

Installation and Licensing

Installation Guide



MATLAB® & SIMULINK®

R2021b



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Installation Guide

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MathWorks Product Installation

This chapter describes how to install MathWorks® products.

Install Products Using Internet Connection

This procedure is the fastest and easiest for installing to a single computer. You must have a MathWorks Account, a license linked to that account, and an active Internet connection. If you have an Activation Key, you can use that instead of your linked license. If you do not have an Internet connection, follow the instructions in “Install Products Using File Installation Key” on page 1-9.

Consider disabling antivirus software and Internet security applications on your computer during installation. These applications can slow the installation process or cause it to appear unresponsive (or to hang).

Before you begin, see System Requirements for MATLAB.

Installing on Shared Computers You must have the correct permissions to install the software. If you have questions about permissions, ask your system administrator.

Changing the tmp directory for installation To change the tmp folder for installation, see MATLAB Answer How can I change the temp directory the MATLAB installer uses?

Step 1. Sign in to Your MathWorks Account

Sign in to your MathWorks Account with your user name and password.

If you have Two-Step Verification enabled in your MathWorks Account, you will be prompted to enter the verification code sent to your primary method when you signed in to your MathWorks Account. If you do not have Two-Step Verification enabled, you can go directly to the next step.

If you do not have a MathWorks Account, select one of the following procedures determined by your situation:

Your Situation	Action
You are using your university's license.	Go to your institution's portal.
You are using your company's license.	Options: <ul style="list-style-type: none"> • Use an Activation Key. See your license administrator. • Create a MathWorks Account and link your organization's license to it.
You do not have a product license or trial.	Go to the MathWorks Store.

When you are ready, go to the next step.

Step 2. Download and Run Installer

The MathWorks product installer you download contains only the files that the installer needs to run on your selected platform, not the product files. Run the installer to select products that you want to install on the computer where you are signed in. The installer downloads the products that it needs from MathWorks.

- 1 From the Downloads page on the MathWorks website, select the release you want to install and the platform of the computer that you are installing on.
- 2 Start the installer. When asked if you want to allow the application to make changes, answer **Yes**.
- 3 If your computer has been configured to use a proxy server for Internet access, enter the user name and password to continue with a standard installation. Contact your system administrator for proxy server credentials.

Step 3. Accept License Agreement

Review the software license agreement. The license agreement is a legal contract between MathWorks and you that specifies how you are allowed to use MathWorks software and our terms for that use. Some MathWorks products require that you also agree to the terms and conditions for third-party software used in its programs and for application development with its programs, which may be different from or additional to those in The MathWorks, Inc. Software License Agreement.

If you do not agree with the terms of the license agreement, you will be unable to install MathWorks products.

Step 4. Select License or Enter Activation Key

Use a License

Select a license from the list.

If you do not have any licenses listed or you do not see the license you want to use:

- You may need to link a license with your account. See [Link a License](#) on the MathWorks website.
- You may be on an organizational license. Follow the steps in "Use an Activation Key" in the next topic.

If you are using a Student license, accept the Student Use Policy when prompted.

If you are still unsure of what to do, contact your administrator or [Contact Support](#) on the MathWorks website.

Use an Activation Key

If you want to install products on a license that is not linked to your MathWorks Account, ask your administrator for the Activation Key. The administrator on the license can retrieve the key by going to the License Center on the MathWorks website. If you are using a trial license, go to <https://www.mathworks.com/licensecenter/trials>.

Select **Enter Activation Key to link to another license**.

Step 5. Choose Authentication Option

Note The authentication option is available to Licensed Named Users only.

During installation, you can activate the software right away and you will not require an Internet connection (for authentication) when you use MathWorks software thereafter on this computer. The activation process stores a license file that grants you the right to use the software.

If multiple users are expected to use this computer, or this software is being used in a cloud environment, you can select to authenticate the software each time it is started. This option requires each user to sign in to their MathWorks Account to use MATLAB.

MathWorks uses the account information to grant license rights. With this option, MATLAB periodically checks if the connection to MathWorks is still active. If it cannot detect an active connection after a certain period of time, it terminates the session.

Step 6. Confirm User

The software assumes that the person installing it is also the person using the software. If you are installing the software for someone else, change the user name (login name) to the intended end user.

Step 7. Select Destination Folder

The destination folder is where you want to install MathWorks products. Accept the default installation folder, or click **Browse** to select a different one. If the folder does not exist, the installer creates it.

The destination folder must be on an absolute path. MathWorks recommends that you install MathWorks products in their own folder. If you select the top-level drive, you will be asked to confirm your selections.

When specifying a folder name:

- You can use any alphanumeric character and some special characters, such as underscores.
- You cannot use non-English characters.
- Folder names cannot contain invalid characters and the destination cannot be named "private."

If you make a mistake while entering a folder name and want to start over, click **Restore Default**.

Step 8. Select Products

The Product Selection list shows all the products associated with the license you selected, or with the Activation Key you specified.

- To install a particular product, check the box next to its name. MATLAB is selected by default.
- If you do not want to install a particular product, clear the check box next to its name.
- If any of your selected products have a dependency on a product that was not selected, you will get a Product Dependencies warning and you will be asked to add the dependent products.

Dependent products are optional and you can choose to add or not add them. However, while you are still able to install the selected products without dependent products, you may not be able to access all the functionality you require.

- Required products must be installed.

Step 9. Select Options

Some options are available only for certain license types. If no options are presented to you, you can go to the next step.

- **Windows**[®] — You can choose to put shortcuts for starting MATLAB in the **Start** menu and on the desktop.
- **Linux**[®] — You can specify whether you want to create symbolic links to the `matlab` and `mex` scripts. Specify a folder to which you have write access and that is common to all the user paths on this computer, such as `/usr/local/bin`.

Step 10. Confirm Selections and Install

Displays the summary of your installation choices. To change a setting, click the topic on the navigation bar. To proceed with the installation, click **Begin Install**.

When the installation is complete, note if the installer shows you any additional steps required to complete configuration, and click **Finish**. If additional steps are required, complete them before running MATLAB.

Download Products Without Installing

Download products without installing them immediately (either on the same or a different computer). This procedure is useful when you want to install MathWorks products later, on one or more computers, either connected to the Internet or offline. You must be an administrator for a license linked with your MathWorks Account (this includes trial licenses).

Before you begin, see System Requirements for MATLAB.

After you download the installer and products, you can install MathWorks products from the download location at any time. If you are using a File Installation Key, make sure the downloaded product files include the installer file and are in a location that an off-network computer can access.

If the target computer is not connected to the Internet, install products following the procedure in “Install Products Using File Installation Key” on page 1-9.

Step 1. Download Installer and Product Files

Sign in to your MathWorks Account. If you have Two-Step Verification enabled (in your MathWorks Account), enter the verification code sent to your primary method.

- 1 From the Downloads page on MathWorks, select the release and platform of the computer that you are using to download (not the target computer).
- 2 Start the installer. When prompted to allow the app to make changes, answer **Yes**.
- 3 If prompted again, sign in to your MathWorks Account and accept the MathWorks license agreement.
- 4 From the installer, select **Advanced Options > I want to download without installing**.

Step 2. Select Destination Folder

Enter the path to the folder where you want to download the installer and product files.

When specifying a folder name:

- You can use any alphanumeric character and some special characters, such as underscores.
- You cannot use non-English characters.
- Folder names cannot contain invalid characters and the destination cannot be named “private.”

The destination folder must be on an absolute path.

Step 3. Select Platform

Select the platform of the computer you are going to be installing MATLAB on: Windows, Linux, or macOS.

You can select multiple platforms; during the download, you will get a separate folder for each platform.

Step 4. Select Products

The Product Selection list shows all the products available across all of your linked licenses.

- To make a particular product available for installation on the target computer, check the box next to its name. MATLAB is selected by default.
- If you do not want to have a particular product available for installation on the target computer, clear the check box next to its name.
- If any of your selected products have a dependency on a product that was not selected, you will get a Product Dependencies warning and you will be asked to add the dependent products.

Dependent products are optional and you can choose to add or not add them. However, while you are still able to install the selected products without dependent products, you may not be able to access all the functionality you require.

- Required products must be installed.

When the software is installed, the products available for installation will depend on what is allowed on the license.

Step 5. Confirm Selections and Download

- 1 Review the summary of your download choices. To change a setting, click the topic on the navigation bar. To proceed with the download, click **Begin Download**.
- 2 When the download is complete, click **Finish**.

The installer preselects the option to open a file browser to display the downloaded files after you click **Finish**. To not automatically open this folder, deselect **Open Downloads Folder** before you click **Finish**.

Step 6. Move Installer and Product Files

Copy the products files (including the installer file) to the target computer or an accessible location (for example, a USB drive or network share).

Verify that the folder containing the product files includes the following:

- The installer file for the target platform in the root of the folder:
 - **Windows**— setup.exe
 - **Linux**—install
 - **macOS**—InstallForMacOSX
- An archives subfolder

If the archives subfolder contains less than three files, you might be missing required files and must download the files again.

Next Steps

The procedure you follow depends on whether or not the target computer is connected to the Internet.

