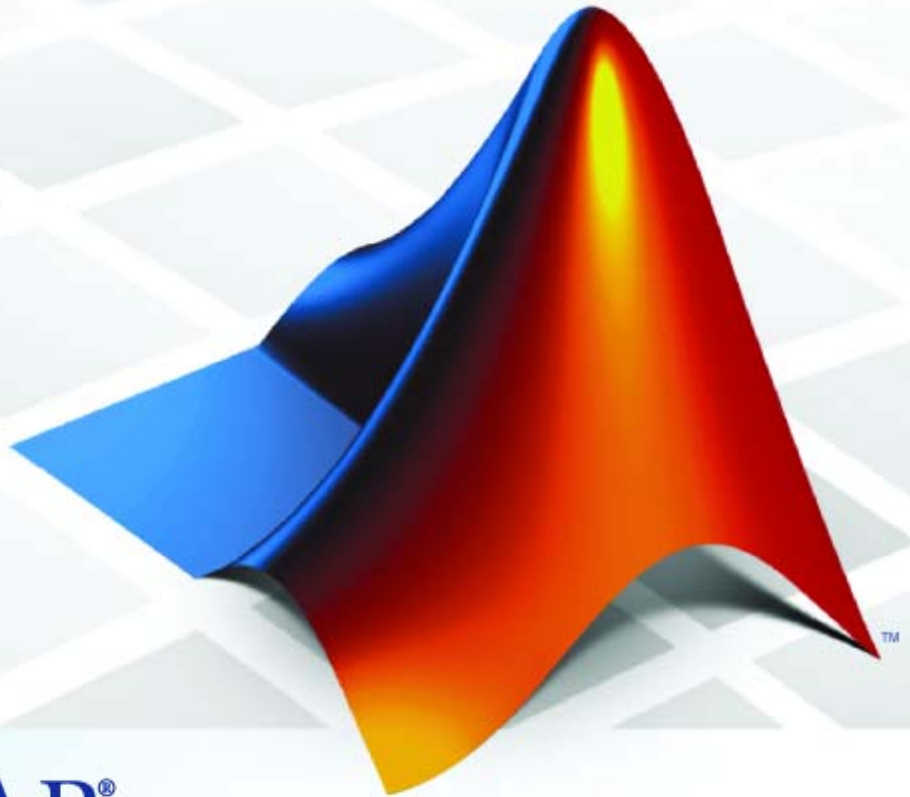


MATLAB® & Simulink® Release 2009a

Installation Guide for UNIX®



MATLAB®
& SIMULINK®

How to Contact The MathWorks



www.mathworks.com
comp.soft-sys.matlab
www.mathworks.com/contact_TS.html

Web
Newsgroup
Technical Support



suggest@mathworks.com
bugs@mathworks.com
doc@mathworks.com
service@mathworks.com
info@mathworks.com

Product enhancement suggestions
Bug reports
Documentation error reports
Order status, license renewals, passcodes
Sales, pricing, and general information



508-647-7000 (Phone)



508-647-7001 (Fax)



The MathWorks, Inc.
3 Apple Hill Drive
Natick, MA 01760-2098

For contact information about worldwide offices, see the MathWorks Web site.

Installation Guide for UNIX[®]

© COPYRIGHT 1996–2009 by The MathWorks, Inc.

The software described in this document is furnished under a license agreement. The software may be used or copied only under the terms of the license agreement. No part of this manual may be photocopied or reproduced in any form without prior written consent from The MathWorks, Inc.

FEDERAL ACQUISITION: This provision applies to all acquisitions of the Program and Documentation by, for, or through the federal government of the United States. By accepting delivery of the Program or Documentation, the government hereby agrees that this software or documentation qualifies as commercial computer software or commercial computer software documentation as such terms are used or defined in FAR 12.212, DFARS Part 227.72, and DFARS 252.227-7014. Accordingly, the terms and conditions of this Agreement and only those rights specified in this Agreement, shall pertain to and govern the use, modification, reproduction, release, performance, display, and disclosure of the Program and Documentation by the federal government (or other entity acquiring for or through the federal government) and shall supersede any conflicting contractual terms or conditions. If this License fails to meet the government's needs or is inconsistent in any respect with federal procurement law, the government agrees to return the Program and Documentation, unused, to The MathWorks, Inc.

Trademarks

MATLAB and Simulink are registered trademarks of The MathWorks, Inc. See www.mathworks.com/trademarks for a list of additional trademarks. Other product or brand names may be trademarks or registered trademarks of their respective holders.

Patents

The MathWorks products are protected by one or more U.S. patents. Please see www.mathworks.com/patents for more information.

Revision History

December 1996	First printing	New for MATLAB 5.0
May 1997	Second printing	Revised for MATLAB 5.1
March 1998	Third printing	Revised for MATLAB 5.2 (Release 10)
January 1999	fourth printing	Revised for MATLAB 5.3 (Release 11)
November 1999	Fifth printing	Revised for MATLAB 5.3.1 (Release 11.1)
November 2000	Sixth printing	Revised for MATLAB 6.0 (Release 12)
June 2001	Seventh printing	Revised for MATLAB 6.1 (Release 12.1)
July 2002	Eighth printing	Revised for MATLAB 6.5 (Release 13)
June 2004	Ninth printing	Revised for MATLAB 7.0 (Release 14)
October 2004	Tenth printing	Revised for MATLAB 7.0.1 (Release 14SP1)
March 2005	Eleventh printing	Revised for MATLAB 7.0.4 (Release 14SP2)
September 2005	Twelfth printing	Revised for MATLAB 7.1 (Release 14SP3)
March 2006	Thirteenth printing	Revised for MATLAB 7.2 (Release 2006a)
September 2006	Fourteenth printing	Revised for MATLAB 7.3 (Release 2006b)
March 2007	Online only	Revised for MATLAB 7.4 (Release 2007a)
September 2007	Online only	Revised for MATLAB 7.5 (Release 2007b)
March 2008	Online only	Revised for MATLAB 7.6 (Release 2008a)
October 2008	Online only	Revised for MATLAB 7.7 (Release 2008b)
March 2009	Online only	Revised for MATLAB 7.8 (Release 2009a)

Standard UNIX Installation and Activation Procedures

1

Installing MathWorks Software in a Standalone	
Environment	1-2
Step 1: Prepare to Install	1-2
Step 2: Start the Installer	1-3
Step 3: Choose Whether to Install Automatically or Manually	1-4
Step 4: Review the Software License Agreement	1-5
Step 5: Specify the Installation Directory	1-6
Step 6: Log In to Your MathWorks Account	1-7
Step 7: Select the License You Want to Install	1-8
Step 8: Select the Products to Install	1-10
Step 9: Specify the Location of Symbolic Links	1-11
Step 10: Begin the Installation	1-11
Step 11: Complete the Installation	1-12
Activating Your Installation	
Step 1: Start the Activation Application	1-13
Step 2: Log In to Your MathWorks Account	1-16
Step 3: Select the License You Want to Activate	1-18
Step 4: Choose an Activation Type	1-20
Step 5: Specify the Login Name	1-21
Step 6: Confirm Your Activation Information	1-22
Step 7: Complete the Activation	1-23
Installing and Activating Without an Internet	
Connection	1-24
Step 1: Prepare to Install	1-24
Step 2: Start the Installer	1-25
Step 3: Choose to Install Manually	1-26
Step 4: Review the License Agreement	1-27
Step 5: Specify the Installation Directory	1-28
Step 6: Enter the File Installation Key	1-29
Step 7: Select the Products to Install	1-30
Step 8: Specify the Location of Symbolic Links	1-31

Step 9: Begin the Installation	1-31
Step 10: Complete the Installation	1-32
Step 11: Start the Activation Application	1-33
Step 12: Specify the Location of Your License File	1-34
Step 13: Complete the Activation	1-36
Installing MathWorks Products in a Network	
Configuration	1-37
Step 1: Prepare to Install	1-37
Step 2: Start the Installer	1-38
Step 3: Choose Whether to Install Automatically or Manually	1-39
Step 4: Review the Software License Agreement	1-40
Step 5: Specify the Installation Directory	1-41
Step 6: Log In to Your MathWorks Account	1-42
Step 7: Select the License You Want to Install	1-43
Step 8: Specify the Products to Install	1-45
Step 9: Specify the Location of Symbolic Links	1-47
Step 10: Specify the Location of Your License File	1-47
Step 11: Begin the Installation	1-49
Step 12: Complete the Installation	1-50
After You Install	1-51
Starting the License Manager	1-51
Starting the MATLAB Program	1-55
Specifying Print Options	1-56
Specifying Documentation Viewing Options	1-56
Specifying MATLAB Startup Options	1-56
Updating Your Licenses	1-57
Deactivating and Removing a MATLAB Installation ..	1-58
Deactivating a License	1-58
Removing a MATLAB Installation	1-63
System Requirements	1-65
Solaris	1-65
Linux	1-66

Problems During Installation	2-2
Problems with File Permissions	2-2
Problems Opening the Display	2-3
Problems with a Host ID Mismatch	2-3
Problems with Your DVD Drive	2-3
Accessing Activation Options	2-4
Problems Starting the MATLAB Program After an Installation	2-7
Viewing the License Manager Log File	2-8
Checking the Status of the License Manager Daemons ...	2-8
Checking the Network Connection	2-9
Checking Other Startup Problems	2-10
Getting Help with License Manager Error Messages ..	2-12

Standard UNIX Installation and Activation Procedures

This topic describes how to install and activate MathWorks™ Release 2009a (R2009a) products on systems running the UNIX® and Linux® operating systems.

- “Installing MathWorks Software in a Standalone Environment” on page 1-2
- “Activating Your Installation” on page 1-13
- “Installing and Activating Without an Internet Connection” on page 1-24
- “Installing MathWorks Products in a Network Configuration” on page 1-37
- “After You Install” on page 1-51
- “Deactivating and Removing a MATLAB Installation” on page 1-58
- “System Requirements” on page 1-65

Installing MathWorks Software in a Standalone Environment

In this section...

- “Step 1: Prepare to Install” on page 1-2
- “Step 2: Start the Installer” on page 1-3
- “Step 3: Choose Whether to Install Automatically or Manually” on page 1-4
- “Step 4: Review the Software License Agreement” on page 1-5
- “Step 5: Specify the Installation Directory” on page 1-6
- “Step 6: Log In to Your MathWorks Account” on page 1-7
- “Step 7: Select the License You Want to Install” on page 1-8
- “Step 8: Select the Products to Install” on page 1-10
- “Step 9: Specify the Location of Symbolic Links” on page 1-11
- “Step 10: Begin the Installation” on page 1-11
- “Step 11: Complete the Installation” on page 1-12

Step 1: Prepare to Install

Before you run the installer:

- Make sure you have your e-mail address and your MathWorks Account password handy. You log in to your account during installation. If you have multiple licenses associated with your account, know the number of the license you want to install.

If you don't have a MathWorks Account, you can create one during installation. However, to do this, you must have an *Activation Key*. An Activation Key is the unique code that identifies a license. It is used to activate the license. The Activation Key also allows licensed end users to associate their MathWorks Account with a license. Ask the administrator of the license for the Activation Key.

- Get the root password. To install the symbolic links that add the `matlab` command to your users' paths and to edit the system boot script to start the license manager automatically at system boot time, you need superuser

status. If you do not have superuser status, you can still install MATLAB® software, but you must specify absolute pathnames to start the software. You can also set up these links after the installation is complete.

If you do not have an Internet connection during installation, see “Installing and Activating Without an Internet Connection” on page 1-24.

If you need to perform a network server or client installation, see “Installing MathWorks Products in a Network Configuration” on page 1-37.

Step 2: Start the Installer

Insert the MathWorks DVD into the DVD drive connected to your system or download product files from the MathWorks Web site.

Note Do not move to the newly mounted DVD directory.

If you are downloading product files over the Internet, save the files to a temporary location (referred to as \$TEMP in this documentation).

Note On Linux systems, DVD drives typically mount automatically; however, the drives mount with read-only permission. You might have to change the DVD drive configuration from read-only to execute—see “Problems with Your DVD Drive” on page 2-3.

If you are installing from a DVD, execute the following command to run the installer:

```
/path_to_dvd/install &
```

If you are installing from downloaded files, extract the installer from the archive file in the \$TEMP directory. For example, on Linux systems run the following command:

```
tar -xf boot.ftp
```

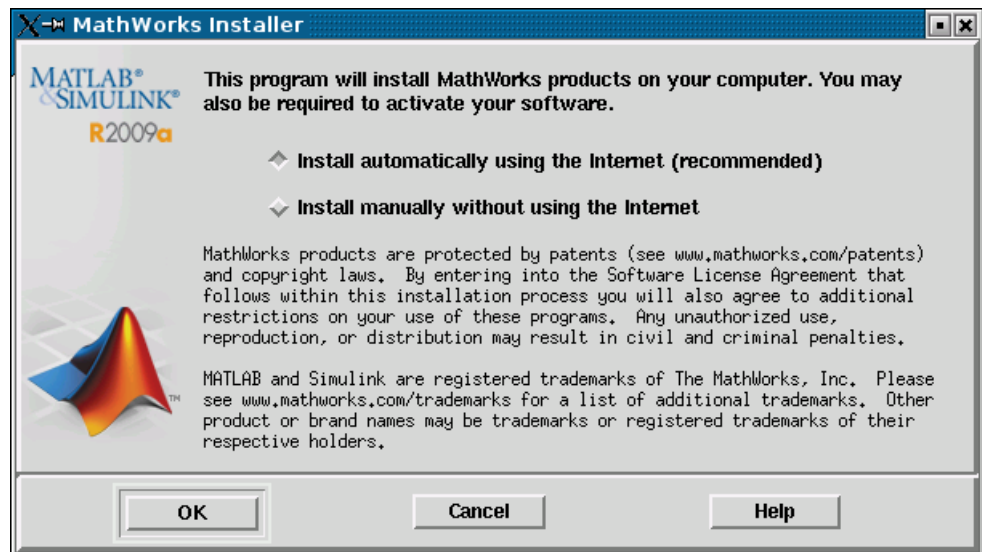
When you expand all the installer files in the \$TEMP directory, execute the appropriate command to run the MathWorks installer on your platform:

```
./install
```

Step 3: Choose Whether to Install Automatically or Manually

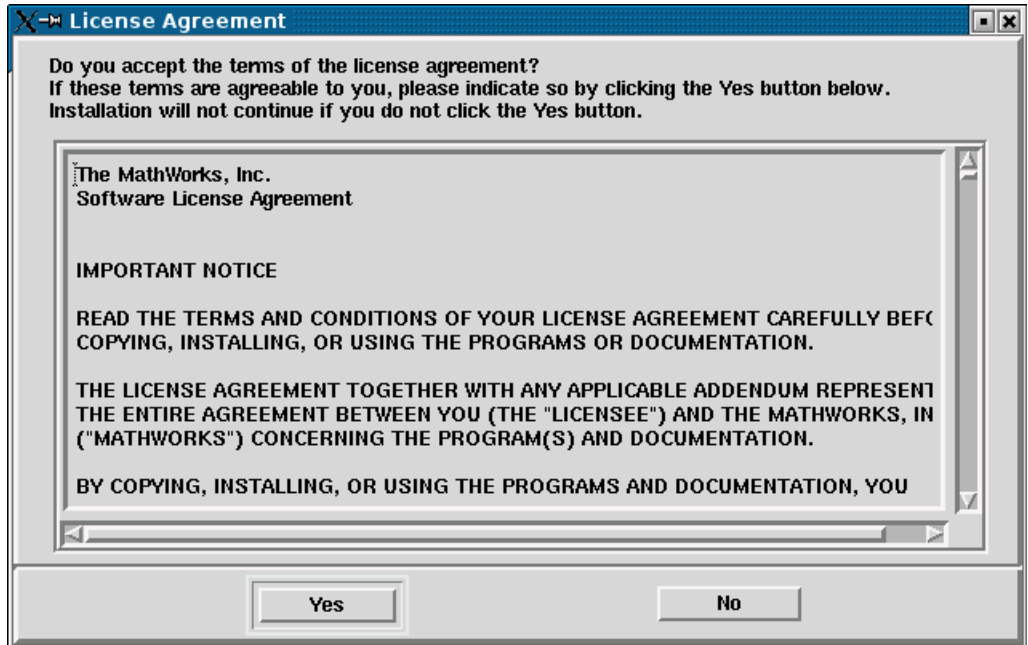
When it starts, the installer displays the following dialog box. Choose whether you want to install automatically or manually. When you install automatically, the installer contacts The MathWorks during installation to get license information. The MathWorks recommends installing automatically. If you choose to install manually, see “Installing and Activating Without an Internet Connection” on page 1-24 for step-by-step instructions.

Make your selection and click **OK** to proceed with the installation.



Step 4: Review the Software License Agreement

Review the software licensing agreement and, if you agree to its terms, click **Yes** to proceed with the installation.

