

# Installation and Licensing

## Installation Guide



# MATLAB® & SIMULINK®

R2022b



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### *Installation Guide*

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# MathWorks Product Installation

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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.

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

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**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?

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**Linux Users** If you plan to run the installer using the root account, see this MATLAB Answer: Why can't I install MATLAB with the root account in Linux?

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### 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"> <li>• Use an Activation Key. See your license administrator.</li> <li>• Create a MathWorks Account and link your organization's license to it.</li> </ul>
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

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

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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**<sup>®</sup> — You can choose to put shortcuts for starting MATLAB in the **Start** menu and on the desktop.
- **Linux**<sup>®</sup> — 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, but note that all platforms are downloaded into the same top level folder.

## 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 **Close**.

## 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`

If you plan to run the installer using the root account, see this MATLAB Answer: [Why can't I install MATLAB with the root account in Linux?](#)

- **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.

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

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**Linux Users** If you plan to run the update\_installer using the root account, see this MATLAB Answer: Why can't I install MATLAB with the root account in Linux?

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### 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**.

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**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).

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**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**.

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**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?](#)

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## 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

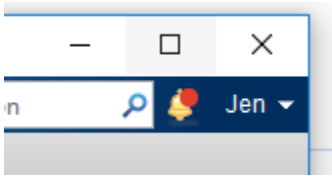
### Update Existing Installation

Download and install a more recent version for the release of MATLAB that you currently have installed. For example, if you have R2022b installed, you might be able to download a more recent version of R2022b.

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 Downloads on the MathWorks website.
- 2 From the **I WANT TO:** menu, select Get Updates.
- 3 Under **Get Updates for MATLAB and Simulink Products**, click **Get Update Package for Offline Installation**.
- 4 Under **Select Release**, choose the release you want to download. If you don't see the release you want, click **Show More**.
- 5 Generally, the downloads page detects the operating system of the computer you are on and shows that update package. If the update package shown is not for your operating system, click the down arrow on the button to select the appropriate package.
- 6 Follow the instructions to download the update package to the user's computer or to a network share location.
- 7 Unzip the update package to a new folder. For example, C:\temp\R2022b\_Update1\_Package. Make sure the folder is accessible to the user's computer.
- 8 On the user's computer, close all instances of MATLAB.
- 9 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**

On the Mac, when you unzip, the contents of the ZIP file are extracted at the same directory level the unzip command is run at.

- a Unzip the update installer, for example:

```
unzip ./R2022b_Update1_macOS_package.zip
```

This creates the following folder for you:

```
/Users/username/Downloads/R2022b
```

- b Run `update_installer` with the following command-line arguments:

```
./update_installer -updatepackage /Users/username/Downloads
```

## Log Files

During the installation and activation of MATLAB and other MathWorks products, the MathWorks product installer creates a log file that can be used to obtain information on the installation processes.

The installation log file is named `mathworks_%username%.log` and the activation log file is named `aws_%username%.log`. In both cases, `%username%` is the person running the installer.

To locate your log files, see [Where are the MATLAB Installation and Log Files Located?](#)

## 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 R2022b, 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 check if a new release is available, in MATLAB, click **Help > Check for Updates**. The Add-On Manager opens with the **Updates** tab selected.

- If there is no newer release, then you are notified that your MATLAB is up to date.
- If there is a new release available, MATLAB displays a banner prompting you to get the new release.

To get the new release, if it is available:

- 1** Click **Get Latest Release** 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, even if 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 4-9.

## 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](http://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 can I find MATLAB license files?*
- 10 Start MATLAB.

If you encounter difficulties, Contact Support.

### See Also

### Related Examples

- “Individual License Administration”

## Uninstall MathWorks Products

Your license to use MathWorks products provides a set number of installations you can perform (for particulars, check your license agreement). Each of these installations is called an activation.

When you uninstall, you remove the software for a specific release from that computer, but that installation is still considered activated and counts toward your total.

You may have installations you want to remove but not deactivate, and you may have installations you want to deactivate but not remove. Consult the following table to determine which of these removal processes work best for your scenario.

