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License Administration Guide

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Revision History

January 2002	Online only	First publication
August 2002	Online only	Revised
August 2003	Online only	Revised
February 2007	Online only	Revised

Administering Your License

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Overview

Note A printable version of the *License Administration Guide* is available in PDF format.

The MathWorks provides several licensing options for its products, which when combined with the supported installation types, provide a wide range of asset mobility. Asset mobility, as used here, means the ease with which product licenses can be redeployed to different users.

The following sections

- Describe the license options
- Describe the installation types
- Provide a matrix of license options and the installation types they support
- Provide a glossary of licensing terminology

License Options

This table briefly describes the license options, listed in order of increasing asset mobility. For detailed information about installing and administering each option, see the appropriate section in this chapter.

License Option	Description
Individual	You are an end user and you want to operate, install, and administer the software yourself.
Group	You would like to license a group of people to use the software, and a single person, usually a system administrator, will install and administer the license.

License Option	Description
Network Named User	You would like to use the FLEXnet license manager to provide named user licenses over a network via User-Based licensing.
Concurrent	Your organization is standardized on the FLEXnet license manager, or you need to impose strict limits on software use for accounting or license management purposes.

Installation Types

Software licenses can be installed in stand-alone and networked forms. In general, the network-based installation types provide the greatest asset mobility and control benefits. This table describes the installation types supported by The MathWorks. For information about which installation type can be used with specific license options, see “License Option and Installation Type Matrix” on page 1-4.

Installation Type	Description
Stand-Alone Named User	Software is installed onto individual computers and does not use a network. Because this is a Named User option, the right-to-use privilege is assigned by your organization to a specific person. The designated Named User may install and use the software on a number of machines. These can include work, home, and lab computers and laptops, as long as the licensed Named User is the only person to use the software on each machine.

Installation Type	Description
Network Named User	Software is installed in a central location on your network. You maintain a list of Named Users who are authorized to operate the software. This installation type has the advantage of easier central management of the software. This option runs the FLEXnet license manager in user-based mode.
Network Concurrent User	Counts the number of simultaneous users of the software. If the number of simultaneous users exceeds the number of purchased “keys,” use is denied to anyone subsequently trying to start the software.

License Option and Installation Type Matrix

This table summarizes the license options and the installation types available for each license option.

License Option	Installation Type		
	Stand-Alone Named User	Network Named User	Network Concurrent User
Individual	Yes		
Group*	Yes		
Network Named User		Yes	
Concurrent			Yes

* In some countries, the Group License option is not available for the Group option. Contact your local MathWorks representative for more information.

Licensing Terminology

The following table lists terms used in this document with their meaning.

Term	Meaning
License File	A specially formatted ASCII text file that contains encrypted product passcodes for each product you are licensed to run.
License Server	The computer on which you run the license manager in your network installation.
Licensed User Count	The number of users licensed to use a specific product.
Named User	A designated user of the software who has been assigned right-to-use privileges.
Network Concurrent User Installation	One of several types of installations that operate over a network. In this type of network installation, the license manager counts the number of simultaneous users.
Network Named User Installation	One of several types of installations that operate over a network. In this type of network installation, you specify the number of unique users of the software in a FLEXnet options file.
Options File	A text file that contains license options that enable report logging and that specifies authorized Named Users.
Personal License Password (PLP)	A series of five-digit numbers prefixed with a two-digit release code, such as 17-12345-12345-12345-12345. A PLP identifies the products that you are licensed to install.

Administering Individual Licenses

An Individual license authorizes you to install, operate, and administer your MathWorks software on any computer to which you have access. For example, with an Individual license, you can run MATLAB and other MathWorks products on your work system, home system, lab system, and laptop. In addition, these systems can be any combination of Microsoft Windows and UNIX computers.

With an Individual license, you are the system administrator. In this role, you are responsible for

- Installing the software on your computers
- Ensuring that you are the only person that can run the software on all of these computers

See “Performing a Stand-Alone Named User Installation” for information about accomplishing these tasks. For Individual licenses, you can only install the software in a Stand-Alone Named User installation type.

Performing a Stand-Alone Named User Installation

The installation procedure for Individual licenses is the same procedure described in the MATLAB installation guides. The following sections provide more detail.

