

# MATLAB<sup>®</sup>

---

The Language of Technical Computing

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MATH  
WORKS  
Inc.

Installation Guide for PC

*Release 11 (MATLAB 5.3 Product Family)*

## How to Contact The MathWorks:



508-647-7000 Phone



508-647-7001 Fax



The MathWorks, Inc. Mail  
24 Prime Park Way  
Natick, MA 01760-1500



<http://www.mathworks.com> Web  
<ftp.mathworks.com> Anonymous FTP server  
<comp.soft-sys.matlab> Newsgroup



[support@mathworks.com](mailto:support@mathworks.com) Technical support  
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### *Installation Guide for PC*

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## Introduction

This chapter contains instructions for installing Release 11 of the MathWorks MATLAB family of products on your PC.

### Licensing

The standard installation procedure is for *individual* licenses. An individual license allows products to be installed and used on a single computer. When you purchase products with an individual license, the MathWorks sends you a *Personal License Password* (PLP) by e-mail or fax. A PLP is a 20 to 35 digit number, prefixed with a 2-digit release code. The PLP identifies the products you are licensed to install and use. You must supply this PLP to install any of the MathWorks products. Have it handy before you start the installation. If you didn't receive your PLP, see "Obtaining Your Personal License Password" below.

As a convenience for workgroups with many users, the MathWorks also provides *group* licenses. Group licenses allow a system administrator to install MathWorks products on up to a designated number of systems, using one PLP for all installations. This eases the administration of multiple individual licenses. It is the responsibility of the licensee to control the number of installations of each licensed product. If you have purchased a group license, use the standard installation procedure described in this chapter for each installation in the group.

For information on installing MathWorks products licensed for *concurrent* use, see Chapter 2, "Concurrent License Installation Procedure". Concurrent licenses allow you to install MathWorks products on any computer in a network for use by up to a specified number of concurrent users.

### Obtaining Your Personal License Password

Ordinarily, your PLP is sent to you automatically by e-mail. If you do not have your PLP, you can obtain it by contacting the MathWorks via:

- The Web at [www.mathworks.com/mla](http://www.mathworks.com/mla). Log in to MATLAB Access using your last name and Access number. MATLAB Access membership is free of charge and available to all customers. The primary contact on each license is

automatically enrolled in MATLAB Access and their Access number sent via e-mail.

- E-mail at [service@mathworks.com](mailto:service@mathworks.com).
- Telephone at 508-647-7000; ask for Customer Service.
- Fax at 508-647-7001.

When you request a PLP, please have ready, or include in your e-mail or fax, these items:

- Your License Number.

If you have not previously installed MATLAB at your site, you can find your License Number on the upper right-hand corner of the packing slip.

Customers outside North America can obtain license information from their local distributor.

If you have a previous version of MATLAB running at your site, you can obtain your License Number by entering the license command or the ver command at the MATLAB command prompt.

- Your e-mail address.

## System Requirements

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**Note** For the most up-to-date information about system requirements, see the system requirements page, available in the products area at the MathWorks Web site ([www.mathworks.com](http://www.mathworks.com)).

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- Intel-based personal computer with a Pentium, Pentium Pro, or Pentium II processor, or an Intel 486 processor plus 487 math coprocessor (except 486DX, which includes an internal coprocessor)
- Microsoft Windows 95, Windows 98, or Microsoft Windows NT 4.0 (with Service Pack 3)
- CD-ROM drive (for installation)
- 16 MB RAM minimum for Windows 95 or 98; 16 MB RAM minimum for Windows NT, 24 MB (or more) strongly recommended

- Disk space varies depending on size of partition and installation of online help files. The MATLAB installer will inform you of the hard disk space requirement for your particular partition. For example:
  - Partition with a 512-byte cluster size requires 30 MB for MATLAB only and 70 MB with MATLAB online help files
  - Partition with a 64K-byte cluster size requires 145 MB for MATLAB only and 250 MB with MATLAB online help files
- 8-bit graphics adapter and display (for 256 simultaneous colors)

Other recommended items include:

- MS Windows supported graphics accelerator card
- MS Windows supported printer
- MS Windows supported sound card
- Netscape Navigator 3.0 or 4.0.4 or Microsoft Internet Explorer 3.0 or 4.0 (to run the MATLAB Help Desk )
- Microsoft Word 7.0 (Office 95), or 8.0 (Office 97) (to run the MATLAB Notebook)

One of the following is required to build your own MEX-files:

- DEC Visual Fortran 5.0
- Microsoft Visual C/C++ version 4.2 or 5.0 Borland C/C++ version 5.0
- WATCOM version 10.6 or 11

Adobe Acrobat Reader is required to view and print the MATLAB online documentation in PDF format. Adobe Acrobat Reader is available on the MATLAB CD.

MATLAB can be set up to operate on a network via the TCP/IP communications protocol.

## Standard Installation Procedure

This section details the standard installation procedure. When running the installation program, follow the instructions in each dialog box displayed.

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**Note** If you are performing multiple standard installations at your site, do not attempt to “clone” MATLAB installations by copying the MATLAB image from one system to another. The clone copy installations will fail because MATLAB associates a license with a particular system.

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### Standard Installation Checklist

This checklist summarizes the steps in the standard installation procedure. You can complete the installation by simply following the instructions in the dialog boxes presented by the installation program; it has been designed to help you through this process. For detailed information about any of the steps, read the corresponding section in this chapter.

### **Standard Installation Checklist**

- Have your Personal License Password (PLP) handy.
- Stop any virus protection software you have running.
- Insert the MathWorks CD into your CD-ROM drive.  
The installation program starts automatically.
- Review the software license agreement.
- Enter your name, company name, and PLP.
- Specify the products you want to install and the directory in which you want to install them.
- Verify the installation by starting MATLAB and running one of the demo programs.

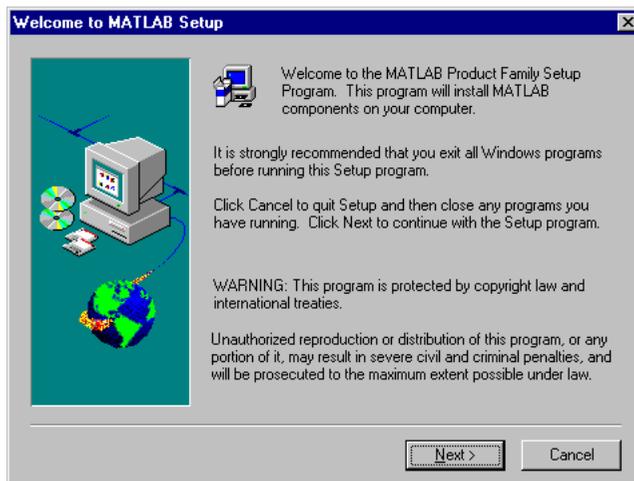
### **After You Install**

- Customize MATLAB environment options, if desired.
- Perform any additional configuration required by the products you installed.

To install the MathWorks software on your PC

- 1** Have your Personal License Password (PLP) handy. If you don't have your PLP, see "Obtaining Your Personal License Password" on page 1-2 for more information.
- 2** Turn off virus checking software and exit any programs you may have running, especially existing copies of MATLAB.