- **With Internet connection:** use the procedure in “Install Products Using Internet Connection” on page 1-2
- **Offline:** use the procedure in “Install Products Using File Installation Key” on page 1-9

See Also

Related Examples

- “Install Products Using File Installation Key” on page 1-9

Install Products Using File Installation Key

Use this procedure when the computer you want to install MathWorks products on does not have an Internet connection. However, you need an Internet connection to get the File Installation Key and license file, and to download the installer.

- **Individual license users:** You can get the license file and file installation key from License Center. See “Prerequisites” on page 1-9.
- **Network license administrators and end users:**
 - Admins can get the license file and file installation key from License Center. See “Prerequisites” on page 1-9.
 - Network license end users can get these items from their license administrator.

You can use this procedure even if you have an Internet connection. You are not required to disconnect the target computer.

Installing on Shared Computers You must have the correct permissions to install the software. If you have questions about permissions, ask your system administrator.

Prerequisites

You must perform the following steps before you can install using a file installation key.

Step 1. Review Requirements

Your system must meet certain requirements to run MATLAB. See System Requirements for MATLAB before performing an installation.

Step 2. Get License File and Installation Key

Activate and obtain your license file and get the file installation key using the License Center. If you are using an organizational license, get the files from your administrator. If you are using a trial license, go to <https://www.mathworks.com/licensecenter/trials>.

First: On a computer with an internet connection:

- 1 Sign in to your MathWorks Account and click the license you want to use.
- 2 Go to the **Install and Activate** tab. If you have not activated a computer for this license yet, click **Activate** to activate the license, download the license file, and get the file installation key.

If you have already activated the license, and you have the file installation key, you can click the download arrow or email icon under **Get License File** instead.

- 3 Download and save these items on removable storage (for example, a USB stick).

Second: On the target computer:

- 1 Copy the license file and file installation key to the target computer.

Step 3: Download Installer and Product Files

Get the product installer and product files using the procedure in “Download Products Without Installing” on page 1-6. Make sure you follow step 6 for moving the installation files along with the license file and file installation key to the target computer.

Follow the instructions in the next section to run the installer using a file installation key.

Install Procedure Using File Installation Key

Step 1. Start Installer

Start the installer. When prompted to allow the app to make changes, answer **Yes**.

Note Consider disabling antivirus software and Internet security applications on your computer during installation. These applications can slow the installation process or cause it to appear unresponsive (or to hang).

Step 2. Accept License Agreement

Review the software license agreement. If you do not agree with the terms of the license agreement, you will be unable to install MathWorks products.

Step 3. Enter File Installation Key

Enter the File Installation Key where prompted.

- If the product files are not found by the installer, you will get an error before you enter the File Installation Key. This message includes instructions for downloading the necessary files.
- If you get a message saying that the key is invalid, check to make sure you entered the key correctly. If necessary, get a new File Installation Key.
- If you get a message saying that the key is invalid for the release you are trying to install, see your administrator or go to the License Center to get the files for the File Installation Key you have. If you are using a trial license, go to <https://www.mathworks.com/licensecenter/trials>.

Step 4. Select License File

The license file is required for installation when you use a File Installation Key. It identifies which products you can run.

- The file must be a valid license file.
- If the installer detects that the license file is invalid for any reason, use a different license file or get a new license file.

Step 5. Select Destination Folder

The destination folder is where you want to install MathWorks products. Accept the default installation folder, or click **Browse** to select a different one. If the folder does not exist, the installer creates it.

The destination folder must be on an absolute path. MathWorks recommends that you install MathWorks products in their own folder. If you select the top-level drive, you will be asked to confirm your selections.

When specifying a folder name:

- You can use any alphanumeric character and some special characters, such as underscores.
- You cannot use non-English characters.
- Folder names cannot contain invalid characters and the destination cannot be named “private.”

If you make a mistake while entering a folder name and want to start over, click **Restore Default**.

Changing the tmp directory for installation To change the tmp folder for installation, see MATLAB Answer How can I change the temp directory the MATLAB installer uses?

Step 6. Select Products

The Product Selection list shows all the products associated with the File Installation Key you specified.

- To install a particular product, check the box next to its name. MATLAB is selected by default.
- If you do not want to install a particular product, clear the check box next to its name.
- If any of your selected products have a dependency on a product that was not selected, you will get a Product Dependencies warning and you will be asked to add the dependent products.

Dependent products are optional and you can choose to add or not add them. However, while you are still able to install the selected products without dependent products, you may not be able to access all the functionality you require.

- Required products must be installed.

Step 7. Select Options

Some options are available only for certain license types. If no options are presented to you, you can go to the next step.

- **Windows** — You can choose to put shortcuts for starting MATLAB in the **Start** menu and on the desktop.
- **Linux** — You can specify whether you want to create symbolic links to the `matlab` and `mex` scripts. Specify a folder to which you have write access and that is common to all the user paths on this computer, such as `/usr/local/bin`.

Step 8. Confirm Selections and Install

Review the summary of your installation choices. To change a setting, click the topic on the navigation bar. To proceed with the installation, click **Begin Install**.

When the installation is complete, note if the installer shows you any additional steps required to complete configuration, and click **Finish**. If additional steps are required, complete them before running MATLAB.

License or System Administrators Only If you run into unrecoverable errors, or if your organization has complex license mixing issues, consider performing an ISO download instead. See [How do I download a MATLAB ISO archive?](#)

See Also

Related Examples

- “Download Products Without Installing” on page 1-6

Manage Products

Add products, update current MATLAB installation, update license, and download a newer release.

Update MathWorks Software Using Internet Connection

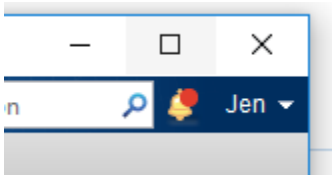
Update Existing Installation

Download and install a more recent version for the release of MATLAB that you currently have installed. For example, if you have R2021b installed, you might be able to download a more recent version of R2021b.

When you install a MATLAB update, you get not only the most recent update for your version, but also all prior updates for your version as well.

Update from Notifications in MATLAB

If a more recent version is available, a notification displays in MATLAB when you start the program.



To install the MATLAB update, click the notification icon and select **Install Update**. If you click the notification and then decide to update at a later time, the notification icon is no longer red, but you can still install the update.

Check for Updates

You can also check for updates manually.

- 1 Make sure that you have an active Internet connection.
- 2 On the **Home** tab, click **Help > Check for Updates**. The Add-On Manager opens with the **Updates** tab selected.
- 3 If an update is available, click the **Update** button to the right of the update name to install it. If no update is available for your version or if you have already installed the latest update, MATLAB displays that information.

Add Products to an Existing Installation

To add products to your existing MATLAB installation, use the Add-On Explorer. For details, see the MATLAB documentation.

See Also

Related Examples

- “Get New MATLAB Release” on page 2-6

External Websites

- License Center

- Web Downloads

Update MathWorks Software on Offline Computer

Note Use this procedure only for R2018b and later. This process can be followed by license administrators only.

The optimal experience for installing an update is from within MATLAB on a computer connected to the Internet. When that is not possible, however, license administrators can perform an update to an existing MATLAB installation on any computer by downloading the update package.

- Each update contains all the fixes from previous updates.
- Update packages require an unzip utility that supports ZIP64.
- Offline installations use a noninteractive command-line process.
- You must have write privileges to *matlabroot* (where MATLAB is installed) to run the command in this process.
- You must be a license administrator to access the update links on mathworks.com.

Download the update package to an online computer, and then install the package on the user's computer.

- 1 Go to the Downloads page on the MathWorks website and select your release.
- 2 Under Related Links, click **Get Update Package for Offline Installation**.
- 3 Follow the instructions to download the update package to the user's computer or to a network share location. Make sure you download the package that matches the platform for the computer that requires the update.
- 4 Unzip the update package to a new folder, For example, C:\temp\R2021b_Update1_Package. Make sure the folder is accessible to the user's computer.
- 5 On the user's computer, close all instances of MATLAB.
- 6 Install the update according to the instructions for your operating system. In the command for each platform, argument *package_folder* is the full path to the directory where you unzipped the update package.

- **Windows Systems**

- a Go to a command prompt.
- b Change folder to:

```
matlabroot\bin\win64
```

matlabroot is the path to the MATLAB installation.

- c Run `update_installer.exe` with the following command-line arguments:

```
update_installer.exe -updatepackage package_folder
```

- **Linux**

- a Open a terminal.
- b Change folder to:

```
matlabroot/bin/glnxa64
```


matlabroot is the path to the MATLAB installation.

- c** Run `update_installer` with the following command-line arguments:

```
./update_installer.sh -updatepackage package_folder
```

- **macOS**

- a** Open a terminal.
- b** Change folder to:

```
matlabroot/bin/maci64
```

matlabroot is the path to the MATLAB installation.

- c** Run `update_installer` with the following command-line arguments:

```
./update_installer -updatepackage package_folder
```

Installation status is not displayed in the terminal or at the command prompt. Instead, you can find all status messages in the log at `\\%TEMP%\mathworks_yourusername.log` (Windows) or `/tmp/mathworks_yourusername.log` (Linux or macOS). Examine the log carefully for errors.

See Also

Related Examples

- “Update MathWorks Software Using Internet Connection” on page 2-2

Get New MATLAB Release

When a new MATLAB general release becomes available, for example, from R2021a to R2021b, as long as the Software Maintenance Service on your license is current, you can install the new release. For additional information, see MathWorks Software Maintenance Service on the MathWorks website.

