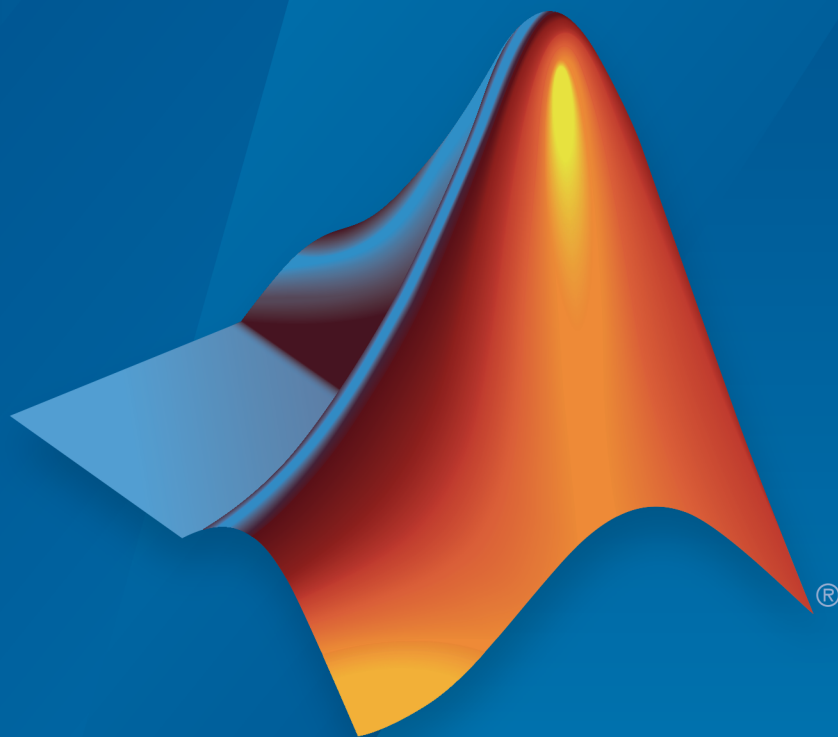


Installation, Licensing, and Activation

License Administration Guide



MATLAB® & SIMULINK®

R2015b



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License Administration Guide

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1 Licensing Overview

Audience	1-2
Related Documentation	1-3
License Options	1-4
Activation Types	1-5
License Option and Activation Type Matrix	1-6

2 Administering Individual Licenses

Overview	2-2
Install the Software	2-3
Activate the Installation	2-4
Overview	2-4
Validate a License	2-5
Deactivate a License	2-5
Post-Installation Tasks	2-7
Configure the MATLAB Startup Accelerator	2-7

Administering Group Licenses

3

Overview	3-2
Basic Administrative Tasks	3-2
A Sample Group License	3-4
Set Up Group Member Licenses	3-6
Overview	3-6
Associate Users with Group Member Licenses	3-9
Assign Products to Group Member Licenses	3-14
Use License Attributes to Customize a Group Member License	3-17
Set Up the Sample Group License	3-22
Install Software for Group Member Licenses	3-24
Overview	3-24
Sample Software Installation	3-25
Activate Group Member Licenses	3-26
Overview	3-26
Validate a License	3-27
Deactivate a License	3-27
Example: Activating the Software	3-28
Manage Group Licenses Earlier than R2008a	3-29

Administering Network Named User Licenses

4

Key Administrative Tasks	4-2
Set Up Named User Licensing	4-3
Check the Options File	4-4
Make Sure Your DAEMON Line Includes Your Options File .	4-5

Concurrent Licenses	5-2
Key Administrative Tasks	5-2
Design Your Network Configuration	5-3
 Install the Software in a Concurrent License	5-6
Configure the MATLAB Startup Accelerator on Client Systems	5-6
 Borrow Licenses	5-9
License Borrowing Overview	5-9
Enable License Borrowing	5-10
Manage License Borrowing	5-11
Turn on Borrow Products Menu Option	5-15
Borrow Product Licenses by Selecting Products	5-17
Borrow Product Licenses Automatically	5-19
Return Borrowed Licenses Early	5-20
 Use Timeouts for Idle License Keys	5-23
Overview	5-23
Enable License Timeouts	5-23
Experiencing a License Timeout	5-25

Licensing Overview

- “Audience” on page 1-2
- “License Options” on page 1-4
- “Activation Types” on page 1-5
- “License Option and Activation Type Matrix” on page 1-6

Audience

This guide is intended to help the person charged with installing and activating MathWorks® products. MathWorks calls this person the Administrator contact on the license. When you purchase products, 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 contact can be an actual system administrator who sets up MathWorks products in network configurations.

In addition to the Administrator contact, 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 contact can delegate certain administrative tasks to these end users. Likewise, a license can have one or more Asset Manager contacts. The Asset Manager contact has the same privileges as the Administrator contact and can serve as a back-up administrator. At large sites, the Asset Manager contact 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 documentation.

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.

License Option ¹	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, installs and administers the license
Network Named User	You would like to use the license manager to provide named user licenses over a network using user-based licensing
Concurrent	Your organization has standardized on the FlexNet [®] license manager, or you need to impose strict limits on software use for accounting or license management purposes.

¹ Licenses for academic institutions do not support all license options.

Activation Types

This table describes the activation types supported by MathWorks. For information about which activation type you can use with specific license options, see “License Option and Activation Type Matrix” on page 1-6

Activation Type ¹	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 nonsimultaneous use by multiple people.
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.

¹ Licenses for academic institutions do not support all activation types.

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 activation types.

License Option ¹	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

¹ Licenses for academic institutions do not support all license options or activation types.

Administering Individual Licenses

- “Overview” on page 2-2
- “Install the Software” on page 2-3
- “Activate the Installation” on page 2-4
- “Post-Installation Tasks” on page 2-7

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 “Install the Software” on page 2-3.
- Activating the installation — After you install the software on your computer, you must activate the software—see “Activate the Installation” on page 2-4.

Install the Software

To install MathWorks products on an Individual license, run the MathWorks installer. 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 documentation.

- **If you do not have a MathWorks Account** — You can create MathWorks Account during the installation process. You will need an *Activation Key*, which identifies a particular license in 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 website. For instructions, see the License Center help. If you create an account during installation, you must verify your account via email before you can complete the installation.
- **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 website. For instructions, see the License Center help.

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. If you activate the software immediately after installation and 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 “Activate the Installation” on page 2-4 for more information.

Activate the Installation

In this section...
“Overview” on page 2-4
“Validate a License” on page 2-5
“Deactivate a License” on page 2-5

Overview

After you install MathWorks products on your computer, you must activate the 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 required information. 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, you 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 contact on the license can preset the activation type in 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. Each

Activation Type	Description
	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 MathWorks systems and creates a License File that is locked to the particular computer. If the activation type is Standalone Named User, 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 website — see the License Center help for instructions. In the MathWorks Software Activation dialog box, choose the **Activate manually without the Internet** option. In the Offline Activation dialog box, specify the location of your License File.

Validate a License

After activation completes, you can run MathWorks products. Throughout the term of your license, your MATLAB® installation periodically contacts 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 website. A license can get out-of-date, for example, if you purchase additional products. The Administrator contact on the license can change this validation behavior by modifying the validation settings on a license. For instructions, see the License Center Help.

Deactivate 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 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 website and enter the deactivation string to disable the activation in MathWorks systems.

For step-by-step instructions about deactivation, see the installation documentation.

Post-Installation Tasks

After you install and activation MathWorks software, there are some optional tasks you can do to customize your installation. For information about these options, see the installation documentation. This section describes some additional post-installation tasks.

Configure the MATLAB Startup Accelerator

When you install MathWorks products on your computer, the installation includes a utility program that can speed up MATLAB startup, called the MATLAB Startup Accelerator. By default, the installer configures this utility as a scheduled task on your computer that runs several times each day. (For information about changing this default behavior, see “Install Without Configuring the MATLAB Startup Accelerator” on page 5-7.)

While you are not required to modify this configuration, the startup accelerator works best if you coordinate when it runs with your particular MATLAB usage patterns. For example, by default, the startup accelerator runs at 8:00 a.m. and again at 1:00 p.m. every day, or whenever you logon to your computer. To take full advantage of the startup accelerator, you should schedule it to run at a time just before you typically start MATLAB.