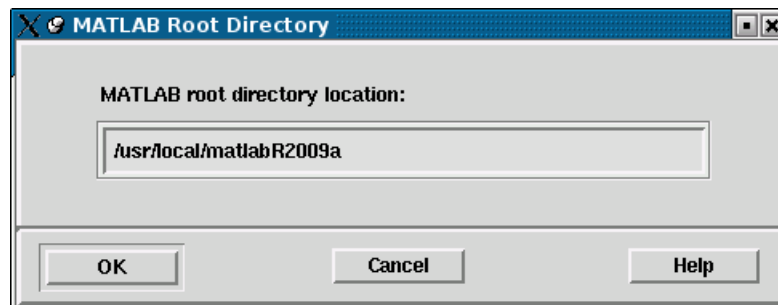


Step 5: Specify the Installation Directory

Specify the name of the directory in which you want to install MathWorks products. If the directory does not exist, the installer creates it. When choosing a name for your installation directory, do not specify a name that contains an at (@) sign, the percent (%) character, a plus (+) sign, an exclamation point (!), or a dollar (\$) sign. Do not specify a name a directory named `private` as part of the path.

Note When upgrading an existing installation, always install the new release in a new installation directory. Each release of MathWorks products stands alone and does not require any previous release. Do not install MathWorks products over any previously released version.

Click **OK** to proceed with the installation.



Step 6: Log In to Your MathWorks Account

Enter your e-mail address and your MathWorks Account password, and click **OK** to log in to your MathWorks Account.

If you need to create an account, select the **Create a MathWorks Account for me** option and enter your e-mail address, first name, last name, and Activation Key. You must specify an Activation Key to associate your newly created account with a license. The Activation Key identifies the license you want to install. The administrator contact on the license can retrieve the key by visiting the License Center at the MathWorks Web site. Click **OK** to proceed with installation. (Because the Activation Key you entered specifies a particular license, the installer skips the next step, license selection.)

MathWorks Account

◆ Log in to my MathWorks Account

E-mail address:

Password:

◆ Create a MathWorks Account for me

Provide the following information to create your MathWorks Account. A temporary password will be emailed to you. You can change this password and update other account details on the MathWorks Web site.

E-mail address:

First Name:

Last Name:

Activation Key:

The Activation Key is used to look up your license. You may have received the Activation Key from the Administrator of the license.

Step 7: Select the License You Want to Install

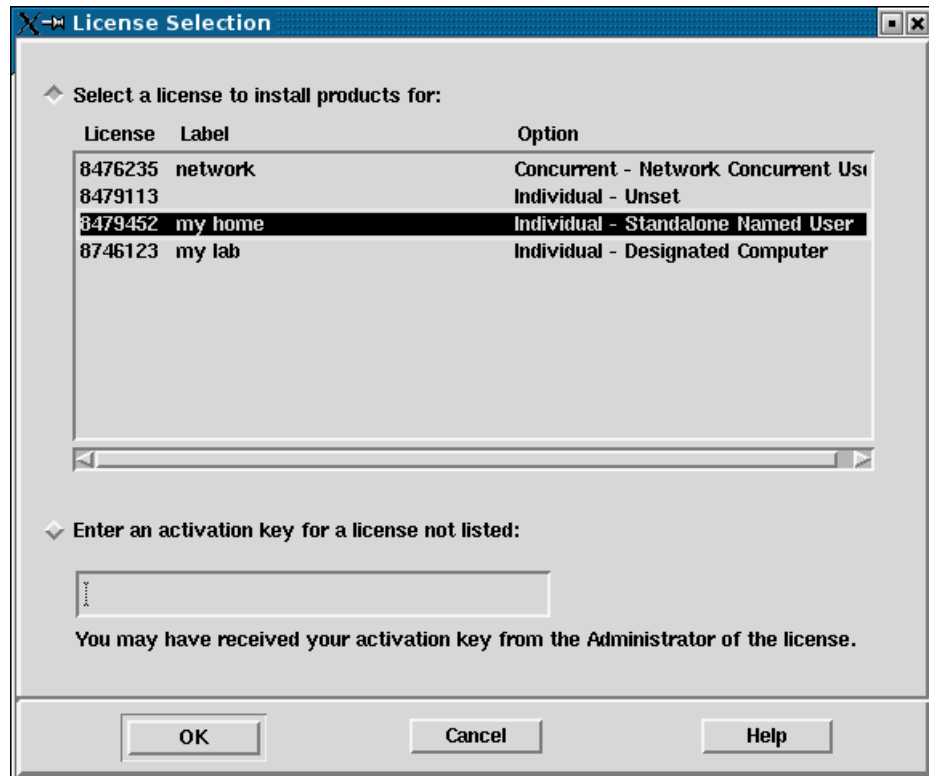
Note If you created a MathWorks Account in the previous step, specifying an Activation Key, the installer skips this step.

When you log in to your MathWorks Account, the installer displays all the licenses associated with your account. Each row contains:

- License number
- An optional descriptive text label that can help identify a license. To assign a label to a license, go to the License Center at the MathWorks Web site. See the License Center Help for instructions.
- Information identifying the license option and the activation type. If an activation type has not yet been set on the license, the word “Unset” appears.

Select the license you want to install by clicking anywhere in a row. (If the license is a network license option, see “Installing MathWorks Products in a Network Configuration” on page 1-37.)

Click **OK** to proceed with the installation.



Specifying an Activation Key

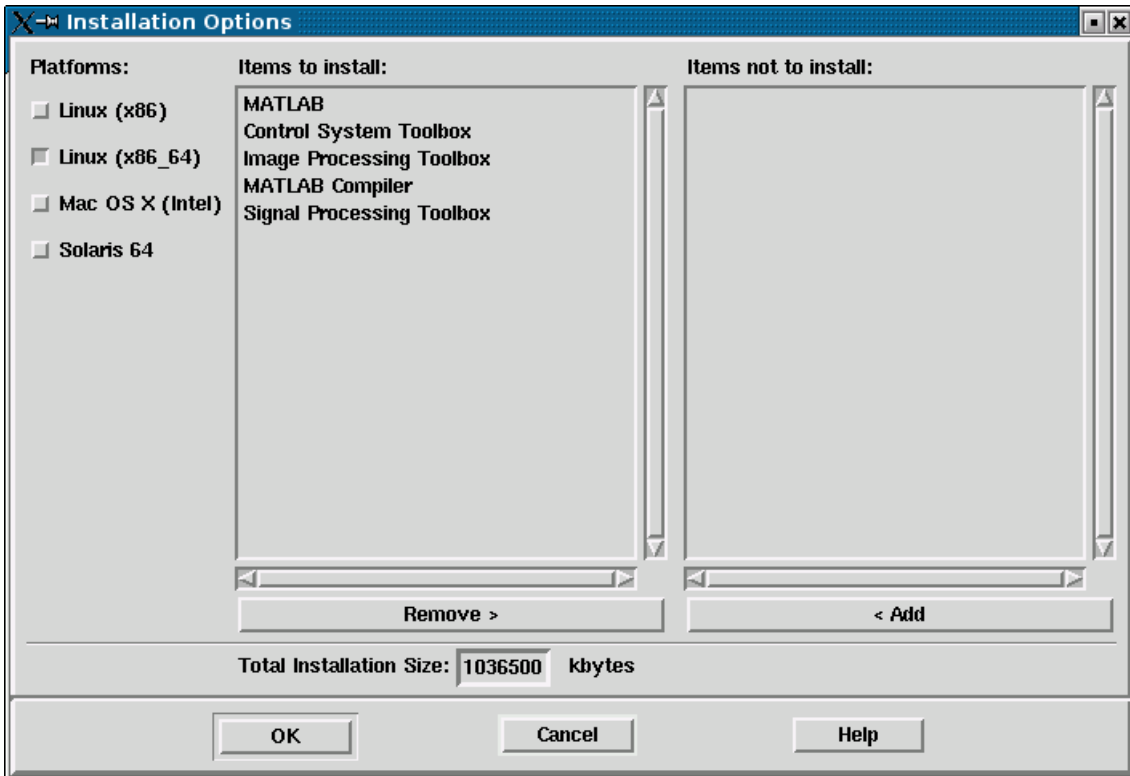
If you do not see the license you want in the list, select the **Enter an activation key for a license not listed** option and enter an Activation Key. Specifying an Activation Key enables you to install the products associated with the license, but does not associate the license with your account—that occurs when you activate the license.

Step 8: Select the Products to Install

Specify the products you want to install in the Installation Options dialog box. By default, the installer lists all the products that you are licensed to install in the **Items to install** pane. If you do not want to install an item, select it and click **Remove**. This moves the product into the **Items not to install** pane.

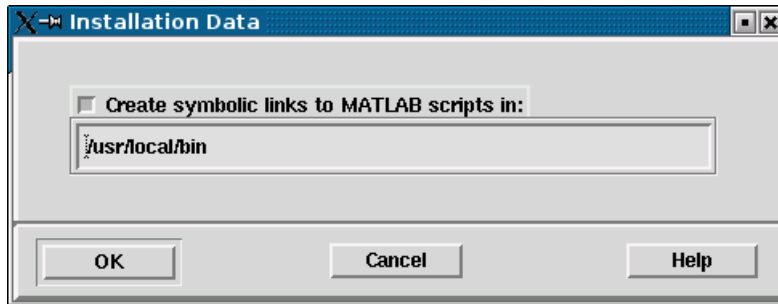
You can also choose which product binary files are installed on your computer from the **Platforms** list. By default, the installer preselects the platform on which you are running the installer. If you want to install product binary files for additional platforms, select them in the **Platforms** list.

Click **OK** to proceed with the installation.



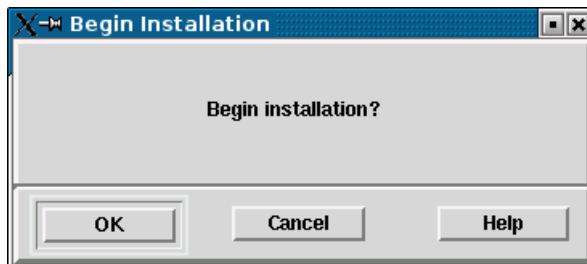
Step 9: Specify the Location of Symbolic Links

In the Installation Data dialog box, you can specify whether you want to create symbolic links to the `matlab` and `mex` scripts. Specify a directory such as `/usr/local/bin` that is common to all your users' paths and click **OK** to continue with the installation.



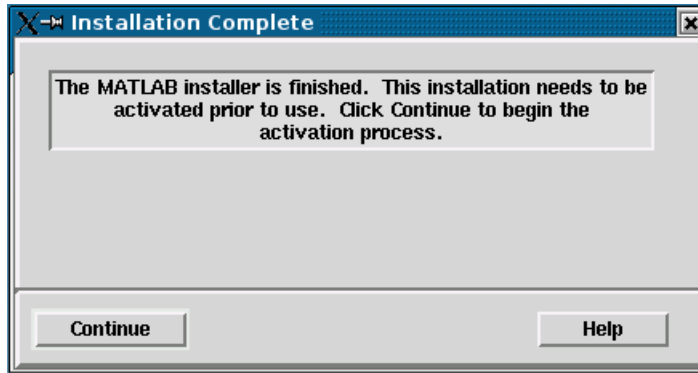
Step 10: Begin the Installation

To begin copying files onto your hard disk, click **OK**. The installer displays a dialog box indicating the progress of the installation.



Step 11: Complete the Installation

When the installation successfully completes, the installer informs you if your installation needs to be activated. While you can activate as a separate process, The MathWorks recommends activating immediately after installing. See “Activating Your Installation” on page 1-13 for step-by-step instructions.



For information about some common post-installation tasks, see “After You Install” on page 1-51.

Whether you choose to activate immediately or not, click **Continue**.

If you are going to continue on with activation, leave the MathWorks DVD mounted. If you decided to activate later, you can unmount the DVD drive and remove the DVD.

Activating Your Installation

In this section...

“Step 1: Start the Activation Application” on page 1-13

“Step 2: Log In to Your MathWorks Account” on page 1-16

“Step 3: Select the License You Want to Activate” on page 1-18

“Step 4: Choose an Activation Type” on page 1-20

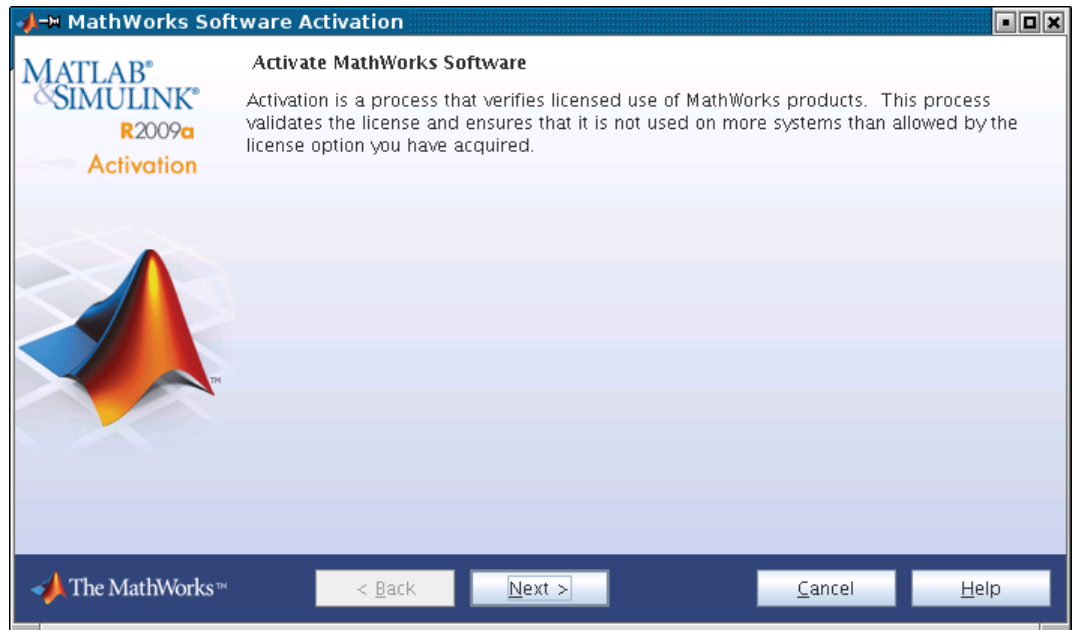
“Step 5: Specify the Login Name” on page 1-21

“Step 6: Confirm Your Activation Information” on page 1-22

“Step 7: Complete the Activation” on page 1-23

Step 1: Start the Activation Application

If you let the installer start the activation application for you, and you were already logged in to your MathWorks Account, simply click **Next** to proceed with activation. Your MathWorks Account log-in session continues into the activation process.

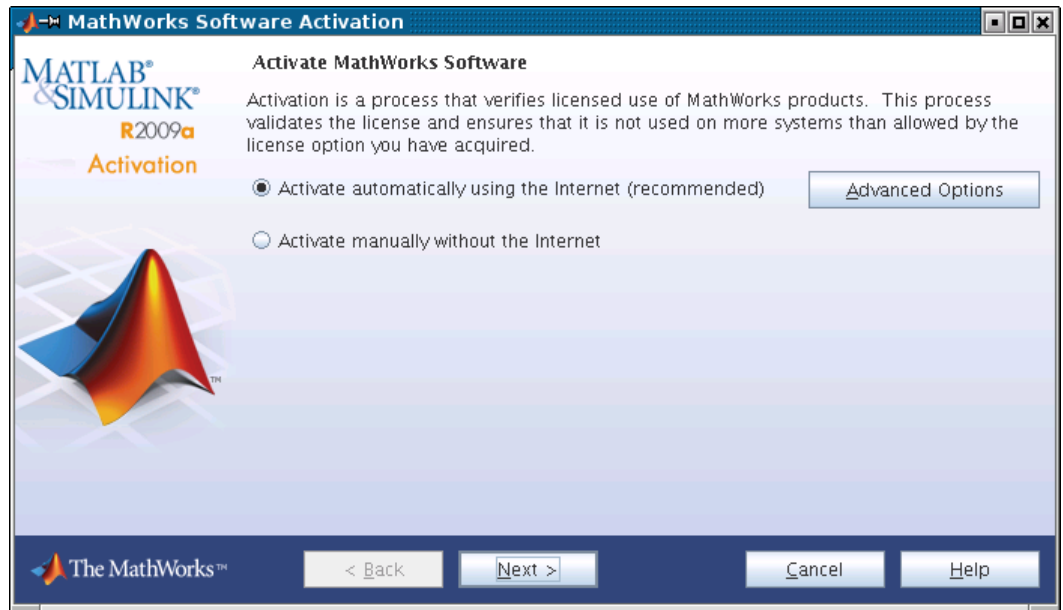


Starting the Activation Application Independently

If you chose not to continue with activation after installation, you can start the activation application independently. Go to the *matlabroot/bin* directory, where *matlabroot* represents the name of your MATLAB installation directory, and run the `activate_matlab.sh` script. For example:

```
cd matlabroot/bin
./activate_matlab.sh &
```

When started independently, you must choose whether to activate automatically or manually. If you are connected to the Internet, leave the **Activate automatically using the Internet** option selected and click **Next** to proceed with activation. The MathWorks recommends activating automatically. The option to activate manually is useful if you do not have an Internet connection—see “Step 11: Start the Activation Application” on page 1-33.



