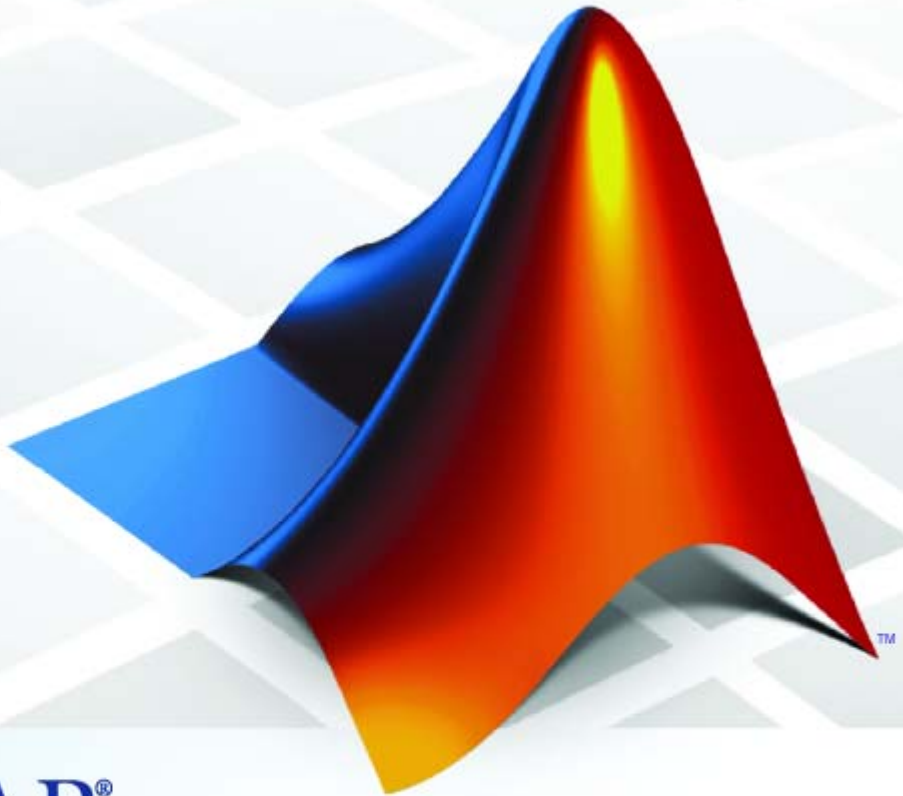


MATLAB® and Simulink® License Administration Guide



MATLAB®

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)



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

License Administration Guide

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Revision History

January 2002	First publication	Online only
August 2002	Revised	Online only
August 2003	Revised	Online only
February 2007	Revised	Online only
August 2007	Revised	Online only
March 2008	Revised	Online only

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Introduction

Overview (p. 1-2)

Introduces the license options available.

Overview

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“License Options” on page 1-3
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Note A printable version of the *License Administration Guide* is available in PDF format.

Audience

This guide is intended to help the person charged with installing and activating The MathWorks™ products. The MathWorks calls this person the Administrator contact on the license. When you purchase products, the MathWorks automatically creates a MathWorks Account for the Administrator contact on the license and associates the license with the account.

The Administrator contact on a license does not necessarily have to be a system administrator. The Administrator contact can be an engineer or scientist who purchased the software for personal use. At larger sites, the Administrator can be an actual system administrator who sets up The MathWorks products in network configurations.

In addition to the Administrator contact, The MathWorks also defines other contact roles on a license that can provide flexibility in administering installations. For example, each license can have a Licensed End User contact. This can be useful when the person administering the license is not going to be a user of the software. By assigning the Licensed End User role, the Administrator can delegate certain administrative tasks to these end users. Likewise, a license can have one or more Asset Manager contacts. The Asset Manager has the same privileges as the Administrator contact and can serve as a back-up administrator. At large sites, the Asset Manager might

administer the site-wide license and let Administrator contacts perform the day-to-day administration of departmental licenses. This documentation is aimed at the Administrator contact, except where other contacts are explicitly named.

Related Documentation

This guide provides a high-level view of installing and activating each license option. For more detailed information about installing and activating, see the installation guide for your platform, listed in the following table.

Platform	Installation Guide
Windows®	Installation Guide for Windows
UNIX® or Linux®	Installation Guide for UNIX
Macintosh®	Installation Guide for Macintosh

License Options

This table briefly describes the license options, listed in order of increasing asset mobility. Subsequent sections in this documentation provide additional information about installing, activating, and administering each option. For definitions of licensing terms, see the glossary.

License Option	Description
Individual	You are an end user and you want to operate, install, and administer the software yourself — see Chapter 2, “Administering Individual Licenses”.
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—see Chapter 3, “Administering Group Licenses”.

License Option	Description
Network Named User	You would like to use the license manager to provide named user licenses over a network via User-Based licensing—see Chapter 4, “Administering Network Named-User Licenses”.
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—see Chapter 5, “Administering Concurrent Licenses”.

Activation Types

This table describes the activation types supported by The MathWorks. For information about which activation type can be used with specific license options, see .

Activation Type	Description
Standalone 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 computers. These can include work, home, lab computers, and laptops, as long as the licensed Named User is the only person to use the software on each computer.
Designated Computer	Software is installed on one particular computer and does not use a network. The right-to-use privilege is available for non-simultaneous use by multiple people.

Activation 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 Activation Type Matrix

This table summarizes the license options and the activation types available for each license option. Note that for Individual and Group licenses, you can choose either Standalone Named User or Designated Computer.

License Option	Activation Type			
	Standalone Named User	Designated Computer	Network Named User	Network Concurrent User
Individual	Yes	Yes	—	—
Group	Yes	Yes	—	—
Network Named User	—	—	Yes	—
Concurrent	—	—	—	Yes

Administering Individual Licenses

Overview (p. 2-2)

Describes the tasks required to administer an Individual license

Installing the Software (p. 2-3)

Describes how to install the software on your computer

Activating the Installation (p. 2-4)

Describes how to activate the license for a particular installation

Overview

An Individual license authorizes you to run MathWorks™ software on one or more computers, depending on which activation type you choose. The fundamental tasks required to administer an Individual license are:

- Installing the software — To use the software, you must install the product files on your computer—see “Installing the Software” on page 2-3.
- Activating the license for this installation — After you install the software on your computer, you must activate the license for this installation—see “Activating the Installation” on page 2-4.

Installing the Software

To install MathWorks™ products on an Individual license, run the MathWorks installer for your platform. During installation, you log in to your MathWorks Account, select the license that you want to install, and provide the information requested by the other installer dialog boxes. The installer determines which products to install based on the license you specify. For step-by-step instructions, see the installation guide for your platform.

If you do not have a MathWorks Account, you can create one during the installation process, however, you will need an Activation Key. The Activation Key identifies a particular license in the MathWorks systems. The installer determines which products to install based on the license specified by the Activation Key. The Administrator contact on the license can retrieve the Activation Key from the License Center at the MathWorks Web site—see the License Center help for instructions.

If you do not have an Internet connection during installation, you must have a File Installation Key to install MathWorks products. The File Installation Key identifies the products you can install. The Administrator contact on the license can retrieve the File Installation Key from the License Center at the MathWorks Web site—see the License Center help for instructions.

When the installation completes, the installer gives you the option of activating the software. You will not be able to use the software until you activate it. The MathWorks recommends activating the software immediately after installation because, if you are already logged in to your MathWorks Account, the activation process can skip the log in and license selection steps. To exit the installer without activating, clear the **Activate Now** check box and click **Finish**. You can always activate later — see “Activating the Installation” on page 2-4 for more information.

Activating the Installation

In this section...
“Overview” on page 2-4
“Validating a License” on page 2-5
“Deactivating a License” on page 2-6

Overview

After you install the software on your computer, you must activate the license for this installation. If you do not activate the software you will not be able to run it. Activation is a process that verifies licensed use of MathWorks™ products. This process validates the license and ensures that it is not used on more computers than allowed by the license option you purchased.

Note If you are performing multiple installations on an Individual license, you must activate each installation separately.

To activate your license for an installation, run the MathWorks activation application on your computer. During activation, you log in to your MathWorks Account, select the license that you want to activate, and provide other information requested by the activation application dialog boxes. As with the installation process, you can create a MathWorks Account during the activation process if you need one. You can also use an Activation Key to identify the license you want to activate.

If you choose to activate immediately after installation, and let the installer launch the activation application, you can skip the login and license selection steps—the activation application continues the same log in session you opened during installation.

During activation, you can specify the activation type, if it has not already been set. The Administrator on the license can preset the activation type at the License Center. For Individual licenses, there are two activation types:

Activation Type	Description
Standalone Named User	You can install and run the software on multiple computers, such as your desktop, lab, and laptop systems. The installation is locked to a particular computer and particular user name.
Designated Computer	You can install and run the software on only one computer. The installation is locked to a Host ID that identifies a particular computer, but not a particular user. Any number of people can log in and use the software, but not simultaneously.

When you click **Activate** the activation application validates the activation in The MathWorks systems and creates a License File that is locked to the particular computer. If the activation type is Standalone Named User, the MathWorks also locks the installation to a particular user. The activation application copies this License File onto your computer.

If you do not have an Internet connection during activation, you must have a License File to activate your license. The Administrator contact on the license can retrieve the License File from the License Center at the MathWorks Web site—see the License Center help for instructions. In the Activation Welcome dialog box, choose the **I want to activate manually without the Internet** option. In the License File Path dialog box, specify the location of your License File.

Validating a License

After activation is completed, you can run the MathWorks products. 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 your license is not up-to-date, the validation process displays a dialog box that gives you the option of updating the license in your installation with the updated version available at the MathWorks Web site. A license can get out-of-date, for example, if you purchase additional products. The Administrator on the license can change this validation behavior by modifying the validation settings on a license—see the License Center Help for instructions.

Deactivating a License

In some scenarios, you might need to deactivate a license on a particular computer. For example, if you have performed the maximum number of activations allowed by your license and you want to install the software on a new computer. You must deactivate an installation of your license on one of your computers before you can activate your license for the installation on your new computer.