- “On a Windows Computer” on page 1-6
- “On a UNIX Computer” on page 1-7

On a Windows Computer

Install the software, following the procedure described in Chapter 1, “Standard Installation Procedure” in the *Installation Guide for Windows*. When performing this procedure, note the following:

- In the License Information dialog box, specify the PLP included in the license e-mail you received from The MathWorks.

Note If you are performing multiple stand-alone installations at your site, do not attempt to “clone” MATLAB installations by copying the MATLAB image from one system to another.

On a UNIX Computer

Install the software, following the procedure described in the *Installation Guide for UNIX*. When performing this procedure, note the following:

- 1** Before running the installer, create your MATLAB installation directory.
- 2** Create a License File, named `license.dat`, from the information included in the license e-mail you received from The MathWorks and put this License File in your MATLAB installation directory.
- 3** Run the installer. In the Installation Options dialog box, make sure to install the FLEXnet license manager as part of your installation. FLEXnet appears at the end of the **Items to Install** list in the Installation Options dialog box.
- 4** In the Installation Data dialog box, specify your login name (username) or the login name of the user who will be using this installation. The installer specifies this username on each `INCLUDE` line in the FLEXnet options file it creates. For more information about options files, see “Specifying Users in an Options File” on page 1-23.

Administering Group Licenses

A Group license authorizes a specified number of stand-alone Named Users to install and run products from The MathWorks, administered under a single license. Authorized users must be specified by their username. A Group license can include multiple products, each with the same or different Licensed User Count.

As the system administrator of a Group license, your primary goal is to ensure that only authorized users have access to the products. The following sections provide important information about achieving this goal:

“Tracking Product Usage” This section describes how to create a spreadsheet or database of Named Users and the products for which they have licenses.

“Performing a Stand-Alone Named User Installation” This section describes how to install products on the system of a specific Named User.
on page 1-12

Tracking Product Usage

As system administrator of a Group license, you are responsible for ensuring that only authorized users have access to the MathWorks products you install. To keep track of product usage, before you install any products, create a spreadsheet or database that contains

- The names of the products for which you are licensed
- The list of Named Users authorized to use the products
- The total number of Named Users for each product (the Licensed User Count)

You can find the product list and Licensed User Count in the license e-mail sent to you from The MathWorks. You must create the list of Named Users.

For example, if you purchased licenses for MATLAB, Signal Processing Toolbox and Optimization Toolbox, your spreadsheet may look like the one in the following illustration. The spreadsheet lists the products with their feature name. The feature name is the product identifier used in the INCREMENT lines in your License File. In your options file, you must identify products by feature name. The spreadsheet lists all the Named Users at your site and uses check

marks to indicate which Named Users are authorized to use which products. The spreadsheet sums up the total number of Named Users for each product at the bottom of each column.

Note The total number of Named Users authorized to use any product must not exceed the Licensed User Count for that product.

Product Name		MATLAB	Signal Processing Toolbox	Optimization Toolbox
Feature Name		MATLAB	Signal_Toolbox	Optimization_Toolbox
Named Users	Brad	✓	✓	
	Jean	✓		
	Judy	✓	✓	✓
	Mike	✓	✓	✓
	Tom	✓	✓	
Total Named User Count		5	4	2

Sample Tracking Spreadsheet with User Counts

Creating Subset Passcode PLPs and License Files

As an administrator of a group license, you are the primary contact and you receive the license e-mail from The MathWorks. If your Group license contains the same number of users for each product, the license e-mail can include:

- A PLP for Windows Stand-alone Installations
- A License File for UNIX Stand-alone Named User installations

If your Group license includes products with a variety of licensed user counts, The MathWorks does not send you a PLP for Windows stand-alone installation PLP or a License File for UNIX stand-alone installations. Instead, you must create custom PLPs and License Files that provide access only to the subset of the products licensed for a particular Named User. Subset passcodes ensure

that users install only the products for which they are licensed and do not have access to the entire list of products available on the Group license.

The following sections describe

- “Determining Which Passcode Subsets to Create”
- “Creating the Subset Passcode PLPs or License Files”

Determining Which Passcode Subsets to Create

To determine which subset passcodes you need to create, look at your list of named users. If you have users that have different combinations of products, you must create subset passcodes for each of these users.