Action	Rationale
Uninstall (but not deactivate)	<ul style="list-style-type: none"> <li>You want to remove a release of MATLAB but still use a different release of MATLAB.</li> </ul> <p>For this scenario, you would uninstall the unwanted version but not deactivate the license.</p> <ul style="list-style-type: none"> <li>You are troubleshooting a corrupted or failed installation.</li> </ul> <p>For this scenario, you might want to uninstall the failed version so that you could deactivate the license on the computer unless you decided to install on a different machine.</p>
Deactivate (but not uninstall)	<p>You have used all your activations, and you now want to install on another machine.</p> <p>For this scenario, you would deactivate the license on a machine you no longer need and use the license on a new machine.</p> <p>If you do not plan to run MATLAB again on the deactivated machine, you should uninstall the software.</p>
Uninstall and deactivate	<p>Decommissioning or destroying a machine.</p> <p>For this scenario, if the computer is still working, you can uninstall the software and deactivate the license on the same computer. If the computer is unusable or lost, there is still no need to deactivate the license, but you won't have to uninstall the software.</p> <p><b>Note</b> If you uninstall the software before you deactivate the license, use one of the other methods for deactivation.</p>

To uninstall, follow the procedures in this section. To deactivate, see “Deactivate Your Installation” on page 2-12.

## Uninstall Products Interactively

### Uninstall Products from Windows Systems

To uninstall MathWorks products from your computer:

- Exit MATLAB.
- Start the uninstaller, using any of the following methods.
  - On computers running Windows 10, go to **MATLAB R2022b** 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 R2022b**.
- Assuming you selected the default folder when you installed MATLAB, navigate to `C:\Program Files\MATLAB\R2022b\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 2-11.

- 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\R2022b
```

*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_R2022b.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 4-4

## Deactivate Your Installation

Your license to use MathWorks products provides a set number of machines on which you can install (for particulars, check your license agreement). Each of these installations is called an activation.

When you deactivate a license from a machine, you remove all the activations on the machine that used that license. Deactivating a license makes that activation available for another computer. Deactivating one license does not affect other licenses being used on the same machine.

You may have installations you want to remove but not deactivate, and you may have installations you want to deactivate but not remove. Consult the following table to determine which of these removal processes work best for your scenario.

Action	Rationale
Uninstall (but not deactivate)	<ul style="list-style-type: none"> <li>You want to remove a release of MATLAB but still use a different release of MATLAB.</li> </ul> <p>For this scenario, you would uninstall the unwanted version but not deactivate the license.</p> <ul style="list-style-type: none"> <li>You are troubleshooting a corrupted or failed installation.</li> </ul> <p>For this scenario, you might want to uninstall the failed version so that you could deactivate the license on the computer unless you decided to install on a different machine.</p>
Deactivate (but not uninstall)	<p>You have used all your activations, and you now want to install on another machine.</p> <p>For this scenario, you would deactivate the license on a machine you no longer need and use the license on a new machine.</p> <p>If you do not plan to run MATLAB again on the deactivated machine, you should uninstall the software.</p>
Uninstall and deactivate	<p>Decommissioning or destroying a machine.</p> <p>For this scenario, if the computer is still working, you can uninstall the software and deactivate the license on the same computer. If the computer is unusable or lost, there is still a need to deactivate the license, but you won't have to uninstall the software.</p> <p><b>Note</b> If you uninstall the software before you deactivate the license, use one of the other deactivation methods.</p>

To deactivate, follow the procedures in this section. To uninstall, see “Uninstall MathWorks Products” on page 2-9.

### Select a Deactivation Procedure

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. See “Deactivate License on Online Computer” on page 2-13.
- If you do not have internet connectivity, or if you have a limited internet connection (for example, if there is a firewall), there is a two-step process - the first step is performed on the computer and the second part is completed in License Center. See “Deactivate License on Offline or Internet-Limited Computer” on page 2-13.



- You can still deactivate the license if the computer has been destroyed or lost. See “Deactivate License on Lost or Destroyed Machine” on page 2-15.

When you deactivate a license, you deactivate all the installations of that license on a particular computer. For example, if you have two different releases of MATLAB installed using the same license, and you deactivate this license, deactivation renders both of those releases unusable.

## Deactivate License on Online Computer

To deactivate a license on a computer with an internet connection:

- 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 R2022b** 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_R2022b.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 When the confirmation is complete, click **OK**.

After you deactivate a license, the application displays an additional column listing the status of the licenses. To deactivate another license, select it from the list and click **Deactivate**. When you are finished, click **Close** to exit the deactivation application.

## Deactivate License on Offline or Internet-Limited Computer

To deactivate a license on a computer without an internet connection, or one with a limited internet connection (for example, if there is a firewall), you perform the first part on the machine with the license you want to deactivate, and the second part in License Center using a machine with an internet connection to complete the deactivation.

### Step 1. On the Offline Machine

- 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 R2022b** 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\_R2022b.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**.
- 4 The application will attempt to contact MathWorks and when it cannot, it displays the Deactivation Next Steps dialog box. This dialog box contains the deactivation string. Copy or print this string.

### Step 2. In License Center

- 1 On a machine connected to the Internet, go to the MathWorks website and sign in to your account
- 2 Select the license you want to deactivate.
- 3 Click the Install and Activate tab. Click the link to Deactivate a Computer.
- 4 You may see more than one activation label. Click the X under "Deactivate" on the line with the activation you want to deactivate.
- 5 In the text box in Step 2, enter the deactivation string you copied from the offline computer.
- 6 Click **Submit Deactivation String**.
- 7 When you have finished, go back to the offline machine.

### Step 3. Back on the Offline Machine

- 1 Return to the deactivation application on the offline machine.
- 2 In the **Complete Deactivation** dialog, click **OK**.

After you deactivate a license, the application 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.

## Deactivate License on Lost or Destroyed Machine

If you no longer have access to MATLAB on the computer, you can deactivate using the "Manual Deactivation agreement" in License Center.

- 1 On a machine connected to the Internet, go to the MathWorks website and sign in to your account
- 2 Select the license you want to deactivate.
- 3 Click the Install and Activate tab. Click the link to Deactivate a Computer.
- 4 You may see more than one activation label. Click the X under "Deactivate" on the line with the activation you want to deactivate.
- 5 At the bottom of the dialog, click **Manual Deactivation agreement**.
- 6 Follow all prompts to complete deactivation.

## 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](http://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. Start the 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. Start the 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, R2022b) 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
```

