Adobe Acrobat Reader. On Windows, Adobe Acrobat Reader is available as a plug-in. On UNIX, use Adobe Acrobat Reader as a helper application to view the PDF document in the browser.

Follow these steps to register the Adobe Acrobat Reader as the helper application on UNIX.

1. When you open a PDF file for the first time, the following dialog box opens:



2. Select the **Open using an application** option. You can choose to clear the **Always ask before opening this type of file** option.

3. Click **Advanced**. The following dialog box opens:



4. Specify a description for the file type and .pdf as the file extension.
5. Click **Choose** and browse to the path for the `acroread` command in the Adobe Acrobat Reader load point.
6. Click **OK**.
7. Click **OK** again, to complete the registration of Adobe Acrobat Reader as a helper application on UNIX.

In the current and all future sessions of Pro/ENGINEER you can directly view the PDF document in the Pro/ENGINEER browser using Adobe Acrobat Reader.

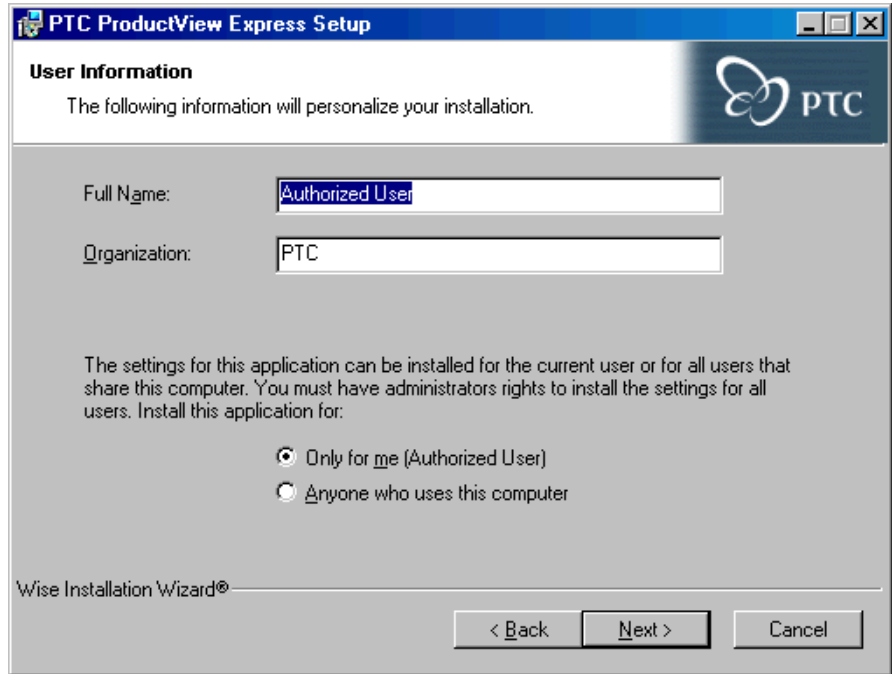
## Printing a PDF Document

You can view a PDF document in the Pro/ENGINEER browser using Adobe Acrobat Reader. To print the PDF document, click the Adobe Acrobat Reader **Print** icon instead of the Pro/ENGINEER browser **Print** icon.

## Setting Up ProductView Express (PVX)

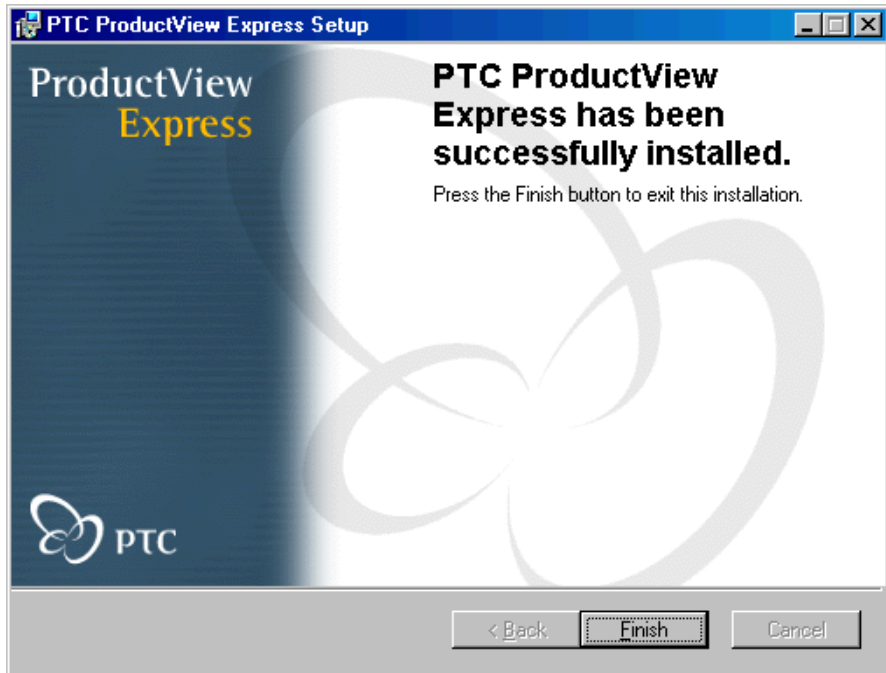
For a Pro/ENGINEER installation on Windows, when you visit a Web page that has Pro/ENGINEER objects selected, the ProductView Express installer opens. Perform the following steps to install ProductView Express:

1. In the **PTC ProductView Express Setup** dialog box, click **Next**. The license agreement window opens.
2. Accept the license agreement to proceed. The **User Information** dialog box opens.



3. Specify your full name in the **Full Name** box and the organization in the **Organization** box. If you have appropriate permissions, you can choose to make this ProductView Express setup available to yourself or anyone else who uses this workstation.
4. Click **Next**. The **Destination Folder** dialog box opens.
5. Specify the destination folder to install ProductView Express or keep the default value.
6. Click **Next**. The **Start Installation** dialog box opens.
7. Click **Next**. A window opens indicating successful installation of ProductView Express.

8. Click **Finish**.



When installation is complete, ProductView starts without your having to restart the Pro/ENGINEER session.

With ProductView Express installed, if you update to a later Pro/ENGINEER date code, then upon startup of Pro/ENGINEER, ProductView Express is installed automatically without displaying the user interface.

The Pro/ENGINEER objects that you can open using ProductView Express follow:

File Extension	File Type
.asm	Pro/ENGINEER Assembly file
.dft	Pro/ENGINEER Draft file
.dgm	Pro/ENGINEER Diagram file
.drw	Pro/ENGINEER Drawing file

File Extension	File Type
.frm	Pro/ENGINEER Format file
.pic	Pro/ENGINEER Picture file
.prt	Pro/ENGINEER Part file
.rep	Pro/ENGINEER Report file
.mfg	Pro/ENGINEER Manufacturing file
.sec	Pro/ENGINEER Sketcher Section file

On Windows, double-click a file with a registered PVX extension to open the file in Internet Explorer.

## Opening Pro/ENGINEER Objects from Windows Explorer

If you have not installed PVX, you can open a Pro/ENGINEER object directly from Windows Explorer in a Pro/ENGINEER session. Pro/ENGINEER objects typically appear with a PTC icon in Windows Explorer. Double-click an object in Windows Explorer to open it in a Pro/ENGINEER session.

If you have installed PVX, a Pro/ENGINEER object is opened in Internet Explorer only for viewing when you double-click the object in Windows Explorer. Right-click on the object and choose **Open with Pro/ENGINEER** to open the object in Pro/ENGINEER.

You can open objects with the following file types:

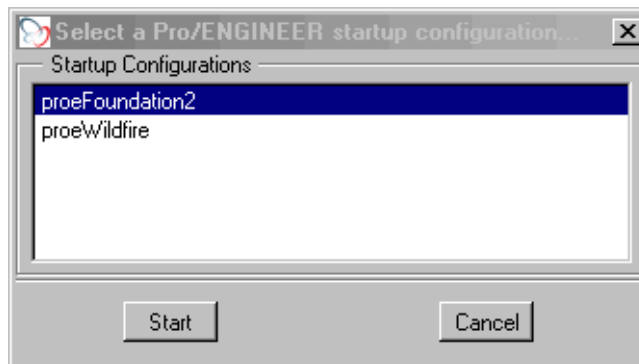
File Extension	File Type
.asm	Pro/ENGINEER Assembly file
.dgm	Pro/ENGINEER Diagram file
.dwr	Pro/ENGINEER Drawing file
.frm	Pro/ENGINEER Format file

File Extension	File Type
.lay	Pro/ENGINEER Layout file
.mfg	Pro/ENGINEER Manufacturing file
.mrk	Pro/ENGINEER Markup file
.prt	Pro/ENGINEER Part file
.sec	Pro/ENGINEER Sketcher Section file

Objects other than those listed in the preceding table do not open in Pro/ENGINEER.

If a Pro/ENGINEER session is already running and you double-click an object in Windows Explorer, the object is automatically loaded within the same Pro/ENGINEER session in a new window. This new window becomes the active window.