For example, looking at the example in the previous section, the Group license includes products with a variety of licensed user counts.

- MATLAB — 5 licenses
- Signal Processing Toolbox — 4 licenses
- Optimization Toolbox — 2 licenses

Product Name		MATLAB	Signal Processing Toolbox	Optimization Toolbox
Feature Name		MATLAB	Signal_Toolbox	Optimization_Toolbox
Named Users	Brad	✓	✓	
	Jean	✓		
	Judy	✓	✓	✓
	Mike	✓	✓	✓
	Tom	✓	✓	
Total Named User Count		5	4	2

The following lists the subset passcodes you need to create for this example. See “Creating the Subset Passcode PLPs or License Files” on page 1-11 to learn how to create them.

- Brad needs a subset passcode with licenses for MATLAB and the Signal Processing Toolbox.
- Jean needs a subset passcode with a license for MATLAB.
- Judy needs a subset passcode with licenses for MATLAB, Signal Processing Toolbox, and Optimization Toolbox.
- Mike can use the same subset passcode as Judy because they both use the same set of products.
- Tom can use the same subset passcode as Brad because they both use the same set of products.

Creating the Subset Passcode PLPs or License Files

Use this procedure to generate subset passcode PLPs and License Files.

- 1 Go to The MathWorks Web site, <http://www.mathworks.com> and login to your MathWorks account, specifying your e-mail address and password.
- 2 On the MathWorks Account page, view your licenses in the My Licenses table. To create a PLP or License File for a group license, click **Generate a Subset Passcode** in the Available Options column.
- 3 On the Generate a Subset Passcode page, select the type of installation and click **Next**.
- 4 The next steps vary, depending on the platform.

Windows Stand-alone Named User

- a Specify an expiration date for the licenses. Select the month and year from the **Passcode Expiration Date** menus on this page. This is an optional step that you can use to achieve greater control over the licenses at your site. If you do not want to include an expiration date, make sure the perpetual option is selected in the year menu. This is the default value.
- b Select the products you want to include in the subset passcode PLP. In the alphabetical list of products, click the check box next to the product name to select it. MATLAB is preselected because it is a prerequisite for all other products.

UNIX Stand-alone Named User

- a Specify an expiration date for the licenses. Select the month and year from the **Passcode Expiration Date** menus on this page. This is an optional step that you can use to achieve greater control over the licenses at your site. If you do not want to include an expiration date, make sure the perpetual option is selected in the year menu. This is the default value.
 - b Lock the installation to a particular system. This is an optional step that you can use lock the license to a particular system at your site. Specify the Host ID of the system in the Optional License Server HostID edit box. If you do not want to lock the license to a system, make sure this text edit box is empty.
 - c Select the products you want to include in the subset passcode License File. In the alphabetical list of products, click the check box next to the product name to select it. MATLAB is preselected.
- 5 After selecting the products and options, click **Next**. The subset passcode generator creates the PLP or License File you specified and includes it in the text of a license e-mail message, displayed on the page. You can use this message text to distribute the subset passcode PLP to users at your site.

Performing a Stand-Alone Named User Installation

You, as system administrator, are responsible for performing stand-alone installations of MathWorks products on the systems of individual Named Users. The installation procedure is the same procedure described in the MATLAB installation guides. The following sections provide more detail.

- “On a Windows Computer” on page 1-13
- “On a UNIX Computer” on page 1-13

Note Make sure you only install the set of products for which the Named User is licensed. See your spreadsheet or database of Named Users, described in “Tracking Product Usage” on page 1-8, for this information.

On a Windows Computer

Install the software, following the procedure described in Chapter 1, “Standard Installation Procedure” in the *Installation Guide for Windows*. When performing this procedure, note the following:

- In the **License Information** dialog box, specify the PLP included in the license e-mail you received from The MathWorks.
If all the users in your Group license use the same set of products, use the PLP included in your license e-mail. If the users in your Group license use different sets of products (the products have different licensed user counts), use the appropriate subset passcode PLP you generated for each installation.
- In the **Product Selection** dialog box, select only the products for which the Named User is licensed.