If you plan to run the installer using the root account, see this MATLAB Answer: Why can't I install MATLAB with the root account in Linux?

- 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

## Configure License Manager for MATLAB on Cloud Platforms

If you are a license administrator, you can:

- Configure your network license manager for running MATLAB and other MathWorks products in the cloud.
- Run your network license manager on premises or on the cloud.

Consult the table below for the configuration you want to use.

Scenario	License Type	Procedure
You want your end users to use online licensing.	Campus-Wide	Your license is already configured for cloud use. Make sure the Campus-Wide License is linked to your account.
You want to connect MATLAB running on the cloud to an existing on-premises network license manager.	Campus-Wide, Concurrent, or Network Named User	See “Connect License Server with MATLAB on the Cloud” on page 3-8.
You plan to run the network license manager on a separate virtual machine than MATLAB.	Campus-Wide, Concurrent, or Network Named User	See “Install License Manager on Virtual Machine” on page 3-10.
You want to connect MATLAB running on the cloud to a network license manager that is also running on the cloud.	Campus-Wide, Concurrent, or Network Named User	See: <ul style="list-style-type: none"> <li>• “Run License Manager Using Amazon Web Services” on page 3-14</li> <li>• “Run License Manager Using Azure” on page 3-13</li> <li>• “Run Network License Manager from Azure Marketplace” on page 3-12</li> </ul>
If you do not see a procedure for what you want to do for your license type, Contact Support..		

---

**Note for Administrators** Your network license option may be eligible for online licensing, which greatly simplifies enabling cloud usage. To learn more, and to see if your license option is eligible, Contact Support..

---



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**Note for End Users** Your license may be eligible for running MathWorks software in the cloud. To learn more, see “License Requirements for MATLAB on Cloud Platforms”.

---

### See Also

### Related Examples

- “Connect License Server with MATLAB on the Cloud” on page 3-8

- “License Requirements for MATLAB on Cloud Platforms”

## Connect License Server with MATLAB on the Cloud

If you already have an on-premises license server, you can connect MATLAB running in the cloud with a network license manager running on the existing server. (For information about running the network license manager on the cloud instead, see “Configure License Manager for MATLAB on Cloud Platforms” on page 3-6).

---

**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
- “Configure License Manager for MATLAB on Cloud Platforms” on page 3-6
- “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 See “Start Network License Manager” on page 5-4.