The best way to deactivate a license is to run the deactivation application on your computer with an Internet connection. This way the deactivation application can disable the License File on your computer and contact the MathWorks to deactivate the license in MathWorks systems. If you do not have an Internet connection, the deactivation application disables the License File on your computer and returns a *deactivation string*. To complete the deactivation process you must visit the License Center at the MathWorks Web site and enter the deactivation string to disable the activation in MathWorks systems.

For more information about deactivating, see the installation guide for your platform.

Administering Group Licenses

Overview (p. 3-2)

Describes the basic tasks required to set up and administer a Group license

Setting Up Group Member Licenses (p. 3-5)

Describes how to associate users and assign products to Group Member licenses.

Installing Software for Group Member Licenses (p. 3-23)

Describes how to install products on Group license.

Activating Group Member Licenses (p. 3-25)

Describes how to activate the software on the member computers in a Group license.

Managing Group Licenses Earlier than R2008a (p. 3-28)

Describes how to get passcodes for releases earlier than R2008a.

Overview

In this section...
“Basic Administrative Tasks” on page 3-2
“Example: A Sample Group License” on page 3-3

Basic Administrative Tasks

A Group license is a collection of Individual licenses, gathered together for the convenience of centralized administration. When you purchase a Group license, you specify the number of copies of MATLAB® and other MathWorks products you want on the license. The number of copies of each product (the *user count*) can vary. As administrator of a Group license, your primary responsibility is to ensure that only authorized users have access to the MathWorks products and to ensure that each user has access to only those products for which they are licensed.

To help you with this task, the MathWorks creates a *Group Member license* for each copy of MATLAB you purchased because each individual installation requires MATLAB. If any of the other products on the Group license have the same user count as MATLAB, The MathWorks preassigns those products to the Group Member licenses as well. Initially, products with varying user counts remain on the Group license.

Administering a Group License involves the following tasks:

- **Setting up Group Member licenses** — In this step, you associate users with Group Member licenses and assign products to Group Member licenses. Each user in your Group license can have a different set of MathWorks products. You can also set license attributes to help you manage users and products. For example, using license attributes you can assign labels to licenses and specify how much access users have to products and activations.

To perform these tasks, you use The MathWorks License Center. The License Center is the primary tool for managing and tracking product usage. For more information, see “Setting Up Group Member Licenses” on page 3-5.

- **Installing software on users' computers** — After setting up the Group Member licenses, you must install the software on users' computers. For more information, see “Installing Software for Group Member Licenses” on page 3-23 for more information.
- **Activating each installation** — After you install the software for each Group Member license, you must activate the installation. (The Group license itself does not need to be activated.) For more information, see “Activating Group Member Licenses” on page 3-25.

Repeat these steps for each Group Member license.

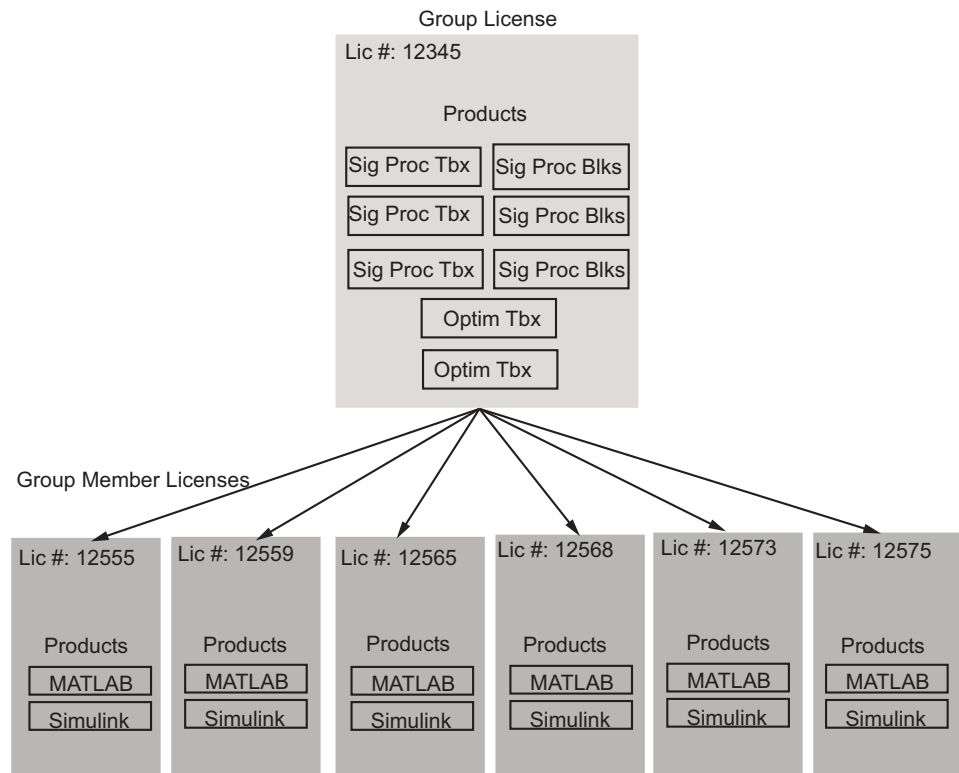
If you are working with a Group license for a release earlier than R2008a, see “Managing Group Licenses Earlier than R2008a” on page 3-28.

Example: A Sample Group License

To illustrate, this example describes a sample Group license for a small department made up of five people: Abby, Bruce, Clive, David, and Ellen. Each person in the group needs a certain set of products, shown in the following table. In addition, the team wants to set up a computer in their lab that will provide availability to MATLAB and Simulink® software. This example is used throughout this section to illustrate administering a Group license.

Products	Abby	Bruce	Clive	David	Ellen	Lab System
MATLAB	x	x	x	x	x	x
Simulink	x	x	x	x	x	x
Signal Processing Toolbox™		x	x		x	
Signal Processing Blockset™		x	x		x	
Optimization Toolbox™	x			x		

The MathWorks creates a MathWorks Account for you (if you don't already have one) and associates the Group license with your account. You are assigned the role of administrator on the license. The MathWorks also creates a number of Group Member licenses for the Group license—one for each copy of MATLAB that you purchased. The MathWorks also preassigns any other products on the Group license that have the same user count as MATLAB. In this example, because Simulink has the same user count as MATLAB, each Group Member license is preassigned both products. The following figure illustrates the initial state of this Group license.



Group License: Initial State

Setting Up Group Member Licenses

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“Associating Users with Group Member Licenses” on page 3-7
“Assigning Products to Group Member Licenses” on page 3-12
“Using License Attributes to Customize a Group Member License” on page 3-17
“Example: Setting Up the Sample Group License” on page 3-21

Overview

As the Administrator of a Group license, you must set up the Group Member licenses. This involves

- Associating an end-user with each Group Member license
- Assigning products to each Group Member license
- Setting license attributes (optional)

Only the Administrator contact on a Group license (or an Asset Manager contact) can perform these tasks.

Note You can perform these tasks in any order. For example, you can assign products to Group Member licenses before associating users with the licenses, or vice versa. Depending on the product configuration of Group license, you might not need to perform every task. Similarly, you can work through the tasks serially or in parallel, that is, you can make all the product assignments to all the licenses and then associate users with the licenses, or you can do the product and user set up tasks for one license at a time.

To perform these tasks, go to the MathWorks Web site and log in to your MathWorks Account. The MathWorks automatically creates an account for the administrator contact on a every license. On the My Account page, click

Manage My Licenses to get to the License Center. The License Center is the central location where you can perform all necessary license setup.

The License Center displays a list of all the licenses associated with your account. In the following figure, the account has only one license associated with it. You can see in the Option column that it is a Group license.

Click to view Group Member Licenses.

Settable license attributes.

My Licenses

Associate Me with a License Filter My Licenses

License No.	Label	Option	Use	Activation Type	My Role	Administrator
596385		Group	Commercial		Administrator	Joe Customer

Select a license for details (or view your [temporary license](#)).

When you click the Group license number, the License Center displays all the Group Member licenses in the Group license and the License Details panel for the Group license, as shown in the following figure. The License Details panel lists all of the products on the Group license with their user counts. In the **Count Available to Assign** column, the MATLAB® and Simulink® products are listed with zero (0) availability because they have been preassigned to Group Member licenses.

GroupLicense
My Licenses: License 596385

List of Group Member Licenses.

View Full License List Associate Me with a License Filter My Licenses

License No.	Label	Option	Use	Activation Type	My Role	End User
596385		Group	Commercial		Administrator	Joe Customer (Admin)
596386		Group Member	Commercial	Unset	Administrator	
596387		Group Member	Commercial	Unset	Administrator	
596388		Group Member	Commercial	Unset	Administrator	
596389		Group Member	Commercial	Unset	Administrator	
596390		Group Member	Commercial	Unset	Administrator	
596391		Group Member	Commercial	Unset	Administrator	

License Details

Tab Help

License Attributes

Asset Group: [] Option: Group Term: Perpetual Use: Commercial Release: R2008a

Products on License

Assign Products Unassign Products

Count	Product	Maintenance End Date	Count Available to Assign
6	MATLAB®	01 Dec 2009	0
6	Simulink®	01 Dec 2009	0
2	Optimization Toolbox™	01 Dec 2009	2
3	Signal Processing Blockset	01 Dec 2009	3
3	Signal Processing Toolbox	01 Dec 2009	3

Detail screen for Group License.

Associating Users with Group Member Licenses

Associating a user with a Group Member license means linking the Group Member license to the user's MathWorks Account. You remain the Administrator contact on the Group Member license—the user becomes the Licensed End User contact on the license. When users log in to their

MathWorks Account, they see the Group Member license in the list of licenses associated with their account. As Administrator contact on the Group license, all Group Member licenses still appear on the list of licenses associated with your account. If the activation type for the license is Standalone Named User, each user must have an account. For the Designated Computer activation type, this step is optional.