To get a new release for your existing installation, perform the following steps:

- 1** In MATLAB, on the **Home** tab:
 - a** Click **Help > Check for Updates**. The Add-On Manager opens with the **Updates** tab selected.

If there is a new release available, MATLAB displays a banner prompting you to get the new release.
 - b** Click **Upgrade to MATLAB ...** to open the Downloads page on the MathWorks website and download the installer.
- 2** Run the MATLAB installer.
- 3** Install the new release in a new installation folder, whether you have the previous version or a prerelease version of the same release installed already.

You do not need to delete an existing MATLAB installation before installing a new release. Each release is independent of previous releases and you can run multiple releases on the same computer.

Note Getting a new release installs only those products currently on your license. For example, if your existing installation includes ten products, but your current license includes only nine of those products, your new MATLAB installation will include only the nine products.

See Also

Related Examples

- “Update MathWorks Software Using Internet Connection” on page 2-2

Update Your License

Automatic License Updates

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 you need to update your license, the validation process displays a dialog box giving you the option to update your license.

You can disable validation in the License Center at the MathWorks website.

Update License Manually from Within MATLAB

To update your license manually from within MATLAB:

- 1 On the **Home** tab, in the **Resources** section, click **Help > Licensing**.
- 2 Select **Update Current Licenses...** and follow the prompts to update your license.

MATLAB contacts MathWorks to retrieve the most current version of the License File for the license. The update process overwrites the current License File on your system. You need to restart MATLAB.

Update License Using Activation

If your license file has expired or another licensing requirement is preventing MATLAB from starting, you can update your license by using the MATLAB activation client.

For instructions on using the activation client, see “Activate MATLAB Installation Manually” on page 4-8.

Update License for Offline Computer

If the computer that is running MATLAB cannot connect to the Internet, you can download a license file manually from the MathWorks website on another computer and move the file to the target computer.

Note If you are a license administrator, follow the procedure in “Update Network License” on page 6-4.

- 1 Sign in to www.mathworks.com.
- 2 Click on your profile picture or initials in the top right and then select **My Account**.

You can also get to your MathWorks Account from within MATLAB. On the **Home** tab, in the **Resources** section, click **Help > Licensing > Manage Licenses**.

- 3 Under **My Software**, select your license number from the list. If you have more licenses than fit on the screen, click **View additional Licenses or Trials**. Clicking a license takes you to the License Center.
- 4 Click the **Install and Activate** tab.

- 5 On the right side, under **Related Tasks**, select **Activate to Retrieve License File**.
- 6 Fill out all required fields and follow prompts. Click **Continue**.
- 7 At **Next Steps**, click **Download License File**.
- 8 Skip **Step 2** (because you have already done it as part of this procedure) and click **Done**.
- 9 Copy the license file to the licenses folder on the offline computer. The following support article contains instructions for finding license file folders on various operating systems: "Where are the license files for MATLAB located?"
- 10 Start MATLAB.

If you encounter difficulties, Contact Support.

See Also

Related Examples

- "Individual License Administration"

Uninstall MathWorks Products

Uninstall Products Interactively

To move a current copy of MATLAB to another computer, you must uninstall it from the computer it is currently installed on. In this case, do not deactivate the software. You can then install MATLAB on another computer.

If you no longer have a valid license and just want to remove the software from your computer, it is best to deactivate before removing your installation. For more information about deactivating software, see “Deactivate Your Installation” on page 2-12.

If you need assistance for any part of this process, Contact Support.

The method you use to uninstall MathWorks software from your computer varies, depending on your platform.

Uninstall Products from Windows Systems

To uninstall MathWorks products from your computer:

- 1 Exit MATLAB.
- 2 Start the uninstaller, using any of the following methods.
 - On computers running Windows 10, go to **MATLAB R2021b** and open the folder. Right-click MATLAB inside the folder, and select **Uninstall**.
 - On computers running Windows 7, click the **Start** menu, and select **Control Panel**. In the Control Panel, select **Uninstall a Program** in the Programs category. From the list of products displayed, click **MATLAB R2021b**.
 - Assuming you selected the default folder when you installed MATLAB, navigate to C:\Program Files\MATLAB\R2021b\uninstall\bin\win64. If you installed in a different folder, navigate there instead. Double-click the uninstaller executable, `uninstall.exe`.

To use the uninstaller properties file (`uninstaller_input.txt`) to run the uninstaller noninteractively, see “Uninstall Products Noninteractively” on page 2-10.

- 3 In the Uninstall Products dialog box, select the products you want to remove and click **Uninstall**.

If you select MATLAB, you automatically remove all other MathWorks products.

You might receive a message telling you that the product you want to uninstall has other products that depend on it. For example, most MathWorks products require the MATLAB product. To close the message and continue removing products, click **OK**. To change the products you had selected for deletion, click **Cancel**.

If you also want to remove your MATLAB user preferences, click the **Uninstall MATLAB preference files (including Command History)** check box. By default, the uninstaller does not delete these preference files. MATLAB preference files contain your environment settings, such as command history and Help favorites. To find where MATLAB stores your preferences, use the `prefdir` command at the MATLAB prompt, as in the following example:

```
prefdir
ans =C:\Users\username\AppData\Roaming\MathWorks\MATLAB\R2021b
```

username is the user name (login name) of the person who runs MATLAB on this computer.

- 4 (Optional) Choose whether to delete download archive files. If your MATLAB installation folder contains the archive files for downloaded products, the uninstaller displays a message asking if you want to delete these archive files. The installer stores these archive files in the *matlabroot* \archives folder of your installation. To remove these files, click **Yes**.
- 5 To proceed with the removal, click the **Uninstall** button. The uninstaller displays the status of the operation as it progresses and displays a dialog box when the operation is complete. Click **Finish** to exit the uninstaller. When you uninstall a MATLAB installation, the uninstaller displays a dialog box suggesting that you deactivate the installation. For more information about deactivation, see “Deactivate Your Installation” on page 2-12.

Uninstall Products from Linux Systems

- 1 Exit the MATLAB program.
- 2 Enter this command at the Linux prompt, where *matlabroot* represents the name of your top-level MATLAB installation folder:

```
rm -rf matlabroot
```

Uninstall Products from macOS Systems

To uninstall MATLAB:

- 1 Get the user name and password of an administrator account on the macOS computer. Depending on where you installed MATLAB software, you might need administrator privileges to remove it.
- 2 Exit MATLAB.
- 3 Navigate to your MATLAB installation folder. For example, the installation folder might be named *MATLAB_R2021b.app* in your Applications folder.
- 4 Drag your MATLAB installation folder to the trash, and then select **Empty Trash** from the **Finder** menu.

If you need to deactivate the software, see “Deactivate Your Installation” on page 2-12.

Uninstall Products Noninteractively

To run the uninstaller noninteractively:

- 1 Create an uninstaller properties file.

Make a copy of the uninstaller properties file template, named *uninstaller_input.txt*, located in the *uninstall* folder in your MATLAB installation folder. For example, on a Windows computer, you might execute this command:

```
copy matlabroot\uninstall\uninstaller_input.txt C:\temp\my_uninstall.txt
```

- 2 Open your uninstaller properties file using any text editor, and enter values for all the specified parameters. For example, you can specify the name of the output log file using the *outputFile=* parameter. The template contains detailed descriptions of each parameter with examples.

By default, the uninstaller removes all the products in a particular MATLAB installation, however, you can specify which products to delete. In the product list in the template, remove the comment character at the beginning of the product name. In silent mode, if you specify a product

for deletion that is not one of your installed products, the uninstaller exits and writes a message to your log file. If you specified `mode=automated`, the uninstaller displays the Product Selection dialog box and pauses, waiting for you to adjust the product selection.

- 3 Save your changes to the file.
- 4 Run the uninstaller (`uninstall.exe`), using the `-inputFile` flag to specify the properties file as a command-line argument.

For example, click **Start** and select the **Run** option. In the Run dialog box, enter the `uninstall` command, specifying the full path of the properties file as a command-line argument:

```
uninstall.exe -inputFile C:\temp\my_uninstall.txt
```

See Also

Related Examples

- “Deactivate Your Installation” on page 2-12
- “Install Noninteractively” on page 4-5

Deactivate Your Installation

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

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

Note Deactivating a license and removing the software are separate activities. You can deactivate a license without removing the software from your computer. For information about removing an installation, see “Uninstall MathWorks Products” on page 2-9.

To deactivate a license on your computer:

- 1 Start the deactivation application using any of the following methods.
 - Choose to start deactivation after running the uninstaller.
 - Choose to start deactivation after a validation check that finds the installation is inactive.
 - Choose the deactivate option from the **Help > Licensing** menu in the MATLAB desktop.
 - On computers running Windows 10, go to **MATLAB R2021b** and open the folder. Right-click on MATLAB inside the folder, and select **Deactivate**.
 - On computers running Windows 7, click the **Start** menu and select **MATLAB**. The deactivation application should appear on the list.
 - On all platforms, navigate to the MATLAB installation folder and start the deactivation application executable.

Windows Systems

```
matlabroot\uninstall\bin\win64\deactivate_matlab.exe
```

Linux Systems:

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

macOS Systems:

```
/Applications/MATLAB_R2021b.app/bin/deactivate_matlab.sh
```

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

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

- 3 Confirm deactivation. Click **Yes** and the deactivation application attempts to contact MathWorks.
- 4 Complete deactivation. Click **OK**.