## 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 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
Online (internet connected)	Administrator or user	<p><b>Administrators:</b></p> <p>Follow the instructions in "Install Products Using Internet Connection" on page 1-2.</p> <p><b>Users:</b></p> <p>Follow the directions in "Have End Users Install Products" on page 4-6. Then, follow the instructions in "Install Products Using Internet Connection" on page 1-2.</p>
Offline	Administrator or user	<p>Follow the directions in "Have End Users Install Products" on page 4-6.</p> <p>Then, use the instructions in "Install Products Using File Installation Key" on page 1-9.</p>

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 user	"Install Noninteractively" on page 4-4

## 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\R2022b
```

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

**Note** If you arrived at this topic because of the error "Network License File Required" and you have already linked the network license to your MathWorks Account, contact your administrator to get a copy of the network license file, and then return to the installer.

### Select a Procedure

Consult the following table to determine which procedure to use.

Role	Procedure to follow
<b>MATLAB User</b>	"Option #1: Link Network License to Your MathWorks Account" on page 4-6 <b>When to use:</b> You plan to update and upgrade MATLAB releases yourself. This option requires you to get a copy of your organization's network license file.
	"Option #2: Use License File and File Installation Key to Install" on page 4-7 <b>When to use:</b> You are asked to perform this installation only one time and do not expect to be installing updates and upgrades yourself. If your computer is offline, you must use this option.
<b>Administrator</b>	"Have Others Install Software" on page 4-7 <b>When to use:</b> When you want the MATLAB user or a member of staff to perform the installation.
	"Administrator Installs Software" on page 4-8 <b>When to use:</b> When you plan to perform the client installations yourself.

### MATLAB Users

As the user of the software, you have two options for installing MATLAB yourself using a network license. Your administrator may have a preference as to which procedure you do.

Both options require you to get a license file from your license administrator. This license has been configured for your organization.

#### Option #1: Link Network License to Your MathWorks Account

If your computer is offline, you must follow the workflow in Option #2.

To link your license:

- 1 Contact your administrator to get permission to link the network license to your MathWorks Account. The administrator will need to give you the network license number and a license file customized for your organization. Copy this license file to the machine where you are planning to install MATLAB.
- 2 Using the network license number, link the network license to your MathWorks Account. For instructions, go to License Center.



If you select this option, you can follow the online installation procedure as documented in “Install Products Using Internet Connection” on page 1-2 with the following difference:

During the online installation, when prompted, specify the network license linked to your account. The installer recognizes it as a network license and prompts you for the license file. Enter the path to the license file and click **Next** to continue installing.

### **Option #2: Use License File and File Installation Key to Install**

For this workflow, your computer can be connected to the Internet or offline. If your machine is offline, you must use this workflow.

- 1 Contact your administrator to get a license file, one that has been configured specifically for your organization, and a file installation key (FIK).
- 2 Copy the license file to the machine where you are planning to install MATLAB.
- 3 Start the installer. If you did not download the installer, ask the administrator if they put the installer and product files in an accessible place.
- 4 After you start the installer, from Advanced Options, select **I have a File Installation Key**.
- 5 Follow all prompts to finish installing the software.

If you have questions about this process, see “Install Products Using File Installation Key” on page 1-9.

## **Administrators**

You may want your users to install MathWorks software themselves, you may want to assign other staff to do it for you, or you may choose to perform the installation yourself.

### **Have Others Install Software**

To have others perform the installation:

- 1 Decide if you want the person performing the installation to download and run the installer themselves, or if you want to download the installer and put it and the product files somewhere accessible to the person doing the installation. For the latter, see “Download Products Without Installing” on page 1-6.
- 2 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.

---

- 3
  - If the user wants to link the license to their account, give them the license number also.
  - If they are going to follow the offline workflow, give them the FIK also. You can get the FIK from License Center:

Go to the **Install and Activate** tab. Click **Advanced Options**. Select the release or verify the release selected and then click **Done**. You will get both a license file and activation key, but as noted previously, give the user the processed license file, not the one from this procedure.

- 4 For either option, have the person follow the instructions in “MATLAB Users” on page 4-6.