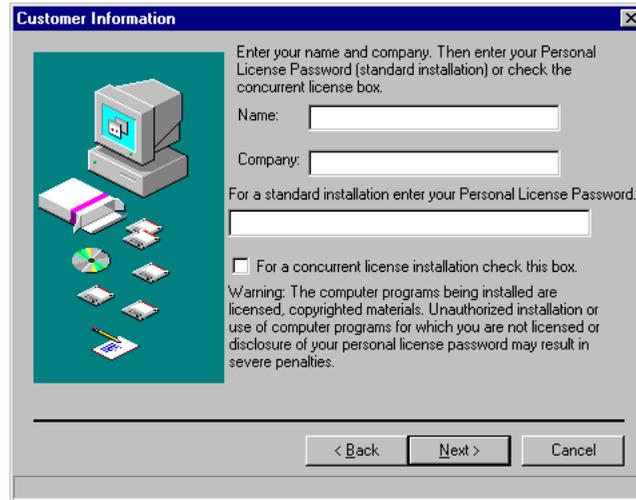
- 3 Insert the MathWorks CD into the CD-ROM drive. The installation program runs automatically, displaying the **Welcome to MATLAB Setup** dialog box.



If the installation program does not start automatically, open a Windows Explorer window, click on the your CD-ROM drive icon, and double-click on the `setup.exe` program.

- 4 Review the software licensing agreement displayed. After installation, you can view the license agreement in the file `license.txt` located in the top level of your MATLAB installation directory, referred to in this guide as `$MATLAB`.
- 5 Enter your name, your company name, and your PLP in the **Customer Information** dialog box. If you received your PLP via e-mail, copy and paste

the PLP from the e-mail into this dialog box to avoid typing errors. For standard installations, do not check the concurrent installation check box

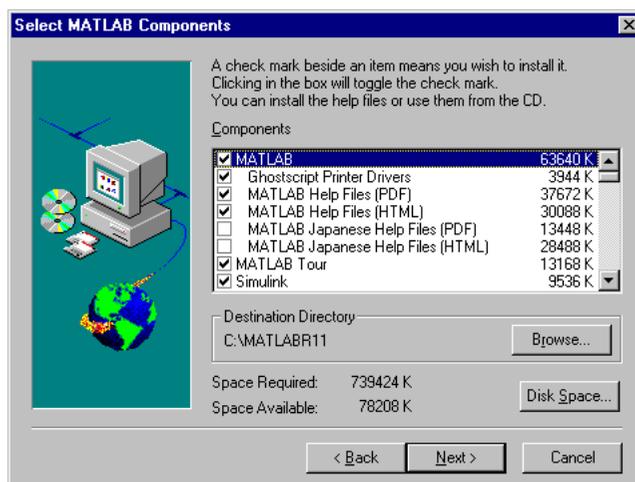


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**Note** Do not confuse your PLP with your License Number. A PLP is a 20 to 35 digit number, prefixed with a 2-digit release code.

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- 6 In the **Select MATLAB Components** dialog box, select the products you want to install and the directory in which you want to install them. Although the Release 11 CD includes the latest version of all the MathWorks software products, the installation program only displays the products you are licensed to install. These products are preselected.



To deselect a component, click on the check mark next to its name. If you deselect a component now, you can install it separately, at a later time. See “Installing Additional Products” on page 3-6 for more information.

In this dialog box, you can control certain aspects of the installation:

- a **Installing Help Files.** By default, the installation program installs the help files associated with the products you purchased. If you want to install the help files in a different directory or view them from the CD, rather than installing them, deselect the help files now and follow the instructions in “Documentation Installation Options” on page 3-3.
- b **Specifying the Destination Directory.** The installation program uses C: \MATLABR11 as the default destination directory for the installation. To specify another directory, click on the **Browse** button.

---

**Note** The name of the MATLAB installation directory must be made up of contiguous characters; it may not include spaces.

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If you are upgrading from a previously installed version of MATLAB, The MathWorks recommends installing the new version in a new destination directory. If you prefer to install over an existing copy of MATLAB, back up any M-files that you have developed before starting the installation

process. If you want to remove the previously installed version, see “Removing a MATLAB Installation” on page 3-2.

- c **Space Required.** The Space Required value represents the sum of the disk space requirements of each product you selected. The Space Available value represents the amount of space you have available in the disk partition you are installing into. If the amount of space required is greater than the amount of space available, free up space in the current directory or use the **Browse** button to move to another drive that has more space available. The installation program also uses temporary storage in a directory pointed to by the TEMP variable.

After selecting the products you want to install and specifying the installation directory, click on the **Next** button. The installation program copies files from the CD to your hard disk, displaying a status window that tells you of the progress of the installation.

- 7 If you selected products that require Microsoft Java support, such as the Database Toolbox, and you do not already have Java installed, the installation program prompts you to install it. The installation program only installs Java; it does not also install the Internet Explorer Web browser.
- 8 When the install program finishes, it displays the **Setup Complete** dialog box. The **Setup Complete** dialog box offers you the choice of starting MATLAB or viewing the release notes. The MathWorks recommends that you start MATLAB and run several of the demonstration programs to verify your installation.

In addition, view the *New Features Guide* and the *Known Software and Documentation Problems* manual, to find out the latest information about the products you purchased. A printed copy of the latter is included in the envelope with your Release 11 CD.

## After You Install

This section describes tasks you perform after a successful installation, including:

- Setting up various MATLAB environment options, if desired.
- Performing additional configuration required by some Release 11 products.

This section also includes pointers to sources of additional information about MathWorks products.

For help solving installation problems, see Chapter 4, “Troubleshooting a PC Installation”.

### Setting Up MATLAB Environment Options

To include welcome messages, default definitions, or any MATLAB expressions that you want executed every time MATLAB is invoked, create a file named `startup.m` in the `\local` directory. MATLAB executes this file each time it is invoked.

**Specifying the A4 Page Size.** To change the default paper size used for printing to A4, include the following line in your `startup.m` file:

```
set(0, 'DefaultFigurePaperType', 'a4')
```

### Configuring Certain Release 11 Products

Certain Release 11 products require additional configuration. The following table lists these products and the commands used to configure them. If you installed any of these products, see the documentation for that product for additional configuration information.

Product	Command
MATLAB Application Program Interface (API)	<code>mex -setup</code>
MATLAB Runtime Server	<code>rtsetup</code>
C and C++ Math Libraries	<code>mbuild -setup</code>
Notebook	<code>notebook -setup</code>
Realtime Workshop Windows Target	<code>rtwintgt -setup</code>

Excel Link, Web Server, and the C and C++ Math Libraries also require that you restart your computer before they can be used. If you installed one of these products, the install program displays an alternate **Setup Complete** dialog box that prompts you to restart your computer.

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**Note** By default, Excel Link supports Excel 97. However, the Mathworks Release 11 CD installation program puts two versions of Excel Link in the EXLINK subdirectory: one corresponding to Excel 7, and one corresponding to Excel 97. Files with 95 appended to their names (i.e. exclink95.xla and ExliSamp95.xls) correspond to Excel 7. Files without this identifier (i.e., exclink.xla and ExliSamp.xls) correspond to Excel 97. Use the appropriate files for your version of Excel.