On a UNIX Computer

Install the software, following the instructions in the *Installation Guide for UNIX*. When performing this procedure, note the following:

- Before running the installer, create your MATLAB installation directory and put your License File in this directory.
If all the users in your Group license use the same set of products, use the License File included in your license e-mail. If the users in your Group license use different sets of products (the products have different licensed user counts), use the appropriate subset passcode License File you generated for each installation.
- In the Installation Options dialog box, make sure to install the license manager as part of your installation. The license manager appears at the end of the **Items to Install** list.
- In the Installation Data dialog box, specify the login name (username) of the user who will be using this installation. The installer specifies this username on each INCLUDE line in the FLEXnet options file it creates. See “Specifying Users in an Options File” on page 1-23 for more information about options files.

Administering a Network Named User Licenses

A Network Named User license authorizes a specified number of Named Users to install and run products from The MathWorks over a network, administered under a single license. The list of authorized users must be specified by their username. A Network Name User license can include multiple products, each with the same or different Licensed User Count.

As the system administrator of a Network Named User license, you have two primary goals:

- Setting up an installation that optimizes accessibility to the products
- Ensuring that only authorized users have access to the products

The following sections provide important information about achieving these goals:

“Tracking Product Usage” This section describes how to create a spreadsheet or database of Named Users and the products for which they have licenses.

“Performing a Network Named User Installation” This section describes how to install products on a central server and make them available over a network to specific Named Users.

Tracking Product Usage

As system administrator of a Network Named User license, you are responsible for ensuring that only authorized users have access to the MathWorks products you install. To keep track of product usage, before you install any products, create a spreadsheet or database that contains

- The names of the products for which you are licensed
- The list of Named Users authorized to use the products
- The total number of Named Users for each product (the Licensed User Count)

You can find the product list and Licensed User Count in the license e-mail sent to you from The MathWorks. You must create the list of Named Users.

For example, if you purchased licenses for MATLAB, the Signal Processing Toolbox and the Optimization Toolbox, your spreadsheet may look like the one in the following illustration. The spreadsheet lists the products with their feature name. The feature name is the product identifier used in the INCREMENT lines in your License File. In your options file, you must identify products by feature name. The spreadsheet lists all the Named Users at your site and uses check marks to indicate which Named Users are authorized to use which products. The spreadsheet sums up the total number of Named Users for each product at the bottom of each column.

Note The total number of Named Users authorized to use any product must not exceed the Licensed User Count for that product.

Product Name		MATLAB	Signal Processing Toolbox	Optimization Toolbox
Feature Name		MATLAB	Signal_Toolbox	Optimization_Toolbox
Named Users	Brad	✓	✓	
	Jean	✓		
	Judy	✓	✓	✓
	Mike	✓	✓	✓
	Tom	✓	✓	
Total Named User Count		5	4	2

Sample Tracking Spreadsheet with User Counts

Performing a Network Named User Installation

You, as system administrator, are responsible for installing MathWorks products along with the license manager on a central server on your network. This system is referred to as your *license server*. Named Users run MATLAB on their own computers, called *client systems*, which are connected to the license server over a network. A Windows computer can act as a license server

for UNIX clients, or vice versa. For instructions about installing MATLAB on a license server, see one of the sections listed in this table appropriate for your license server platform.

License Server	Installation Procedure
Windows computer	See “Installing the License Manager on a Windows Computer”
UNIX computer	See “Installing the License Manager on a UNIX Computer”

You can optionally install MATLAB on client systems. While this can improve performance on client systems, it can make system administration more cumbersome. For example, deploying a new version of MATLAB is easier when you only have to install it on a central server, rather than on multiple client computers. See “Installing MATLAB on Client Systems” for more information about this type of installation.

Installing the License Manager on a Windows Computer

- 1 Install the license manager on the computer in your network that you want to be your license server, following the instructions in Chapter 2 of the *Installation Guide for Windows*. Depending on your configuration, you may also install MATLAB on this system. When performing this procedure, pay special attention to these points:
 - In the License Information dialog box, specify the PLP included in the license e-mail you received from The MathWorks.
 - In the License File dialog box, specify the location of the License File you created from the information in the license e-mail you received from The MathWorks.
 - In the Product Selection dialog box, select the license manager. By default, the FLEXnet license manager is not preselected for installation.
- 2 After the installation, edit the FLEXnet options file to specify all the users that are licensed to use products.