Note Instead of associating users with Group Member licenses, you can let users create their own MathWorks Accounts and associate with a Group Member license. In this scenario, you must give each user the Activation Key that identifies a particular Group Member License. Then, during installation of the software on their computers or at the License Center at the MathWorks Web site, the users can specify the Activation Key to associate with the license. To learn how to get an Activation Key, see the License Center Help.

To associate a user with a Group Member license, follow this procedure. Repeat this process for each Group Member license.

- 1 Click a Group Member license number in the list of licenses displayed in the License Center, as shown in the following figure. The License Center displays information about the Group Member license in the **License Details** panel, such as the products on the license and settings of various license attributes.

Select Group Member License.

My Licenses: License 596385

View Full License List Associate Me with a License Filter My Licenses

License No.	Label	Option	Use	Activation Type	My Role	End User
596385		Group	Commercial		Administrator	Joe Customer (Admin)
596386		Group Member	Commercial	Unset	Administrator	
596387		Group Member	Commercial	Unset	Administrator	
596388		Group Member	Commercial	Unset	Administrator	
596389		Group Member	Commercial	Unset	Administrator	
596390		Group Member	Commercial	Unset	Administrator	
596391		Group Member	Commercial	Unset	Administrator	

License Details Activation and Installation Manage Users and License Contacts Pre-R2008a or PolySpace Passcodes Tab Help

License Attributes for 596386

License Label:		Option:	Group Member	Use:	Commercial
Group License:	596385	Activation Type:	Unset	Term:	Perpetual
				Release:	R2008a
				Shipment Status:	View Status

Products on License Assign/Unassign Products

Count	Product	Maintenance End Date
1	MATLAB®	01 Dec 2009
1	Simulink®	01 Dec 2009

Products on Group Member License.

Attributes of Group Member License.

2 To associate a user with the Group Member license, click the **Manage Users and License Contacts** tab. If there currently isn't any Licensed

End User associated with the license, add one by clicking



Click to view end user and contact roles.

Click to add user.

First Name	Last Name	E-mail	Department	Permission to Download	Permission to Activate

First Name	Last Name	E-mail	Role	Department
Joe	Customer	jcustomer@mathworks.com	Administrator	

No end-user listed for license.

If a Licensed End User is already associated with the license, the **Add User** button does not appear. Instead, click the **Remove User** button. You must remove the current user before you can add a new user. You can associate a Group Member license with only one user.

- 3 When you click **Add User**, the License Center displays the Add User dialog box. Enter the e-mail address, first name and last name of the user you want to associated with the license, and click **Continue**, as shown in the following figure. The MathWorks creates a MathWorks Account for the user (if the user doesn't already have an account). This associates the user with the Group Member license.

Add User

Associate User with License

A MathWorks Account will automatically be created for the user, if one does not already exist.

User's E-mail Address:

User's First Name:

User's Last Name:

Note: For questions regarding the privacy of your information, please read our [Privacy Policy](#).

- 4 Specify whether you want to grant the user permission to download products on the license or permission to activate an installation of the license. Make your selection and then click **Continue**.

Add User

Set User Permissions for Abby Rhode

Permission to Download

Not Allowed

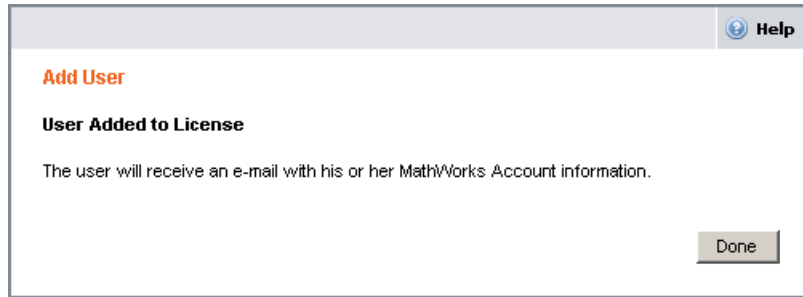
Allowed

Permission to Activate

Not Allowed

Allowed

- 5 The License Center updates the Group Member license and displays a summary of the changes. The MathWorks sends the user an e-mail with account information. Click **Done** to complete the process.



After associating the user with the license, the License Center updates the **Manage User and License Contacts** panel to reflect the change, as shown in the following figure.

User added to Group Member license.

First Name	Last Name	E-mail	Department	Permission to Download	Permission to Activate
Abby	Rhode	arhode@mathworks.com		Not Allowed	Allowed

First Name	Last Name	E-mail	Role	Department
Joe	Customer	jcustomer@mathworks.com	Administrator	

Assigning Products to Group Member Licenses

Note If all the products on your Group license have the same user count as the MATLAB product, The MathWorks preassigns the products to the Group Member licenses. In this case, you do not have to perform this product assignment step for your site.

To assign products to a Group Member license, follow this procedure. Repeat this process for each Group Member license.

- 1 Click the **License Details** tab to see a list of all the products on the Group Member license.

View License Details panel.

The screenshot shows the 'License Details' tab selected. The panel displays the following information:

License Attributes for 596386

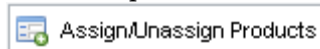
License Label:		Option:	Group Member	Use:	Commercial
Group License:	596385	Activation Type:	Unset	Term:	Perpetual
				Release:	R2008a
				Shipment Status:	View Status

Products on License

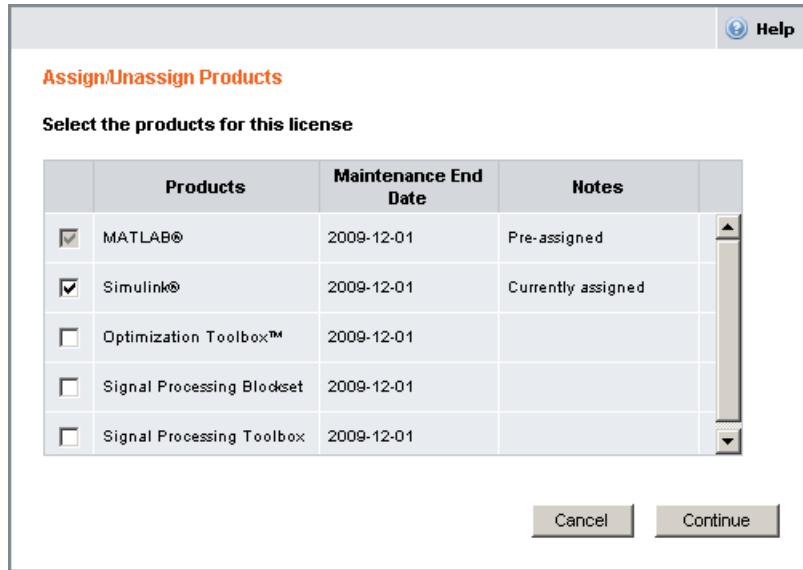
Count	Product	Maintenance End Date
1	MATLAB®	01 Dec 2009
1	Simulink®	01 Dec 2009

Products on license.

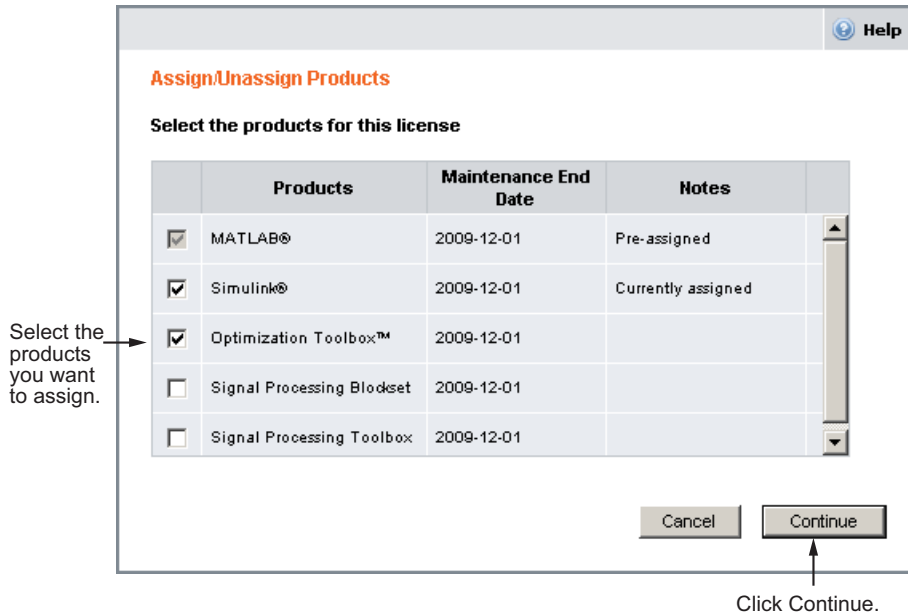
- 2 To add a product to the Group Member license, click



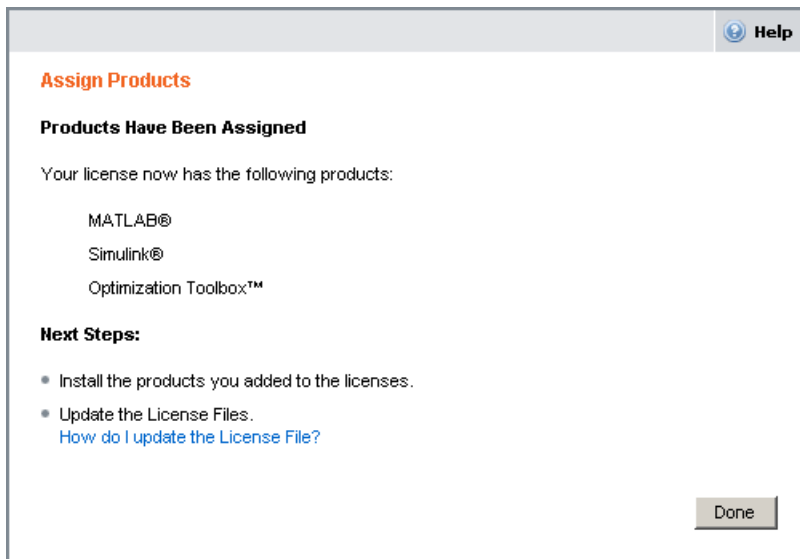
The License Center displays the Assign/Unassign Products dialog box. This dialog box lists the products already on the license and the products in the Group license that are available for assignment.