To modify this configuration, use the Windows Task Scheduler. In the Windows Task Scheduler, these start times are called *triggers*. You can modify these triggers to customize when the startup accelerator runs. You can also add triggers, delete triggers, or delete the startup accelerator task completely. The following section shows how to change when the startup accelerator runs using the Windows Task Scheduler. For more information about the Task Scheduler, see Windows documentation.

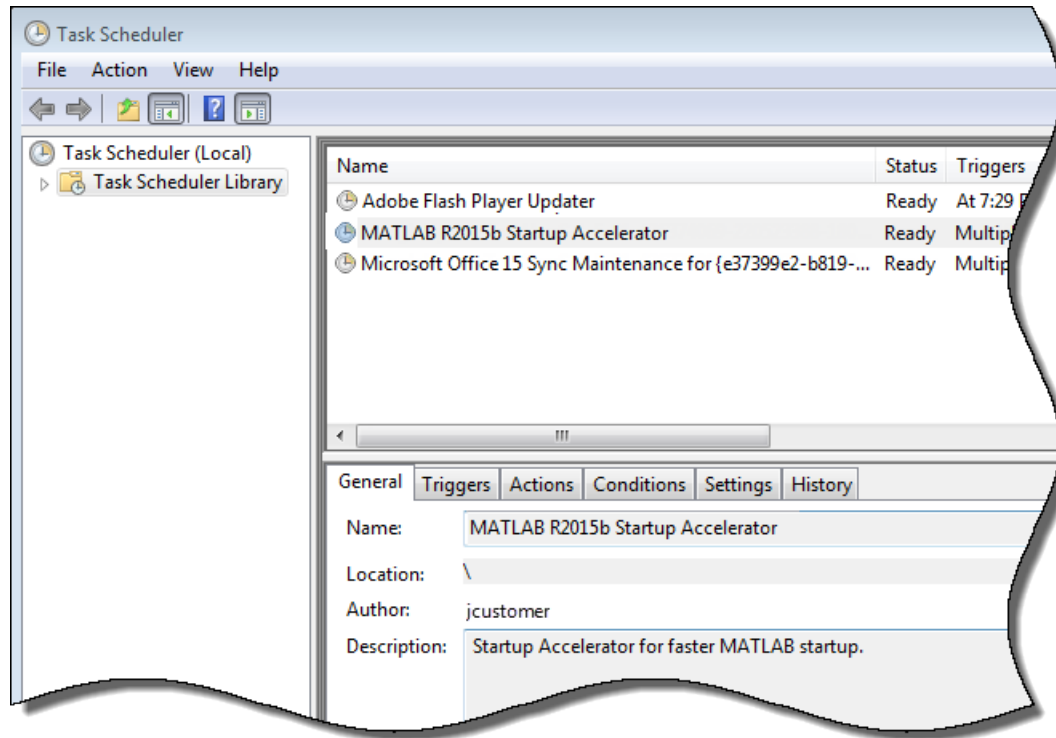
Change When the MATLAB Startup Accelerator Runs

To change when the MATLAB Startup Accelerator runs on your computer, use the Windows Task Scheduler.

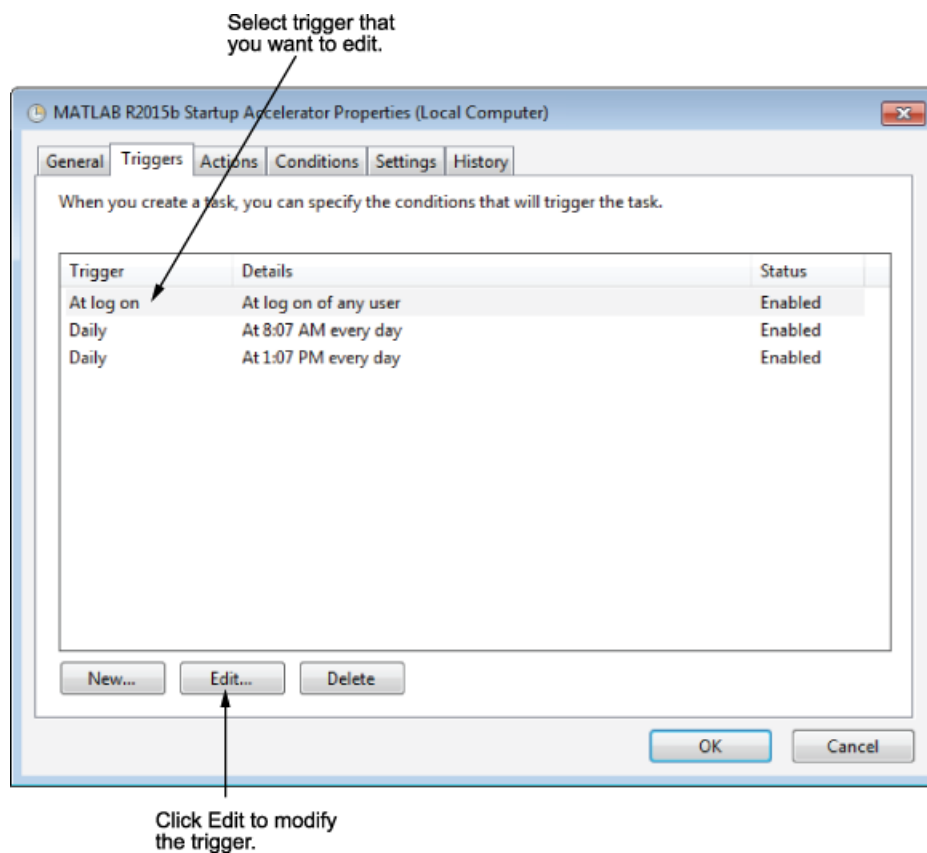
- 1 Start the Windows Task Scheduler.

On the Windows Start menu, search for the phrase “task scheduler” and press **Enter**.

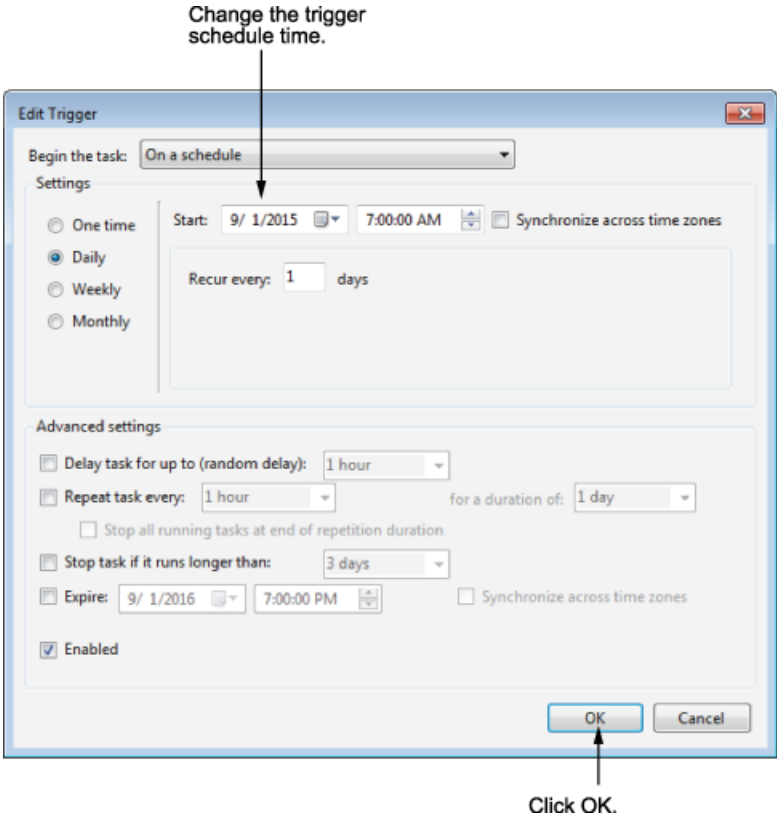
- 2 Click **Task Scheduler Library** in the Console tree to view scheduled tasks and double-click the name of the startup accelerator to change the configuration.



- 3 To change when the task is scheduled to start, click the Trigger tab in the task properties dialog box. In the list of triggers displayed, select the trigger you want to change, and click **Edit**.



- 4 To change the time the task is scheduled to run, enter a new time and click **OK**.



Administering Group Licenses

- “Overview” on page 3-2
- “Set Up Group Member Licenses” on page 3-6
- “Install Software for Group Member Licenses” on page 3-24
- “Activate Group Member Licenses” on page 3-26
- “Manage Group Licenses Earlier than R2008a” on page 3-29

Overview

In this section...