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## Where to Go from Here

After successfully installing MATLAB, you're probably eager to get started using it. This list provides pointers to sources of information you may find helpful in getting started with MATLAB.

Type of Information	Document to Read
Overview of MATLAB and its capabilities	<i>Getting Started with MATLAB</i>
Detailed description of basic MATLAB features	<i>Using MATLAB</i>
What's new in this release	<i>Release 11 New Features Guide</i>

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<b>Type of Information</b>	<b>Document to Read</b>
Information about specific MATLAB functions	Use the <code>help</code> command at the MATLAB prompt, specifying the name of the function you want to read about. You can also view the MATLAB online documentation by entering the <code>helpdesk</code> command. This opens the MATLAB Help Desk Web page, which provides access to MATLAB online documentation.
Help with specific questions you can't find answered in the documentation	Go to The MathWorks Web site ( <a href="http://www.mathworks.com">www.mathworks.com</a> ) and use the Technical Support solution search area to find more information.



# Concurrent License Installation Procedure

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# Introduction

If you purchase a concurrent license, you can install MATLAB in a network environment and enable concurrent access up to a specified number of users. This type of license is called a *concurrent* license. In this configuration, MATLAB uses a license manager program, called FLEXlm, to control access. The license manager runs as a background process on a server. When you start MATLAB, it acts as a client, contacting the license manager to acquire a license. The license manager keeps track of the number of users that your license allows for each product.

In a network, you can run the license manager on a PC or UNIX server. “Installing MathWorks Software on a PC Server” on page 2-6 describes the PC installation procedure. “Installing the License Manager on a UNIX Server” on page 2-14 describes the UNIX installation procedure.

You run MATLAB clients on PC systems. “Installing MathWorks Software on a Client System” on page 2-20 describes this installation procedure.

## Client Installation Options

When installing MATLAB in a network environment, you have two options:

- Remote client access
- Local client access

### Remote Client Access

For remote client access, install the MathWorks software and the license manager only on the server. Clients access MATLAB across the network. While this option simplifies the installation process, requiring only a single installation on the server, clients accessing MATLAB over the network may experience less than optimal performance, depending on the speed and load of their network.

### Local Client Access

For local client access, install the MathWorks software and the license manager on a server and also install MATLAB on each client system. Do not install the license manager on the client systems. Clients only use the network to access the license manager on the server when they start MATLAB.

## Creating Your License File

To install Release 11 products under a concurrent license, you must have a *License File* on your hard disk that contains a valid set of license passcodes. This License File is used during installation to identify the products you are licensed to install and at run-time by the license manager.

When you purchase products, the MathWorks sends you a License File by e-mail or fax. This License File contains a set of license passcodes that identify the products you are licensed to use, the number of concurrent users that may use each product (also known as the *keys* associated with a license) and the expiration date of each license.

The following is a sample of the License File message sent by the MathWorks. Each line in the License File that begins with the keyword INCREMENT identifies a product you purchased. The lines that begin with a pound sign (#) are comments. The second commented line contains your license number and the IP address (or HostID for UNIX systems) of the server on which you intend to run the license manager.

```
# BEGIN-----cut here-----CUT HERE-----BEGIN
# MATLAB license passcode file for use with FLEXlm 5.12b
# LicenseNo: 12345      HostID: INTERNET=143.202.7.19
INCREMENT MATLAB      MLM 5 01-jan-0000  5
7CA5FOEDE4FA5D7A012C PLATFORMS=i86_n3
INCREMENT SIMULINK    MLM 5 01-jan-0000  5
6C06808AC8C2E2A5274A PLATFORMS=i86_n3
INCREMENT Control_Toolbox  MLM 5 01-jan-0000  3
8CE4038D9AF3148CE329 PLATFORMS=i86_n3
INCREMENT Signal_Toolbox  MLM 5 01-jan-0000  2
DA46AODDAF22F1B5479F PLATFORMS=i86_n3
```

↑
↑
↑
↑
↑

Encrypted Passcode      Product      Client System Type      Expiration Date      Users

When you receive this License File e-mail message from the Mathworks, open a text file, using a text editor, and copy the section of the message marked by the BEGIN and END lines into a text file. Name the file `license.dat` and store it

in any convenient directory. You will specify the location of your License File during the installation process.

If you received your license passcodes in a fax, create the License File in the same way, typing in the license passcode information exactly as it appears in the fax.

---

**Note** Electronic mail programs frequently cause INCREMENT lines to wrap, as illustrated in the example. There can be no line breaks between the start and end of an INCREMENT line. When you create your License File, remove any line breaks that may have been inserted. Be careful to leave a space between each field in the INCREMENT line. Do not use tabs to separate these fields. You can use the \ (backslash) character to continue an INCREMENT line onto more than one line.

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### Obtaining Your License File

If you did not receive your License File, you can obtain it by contacting the MathWorks via:

- The Web at [www.mathworks.com/mla](http://www.mathworks.com/mla). Log in to MATLAB Access using your last name and Access number. MATLAB Access membership is free of charge and available to all customers. The primary contact on each license is automatically enrolled in MATLAB Access. Your Access number is sent via e-mail.
- E-mail at [service@mathworks.com](mailto:service@mathworks.com).
- Telephone at 508-647-7000; ask for Customer Service.
- Fax at 508-647-7001.

When requesting a license file, please have ready, or include in your e-mail or fax, these items:

- Your License Number.
  - If you have not previously installed MATLAB at your site, you can find your License Number on the upper right-hand corner of the packing slip. Customers outside North America may obtain this information from their local distributor.

- b** If you are updating an existing MATLAB installation and MATLAB is running, type `license` or `ver` at the MATLAB prompt.
  - Your e-mail address (if you have one).
  - The Internet address (or HostID for UNIX systems) of the server on which you will run the MATLAB license manager.
    - On Windows NT systems, obtain your Internet address by entering the command `ipconfig` in a Command Prompt window.
    - On Windows 95 or 98 systems, obtain your Internet address by entering the command `winipcfg` in a Command Prompt window.
- Only statically allocated IP addresses are supported.

## **System Requirements**

See “System Requirements” on page 1-3 for information on system requirements.

### Installing MathWorks Software on a PC Server

This section describes how to install MATLAB and the license manager on a PC. If you want to run the license manager on a UNIX system, see “Installing the License Manager on a UNIX Server” on page 2-14 for installation instructions.

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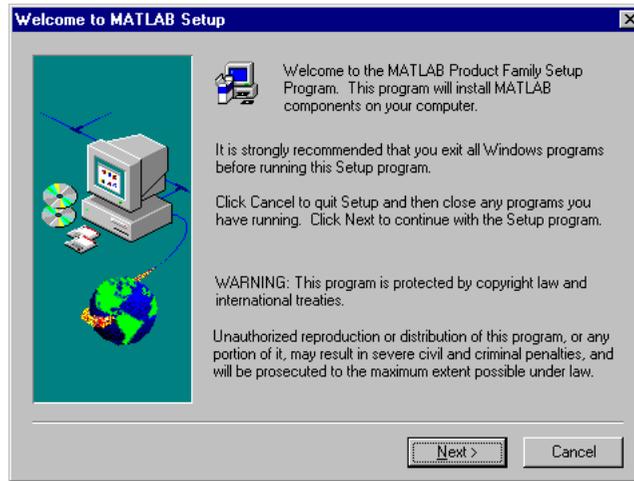
**Note** To install the license manager as a Windows NT service, you must have administrator privileges.