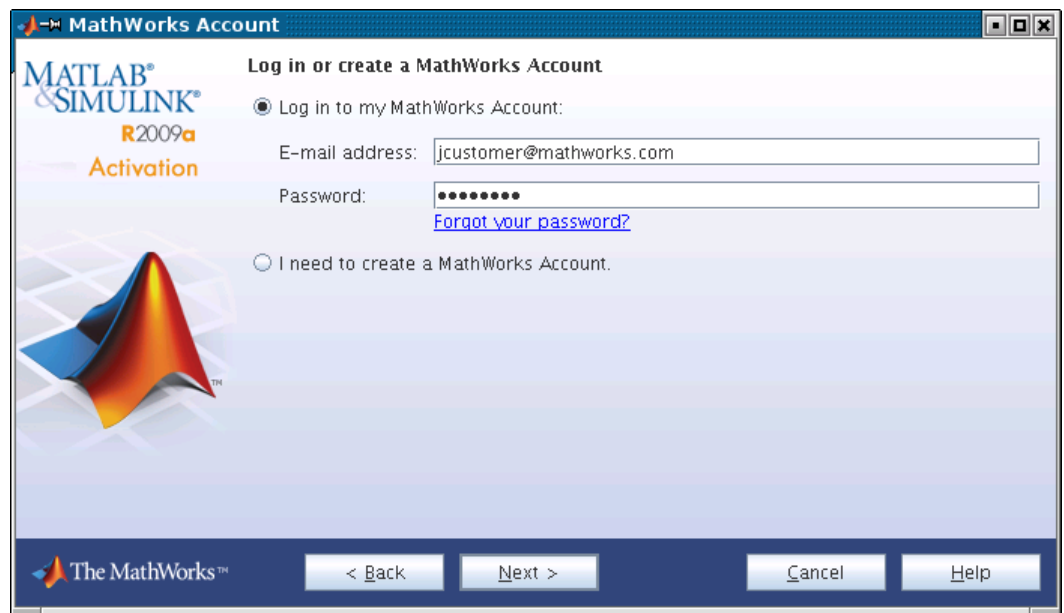
If your Internet connection requires a proxy server, click the **Advanced Options** button. You can enter the server name and port information in the Advanced Options dialog box, and access other activation options. See “Accessing Activation Options” on page 2-4 for more information.

Step 2: Log In to Your MathWorks Account

Note If you let the installer start the activation application, and you were logged in to your account during installation, the activation application skips this step.

Enter your e-mail address and MathWorks Account password and click **Next** to proceed with activation.

If you do not have a MathWorks Account, select the **I need to create a MathWorks Account** option and click **Next**. See “Creating a MathWorks Account” on page 1-16 for instructions.



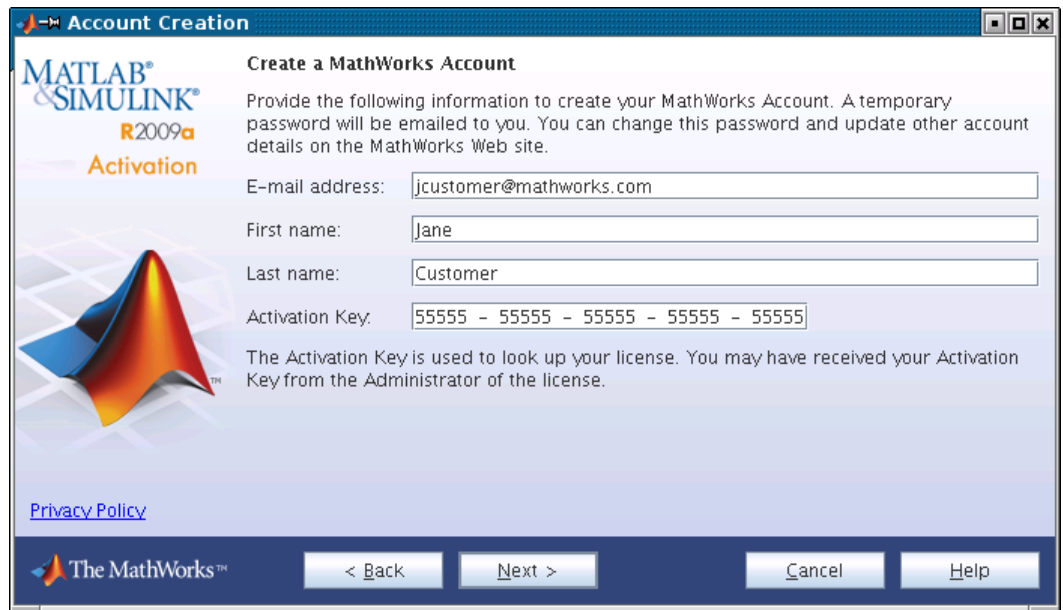
Creating a MathWorks Account

If you selected the **I need to create a MathWorks Account** option, the activation application displays the Account Creation dialog box. Provide the information required to create an account. Note that you must provide an

Activation Key to identify a license to associate with the account. Ask the administrator on your license for the Activation Key.

Click **Next** to proceed with activation.

Note Because the Activation Key identifies a license, the activation application can skip the next step, license selection. If the license specified already has the activation type set, the activation application can also skip the activation type selection step.



Account Creation

Create a MathWorks Account

Provide the following information to create your MathWorks Account. A temporary password will be emailed to you. You can change this password and update other account details on the MathWorks Web site.

E-mail address:

First name:

Last name:

Activation Key:

The Activation Key is used to look up your license. You may have received your Activation Key from the Administrator of the license.

[Privacy Policy](#)

The MathWorks™

< Back Next > Cancel Help

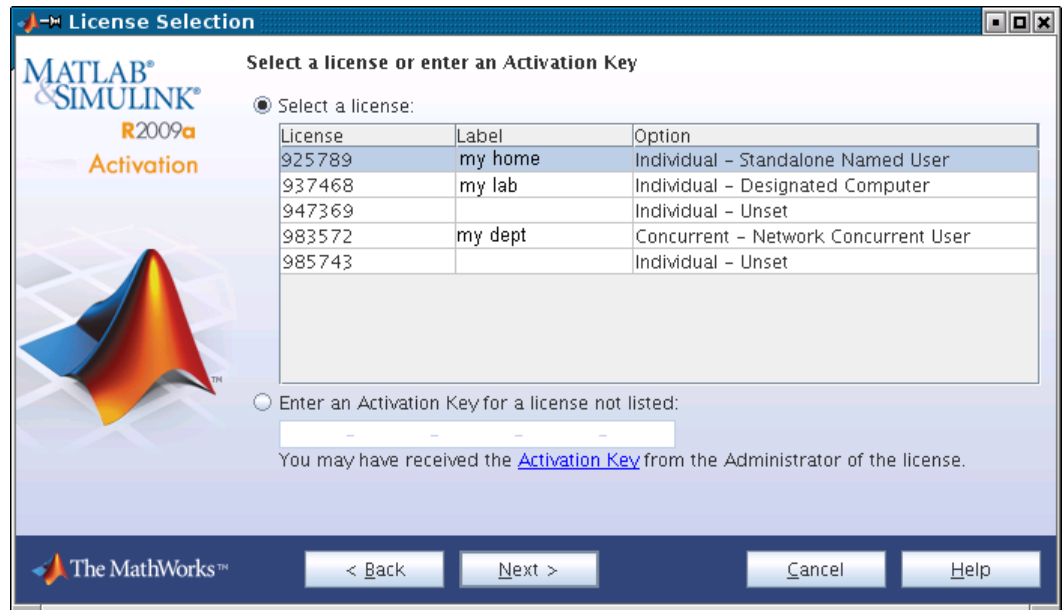
Step 3: Select the License You Want to Activate

Note If you continued with activation immediately after installation, the activation application assumes you want to activate the license that you just installed and skips this step. Likewise, if you created a new account in the previous step and specified an Activation Key, the activation application skips this step.

When you log in to your MathWorks Account, the activation application displays all the licenses associated with your account. Each row contains:

- License number
- An optional descriptive text label that can help identify a license. To assign a label to a license, go to the License Center at the MathWorks Web site. See the License Center Help for instructions.
- Information identifying the license option and the activation type. If an activation type has not yet been set on the license, the word “Unset” appears.

Select the license you want to activate by clicking anywhere in a row and click **Next** to proceed with the activation.



Specifying an Activation Key

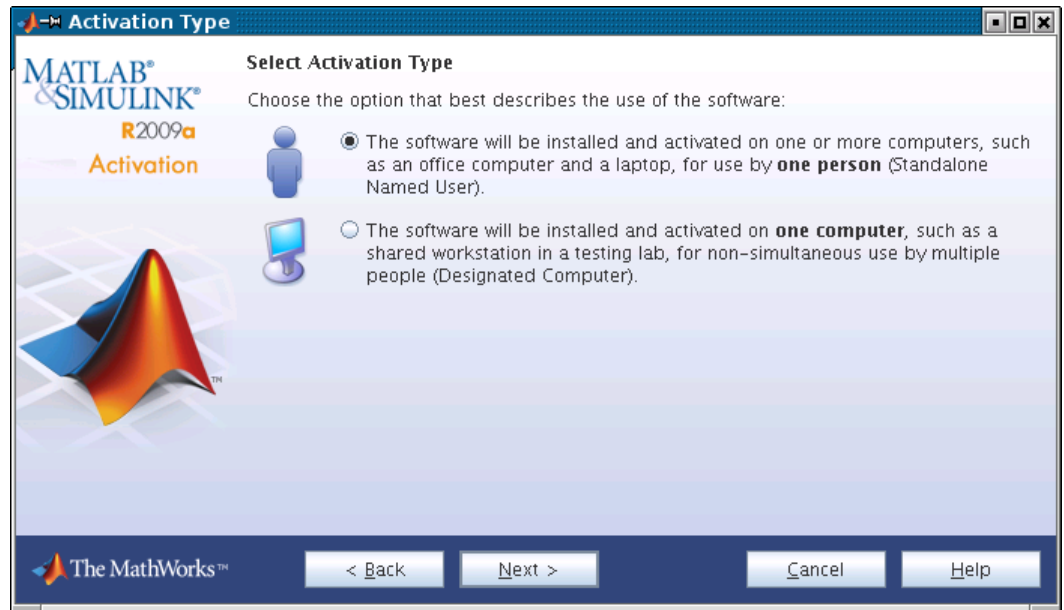
If you do not see the license you want in the list, select the **Enter an Activation Key for a license not listed** option and enter an Activation Key. Specifying an Activation Key enables you to install the products associated with the license, but does not associate the license with your account—that occurs when you activate the license.

Step 4: Choose an Activation Type

Note If the license you installed (or selected) has the activation type preset, the activation application skips this step.

Select an activation type for your license. If you want to ensure that you are the only person who can use the software, select the **Standalone Named User** option. If you want to share the installation for nonsimultaneous use by several people, choose the **Designated Computer** option.

After making your selection, click **Next** to proceed with activation.



Step 5: Specify the Login Name

Note If you picked the Designated Computer activation type for the license, the activation application skips this step; you do not need to specify a user name.

If you selected the Standalone Named User activation type, you must specify the operating system user name of the person who will use the software. The operating system user name is the ID under which a user gains access to a computer. It is also known as the computer login name. Standalone Named User activation types lock to this user name in addition to the computer host ID. Accept the default user name or enter a new one and click **Next** to proceed with activation.

If you are the administrator of the license, you can activate the license for someone else. Select the **Someone else** option and specify the e-mail address, name, and operating system user name. When you click **Next**, the activation application looks for the user's MathWorks Account or creates a new account.

Named User

MATLAB® & SIMULINK®
R2009a
Activation

Provide the Named User
Only one user is allowed to use this software. Specify the login name on this computer for the user of this license.

Me
Login Name: [Why is login name required?](#)
(Not your MathWorks Account login)

Someone else
E-mail address:
First name:
Last name:
Login Name:

[Privacy Policy](#)

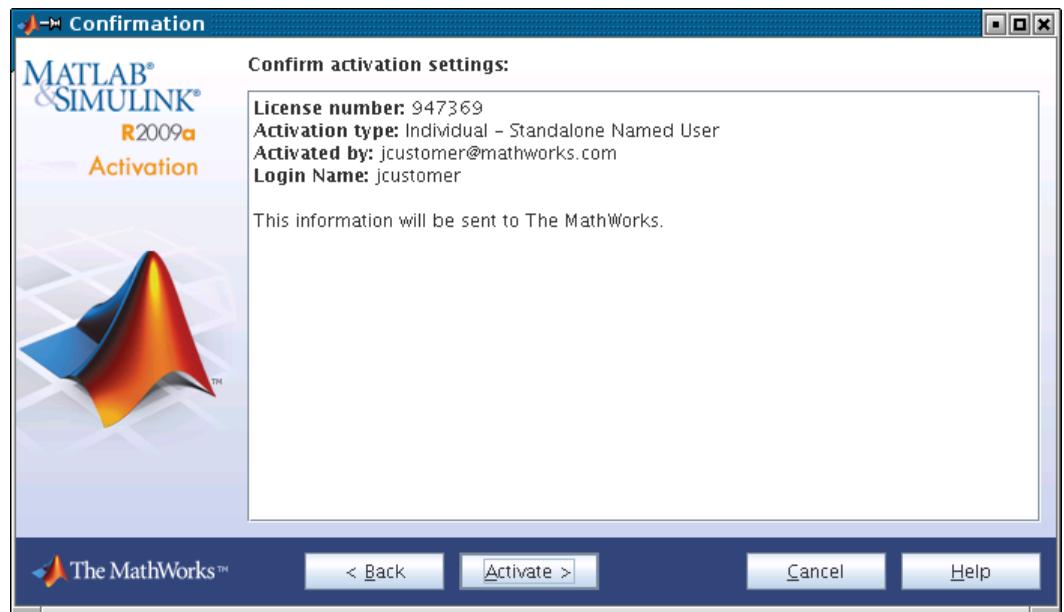
The MathWorks™

< Back Next > Cancel Help

Step 6: Confirm Your Activation Information

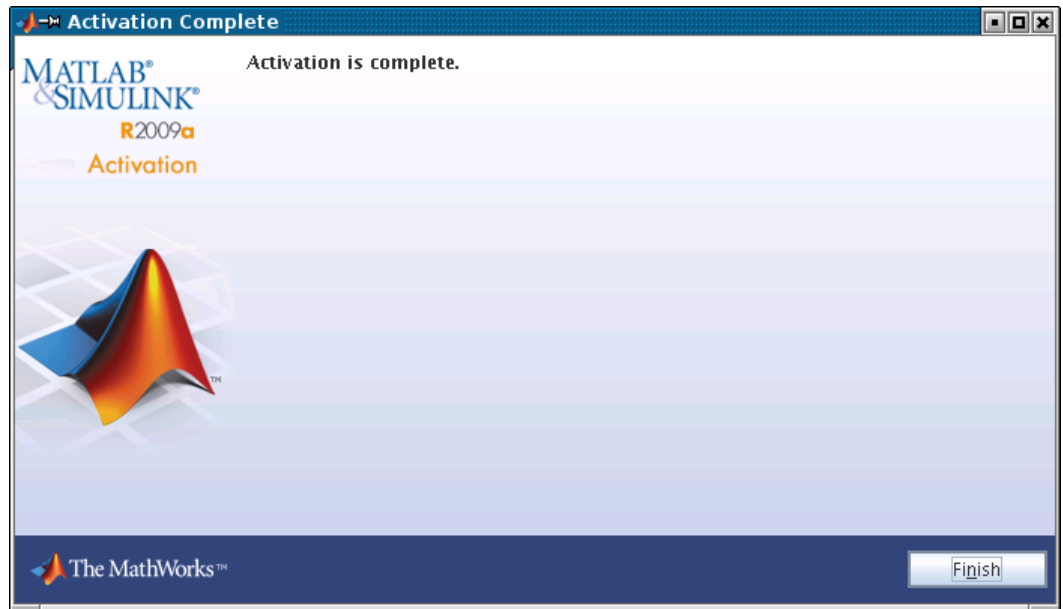
If all the information displayed is correct, click **Activate**.

To activate an installation, The MathWorks creates a License File that is locked to the computer. If you selected the Standalone Named User activation type, The MathWorks also locks the License File to a particular user. The activation application copies this License File onto your computer. This License File enables you to run MathWorks products on your computer. The MathWorks also keeps a record of the activation in MathWorks systems.



Step 7: Complete the Activation

After activation is complete, you can run the MathWorks software on your computer. Click **Finish** to exit the activation process.



Installing and Activating Without an Internet Connection

In this section...

- “Step 1: Prepare to Install” on page 1-24
- “Step 2: Start the Installer” on page 1-25
- “Step 3: Choose to Install Manually” on page 1-26
- “Step 4: Review the License Agreement” on page 1-27
- “Step 5: Specify the Installation Directory” on page 1-28
- “Step 6: Enter the File Installation Key” on page 1-29
- “Step 7: Select the Products to Install” on page 1-30
- “Step 8: Specify the Location of Symbolic Links” on page 1-31
- “Step 9: Begin the Installation” on page 1-31
- “Step 10: Complete the Installation” on page 1-32
- “Step 11: Start the Activation Application” on page 1-33
- “Step 12: Specify the Location of Your License File” on page 1-34
- “Step 13: Complete the Activation” on page 1-36

Step 1: Prepare to Install

Before you run the installer:

- Make sure you have a *File Installation Key* and a License File. The File Installation Key is a code that determines which products you can install. The File Installation Key is not unique to a license. The License File identifies the products you can run. The administrator on the license can retrieve the File Installation Key and License File at the License Center at the MathWorks Web site. See the License Center Help for instructions.
- Get the root password. To install the symbolic links that add the `matlab` command to your users' paths and to edit the system boot script to start the MATLAB license manager automatically at system boot time, you need superuser status. If you do not have superuser status, you can still install MATLAB software, but you must specify absolute path to start the software. You can also set up these links after the installation is complete.