“Basic Administrative Tasks” on page 3-2

“A Sample Group License” on page 3-4

Basic Administrative Tasks

A Group license is a collection of Individual licenses, gathered together for the convenience of centralized administration. The Individual licenses in a Group license are called *Group Member licenses*.

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. MathWorks automatically creates one Group Member license for each copy of MATLAB you purchase because each individual installation requires MATLAB. If any of the other products on the Group license have the same user count as MATLAB, MathWorks preassigns those products to the Group Member licenses as well. Initially, products with varying user counts remain on the Group license as unallocated products.

As Administrator contact for a Group license, your primary responsibility is to ensure that only authorized users have access to MathWorks products you install and to ensure that individual users have access to only those products for which they are licensed. This role involves the following fundamental tasks:

- **Setting up the Group Member licenses** — Depending on the product configuration of your Group license and the amount of control you want to retain over the licenses, setup can involve:
 - **Associating each user with a Group Member license** — For more information, see “Associate Users with Group Member Licenses” on page 3-9. This step is optional for licenses that are locked to a particular computer but not a particular user.
 - **Assigning products to Group Member licenses** — Each user in your Group license can require different sets of MathWorks products. You must assign the products required by a user to that user's Group Member license. For more information, see “Assign Products to Group Member Licenses” on page 3-14.

- **Using license attributes to help track and control Group Member licenses** — You can use license attributes to help you track and control the Group Member licenses in your Group license. For example, using license attributes you can assign labels to licenses and specify how much access users have to products and activations. For more information, see “Use License Attributes to Customize a Group Member License” on page 3-17.

To perform these administrative tasks, use the License Center at the MathWorks website. The License Center is the primary tool for managing and tracking license usage.

- **Installing software on users' computers** — After setting up the Group Member licenses, you, an Asset Manager, or the user must install the software on users' computers. For more information, see “Install Software for Group Member Licenses” on page 3-24.
- **Activating each installation** — After the software is installed for each Group Member license, you must activate the installation. (The Group license itself does not need to be activated.) For more information, see “Activate Group Member Licenses” on page 3-26.

Repeat these steps for each Group Member license you want to set up. Depending on the product configuration of your Group license and the needs of your site, you might not have to perform every step. For example, if all the products on your Group License have the same user counts as MATLAB, MathWorks automatically preassigns the products to the Group Member licenses.

A Sample Group License

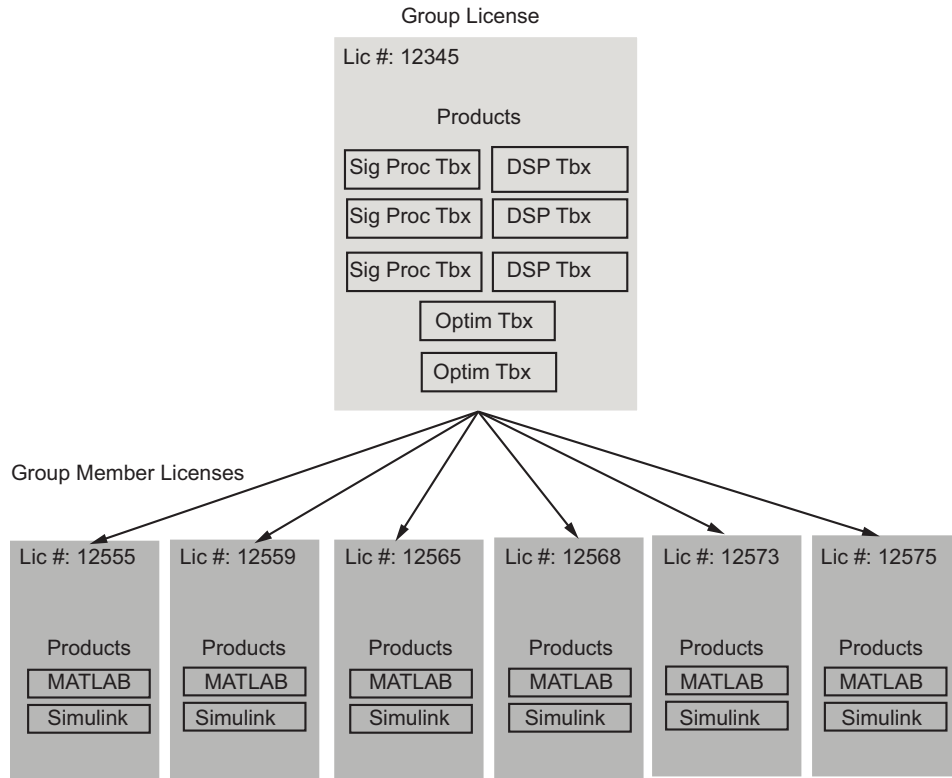
To illustrate, this example describes a sample Group license for a small department made up of five people: Abby, Bruce, Clive, David, and Ellen. Each person in the group needs a certain set of products, shown in the following table. In addition, the team wants to set up a computer in their lab that 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	
DSP System Toolbox™		x	x		x	
Optimization Toolbox™	x			x		

When you purchase a Group license for this department, 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 contact on the license.

MathWorks also creates a number of Group Member licenses for the Group license—one for each copy of MATLAB that you purchased. 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

Set Up Group Member Licenses

In this section...

“Overview” on page 3-6

“Associate Users with Group Member Licenses” on page 3-9

“Assign Products to Group Member Licenses” on page 3-14

“Use License Attributes to Customize a Group Member License” on page 3-17

“Set Up the Sample Group License” on page 3-22

Overview

As the Administrator contact for 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.

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 setup tasks for one license at a time.

View the Group License in the License Center

To perform these tasks, go to the MathWorks website and log in to your MathWorks Account. MathWorks automatically creates an account for the Administrator contact on a every license. On the My Account page, click **Manage Licenses** to get to the License Center.

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.

Licenses								
			Download Report			Add License		Search
License No.	Label	Option	Use	Activation Type	My Role	Administrator		
831782		Group	Commercial		Administrator	Customer, J.		

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. 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.

The following figure shows a Group license in the License Center.

GroupLicense

List of Group Member Licenses.

Licenses

Download Report View Full License List Add License Search

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

Label: Option: Group Term: Perpetual
Use: Commercial Release: R2015b

Products on License

Download Products Request DVD and Printed Guides Assign Products Unassign Products

Count	Product	Maintenance End Date	Count Available to Assign
6	MATLAB®	01 Mar 2016	0
6	Simulink®	01 Mar 2016	0
2	Optimization Toolbox™	01 Mar 2016	2
3	Signal Processing Blockset	01 Mar 2016	3
3	Signal Processing Toolbox	01 Mar 2016	3

Detail screen for Group License.

Associate 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 and 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.

Instead of performing the task 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 website, 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. 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.

The following figure shows a Group Member license.

3 Administering Group Licenses

Select Group Member License.

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 | End Users and License Contacts | Passcodes

License Attributes for 596386

License Label:	
Group License:	596385
E-mail Domains:	Allowed mathworks.com

Option:	Group Member
Activation Type:	Unset

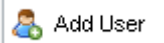
Use:	Commercial
Term:	Perpetual
Release:	R2015b

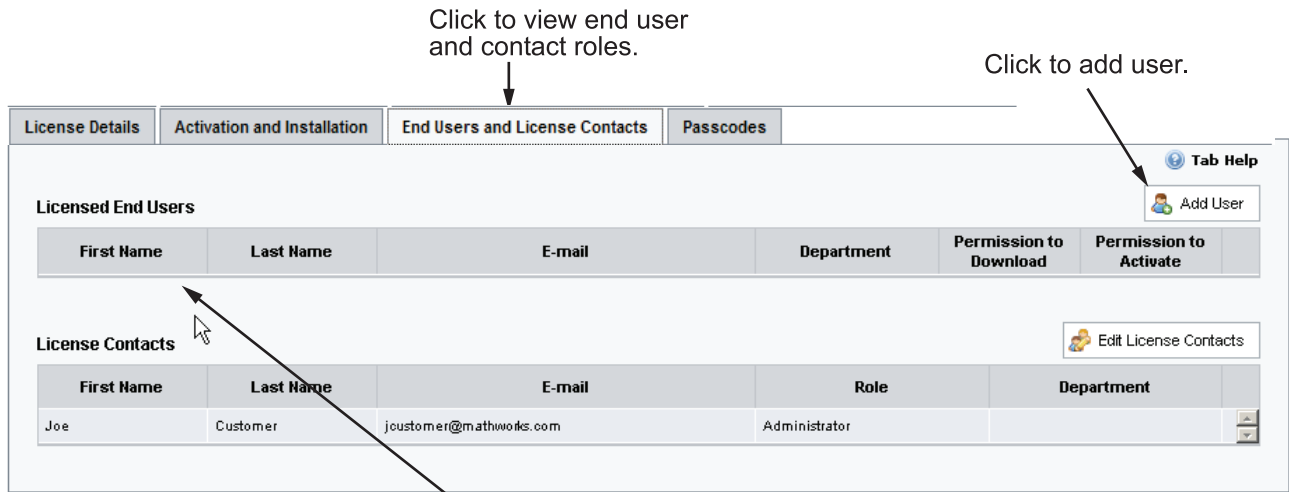
Products on License

Count	Product	Maintenance End Date
1	MATLAB®	01 Mar 2016
1	Simulink®	01 Mar 2016

Products on Group Member License.