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

If the deactivation application can deactivate the license on your computer but not in MathWorks systems, it displays the Deactivation Next Steps dialog box. This dialog box contains the deactivation string. To complete deactivation, go to the MathWorks website and log in to your account. In the License Center, deactivate the license using the deactivation string. Click **OK** to return to the MathWorks Software Deactivation dialog box.

- 5 After you deactivate a license, the MathWorks Software Deactivation dialog box displays an additional column listing the status of the licenses. To deactivate another license, select it from the list and click **Deactivate**. If you are finished, click **Close** to exit the deactivation application.

The software is now deactivated on this computer.

See Also

Related Examples

- “Uninstall MathWorks Products” on page 2-9

Install and Run Network License Manager

Install and run the network license manager, configure licenses and modify license options, update network licenses

Install License Manager on License Server

Install the network license manager on a computer connected to the Internet or offline. You must install the license manager and have it up and running before you install MATLAB software on client computers.

You only need to install the network license manager one time at a site.

Note If your license server is offline or behind a firewall, follow the instructions to download the installer before beginning this procedure and follow the instructions, where indicated, for an offline server.

Caution Follow these recommendations when installing the network license manager:

- Do not expose the commands to run the network license manager to the Internet or an untrusted network.
 - Start the network license manager so that local administrator access is required to run the shutdown procedure. .
-

Step 1. Download License File

Perform these steps on a computer that is connected to the Internet.

- 1 Go to the License Center. Sign in to your MathWorks Account, if prompted.
- 2 Click the network license you'll be using.
- 3 Click the **Install and Activate** tab and then click **Activate a Server**.
- 4 Obtain the host ID of the computer on which you intend to run the network license manager. The following support article contains instructions for finding your host ID: "What is a Host ID?".
- 5 Specify the operating system type and host ID of the computer on which you intend to run the network license manager. You can optionally assign a descriptive label to the activation as well. Click **Continue**.
- 6 Answer "No" to **Is the software installed?**. Click **Continue**.
- 7 Select either **Download License File** or **Email License File**.

Whichever option you selected, remember to save the license file to the server where you will be installing the network license manager.

Click **Continue**.

For this workflow, you can skip steps 2 and 3 in the License Center and continue following these instructions.

Step 2: Download Product Installer

On a computer connected to the Internet, download the product installer from mathworks.com/downloads. You can specify release and operating system of the license server.

Install on Server Connected to Internet

When you download the installer from the website, you receive the files that the installer needs in order to run on your selected platform, not the product files. The installer downloads the products that it needs from MathWorks during installation. For this to work, the license server must be connected to the Internet.

If you are installing the license manager on the same machine where you downloaded the installer, and you have an internet connection, go to Step 3: Run Installer.

Install on Offline Server

If you are installing on an offline machine, download the product files using the procedure described in “Download Products Without Installing” on page 1-6.

Copy the installer and product files to the server where you will be installing the network license manager. Continue to Step 3: Run Installer.

Step 3: Start the Installer

Start the installer using the procedure that matches the operating system of the license server.

Windows

- 1 If you clicked **Run** when you selected the installer on the MathWorks website, the installer starts automatically.

If you saved the installer instead, double-click the self-extracting installer file in the folder where you saved it. The name of the self-extracting installer file is `matlab_release_$ARCH`, where *release* is the release you are installing (for example, R2021b) and *\$ARCH* is the selected architecture.

The installer should start automatically after file extraction is complete.

- 2 To restart the installer later, click `setup.exe`. This file is located in the top level of the folder where you extracted the files.
- 3 When the installer starts, click **Advanced Options > I want to install network license manager**.

macOS

- 1 Double-click the `dmg` file that you downloaded from the MathWorks website. Double-click `InstallForMacOSX.app`.
- 2 When the installer starts, click **Advanced Options > I want to install network license manager**.

Linux

- 1 Use the `unzip` command to extract the files from the archive file that you downloaded from the MathWorks website. After extracting the files, execute the installer command:

```
./install
```

- 2 When the installer starts, click **Advanced Options > I want to install network license manager**.

Step 4: Review the Software License Agreement

Review the software license agreement and, if you agree with the terms, select **Yes** and click **Next**.

Step 5: Select License File

Provide the name and path to the license file that you downloaded in Step 1. Click **Next**.

If the installer can't find the hostid in the license, you'll get a message letting you know you must manually add it after you finish installing.

Step 6: Select Destination Folder

The destination folder is where you want to install the network license manager.

- Accept the default installation folder, or click **Browse** to select a different one. If the folder does not exist, the installer creates it.
- The destination folder must be on an absolute path.
- MathWorks recommends that you install the network license manager in its own folder. If you select the top-level drive, you will be asked to confirm your selection.
- When specifying a folder name:
 - You can use any alphanumeric character and some special characters, such as underscores.
 - You cannot use non-English characters.
 - Folder names cannot contain invalid characters and the destination cannot be named "private."

If you make a mistake while entering a folder name and want to start over, click **Restore Default**.

Step 7: Select Options (Windows Only)

Select **Configure as service** if you want the license manager to launch every time you start the computer.

Step 8: Confirm Selections and Install

This screen displays the summary of your installation choices. To change a setting, click the topic on the navigation bar. To proceed with the installation, click **Begin Install**.

When the installation is complete, note if the installer shows you any additional steps required to complete configuration, and click **Close**. If there were additional required steps, complete them before installing and running MATLAB on client computers.

See Also

Related Examples

- "Install Products on Client Machines" on page 4-2
- "Start Network License Manager" on page 5-4

Use Existing License Server with MATLAB Running on the Cloud

Use this procedure when you want to connect MATLAB running on the cloud to an existing network license manager running on a license server.

This procedure consists of setting up the license server and setting up MATLAB.

Caution Follow these recommendations when installing the network license manager:

- Do not expose the commands to run the network license manager to the Internet or an untrusted network.
 - Start the network license manager so that local administrator access is required to run the shutdown procedure. .
-

Set Up License Server

Make the server modifications.

- 1 On the on-premises license server, you must have a secure connection enabled so that the cloud machine with MATLAB can communicate with the on-premises server. Use a VPN or direct connect and make sure that the server port is open. The license manager may be running on any port between 27000-27009, or on a specific port that is specified on the `SERVER` line in the `network.lic` file.
- 2 In the `network.lic` file, edit the `DAEMON` line to include a port number. Make sure that port is also opened.

Contact Support if you require additional assistance. Otherwise, go on to the next step.

Set Up Machine Running MATLAB

- 1 Disable online licensing.

On the client machine, find `license_info.xml` and rename it to something else. License files are generally located in `$MATLAB/licenses`, where `$MATLAB` is the MATLAB root.

- 2 Create license file that points to the server.

- a Open the network license file (`license.dat`) on the server.
- b Copy the `SERVER` line into a new text file.
- c Beneath it, add `USE_SERVER`. The file should now look something like this:

```
SERVER Server1 0123abcd0123 12345
USE_SERVER
```

- d Save the new text file as `network.lic` in folder `$MATLAB/licenses`, where `$MATLAB` is your MATLAB root.
- 3 Verify that the license is pointing to the server correctly by running MATLAB.

You have completed this procedure. Contact Support if you require additional assistance.

See Also

Related Examples

- Use MATLAB in the Cloud
- “Install Products on Client Machines” on page 4-2
- “Start Network License Manager” on page 5-4

Install License Manager on Virtual Machine

Install the network license manager on a virtual machine for use with Amazon Web Services (AWS) or Azure using a reference architecture.

This procedure consists of two steps: setting up the license manager and setting up the machine running MATLAB.

Step 1: Set Up License Manager

- 1 A security group must be added or changed to open the license manager ports inbound.
 - Learn more about AWS Network Security Group
 - Learn more about Azure Network Security Group
- 2 For AWS, the license manager must be in the same Virtual Private Cloud (VPC) as MATLAB. For Azure, the license manager must be in the same Virtual Network (VNET).
- 3 Obtain a fixed MAC address.

To host the license manager in the cloud, you must have a fixed address:

- **Azure:** When you create a virtual network, the virtual network MAC address is retained even when the virtual machine is in the deallocated state. See [Azure Virtual Network FAQ](#).
- **AWS:** Use an Elastic Network Interface (ENI), which contains a static MAC address attribute. See [Elastic Network Interfaces](#).

When you delete cloud resources, you also delete the fixed MAC address. Changing the fixed MAC address in MathWorks License Center is limited to four times per year.

- 4 Deactivate and then activate license.
 - a Deactivate license: If this license has been activated previously, you must deactivate the license first. Otherwise, you can skip this step.
 - i Go to License Center and click the license that you want to deactivate.
 - ii Go to the **Install and Activate** tab.
 - iii Click the Activation Label.
 - iv Click **Deactivate**.
 - b Activate license using the fixed MAC address.
 - i Click on the license to activate
 - ii Go to the **Install and Activate** tab.
 - iii Click **Activate to Retrieve License File**.
 - iv Under Host ID, enter fixed MAC address.
 - v Click **Continue** when you have completed all fields.
- 5 Download the license file provided with activation onto the server machine in folder `$MATLAB/licenses`, where `$MATLAB` is your MATLAB root.
- 6 Install the network license manager following the instructions “Install License Manager on License Server” on page 3-2, using the virtual machine instead of a license server.