---

To install the MathWorks software on your PC:

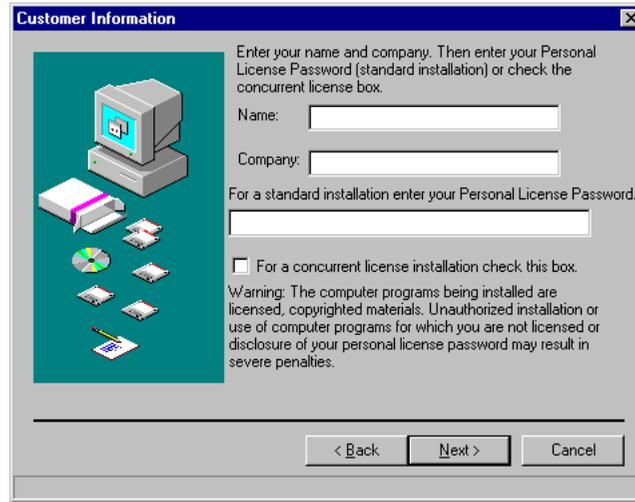
- 1** Create your License File and name it `license.dat`. For information on creating a license file, see “Creating Your License File” on page 2-3.
- 2** Turn off virus checking software and exit any programs you may have running, especially existing copies of MATLAB.
- 3** Shut down the FLEXlm license manager, if it’s running. (See “Stopping the License Manager” on page 4-7 for instructions.)
- 4** Insert the Release 11 CD distribution disk into the CD-ROM drive. The installation program begins to run automatically, displaying the **Welcome to MATLAB Setup** dialog box.

- 5 If the installation program does not start automatically, open a Windows Explorer window, click the CD-ROM drive icon, and double-click the setup.exe program.



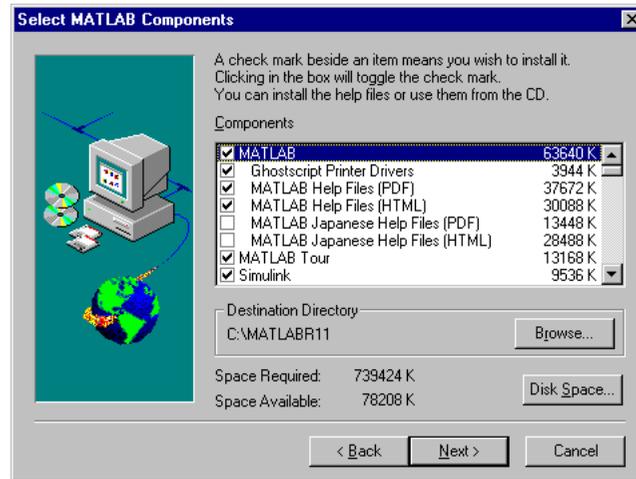
- 6 Review the software licensing agreement displayed. After installation, you can view the license agreement in the file `license.txt` included in the top level of your MATLAB installation directory.
- 7 In the **Customer Information** dialog box, enter your name and your company name. Then select the Concurrent License Installation option. You

do not need to enter a Personal License Password (PLP) for a concurrent license installation.



- 8** In the **Location of License File** dialog box, specify the directory in which you have stored your license file, `license.dat`.

- 9 In the **Select MATLAB Components** dialog box, select the products you want to install and the directory in which you want to install them. The products you purchased are preselected.



To deselect a component, click on the check mark next to its name. You can install a product separately, at a later time, if you deselect it now. See “Installing Additional Products” on page 3-6 for more information.

In this dialog box, you can control certain aspects of the installation:

- a **Installation of MATLAB Help Files.** By default, the installation program installs the help files associated with MATLAB and the other products you purchased. If you want to install the help files in a different directory or view them from the CD, rather than installing them, deselect the help files now and follow the instructions in “Documentation Installation Options” on page 3-3.
- b **Specification of the Destination Directory.** The installation program uses C:\MATLABR11 as the default destination directory for the installation. To specify another directory, click on the **Browse** button.

---

**Note** The name of the MATLAB installation directory must be made up of contiguous characters; it cannot include spaces.

---

If you are upgrading from a previously installed version of MATLAB, The MathWorks recommends installing the new version in a new destination directory. If you prefer to install over an existing copy of MATLAB, back up any M-files that you have developed before starting the installation process. If you want to remove the previously installed version, see “Removing a MATLAB Installation” on page 3-2.

- c **Space Required.** The Space Required value represents the sum of the disk space requirements for each product you selected. The Space Available value represents the amount of space you have available in the disk partition you are installing into. If the amount of space required is greater than the amount of space available in the current partition, free up space in the partition or use the **Browse** button to move to another directory. The installation program also uses temporary storage in a directory pointed to by the TEMP variable.

After selecting the products you want to install and specifying the installation directory, click **Next** . The installation program copies files from the CD-ROM onto your hard disk, displaying a status window telling you the progress of the installation.

- 10 Just before the installation program finishes copying files, it prompts you to install the license manager. When installing MATLAB on a server, click **Yes**. The installation program displays the **License Manager** dialog box, which asks you to specify where you want the license manager installed.

The installation program uses C:\FLEXLM as the default destination directory for the license manager. The MathWorks recommends using this location. To specify another location, click **Browse**.

- 11 If you have selected products that require Microsoft Java support, such as the Database Toolbox, and you do not already have Java installed, the installation program prompts you to install it. Click **Yes** . The installation program only installs Java; it does not install the Internet Explorer Web browser.

- 12** When the install program finishes, it displays the **Setup Complete** dialog box.

If you did not already have the license manager installed, the **Setup Complete** dialog box offers you the option of restarting your computer now. You must reboot your computer to start the license manager if it was installed as a Windows NT service. (For information on starting and stopping the FLEXlm license manager without rebooting, see “Starting the License Manager” on page 4-6.)

If the license manager was already installed on your system, the **Setup Complete** dialog box offers you the choice of starting MATLAB or viewing the release notes. The MathWorks recommends that you start MATLAB and run several of the demonstration programs to verify your installation.

In addition, view the *New Features Guide* and the *Known Software and Documentation Problems* manual, to find out the latest information on the products you purchased. A printed copy of the latter is included in the envelope with your Release 11 CD.

## After You Install

This section describes tasks you perform after a successful installation, including:

- Setting up various MATLAB environment options, if desired.
- Performing additional configuration required by some Release 11 products.

For help solving installation problems, see Chapter 4, “Troubleshooting a PC Installation”.

### Setting Up MATLAB Environment Options

To include welcome messages, default definitions, or any MATLAB expressions that you want executed every time a user invokes MATLAB, edit the `matlabrc.m` file in the `$MATLAB\toolbox\local` directory. This file is executed each time a user invokes MATLAB.