If you have an Internet connection, follow the instructions in “Installing MathWorks Software in a Standalone Environment” on page 1-2. The MathWorks recommends installing and activating automatically using an Internet connection.

You can use this procedure to install the software in a standalone environment and in network configurations. For detailed instructions about performing an installation in a network configuration, see “Installing MathWorks Products in a Network Configuration” on page 1-37.

Step 2: Start the Installer

Log in to the system on which you want to install MATLAB software.

Insert the MathWorks DVD into the DVD drive connected to your system or download product files from the MathWorks Web site. If your system requires that you mount the DVD drive you intend to use to do the installation, use the following instructions. If you are downloading product files over the Internet, save the files to a temporary location (referred to as \$TEMP in this documentation).

Note On Linux systems, DVD drives typically mount automatically; however, the drives mount with read-only permission. You might have to change the DVD drive configuration from read-only to execute—see “Problems with Your DVD Drive” on page 2-3.

If you are installing from a DVD, execute the following command to run the installer:

```
/path_to_dvd/install &
```

If you are installing from downloaded files, extract the installer from the archive file in the \$TEMP directory. For example, on Linux systems run the following command:

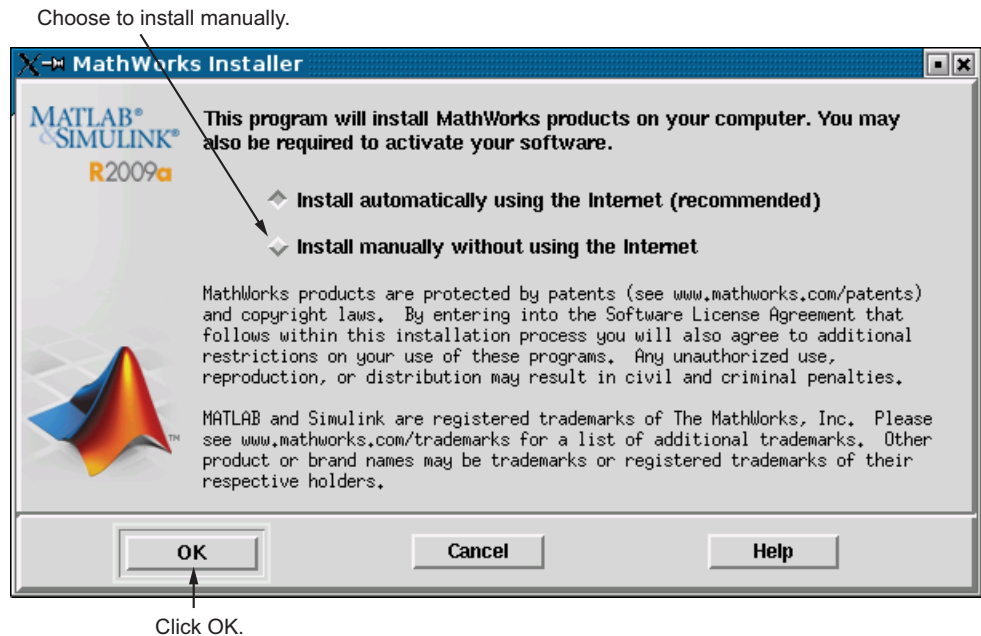
```
tar -xf boot.ftp
```

After you expand all the installer files in the \$TEMP directory, execute the appropriate command to run the installer on your platform:

```
./install
```

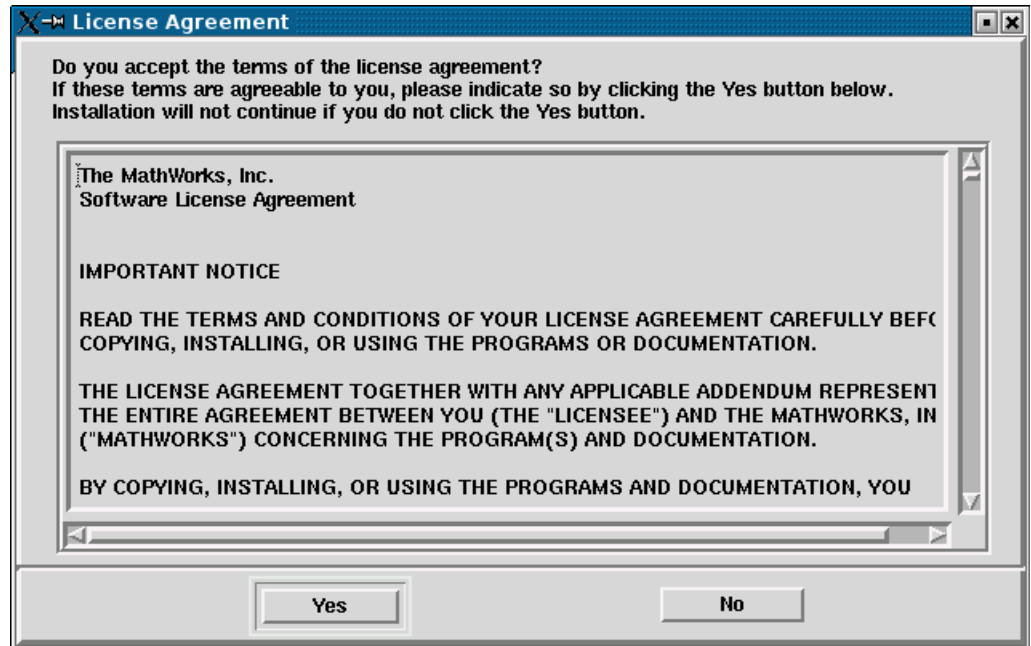
Step 3: Choose to Install Manually

When it starts, the installer displays the following dialog box. If you do not have an Internet connection, select the **Install manually without using the Internet** option and click **OK** to proceed with installation.



Step 4: Review the License Agreement

Review the software licensing agreement and, if you agree to its terms, click **Yes**.

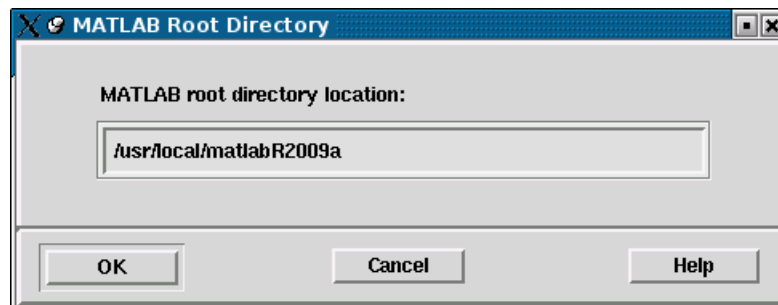


Step 5: Specify the Installation Directory

Specify the name of the directory in which you want to install MathWorks products. If the directory does not exist, the installer creates it. When choosing a name for your installation directory, do not specify a name that contains an at (@) sign, the percent (%) character, a plus (+) sign, an exclamation point (!), or a dollar (\$) sign. Do not specify a directory name that includes the word `private` as part of the path.

Note When upgrading an existing installation, always install the new release in a new installation folder. Each release of MathWorks products stands alone and does not require any previous release. Do not install MathWorks products over any previously released version.

Click **OK** to proceed with the installation.



Step 6: Enter the File Installation Key

Enter your File Installation Key and click **OK**.

If you do not have your File Installation Key, note the host ID and release number information given in this dialog box and click **Cancel** to exit the installer. Take this information to a computer with an Internet connection and visit the License Center at the MathWorks Web site. Provide The MathWorks with this information to retrieve the File Installation Key and License File.

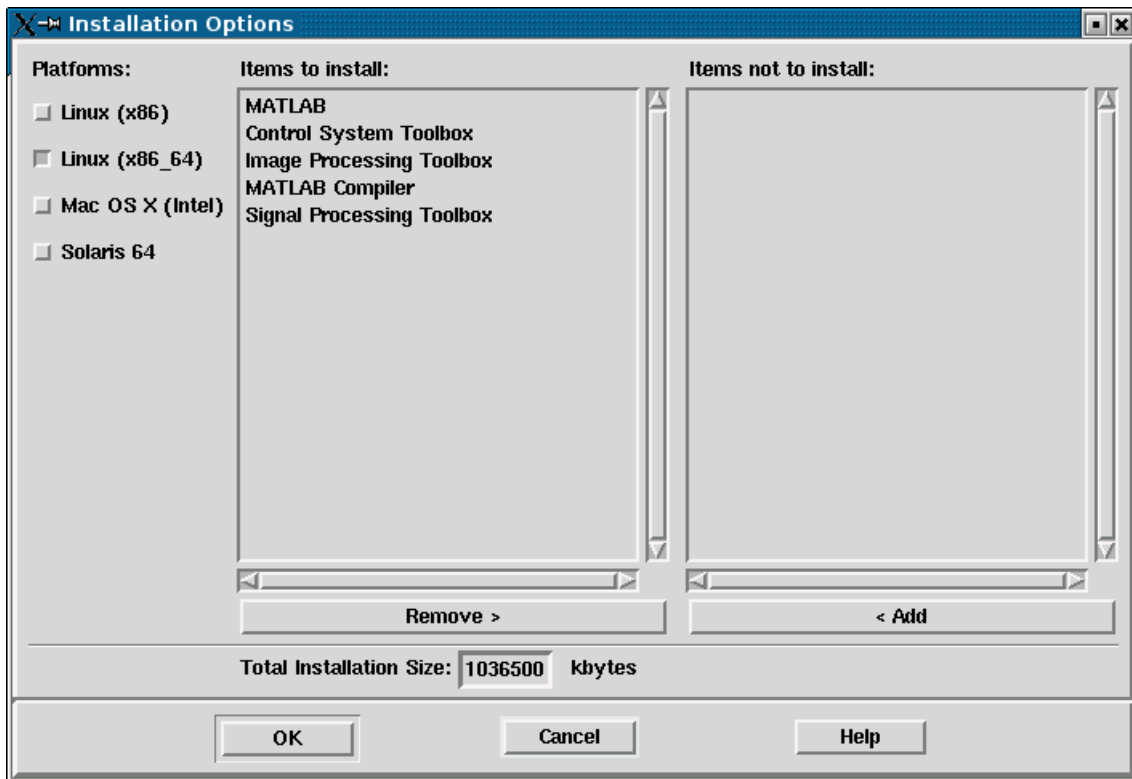


Step 7: Select the Products to Install

Specify the products you want to install in the Installation Options dialog box. By default, the installer lists all the products that you are licensed to install in the **Items to install** pane of this dialog box. If you do not want to install an item, select it and click **Remove**. This moves the product into the **Items not to install** pane.

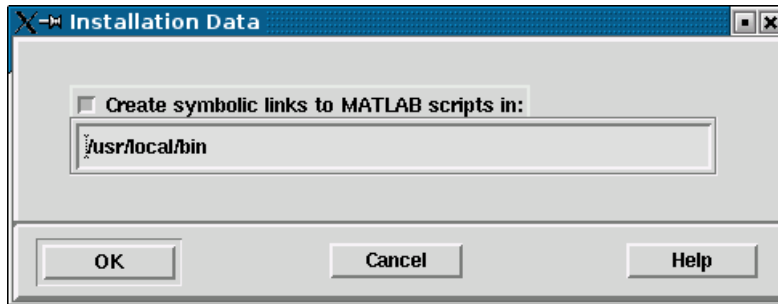
You can also choose which product binary files are installed on your computer from the **Platforms** list. By default, the installer preselects the platform on which you are running the installer. If you want to install product binary files for additional platforms, select them in the **Platforms** list.

Click **OK** to proceed with the installation.



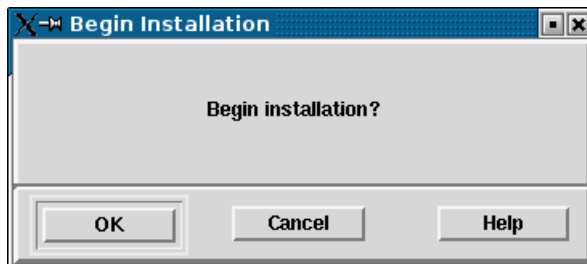
Step 8: Specify the Location of Symbolic Links

In the Installation Data dialog box, you can specify whether you want to create symbolic links to the `matlab` and `mex` scripts. Specify a directory such as `/usr/local/bin` that is common to all your users' paths and click **OK** to continue with the installation.



Step 9: Begin the Installation

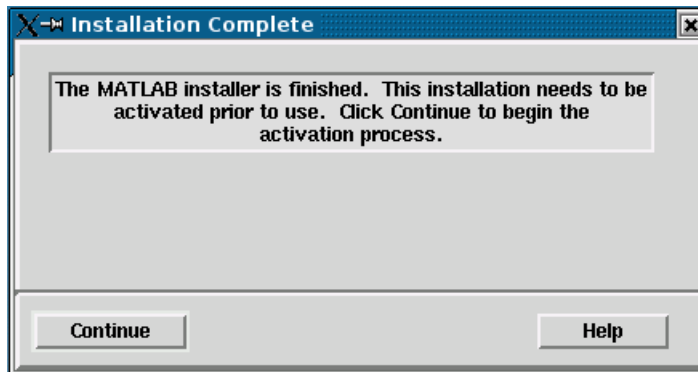
To begin copying files onto your hard disk, click **OK**. The installer displays a dialog box indicating the progress of the installation.



Step 10: Complete the Installation

When the installation successfully completes, the installer displays the Installation Complete dialog box. This dialog box gives you the option to proceed directly to activating your installation. While you can activate as a separate process, The MathWorks recommends activating immediately after installing. Click **Continue** to proceed to activation or exit the installer.

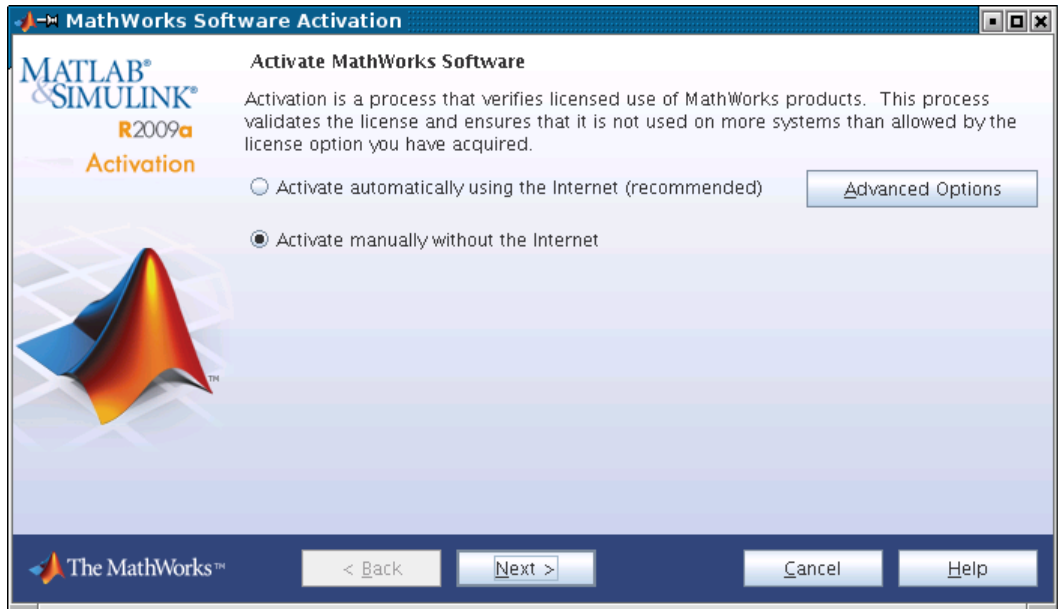
This procedure for installing and activating without an Internet connection assumes you choose to continue with the activation process at “Step 11: Start the Activation Application” on page 1-33.



For general information about some common post-installation tasks, see “After You Install” on page 1-51.

Step 11: Start the Activation Application

If you clicked **Continue** on the last installer screen, or started the activation application independently, the activation application starts. Select the **Activate manually without the Internet** option and click **Next**.