If a Pro/ENGINEER session is not running and you double-click an object in Windows Explorer, the **Pro/ENGINEER startup config file** dialog box opens. You are prompted to select a file from the list of available Pro/ENGINEER configuration files. Upon selecting the required startup configuration file, a Pro/ENGINEER session is started using the selected configuration file. The selected object is loaded in this Pro/ENGINEER session.



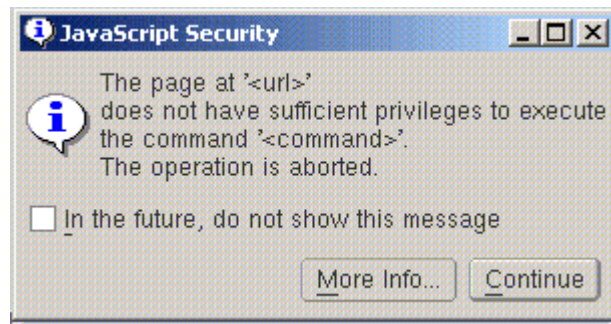
If multiple sessions of Pro/ENGINEER are running, the selected object is loaded in the session that was started first.



# JavaScript Security

In Pro/ENGINEER, a JavaScript bridge is used so that the JavaScript code inside a displayed HTML page interacts with Pro/ENGINEER. For example, **Feature info** reports, folder content listings, and new connection registrations all use the JavaScript bridge for security purposes.

Pro/ENGINEER automatically activates the JavaScript bridge only from pages generated by Pro/ENGINEER or Windchill Solutions. If a page generated from another source tries to access Pro/ENGINEER through the JavaScript bridge, the following warning message appears and the operation is stopped.



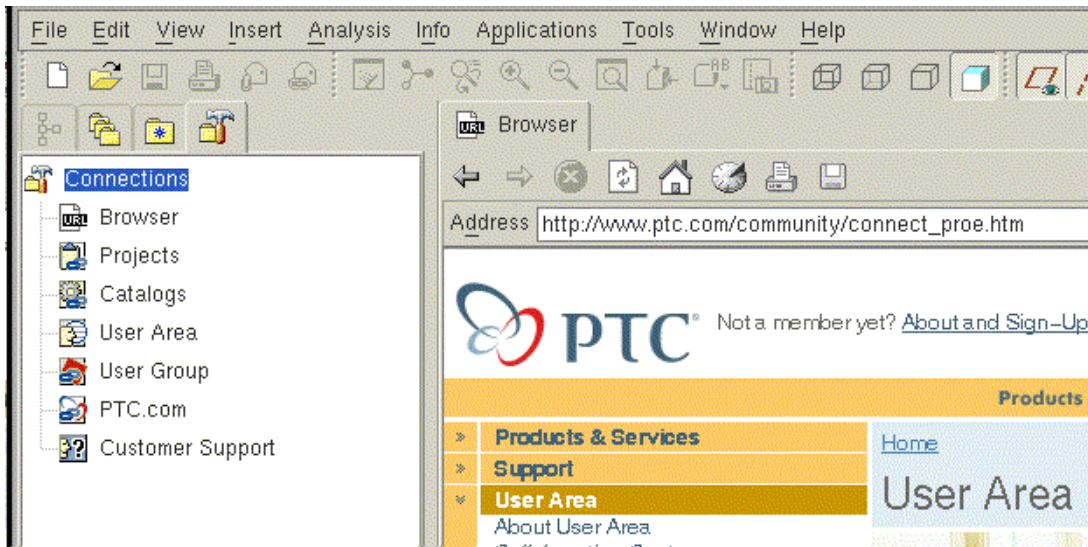
Take one of the following actions:

- If the URL in the message is from an unreliable source, contact your system administrator and avoid accessing this page again.
- If the URL in the message is from a reliable source, such as a PTC Windchill Solution, contact Technical Support.

## Adding Connection Instances in the Connections Navigator

The Connections navigator provides quick access to the PTC solutions and services, or other frequently used Web pages. Default connections appear as top-level nodes in the Connections tree as shown in the next figure. When a new PTC solution or service is available on the PTC Web site, or you want to frequently access a particular Web page, you can add

connections, or buttons, for these Web pages to the Connections navigator. Use the JavaScript code described later in this section to add connections.



A Connection Instance is a node below a top-level connection on the Connections tree. A Connection Instance can have multiple child Connection Instance nodes, but only one parent node. Each Connection Instance is either a direct or an indirect child of top-level connections.

When you select a connection from the Connections navigator, the associated Web page opens in the Pro/ENGINEER browser. A corresponding tab is added to the browser menu bar. When you return to a connection, the page that you visited last on that connection opens in the browser.