**Specifying the A4 Page Size.** You can also change the default paper size used for printing to A4 by editing the `matlabrc.m` file. Open the file with any text editor and uncomment the line:

```
set(0, 'DefaultFigurePaperType', 'a4')
```

Individual MATLAB users can perform these same customizations of their own MATLAB environments by creating a `startup.m` file in their top-level MATLAB directory.

### Configuring Certain Release 11 Products

Certain Release 11 products require additional configuration. The following table lists these products and the commands used to configure them. If you installed any of these products, see the documentation for that product for additional configuration information.

---

<b>Product</b>	<b>Command</b>
MATLAB Application Program Interface (API)	mex -setup
MATLAB Runtime Server	rtsetup
C and C++ Math Libraries	mbuild -setup
Notebook	notebook -setup
Realtime Workshop Windows Target	rtwintgt -setup

Excel Link, Web Server, and the C and C++ Math Libraries also require that you restart your computer before they can be used. If you installed one of these products, the install program displays an alternate **Setup Complete** dialog box that prompts you to restart your computer.

---

**Note** By default, Excel Link supports Excel 97. However, the Mathworks Release 11 CD installation program puts two versions of Excel Link in the EXLINK subdirectory: one corresponding to Excel 7, and one corresponding to Excel 97. Files with 95 appended to their names (i.e., exllink95.xla and ExliSamp95.xls) correspond to Excel 7. Files without this identifier (i.e., exllink.xla and ExliSamp.xls) correspond to Excel 97. Use the appropriate files for your version of Excel.

---

## Where to Go from Here

For pointers to sources of information on MATLAB, see “Where to Go from Here” on page 4-12.

# Installing the License Manager on a UNIX Server

You may want to run the license manager on a UNIX server and make it accessible to PC client systems. The Release 11 CD contains a UNIX license manager and a separate UNIX installation program.

To perform this installation, you can either:

- Install the license manager directly on the UNIX host, using the Release 11 CD in a drive mounted on a UNIX host. The Release 11 CD is readable on both PC and UNIX systems.
- Copy the UNIX license manager *tar file* from the Release 11 CD to your PC host, and then transfer the tar file to your UNIX host. On the UNIX host, you can then extract the files from the tar file and run the UNIX installation program.

(A tar file is a UNIX mechanism for transferring multiple files in a single file, preserving the UNIX directory organization of the files. You use the UNIX tar command to extract files from a tar file.)

---

**Note** This installation procedure installs only the license manager on a UNIX system. It does not install MATLAB or any of its companion products.

---

## Installing from a CD-ROM Drive Mounted on a UNIX Host

Follow these instructions:

- 1 Log in to the UNIX server.
- 2 Create a directory to be the mount point for the CD-ROM drive, if one doesn't already exist:

```
mkdir /cdrom
```

Some platforms do not require this step. For example, a Sun Solaris system running the volume manager does not.

- 3 Place the Release 11 CD into a CD-ROM drive connected to your UNIX system. On older CD-ROM drives this may involve placing the CD in a caddy.
- 4 Mount the CD-ROM drive on your UNIX system.

Some platforms, such as Sun Solaris, will automatically mount the CD-ROM for you. For other systems, use the appropriate command from the table below. In the example commands, the word *<extension>* represents a part of the actual device name that depends on the SCSI port to which your CD-ROM drive is attached. You must supply the full device name, specific to your system, when you use these commands.

Platform	Mount Command
Sun (Solaris 2.x)	<pre>mount -F hsfs -o ro /dev/dsk/c0t&lt;extension&gt; /cdrom</pre> <p>Note: On Sun Solaris systems, the CD-ROM will mount automatically if the volume manager is running.</p>
HP 9000 (HP-UX)	<pre>mount -F cdfs -r /dev/dsk/c0t&lt;extension&gt; /cdrom</pre>
DEC Alpha (Digital UNIX)	<pre>mount -t cdfs -r -o noversion /dev/rz&lt;extension&gt; /cdrom</pre>
IBM RS/6000 (AIX)	<pre>mount -v cdrfs -r /dev/cd&lt;extension&gt; /cdrom</pre>
SGI (IRIX/IRIX64)	<pre>mount -t iso9660 -o setx /dev/scsi/sc&lt;extension&gt; /cdrom</pre>
Linux	<pre>mount -t iso9660 /dev/cdrom /cdrom</pre>

To mount a CD-ROM drive that is connected to a remote system, configure the CD-ROM drive on the remote system so that it is available for mounting on your local system (exporting), and then use the appropriate mount command on your local system to mount the drive remotely. For more information on this option, see the section “Mounting Your CD-ROM Drive” in the *Installation Guide for UNIX*. (See page 2-19 for information about obtaining this manual.)

- 5 Move to the installation location, using the `cd` command. For example, if you are going to install the license manager in the `/usr/local/lm.matlab5` directory, use the commands:

```
cd /usr/local
mkdir lm.matlab5
cd lm.matlab5
```

Subsequent instructions in this book refer to this directory as `$LM_ROOT`.

- 6 Put your License File (`license.dat`) in the `$LM_ROOT` directory. See “Creating Your License File” on page 2-3 for information on creating a License File. When the installation program runs, it processes this License File, adding license manager daemon information, and moves the file to the `$MATLAB/etc` subdirectory.

---

**Note** You must use this processed License File, `$MATLAB/etc/license.dat`, in each of your PC client installations. (The `HostID` in the `SERVER` line must match the `HostID` of your UNIX server; not your PC client.)

---

- 7 Move to the mounted CD-ROM directory and run the installation script appropriate for your system. For Sun, DEC, IBM, SGI, and Linux systems, enter these commands:

```
/cdrom/unix/etc/install*
```

For HP systems, enter these commands

```
/cdrom/unix/etc/INSTALL*
```

The installation program asks you to verify your `$LM_ROOT` path and select your license manager architecture(s).

- 8 Start the license manager on the UNIX server, using the command:

```
./lmstart
```

To stop the license manager type:

```
./lmdown
```

## Installing from a Tar File

Because the following procedure involves performing steps on both a UNIX machine and a PC, each step identifies the platform on which it must be performed.

- 1 On your PC, insert the Release 11 CD into the CD-ROM drive.
- 2 On your PC, copy the license manager tar file from the CD to your local disk drive.

The Release 11 CD contains a set of tar files, named `\unix\lm\arch.tar`, where *arch* is an abbreviation that identifies the supported UNIX architecture, listed in the following table. Pick the file appropriate for your UNIX system.

Architecture	Operating System	Abbreviation
DEC Alpha	DEC UNIX	alpha
HP700/800	HP-UX	hp700
IBM RS6000	AIX	ibm_rs
PC	Linux	lnx86
SGI	IRIX	sgi
SGI64	IRIX64	sgi64
Sun Sparc	Solaris	sol2

For example, if your CD-ROM is mounted on drive Z:, your local drive is on drive C:, and the target UNIX system is a Sun Solaris system, you could use the following command:

```
copy Z:\unix\lm\sol2.tar C:\sol2.tar
```

- 3** On your UNIX server, create the license manager installation directory. For example, if you are going to install the license manager in the `/usr/local/lm.matlab5` directory, use the commands:

```
cd /usr/local
mkdir lm.matlab5
cd lm.matlab5
```

Subsequent steps in this procedure refer to this directory as `$LM_ROOT`.