- 3 Select the product you want to add to the Group Member license and click **Continue**.



- 4 The License Center updates the products assigned to the Group Member license and displays a summary of the results. Click **Done**.



After you assign a product to a Group Member license, the License Center updates the product list in the License Details panel for the Group Member license, as illustrated in the following figure. Also, if you view the Group license, the License Center decrements the count for the products in the Count Available for Assignment column.

License Details Activation and Installation Manage Users and License Contacts Pre-R2008a or PolySpace Passcodes

Tab Help

License Attributes for 596386

License Label:		Option:	Group Member	Use:	Commercial
Group License:	596386	Activation Type:	Unset	Term:	Perpetual
				Release:	R2008a
				Shipment Status:	View Status

Products on License [Assign/Unassign Products](#)

Count	Product	Maintenance End Date
1	MATLAB®	01 Dec 2009
1	Simulink®	01 Dec 2009
1	Optimization Toolbox™	01 Dec 2009

Display updates to show added product.

Using License Attributes to Customize a Group Member License

Licenses have attributes that you can use to:

- Control access to products
- Remove potential areas of confusion for users
- Make it easier to identify particular licenses or activations

The following table lists these attributes alphabetically with a brief description and their default values. Some are optional attributes and others are required. For example, you can use the **Permission to Download** attribute to allow users to download products on the license onto their computers. This can be a convenience if you have many Group Member licenses and you want to off-load this task to users. If you want to retain closer control over product usage, leave this attribute at its default value. For additional examples of setting some common license attributes, see “Presetting the Activation Type” on page 3-19.

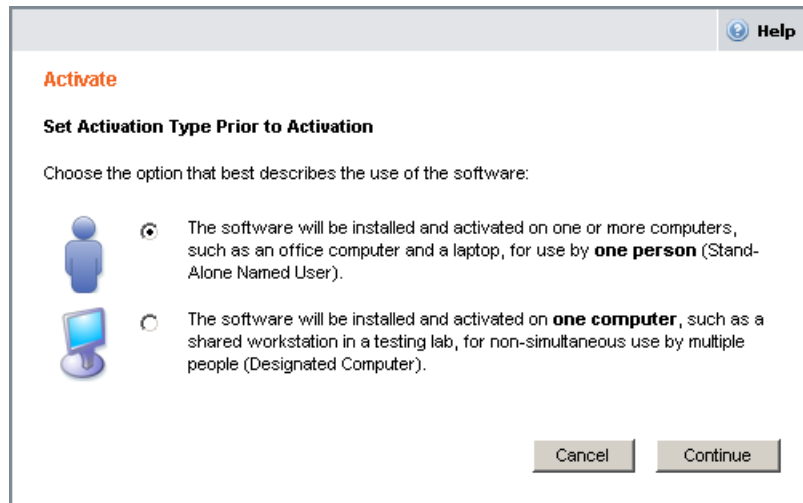
Attributes	Description	Default
Activation label	An optional text label that describes the activation, e.g. MyLabSystem. Individual and Group Member licenses can be activated on several computers. Labels make it easier to identify particular activations. Set this on the Activation and Installation tab.	Host ID
Activation Type	Specifies the Activation Type of the license. For Individual and Group licenses, this can be Standalone Named User or Designated Computer. Set this on the Activation and Installation tab.	Unset
Associated user	Associates a license with a MathWorks Account. For Standalone Named User activation type, each Group Member license must be associated with an account. Set this on the Manage Users and License Contacts tab.	Unset
Expiration Date	An optional field that specifies the date after which the activation is invalid. This date is not related to the term of the license. Set this on the Activation and Installation tab.	Unset
License Label	An optional text label that describes a particular license, e.g. MyLabGroup. You can have several licenses associated with your account. Labels make it easier to identify particular licenses. Set this on the License Details tab.	Unset
Permission to Activate	Specifies whether a Licensed End User can activate an installation. If you deny this permission, the user must specify an Activation Key to activate an installation. Set this on the Manage Users and License Contacts tab.	Allowed.

Attributes	Description	Default
Permission to Download	Specifies whether the Licensed End User can download products on the license. Set this on the Manage Users and License Contacts tab.	Not allowed. Only Administrator contact or Asset Manager contact have download permission
Validation from Product	Specifies whether your installation periodically contacts The MathWorks to make sure the license is up to date. If set this attribute to false, you can run the software but you will be unable to perform certain self-service license management activities using the License Center. Set this on the Activation and Installation tab.	True

Presetting the Activation Type

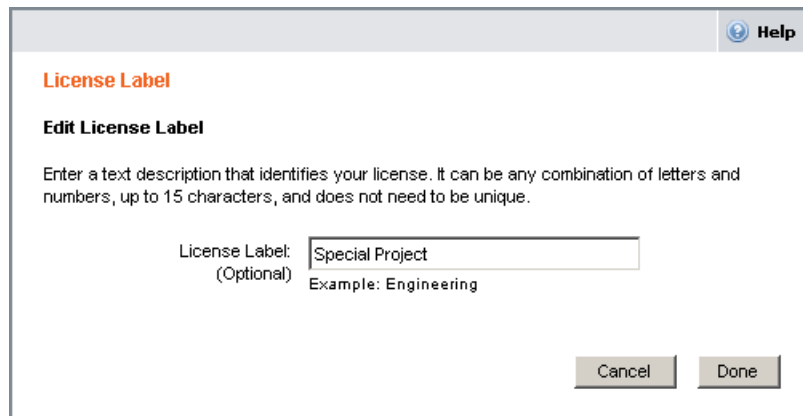
As Administrator of a Group license, you might want to set up your Group Member licenses to avoid areas of potential confusion for your users. For example, if you preset the Activation Type when setting up a license, the activation application does not offer the user the choice of choosing the Activation Type.

To set the Activation Type, click the **Activation and Installation** tab. On the panel, click the edit icon in the **Activation Type** field. The License Center displays the Activate dialog box, shown in the following figure. Select the Activation Type and click **Continue**.



Assigning a Descriptive Label to License

To set the License Label attribute, click the **License Details** tab. On the panel, click the edit icon in the License label field. The License Center displays the License Label dialog box, shown in the following figure. Enter a text string and click **Continue**.



The following figure shows the list of Group Member licenses after setting license attributes.

My Licenses: License 596385

View Full License List

Associate Me with a License

Filter My Licenses

	↓ License No.	Label	Option	Use	Activation Type	My Role	End User
	596385		Group	Commercial		Administrator	Joe Customer (Admin)
	596386		Group Member	Commercial	Unset	Administrator	
	596387		Group Member	Commercial	Unset	Administrator	
	596388		Group Member	Commercial	Unset	Administrator	
	596389		Group Member	Commercial	Unset	Administrator	
	596390		Group Member	Commercial	Unset	Administrator	
	596391	Special Project	Group Member	Commercial	Standalone Named User	Administrator	Abby Rhode

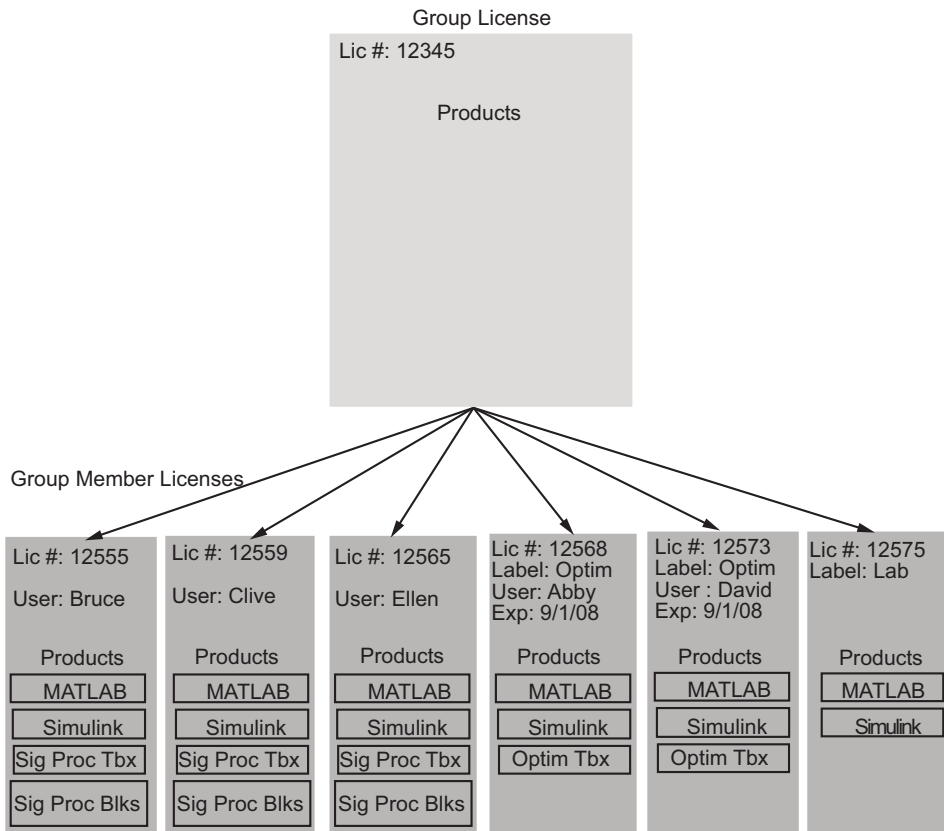
Group Member license with
license label and Activation type.