7 .

Step 2: Set Up Virtual Machine Running MATLAB

These instructions assume you have already installed MATLAB on the virtual machine.

- 1 Disable online licensing.

On the client machine, find `license_info.xml` and rename it to something else. License files are generally located in `$MATLAB/licenses`, where `$MATLAB` is the MATLAB root.

- 2 Create license file that points to the server.

- a Open the network license file (`license.dat`) on the server.
- b Copy the `SERVER` line into a new text file.
- c Beneath it, add `USE_SERVER`. The file should now look something like this:

```
SERVER Server1 0123abcd0123 12345  
USE_SERVER
```

- d Save the new text file as `network.lic` in folder `$MATLAB/licenses`, where `$MATLAB` is your MATLAB root.
- 3 Verify that the license is pointing to the server correctly by running MATLAB.

You have completed this procedure. Contact Support if you require additional assistance.

See Also

Related Examples

- Use MATLAB in the Cloud
- “Install Products on Client Machines” on page 4-2
- “Start Network License Manager” on page 5-4

Run Network License Manager from Azure Marketplace

You can use the Azure Marketplace to quickly deploy and run a network license manager on Azure.

The elasticity of the cloud infrastructure enables you to deploy your license manager exactly where you need it for cloud computing with MATLAB.

Requirements

To run the network license manager from Azure Marketplace, you need:

- A MATLAB network license file. To obtain the network license file, sign in to your MathWorks Account and select the license you want to use. Go to the **Install and Activate** tab, and under **Get License File**, click **Download** or **Email License File**.
- A Microsoft Azure Account.
- A working knowledge of Azure Resource Manager.

Support

If you encounter an unexpected problem, search MATLAB Answers for solutions first. Most likely, other people have run into the same problem and resolved it already.

If the problem persists, or there are not any relevant posts on MATLAB Answers for the issue, contact Technical Support.

See Also

Related Examples

- Use MATLAB in the Cloud

External Websites

- Network License Manager for MATLAB on Microsoft Azure Reference Architecture

Run License Manager Using Azure

You can connect MATLAB running on the cloud to a network license manager that is also running on the cloud using Azure.

Requirements

To use this network license manager reference architecture for Azure, you need:

- An Azure account.
- A valid MathWorks network license, configured for cloud use.

To configure the network license for cloud use:

- 1 Sign in to your MathWorks Account.
 - 2 Select the license you want to use.
 - 3 Go to **Install and Activate**.
 - 4 In the text box for **License Manager**, click the edit icon (a pencil).
 - 5 Follow the steps for **Change Licensing**.
- To be an administrator of the network license that you want to use.
 - To assume all costs of using Azure.

Deployment

To view instructions for deploying the network license manager for MATLAB reference architecture, select a MATLAB release from this Github repository.

See Also

Related Examples

- Use MATLAB in the Cloud

External Websites

- <https://github.com/mathworks-ref-arch/license-manager-for-matlab-on-azure>

Run License Manager Using Amazon Web Services

You can connect MATLAB running on the cloud to a network license manager that is also running on the cloud using Amazon Web Services (AWS).

Requirements

To use the network license manager reference architecture for AWS, you need:

- An Amazon Web Services (AWS) account with required permissions. To see what is required, look at the example policy.
- An SSH key pair for your AWS account in your chosen region. Create an SSH key pair if you do not already have one. For instructions, see the AWS documentation.
- A valid MathWorks network license, configured for cloud use.

To configure the network license for cloud use:

- 1 Sign in to your MathWorks Account.
 - 2 Select the license you want to use.
 - 3 Go to **Install and Activate**.
 - 4 In the text box for **License Manager**, click the edit icon (a pencil).
 - 5 Follow the steps for **Change Licensing**.
- To be an administrator of the network license that you want to use.
 - To assume all costs of using Amazon Web Services.

Deployment

To view instructions for deploying the network license manager for MATLAB reference architecture, select a MATLAB release from the Github repository.

See Also

Related Examples

- Use MATLAB in the Cloud

External Websites

- <https://github.com/mathworks-ref-arch/license-manager-for-matlab-on-aws>

Install MATLAB on Client Machines

Install Products on Client Machines

To install MATLAB on end-user (client) computers, you must be an administrator for the license or licenses that you want to use when you install MathWorks products. The person performing the installation must have a MathWorks Account and the license (or licenses) must be linked to that account.

To determine whether you are an administrator for one or more network licenses:

- 1 Sign in to your MathWorks Account.
- 2 Select a license in the displayed list.
- 3 Click "Contact Administrator(s)".
- 4 If you see your name there, you are one of the administrators on that license. If you do not see your name and would like to be added, contact one of the names on the list.

Prerequisite for Network Licenses: Install Network License Manager

Your organization may have a mix of individual, designated computer, and network licenses. If you are installing MATLAB on client machines using a network license, you must install the network license manager first. Doing so makes it easier to verify your MATLAB installations, because you can confirm the client computers are accessing the license server correctly at the time of installation.

To install the network license manager on a license server, see "Install License Manager on License Server" on page 3-2.

Choose Installation Procedure

Use the following table to choose an appropriate MATLAB installation procedure.

Type of Installation	Person Who Installs	Procedures
Install and activate interactively with an Internet connection.	Administrator or end user	<p>Follow the instructions in "Install Products Using Internet Connection" on page 1-2.</p> <p>If you want the end user to install the software:</p> <ul style="list-style-type: none"> • Complete the pre-work in the procedure "Have End Users Install Products" on page 4-7. • Have the end user follow the instructions in "Install Products Using Internet Connection" on page 1-2. <p>Note To install the software but leave the activation for the end user, follow the workflow for "Install Products Using File Installation Key" on page 1-9 and do not provide a license.</p>

Type of Installation	Person Who Installs	Procedures
Administrator downloads installer. End user installs and activates interactively with an Internet connection.	Administrator and end user	<ol style="list-style-type: none"> 1 Follow the instructions in “Download Products Without Installing” on page 1-6. 2 If the computer you used to download is not the target computer, copy the download files to the client computer or put them in a network-accessible location. 3 If the end user is performing their own installation, provide the license file and File Installation Key as described in “Have End Users Install Products” on page 4-7. 4 Follow the instructions in “Install Products Using Internet Connection” on page 1-2.
Install and activate interactively on an offline computer	Administrator or end user	<ol style="list-style-type: none"> 1 Follow the instructions in “Download Products Without Installing” on page 1-6. 2 If the computer you used to download is not the target computer, copy the download files to the client computer or put them in a network-accessible location. 3 Follow the instructions in “Install Products Using File Installation Key” on page 1-9. <p>Note To install the software but leave the activation for the end user, follow the workflow for “Install Products Using File Installation Key” on page 1-9 and do not provide a license.</p>
Administrator downloads installer. End user installs and activates interactively on an offline computer.	Administrator and end user	<ol style="list-style-type: none"> 1 Follow the instructions in “Download Products Without Installing” on page 1-6. 2 If the computer you used to download is not the target computer, copy the download files to the client computer or put them in a network-accessible location. 3 Give the end user the license file and File Installation Key as described in “Have End Users Install Products” on page 4-7. 4 Have the end user follow the instructions in “Install Products Using File Installation Key” on page 1-9.

Type of Installation	Person Who Installs	Procedures
Install in silent mode. Instead of performing the installation interactively and providing the information requested by each dialog box, you can run the installer noninteractively. In this mode, you enter all required information into a properties file.	Administrator or knowledgeable end user	"Install Noninteractively" on page 4-5
Activate only	Administrator or end user	"Activate MATLAB Installation Manually" on page 4-8

See Also

Related Examples

- "Install Products"
- "Administer Network Licenses"

Install Noninteractively

When to Install Noninteractively

If you have many installations of MATLAB software to perform, and the information you need to enter for each installation is the same, you can put this information into a properties file and run the MathWorks installer noninteractively. You specify the properties file on the command line when you start the installer and the file provides the installer with the information that you would otherwise provide interactively, using the installer dialog boxes. Noninteractive installation (also called *silent* installation) can save time and prevent errors.

Using Installer Properties File

Note You need a File Installation Key to use the installer properties file (`installer_input.txt`). For information about installation using a File Installation Key, see “Install Products Using File Installation Key” on page 1-9.

To run the installer noninteractively:

- 1 Ensure that the product files, including the MATLAB product installer, are available in an accessible location; for example, in the default downloads folder on your computer or on a network share. If the product files are located in a folder other than the default downloads folder on your computer, the installer file must be located in the same folder as the product files. For information about downloading product files, see “Download Products Without Installing” on page 1-6.
- 2 Create an installer properties file.

Make a copy of the installer properties file template, named `installer_input.txt`. This file is located in the top level of the folder where you downloaded the software (typically, `C:\Users\user\AppData\Local\Temp\mathworks_downloads`).

For example, on a Windows computer, you might execute this command:

```
copy Z:\installer_input.txt C:\temp\my_installer_input.txt
```

- 3 Open your installer properties file using any text editor, and enter values for all the specified parameters. For example, to specify where you want to install products, set the value of the `destinationFolder=` parameter to the full path of the installation folder.

```
destinationFolder=C:\Program Files\MATLAB\R2021b
```

The installer properties file template contains descriptions of each parameter along with valid values. Specify your File Installation Key as the value of the `fileInstallationKey=` parameter.