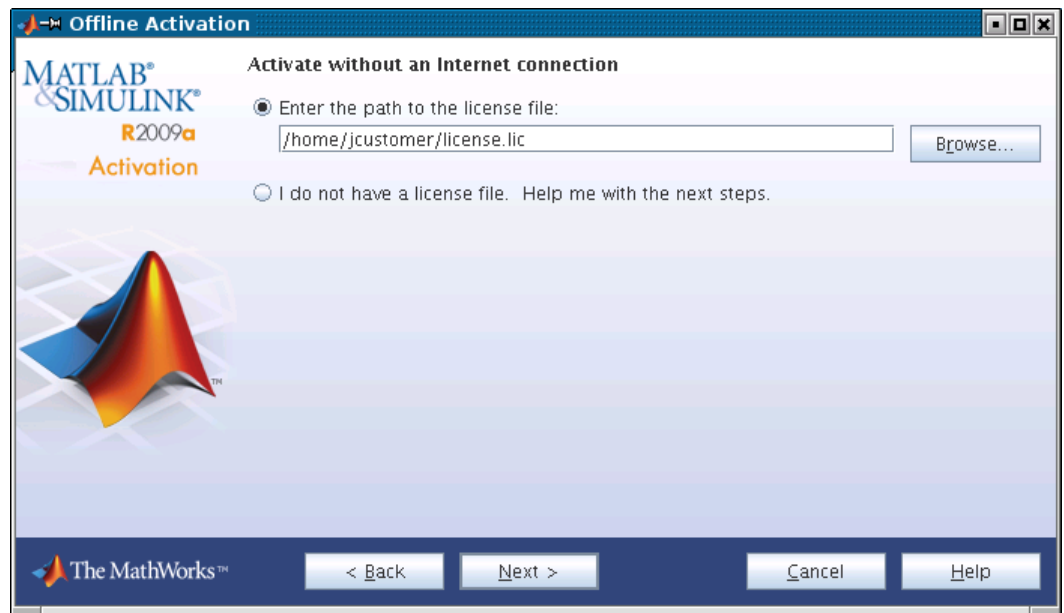


Step 12: Specify the Location of Your License File

Specify the full path of the License File associated with the installation of this license, or use the **Browse** button to find the file. The administrator on the license retrieved this License File along with the File Installation Key at the License Center.

If you do not have your License File, select the **I do not have a license file** option. See “If You Do Not Have a License File” on page 1-34 for more information.

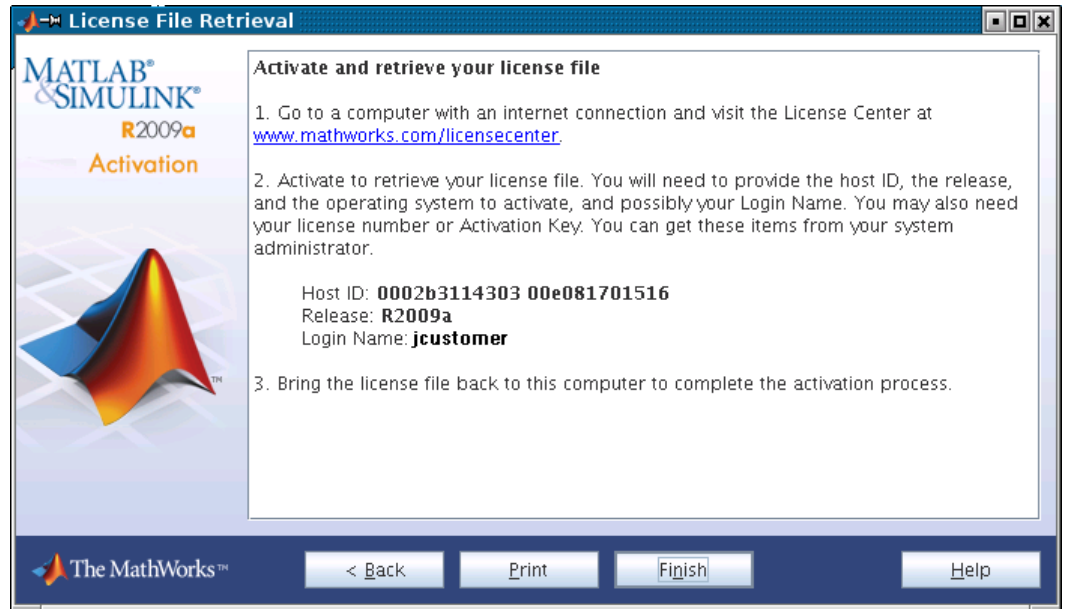
Click **Next** to proceed with activation.



If You Do Not Have a License File

If you selected the **I do not have a license file** option, the activation application displays the License File Retrieval dialog box. Note the host ID and release number given in this dialog box (you can print it). You will need this information to get your License File.

Click **Finish** to exit the activation application. Visit the License Center at the MathWorks Web site to get your License File, and bring these items back to this computer to complete activation.



Step 13: Complete the Activation

When activation completes successfully, you can start MATLAB software on your computer. Click **Finish** to exit the activation application. If you want the activation application to start the MATLAB software as it exits, leave the **Start MATLAB** check box selected.



Installing MathWorks Products in a Network Configuration

In this section...

“Step 1: Prepare to Install” on page 1-37

“Step 2: Start the Installer” on page 1-38

“Step 3: Choose Whether to Install Automatically or Manually” on page 1-39

“Step 4: Review the Software License Agreement” on page 1-40

“Step 5: Specify the Installation Directory” on page 1-41

“Step 6: Log In to Your MathWorks Account” on page 1-42

“Step 7: Select the License You Want to Install” on page 1-43

“Step 8: Specify the Products to Install” on page 1-45

“Step 9: Specify the Location of Symbolic Links” on page 1-47

“Step 10: Specify the Location of Your License File” on page 1-47

“Step 11: Begin the Installation” on page 1-49

“Step 12: Complete the Installation” on page 1-50

Step 1: Prepare to Install

Before you run the installer:

- Make sure you have an activated License File. When installing one of the network license options, you must visit the License Center at the MathWorks Web site, provide the host ID of the computer on which you will run the license manager, and retrieve an activated License File.
- Make sure you have your e-mail address and your MathWorks Account password handy. You will need them to log in to your account during installation. If you have multiple licenses associated with your account, know the number of the license you want to install.

If you don't have a MathWorks Account, you can create one during installation. However, to do this, you must have an *Activation Key*. An Activation Key is the unique code that identifies a license. It is used to activate the license. The Activation Key also allows licensed end users to

associate their MathWorks Account with a license. Ask the administrator of the license for the Activation Key.

- Get the root password. Superuser status is required to install the symbolic links that add the `matlab` command to your users' paths and to edit the system boot script to start the license manager automatically at system boot time. If you do not have superuser status, you can still install the software, but you must use absolute path to start the software. You can also set up these links after the installation is complete.

If you do not have an Internet connection during installation, see “Installing and Activating Without an Internet Connection” on page 1-24. Note that the procedure for installations of network license options contain a few additional steps.

If you need to perform an installation in a standalone environment, see “Installing MathWorks Software in a Standalone Environment” on page 1-2.

Step 2: Start the Installer

Insert the MathWorks DVD into the DVD drive connected to your system or download product files from the MathWorks Web site.

If you are downloading product files over the Internet, save the files to a temporary location (referred to as `$TEMP` in this documentation).

Note On Linux systems, DVD drives typically mount automatically; however, the drives mount with read-only permission. You might have to change the DVD drive configuration from read-only to execute—see “Problems with Your DVD Drive” on page 2-3.

If you are installing from a DVD, execute the following command to run the installer:

```
/path_to_dvd/install &
```

If you are installing from downloaded files, extract the installer in the `$TEMP` directory. For example, on Linux systems run the following command:

```
tar -xf boot.ftp
```

After you expand all the installer files in the \$TEMP directory, execute the appropriate command to run the installer on your platform:

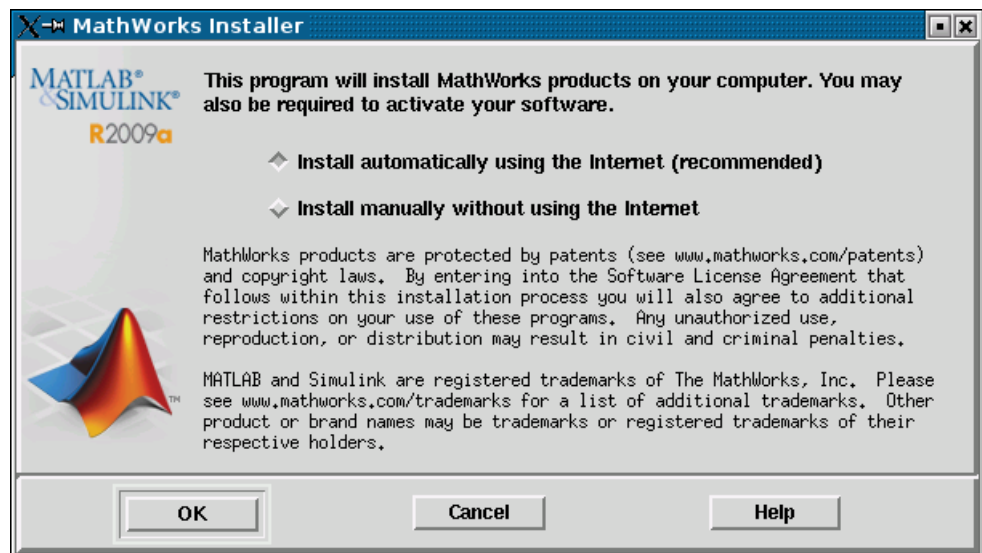
```
./install
```

Step 3: Choose Whether to Install Automatically or Manually

When it starts, the installer displays the following dialog box. Choose whether you want to install automatically or manually. When you install automatically, the installer contacts The MathWorks during installation. The MathWorks recommends installing automatically.

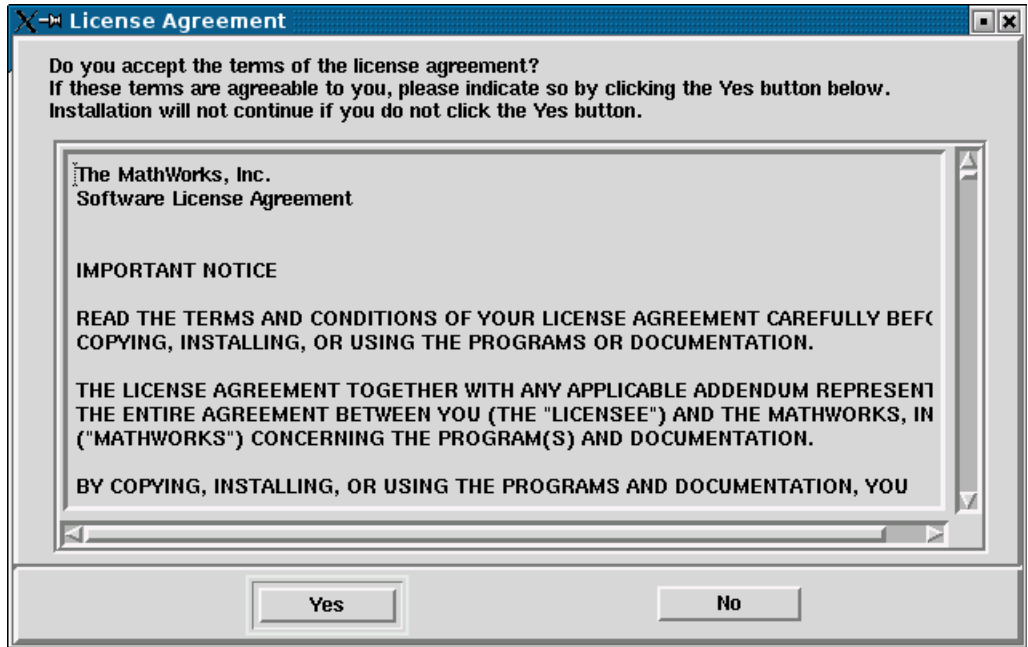
If you choose to install manually, see “Installing and Activating Without an Internet Connection” on page 1-24 for step-by-step instructions.

Make your selection and click **OK** to proceed with installation.



Step 4: Review the Software License Agreement

Review the software licensing agreement and, if you agree to its terms, click **Yes** to proceed with installation.

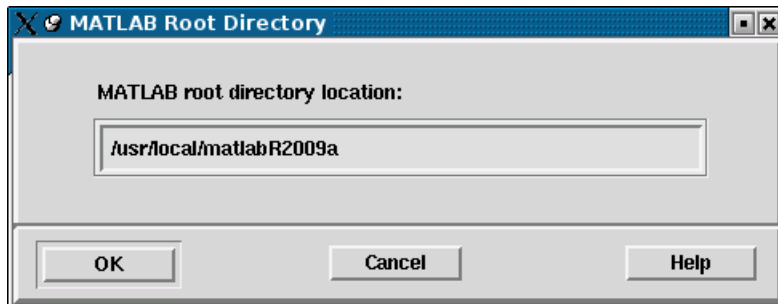


Step 5: Specify the Installation Directory

Specify the name of the directory in which you want to install MathWorks products. When choosing a name for your installation directory, do not specify a name that contains an at (@) sign, the percent (%) character, a plus (+) sign, an exclamation point (!), or a dollar (\$) sign. Do not use a directory name that includes the word `private` as part of the path. Click **OK** to proceed with the installation.

If the directory does not exist, the installer displays a dialog box asking if you want to create it. Click **Create** to create the directory, and then click **OK** in the MATLAB Root Directory dialog box.

Note When upgrading an existing installation, always install the new release in a new installation folder. Each release of MathWorks products stands alone and does not require any previous release. Do not install MathWorks products over any previously released version.



Step 6: Log In to Your MathWorks Account

Enter your e-mail address and your MathWorks Account password, and click **OK** to log in to your MathWorks Account.

If you need to create an account, select the **Create a MathWorks Account for me** option and enter your e-mail address, first name, last name, and Activation Key. You must specify an Activation Key to associate your newly created account with a license. The Activation Key identifies the license you want to install. The administrator contact on the license can retrieve the key by visiting the License Center at the MathWorks Web site. Click **OK** to proceed with installation. (Because the Activation Key you entered specifies a particular license, the installer skips the next step, license selection.)

MathWorks Account

◆ Log in to my MathWorks Account

E-mail address:

Password:

◆ Create a MathWorks Account for me

Provide the following information to create your MathWorks Account. A temporary password will be emailed to you. You can change this password and update other account details on the MathWorks Web site.

E-mail address:

First Name:

Last Name:

Activation Key:

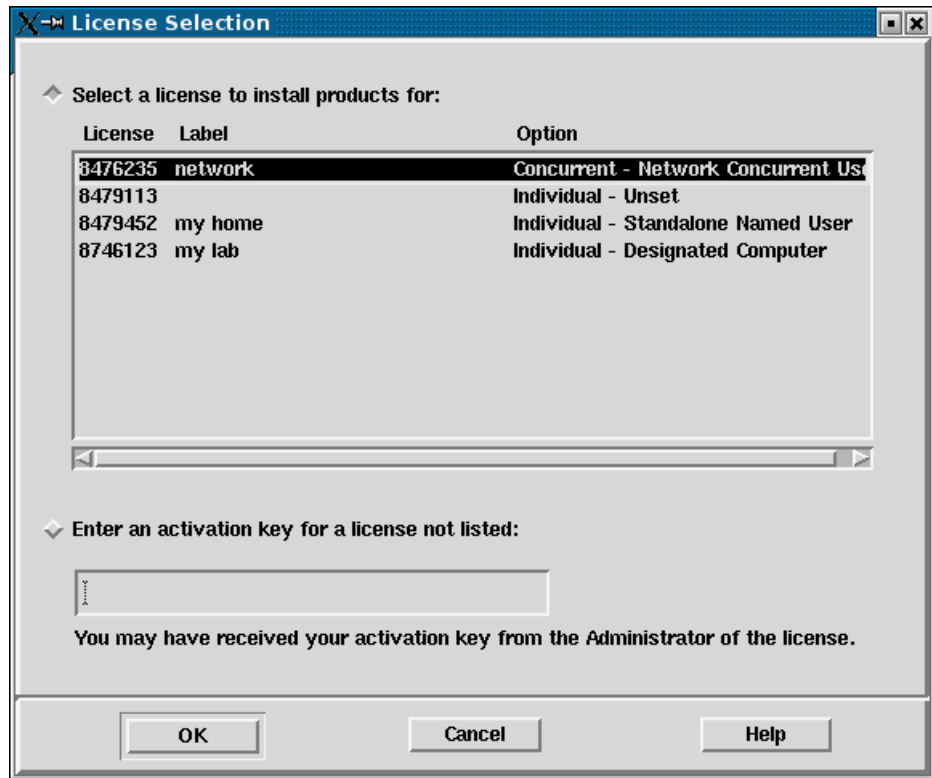
The Activation Key is used to look up your license. You may have received the Activation Key from the Administrator of the license.

Step 7: Select the License You Want to Install

When you log in to your MathWorks Account, the installer displays all the licenses associated with your account. Each row contains:

- License number
- An optional descriptive text label that can help identify a license. To label a license, go to the License Center at the MathWorks Web site. See the License Center Help for instructions.
- Information identifying the license option and the activation type. If an activation type has not yet been set on the license, the word “Unset” appears.

Select the license you want to install from the list of licenses associated with your account. For a network configuration, select a Concurrent license from the list. Click **OK** to proceed with the installation.