Attributes of Group Member License.

- 2 To associate a user with the Group Member license, click the **End Users and License Contacts** tab. If there currently isn't any Licensed End User associated with the license, add one by clicking .



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 Add the user by entering the email address, first name and last name of the user you want to associated with the license, and click **Continue**. 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. The following figure shows adding one of the users in the example Group license to a 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](#).

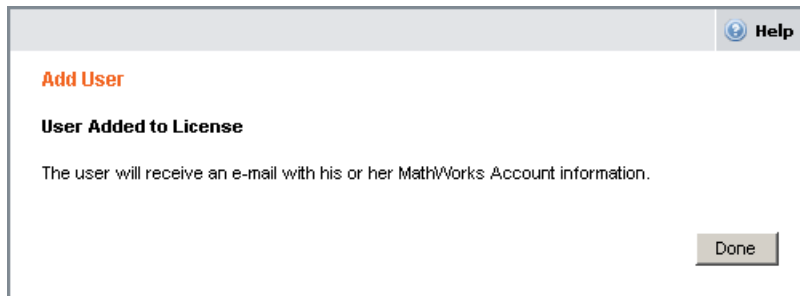
- 4 Specify whether you want to grant the user permission to download products on the license or permission to activate an installation of the license. Accept the default value or select a value and then click **Continue**.

Add User

Set User Permissions for Abby Rhode

Permission to Download	Permission to Activate
<input checked="" type="radio"/> Not Allowed	<input type="radio"/> Not Allowed
<input type="radio"/> Allowed	<input checked="" type="radio"/> Allowed

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



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

User added to Group Member license.

License Details Activation and Installation **End Users and License Contacts** Passcodes

Tab Help

Licensed End Users [E-mail Users](#) [Remove User](#) [Set User Permissions](#)

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

License Contacts [Edit License Contacts](#)

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

Assign Products to Group Member Licenses

Note: If all the products on your Group license have the same user count as the MATLAB product, 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.

License Details Activation and Installation End Users and License Contacts Passcodes

Tab Help

License Attributes for 596386


License Label:		Option:	Group Member	Use:	Commercial
Group License:	596385	Activation Type:	Unset	Terms:	Perpetual
E-mail Domains:	Allowed mathworks.com			Release:	R2015b

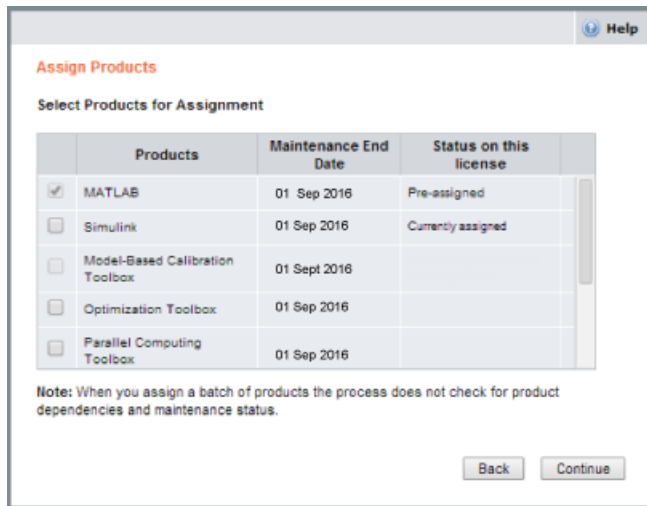
Products on License

Count	Product	Maintenance End Date
1	MATLAB®	01 Mar 2016
1	Simulink®	01 Mar 2016

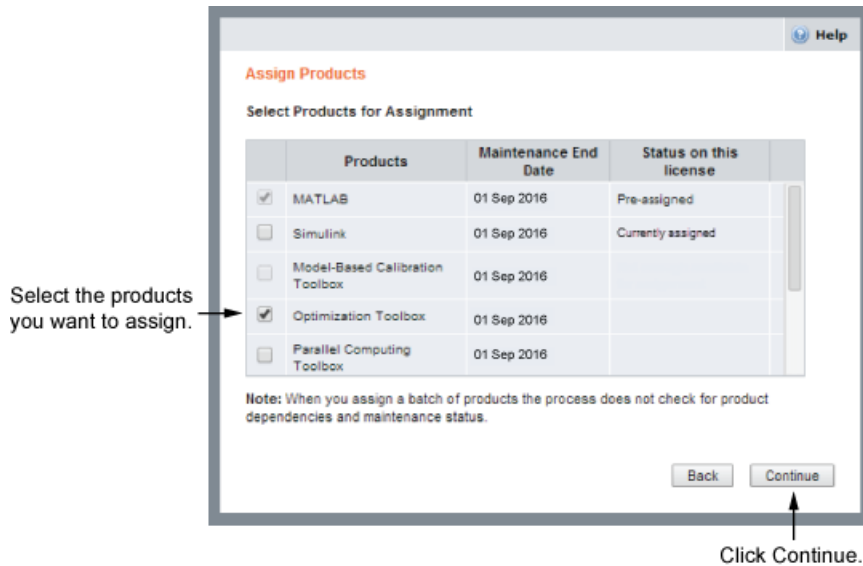
Assign/Unassign Products

Products on license.

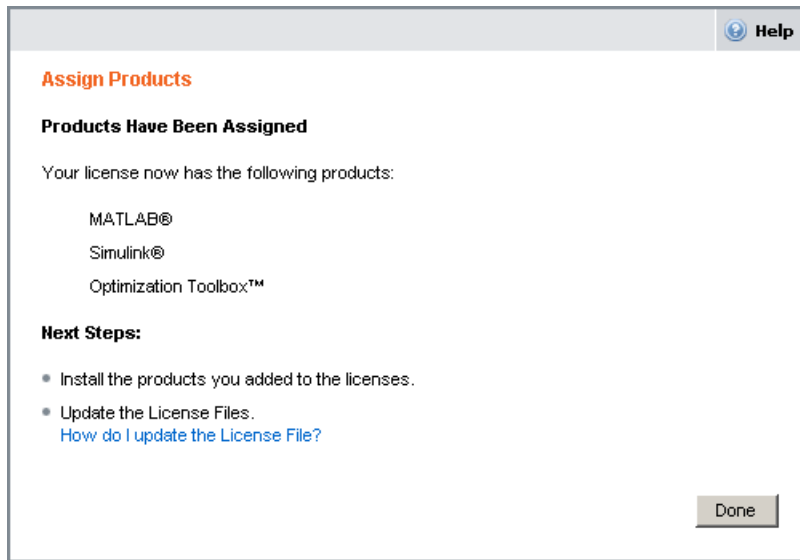
- 2 Click  Assign/Unassign Products to open the Assign Products dialog box.



- 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**.



The License Center updates the product list in the License Details panel for the Group Member license. If you view the Group license, the License Center decrements the count of products available for assignment for the product, to reflect this change.

The following figure shows the updated display.

License Details Activation and Installation End Users and License Contacts Passcodes [Tab Help](#)

License Attributes for 596386

License Label:		Option:	Group Member	Use:	Commercial
Group License:	596386	Activation Type:	Unset	Term:	Perpetual
E-mail Domains:	Allowed mathworks.com			Release:	R2015b

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

Count	Product	Maintenance End Date
1	MATLAB®	01 Mar 2016
1	Simulink®	01 Mar 2016
1	Optimization Toolbox™	01 Mar 2016

Display updates to
show added product.