- 4 Save your changes to the file.
- 5 Start the installer using the `-inputFile` option to specify the full path of your installer properties file as a command-line argument.

For example, on Windows computers, click the **Start** menu and select the **Run** option. In the Run dialog box, enter:

```
setup.exe -inputFile C:\temp\my_installer_input.txt
```

For information about specifying an installer properties file on Linux and macOS computers, see the instructions in the installer properties file template (`installer_input.txt`).

Have End Users Install Products

Provide Products and Licensing Information to Clients

You may want your end users to install MathWorks software themselves, or you may want to assign other staff to do it for you. You can choose to have the person performing the installation to download and run the installer themselves, or you can download the installer and put it somewhere accessible to the person doing the installation.

For this workflow, provide the person doing the installation with the following items:

- **MathWorks license file** — Give users a copy of the MathWorks license file that was processed during installation of the network license manager on your server. This license file must contain the correct SERVER line for the license server you are using. See “License Processing During MATLAB Installation” on page 6-2.

Note Do not give users a copy of the original license file you received in the licensing email. They cannot use the licensing information in this form — it does not include the correct SERVER line. Also, do not forward to users the licensing email you received from MathWorks.

- **Access to product files** — You can download the product files and make them available on a server that is accessible to all clients or on removable media. For these scenarios, users need a File Installation Key to install products. See “Download Products Without Installing” on page 1-6.

If your end users have MathWorks Accounts, you can give them the Activation Key for the license and let them log in to their accounts to install their MathWorks products.

- **Installation instructions** — Refer to the table in “Install Products on Client Machines” on page 4-2 to provide the person performing the installation with the correct instructions, as they differ slightly depending on whether the target computer has an Internet connection.

See Also

Related Examples

- “Install Products on Client Machines” on page 4-2
- “Install Products Using Internet Connection” on page 1-2
- “Install Products Using File Installation Key” on page 1-9

Activate MATLAB Installation Manually

Activation Overview

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 or by more users than allowed by the license option you have acquired. Normally, the installer continues to activation as part of the entire installation process, and there is no action for the end user.

However, there may be occasions to manually activate the software, for example, if the activation during installation fails for some reason, or if the installation was performed using a File Installation Key and no license was supplied.

This topic describes how to activate the software manually should you need to.

If you are an end user who has been asked to activate MATLAB software that was not installed by you, follow the procedure in “Activate Installation Using Internet Connection” on page 4-8 if you have an Internet connection. If you do not, follow the instructions in “Activate Installation Offline” on page 4-11.

Activate Installation from Within MATLAB

- 1 On the **Home** tab, in the **Resources** section, click **Help > Licensing**.
- 2 Select **Activate**.

MATLAB starts the activation application, which walks you through the activation process. Answer the questions on each dialog box, select the license you want to activate, and click **Activate**.

Activate Installation Using Internet Connection

Step 1: Start Activation Application

To start the activation application, use one of the following methods:

- Leave the **Activate MATLAB** check box selected on the Installation Complete dialog box at the end of installation. When the end user starts MATLAB, the activation process automatically starts.
- If you have MATLAB already running, on the **Home** tab, in the **Resources** section, select **Help > Licensing > Activate Software**.
- Navigate to your MATLAB installation folder and open the activation application.
 - **Windows Systems** — Double-click the `activate_matlab.exe` file in `matlabroot\bin\${ARCH}` folder, where `matlabroot` is your MATLAB installation folder, and `${ARCH}` is a platform-specific subfolder, for example: `matlabroot\bin\win64`.
 - **Linux and macOS Systems** — Execute the `activate_matlab.sh` script in the `matlabroot\bin` folder.
- **macOS Systems** — Double-click the activation application icon in the MATLAB application package. To view the contents of the MATLAB application package, right-click (or **Ctrl**+click) the package and select **Show Package Contents**.

Step 2: Choose Whether to Activate Using Internet or Without Internet

Choose whether to activate using an Internet connection or activating offline.

- If you are connected to the Internet, leave the **Activate automatically using the Internet (recommended)** option selected. Activating immediately after installation is the quickest way to start using MATLAB.
- If you are not connected to the Internet, select **Activate manually without the Internet**. If you select this option, you need a license file to activate manually. Your license file identifies the products you can run. Contact the Administrator of the license to get the file if you do not already have it.

Using a Proxy Server

If your Internet connection requires a proxy server, click the **Connection Settings** button. You can enter the server name and port information in the Proxy Settings dialog box, and access other activation options. MathWorks supports several types of proxy configurations: Basic authentication and Digest authentication.

On Windows and macOS computers, the activation application uses your computer proxy settings by default. . If the proxy settings are not set, you can click **Connection Settings** to manually set them.

Step 3: Sign In to Your MathWorks Account

Note If you continued with activation immediately after installation, and you logged in to your account during installation, the activation application skips this step.

Enter the email address and password of your MathWorks Account and click **Next**. The activation application contacts MathWorks to retrieve the licenses linked to your account. If you have enabled Two-Step Verification on your account, enter the verification code sent to your primary method.

If you do not have a MathWorks Account, select the option **I need to create an Account (requires an Activation Key)** and click **Next**.

If you already have a license file, select the option **Enter the full path to your license file, including the file name**, specify the complete path to the file, and click **Next**. After specifying the license file, the activation application skips all the subsequent steps in the process and goes directly to the Activation Complete dialog box.

Note Your license file identifies the products you can run. Contact the administrator of your license to obtain this license file.

Create MathWorks Account

To create an account, enter your email address, first name, last name, and password. You must also provide an Activation Key. A newly created account does not have any licenses linked to it. The Activation Key identifies the license you want to activate.

The administrator on the license can retrieve the key by going to the License Center at the MathWorks website.

Click **Next** to create your account.

Note When you create a new MathWorks Account, you must verify your email address before you can proceed with activation. Before you click **Next** in the Email Verification Required dialog box, go to your email program, open the message from MathWorks, and click the verification link. Then return to this dialog box and click **Next**.

Step 4: Select License

Select a license from the list of licenses linked with your MathWorks Account and click **Next**.

If you want to activate products on a license that is not linked to your MathWorks Account, select the **Enter an Activation Key for a license not listed** option, enter an Activation Key, and click **Next**. An Activation Key is the unique code that identifies a license. You can use the key to activate a license or to link a license to your account. Ask the administrator of the license for the Activation Key.

Step 5: Specify User Name

If you selected an Individual License, you must specify the operating system user name of the person who intends to use the software. The Individual License limits use of the software to a particular user on a particular computer. MathWorks uses the operating system user name to identify this person. The operating system user name is the ID through which a user gains access to a computer. This ID is also known as the login name. To use MathWorks software, you must be logged in to the computer as the user name that you specify.

By default, the activation application fills in the user name of the person running the activation application. To accept this default, click **Next**. If you used your administrator account to install the software but intend to use another account to access the software, you can specify that user name here, and then click **Next**.

Note The installer skips this step for a Designated Computer license. See your license administrator if you have any questions.

Step 6: Confirm Your Activation Information

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

To activate an installation, MathWorks creates a license file that:

- Restricts use to only the computer with the installation
- Restricts use to a particular user if you have activated an Individual License

The installer then copies this license file onto your computer. This license file enables you to run MathWorks products on your computer. MathWorks also keeps a record of the activation in MathWorks systems.

Step 7: Complete Activation

After activating your installation, click **Finish** to exit the activation process.

Step 8: What's Next?

Now that MATLAB and any accompanying products have been installed, you are ready to begin using MathWorks software.

Activate Installation Offline

Step 1: Start Activation

Because you were not logged in to your MathWorks Account during installation, or you started the activation application independently, you must choose whether to activate automatically or manually. Select the **Activate manually without the Internet (recommended)** option and click **Next**.

Step 2: Specify Path to License File

To activate without an Internet connection, you must have a license file. The license file identifies which products you can run. The administrator on the license can retrieve the license file from the License Center at the MathWorks website. Select the **Enter the full path to your license file, including the file name** option and enter the full path to your license file in the text box (or drag and drop the file) and click **Next**.

If you do not have your license file, select the **I do not have a license file** option and click **Next** to get information about how to retrieve a license file.

If You Do Not Have a License File Save the information displayed in the dialog box. You can print a copy of this information by clicking **Print**. Take the information to a computer with an Internet connection and go to the License Center at the MathWorks website. MathWorks uses this information to generate a File Installation Key and a license file. You must have this information with you when you return to the computer on which you want to install and activate the software. To exit the activation application, click **Finish**.

Your installation is not activated yet. You cannot run MATLAB until you retrieve your license file.

Step 3: Complete Activation

After activating your installation, click **Finish** to exit the activation process.

Operate Network License Manager

Update network license manager software, use Revenera utilities, start network license manager

Update Network License Manager Software

Updating the network license manager software requires you to stop and then restart the license manager. You must be a network license administrator to perform this procedure.

To avoid any potential issues with license file operation, consider upgrading the network license manager software whenever you upgrade MATLAB software.

Step 1. Stop Network License Manager

If the network license manager is running, shut it down.