Specifying an Activation Key

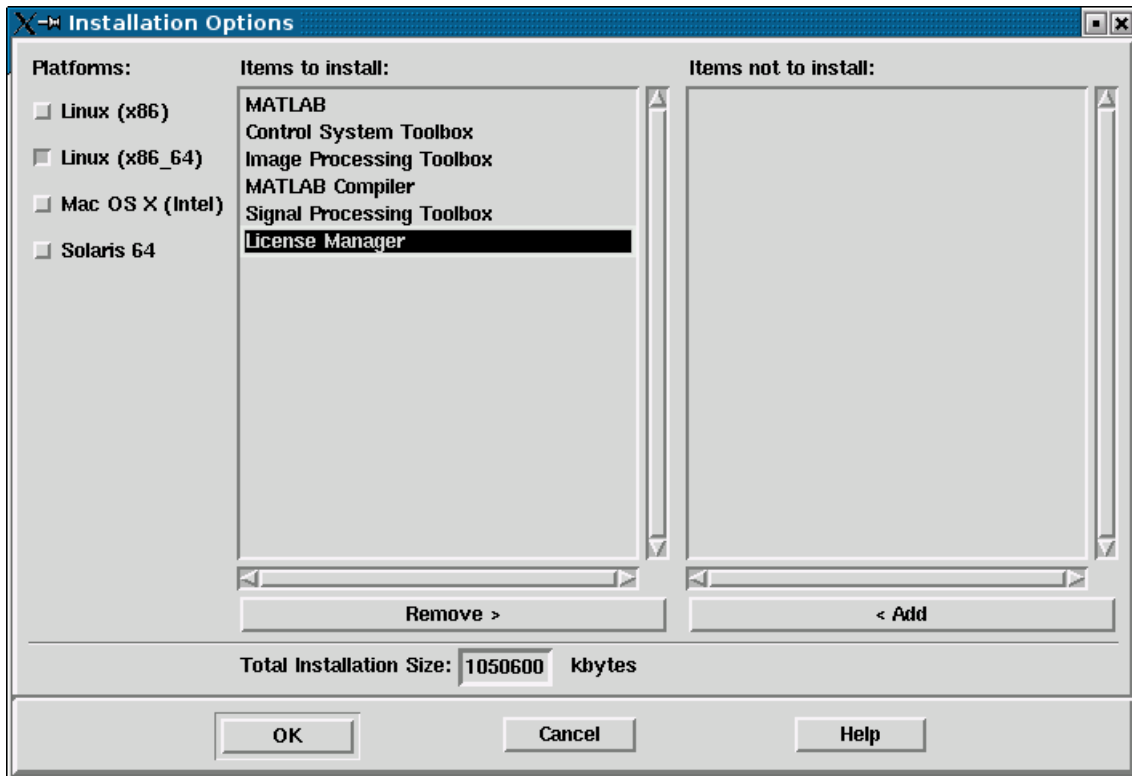
If you do not see the license you want in the list, select the **Enter an activation key for a license not listed** option and enter an Activation Key. Specifying an Activation Key enables you to install the products associated with the license, but does not associate the license with your account—that occurs when you activate the license.

Step 8: Specify the Products to Install

Specify the products you want to install in the Installation Options dialog box, and then click **OK** to continue. Your product selection depends on your network configuration:

- If you are installing only the license manager on a server, select all the other products and click **Remove**. This moves the products to the **Items not to install** list.
- If you are installing the license manager and MathWorks products on the same server, leave all the products in the Items to install list.
- If you are installing the software on a client computer, do not install the license manager. Select the license manager in the list and click **Remove**. This moves the products to the **Items not to install** list.

See the License Administration Guide for more information about network configurations that include the license manager.



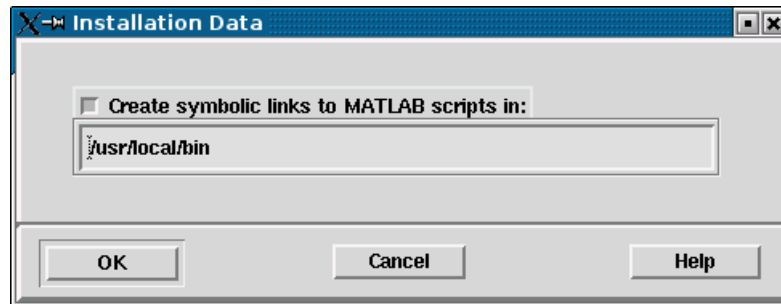
The **Platforms** column identifies which product binary files are installed. By default, the check box identifying the platform on which you are running the installer is preselected. If you want to install product binary files for additional platforms, select them in the **Platforms** column.

Note The installer might display a message box stating that one or more of your licensed products are not available on the DVD. To obtain products that have been released since the DVD was produced, visit the MathWorks Web site, www.mathworks.com, and download them. Click **Close** to continue with the installation.

Step 9: Specify the Location of Symbolic Links

If you installed MathWorks products as part of your installation, you can specify where you want to put symbolic links to the `matlab` and `mex` scripts. Specify a directory such as `/usr/local/bin` that is common to all your users' paths. If you only installed the license manager, the installer does not display this dialog box.

Click **OK** to continue with the installation.



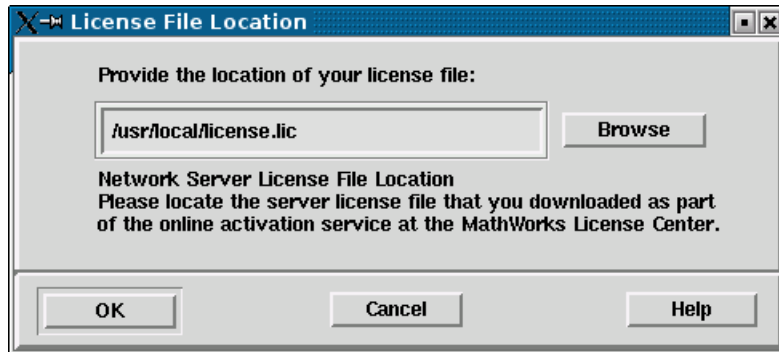
Step 10: Specify the Location of Your License File

Specify the path for the License File and click **OK**.

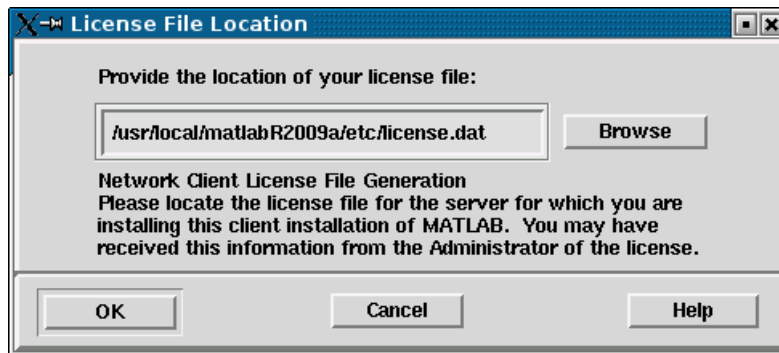
The License File you specify depends on whether you are installing the license manager on a server or installing MathWorks software on a client computer in your network configuration. (See the License Administration Guide for information about network configurations.)

Note Note that the text displayed on the dialog box changes, depending on whether or not you are installing the license manager.

- If you are installing the license manager, specify the name of the License File you received from The MathWorks.



- If you are *not* installing the license manager, specify the name of the License File on your license server—see “License File Processing on the Server and Client” on page 1-48 for more information.



License File Processing on the Server and Client

During a server installation, where you install the license manager, you must specify the location of the License File you received from The MathWorks. The installer performs the following processing of this License File:

- Makes a copy of your License File, naming it `license.dat`, and puts it in the `/etc` directory of your MATLAB installation directory.

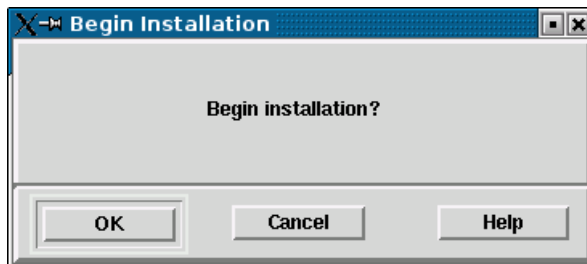
- Adds `SERVER` and `DAEMON` lines to the file. The `SERVER` line identifies the server (host and port number). The `DAEMON` line identifies the name of the license manager daemon (`matlabroot/etc/lm_matlab`)

During a client installation, where you do not install the license manager, you must specify the location of the License File that the installer processed during installation of the license manager on the server. The installer performs this processing of the License File on client systems:

- Makes a copy of the License File on the server, naming it `network.lic`, and puts the file in the `/licenses` directory in your MATLAB client installation directory.
- Deletes all the product information and the `DAEMON` line in the License File, leaving the `SERVER` line. Adds the statement `USE_SERVER` to the file.

Step 11: Begin the Installation

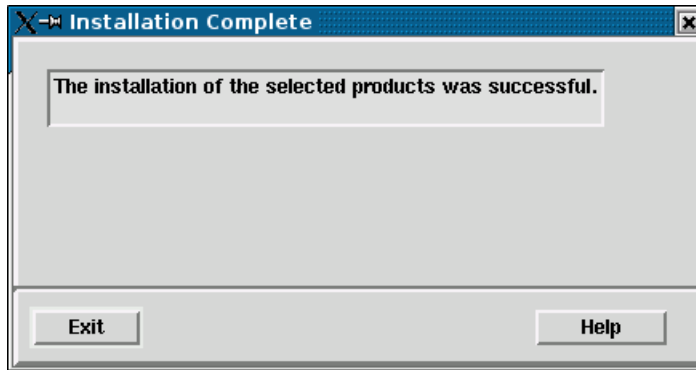
The installer displays the Begin Installation dialog box. Click **OK** to begin the installation.



After you click **OK**, the installer displays a dialog box indicating the progress of the installation.

Step 12: Complete the Installation

After the installation is complete, the installer displays the Installation Complete dialog box. For network installations, you do not need to activate the software as a separate process after installation. The License File you specified during installation was already activated by The MathWorks. Click **Exit** to dismiss the installer.



If you installed the license manager, you must start it. The license manager must be running to start the MATLAB software. See “After You Install” on page 1-51 for more information.

After You Install

In this section...
“Starting the License Manager” on page 1-51
“Starting the MATLAB Program” on page 1-55
“Specifying Print Options” on page 1-56
“Specifying Documentation Viewing Options” on page 1-56
“Specifying MATLAB Startup Options” on page 1-56
“Updating Your Licenses” on page 1-57

Note For more information about setting up network configurations, see the License Administration Guide.

Starting the License Manager

The license manager must be running to start MATLAB software. This section describes how to start the license manager at the command line and automatically at boot time.

- “At the Command Line” on page 1-51
- “At Boot Time” on page 1-52

At the Command Line

If the license manager daemons are not running, you can start them by executing the `lmstart` script (located in the `matlabroot/etc` directory). The `lmstart` script stops any currently running daemons and starts new ones.

Note A user other than root should run the `lmstart` script because it is a security risk to run any program as root that does not require root permissions. The license manager (`lmgrd`) does not require root permissions. If you must start the license manager as root, use the UNIX `su` command to start `lmgrd` as a nonprivileged user:

```
su username -c "lmgrd -c license_file -l /var/tmp/LM_TMW.log"
```

where `username` is a nonprivileged user.

At Boot Time

You can start the license manager automatically at boot time by editing the system boot script. The MathWorks provides the set of Bourne shell commands required to start the license manager on each UNIX system. These boot script files are in the `matlabroot/etc` directory. Each file has the name `flexnet.boot.system`, where `system` identifies the system type.

For example, the following is the contents of the file `flexnet.boot.linux`, which contains the boot script commands required to start the license manager on Linux systems. When you add these commands to a boot script, you must replace the word `username` that is used as an argument to the `/etc/lmboot_TMW` command in the script (highlighted below) with an actual user name (login name). Do not specify the name associated with superuser. For security reasons the license manager daemons cannot be owned by superuser.

```
#!/bin/sh
#
case "$1" in
  start)
    if [ -f /etc/lmboot_TMW ]; then
      /etc/lmboot_TMW -u [username] && echo 'MATLAB_lmgrd'
    fi
    ;;
  stop)
    if [ -f /etc/lmdown_TMW ]; then
      /etc/lmdown_TMW > /dev/null 2>&1
    fi
    ;;
  *)
    echo "Usage: $0 {start|stop}"
    exit 1
    ;;
esac
exit 0
```

The following sections describe how to insert these Bourne shell code fragments for all supported platforms:

- “Editing the Boot Script on Linux Systems” on page 1-53
- “Editing the Boot Script on Solaris Systems” on page 1-55

Editing the Boot Script on Linux Systems. To create the boot script on Linux systems, make a copy of the `flexnet.boot.linux` file and edit the copy as described in the following procedure. You can use the same procedure to create the boot script on both 32-bit and 64-bit Linux systems.

- 1 Log in as root.
- 2 Create the following links, if they do not already exist.

```
ln -s matlabroot/etc/lmboot /etc/lmboot_TMW
ln -s matlabroot/etc/lmdown /etc/lmdown_TMW
```

- 3 Make a copy of the appropriate boot script file.

The following table lists the appropriate commands for supported Linux distributions for both 32-bit and 64-bit systems.

Distribution	Command
Debian or SUSE	<code>cp matlabroot/etc/flexnet.boot.linux /etc/init.d/flexnet</code>
Red Hat or Fedora Core	<code>cp matlabroot/etc/flexnet.boot.linux /etc/rc.d/init.d/flexnet</code>

- 4 Edit the copy you made of the boot script file, `flexnet`, replacing the `username` argument to the `lmboot_TMW` script in the code with a valid user name, other than `root`. For security reasons the license manager daemons cannot be owned by `superuser`.
- 5 Look in `/etc/inittab` for the default run level.
- 6 Create a link in the `rc` directory associated with the default run level. The following table lists the appropriate commands for supported Linux distributions for both 32-bit and 64-bit systems, using run level 5 to illustrate.

Distribution	Command
Debian	<code>cd /etc/rc5.d; ln -s ../init.d/flexnet S90flexnet</code>
Red Hat or Fedora Core	<code>cd /etc/rc.d/rc5.d; ln -s ../init.d/flexnet S90flexnet</code>
SUSE	<code>cd /etc/init.d/rc5.d; ln -s ../flexnet S90flexnet</code>

Editing the Boot Script on Solaris™ Systems.

- 1 Log in as root.
- 2 Create the following links, if they do not already exist.

```
ln -s matlabroot/etc/lmboot /etc/lmboot_TMW
ln -s matlabroot/etc/lmdown /etc/lmdown_TMW
```

- 3 Copy the boot script code from *matlabroot*/etc/flexnet.boot.sol2 and paste it at the beginning of the file */etc/init.d/lmgrd*.

If */etc/init.d/lmgrd* does not exist, create it, using these commands.

```
cd matlabroot/etc
cp flexnet.boot.sol2 /etc/init.d/lmgrd
chmod 555 /etc/init.d/lmgrd
```

- 4 Edit the copy you made of the boot script file, */etc/init.d/lmgrd*, replacing the username argument to the *lmboot_TMW* script in the code with a valid user name, other than root.
- 5 Create the file (link) */etc/rc3.d/S17lmgrd*, if it does not exist, using this code.

```
cd /etc/rc3.d
ln -s ../init.d/lmgrd S17lmgrd
```

Starting the MATLAB Program

Start the MATLAB program by entering the *matlab* command at the system prompt.

If you did not set up symbolic links during the installation procedure (“Step 9: Specify the Location of Symbolic Links” on page 1-11), you must enter the full pathname, *matlabroot*/bin/matlab, where *matlabroot* is the name of your MATLAB installation directory.

If you have trouble starting the software, see “Problems Starting the MATLAB Program After an Installation” on page 2-7 for some troubleshooting tips.

Specifying Print Options

MATLAB software includes default settings for the various options to the `print` command. If you want to change the site-wide default settings for printing device type and location, you can edit the M-file `printopt.m`, located in the directory `matlabroot/toolbox/local`. This file contains options used by the MATLAB `print` command.

Specifying Documentation Viewing Options

You can specify the Web browser to use with MATLAB software by editing the `docopt.m` M-file, located in the `matlabroot/toolbox/local` directory. The MATLAB `web` function uses the `docopt.m` file when you specify the `-Browser` option. It also specifies the browser to use for links to external Web sites from the MATLAB Help browser and from Web menu items.

Specifying MATLAB Startup Options

To specify startup welcome messages, default definitions, or any MATLAB expressions that you want executed each time a user starts MATLAB software, edit the `matlabrc.m` M-file in `matlabroot/toolbox/local`. The MATLAB software executes this file automatically each time it starts.

If you do not have write access to `matlabrc.m`, you can include startup messages, definitions, and MATLAB expressions in a file called `startup.m` and store this file in the top-level MATLAB installation directory. Use this file to specify the startup behavior of your own MATLAB installation.

Updating Your Licenses

Throughout the term of your license, your MATLAB installation periodically contacts The MathWorks to verify that your license is up-to-date. If your license is up-to-date, the validation process is transparent. If it determines that you need to update your license, the validation process displays a dialog box giving you the option to update your license. Validation updates expiring licenses and License Files with product configuration changes. (You can also check for License File updates at any time by selecting **Help > Update Current Licenses** from the MATLAB desktop.)

The administrator contact on a license can modify validation settings for the license at the License Center at the MathWorks Web site. See the License Center Help for more information.

Deactivating and Removing a MATLAB Installation

In this section...
“Deactivating a License” on page 1-58
“Removing a MATLAB Installation” on page 1-63

Deactivating a License

Deactivating a license renders the MathWorks software unusable on a particular computer. Deactivation can be a useful way to manage usage of the software on multiple computers. For example, if you want to install and activate the software on a new computer, and you’ve already performed all the activations allowed by your license, you can deactivate one of your existing installations to enable activation on your new computer.