- 4** On your UNIX server, put your License File (`license.dat`) in the `$LM_ROOT` directory. See “Creating Your License File” on page 2-3 for information on creating a License File. When the installation program runs, it processes this License File, adding license manager daemon information, and moves the file to the `$MATLAB/etc` subdirectory.

---

**Note** You must use this processed License File, `$MATLAB/etc/license.dat`, in each of your PC client installations. (The `HostID` in the `SERVER` line must match the `HostID` of your UNIX server; not your PC client.)

---

- 5** On your UNIX server, copy the tar file from your PC to the `$LM_ROOT` directory on your UNIX system, using FTP or some other mechanism. The license manager tar file is a binary file.

- 6** On your UNIX server, extract the files from the tar file and execute the installer.

```
tar -xvf arch.tar
install_lm
```

The install script asks you to verify your `$LM_ROOT` path.

- 7** On your UNIX server, start the license manager, using the command:

```
./lmstart
```

To stop the license manager type:

```
./lmdown
```

## Getting Help for UNIX License Manager Issues

For more information on installing or working with the license manager on a UNIX system, refer to Technical Note 1310, which covers UNIX installation issues, and is available on the Support page at the MathWorks Web site, [www.mathworks.com](http://www.mathworks.com).

You can also refer to the *Installation Guide for UNIX*, available in PDF format on the MATLAB Help Desk or on the Support page at the MathWorks Web site. (You will need your MATLAB Access number to view this document.) This guide is also included in this distribution in Postscript format. To print out a copy of the guide, after installation, enter one of the following commands:

```
lpr $LM_ROOT/installguide.ps  
lpr $LM_ROOT/installguide_a4.ps (A4 paper size)
```

# Installing MathWorks Software on a Client System

If you choose to have clients run MATLAB locally, you must repeat the network installation procedure on each client system. The local client access installation procedure is basically the same as on a server.

## PC Client with a PC Server

To install MathWorks software on a client system that will access the license manager running on a PC server, follow the same set of instructions outlined for a server installation, starting on page 2-6. However, note the following:

- Copy the processed License File, `$MATLAB\bin\license.dat`, created during the installation of the license manager on a PC, to any convenient directory on your PC.
- Run the PC installation procedure, starting on page 2-6. At step 8, on page 2-8, make sure to use the License File you copied from the server as your License File on the client. (The IP address in `license.dat` on the client systems should match the server's IP address, not the client's.)
- At step 10, on page 2-10, when the installation procedure asks if you want to install the license manager, click on the **No** button.

## PC Client with a UNIX Server

To install MathWorks software on a client system that will access the license manager on a UNIX system, follow these instructions:

- Copy the processed License File, `$MATLAB/etc/license.dat`, created during the installation of the license manager on a UNIX system, to any convenient directory on your PC.
- Convert the License File into a PC formatted file, if it has UNIX-style line endings. If the file contains UNIX style line endings, the installation will not work. On a Sun workstation you can use the `unix2dos` utility to do this.
- Run the PC installation procedure, starting on page 2-6. At step 8, on page 2-8, make sure to use the License File, copied from the UNIX server to your PC, as your License File on the client.
- At step 10, on page 2-10, when the installation procedure asks if you want to install the license manager, click on the **No** button.

- After your client installation is complete, you must edit the License File created during the installation (`$MATLAB\bin\license.dat`). Open the file, using a text editor, and remove (or comment out) all the INCREMENT lines and the DAEMON line. In their place, insert the line USE\_SERVER. Your edited License File should look like this:

```
SERVER my_server 8042d7b9 1711  
USE_SERVER
```

## After You Install

After installing, start MATLAB on the client system. If you have trouble starting MATLAB, remember that *the license manager must be running on the server before you can run MATLAB on a client.*

Run any of the MATLAB demonstration programs to verify your installation. To run a demonstration program, type `demo` at the MATLAB prompt and select one from the **Demo** dialog box.



# Common PC Installation Tasks

---

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# Introduction

This chapter describes some common additional PC installation tasks, including:

- Starting MATLAB
- Removing a MATLAB installation
- Changing the default documentation installation
- Installing additional products and other license management tasks

## Starting MATLAB

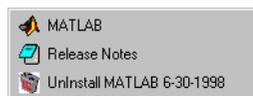
The Release 11 installation program creates a short cut for MATLAB on your desktop. You can start MATLAB by double-clicking on this short cut. This short cut puts you in your work directory.

The installation program also creates an entry off the Programs option on the Start menu.

## Removing a MATLAB Installation

Every MATLAB installation includes a program that uninstalls MATLAB. Before removing a MATLAB installation, make sure that MATLAB isn't running and, in network installations, stop the license manager. The program that removes MATLAB will also remove the license manager if it is not running.

To run the uninstall program, click on the **Start** button, select the **Programs** option and select the **MATLAB** entry. The uninstall program is an option on the MATLAB menu.



When you run the uninstall program, it may display a dialog box, asking if you want to remove the `mwsamp.ocx` file. This file is an ActiveX control that is registered as a shared file during the MATLAB installation. You may remove this file.

## Documentation Installation Options

The help files associated with MATLAB and its companion products are separate installation choices in the **Select MATLAB Components** dialog box. By default, the installation program installs the help files in the MATLAB destination directory. However, there are two other options.

- You can install the help files in a different directory, rather than installing them in the MATLAB installation directory. For example, you can use this option to install the help files on a shared network drive so that they can be shared by many MATLAB users.
- You can view the help files from the CD, rather than installing them. This option can be useful when disk space is a concern. The MATLAB help files require more than 60 MB of disk space.

---

**Note** You must choose one of these help file installation options. You cannot view some help files from the installation directory and other help files from a different directory or from the CD-ROM.

---

### Installing Help Files in a Separate Directory

To install the help files in a directory other than the primary MATLAB installation directory, follow these instructions:

- 1** During the installation, deselect the help file choices in the **Select MATLAB Components** dialog box.
- 2** After the installation, copy the \Help directory from the MATLAB CD into your target help directory.
- 3** When you start MATLAB, change the default configuration to point to your help directory.
  - Select the **Preferences** option from the **MATLAB File** menu.
  - In the **Preferences** dialog box, specify the location of the help files in the **Help Directory** field.

### Viewing MATLAB Help from the CD

To view the help files from the MATLAB CD, deselect *all* the help file choices in the **Select MATLAB Components** dialog box and proceed with the installation.

If you do not install the MATLAB help files selection from the **Select MATLAB Components** dialog box, MATLAB reads the help files from the CD, by default, for MATLAB and all other products and toolboxes.

### Installing Required Documentation Viewers

The MATLAB Help Desk provides access to the MATLAB online documentation in HTML and PDF formats. The Help Desk is available after MATLAB has been installed.

#### Installing Web Browsers

To view the MATLAB help in HTML format, you must have a Web browser. The MathWorks suggests either Netscape Navigator or Microsoft Internet Explorer. For information about which versions of these products to use with MATLAB, see the technical support page at The MathWorks Web site, [www.mathworks.com](http://www.mathworks.com).

The MathWorks does not redistribute these products. You can obtain them directly from the companies that developed them. If you have Web access, you can find additional information at [www.netscape.com](http://www.netscape.com) or [www.microsoft.com](http://www.microsoft.com).