Use 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. For additional examples of setting some common license attributes, see “Preset the Activation Type” on page 3-20.

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

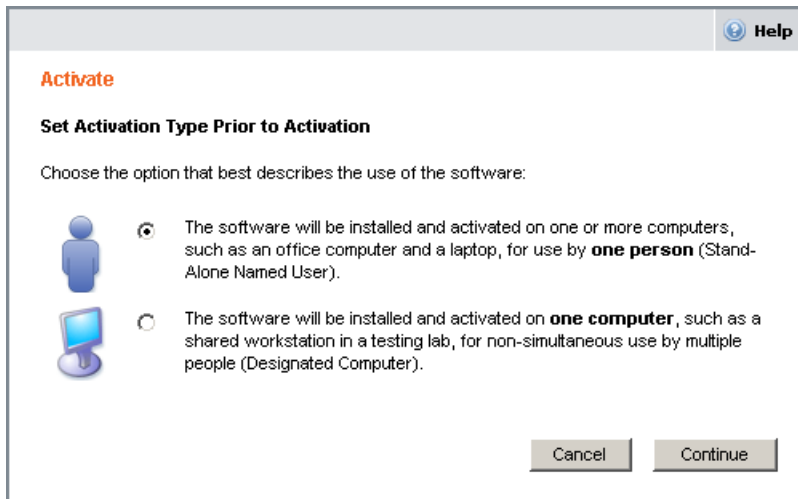
Attributes	Description	Default
Activation Type	Specifies the Activation Type of the license. For Individual and Group licenses, this can be Standalone Named User or Designated Computer. Set this on the Activation and Installation tab.	Unset
Allow Activating	Specifies whether a Licensed End User can activate an installation. If you deny this permission, the user must specify an Activation Key to activate an installation. Set this on the End Users and License Contacts tab.	Allowed
Allow Downloading	Specifies whether the Licensed End User can download products on the license. Set this on the End Users and License Contacts tab. This setting can be a convenience if you have many Group Member licenses and you want to off-load the task to users. If you want to retain close control over product usage, leave this attribute at its default value.	Not allowed. Only Administrator contact or Asset Manager contact have download permission.
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 End Users and License Contacts tab.	Unset
License File Expiration	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

Attributes	Description	Default
Validation from Product	Specifies whether your installation periodically contacts MathWorks to make sure the license is up to date. If you set this attribute to disabled, 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.	Enabled

Preset 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 in the License Center. 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**.



Assign a Descriptive Label to License

To set the License Label attribute, click the **License Details** tab in the License Center. On the panel, click the edit icon in the License label field. Enter a text string and click **Continue**.

License Label

Edit License Label

Enter a text description that identifies your license. It can be any combination of letters and numbers, up to 15 characters, and does not need to be unique.

License Label: (Optional)

Example: Engineering

Cancel Done

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

Licenses		Download Report View Full License List Add License Search					
	↓ 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.

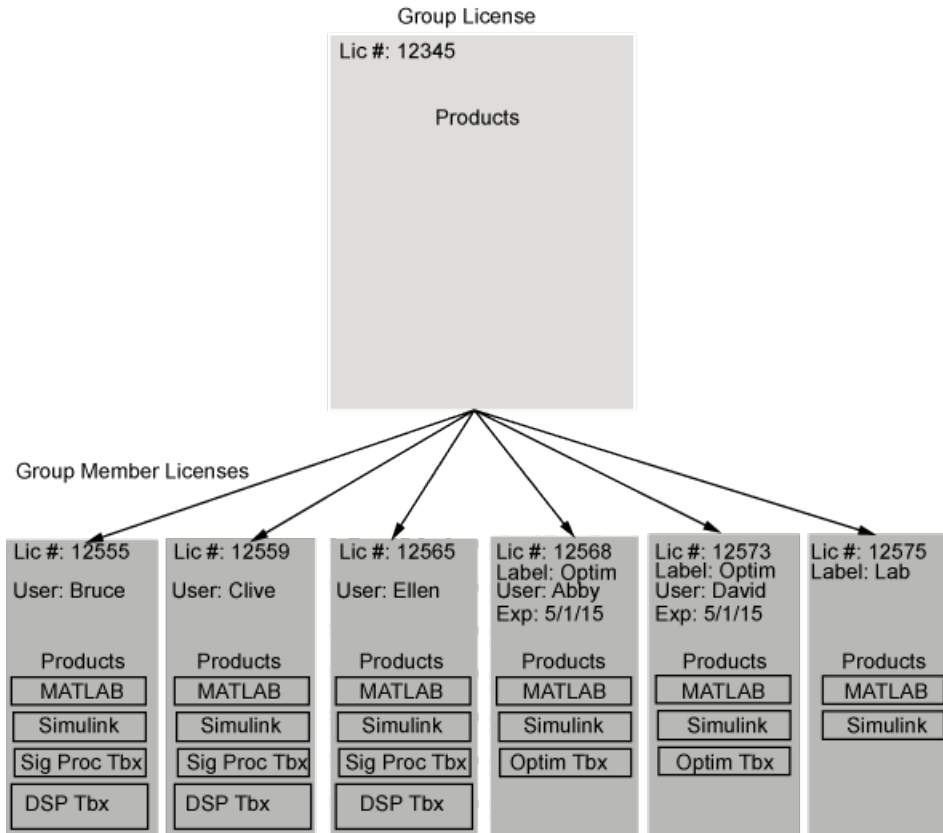
Set Up the Sample Group License

In the example introduced previously (see “A Sample Group License” on page 3-4), five of the Group Member licenses are intended for specific users. One Group Member license is intended for installation on a lab computer. To set up this sample Group license, you must:

- Associate users with Group Member licenses.
- Preset the Activation Type on all the licenses.
- Set 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.
- Turn 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.
- Set the License Labels on Abby and David's licenses to identify them as used on the special project.
- Set 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



Install Software for Group Member Licenses

In this section...
“Overview” on page 3-24
“Sample Software Installation” on page 3-25

Overview

After you set up the Group Member licenses, you as the Administrator contact for the Group license, must ensure the software is installed on your users' computers. You do not install software for the Group license itself—only for the Group Member licenses. 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 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 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 website 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.

If your users do not have an Internet connection, you must give each user a File Installation Key to install MathWorks products. The File Installation Key identifies the set of products they can install. To retrieve a File Installation Key, go to License Center on the MathWorks website. Select a Group Member License and 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 use.

For step-by-step installation instructions, see the installation documentation.

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. If you activate the software immediately after installation and you are already logged in to your MathWorks Account, the activation process skips 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 “Activate Group Member Licenses” on page 3-26 for more information.

Sample Software Installation

In the example introduced previously (see “A Sample Group License” on page 3-4), 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.

Activate Group Member Licenses

In this section...
“Overview” on page 3-26
“Validate a License” on page 3-27
“Deactivate a License” on page 3-27
“Example: Activating the Software” on page 3-28

Overview

After installing the software on each group member's computer, activating the installations is the next step. Activation is a process in which MathWorks validates the license and ensures that it is only used on computers that the license option allows.

To activate a Group Member license, run the MathWorks activation application on your computer. For step-by-step instructions, see the installation documentation.

During activation, you log in to your MathWorks Account, select the license that you want to activate, and provide other required information. 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 start 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.

Activation Type	Description
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.

The activation application validates the activation in MathWorks systems and creates a License File that is locked to the particular computer. If the activation type is Standalone Named User, 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 website—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 documentation.

Validate a License

After activation is completed, you can run 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 MathWorks website. 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.

Deactivate 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 website and enter the deactivation string to disable the activation in MathWorks systems.

For more information about deactivating, see the installation documentation.

Example: Activating the Software

In the example introduced previously (see “A Sample Group License” on page 3-4), 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. If users choose to activate the software immediately after installation, the installer starts the activation application automatically. Since you preset the Activation Type for each Group Member license, users do not select this option during activation. When activation is complete, users can run MathWorks software on their systems.

Manage 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 and later Group licenses, described in “Set Up Group Member Licenses” on page 3-6. To install R2007b Group Member licences, however, you must get the Personal License Passcodes (PLPs) used for licensing previous releases of MathWorks products.

To get these PLPs:

- 1** Go to the License Center
- 2** Select a Group Member license.
- 3** Select the **Passcodes** tab.