Example: Setting Up the Sample Group License

In the example introduced previously (see “Example: A Sample Group License” on page 3-3), five of the Group Member licenses are intended for specific users. One Group Member license is intended for installation on a lab computer. The tasks performed to set up this sample Group license include:

- Associating users with Group Member licenses.
- Presetting the Activation Type on all the licenses
- Setting the Permission to Download attribute to Allowed for Bruce, Clive, and Ellen. They are permanent members of your department and you feel comfortable letting them handle their own installations and activations.
- Turning off Permission to Activate for Abby and David. They are only temporarily assigned to your department for a special project and you want to limit their control of the software.
- Setting the License Labels on Abby and David’s licenses to identify them as used on the special project
- Setting the Expiration Date on Abby and David’s licenses to terminate their ability to use the licenses after the end of the project.

The following figure illustrates the state of the Group license after license setup.



Group License: After License Setup

Installing Software for Group Member Licenses

In this section...
“Overview” on page 3-23
“Example: Installing Software” on page 3-24

Overview

After you set up the Group Member licenses, you must install the software on your users' computers. You do not install software for the Group license itself. Depending on the size of your group, and the amount of control you want to retain over the Group license, there are several ways to perform this task:

- **You can install the software on all your users' computers** — You can go to each user's computer and run the installer. During installation, you log in to your MathWorks Account, select a Group Member license, and specify the operating system login name (username) of the user who will use the software.

If you have many installations to perform, there are various ways to automate this installation process. For example, on systems running Windows, you can create an installer initialization file. In this file, you put all the information you would enter interactively using the installer and then specify the initialization file when you start the installer. You can also use third-party software deployment tools to perform multiple installations.

- **You can let users install the software on their own computers** — You can create MathWorks Accounts for each user and associate a Group Member license with each account. Users can run the installer, log in to their account, and select the Group Member license to install. If you prefer not to create accounts for your users, they can create their own accounts by visiting the MathWorks Web site or during installation. You must give each user an Activation Key that identifies a Group Member license. To retrieve an Activation Key, click the **Advanced Options** button on the **Activation and Installation** panel.

For step-by-step installation instructions, see the installation guide for your platform.

If the computer on which you are installing the software does not have an Internet connection, you need a File Installation Key to install MathWorks products. The File Installation Key identifies the set of products you can install. To retrieve a File Installation Key, click the **Advanced Options** button on the **Activation and Installation** panel. You can use one, all-product File Installation Key and let all your users install the same set of products. You can then limit their access to the correct product mix for each user during activation. Note, however, that when using an all-product File Installation Key, users will be able to see the documentation for all the installed products in the MATLAB Help browser, including products they are not licensed to run.

When the installation completes, the installer gives you the option of activating the software. You will not be able to use the software until you activate it. The MathWorks recommends activating the software immediately after installation because, if you are already logged in to your MathWorks Account, the activation process can skip the log in and license selection steps. To exit the installer without activating, clear the **Activate MATLAB** check box and click **Finish**. You can always activate later — see “Activating Group Member Licenses” on page 3-25 for more information.

Example: Installing Software

In the example introduced previously (see “Example: A Sample Group License” on page 3-3), the Administrator of the Sample Group License gave Bruce, Clive, and Ellen permission to download products. They can download the software and install it on their computers. Because the Administrator associated the users with Group Member licenses, they can run the installer, log in to their accounts, select the Group Member license, and install it.

The Administrator must give Abby and David the MathWorks DVD or download the files for them. The Administrator installs the software on the lab system.

Activating Group Member Licenses

In this section...

“Overview” on page 3-25

“Validating a License” on page 3-26

“Deactivating a License” on page 3-27

“Example: Activating the Software” on page 3-27

Overview

After the software is installed on each group member’s computer, you must activate the installations. Activation is a process in which The MathWorks validates the license and ensures that it is not used on more computers than allowed by the license option.

To activate a Group Member license, run the MathWorks activation application on your computer. During activation, you log in to your MathWorks Account, select the license that you want to activate, and provide other information requested by the activation application dialog boxes. As with the installation process, you can create a MathWorks Account during the activation process. You can also use an Activation Key to identify the license you want to activate.

If you choose to activate immediately after installation, and let the installer launch the activation application, you can skip the login and license selection steps—the activation application continues the same login session you opened during installation.

During activation, you can specify the activation type, if it has not already been set. (The Administrator on the license can preset the activation type of a Group Member license at the License Center.) For Group licenses, there are two activation types:

Activation Type	Description
Standalone Named User	You can install and run the software on multiple computers, such as your desktop, lab, and laptop systems. The installation is locked to a particular computer and particular user name.
Designated Computer	You can install and run the software on only one computer. The installation is locked to a Host ID that identifies a particular computer, but not a particular user. Any number of people can log in and use the software, but not simultaneously.

When you click **Activate** the activation application validates the activation in The MathWorks systems and creates a License File that is locked to the particular computer. If the activation type is Standalone Named User, The MathWorks also locks the installation to a particular user. The activation application copies this License File onto your computer.

If you do not have an Internet connection during activation, the Administrator on the license can retrieve the License File from the License Center at the MathWorks Web site—see the License Center help for instructions. When running the activation application without an Internet connection, specify the location of this License File. For more information about running the activation application, see the installation guide for your platform.

Validating a License

After activation is completed, you can run the MathWorks products. 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 your license is not up-to-date, the validation process displays a dialog box that gives you the option of updating the license in your installation with the updated version available at The MathWorks Web site. A license can get out-of-date, for example, if you purchase additional products. The Administrator on the license can change this validation behavior by modifying the validation settings on a license—see the License Center Help for instructions.

Deactivating a License

In some scenarios, you might need to deactivate a license on a particular computer. For example, if you have performed the maximum number of activations allowed by your license and you want to install the software on a new computer. You must deactivate your license on one of your computers before you can activate your license for the installation on your new computer.

The best way to deactivate a license is to run the deactivation application on your computer with an Internet connection. This way the deactivation application can disable the License File on your computer and contact the MathWorks to deactivate the license in MathWorks systems. If you do not have an Internet connection, the deactivation application disables the License File on your computer and returns a *deactivation string*. To complete the deactivation process you must visit the License Center at the MathWorks Web site and enter the deactivation string to disable the activation in MathWorks systems.

For more information about deactivating, see the installation guide for your platform.

Example: Activating the Software

In the example introduced previously (see “Example: A Sample Group License” on page 3-3), you decided to let end-users install and activate the software on their systems. Because you associated a Group Member license with each user, they can run the installer on their computers, log in to their accounts, select the Group Member license, and install it. The MathWorks recommends that users activate immediately after installation, letting the installer launch the activation application. Since you preset the Activation Type for each Group Member license, the activation application does not present user with this choice. When activation is complete, users can run MathWorks software on their systems.

Managing Group Licenses Earlier than R2008a

For R2007b Group licenses, you can use the License Center to setup the Group Member licenses, just as you do with R2008a Group licenses, described in “Setting Up Group Member Licenses” on page 3-5. The MathWorks creates Group Member licenses for each copy of MATLAB software on the Group license. You then set up the licenses at the License Center by associating users with and assigning products to the Group Member licenses. To install the Group Member licenses for releases earlier than R2008a, you must get the Personal License Passcodes (PLPs) for each Group Member license. (In previous releases, these were called *subset passcodes*.)

Note On Windows systems, if you need to get a PLP for releases earlier than R14, contact The MathWorks. On UNIX and Linux systems, contact The MathWorks if you need a passcode for a release earlier than R12.

To administer a Group license from a release prior to R2008a, follow this procedure:

- 1** Go to The MathWorks License Center and view the Group license.
- 2** Click the Group license number to view all the Group Member Licenses on the Group license.
- 3** Click one of the Group Member license numbers. The License Center displays the License Details pane for the Group Member License. Associate a user with the license and add products to the license, as described in “Setting Up Group Member Licenses” on page 3-5.

Note You must add all the products required by the Group Member license before retrieving the PLP. The MathWorks generates a PLP that licenses only the products on the license.

- 4** Click the **Pre-R2008a and PolySpace Passcodes** tab. On this pane, click the **Get Passcodes** button.

Select the Pre-2008a or PolySpace Passcodes tab.

My Licenses: License 596385

View Full License List Associate Me with a License Filter My Licenses

License No.	Label	Option	Use	Activation Type	My Role	End User
596385		Group	Commercial		Administrator	Joe Customer (Admin)
596386		Group Member	Commercial	Unset	Administrator	
596387		Group Member	Commercial	Unset	Administrator	
596388		Group Member	Commercial	Unset	Administrator	
596389		Group Member	Commercial	Unset	Administrator	
596390		Group Member	Commercial	Unset	Administrator	
596391	Special Project	Group Member	Commercial	Standalone Named User	Administrator	Abby Rhode

License Details Activation and Installation Manage Users and License Contacts **Pre-R2008a or PolySpace Passcodes** Tab Help

Passcodes Add Host ID Get Passcodes Request Passcodes

- To add the Host ID for this license, click the Add Host ID button.
- To get the R2007b passcode for this Group Member license, click the Get Passcodes button.
- To request a passcode other than the last-generated one, click the Request Passcodes button.

Click Get Passcodes.

5 Select the platform on which you intend to run the Group Member license and click **Next**.

Group Member Passcode

To get a 2007b passcode for the selected Group Member license, provide the information requested on each screen.

License number: 596386

Select Installation Type

Installation Type:

Windows - Stand-Alone Named User - requires a Personal License Password (PLP)

UNIX/Linux/Mac - Stand-Alone Named User - requires a license file

- 6 Select the products you want to include on the PLP, specify an expiration date, and click **Next**. Only those products on the Group Member License appear on the list. If you don't want to specify an expiration date, select **Perpetual** from the year menu. On UNIX, Linux, and Macintosh systems, you can also specify the Host ID of the server on which you intend to run the license manager.

Group Member Passcode

License Option: Group

Installation Type: Windows - Stand-Alone Named User

Maintenance End Date: December 1, 2009

Passcode Expiration Date:

Select products and click the Next button to generate a passcode for a single user count.

Product	Your Licensed User Count
<input checked="" type="checkbox"/> MATLAB	1
<input checked="" type="checkbox"/> Simulink	1

- 7 Copy and paste the licensing information displayed. For Windows, copy the PLP. For other platforms, copy the License File.