During installation, the installer creates the FLEXnet options file, named `matlabroot\flexlm\MLM.opt`, where `matlabroot` represents your top-level

installation directory. The installer puts in the options file an INCLUDE line for each product listed in your License File. These INCLUDE lines specify who can run the product. By default, the installer puts the username of the person who performed the install in these INCLUDE lines. Edit the options file to list all users licensed for each product. See the spreadsheet you created in “Tracking Product Usage” on page 1-14 for this information.

If multiple users are licensed to use a particular product, you can use the FLEXnet options file GROUP syntax to specify multiple users on one INCLUDE line. For more information about editing an options file, see “Specifying Users in an Options File” on page 1-23.

- 3 When you modify the FLEXnet options file, you must restart the license manager to see the effect of the changes you made.

Installing the License Manager on a UNIX Computer

- 1 Install the license manager on the system in your network that you want to be your license server. Depending on your configuration, you may also install MATLAB on this system. See the *Installation Guide for UNIX* for more information. When performing this procedure, note the following:
 - Use the License File provided for use with UNIX Network Named Users installations.
 - In the Installation Options dialog box, make sure to install the license manager as part of your installation. The license manager appears at the end of the **Items to Install** list.
 - In the Installation Data dialog box, specify the login name (username) of the user who will be using this installation. The installer specifies this username on each INCLUDE line in the FLEXnet options file it creates. See “Specifying Users in an Options File” on page 1-23 for more information about options files
- 2 Edit the FLEXnet options file, *matlabroot/etc/MLM.opt*, created by the installer during installation, where *matlabroot* represents your top-level installation directory.

When it creates the options file, the installer puts in it an INCLUDE line for each product listed in your License File. These INCLUDE lines specify who can

run the product. By default, the installer puts the username of the person who performed the install in these INCLUDE lines. Replace this username with the username of the Named User licensed to use the products. See “Specifying Users in an Options File” on page 1-23 for more information about options files.

- 3 Restart the license manager to see the effect of your changes.

Installing MATLAB on Client Systems

To install MATLAB on client systems in your network, follow the instructions in the installation guide for your platform. The following sections highlight some additional information about these installations.

On a Windows Computer. Follow the client installation instructions in the *Installation Guide for Windows*. When performing this procedure, note the following:

- In the License Information dialog box, specify the PLP included in the license e-mail you received from The MathWorks.
- In the Product Selection dialog box, leave the license manager unselected. You do not need to install the license manager on client systems.
- In the License File dialog box, specify the location of the License File that was processed during the installation of the license manager on your server. The following lists the location of this License File on each platform. *matlabroot* represents your top-level installation directory.

Windows computer *matlabroot\flexlm\license.dat*.

UNIX computer *matlabroot/etc/license.dat*

On a UNIX Computer. Follow the client installation instructions in the *Installation Guide for UNIX*. When performing this procedure, note the following:

- Before you start the installer, create a MATLAB installation directory and put a copy of the License File that was processed during the installation of the license manager on your server into this directory. The following lists the

location where you can find this License File on each platform. *matlabroot* represents your top-level installation directory.

Windows computer *matlabroot\flexlm\license.dat*.

UNIX computer *matlabroot/etc/license.dat*

- In the Installation Options dialog box, move the license manager from the **Items to Install** column into the **Items Not to Install** column. You do not need to install the license manager on client systems.

Administering Concurrent Licenses

A Concurrent license enables you to make MathWorks products available to anyone with access to your network. The access is not limited to specific Named Users, as it is with a Network Named User license. Rather, concurrent licenses use license keys to control access. Users check out a license key when they start MATLAB or any other product. When all the keys for a particular product are checked out, the license manager denies further requests.

As system administrator for a Concurrent license, your primary goal is to set-up an installation that optimizes accessibility to the products. See “Performing a Network Concurrent User Installation” on page 1-20 for information about achieving this goal. For Concurrent licenses, you can only install the software in a Network Concurrent User installation type.