Administering Network Named User Licenses

- “Key Administrative Tasks” on page 4-2
- “Set Up Named User Licensing” on page 4-3

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 user count.

As the Administrator contact 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.

Set Up Named User Licensing

With Network Named User licenses, 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.

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 “Check the Options File” on page 4-4.
- Check that the **DAEMON** line in your License File includes the options file location — see “Make Sure Your DAEMON Line Includes Your Options File” on page 4-5.

For more detailed information about creating FlexNet options files, see the FlexNet *License Administration Guide*, available in PDF form in *matlabroot/etc/LicenseAdministration.pdf*, where *matlabroot* represents your installation folder.

Check the Options File

As part of the installation process, the MathWorks installer creates a FlexNet options file, named `MLM.opt`, in the `etc` subfolder of your top-level MATLAB installation folder. 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 MathWorks licensed under Individual (Linux[®] or Mac OS X 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.

Make 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\R2015b\etc\win64\MLM.exe" \
           options="C:\Program Files\MATLAB\R2015b\etc\mlm.opt"
```


Administering Concurrent Licenses

This topic describes how to administer a Concurrent User license.

- “Concurrent Licenses” on page 5-2
- “Install the Software in a Concurrent License” on page 5-6
- “Borrow Licenses” on page 5-9
- “Use Timeouts for Idle License Keys” on page 5-23

Concurrent Licenses

In this section...
“Key Administrative Tasks” on page 5-2
“Design 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. Decide whether users will install MATLAB on their computers or access MATLAB over a network. See “Design 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 “Install the Software in a Concurrent License” on page 5-6.

Note: You must activate the license for the installation before you run the installer. To retrieve the License File needed for your configuration, visit the License Center at the MathWorks website. 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.

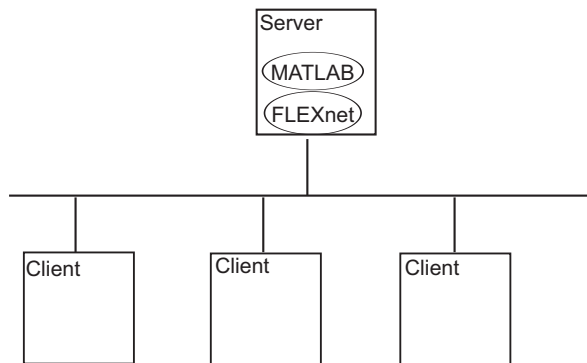
Design Your Network Configuration

For network installations, MathWorks uses a license manager program, FlexNet Publisher, a product of Flexera Software, Inc. 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 MathWorks products into an already established license management scheme, you can copy the MathWorks license management daemons onto your system.

Before you install MATLAB in a network installation, 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.

Set 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.

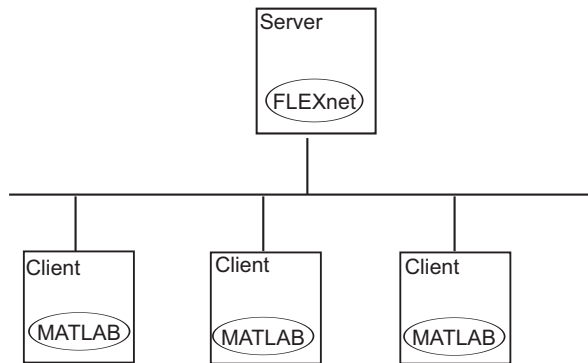


If your license server runs the Windows operating system, follow the instructions in the installation documentation. Your configuration can include a mixture of systems, for example, a Linux license server can serve clients running Windows.

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.

Set 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 notes any differences between the installations.

Install the Software in a Concurrent License

You, as Administrator contact, 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 computer running Windows can act as a license server for Linux or Mac OS X clients, and conversely. For instructions about installing MATLAB products on a license server, see the license manager installation instructions in the installation documentation.

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 communicate with the server only 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 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 documentation. The following sections highlight some additional information about these installations.

Configure the MATLAB Startup Accelerator on Client Systems

When you install MathWorks products, the installation includes a utility program that can speed up MATLAB startup, called the MATLAB Startup Accelerator. By default, the installer configures this utility as a scheduled task on your computer that runs several times each day. (For information about changing this default behavior, see “Install Without Configuring the MATLAB Startup Accelerator” on page 5-7.)

In network configurations, the computer on which you install MathWorks products may not be the computer on which you (and others) use MathWorks products. For example, in remote access configurations, you install MathWorks products on a server and clients run MATLAB from the server over the network. In this scenario, clients could benefit from the startup accelerator, especially when starting MATLAB over the network, but the utility is not installed and configured on their computers.

To speed up MATLAB startup on client systems, MathWorks includes a second utility that can configure the MATLAB startup accelerator on computers where MathWorks products are not installed. The following section describes how to run this startup accelerator configuration utility on client systems.

Install the MATLAB Startup Accelerator on a Network Client System

To install the MATLAB Startup Accelerator on client systems in a network installation, follow this procedure.

- 1** Install MathWorks products on your server.
- 2** Distribute the network location of the startup accelerator configuration utility to network clients. The startup accelerator configuration utility is named `InstallMATLABStartupAccelerator.exe` and is located in the `matlabroot/etc/$ARCH` folder, where `matlabroot` represents the MATLAB installation folder on the server and `$ARCH` represents a platform-specific folder.
- 3** On each client system, run the startup accelerator configuration utility. This utility adds the MATLAB Startup Accelerator as a scheduled task on the client computer. By default, the task is scheduled to run at 8:00 a.m. and again at 1:00 p.m., but you can change this configuration using the Windows Task Scheduler. (For more information, see “Configure the MATLAB Startup Accelerator on Client Systems” on page 5-6.)

Install Without Configuring the MATLAB Startup Accelerator

When you install MathWorks products, the installer configures the MATLAB Startup Accelerator as a scheduled task on your computer. If you prefer to install MathWorks products without configuring the startup accelerator, use the `createAccelTask` option

on the installer command line or in an installer input file. A sample installer input file, named `installer_input.txt`, is included in the top-level folder on the MathWorks product DVD. You can customize this file to suit your needs.

For example, to install MathWorks products without configuring the startup accelerator, run the installer and specify the `createAccelTask` option on the command line, setting the value to `false`.

```
setup.exe -createAccelTask false
```

Borrow Licenses

In this section...

- “License Borrowing Overview” on page 5-9
- “Enable License Borrowing” on page 5-10
- “Manage License Borrowing” on page 5-11
- “Turn on Borrow Products Menu Option” on page 5-15
- “Borrow Product Licenses by Selecting Products” on page 5-17
- “Borrow Product Licenses Automatically” on page 5-19
- “Return Borrowed Licenses Early” on page 5-20

License Borrowing Overview

To provide license mobility, MathWorks supports FlexNet license borrowing. This capability lets you use MathWorks products on computers that do not have a continuous connection to the license server. After you borrow a license, you can disconnect your system from the network and continue to use the products you have checked out until the borrow period expires. You can also return a borrowed license early.

Limitations

The following limitations apply to license borrowing:

- Academic licenses, including Group and Concurrent licenses, cannot use license borrowing.
Commercial Concurrent and Network Named User licenses can use license borrowing.
- The maximum borrow period is 30 days (720 hours).
- License borrowing is only available with license servers running FlexNet v9.2 or later. For Network Named User licenses, your license servers must be running FlexNet 11.6.1 or later.
- MathWorks products must be installed on client systems.

Interoperability with Previous MATLAB Releases

MathWorks tries to preserve licensing backward compatibility between releases. For example, you can run R2014b products with a R2015b License File.

Borrowed licenses are not compatible with Release 12 and earlier releases. You can run Release 13 products with a borrow-enabled license, however, using the borrowing capability is not supported.

The following table sums up the interoperability of different releases with borrow-enabled licenses.

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

Enable License Borrowing

You must be an Administrator of the license to enable license borrowing.

- 1 Request a License File from MathWorks that includes the license borrowing capability. To request a license, go to the MathWorks website at www.mathworks.com, and click **Support**. On the support page, click **Contact support**.

Notes

- In these License Files, the **INCREMENT** lines for products include the keyword **BORROW=720**, where **720** is the maximum number of hours in the borrow period (you cannot change this value). For example:

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

- The maximum borrow period of 720 hours is equal to 30 days.
-

- 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, `matlabroot/etc/license.dat`, where *matlabroot* represents your MATLAB installation folder. For example, here are the **SERVER** and **DAEMON** lines from a License File:

```
SERVER mysystem 0012110gbc86 27000
```

DAEMON MLM C:\Program Files\MATLAB\R2015b\etc\win64\MLM.exe

- 4 Paste the **SERVER** and **DAEMON** lines that you copied from your existing License File at the top of the new License File that includes the license borrowing capability.
- 5 On your license server, replace the existing License File with the new License File.
- 6 Restart the license manager.

Manage License Borrowing

Use an options file to control license borrowing behavior. Use FlexNet tools to monitor which licenses are borrowed.

Control 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 5-12.

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

Task	FlexNet Option to Use
	<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 <code>MAX_BORROW_HOURS</code> 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 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\R2015b\etc\win64\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\win64\license.dat;
C:\Program Files\MATLAB\bin\win64\*.lic
```

Determine Which Licenses Are Currently Borrowed

Flexera Software, Inc, the makers of FlexNet, 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.