#### Installing a PDF Reader

To view the PDF files on the Help Desk, you must have Adobe Acrobat Reader installed. This software is included on the Release 11 CD in the `acoread` directory. To install the product for your platform, double-click on the installer icon and follow the instructions provided. You can find additional information about Acrobat Reader at [www.adobe.com](http://www.adobe.com).

## Managing Your Licenses

As you purchase additional products or your system environment changes, you may need to change your license configuration. It is easy for you to request these changes by logging in to our Web site at [www.mathworks.com](http://www.mathworks.com) and using the **Contact Us** page.

The following table describes how to perform several common license management tasks.

License Task	Contact Information
Move toolboxes from one license to another	Go to <b>Contact Us</b> on the MathWorks Web site and select <b>Contact Customer Service</b> . Click <b>Move Toolboxes</b> and provide the License Numbers and the names of the toolboxes you want moved. The MathWorks will generate A new PLP or License File for both licenses and send them to you.
Combine multiple licenses into a single license	Go to <b>Contact Us</b> on the MathWorks Web site and select <b>Contact Customer Service</b> . Click <b>Combine Licenses</b> and provide the License Numbers and the hostid of the server. When you combine licenses, the Mathworks inactivates one license and generates one, all-inclusive License File.
Add a new license	North American customers can visit the MathWorks Web site for price information. Customers outside North America may obtain this information from their local distributor.

If you do not have Web access, you can contact the MathWorks via telephone at 508-647-7000.

### Installing Additional Products

When you order additional products, the MathWorks sends you by e-mail or fax a new Personal License Password (PLP) for standard installations, or a new License File, for concurrent installations.

To install an additional product:

- 1 Exit from MATLAB.
- 2 Shut down the FLEXlm license manager, if it's running. (See "Stopping the License Manager" on page 4-7 for instructions.)
- 3 Insert the Release 11 CD into your CD-ROM drive and run the installation program. Follow the instructions on the installation program dialog boxes. Note the following:
  - a In the **Select MATLAB Components** dialog box, the installation program displays *all* the products you are licensed to install, not just the new products. Deselect all but the product (or products) you want to add.
  - b Specify as the destination directory the same directory in which you already have MATLAB installed.
- 4 When the installation program is finished, follow the post-installation instructions on page 1-11 for standard installations, or on page 2-12 for network installations.

# Troubleshooting a PC Installation

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# Introduction

This chapter provides information that can help you solve common problems that occur with standard installations or concurrent installations.

If you cannot find a description here that matches your problem, try these options:

- Check the release notes (*Known Software and Documentation Problems*) that you received with your MATLAB products. This document contains the most up-to-date information about products and installation procedures.
- Check Technical Note 1311, which covers PC installation issues, available in the Support area at the MathWorks Web site, [www.mathworks.com](http://www.mathworks.com).

## Troubleshooting a Standard Installation

### Invalid Personal License Password

During installation, you must enter your PLP. If your PLP is invalid, you cannot continue with the installation. Check that:

- You entered your PLP in the **Customer Information** dialog box. Do not confuse your License Number with your PLP. A PLP is a series of from four to seven 5-digit numbers, with a 2-digit prefix.
- You have a current PLP. PLPs are version-specific. Do not use an old PLP with a new version of MATLAB.

### “Checkout MATLAB Failed” Error Message

Standard installations may encounter this error message followed by a license manager error code, such as the following:

```
Checkout MATLAB failed: License Manager Error -9: Invalid Host.
```

If you get this error:

- Make sure you are running MATLAB on the same system it was installed on.
- Make sure you installed Release 11 from the CD. You cannot clone a Release 11 installation from one system to another.

For more information about this error, see Technical Note 1311, available in the Support area at the MathWorks Web site ([www.mathworks.com](http://www.mathworks.com)), which covers this error in particular.

### **Not Enough Temporary Storage**

The installation program uses temporary storage in a directory pointed to by the TEMP variable. If the installation program runs out of temporary storage space, change the value of the TEMP variable to point to another disk and rerun the installation program.

### **Failure Overwriting an Existing Toolbox**

Make sure to exit from any existing versions of MATLAB that may be running before attempting to run the installation procedure.

### **Missing DLLs**

After starting MATLAB, you may get the error message: "Error Starting Program: A required .DLL file, w32ssi.dll, was not found." You may also get this message if the 1mgr325c.dll cannot be found. If your installation is missing either of these files, re-install your products. If you continue to get this error message, contact Technical Support.

### **Perl Scripts Fail**

If, after installing MATLAB, Perl scripts you have written no longer run, check the value of your PATH variable. The installation program prepends the \$MATLAB\BIN directory to the MS-DOS search path during installation. This change causes a minimal version of Perl, which is installed with Release 11, to be executed rather than any other full version of Perl that you may have already installed on your system.

To solve this problem, edit the value of your PATH variable in your AUTOEXEC.BAT file, on Windows95 and Windows98 systems. On Windows NT systems, edit the value of the PATH environment variable.

### Troubleshooting a Concurrent License Installation

This section provides answers to some common PC concurrent installation problems. The MathWorks recommends that you make sure MATLAB is operating correctly on the server before attempting to diagnose client connection problems.

In a PC network installation, many installation problems have their root in the license manager, FLEXlm. FLEXlm is a product of GLOBEtrrotter Software, Inc. It consists of a *license manager daemon* (lmgrd.exe) and a *vendor daemon* (mlm.exe) that run in the background on the server node. They are responsible for controlling the licenses that users check in and check out as they start and stop MATLAB.

The following sections may assist you in diagnosing and fixing some common license manager installation issues. For more detailed information about the FLEXlm license manager, go to the GLOBEtrrotter Software, Inc. Web site, [www.globetrotter.com](http://www.globetrotter.com).

#### Understanding the License File

You create your License File from the license passcodes The MathWorks sends you via e-mail or fax. You must name this file `license.dat` and store it in any convenient directory. See “Creating Your License File” on page 2-3 for more information about creating a License File.

When you run the installation program, it processes this License File, adding two lines to the file: a `SERVER` line, and a `DAEMON` line. These lines identify the license manager daemon and the server it runs on. The installation program puts the processed version of your License File in `$MATLAB\bin`.

To illustrate, here's a sample processed License File with the SERVER and DAEMON lines:

```
SERVER 143.202.7.19 INTERNET=143.202.7.19 1705
DAEMON MLM C:\MATLABR11\bin\mlm.exe
# MATLAB license passcode file for use with FLEXlm 5.12b
# LicenseNo: 12345      HostID: INTERNET=143.202.7.19
INCREMENT MATLAB      MLM 5 01-jan-0000  5 \
      7CA5FOEDE4FA5D7A012C PLATFORMS=i86_n3
INCREMENT SIMULINK    MLM 5 01-jan-0000  5 \
      6C06808AC8C2E2A5274A PLATFORMS=i86_n3
INCREMENT Control_Toolbox  MLM 5 01-jan-0000  3 \
      8CE4038D9AF3148CE329 PLATFORMS=i86_n3
INCREMENT Signal_Toolbox  MLM 5 01-jan-0000  2 \
      DA46A0DDAF22F1B5479F PLATFORMS=i86_n3
# END-----cut here-----CUT HERE-----END
```

The SERVER line describes the license manager daemon, using the general format:

```
SERVER hostname hostid-or-internet-address TCP_PortNumber
```

The HostID in the SERVER line should match the HostID in the second comment line. The 1705 at the end of the SERVER line specifies the TCP port number to use for communication with the daemons. Do not change this number unless you know it conflicts with other software.