The deactivation process has two parts: the license must be deactivated on your computer and must also be deactivated in MathWorks systems. If you have Internet connectivity, the MathWorks deactivation application can take care of both parts of the process. If you do not have Internet connectivity, the deactivation application disables the software on your computer and gives you a *deactivation string*. To complete the deactivation process, you must visit the MathWorks Web site and enter the deactivation string. When you deactivate a license, you deactivate all the installations of that license on a particular computer.

Note Deactivating a license and removing the software are separate activities. You can deactivate a license without removing the software from your computer. When you remove a MATLAB installation, you remove the deactivation application, so it is best to deactivate before removing your installation. For more information about removing an installation, see “Removing a MATLAB Installation” on page 1-63.

To deactivate a license on your computer, follow this procedure:

- 1 Start the deactivation application. Navigate to the `matlabroot/bin` directory and run the `deactivate_matlab.sh` script, where `matlabroot` represents your MATLAB installation directory.

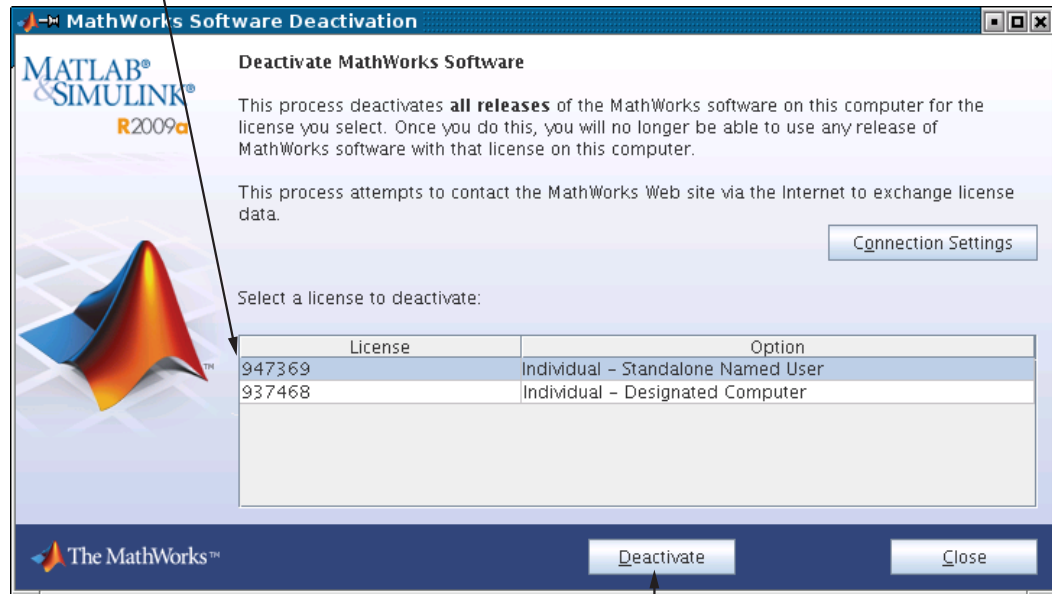
```
cd matlabroot/bin
./deactivate_matlab.sh
```

You can also deactivate a MATLAB installation by selecting **Help > Licensing > Deactivate Software** on the MATLAB desktop.

- 2 Select the license that you want to deactivate and click **Deactivate**.

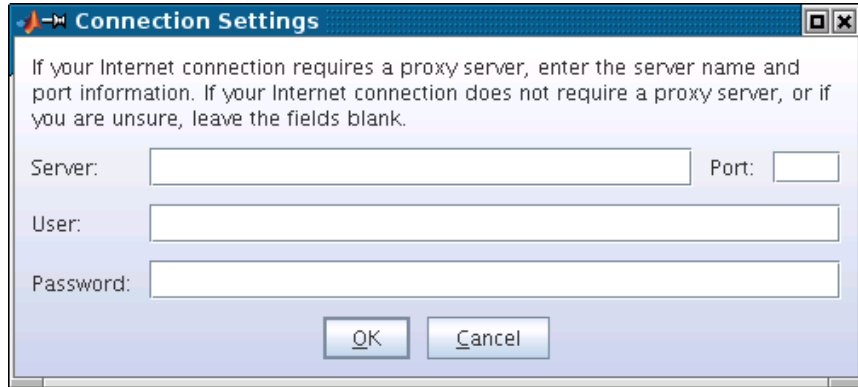
When the deactivation application starts, it displays the licenses you currently have installed and activated on your system. If you start this from within MATLAB, the license you are using is preselected.

Select the license that
you want to deactivate.



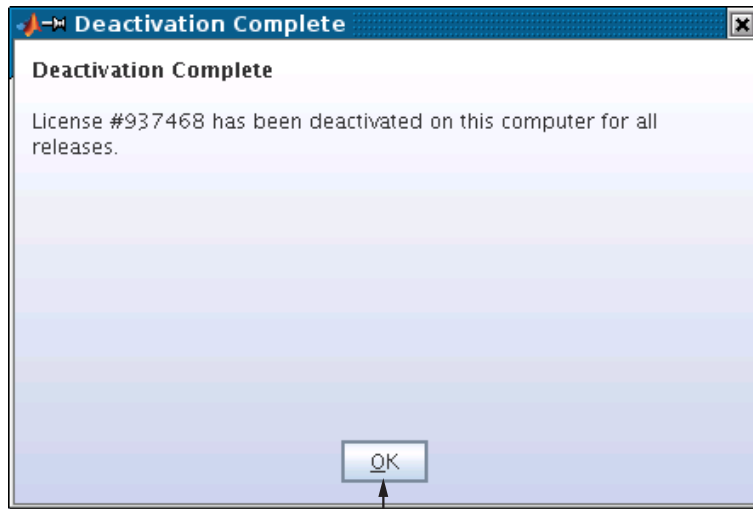
Click Deactivate.

If your Internet connection requires a proxy server, click the **Connection Settings** button and enter the server name and port information. Click **OK** to return to the MathWorks Software Deactivation dialog box.



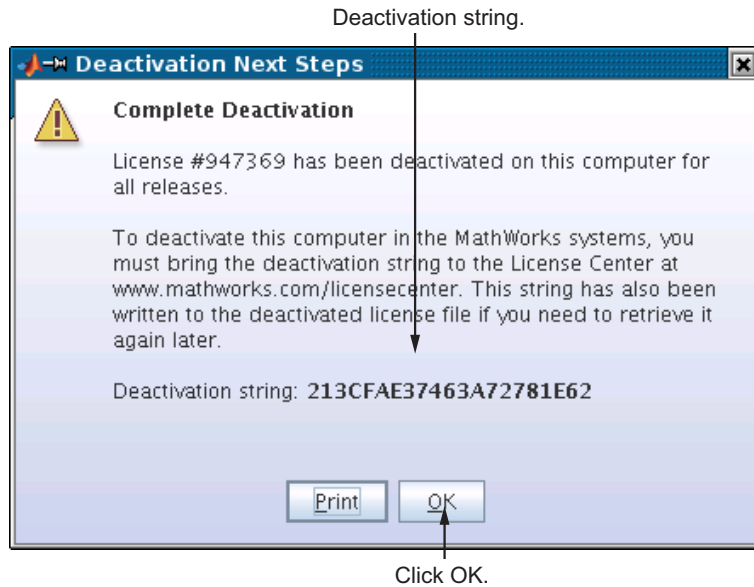
3 Confirm the deactivation.

If the deactivation application can deactivate the license on your computer and in MathWorks systems, it displays the Deactivation Complete dialog box. Click **OK** to return to the MathWorks Software Deactivation dialog box, where you can choose to deactivate other licenses.

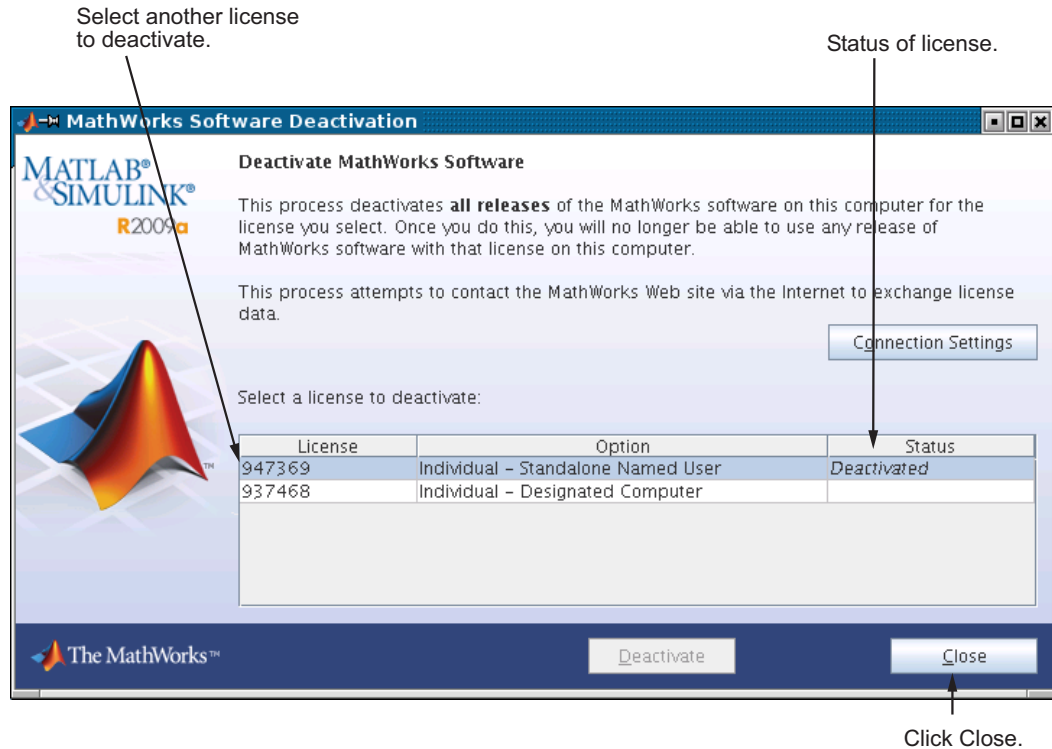


Click OK.

If the deactivation application can deactivate the license on your computer but not in MathWorks systems, it displays the Deactivation Next Steps dialog box. This dialog box contains the deactivation string. To complete deactivation, you must go to the MathWorks Web site, log in to your account, and enter the deactivation string. See the License Center help for more information. Click **OK** to return to the MathWorks Software Deactivation dialog box.



- 4 Select another license to deactivate and click **Deactivate**, and repeat the deactivation procedure. After you deactivate a license, the MathWorks Software Deactivation dialog box displays an additional column listing the status of the license. If you do not want to deactivate another license, click **Close** to exit the deactivation application.



Removing a MATLAB Installation

Note Removing the software and deactivating a license are separate activities. You can deactivate a license without removing the software from your computer. When you remove a MATLAB installation, you remove the deactivation application, so it is best to deactivate before removing your installation. For more information about deactivating software, see “Deactivating a License” on page 1-58.

To remove a MATLAB installation from your computer, enter this command

```
rm -rf matlabroot
```

where *matlabroot* represents the name of your top-level MATLAB installation directory. Make sure to exit the MATLAB program and stop the license manager before removing a MATLAB installation. You can use the `lmdown` command to stop the license manager. You can find `lmdown`, and other license management utilities, in the *matlabroot/etc* directory.

System Requirements

In this section...

“Solaris” on page 1-65

“Linux” on page 1-66

Note For the most up-to-date information, view the system requirements page at the MathWorks Web site, www.mathworks.com.

Solaris

The following system configurations are supported.

64-Bit MathWorks Products

Operating System	Processors	Disk Space	RAM
Solaris 10	UltraSPARC	700 MB	1024 MB
Requires all recommended patches.		(MATLAB only)	(At least 2048 MB recommended)

Graphics

- 24-bit graphics display for Sun Solaris

License Management

- Some license types require a license server running FLEXnet 11.6, which is provided by the MathWorks installer.
- TCP/IP is required on all platforms when using a license server.

Linux

32-Bit MathWorks Products

Operating System	Processors	Disk Space	RAM
Debian 4.0 and above	Intel® Pentium 4 and above	500 MB	512 MB
Red Hat Enterprise Linux, V.4 and above	Intel Celeron ** Intel Xeon	(MATLAB only)	(At least 1024 MB recommended)
OpenSuSE 9.3 and above	Intel Core		
Ubuntu 8 and above	AMD Athlon™ 64**		
Other distributions*	AMD® Opteron AMD Sempron**		

64-Bit MathWorks Products

Operating System	Processors	Disk Space	RAM
Debian 4.0 and above	Intel Pentium (Pentium 4 and above)	500 MB	1024 MB (At least 2048 MB recommended)
Red Hat Enterprise Linux, V.4 and above	Intel Celeron **	(MATLAB only)	
OpenSuSE 9.3 and above	Intel Xeon Intel Core		
Ubuntu 8 and above	AMD64		
Other distributions*			

* For any other 32-bit or 64-bit Linux distribution not explicitly listed above, R2009a requires the distribution to be built using Kernel 2.4.x or 2.6.x and glibc (glibc6) 2.3.4 and above.

** Processor must support SSE2 instruction set.

Graphics

- (Sun™) 24-bit graphics display for Sun Solaris
- (Linux) 16-, 24-, 32-bit OpenGL® cable graphics adaptor

License Management

- Some license types require a license server running FLEXnet® Publisher 11.4, which is provided by the MathWorks installer.
- TCP/IP, on all platforms when using a license server.

Troubleshooting

This topic provides information that can help you solve common problems that you might encounter installing MathWorks software on a UNIX system.

- “Problems During Installation” on page 2-2
- “Problems Starting the MATLAB Program After an Installation” on page 2-7
- “Getting Help with License Manager Error Messages” on page 2-12

If you cannot find a description here that matches your problem, check the Release Notes documentation that you received with your products. Release notes contain the most up-to-date information available about products and installation procedures. To get additional installation troubleshooting information, visit the Support page at the MathWorks Web site and click **Activation and Installation Troubleshooting**.

Problems During Installation

In this section...
“Problems with File Permissions” on page 2-2
“Problems Opening the Display” on page 2-3
“Problems with a Host ID Mismatch” on page 2-3
“Problems with Your DVD Drive” on page 2-3
“Accessing Activation Options” on page 2-4

Note If you can't find an answer to your problem here, go to the Support page at the MathWorks Web site and click **Installation Troubleshooting**. There you can search for solutions and technical notes that might help.

Problems with File Permissions

The installer must have write access to the installation directory. If the installer cannot write to the installation directory, it displays an error message.

To continue with the installation, dismiss the error message dialog box and use the `chmod` command at the UNIX prompt to change the permission setting of the installation directory. Your file mode creation mask (also known as your user mask) controls the default permissions assigned to new files and directories. You can use the `umask` command to change this default.

The suggested file permissions are read, write, and execute permission for the user, and read and execute permission for the group and the world (other), represented in a UNIX directory listing as

```
drwxr-xr-x
```

The following example uses `chmod` to set these permissions on a directory.

```
chmod 755 matlab
```

To provide complete access to users, group, and the world, specify the value 777.

Problems Opening the Display

If, after starting OpenWindows or Motif, the installation program outputs the Can't open display error message, enter the following command at the UNIX prompt:

```
xhost +x
```

Then restart the installer.

Problems with a Host ID Mismatch

If the host ID in the comment line of your License File does not match the host ID of the system on which you are performing the installation, the installer displays the following error message on your screen:

```
Host ID in License File Doesn't Match Host ID of System
```

This typically indicates that you are using the wrong License File for this system. You can continue with the installation, but you will not be able to start the MATLAB program.

Problems with Your DVD Drive

To diagnose a problem with a DVD drive:

- Verify that the device is mounted correctly.
- Verify that the DVD device file has the correct read and execute permissions. For example, on Linux systems, DVD drives have read-only permission by default. To check a device's permissions, use the UNIX command:

```
ls -l device
```

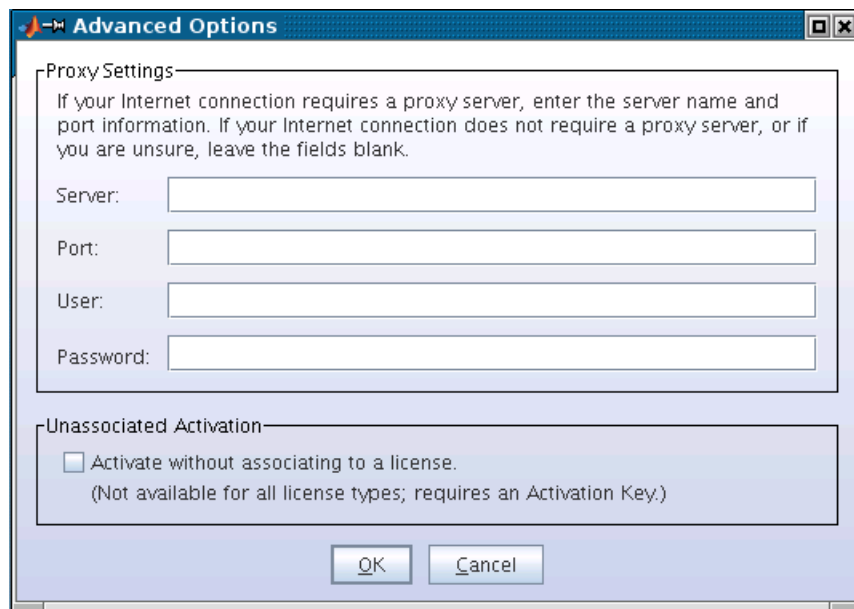
where *device* is the device name for your DVD drive. To change permissions, log in as superuser and run the UNIX command:

```
chmod 555 device
```

Accessing Activation Options

Specifying Proxy Server Connection Settings

If your Internet connection requires a proxy server, click the **Advanced Options** button on the first dialog box of the activation application. You can enter the server name, port, and password in the Advanced Options dialog box. The MathWorks supports several types of proxy configurations: Basic authentication, Digest authentication, and NTLM authentication.