## Using the JavaScript Code

To add a Connection Instance to the Connections tree, add the following JavaScript code to a Web page and open the Web page in the Pro/ENGINEER browser.

```
<script>
// -- The JS bridge
function ProExec(cmd)
{
```

```

        if ( top && top.external && top.external.ptc )
            return top.external.ptc(cmd);
        else
            return null;
    }
function ProECommandVoid(cmd) { ProExec ("0" + cmd); }
//--Adding Connection Instance node to Connections tab
function PTC_AddConnectionInstance(name, parent,
label, icon, url )
{
    ProECommandVoid("conn_add_instance?" + name + "?" +
parent + "?" + escape(label) + "?" + escape(icon) + "?"
+ escape(url));
}
</script>

```

This JavaScript code defines the `PTC_AddConnectionInstance` function, which is an API application.

You can pass the following parameters to the `PTC_AddConnectionInstance` function:

- **name**—The unique name of the Connection Instance that you want to add. The name must be unique. This name identifies the node for further use and does not appear in the Connections tree.
- **parent**—The name of the parent connection or Connection Instance under which you want to add the new Connection Instance. The parent connection must exist prior to adding the new Connection Instance. The names of the top-level default connections, such as **Projects**, **Catalogs**, or **User Area** are the same as their labels that appear in English. For example, to add a Connection Instance under the **Catalog** top-level connection, specify the value of the parent parameter as `Catalog`.
- **label**—The label of the Connection Instance that you want to add. This label appears in the Connections tree.
- **icon**—The icon that you want the added Connection Instance to use. This icon can be the location of a `.gif` file that is available for download or one of the two default icons provided by PTC, that is, `3party_node` or `use_from_parent`. Specify `use_from_parent` to use the same icon as that of the parent connection.

The icon size must be 16x16 pixels. The size is automatically adjusted when the icon is displayed in the Connections tree.

**Note**

You must specify only a .gif file for the icon. Any other file format is not supported.

- **url**—The location of the Web page associated with the Connection Instance that you want to add. This Web page opens in the Pro/ENGINEER browser when you select the added Connection Instance on the Connections tree.

**Note**

The Connection Instance is not added if you do not correctly specify all the parameters of the JavaScript function `PTC_AddConnectionInstance`.

## Example of Adding a Connection Instance

For example, the following is the HTML code of a Web page that displays three buttons. Opening this page in the Pro/ENGINEER browser and clicking the three buttons adds two Connection Instances under the **Project** connection and one under the **Catalog** connection.

```
<html>
<head>
<title>Adding Connection Instance</title>
<script>
// -- The JS bridge
function ProExec(cmd)
{
    if ( top && top.external && top.external.ptc )
        return top.external.ptc(cmd);
    else
        return null;
}
function ProECommandVoid(cmd) { ProExec("0" + cmd); }
/--Adding Connection Instance node to Connection tab
```

```

function PTC_AddConnectionInstance(name, parent,
label, icon, url)
{
    ProECommandVoid("conn_add_instance?" + name + "?" +
parent + "?" + escape(label) + "?" + escape(icon) + "?"
+ escape(url));
}

function add_Projects_ConnectionInstance()
{
PTC_AddConnectionInstance( "MyProject", "Projects",
"My Project Label", "use_from_parent", "www.ptc.com")
}

function add_Sub_Projects_ConnectionInstance()
{
PTC_AddConnectionInstance( "MySubProject",
"MyProject", "My SubProject Label", "3party_node",
"www.ptc.com")
}

function add_Catalogs_ConnectionInstance()
{
PTC_AddConnectionInstance( "MyCatalog", "Catalogs",
"My Catalog Label", "3party_node", "www.ptc.com")
}

</script>
</head>
<body>
<br>
<input type=button id="b1" value="Add My Project"
onClick='add_Projects_ConnectionInstance()'</input>
<br>
<input type=button id="b2" value="Add My SubProject"
onClick='add_Sub_Projects_ConnectionInstance()'</input
>

```

```
<br>
```

```
<input type=button id="b3" value="Add My catalog"  
onClick='add_Catalogs_ConnectionInstance()' </input>
```