Administering Network Named-User Licenses

Overview (p. 4-2)

Provides an overview of
administering a Network Named
User license

Overview

In this section...
“Key Administrative Tasks” on page 4-2
“Setting Up Named User Licensing” on page 4-2

Key Administrative Tasks

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

For information about basic configuration and installation tasks, see Chapter 5, “Administering Concurrent Licenses”—the same tasks apply to Network Named Users licenses.

Setting Up Named User Licensing

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

Note Do not confuse your License File with your FLEXnet options file. The License File contains the encrypted passcodes for each product you are licensed to install and run. The FLEXnet options file is a text file that contains license manager option statements, such as INCLUDE, EXCLUDE, and GROUP statements.

If you have a Network Named User license, after you install your products, you might need to

- Check that the FLEXnet options file includes all licensed users — see “Checking the Options File” on page 4-4.
- Check that the DAEMON line in your License File includes the options file location — see “Making Sure Your DAEMON Line Includes Your Options File” on page 4-5.

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, Linux, or Macintosh computers, or in `matlabroot\flexlm\enduser.pdf`, on Windows computers, where `matlabroot` represents your installation directory.

Checking the Options File

As part of the installation process, the MathWorks installer creates a FLEXnet options file, named MLM.opt. *matlabroot\flexlm\MLM.opt*. In this options file, the installer puts an INCLUDE line for each product you are licensed to install and run. By default, the installer puts the username of the person who performed the installation in these INCLUDE lines. If you performed your own installation, the options file might not need editing. However, if you performed the installation for another user, or if your license server is installed on a UNIX system and you had root privileges when you performed the installation, you will need to edit this options file.

For example, if your username is sysadmin, the options file would look like this.

```
INCLUDE MATLAB USER sysadmin
INCLUDE Signal_Toolbox USER sysadmin
INCLUDE Optimization_Toolbox USER sysadmin
```

You must replace sysadmin in these INCLUDE statements with the usernames of the licensed users. Because the installer includes the GROUPCASEINSENSITIVE option in the options file and sets it to ON, login names are not case sensitive. If multiple users are licensed for the same product, you must create a separate INCLUDE line for each user or collect the users into a group, using the GROUP syntax, and specify the name of the group in an INCLUDE line. The number of users must not exceed the number of license keys available for that product. This example shows both methods.

Note If you edit the options file, make certain that there are no extra space characters at the end of each INCLUDE line.

```
GROUPCASEINSENSITIVE ON
GROUP matlab_users tom judy mike jean brad
GROUP signal_users tom mike brad
INCLUDE MATLAB GROUP matlab_users
INCLUDE Signal_Toolbox GROUP signal_users
INCLUDE Optimization_Toolbox USER mike
INCLUDE Optimization_Toolbox USER jean
```

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

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

Making Sure Your DAEMON Line Includes Your Options File

When the installer creates an options file during installation, it also adds the Options= syntax to the DAEMON line in your License File. This syntax specifies the pathname of the options file.

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, Linux, or Macintosh computer, the DAEMON line would look like this:

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


Administering Concurrent Licenses

Overview (p. 5-2)

Provides an overview of administering a Concurrent User license

Installing the Software in a Concurrent License (p. 5-6)

Describes how to install the software on computers in a concurrent configuration

Borrowing Licenses (p. 5-7)

Describes how to setup and use the license borrowing capability in a concurrent configuration

Using Time-Outs to Free Idle License Keys (p. 5-21)

Describes how to use the time out feature to free idle license keys in concurrent configurations

Overview

In this section...
“Key Administrative Tasks” on page 5-2
“Designing Your Network Configuration” on page 5-3

Key Administrative Tasks

A Concurrent license enables you to make MathWorks products available to anyone with access to your network. 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 use functions in other products. When all the keys for a particular product are checked out, the license manager denies further requests. For Concurrent licenses, you can only install the software in a Network Concurrent User activation type.

As Administrator for a Concurrent license, your primary goal is to set up an installation that optimizes accessibility to the products. The fundamental tasks required to administer a Concurrent license are:

1 Determine how you want to configure the products for users —

There are several possible configurations. You must decide whether users will install MATLAB on their computers or access MATLAB over a network. See “Designing Your Network Configuration” on page 5-3

2 Install the software on the computers required by the configuration

— You must install the license manager on a server and, depending on your configuration, either install MathWorks products on a server or install the products on client systems. You can use The MathWorks Installer to perform all of these installations. See “Installing the Software in a Concurrent License” on page 5-6.

Note With Concurrent licenses, you must activate the license for the installation before you run the installer. Contact The MathWorks to retrieve the License File needed for your configuration. You must provide the Host ID of the system on which you intend to run the license manager when requesting a License File. You specify the location of your License File during installation.

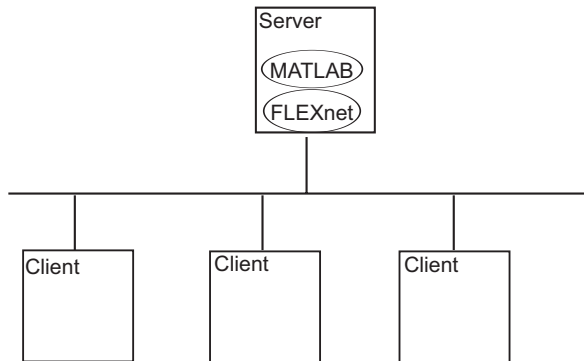
Designing Your Network Configuration

For network installations, The MathWorks uses a license manager program, FLEXnet® Publisher Licensing Module, a product of Macrovision Corporation. To set up a network installation, you must install the license manager and install MathWorks products. You use the MathWorks Installer to perform both installations. If you want to integrate the MathWorks products into an already established license management scheme, you can just copy the MathWorks license management daemons onto your system. .

Before you install MATLAB in a network installation, you must decide what type of configuration you want to set up. This decision determines how many installations you need to perform. This section describes these options.

Setting Up a Remote Client Access Configuration

In a *remote client access* configuration, you install MATLAB and the license manager on a central file server. (These instructions refer to this system as your *license server*.) Users on client systems access MATLAB over the network. This figure shows one possible configuration. The license manager and MATLAB can be installed on the same server or on separate servers.

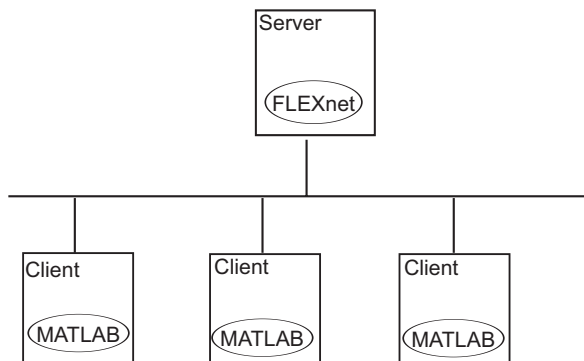


If your license server is a PC, follow the instructions in . If your license server is a UNIX system, follow the instructions in the installation documentation for UNIX systems. A UNIX license server can serve PC clients and a PC server can serve UNIX clients.

In remote client access configurations, it can be helpful to give clients a script that sets up a shortcut to the network copy of MATLAB and specifies a default startup folder for MATLAB. See for more setup suggestions.

Setting Up Local Client Access Configuration

In a *local client access* configuration, you install the license manager on a server and you install MATLAB on each client system. When users on client systems start MATLAB, it contacts the license manager over the network to check out a license key. This figure shows one possible configuration.



You use the same basic network installation procedure to install MathWorks products on a client system. The installation documentation for each platform notes any differences between the installations.

Installing the Software in a Concurrent License

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*, that are connected to the license server over a network. A Windows computer can act as a license server for UNIX, Linux, or Macintosh 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.

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.

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

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. specify the location of the License File that was processed during the installation of the license manager on your server. Do not install the license manager on client systems.

Borrowing Licenses

In this section...

“Overview” on page 5-7

“Enabling License Borrowing” on page 5-9

“Initiating License Borrowing” on page 5-11

“Turning Off License Borrowing” on page 5-12

“Determining Which Licenses Are Currently Borrowed” on page 5-14

“Controlling License Borrowing with Options Files” on page 5-17

“Returning a Borrowed License Early” on page 5-19

Note You can only use license borrowing with concurrent licenses.

Overview

To provide more license mobility, The MathWorks supports the FLEXnet® license borrowing capability. With license borrowing, end users can use MathWorks products, for a specified time period, on computers that do not have a continuous connection to the license server. After end users borrow a license, they can disconnect their systems from the network and continue to use the products they checked out, until the borrow period expires. They can also return a borrowed license early.

Setting Up License Borrowing: Administrator Tasks

To set up license borrowing, you, the Administrator on the license must:

- 1 Enable license borrowing at your site** — Request a License File from The MathWorks that includes the borrowing capability. Use this License File to install the license manager on your license server, or replace the existing License File on your license server with this License File. For more information, see “Enabling License Borrowing” on page 5-9.

- 2 Use the License File with borrowing enabled on client systems** — Make sure that you use the borrowing-enabled License Files on all client systems or that their License Files contain the `USE_SERVER` line.

Note the following limitations:

- You can only use license borrowing with concurrent licenses.
- The maximum borrow period is 30 days.
- License borrowing is only available with Release 14 or later, with license servers running FLEXnetv9.2 or later.
- The MathWorks products must be installed on client systems — a configuration called *local client access* in the MathWorks installation documentation.

Using License Borrowing: the End-User Experience

With license borrowing, an end user on a client system can use MathWorks products, for a specified time period, on computers that do not have continuous connection to the license server. The following gives a high-level view of how to use license borrowing.

Note While performing these steps, the client system must be connected to the license server via a network.