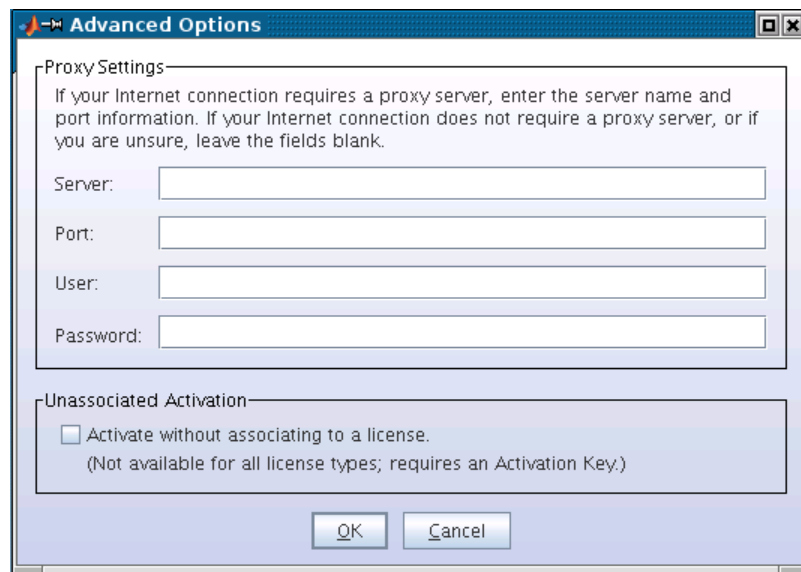


Activating Without a MathWorks Account

While every user can benefit from having a MathWorks Account, it is possible to install and run MathWorks software without one. For example, at some sites, some users may not be able to create an account for security reasons.

To activate without providing MathWorks Account information, follow this procedure.

- 1** Start the installer. On the first dialog box, select the install manually without using the Internet option. You will need a File Installation Key. (See “Installing and Activating Without an Internet Connection” on page 1-24 for complete instructions.)
- 2** When the installer finishes installation and displays the Installation Complete dialog box, leave the **Activate MATLAB** option selected and click **Next**.
- 3** On the first dialog box displayed by the activation application:
 - Choose **Activate automatically using the Internet**. To install and activate without associating with a MathWorks Account, you must use the Internet.
 - Click **Advanced Options**. In the Advanced Options dialog box, select the **Activate without associating to a license** option and click **OK**.



- When you return to the first activation dialog box, click **Next**.

- 4 Enter an Activation Key in the Activation Key dialog box and click **Next**. Because you are not logged into a MathWorks Account, you must enter an Activation Key to identify a license.

Note The only activation type available for unassociated activation is Designated Computer.

- 5 Click **Activate**.

Problems Starting the MATLAB Program After an Installation

After a successful installation, you may encounter problems starting the MATLAB program. Many of these problems involve the license manager used by the MathWorks products.

To resolve this type of problem, follow these suggestions, in the order specified:

- 1** Take note of the error message that is displayed. The error message text can often provide information that can help you resolve the problem. (See “Getting Help with License Manager Error Messages” on page 2-12 to learn how to get information about possible solutions for each error message.)
- 2** Check the license manager log file for error messages and take appropriate corrective action. See “Viewing the License Manager Log File” on page 2-8 for more information. The installer also creates a log file each time it is run. The installer names the file `install_matlab.out` and puts the file in your top-level installation directory.
- 3** Make sure that the license manager daemons are running, if your installation requires the license manager. See “Checking the Status of the License Manager Daemons” on page 2-8.
- 4** Verify that your client workstation can connect to the license manager over the network, if your installation requires the license manager. See “Checking the Network Connection” on page 2-9.
- 5** Check the other common startup problems described in “Checking Other Startup Problems” on page 2-10.

If these troubleshooting steps do not resolve the problem you are experiencing, execute the script `lmdebug` in the `matlabroot/etc` directory and send its diagnostic results to the MathWorks Technical Support department. If you do not have e-mail access, fax the results to The MathWorks at the number listed below. For fax reports, it is also helpful to include

- The exact error message(s) received
- A copy of your License File

To contact MathWorks Technical Support, use this form:
http://www.mathworks.com/contact_TS.html.

Viewing the License Manager Log File

The file `/var/tmp/lm_TMW.log` contains a log of all license activity. The license manager appends a new entry to the log each time a license transaction occurs. For help interpreting error messages and suggested remedies to common errors, refer to the section “Getting Help with License Manager Error Messages” on page 2-12. The following sections cover these additional log file topics:

- “Specifying the Name of the License Manager Log File” on page 2-8
- “Monitoring the Growth of the License Manager Log File” on page 2-8

Specifying the Name of the License Manager Log File

To change the default directory where the log file is stored, specify the `-l` option with the `lmstart` script, as follows:

```
lmstart -l /home/username/lmlogs/mylogfile.log
```

Monitoring the Growth of the License Manager Log File

The license manager log file can grow to be quite large. To conserve disk space, check the size of the log file periodically and delete information from the file to reduce its size. You can also schedule a job (using the UNIX cron command) that regularly compresses or deletes log files older than a specified date (a process called rotating log files).

Checking the Status of the License Manager Daemons

The license manager must be running before you can start the MATLAB program. To determine whether the license manager daemons are operating, run the `lmstat` command on the license server.

```
cd matlabroot/etc  
lmstat -a
```

You can also run the following UNIX command

```
ps -ef | grep lm
```

Check the output of these commands to determine if both the license manager daemon (`lmgrd` or `lm_TMW.ld`) and the vendor daemon (MLM) are running.

Starting the License Manager Daemons

If either the license manager or vendor daemon is not running, restart the daemons by running the `lmstart` script, located in the `matlabroot/etc` directory.

Removing Duplicate Daemons

You can only run one MLM daemon. To remove duplicate MLM daemons, log in as superuser, and then execute the following command:

```
kill pid_of_daemon
```

where `pid_of_daemon` is the process ID of the daemon.

Checking the Network Connection

If either the license server daemon or vendor daemon is not running on your local computer, but is running correctly on the license server, the problem is usually caused by network software. The network software is either not running correctly or is not configured correctly. Verify that your client workstation can connect to the license manager daemons by executing the following commands on your client workstation (not the server).

```
cd matlabroot/etc  
lmstat -a
```

To learn how to get help with a particular error message, see “Getting Help with License Manager Error Messages” on page 2-12. In addition, you may need to contact your system administrator or system vendor to resolve the problem.

Checking Other Startup Problems

- “Changes to License File Unread by License Manager” on page 2-10
- “Can’t Find License File” on page 2-10
- “The MATLAB Program Is Slow Starting” on page 2-10
- “License Key Unusable on Crashed Node” on page 2-11

Changes to License File Unread by License Manager

If you change the License File, you must restart the license manager using `matlabroot/etc/lmstart`.

The `lmstart` script calls the `lmdown` script to shut down the license manager daemon. Sometimes the `lmdown` script does not succeed at its task. An effective way to shut down the license manager daemons is to use the UNIX `ps` command to check for running processes, and then terminate them manually using the UNIX `kill` command. See “Checking the Status of the License Manager Daemons” on page 2-8 for more information.

Can’t Find License File

The MATLAB program will fail at startup if it cannot find the License File. The installer looks for the License File in the `matlabroot/etc` directory or at the location specified in the environment variable `LM_LICENSE_FILE` or `MLM_LICENSE_FILE`.

The MATLAB Program Is Slow Starting

The MATLAB program can take several minutes to start up if one of the entries in the `LM_LICENSE_FILE` environment variable on your system is set to a nonexistent license server or a license server that does not have a license manager running on it.

To work around this issue, try any of the following:

- Remove the faulty entries from the value of the `LM_LICENSE_FILE` variable.
- Add the location of your License File at the beginning of the list of paths in the `LM_LICENSE_FILE` environment variable.

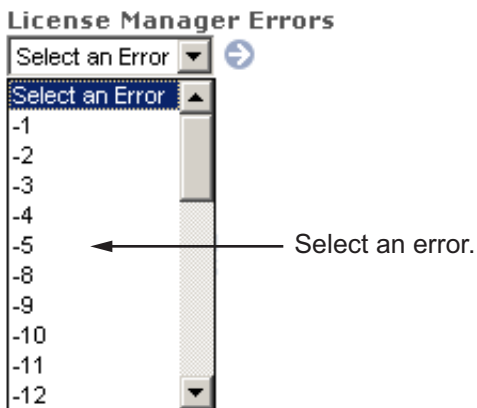
- Clear the `LM_LICENSE_FILE` variable. Note, however, that this option could impact other applications running on your system. MATLAB software does not require this variable, but other applications that use FLEXnet licensing often set it.
- Remove the `LM_LICENSE_FILE` variable and use the vendor-specific version environment variable for the MathWorks vendor daemon, `MLM_LICENSE_FILE`, and for other vendor daemons used at your site. The MATLAB vendor-specific environment variable only affects products from The MathWorks.
- Specify the name of the License File when starting MATLAB software by using the `-c` option to the `matlab` command. MATLAB software ignores the `LM_LICENSE_FILE` variable when this option is specified.

License Key Unusable on Crashed Node

When the node on which the MATLAB program is running crashes, the license manager should release the license key after about 2 hours. If the key is not released, use `matlabroot/etc/lmremove` to release it manually. The `lmremove` script allows you to remove a single user's license for a specified feature and return the license to the pool of available licenses without having to restart the license manager.

Getting Help with License Manager Error Messages

When a problem occurs, the license manager displays an error message in a window on your display and also writes the message to the **FLEXNET** licensing log file, `/var/tmp/lm_TMW.log`. Read the error message carefully; it provides information that can help solve the problem. For more complete diagnostic information about an error message, visit the Support page at the MathWorks Web site (www.mathworks.com) and click **Installation Troubleshooting**. On this page, you can search the support database for solutions by license manager error number or you can select the error number from the **License Manager Errors** list.



You can also get information about license manager error messages in the *FLEXnet Licensing End User Manual*, available in PDF format in `matlabroot/etc/enduser.pdf` or at the Acrecco Corporation Web site, www.acresco.com.

A

- activating MATLAB software
 - choosing automatic or manual
 - on UNIX systems 1-14
 - choosing manual option
 - on UNIX systems 1-33
 - completing off-network activation
 - on UNIX systems 1-36
 - confirming your settings
 - on UNIX systems 1-22
 - for someone else
 - on UNIX systems 1-21
 - selecting a license during activation
 - on UNIX systems 1-18
 - starting activation application
 - on UNIX systems 1-12 to 1-13
 - starting activation application after off-network installation
 - on UNIX systems 1-33
 - starting activation application after off-network installations
 - on UNIX systems 1-32
 - without a MathWorks Account 2-4
- Activation Key
 - used to create MathWorks Account
 - on UNIX systems 1-16
- activation label
 - viewing during activation
 - on UNIX systems 1-18
- activation type
 - selecting during activation
 - on UNIX systems 1-20
- Advanced Options button
 - activating without a MathWorks Account 2-4

B

- boot scripts
 - use by installer 1-52

D

- daemons
 - checking 2-8
 - starting 1-51
- deactivating MATLAB installations
 - on UNIX systems 1-58
- deactivation string
 - deactivating without an Internet connection
 - on UNIX systems 1-58
- Designated Computer activation type
 - selecting during activation
 - on UNIX systems 1-20
- display
 - troubleshooting opening 2-3

E

- error messages
 - common license manager 2-12

F

- File Installation Key
 - entering for off-network installation
 - on UNIX systems 1-29
 - preparing for off-network installations
 - on UNIX systems 1-24
- file permission problems
 - troubleshooting 2-2

I

- install_matlab.out file 2-7
- installation folder
 - specifying
 - on UNIX systems 1-6
 - specifying for off-network installations
 - on UNIX systems 1-28
 - specifying in network installations
 - on UNIX systems 1-41

- installation procedure
 - in standalone environments
 - on UNIX systems 1-2
 - troubleshooting 2-2
 - troubleshooting DVD drive related problems 2-3
- installer
 - starting for network installations
 - on UNIX systems 1-38
 - starting for off-network installations
 - on UNIX systems 1-25
 - starting on UNIX systems 1-3
- installing MATLAB
 - choosing automatic or manual in network installations
 - on UNIX systems 1-39
 - choosing manual for off-network installations
 - on UNIX systems 1-26
 - in network configurations
 - on UNIX systems 1-37
 - preparing for installation in standalone environments
 - on UNIX systems 1-2
 - preparing for off-network installations
 - on UNIX systems 1-24
 - preparing to install in a network configuration
 - on UNIX systems 1-37
- installing MATLAB software
 - choosing automatic or manual installation
 - on UNIX systems 1-4
 - finishing network installation
 - on UNIX systems 1-50
 - post-installation tasks
 - on UNIX systems 1-51

K

- keys
 - see license keys 1-1

L

- License Files
 - getting the information you need to obtain
 - on UNIX systems 1-34
 - processing in installation
 - on UNIX systems 1-48
 - specifying during activation after off-network installation
 - on UNIX systems 1-34
 - specifying location in network installation
 - on UNIX systems 1-47
 - when to restart license manager 2-10
- license keys
 - releasing 2-11
- license manager
 - checking daemons 2-8
 - error messages 2-12
 - starting automatically at boot time 1-52
 - starting daemons 1-51
 - when to restart 2-10
- license numbers
 - selecting during activation
 - on UNIX systems 1-18
- license options
 - viewing during activation
 - on UNIX systems 1-18
- licenses
 - deactivating
 - on UNIX systems 1-58
 - selecting
 - on UNIX systems 1-8
 - selecting in network installations
 - on UNIX systems 1-43
 - validating
 - on UNIX systems 1-57
- lm_TMW.log file 2-8
- lmdebug
 - getting troubleshooting information 2-7
- log files
 - installation program 2-7

- license manager 2-8
- login name
 - specifying during activation
 - on UNIX systems 1-21

M

- MathWorks Account
 - creating during activation
 - on UNIX systems 1-16
 - creating for someone else during activation
 - on UNIX systems 1-21
 - installing without an account 2-4
 - logging in
 - on UNIX systems 1-7
 - logging in during activation
 - on UNIX systems 1-16
 - logging in during network installations
 - on UNIX systems 1-42

MATLAB

- problems starting (UNIX systems) 2-8
- starting 1-55
- matlab command
 - setting up symbolic link 1-11 1-31 1-47
- MATLAB installation folder
 - specifying
 - on UNIX systems 1-6
 - specifying for off-network installations
 - on UNIX systems 1-28
 - specifying in network installations
 - on UNIX systems 1-41
- mex command
 - setting up symbolic link 1-11 1-31 1-47

N

- network configurations
 - installing MATLAB software
 - on UNIX systems 1-37
- network connections

- verifying 2-9

O

- operating system user name
 - specifying during activation
 - on UNIX systems 1-21

P

- permissions
 - troubleshooting file permission problems 2-2
- print command
 - specifying defaults for 1-56
- products
 - selecting
 - on UNIX systems 1-10
 - selecting for off-network installations
 - on UNIX systems 1-30
 - selecting in network installations
 - on UNIX systems 1-45
- proxy server
 - settings 2-4

R

- removing a MATLAB installation
 - on UNIX systems 1-63
- reviewing software license agreement
 - for network installations
 - on UNIX systems 1-40
 - on UNIX systems 1-5
 - off-network installations 1-27

S

- selecting licenses
 - in network installations
 - on UNIX systems 1-43
 - on UNIX systems 1-8
- selecting products

- for off-network installations
 - on UNIX systems 1-30
- in network installations
 - on UNIX systems 1-45
- on UNIX systems 1-10
- software license agreement
 - reviewing
 - on UNIX systems 1-5
 - reviewing for off-network installations
 - on UNIX systems 1-27
 - reviewing in network installations
 - on UNIX systems 1-40
- Standalone Named User activation type
 - selecting during activation
 - on UNIX systems 1-20
 - specifying user name during activation
 - on UNIX systems 1-21
- starting the installer
 - for off-network installations
 - on UNIX systems 1-25
 - in network configurations
 - on UNIX systems 1-38
 - on UNIX systems 1-3
- startup.m file
 - creating 1-56
- support, technical 2-7
- symbolic links
 - setting up 1-11 1-31 1-47
- system requirements

- on UNIX systems 1-65

T

- technical support 2-7
- troubleshooting
 - error messages 2-12
 - license manager 2-7

U

- unassociated activation
 - defined 2-4
- uninstalling MATLAB
 - on UNIX systems 1-63
- user name
 - selecting during activation
 - on UNIX systems 1-21

V

- validating an installation
 - on UNIX systems 1-57
- /var/tmp/lm_TMW.log file 2-8

X

- xhost command
 - fixing display problems 2-3