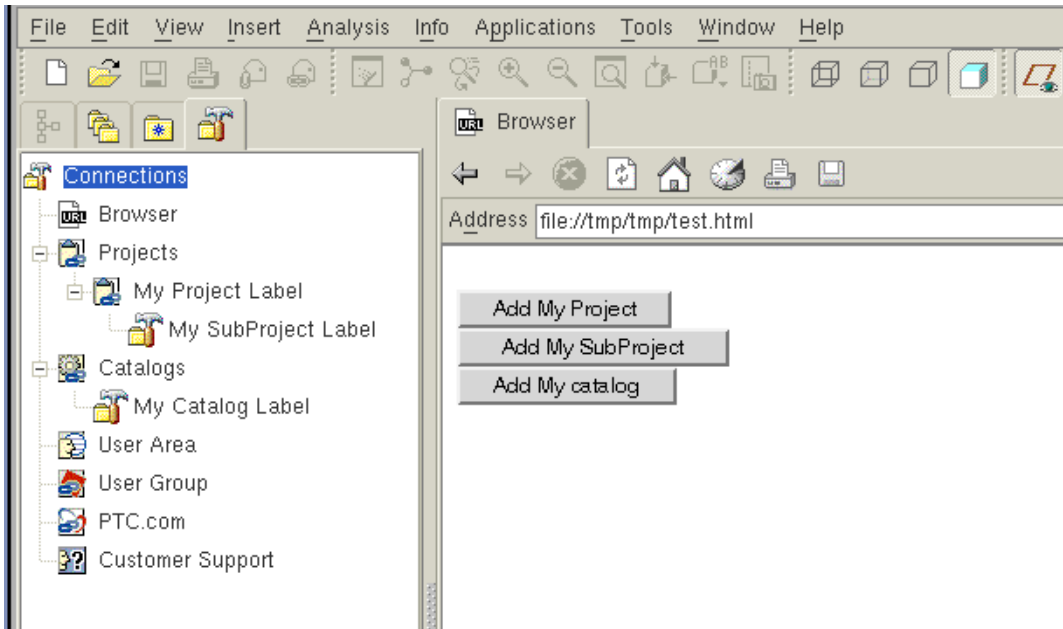
```
</body>
```

```
</html>
```

**Note**

In this example, you can add the Connection Instance MySubProject only after you add its parent Connection Instance, MyProject.

The following figure shows the Pro/ENGINEER Connections tree after adding the three nodes defined in the previous example.



# C

## Distributed Computing Technology

This appendix contains information on the Distributed Computing technology that is used by Pro/ENGINEER to augment your existing hardware.

<b>Topic</b>	<b>Page</b>
Overview	C - 2
Supported Functions	C - 2
Configuring Workstations for Distributed Computing	C - 3
Specifying Host Machines for Distributed Computing	C - 4

# Overview

Pro/ENGINEER uses Distributed Computing technology to augment your existing hardware to perform computationally intensive tasks. Distributed Computing technology includes the following items:

- A Pro/ENGINEER session or the controller.
- Participating networked workstations.
- A daemon running on each participating workstation.
- One or more agents running on the workstations. These agents could be the Pro/ENGINEER sessions running as server processes.
- A task or a collection of jobs.

## **Note**

Distributed Computing is suitable only for multiobject design studies.

## Interactions between the Controller and the Agent

With Pro/ENGINEER you can optimize the distribution of tasks using Distributed Computing technology. The controller communicates with the daemon on each workstation and determines load averages. Agent sessions are automatically started depending on load averages and the number of processors. These agents are started only once for every distributed computing task and not for every job. Communication of data is also optimized. Data, that is, models, information, and instructions, are efficiently streamed directly to each agent through the daemon. No files are copied to a workstation before a job is carried out. As subsequent jobs are dispatched to the same agent, only data that is different between the jobs is streamed. If the data involved is the same, it is not streamed again.

## Supported Functions

Distributed Computing technology supports the following functions:

- Workstations with multiple CPUs are leveraged so that an agent process exists for every CPU (depending on the system load average).
- Workstations are engaged in distributed computing unless the load on a CPU exceeds 20 percent.



- During distributed computing, tasks are dispatched to workstations based on real-time conditions, which include the following:
  - The workstations must be online.
  - The load average on the workstations must be within permissible limits. The load average is calculated over time, not with a single measurement at a specific point in time.
- If a workstation shuts down during distributed computing, the active task is not interrupted. The controller detects the shutdown and routes the job to another agent.
- If multiple users are performing distributed computing tasks, workstations are engaged on a first-come, first-served basis. While a workstation is processing jobs dispatched by a certain controller, it is unavailable to other controller sessions.

After the controller completes its task, any active controller can then engage the workstation.

**Note**

Avoid using distributed computing when dispatching jobs across fire walls.