- 1 Initiate license borrowing** — End users run the `lmborrow` utility to specify how long they want to borrow licenses, called the *borrow period*. This initiates license borrowing on their systems. See “Initiating License Borrowing” on page 5-11.
- 2 Borrow a license** — To borrow a license, end users simply use MATLAB or any other MathWorks products. MATLAB check outs licenses for a product when they are first used. With license borrowing enabled, every license check out borrows the license. You can also explicitly check out a license for a product using the `license` command.
- 3 Turn off license borrowing** — After borrowing all the licenses they want to use, end users should turn off license borrowing, using the `lmborrow`

utility. Otherwise, every time they use a MathWorks product, they borrow a license for that product, unless they turn off license borrowing.

After you borrow licenses, disconnect your system from the network. The next time you start MATLAB on your system you will be using the license you borrowed. For information about returning a borrowed license early, see.

Interoperability with Previous MATLAB Releases

The MathWorks tries to preserve licensing backwards compatibility between releases. For example, you can run Release 11 products with a Release 14 License File. Note, however, that licenses with borrowing enabled are not compatible with Release 12 and earlier releases.

The following table sums up the interoperability of different releases with license borrowing. In the table, note that you cannot run Release 12 (and earlier) products with a borrow-enabled License File. You can run Release 13 products with a borrow-enabled license, however, using the borrowing capability is not supported.

Release Family	Run MATLAB	Borrow Licenses
R14 (and later)	Yes	Yes
R13	Yes	Not supported.
R12 (and earlier)	No	No.

Enabling License Borrowing

To enable license borrowing, follow these instructions:

- 1 Request a License File from The MathWorks that includes the license borrowing capability. In these License Files, INCREMENT lines for products include the keyword BORROW=XXX, where XXX is the maximum number of hours the product can be borrowed. For example:

```
INCREMENT MATLAB MLM 17 01-jan-0000 5 52FCH63184G5 BORROW=720 \
DUP_GROUP=UH SN=220668
```

To request a license, go to the MathWorks Web site at www.mathworks.com and click **Support**. On the support page, under **Installation & Licensing**,

click the **Get assistance** link. For more information, see the Installation Guide for your platform.

- 2 On your license server, stop the license manager.
- 3 On your license server, copy the SERVER and DAEMON lines from the existing License File. For example, here are the SERVER and DAEMON lines from a License File:

```
SERVER mysystem 0012110gbc86 27000
DAEMON MLM C:\Program Files\MATLAB\flexlm\mlm.exe
```

On Windows systems, copy these lines from the License File:

```
$MATLAB\flexlm\license.dat
```

On UNIX systems, copy these lines from the License File:

```
$MATLAB/etc/license.dat
```

\$MATLAB represents the name of your MATLAB installation directory.

- 4 Paste the SERVER and DAEMON lines you copied from your existing License File at the top of your new License File.
- 5 On your license server, replace the existing License File with the new License File.

On Windows systems, replace the following file:

```
$MATLAB\flexlm\license.dat
```

On UNIX systems, replace the following file:

```
$MATLAB/etc/license.dat
```

- 6 Restart the license manager.
- 7 On each client system, replace the License File with this new License File, or make sure that the License Files on client systems only contain only two

lines: a SERVER line and a line that says USE_SERVER. (When used for a client installation, the installer replaces the DAEMON line in a License File with the USE_SERVER line and deletes all the INCREMENT lines.)

On Windows client systems, replace the following file:

```
$MATLAB\bin\win32\license.dat
```

On UNIX client systems, replace the following file:

```
$MATLAB/etc/license.dat
```

Initiating License Borrowing

To initiate license borrowing, you can use the `lmborrow` utility or the `LMTOOLS` application.

Using lmborrow (Windows)

- 1** Exit MATLAB, if you have it running. If you initiate license borrowing while MATLAB is running, you must restart MATLAB before you can borrow licenses.
- 2** Open a DOS command window. One way to do this is to select the **Run** option from the **Start** menu, type `cmd` in the text entry field, and then click **OK**.
- 3** Navigate to the `$MATLAB\bin\win32` folder, where `$MATLAB` represents the name of your MATLAB installation.
- 4** Run the `lmutil` command, specifying the `lmborrow` utility as an argument, as follows. (On Windows systems, FLEXnet packages all its license management utilities into one program, `lmutil`.)

```
lmutil lmborrow MLM dd-mmm-yyyy [hh:mm]
```

Argument	Description
MLM	Specifies the name of The MathWorks license manager vendor daemon.
dd-mmm-yyyy [hh:mm]	Specifies the end of the borrow period. Use three-letter abbreviations of the English month names, such as sep or oct. You can optionally specify the time [hh:mm] when the borrow period ends. If you do not specify the time, the borrow period lasts until midnight on the specified date.

Using LMTOOLS

Note These instructions assume your system administrator copied the LMTOOLS executable file (lmtools.exe) into the \$MATLAB\bin\win32 folder on your system. The MathWorks Installer does not install LMTOOLS on client systems.

- 1 Log in to your system and navigate to the \$MATLAB\bin\win32 folder, where \$MATLAB represents the name of your MATLAB installation.
- 2 Start LMTOOLS by double-clicking the lmtools.exe file.
- 3 Select the **Borrowing** tab in the LMTOOLS dialog box.
- 4 Fill in the **Return Date** and **Return Time** fields and click the **Set Borrow Expiration** button. You specify the date in dd-mmm-yyyy format and optionally the return time hh:mm. Use the three-letter abbreviations of the English month names, such as sep or oct.

Turning Off License Borrowing

After you have borrowed licenses for the products you want to use, you should turn off license borrowing. Otherwise, with borrowing initiated, you might borrow licenses unintentionally. The following sections describe how to turn off license borrowing on Windows client systems and UNIX client systems.

- “Turning Off Borrowing on Windows Systems” on page 5-13
- “Turning Off Borrowing on UNIX Systems” on page 5-14

Turning Off Borrowing on Windows Systems

- “Using the `lmborrow` utility” on page 5-13
- “Using the LMTOOLS Application” on page 5-13

Using the `lmborrow` utility.

- 1 Exit MATLAB.
- 2 Open a DOS command window. One way to do this is to select the **Run** option from the **Start** menu, type `cmd` in the text entry field, and then click **OK**.
- 3 Navigate to the `$MATLAB\bin\win32` folder.
- 4 Run the `lmutil` utility, specifying `lmborrow` as an argument with the `-clear` option. (On Windows systems, FLEXnet packages all of its license management utilities into one program, `lmutil`.)

```
lmutil lmborrow -clear
```

Using the LMTOOLS Application.

Note These instructions assume your system administrator copied the LMTOOLS executable file (`lmtools.exe`) into the `$MATLAB\bin\win32` folder on your system. The MathWorks Installer does not install LMTOOLS on client systems.

- 1 Exit MATLAB.
- 2 Move to the `$MATLAB\bin\win32` folder, where `$MATLAB` represents the name of your MATLAB installation.
- 3 Start LMTOOLS by double-clicking the `lmtools.exe` file.

- 4 Select the **Borrowing** tab in the LMTOOLS dialog box.
- 5 Click the **Don't Borrow Anymore Today** button.

Turning Off Borrowing on UNIX Systems

- 1 Exit MATLAB.
- 2 Move to the \$MATLAB/etc/arch directory, where arch specifies your UNIX platform.
- 3 Run the lmborrow utility, specifying the -clear flag.

```
lmborrow -clear
```

Determining Which Licenses Are Currently Borrowed

Macrovision provides tools that you can use to monitor the status of borrowed licenses in your network configuration. You can use the LMTOOLS application or the lmstat command.

Monitoring Borrowed Licenses with the LMTOOLS Application (Windows)

- 1 Log in to your license server.
- 2 Move to the \$MATLAB\flexlm folder, where \$MATLAB represents the name of your MATLAB installation.
- 3 Start the LMTOOLS application by double-clicking the lmtools.exe executable file.
- 4 Select the **Server Status** tab in the LMTOOLS dialog box.
- 5 Click the **Perform Status Enquiry** button. LMTOOLS displays the status information in the output window. In the status information, each entry in the list for a product shows the total number of licenses for the product and tells how many licenses are currently checked out. For borrowed licenses, the entry for the product includes the keyword (linger:XXX), where XXX specifies the borrow period in seconds.


```

lmutil - Copyright (c) 1989-2003 by Macrovision Corporation. All rights reserved
.
Flexible License Manager status on Wed 10/6/2007 10:04
[Detecting lmgrd processes...]
License server status: 27000@myserver
License file(s) on myservers: C:\Program Files\MATLAB\flexlm\license.dat:
myservers: license server UP (MASTER) v9.2
Vendor daemon status (on myservers):
MLM: UP v9.2
Feature usage info:
Users of TMW_Archive: (Uncounted, node-locked)
Users of MATLAB: (Total of 5 licenses issued; Total of 1 license in use)
"MATLAB" v14, vendor: MLM
floating license
myservers myservers (v14) (myservers/27000 101), start Tue 10/5 14:37
(linger: 121500)
Users of SIMULINK: (Total of 5 licenses issued; Total of 0 licenses in use)
Users of Control_Toolbox: (Total of 5 licenses issued; Total of 1 license in use)
"Control_Toolbox" v14, vendor: MLM
floating license
anyuser myservers myservers (v14) (myservers/27000 201), start Tue 10/5 14:37
(linger: 121500)

```

Using the lmstat utility (Windows)

- 1** Log in to your license server and open a DOS command window. You can do this by selecting the **Run** option on the **Start** menu.
- 2** Move to the \$MATLAB\flexlm folder.
- 3** Run the lmutil command specifying lmstat as an argument. (On Windows systems, FLEXnet packages all its license management utilities into one program, lmutil.)