### **Administrator Installs Software**

If you - the administrator - are going to install the software, you can select any of the following procedures:

- “Install Products Using Internet Connection” on page 1-2- For this workflow, you must have a MathWorks Account with the network license and a copy of your organization's MathWorks license file.
- “Download Products Without Installing” on page 1-6 and “Install Products Using File Installation Key” on page 1-9 - For this workflow, you need both the license file and and a FIK.
- “Install Noninteractively” on page 4-4.

For more information, see “Install Products on Client Machines” on page 4-2.

### **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 selected. Normally, activation is performed during installation, and there is no separate 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.

You can follow these procedures also if you are an end user who has been asked to activate MATLAB software that was not installed by you.

- To perform an online activation from within MATLAB, the computer must be connected to the Internet.
- To perform an offline activation from within MATLAB, you must have a license file.
  - If you are using an individual license, use an online machine to go to License Center to get the license file (if you don't know what type of license you have, you can find that out in License Center).
    - Select license to use.
    - Go to the Install and Activate tab.
    - Click **Activate to Retrieve License File**. Download and transfer the license file to the offline machine.
  - If you are using a shared license, contact your administrator to get a license file configured especially for your organization. Copy it to the offline machine.

## Step 1. Launch Activation App

You can launch the activation app from within MATLAB or from the operating system command line.

### Launch Activation App from MATLAB

Follow these steps:

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

### Launch Activation App from Command Line

- **Windows Systems** — in the search box on the taskbar, enter "Activate" to bring up the **Activate MATLAB** application.
- **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**.

- Navigate to your MATLAB installation folder and open the activation application.
  - **Windows Systems** — Double-click the `MathWorksProductAuthorizer.exe` file in `matlabroot\bin\${ARCH}` folder, where `matlabroot` is your MATLAB installation folder, and `${ARCH}` is a platform-specific subfolder, for example: `matlabroot\bin\win64`.
  - **Linux and macOS Systems** — Run `MathWorksProductAuthorizer` in the `matlabroot\bin\${ARCH}` folder, where `matlabroot` is your MATLAB installation folder, and `${ARCH}` is a platform-specific subfolder, for example: `matlabroot\bin\linux64` folder.

## Step 2. Activate License

---

**Note** The license file (offline) workflow is started automatically if the computer is offline. However, if the computer is connected to the Internet, it starts the online workflow.

- To switch to the license file workflow, from **Advanced Options**, select I want to use a license file.
  - To switch from the license file workflow to the online workflow, from **Advanced Options**, select I want to link to a license.
- 

### Online Workflow

- 1 Enter the email address you use for your MathWorks Account.  
If you do not have a MathWorks Account, you can create one at this time.
- 2 Select a license from the list of licenses linked with your MathWorks Account and then click **Next**.
- 3 Make sure the selections are correct and then click **Activate**.

### Offline (License File) Workflow

- 1 If you are prompted for your email address, under **Advanced Options**, select I want to use a license file.
- 2 Enter the path to the license file and then click **Activate**.

## What's Next?

You are now ready to begin using MathWorks software.

# Operate Network License Manager

---

Update network license manager software, use FLEXlm<sup>®</sup> 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_R2022b.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

### Configure Service

To configure the network license manager as service, which starts the network license manager when the machine is restarted, follow these steps:

- 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 Services**.
- 5 Click **Save Service**.

### Remove 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 If you have more than one network license manager service, select the MathWorks service (for example, "MATLAB License Server").
- 4 Click **Remove Service**.

When prompted for confirmation, answer **Yes**.

- 5 Exit LMTOOLS.

### 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.

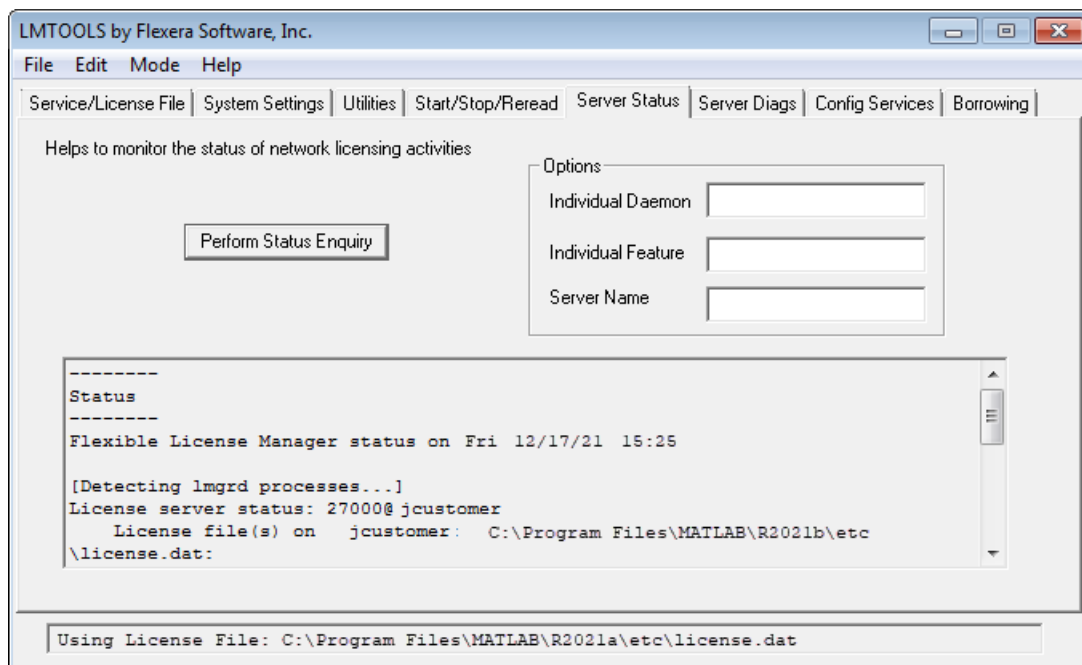
### Using LMTOOLS (Windows Only)

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\R2022b\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) 1989-2018 Flexera Software Inc. All Rights Reserved.
Flexible License Manager status on Fri 12/17/2021 10:11

[Detecting lmgrd processes...]
License server status: 27000@lmsvr-837962
License File(s) on lmsvr-837962: C:\Program Files\MATLAB\R2022b\etc\license.dat:
```

```
    lmsvr-837962: license server UP (MASTER) v.11.16.2
```

```
Vendor daemon status (on lmsvr-837962):
```

```
    MLM: UP v11.16.2
```

```
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) 1989-2018 Flexera Software Inc. All Rights Reserved.
Flexible License Manager status on Fri 12/17/2021 10:11
```

```
License server status: 27000@lmsvr-837962
License File(s) on lmsvr-837962: /usr/local/MATLAB/R2022b/etc/license.dat:
```

```
    lmsvr-837962: license server UP (MASTER) v.11.16.2
```

```
Vendor daemon status (on lmsvr-837962):
```