Performing a Network Concurrent User Installation

You, as system administrator, are responsible for installing MathWorks products along with the license manager on a central server on your network. This system is referred to as your *license server*. Users run MATLAB on their own computers, called *client systems*, which are connected to the license server over a network. A Windows computer can act as a license server for UNIX clients, or vice versa. For instructions about installing MATLAB on a license server, see one of the sections listed in this table appropriate for your license server platform.

License Server	Installation Procedure
Windows computer	See “Installing the License Manager on a Windows Computer” on page 1-21
UNIX computer	See “Installing the License Manager on a UNIX Computer” on page 1-21

In Network Concurrent User installations, you can install MATLAB and other products on a server and have client systems access products over the network, or you can install products on each client system. In this scenario, called a local access configuration, clients only need to communicate with the server when they check out a license key.

While a local access configuration can improve performance, it makes system administration more complex. For example, deploying a new version of MATLAB is easier when you only have to install it on a central server, rather than on multiple client computers. See “Installing MATLAB on Client Systems” on page 1-21 for more information.

Note When requesting your license, you must provide The MathWorks with the HostID of the system (or systems) on which you intend to run the license manager.

Installing the License Manager on a Windows Computer

Install the FLEXnet license manager on the computer in your network that you want to be your license server, following the instructions in Chapter 2 of the *Installation Guide for Windows*. Depending on your configuration, you may also install MATLAB on this system. When performing this procedure, pay special attention to these points:

- In the License Information dialog box, specify the PLP included in the license e-mail you received from The MathWorks.
- In the License File dialog box, specify the location of the License File you created from the information in the license e-mail you received from The MathWorks.
- In the Product Selection dialog box, select the license manager. By default, the license manager is not preselected for installation.

Installing the License Manager on a UNIX Computer

Install the license manager on the system in your network that you have designated as your license server, following the instructions in the *Installation Guide for UNIX*. Depending on how you set up your installation, you may also install MATLAB on this system. Make sure to select the license manager in the Installation Options dialog box.

Installing MATLAB on Client Systems

To install MATLAB on client systems in your network, follow the instructions in the installation guide for your platform. The following sections highlight some additional information about these installations.

On a Windows Computer. Follow the instructions in the *Installation Guide for Windows*. When performing this procedure, note the following:

- In the License Information dialog box, specify the PLP included in the license e-mail you received from The MathWorks.
- In the License File dialog box, specify the location of the License File that was processed during the installation of the license manager on your server. The following lists the location of this License File on each platform. \$MATLAB represents your top-level installation directory.

Windows computer *matlabroot\flexlm\license.dat.*

UNIX computer *matlabroot/etc/license.dat*

- In the Product Selection dialog box, leave the license manager unselected. You do not need to install the license manager on a client system.

On a UNIX Computer. Follow the instructions in the *Installation Guide for UNIX*. When performing this procedure, note the following:

- Do not install the license manager. Remove it from the **Items to Install** column in the Installation Options dialog box.
- When prompted by the installer to supply the location of your License File, specify the location of the License File that was processed during the installation of the license manager on your server. The following lists the location of this License File on each platform. *matlabroot* represents your top-level installation directory.

Windows computer *matlabroot\flexlm\license.dat.*

UNIX computer *matlabroot/etc/license.dat*

Specifying Users in an Options File

With Individual, Group, and Network Named User licenses, The MathWorks uses FLEXnet options files to identify the specific Named Users to whom you have assigned right-to-use privileges.

This section describes

- FLEXnet options files
- How to use a FLEXnet options file with the license manager

Note For more detailed information about creating FLEXnet options files, see the *FLEXnet Licensing End User Guide*, available in PDF form in *matlabroot/etc/enduser.pdf*, on UNIX computers, or in *matlabroot\flexlm\enduser.pdf*, on Windows computers, where *matlabroot* represents your installation directory.

Anatomy of an Options File

An options file is a text file that contains FLEXnet option statements. An option statement begins with a keyword that identifies the option, such as RESERVE, INCLUDE, EXCLUDE, GROUP, or HOST_GROUP.

Note Options files are case sensitive. Be sure that user names and feature names are entered correctly.