The following example uses the -a option to display all the information returned by lmstat. Note that you must also use the -c option to specify the name of your License File. For more information about lmstat, see the *FLEXnet End User's Guide*.

```
lmutil lmstat -a -c C:\Program Files\MATLAB\flexlm\license.dat
```

In the status information returned by `lmstat`, each entry in the list for a product shows the total number of licenses for the product and tells how many licenses are currently checked out. For borrowed licenses, the entry for the product includes the keyword (`linger:XXX`), where `XXX` specifies the borrow period in seconds.

```
lmutil - Copyright (c) 1989-2003 by Macrovision Corporation. All rights reserved
.
Flexible License Manager status on Wed 10/6/2007 10:04
[Detecting lmgrd processes...]
License server status: 27000@myserver
License file(s) on myservers: C:\Program Files\MATLAB\flexlm\license.dat:
myservers: license server UP (MASTER) v9.2
Vendor daemon status (on myservers):
MLM: UP v9.2
Feature usage info:
Users of TMW_Archive: (Uncounted, node-locked)
Users of MATLAB: (Total of 5 licenses issued; Total of 1 license in use)
"MATLAB" v14, vendor: MLM
floating license
myservers myservers (v14) (myservers/27000 101), start Tue 10/5 14:37
(linger: 121500)
Users of SIMULINK: (Total of 5 licenses issued; Total of 0 licenses in use)
Users of Control_Toolbox: (Total of 5 licenses issued; Total of 1 license in use)
"Control_Toolbox" v14, vendor: MLM
floating license
anyuser myservers myservers (v14) (myservers/27000 201), start Tue 10/5 14:37
(linger: 121500)
```

Note If the license status information contains entries for the MATLAB Compiler, this does not necessarily mean that an end user has borrowed a license for the Compiler. The Compiler itself uses the license borrowing capability. To determine if a user has borrowed a license for the Compiler, check the expiration date specified in the listing and compare it to the expiration for products that you know were borrowed by an end user.

Using LMSTAT (UNIX)

- 1 Log in to your license server.
- 2 Move to the \$MATLAB/etc directory.
- 3 Run the lmstat utility.

```
lmstat -a -c /usr/local/MATLAB/etc/license.dat
```

Controlling License Borrowing with Options Files

You can control various aspects of license borrowing behavior using a FLEXnet options file. An options file is a text file that contains option statements. Each option statement begins with a keyword that identifies the option. The following table lists the options you use to control aspects of license borrowing. For more information about these options, see the FLEXnet End User's Guide. To see an example of an options file, see "Example: Excluding a User" on page 5-18.

Task	FLEXnet Option to Use
Reserve a specific number of licenses that cannot be borrowed.	<p>Use the BORROW_LOWWATER option.</p> <p>For example, to make sure that three MATLAB licenses can never be borrowed, use this syntax:</p> <pre>BORROW_LOWWATER matlab 3</pre>
Specify which users can borrow licenses for a particular product.	<p>Use the INCLUDE_BORROW option.</p> <p>For example, to allow the user Fred to borrow a license for the Image Processing Toolbox, use this syntax:</p> <pre>INCLUDE_BORROW image_toolbox USER fred</pre> <p>Note: When you specify that a particular user can borrow licenses, you exclude all other users.</p>

Task	FLEXnet Option to Use
Specify which users cannot borrow licenses for a particular product.	<p>Use the EXCLUDE_BORROW option.</p> <p>For example, to prevent the user Donna from borrowing a license for the Image Processing Toolbox, use this syntax:</p> <pre>EXCLUDE_BORROW image_toolbox USER donna</pre>
Specify the maximum amount of time a user can borrow a license.	<p>Use the MAX_BORROW_HOURS option.</p> <p>For example, to limit users of the Image Processing Toolbox to a three day borrow period, use this syntax:</p> <pre>MAX_BORROW_HOURS image_toolbox 72</pre> <p>The borrow period you specify must be less than 30 days, which is the borrow period specified in borrow-enabled licenses from The MathWorks.</p>

Example: Excluding a User

To illustrate using an options file to control license borrowing behavior, this example uses an options file to exclude a user from borrowing a license for a specific product:

- 1 Create the options file.

An options file is a text file that contains options statements. Using any text editor, create a file that contains the following line. You can give the options file any name and store it in any convenient folder.

```
EXCLUDE_BORROW simulink USER fred
```

- 2 Specify the name of the options file on the DAEMON line in your License File.

On your license server, use any simple text editor to edit your License File, adding the options= keyword to the DAEMON line, as follows. Be sure to use

the line continuation character (\) if the DAEMON line extends beyond a single line.

```
DAEMON MLM C:\Program Files\MATLAB\flexlm\mlm.exe \  
options=C:\myborrowoptions.opt
```

3 Start (or restart) the license manager so that it processes the options file.

After setting up this options file, test it by logging in as the user Fred. Start MATLAB and try to borrow a license for Simulink. You can do this using the license command at the MATLAB prompt, as follows.

```
license checkout simulink
```

Your attempt to borrow a license for Simulink as the user Fred should fail, displaying the following message.

```
License Manager Error -38.  
User/host on EXCLUDE list for feature  
Feature: simulink  
License path: C:\Program Files\MATLAB\bin\win32\license.dat;  
C:\Program Files\MATLAB\bin\win32\*.lic
```

Returning a Borrowed License Early

- “Returning Borrowed Licenses on Windows Systems” on page 5-19
- “Returning Borrowed Licenses on UNIX Systems” on page 5-20

Returning Borrowed Licenses on Windows Systems

- 1** Reconnect the client system on which the license was borrowed to the network.
- 2** Open a DOS command window. One way to do this is to select the **Run** option from the **Start** menu, type cmd in the text entry field, and then click **OK**.
- 3** Move to the \$MATLAB\bin\win32 folder.

- 4 Run the `lmutil` utility, specifying `lmborrow` as an argument with the `-return` option and the feature name of the product you want to return. You must also specify the full path of the License File on the client system, using the `-c` option. For example, to return a borrowed license for the Signal Processing Toolbox, you can use this code. Note that, in this syntax, the feature name is case-sensitive.

```
lmutil lmborrow -return -c C:\Program Files\MATLAB\flexlm\license.dat Signal_Toolbox
```

Returning Borrowed Licenses on UNIX Systems

- 1 Reconnect the system on which the license was borrowed to the network.
- 2 Navigate to `$MATLAB/etc/arch` directory, where `arch` specifies your UNIX platform.
- 3 Run the `lmborrow` utility, specifying the `-return` flag along with the feature name of the product you want to return. You must also specify the full path of the License File on the client system, using the `-c` option. For example, to return a borrowed license for the Signal Processing Toolbox, use this code. Note that, in this syntax, the feature name is case-sensitive.

```
lmborrow -return -c /usr/local/MATLAB/etc/license.dat  
Signal_Toolbox
```

Using Time-Outs to Free Idle License Keys

In this section...
“Overview” on page 5-21
“Enabling License Time-Outs” on page 5-21
“Experiencing a License Time-Out” on page 5-23

Note You can only use time-outs with concurrent licenses.

Overview

If you have a concurrent license, you can use the FLEXnet® licensing time-out option to automatically return idle license keys at your site. With license time-outs, the license manager automatically frees license keys that sit idle for a specified period of time, returning them to the pool of available license keys.

For example, when you start MATLAB and other products, such as toolboxes, you check out license keys for these products. If you go home without exiting your MATLAB session, these licenses remain checked out and are not available to other users. With time-out enabled, after your licenses sit idle for a specified period of time, the license manager releases the license keys for all the products you had been using and these keys become available to other users.

Enabling License Time-Outs

To take advantage of time-outs, you must specify the TIMEOUT option in a FLEXnet options file. A FLEXnet options file is a text file that contains license manager options statements, such as INCLUDE, EXCLUDE, and GROUP statements.

To enable time-outs, follow these instructions:

- 1 Create a FLEXnet options file, if one does not already exist, using any text editor. Name the options file `MLM.opt` and put the file in the `flexlm` folder in your MATLAB installation folder. For example, you might create the file

```
C:\Program Files\MATLAB\flexlm\MLM.opt
```

- 2 Add the TIMEOUT option to the options file, using the following syntax:

```
TIMEOUT feature seconds
```

For feature, specify MATLAB. You cannot specify separate time-out values for individual MathWorks products, such as toolboxes.

For seconds, specify the amount of idle time you want to allow. The minimum value is 4 hours (14,400 seconds). If you specify a time-out value that is smaller, the minimum value is used. For example, to specify a five hour time-out, enter the following in your options file.

```
TIMEOUT MATLAB 18000
```

Note FLEXnet licensing supports the TIMEOUTALL option that you can use to specify the time-out value used for all products. However, The MathWorks does not recommend using this option. The TIMEOUTALL option affects all the products listed in the License File which could include products from other vendors, not just MathWorks products. In addition, when you use the TIMEOUTALL option, the license manager log file can become misleading. For example, log file entries include whatever value you specify in the TIMEOUTALL option even if the actual value used is another value, such as the MathWorks minimum time-out value.

- 3 Make sure the DAEMON line in your License File specifies the location of your options file. The License File DAEMON line must include the options= syntax. For example, your DAEMON line might look like the following:

```
DAEMON MLM "C:\Program Files\MATLAB\R2008a\flexlm\mlm.exe" \  
options="C:\Program Files\MATLAB\R2008a\flexlm\mlm.opt"
```

- 4 Stop the license manager and restart it. Whenever you change the License File, or change the time-out value in the options file, you must restart the license manager.

Experiencing a License Time-Out

When time-out is enabled, if you open a MATLAB session, and then leave it inactive for more than 4 hours, when you return, you will find MATLAB still open on your desktop. However, you will see the following message displayed in the Command Window:

```
Your MATLAB session has timed out. All license keys have been returned.
```

The time-out is also recorded in the license manager log file, as follows:

```
Idle session. Returning keys for <user>@<machine>
```

To resume a timed-out MATLAB session, just start using MATLAB again. If a license key is available, MATLAB checks it out automatically. Likewise, as you use the toolboxes and other products that you had checked out, MATLAB obtains license keys for these products as well.

If a license key is not available, MATLAB periodically attempts to check out a license, issuing warning messages. After 10 warnings, if a license key is still not available, MATLAB saves the workspace and exits.

Note If you return to a timed-out Simulink® session, and no licenses are available, you cannot run or modify a currently open model. These menu options are disabled until a Simulink license key becomes available. You can, however, save a model in a timed-out Simulink session.

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