MLM: UP v11.16.2

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.  <b>Note</b> When you use <code>lmreread</code> to reprocess a license file for a user-based license, changes to <b>INCLUDE</b> 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 [Answer How Do I Update the License File Used by the License Manager?](#)

### 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-----BEGIN-----BEGIN
# MATLAB license passcode file.
# LicenseNo: 123456          HostID: 6C4B905F446E
#
# R2021b
#
INCREMENT MATLAB MLM 46 30-jan-2025 13 FDC7243F4976 \
  VENDOR_STRING=vi=0:at=200:ae=1:lu=300:lo=CN:ei=1234567:lr=1:2p=0: \
  DUP_GROUP=UH asset_info=123456 ISSUED=21-Nov-2021 BORROW=720 \
  NOTICE=product=MATLAB SN=123456 SIGN="00C8 0547 EFD7 50D7 B9CE \
  4C9D 3348 561B E9E3 6CCA 7986 C2F6 38C8 794F EE84"
INCREMENT SIMULINK MLM 46 30-jan-2025 1 7DE4D05FF067 \
  VENDOR_STRING=vi=0:at=200:ae=1:lu=300:lo=CN:ei=1234567:lr=1:2p=0: \
  DUP_GROUP=UH asset_info=123456 ISSUED=21-Nov-2021 BORROW=720 \
  NOTICE=product=SIMULINK SN=123456 SIGN="00BE C534 0A32 1821 \
  AFCE D040 2085 3E00 9005 4983 7EFB 875F E4A7 FEE6 9548"
```

### 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.
- For Network Named User licenses, when the installer creates an options file during installation, it also adds the `Options=` syntax to the `DAEMON` line in your license file. This syntax specifies the 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\R2022b\etc\win64\MLM.exe" \
          options="C:\Program Files\MATLAB\R2022b\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](#)