## Configuring Workstations for Distributed Computing

As system administrators, after installing Pro/ENGINEER 2000i<sup>2</sup> or later, you must configure workstations for distributed computing by performing the following tasks:

1. From the available UNIX and Windows workstations, choose the ones that can participate in distributed computing sessions.
2. Run the `dcadsetup` script on each participating workstation. This script starts a daemon process that is required for distributed computing. No other setup task is required.
3. To shut down the daemon process and thus disable a workstation from participating in distributed computing sessions, run the `dcadshutdown` script.
4. Optionally, register the `dcadsetup` command within the boot script of a workstation. This step ensures that the workstation is enabled for distributed computing after it is shut down and restarted.

# Specifying Host Machines for Distributed Computing

You can specify the host machines for distributed computing by using the **Distributed Computing Hosts Selection** dialog box that opens when you click **Tools > Distributed Computing** in a Pro/ENGINEER session. Distributed computing tasks automatically use the dialog box settings.

When you begin a task, a progress bar indicates the progress of the task, statistics about how many jobs are being processed by agents on each participating workstation, and the status of each workstation. You can release the participating workstations at any time for use by others for a distributed computing task.

# D

## Troubleshooting Tips

This appendix documents common problems that occur when you install PTC software and PTC License Server. This appendix also provides general debugging techniques and cites other sources of information available from the PTC Web site.

<b>Topic</b>	<b>Page</b>
General Debugging Hints	D - 2
Online Information	D - 2
Troubleshooting List	D - 2

## General Debugging Hints

The log file, `ptclmgrd.log`, records license server activities and can be found in `ptc/flexlm/licensing/ptclmgrd`. This file has useful information that you should check when you have a problem.

## Online Information

See [www.ptc.com/support/index.htm](http://www.ptc.com/support/index.htm) for a wealth of how-to information for new and experienced users, including order and license support. The Technical Support link provides online tools and other support services. You can search the Knowledge Base of over 14,000 technical documents or download reference documents, including the Read This First.

The *PTC Customer Service Guide* and contact support is available under Related Links. For information on *FLEXlm* diagnostic environment variables, consult the *FLEXlm End Users Guide*.

## Troubleshooting List

Scan through the following list of problems to find any that appear to be the same as the one you are experiencing. The information is presented in the following format.

**Symptom:** Describes the problem.

**Cause:** Lists the cause of the problem.

**Solution:** Provides steps to resolve the problem.

## Failure to Start the Software

**Symptom:** On Windows systems, when you attempt to start your PTC software, you see an MS-DOS window that contains the message:

```
Cannot find  
<Installation_Directory>\<mc_type>\filename
```

**Cause:** The system `PATH`, an environment variable, is either not set to the `<Installation_Directory>\bin` or it is improperly set due to a syntax or spelling error.

**Solution:** Check the system `PATH`.

## Xtop Icon Disappears from the Taskbar

**Symptom:** An Xtop icon appears for a few seconds in the taskbar and quickly disappears.

**Cause:** Network configuration settings are not properly set.

**Solution:** Make sure that the network settings are in accordance with the Suggested Technique for Configuration of a Windows Workstation for executing Pro/ENGINEER (found at [www.ptc.com/cs/cs\\_20/howto/win515/win515.htm](http://www.ptc.com/cs/cs_20/howto/win515/win515.htm))

Look for a file in the startup location called `std.out` and see if there are references to network errors. If there is a line that states `Exception Code Was -1073741819`, make sure the latest graphics driver is installed. The most recent graphics driver can be downloaded from the manufacturer's Web site. An alternative is to set the `config.pro` option `graphics win32_gdi`.

## Inaccurate Ptcstatus Command Information

**Symptom:** On Windows systems for Release 20 and later, the `ptcstatus` command returns the following message, `Displaying status for license file 77880@ptc Warning (-15): Cannot connect to license servers (-15, 10; 10061)`.

**Cause:** The license server is not running or the license client cannot reach the server.

**Solution:** Verify that the `lmgrd` and `ptc_d` daemons are running. A network problem exists if a license client attempts to ping the server by host name and the ping fails.

## Invalid Licenses

**Symptom:** You receive the error message `Invalid license`.

**Cause:** Licensing information is inaccurate.

**Solution:** Return to the **FLEXlm license editor** and verify that the information entered is exactly as it appears in your License Pack. If no licenses are listed, return to the **FLEXlm license editor** and ensure no text is highlighted.

If all licenses are listed as `invalid`, verify that the `PTC_HOST_ID` in the License Pack corresponds with what you see in the **FLEXlm license editor**. For example, one server line and one daemon line represent a single server. Three server lines and one daemon line represent a fault-tolerant or Triad configuration. Remove all the lines that do not pertain to the `PTC_HOST_ID`.

Your incremental lines must have no blank lines. Verify that all continuation characters (\) are at the end of each line, except for the last line. If some licenses are valid while others are invalid, find the invalid feature name lines in the License File window and correct the text.