Use the LMTOOLS Application on Windows Systems

- 1 Log in to your license server.
- 2 Navigate to the *matlabroot*\etc\\${ARCH} folder, where *matlabroot* represents the name of your MATLAB installation and \${ARCH} represents a platform-specific folder.
- 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.

```
-----
Status
-----
Flexible License Manager status on Mon 7/6/2015 10:04
[Detecting lmgrd processes...]
License server status: 27000@myserver
License file(s) on myserver: C:\Program Files\MATLAB\R2015b\etc\license.dat:

myserver: license server UP (MASTER) v11.9

Vendor daemon status (on myserver):
MLM: UP v11.9
```

```
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
myserver myserver (v14) (myserver/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 myserver myserver (v14) (myserver/27000 201), start Tue 10/5 14:37
(linger: 121500)
```

Use the `lmstat` utility on Windows Systems

- 1 Log in to your license server and open a DOS command window. One way to open the DOS command window is to select the **Run** option from the **Start** menu, type `cmd` in the text entry field, and then click **OK**.
- 2 Navigate to the `matlabroot\etc\$ARCH` folder, where `matlabroot` represents the name of your MATLAB installation and `$ARCH` represents a platform-specific 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\R2015b\etc\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) 1989-2010 by Flexera Software, Inc.
All Rights Reserved.
```

```
Flexible License Manager status on Wed 7/6/2015 10:04
[Detecting lmgrd processes...]
License server status: 27000@myserver
License file(s) on myserver: C:\Program Files\MATLAB\R2015b\etc\license.dat:
myserver: license server UP (MASTER) v11.99
Vendor daemon status (on myserver):
MLM: UP v11.9
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
myserver myserver (v14) (myserver/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 myserver myserver (v14) (myserver/27000 201), start Tue 10/5 14:37
(linger: 121500)
```

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

Use `lmstat` on Linux Systems

- 1 Log in to your license server.
- 2 Navigate to the `matlabroot/etc` directory, where `matlabroot` is your MATLAB installation folder.
- 3 Run the `lmstat` utility.

```
lmstat -a -c /usr/local/MATLAB/R2015b/etc/license.dat
```

Turn on Borrow Products Menu Option

Note: Ensure that the client system has a network connection to the license server.

To turn on the menu option for Borrow Products in the Licensing menu:

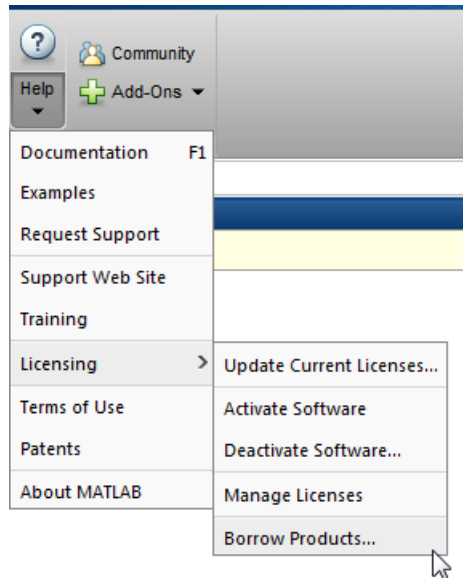
- 1 On the client system, start MATLAB and enter this command:

```
matlab.internal.licensing.enableBorrowUI(true)
```

After you turn on the menu option for License Borrowing the first time, it remains available any time you start MATLAB.

- 2 Restart MATLAB.

- 3 Locate the Borrow Products option in the Licensing menu.
 - a On the **Home** tab, in the **Resources** section, click **Help**.
 - b Under **Licensing**, look for **Borrow Products**.



Turn Off Borrow Products Menu Option

To turn off the menu option for Borrow Products in the Licensing menu:

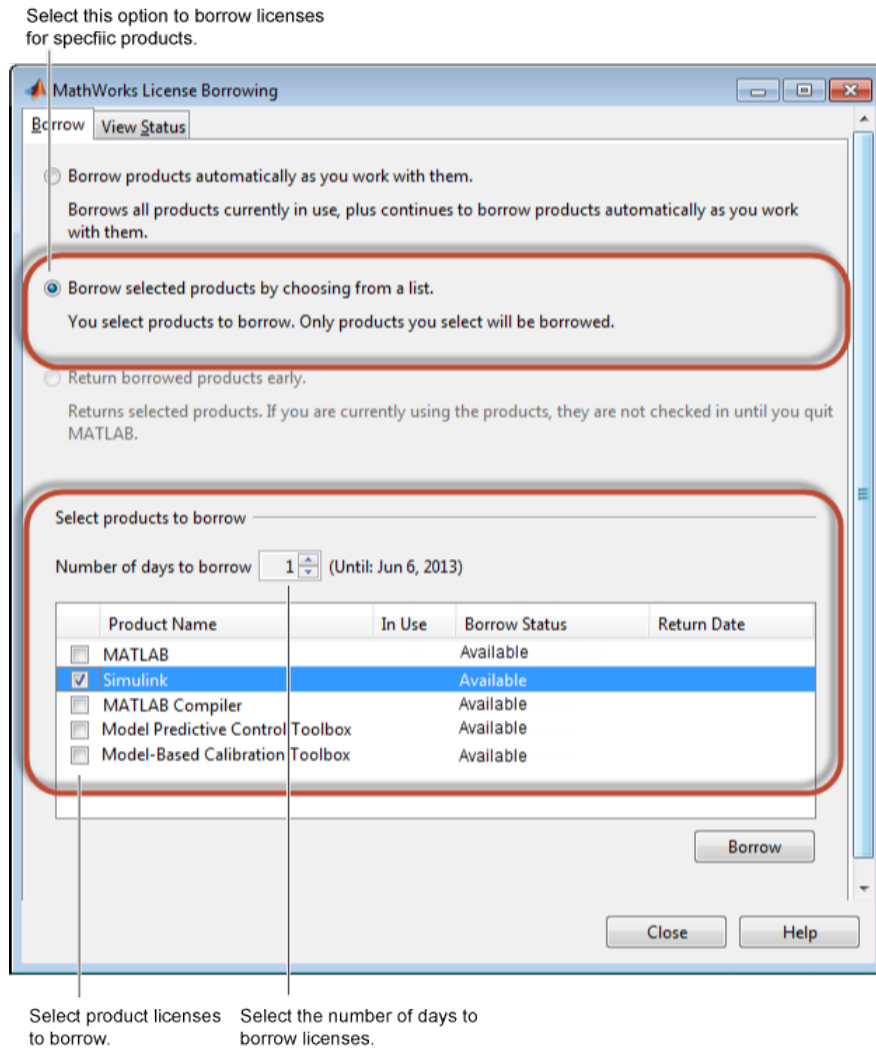
- On the client system, start MATLAB and enter this command:

```
matlab.internal.licensing.enableBorrowUI(false)
```

Borrow Product Licenses by Selecting Products

To borrow licenses by product name:

- 1** Start MATLAB.
- 2** On the **Home** tab, in the **Resources** section, click **Help**.
- 3** Under **Licensing**, click **Borrow Products**.
- 4** Select **Borrow selected products by choosing from a list**. The dialog box displays the borrow period option, a list of all the licenses that are available, and the **Borrow** button.

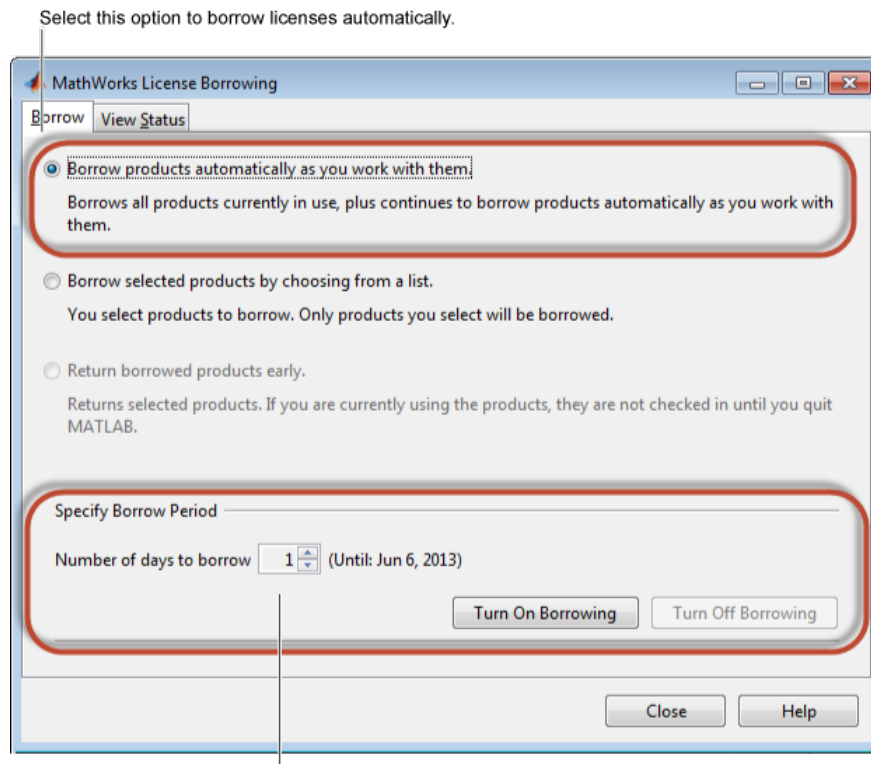


- 5 Specify the borrow period: from 1 day (default) to 30 days.
- 6 Click the check box next to each product that you want to borrow.
- 7 Click **Borrow**.
- 8 Disconnect your computer from the network, and continue using the borrowed products until the borrow period expires. You can return borrowed licenses early.

Borrow Product Licenses Automatically

To borrow product licenses automatically:

- 1 Start MATLAB.
- 2 On the **Home** tab, in the **Resources** section, click **Help**.
- 3 Under **Licensing**, click **Borrow Products**.
- 4 Select **Borrow products automatically as you work with them**. The dialog box changes to include the borrow period option and the **Turn On Borrowing** button.



Specify the number of days to borrow licenses.

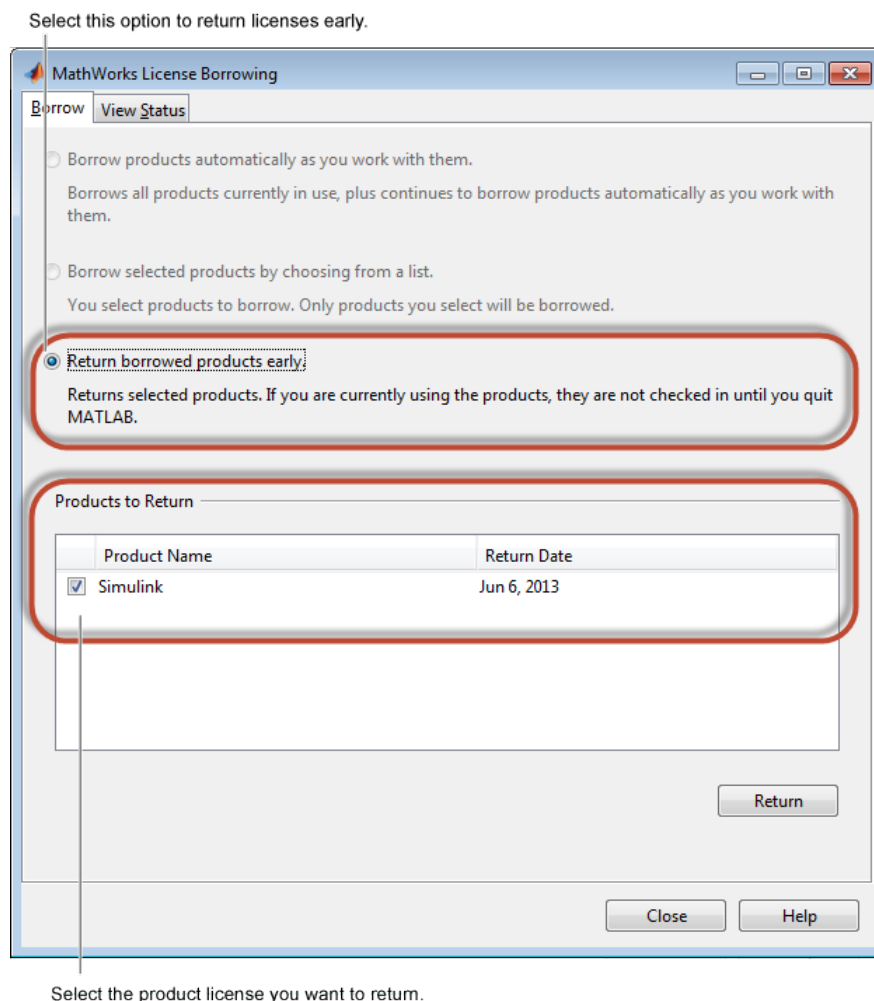
- 5 Specify the borrow period: from 1 day (default) to 30 days.
- 6 Click **Turn On Borrowing**.

- 7 Work in MATLAB as you would normally, performing the tasks you want to perform when you are disconnected from the network. As you use products, MATLAB borrows the licenses for them automatically. When you have borrowed licenses for all the products that you want to use, click **Turn Off Borrowing**.
- 8 Disconnect your computer from the network and continue using the borrowed products until the borrow period expires. If you want to return borrowed licenses early, see “Return Borrowed Licenses Early” on page 5-20.

Return Borrowed Licenses Early

To return a borrowed license early:

- 1 Connect your computer to your network.
- 2 On the **Home** tab, in the **Resources** section, click **Help**.
- 3 Under **Licensing**, click **Borrow Products**.



Select the product license you want to return.

- 4 Select **Return borrowed products early**. The dialog box displays a list of currently borrowed products.
- 5 Specify the product licenses you want to return early. By default, all borrowed product licenses are selected. Deselect any products you do not want to return.
- 6 Click **Return**.

Note: You cannot borrow licenses and then return them in the same MATLAB session. You must quit MATLAB and restart it before you can return the licenses.

Use Timeouts for Idle License Keys

In this section...
“Overview” on page 5-23
“Enable License Timeouts” on page 5-23
“Experiencing a License Timeout” on page 5-25

Note You can use timeouts only with concurrent licenses.

Overview

If you have a Concurrent license, you can use the FlexNet licensing timeout option to automatically return idle license keys at your site. With license timeouts, the license manager automatically frees license keys that sit idle for a specified period of time. It, returning the licenses 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 timeouts enabled, after your licenses sit idle for a specified period, the license manager releases the license keys for all the products you had been using and these keys become available to other users.

Enable License Timeouts

To take advantage of timeouts, you must specify the `TIMEOUT` option in a FlexNet options file. This options file is a text file that contains license manager options statements, such as `INCLUDE`, `EXCLUDE`, and `GROUP` statements.

To enable timeouts:

- 1 Create a FlexNet options file, if one does not exist, using any text editor. Name the options file `MLM.opt` and put the file in the `matlabroot/etc/$ARCH` folder, where `matlabroot` represents your installation folder and `$ARCH` represents a platform-specific folder. For example, on a Windows system, you might create the file

```
C:\Program Files\MATLAB\R2015b\etc\win64\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 timeout 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 timeout 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 timeout value used for all products. However, 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\R2015b\etc\win64\MLM.exe" \  
options="C:\Program Files\MATLAB\R2015b\etc\win64\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 Timeout

When timeout 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 timeout is also recorded in the license manager log file, as follows:

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

To resume a MATLAB session that has timed out, 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 Simulink session that has timed out, 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 Simulink session that has timed out.