The DAEMON line specifies the name and path of the license manager vendor daemon.

## License Manager Tools

The license manager installation includes a utility program, `lmutil.exe`, that provides a set of license administration tools. To view a list of these tools, open the **Command Prompt** window, go to the license manager installation directory (usually `C:\FLEXLM`) and type `lmutil` at the command prompt. This displays the entire list of `lmutil` functions. For help about an individual function, type in the full name of the `lmutil` command as it appears in the list.

The two most useful `lmutil` functions are the `lmstat` and `lmremove` functions. Note that you must run these commands on the system on which the license manager is running.

**Viewing License Activity.** When you enter `lmutil lmstat -a` at the command prompt, you can view the current license activity on your system. Using this command, you can see how many licenses are currently checked out for each product. To get a longer term view of license activity, view the license manager log file, `C:\Windows\system32\lmgrd.log`.

**Freeing Licenses.** When you enter `lmutil lmremove`, you can remove a license that has been checked out, freeing it for use by another user.

### License Manager Error Messages

When the license manager encounters a problem, it outputs a detailed error message to your display. Some common license manager error messages are listed below with suggested solutions. The error message appears in bold, followed by suggested troubleshooting steps. For a more detailed list of license manager error messages, see Technical Note 1311, available on the Support and Services page at The MathWorks Web site, [www.mathworks.com](http://www.mathworks.com).

**License Manager Error -15: MATLAB is unable to connect to the license server.** This error is displayed when starting MATLAB.

This error message typically indicates that the license manager isn't running. If you see this error appear when you attempt to start MATLAB, verify that both the license manager processes, LMGRD and MLM, are running. You can check this via the Task Manager, which can be accessed by pressing the Ctrl-Alt-Delete key sequence.

If the license manager isn't running, see "Starting the License Manager" on page 4-6 for information about starting it.

**License Manager Error -8: Encryption code in license file is inconsistent.**

This error message typically indicates that your license file has been corrupted. This can happen if the license file is not copied correctly or if extraneous tabs or carriage returns occur in the INCREMENT lines in the license file. Check that your license file exactly resembles the license file sent you by The MathWorks.

### Starting the License Manager

On Windows NT, the FLEXlm license manager is installed as a service. To start it, use the NT Control Panel interface:

- Click on the **Start** button.
- Select the **Settings** option on the **Start** menu.
- Select **Control Panel** on the **Settings** menu and double-click on **Services**.

In the **Services** dialog box, look for the FLEXlm license manager. The status of the license manager should be started, and the startup property should be automatic.

You can start the license manager by rebooting your machine. To start the license manager, select the FLEXlm entry in the dialog box and click on the **Start** button.

On a Windows 95 system, FLEXlm is installed as an application. The installer places a copy of the license manager executable (`lmgrd.exe`) in your Startup folder. You can start the license manager by rebooting your machine. You can also open a DOS window in the FLEXLM directory and enter the command:

```
lmgrd -app -c path_to_license_file -l path_to_log_file.
```

For more information about the FLEXlm license manager, go to the GLOBE*trotter* software Web site at [www.globetrotter.com](http://www.globetrotter.com) and view their online documentation.

## Stopping the License Manager

On Windows NT systems:

- Click on the **Start** button and select the **Settings** option.
- Choose the **Control Panel** option.
- Select the **Services** option.
- In the **Services** dialog box, select the **FLEXlm license manager** option and click on the **Stop** button.

On Windows 95 systems, FLEXlm is installed as an application. To stop the license manager, close its DOS window.

## Running MATLAB with Other FLEXlm Applications

If you have another application that uses the FLEXlm license manager, you can share a single license server, or run separate license servers either on the same or different hosts.

To share a license server, combine the DAEMON and FEATURE lines from both License Files into a single License File with the appropriate SERVER line and install a license server on a single host. If MATLAB and the other application are using different versions of the FLEXlm software, run the newer version of the license server.

For further information, see the *GLOBEtrrotter* Web page at [www.globetrotter.com](http://www.globetrotter.com).

### Running FLEXlm in a Minimized Window

When the license manager is started on Windows 95, a DOS window appears and remains visible on your screen. Running the license manager in a minimized DOS window eliminates this distraction:

- 1 Go to:  
C:\WIN95\Start Menu\Programs\Startup
- 2 Right-click on the FLEXlm license manager icon.
- 3 Select **Properties** from the pop-up menu.
- 4 Click on the **Shortcut** tab.
- 5 Choose **Minimized** under the **Run** field.

# MATLAB Directory Structure

---

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# Directory Structure

MATLAB is distributed in compressed format on CD-ROM. The installation procedure moves the files to your hard disk, decompresses them, and installs them in the Microsoft Windows environment. After installation, your MATLAB directory will include the following files and subdirectories containing the various components of the MATLAB system (and other toolbox directories, if you have purchased and installed these options):

\BIN	The MATLAB binary and associated files
\EXTERN	Tools for building external interfaces to MATLAB
\HELP	Help system
\SYS	Tools and operating system libraries that MATLAB depends on
\TOOLBOX	The MATLAB toolboxes

The subdirectories and their contents are listed below.

### **MATLAB\BIN**

MATLAB.EXE	The MATLAB binary
*.DLL, *.EXE, *.BAT	Miscellaneous files

### **MATLAB\TOOLBOX\LOCAL**

Local environment M-files

**MATLAB\TOOLBOX\MATLAB**

\DATAFUN	Data analysis and Fourier transform functions
\DATATYPES	Data types and structures
\DEMOS	Demonstrations and samples
\ELFUN	Elementary math functions
\ELMAT	Elementary matrices and matrix manipulation
\FUNFUN	Function functions – nonlinear numerical methods
\GENERAL	General purpose commands
\GRAPH2D	Two-dimensional graphs
\GRAPH3D	Three-dimensional graphs
\GRAPHICS	General-purpose graphics commands
\IOFUN	Low-level file I/O functions
\LANG	Language constructs and debugging
\MATFUN	Matrix functions – numerical linear algebra
\OPS	Operators and special characters
\POLYFUN	Polynomial and interpolation functions
\SPARFUN	Sparse matrix functions
\SPECFUN	Specialized math functions
\SPECGRAPH	Specialized graphs
\STRFUN	Character string functions
\TIMEFUN	Time, date, and calendar functions
\UITOOLS	User interface utilities
\WINFUN	Window functions

### **MATLAB\EXTERN**

\EXAMPLES	C and Fortran examples of using the Application Program Interface
\INCLUDE	Header files for the External Interface Library
\SRC	C source files for inclusion in MEX building

### **MATLAB\SYS\GHOSTSCRIPT**

\BIN	The GhostScript binary
\FONTS	GhostScript versions of PostScript fonts
\PS_FILES	PostScript initialization and configuration files

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