If you received your license codes via e-mail, remove any extraneous text such as the header and footer. Another option is to delete the invalid license in the **FLEXlm license editor** window.

## FLEXlm Fails to Start (Triad Configurations)

**Symptom:** PTC License Server does not start after a Triad server is installed and configured.

**Cause:** The following requirement has not been met: two of the three partners of the Triad configuration must be running (Quorum) before licenses can be distributed.

**Solution:** Go to a shell window or a command prompt and change into the <FLEXlm\_Installation\_Directory>\bin. Type in `ptcstartserver`.

# Glossary

**Application Program Interface (API)** A set of standards or conventions by which programs can call specific operating system or network services.

**commercial license** The license you get when you purchase PTC software for commercial purposes.

**counted locked license** Although a locked license is managed by a *FLEXlm* license server, its usage is restricted to a machine for which it is licensed. The license server allows customers to use up to the number of licenses purchased at one time.

**datecode** A unique number to identify a specific version of PTC software. The datecode can be found printed on the jacket of the software CD-ROM.

**daemon line** An entry in the license file that defines

- The name of the PTC daemon, which is a customized software program that grants and denies floating PTC licenses by reading the license file
- The path where this executable resides, that is in the *FLEXlm* installation directory
- The path to the *FLEXlm* options file, which contains various operating parameters

**Design Animation** A software extension that enables users to create animation sequences of parts and assemblies from within Pro/ENGINEER.

**educational license** A license used at educational institutes to run PTC software, also known as a students license. This is a time-bound license.

**evaluation license** An evaluation license allows use of a software product for a trial period.

***FLEXlm*** The license management software that is used to distribute licenses.

**feature line** The feature or increment line is an entry in the license file that describes the product that the user is allowed to use, as well as any optional software products that are associated with that license.

Following is a sample of the feature line:

```
INCREMENT PROE_FlexEng ptc_d 23.0 01-jan-02 4\  
AC0C6BED48DABD0CA081 VENDOR_STRING="VSVER=2.0 \  
LO=(0,3,6,7,10,17,32,34,51,55,62,66,69,73,106,\  
126,133,163)" \  
SUPERSEDE vendor_info="VIVER=1.0 EXTERNAL_NAME=" \  
ISSUER=PTC ISSUED=29-jun-2002 NOTICE="BMW_AG, \  
137661" SN=23134
```

**feature name** The feature name is the name of the license that the application requests. It is composed of a product prefix and a configuration ID (for example, PROE\_FlexEng).

**floating license** A floating license can be used on more than one system. Floating licenses are distributed by a license server process that runs on a machine. This machine is also called the license server. See license-to-run.

**hardware reconfiguration** The process of changing any aspect of the machines currently mapped to the Configuration ID.

**increment line** See feature line.

**installation directory** The directory in which PTC software is installed. Also call the load point.

**install number** A number used by the PTC order management system before October 20, 1997, to identify a single software installation.

**license** A license grants a user permission to run a PTC product.

**license borrowing** A functionality of FLEXlm 8.4a or later. You can borrow licenses from a license server and run a licensed application on a remote client without being connected to the license server.

**license client** A machine or software session that requests a license from another machine or software session. For example, if you start Pro/INTRALINK on machine A and it requests a license from license server B, then machine A is a license client.

**license file** The file (`license.dat`) that is saved onto the user's disk when FLEXlm is installed and configured. This file contains the information used by FLEXlm to authorize the use of software.

**license information** The information that is used by FLEXlm to authorize the use of software. Also used to describe the information that is contained in the PTC License Pack, particularly before a customer has imported or entered that information into the FLEXlm license file. (for example, Enter the license information into the editor).