- **Linux and macOS Systems** — Use the `lmdown` command. For additional information, see “Using Command-Line Utilities” on page 5-8.
- **Windows Systems** — Remove the existing service to prevent any conflicts.
 - 1 Start LMTOOLS by double-clicking the `lmtools.exe` file in the `matlabroot\etc\$ARCH` folder, where `matlabroot` is your MATLAB installation folder and `$ARCH` is a platform-specific subfolder, such as `win64`.
 - 2 Select the **Config Services** tab.
 - 3 From the **Service Name** menu, select the service you want to remove, and click **Remove Service**.

Step 2. Select Installation Method

You can choose to download only the software daemons or use the MATLAB installer to update the network license manager.

Update Network License Manager Software with Daemon Download

If you already have the network license manager installed and configured, you can download new network license manager daemons directly to your server instead of using the MathWorks installer to install the latest version of the software. The license manager daemons include:

- **lmgrd** — Network license manager daemon
 - **mlm** — MathWorks vendor daemon
- 1 Stop the network license manager as described in Step 1.
 - 2 Download the ZIP file for your platform from License Manager Download on the MathWorks website.
 - 3 Extract the files from the ZIP file to the network license manager folder. The default location for the license manager files is the `matlabroot\etc\$ARCH` folder, where `matlabroot` is your MATLAB installation folder and `$ARCH` is a platform-specific subfolder.
 - 4 Restart the network license manager, and configure it as needed.

Update Network License Manager Software Using MATLAB Installer

- 1 Stop the network license manager as described in Step 1.
- 2 Install license manager software update. Follow the procedure in “Install License Manager on License Server” on page 3-2.

See Also

Related Examples

- “Start Network License Manager” on page 5-4
- “Monitor Network License Manager” on page 5-7

Start Network License Manager

To start MATLAB software on a client computer, the network license manager must be running on the server. If you configured your operating system to start the network license manager when the computer starts up, the easiest way to start the network license manager is to restart the computer on which you installed the license manager.

There are several other ways to start the license manager, depending on your platform. This topic describes these methods.

Note The user name associated with the network license manager process should be a user that is defined locally on the computer, not defined on a network. The license manager starts up properly only if the user name can be found during the startup process on the computer, before network users are available.

Caution Follow these recommendations when using the network license manager:

- Do not expose `lmgrd` or `mlm` to the Internet or an untrusted network.
 - Start `lmgrd` with the options `-2 -p local` so that local administrator access is required to run `lmdown`.
-

Windows Systems

You can start the network license manager on Windows computers using any of the following methods:

- Use the Windows Services control panel to start or stop the network license manager, if you chose to configure it as a service during installation. On the Windows **Start** menu, select **Settings > Control Panel > Administrative Tools > Services**.
- Use the license management utility, `lmtools.exe`, included in your MATLAB installation in the `matlabroot\etc\$ARCH` folder, where `$ARCH` is a platform-specific subfolder. Start the `lmtools.exe` application and select the **Start/Stop/Reread** tab.

Linux and macOS Systems

To start the network license manager daemons on a Linux or macOS computer, execute the `lmstart` script (located in the `matlabroot/etc` folder), where `matlabroot` represents the name of your top-level MATLAB installation folder. The `lmstart` script stops any currently running daemons and starts new ones.

To run `lmstart` on a macOS computer, open a terminal window using the `Terminal` application (found in `/Applications/Utilities`) and navigate to the `/etc` folder in your MATLAB installation folder:

```
cd /Applications/MATLAB_R2021b.app/etc
```

Caution A user other than root should run the `lmstart` script because it is a security risk to run any program as root that does not require root permissions. The network license manager (`lmgrd`) does not require root permissions.

If you must start the license manager as root, use the `su` command to start `lmgrd` as a nonprivileged user, where *username* is a nonprivileged user.

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

Configure Network License Manager to Start Automatically on Linux Systems

To configure the network license manager to start automatically at boot time on Linux computers, use the standard method for starting services automatically on your Linux distribution.

Start the network license manager service with the `-u username` option, where *username* represents a valid user name other than root.

Caution For security reasons, superuser cannot be an owner of the license manager daemons.

Make sure that the network license manager starts at the very end of the system boot sequence. For the license manager to start correctly, the network must already be running. Use whatever mechanism your version of Linux provides to configure the boot sequence.

See Also

Related Examples

- “Monitor Network License Manager” on page 5-7

Configure License Manager as Service

- 1** Start LMTOOLS by double-clicking `lmtools.exe` in the folder `nlmroot\etc\win64` folder, where `nlmroot` is the folder in which you installed the network license manager.
- 2** Go to the **Config Services** tab.
- 3** Provide the following information:
 - A name used to identify the service
 - The path to the network license manager executable (`lmgrd.exe`)
 - The path to the license file
 - The path to the debug log file
- 4** Check both **Start Server at Power Up** and **Use Service**.
- 5** Click **Save Service**.

See Also

Related Examples

- “Start Network License Manager” on page 5-4

Monitor Network License Manager

This topic describes several utilities that you can use to manage the network license manager. For detailed information about these utilities, see the *License Administration Guide*, included in PDF format in your MATLAB installation (*matlabroot\etc\LicenseAdministration.pdf*).

LMTOOLS is available for Windows computers only. All operating systems can use the command line utilities.

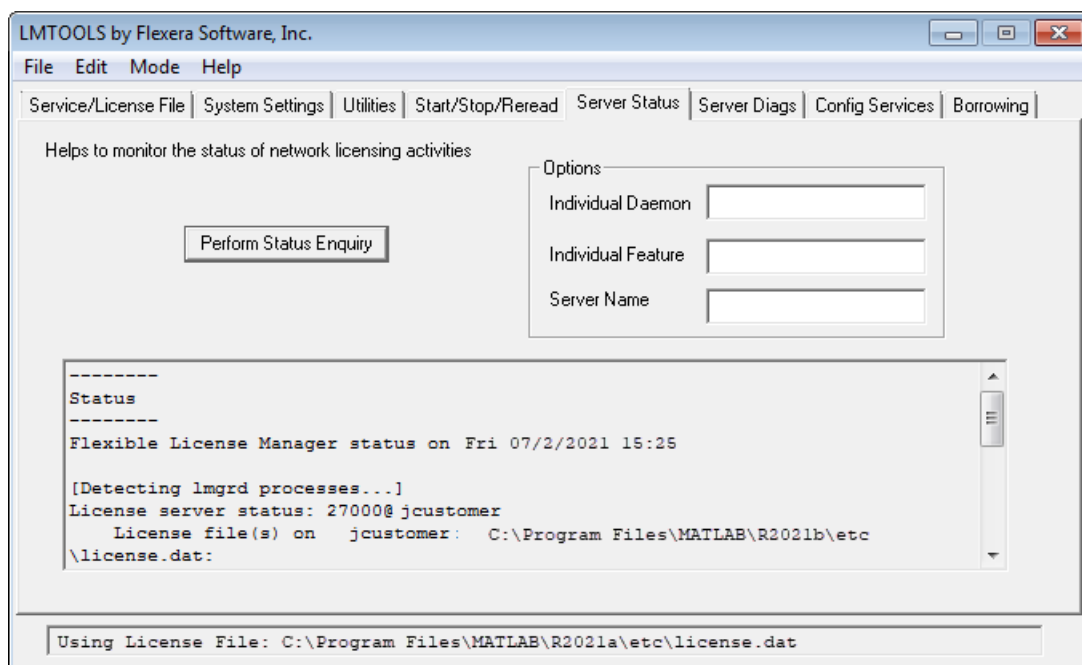
Using LMTOOLS (Windows Only)

On Windows computers, FlexNet® Publisher licensing includes a tool, called LMTOOLS. Using LMTOOLS, you can perform many license management tasks, such as:

- Get the status of the network license manager.
- Start and stop the network license manager.
- Configure the network license manager as a service.

To illustrate, the following example shows how to use LMTOOLS to see the current status of the network license manager:

- 1 Start LMTOOLS by double-clicking the `lmtools.exe` file in the `matlabroot\etc\$ARCH` folder, where `matlabroot` is your MATLAB installation folder and `$ARCH` is a platform-specific subfolder, such as `win64`.
- 2 Select the **Server Status** tab.
- 3 Click the **Perform Status Enquiry** button. LMTOOLS displays the same information as if you had entered the command `lmutil lmstat -a`.



Using Command-Line Utilities

FlexNet licensing includes a set of license management utilities that you can use to start, stop, and monitor the network license manager.