Specifying Named Users

Lines starting with the keyword INCLUDE identify a particular user, user group, host, or host group that is allowed to use a specific product (called a feature in FLEXnet documentation). The syntax for an INCLUDE line is

```
INCLUDE featurename type name
```

where:

featurename	The name of The MathWorks product. Make sure to specify the product name exactly as it appears in the INCREMENT lines in your License File. Product names are case sensitive. For example, you must specify Signal_Toolbox, not SIGNAL_Toolbox.
type	If type is USER, name is an individual username. If type is GROUP, name is the name you assigned to a group of users using the GROUP syntax. See “Collecting Users into Groups” on page 1-24 for more information.
name	The name of a particular user or the name of a group users, created using the GROUP syntax. See “Collecting Users into Groups” on page 1-24 for more information.

For example, this options file contains an INCLUDE line for each Named User.

```
INCLUDE MATLAB USER tom
INCLUDE MATLAB USER brad
INCLUDE MATLAB USER mike
INCLUDE MATLAB USER jean
INCLUDE Signal_Toolbox USER brad
INCLUDE Signal_Toolbox USER mike
INCLUDE Optimization_Toolbox USER jean
```

Note Do not use the INCLUDEALL option with products from The MathWorks licensed under Individual (UNIX only) or Group license options. You can use this option with Concurrent licenses.

Collecting Users into Groups

If you have many Named Users to specify for multiple products, you may want to use the FLEXnet GROUP syntax. With the GROUP syntax, you can specify the list of users once and assign the group a name. Then, in subsequent INCLUDE lines, specify the group name instead of using repeated INCLUDE lines for each

user. On the INCLUDE line, you must use the GROUP keyword, rather than the USER keyword.

The following is a sample options file.

```
GROUP devels tom judy mike jean brad
GROUP sig_users tom mike brad
GROUP opt_users judy mike jean
INCLUDE MATLAB GROUP devels
INCLUDE Signal_Toolbox GROUP sig_users
INCLUDE Optimization_Toolbox GROUP opt_users
```

Note Do not use USER_GROUP or HOST_GROUP as names of groups. These terms are reserved.

Using an Options File with the License Manager

You specify the pathname of the options file as the fourth field on the DAEMON line in the License File. The installer adds the options file to the DAEMON line automatically during installation.

For example, if your server is named thunderball and its IP address is 144.212.111.103, the SERVER and DAEMON lines in your License File would look like this:

```
SERVER thunderball INTERNET=144.212.111.103 27000
DAEMON MLM C:\Program Files\MATLAB\flexlm\mlm.exe \
      |           options=C:\Program Files\MATLAB\flexlm\MLM.opt
DAEMON line                                     Options file
```

On a UNIX computer, the DAEMON line would look like this:

```
DAEMON MLM /usr/local/matlab/etc/lm_matlab \
      options=/usr/local/matlab/etc/MLM.opt
```

Troubleshooting

This section describes some of the common error message you might encounter while performing an installation.

License Manager Error -39	You may get this error if you are not licensed for the product you are trying to run.
License Manager Error -84	You may get this error if you are using one of the license options that require an options file.

License Manager Error -39: No License for Feature

You may encounter the following license manager error:

```
License Manager Error -39
User/host not on INCLUDE list for feature
Feature: MATLAB
```

This table lists typical causes of this error with possible solutions.

Possible Problem	Resolution
You are not listed as a user in your options file.	<p>Check your options file and make sure your username is on the INCLUDE line for the product you are trying to use.</p> <p>On UNIX computers, the installer creates the options file, named <i>matlabroot/etc/MLM.opt</i>.</p> <p>On Windows computers, the installer creates the options file, named <i>matlabroot\flexlm\MLM.opt</i>.</p> <p><i>matlabroot</i> represents your MATLAB installation directory.</p> <p>See “Anatomy of an Options File” on page 1-23 for more information.</p>

License Manager Error -84: Missing Options File

You may encounter the following license manager error:

```
License Manager Error -84
USER_BASED license has no specified users -- see server log
```

This table lists typical causes of this error with possible solutions.

Possible Problem	Resolution
The DAEMON line in your License File does not include the path to the options file.	Add the full pathname of your options file to the DAEMON line in your License File. See “Using an Options File with the License Manager” on page 1-25 to learn how.
You are trying to use a product for which you are not listed as a valid user.	Make sure you are listed properly in the options file for all the products for which you are licensed. See “Anatomy of an Options File” on page 1-23 for an example options file.

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