- license-locked** Refers to an optional module for use with a specific licensed product, which may be either floating or node-locked. If an optional module is license-locked to a node-locked license, it may only be used on the specifically authorized machine. If an optional module is license-locked to a floating license, it may be used on any machine in the network (in conjunction with that license).
- license-locked option** An optional module of PTC software that is locked to a license of PTC software. When the license is successfully started, all license-locked options associated to the licenses are available.
- license management** The PTC organization responsible for all installation-based activities.
- license management software** See *FLEXlm*.
- license pack** The packet sent to a customer (either by e-mail, fax, or U.S. mail) that contains the license codes necessary to run your software.
- license-to-run** A license-to-run invokes the license of a specific PTC application, such as Pro/ENGINEER. Floating licenses are available for use on any host machine on the network at any particular site. See floating license.
- license server** A machine or system process that distributes licenses to license clients. For example, if you start Pro/ENGINEER on machine A and it requests a license from machine B, then machine B is the license server. The license server keeps track of the number of licenses in use. A system administrator can use a license server to control licenses by placing restrictions on a particular feature.
- load point** Directory where the software is installed. An example of the Pro/ENGINEER load point on UNIX systems is `/usr/local/proewildfire2.0`. On Windows it could be `C:\Program Files\proeWildfire2.0`.
- lmgrd daemon** The *FLEXlm* license manager daemon (`lmgrd`) runs on the license server and works with the PTC vendor daemon. It does not manage license usage. The `lmgrd` daemon starts vendor daemons, refers applications to the appropriate vendor daemon, and communicates with other `lmgrd` daemons on the network (for Triad installations).
- maintenance release request** A request for postproduction PTC software, which features enhancements after a major new revision.
- maintenance shipment** An update to the next major release of PTC software.
- Macrovision Corporation** Owner of *FLEXlm*, a license management software. Further information is available at [www.macrovision.com](http://www.macrovision.com).
- ModelCHECK** A software productivity tool for Pro/ENGINEER, ModelCHECK analyzes parts, drawings and assemblies, and recommends proper Pro/ENGINEER modeling techniques.

**name\_service daemon (nmsd)** This daemon process enables remote communication between Pro/ENGINEER and other PTC applications.

**node-locked license** A license that can be used on only one specific machine or node. Node-locked licenses are restricted to a specific Host ID, or CPU ID. If the node-locked license does not match the CPU ID of the machine running the software, then the license cannot be used on that machine. Node-locked licenses can be counted or uncounted.

**part file** A file that contains Pro/ENGINEER part information (for example, object dimensions).

**product prefix** This standard prefix corresponds to a particular product. For example, the product prefix for Pro/ENGINEER is PROE\_. This product prefix might be used as a prefix within a feature name, such as PROE\_12345, where 12345 is the Configuration ID; or for an environment variable, such as PROE\_FEATURE\_NAME, which designates the feature that Pro/ENGINEER requests on startup.

**Pro/BUNDLE** A type of floating optional module that is comprised of several existing optional modules. PTC licensing recognizes the bundled software as a single licensed entity.

**Pro/ENGINEER** A 3-D mechanical design automation suite, Pro/ENGINEER provides associative and interoperable product design and an engineering modeling system.

**Pro/J.Link** A Java-based toolkit, Pro/J.Link allows developers to create Java applications that access a Pro/ENGINEER session.

**Pro/Plastic Advisor** Pro/Plastic Advisor simulates mold filling for injection molded plastic parts and provides designers with immediate, easy access to reliable manufacturing feedback and advice.

**Pro/TOOLKIT** An API, Pro/TOOLKIT enables customers and third parties to add functionality to Pro/ENGINEER using the C programming language.

**Pro/Web.Link** An API, Pro/Web.Link extends the capabilities of the Netscape browser so it can communicate with Pro/ENGINEER.

**PTC Application Manager** A utility that appears as a toolbar that enables the user to start and close other applications during a Pro/ENGINEER session.

**PTC.Setup** A graphical installation utility with common menus, dialog boxes, and screen icons to help customers install PTC product applications.

**PTC.Setup Help** Online user installation instructions displayed in a Web browser.

**PTC daemon** The PTC vendor daemon (`ptc_d`) runs on the license server and works with the `FLEXlm` daemon. It manages license usage by reading the PTC license file. The PTC daemon also contains the authentication information for PTC license security.

- PTC Host ID** The number used to uniquely identify your machine. This is the same number used in PTCIm, called the CPU ID. Also referred to as the machine address.
- reconfigurations** The process of modifying the configuration of software (moving modules from one license to another).
- server line** An entry in the license file that identifies the server or servers that distribute the software.
- startup command** The command that is used to start an installed software product. The startup command is created during installation and is associated with at least one license from the license management component. Modules that are in separate feature lines can also be associated with the startup command. When a startup command is executed, the associated licenses and modules are automatically licensed for use by the user who executed the startup command.
- trail file** A trail file records the procedures the end user performed while running a Pro/ENGINEER session.
- triad servers** A configuration of three license servers on the same network that work together to manage a pool of floating licenses.
- uncounted node-locked license** A node-locked license whose permission to use the license is managed by the PTC application, not the license server. Unlimited number of uncounted node-locked license sessions can be run on a single machine at one time.
- Web.Link** A Pro/ENGINEER feature, Web.Link lets you interact with Pro/ENGINEER through a Web browser. With this feature, you can create a customized Web page, which you can then use to automate and streamline aspects of your engineering process.



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