On Windows computers, FlexNet packages all the utilities in a single, command-line executable called `lmutil.exe`. This program is available in the `matlabroot\etc\ARCH` folder, where `matlabroot` is your MATLAB installation folder and `ARCH` is a platform-specific subfolder, such as `win64`. For example, to run a status check of the network license manager, open a DOS command window and run `lmutil` specifying `lmstat` as an argument:

```
lmutil lmstat -a -c "C:\Program Files\MATLAB\R2021b\etc\license.dat"
```

The `-a` option requests a verbose listing. You must also include the `-c` option to specify the license file to use. You must use this option with every `lmutil` option. If your installation path contains spaces, enclose the path in quotes. The following listing is a portion of the information returned.

```
lmutil - Copyright (c) 1989-2014 Flexera Software Inc. All Rights Reserved.
Flexible License Manager status on Tue 11/5/2014 10:11

[Detecting lmgrd processes...]
License server status: 27000@ah-jcustomer
License File(s) on customerj: C:\Program Files\MATLAB\R2021b\etc\license.dat:

    customerj: license server UP (MASTER) v.11.9

Vendor daemon status (on ah-jcustomer):

    MLM: UP v11.9

Feature usage info:

Users of MATLAB: (Total of 5 licenses available)
Users of SIMULINK: (Total of 5 licenses available)
Users of Control_Toolbox: (Total of 5 licenses available)
Users of Identification_Toolbox: (Total of 5 licenses available).

To view a list of all the utilities in the lmutil package, type:
```

```
lmutil -h
```

To get help for a particular utility, type the name of the utility with the `-h` option, as in the following example:

```
lmutil lmstat -h
```

On Linux and macOS computers, these license management utilities are individual executables, available in the `matlabroot/etc` folder. For example, to view the status of the network license manager, use the `lmstat` utility, as follows:

```
lmstat -a

lmutil - Copyright (c) 1989-2016 Flexera Software Inc. All Rights Reserved.
Flexible License Manager status on Fri 11/4/2016 10:11

License server status: 27000@ah-jcustomer
License File(s) on customerj: /user/local/MATLAB/R2021b/etc/license.dat:

    customerj: license server UP (MASTER) v.11.9

Vendor daemon status (on customerj):
```

MLM: UP v11.9

Feature usage info:

Users of MATLAB: (Total of 5 licenses available)

Users of SIMULINK: (Total of 5 licenses available)

To get help for a particular utility, use the `-h` option, as in the following example:

```
lmstat -h
```

The following table lists the names of the most useful license management tools included.

Utility	Description
<code>lmdiag</code>	Diagnose license checkout problems.
<code>lmdown</code>	Shut down all license daemons (both <code>lmgrd</code> and all vendor daemons) on the license server node.
<code>lmhostid</code>	Report the host ID of a system.
<code>lmreread</code>	Make the network license manager reread the license file and start any new vendor daemons. Note When you use <code>lmreread</code> to reprocess a license file for a user-based license, changes to INCLUDE statements in the associated network license manager options file take effect after a 15-minute delay.
<code>lmstat</code>	Display the status of all network licensing activities.
<code>lmswitchr</code>	Switch to another report log file.
<code>lmver</code>	Determine the version of a library or binary file.

Acknowledgments

This topic lists the copyright owners of content used in the network license manager vendor daemon.

MD5

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See Also

Related Examples

- “Start Network License Manager” on page 5-4
- “Update Network License” on page 6-4

Uninstall Network License Manager

Note This procedure is for Windows only.

Use the uninstall script to remove the network license manager.

At the command prompt:

- 1 Navigate to <installRoot>/etc/win64.
- 2 Run uninstall.bat, either by double-clicking the script or entering it at the command prompt.

Running the script performs the following:

- Stops the "MATLAB License Server" service
- Removes "MATLAB License Server" service
- Deletes all the files in <installRoot>/etc/win64

See Also

Related Examples

- "Start Network License Manager" on page 5-4
- "Update Network License Manager Software" on page 5-2

Administer Network Licenses

Configure licenses and modify license options, update network licenses

Update or Modify Network License Files

About Network Licenses

Network licenses contain the encrypted passcodes for each product that your organization is licensed to install and run.

In general, you do not need to modify the network license file on the server or on the client computers. However, in some situations, you must edit the license file:

- When you change the license server name (for example, if the license is now being hosted on a new server).
- When you change the port number (for example, if the port address for the server has changed). The following support article contains instructions for migrating MATLAB client installations: "Migrate MATLAB Client Installations to New License Server".
- When you update the network installation with a new license file. See Update License File on License Server on the MathWorks website.

Inside the Network License File

The network license file is a specially formatted ASCII text file that contains encrypted product passcodes for each product you are licensed to run. Each product passcode identifies the number of keys available for that product. The network license manager grants or denies access to a product depending on the availability of the license keys associated with each product.

- Each INCREMENT line identifies a product, the number of keys available for the product, and other information. (The INCREMENT lines in your license file might not include every element shown in the example.)
- The backslash (\) character indicates that the line continues onto the next line.
- The lines that begin with a pound sign (#) are comments. The MathWorks installer uses the information in these comment lines such as license server host ID or Internet address when it processes the license file during installation.

```
# BEGIN-----cut here-----CUT HERE-----BEGIN
# MATLAB license passcode file.
# LicenseNo: 12345           HostID: INTERNET=144.212.101.43
INCREMENT TMW_Archive MLM 18 01-sep-2020 0 \
    BC9DE773A77D15AF8 VENDOR_STRING=83 HOSTID=DEMO SN=12345
INCREMENT MATLAB MLM 18 01-sep-2020 1 \
    4C9D3348561BE9E3B USER_BASED DUP_GROUP=U SN=12345
INCREMENT SIMULINK MLM 18 01-sep-2020 1 \
    1CD148466EF58DF8B USER_BASED DUP_GROUP=U SN=12345
INCREMENT Signal_Toolbox MLM 18 01-sep-2020 1 \
    6CF74B458BA143DC3 USER_BASED DUP_GROUP=U SN=12345
# END-----cut here-----CUT HERE-----END
```

License Processing During MATLAB Installation

When you install MATLAB software, the installer processes the network license file:

On the server, the installer:

- Makes a copy of the network license file named `license.dat`, and puts this copy in the `/etc` folder of the MATLAB installation folder.
- Adds a `SERVER` line and a `DAEMON` line to the file. The `SERVER` line identifies the server host and port number. The `DAEMON` line identifies the name of the network license manager daemon.
- Stores the processed license file in `matlabroot/etc`, where `matlabroot` is the MATLAB installation folder.
- When it creates an options file during installation, it also adds the `Options=` syntax to the `DAEMON` line in your license file. This syntax specifies the path name 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\R2021b\etc\win64\MLM.exe" \
          options="C:\Program Files\MATLAB\R2021b\etc\mlm.opt"
```

On the client computer, the installer:

- Creates a copy of the license file you specify named `network.lic`, and puts the file in the `\licenses` folder in the MATLAB client installation folder.
- Deletes all the `INCREMENT` lines and the `DAEMON` line in the license file, leaving the `SERVER` line. It also adds the statement `USE_SERVER` to the file. This line points the client to the network license file on the server, which contains all the passcodes for the products.

MATLAB License Search Path

MATLAB reads the license file at startup to check for product licensing. MATLAB searches for the license file in the following locations, in the specified order:

- 1 The license file specified on MATLAB startup command line using the `-c` option. The `-c` option overrides the entire search order and uses only what was specified on the command line. This is the *only* path MATLAB searches.
- 2 Environment variables `MLM_LICENSE_FILE` and `LM_LICENSE_FILE`.
- 3 The profile folder of the person starting the program
- 4 The `\licenses` folder in the MATLAB installation for files named `license.dat` or any file with the extension `.lic`.

After it finds a MathWorks license file, MATLAB stops searching.

Set MATLAB License Search Path

By default, MATLAB installs the license file on the client computer in the `\licenses` folder in the MATLAB client installation folder. However, you can override that location in one of either of the following ways:

- Specify the path to the license file on the command line during MATLAB startup using the `-c` option.

The `-c` option overrides the entire search order, including environment variables, and uses *only* what was specified on the command line. This is the *only* path MATLAB searches.

You can specify a list of paths to search. When using the `-c` option, keep in mind the following:

- If the path to your license file contains a space, enclose the path name in quotation marks.
- If you are specifying more than one license file, make sure to enclose the entire list of license files in quotation marks.
- Set environment variables.
 - **MLM_LICENSE_FILE** — Specifies the location of the license file, but only for MathWorks products. (Recommended, because it affects only MathWorks products.) MATLAB searches for this environment variable first.
 - **LM_LICENSE_FILE** — Specifies the location of the license file for all applications using the network license manager on this server. It is not recommended that you use this environment variable, as it affects all Flex-enabled products.

You can use one option or the other, but not both.

Update Network License

When you receive a new license from MathWorks because the products or seat counts have changed, plan to update the license file on the network server at a time when users are least likely to be accessing a MATLAB license. This procedure requires you to stop and start the network license manager (do not perform a re-read as it can interfere with certain licenses).

Note Do not follow this procedure to upgrade to a new release of MATLAB. To upgrade to a later release, see “Get New MATLAB Release” on page 2-6.

You must be a license administrator to perform a license file update.

To update the license file on the server:

- 1 Go to the License Center on the MathWorks website and sign in to your account.
- 2 Select the licenses you want to update.
- 3 Click **Install and Activate**.
- 4 Get the license file for the server you are updating.
- 5 Stop the network license manager.
- 6 Open both the existing license on the server and the new license in an editor. You are going to copy most of the new license into the old license with these instructions:
 - a In the existing license, delete all content except the SERVER and DAEMON lines at the top of the file.
 - b In the new license, copy all content starting from below the SERVER and DAEMON lines to the end.
 - c Paste the copied content into the existing license below the SERVER and DAEMON lines.
 - d Save the existing license. You can store the new license as a backup, remembering that the SERVER and DAEMON lines must be replaced with those specific to your organization.
- 7 If you have an options file, depending on how it is configured, you may have to update it. If you do not have an options file, skip this step.
- 8 Start the network license manager.

You can perform a status inquiry to confirm that the license file has been updated. The following support article contains instructions for performing a status inquiry: "Monitor the Usage of Licenses or Keys".

See Also

External Websites

- [License Center](#)

