

The MATLAB Online Desktop

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Much of MATLAB Online is the same as the installed version, but there are differences that are due to working inside a web browser. Some of those differences are highlighted in the video entitled, “The MATLAB Desktop”, but not all of them. We’ve categorized the difference you’ll see into three categories below.

1. Functional differences: the behavior of installed MATLAB and MATLAB Online differ. These differences are not in how code behaves but where different steps are required in MATLAB Online to perform a task than the installed version.
2. User interaction differences: slightly different or more specific steps may need to be taken to achieve a result navigating in MATLAB Online as opposed to the installed version.
3. File Management and Cloud Storage: this section details ways to move files to and from your cloud storage and how to synchronize files with your computer (particularly useful if you have both the installed version and MATLAB Online).

Functional Differences

Stopping long running commands

In desktop MATLAB you have two options to stop long running code:

1. Press ‘ctrl+c’ to stop the executing code
2. Press the “Pause” button in the Editor Toolstrip to pause the code and enter debug mode to investigate the cause.

In MATLAB Online, you only have the option to terminate the code by pressing the “Stop” button located in the lower-right corner of the Command Window. After stopping the code, you can set a breakpoint in the code to investigate the cause.

Saving a file in the Editor Window

Desktop MATLAB automatically saves changes to an active file in the Editor Window when you click away from the Editor.

MATLAB Online automatically saves changes approximately once a minute. Therefore, you could make changes, test them at the command prompt without the changes being saved first. *Before running the file in the Command Window, habitually check the Save icon.* If it is blue, there are unsaved changes to the file. Click the icon to save before testing your code. You can also look for an * symbol next to the filename in the Editor to identify a file with unsaved changes.

Comment wrapping

Unlike in desktop MATLAB, long comments will not automatically wrap to a new line in MATLAB Online. This has no effect on code execution, but does affect readability of the code. You have to manually create new comment lines in MATLAB Online.

Indenting of code in the Editor Window

Both desktop MATLAB and MATLAB Online use automatic indenting of code, however, the auto-indentation used in MATLAB Online is different than the default used on the desktop. This difference is purely cosmetic and has no effect on the execution of the code.

Startup/finish files

MATLAB enables users to set customizations using 'startup.m' and 'finish.m' files. However, these files will not automatically run in MATLAB Online as they do on the installed version.

User Interaction Differences

Copy and Paste Text

Depending on the active window, the functionality of a right-click action may belong to the web browser or MATLAB Online. Thus, to copy and paste text/code in MATLAB Online use the ctrl+c/ctrl+v method.

1. Copying
 - a. Highlight the text to be copied
 - b. On the keyboard, press ctrl+c (if on a Mac use command+c)
2. Pasting
 - a. Left click with the mouse at the desired insertion point
 - b. On the keyboard, press ctrl+c (or command+c on a Mac).

Rename a file or folder

1. Right click on the file or folder name
2. Click "Rename" from the menu
3. Type the new name
4. Press Enter

Command Window Overflow

If a large amount of output is printed to the command window, you may sometimes find that the bottom of the output and the command prompt are not visible. Look for a scroll bar to the right of the command window to scroll to the bottom.

Documentation Windows

Using the help and doc commands work just like the desktop. You can also use the Search bar on the top right corner of MATLAB Online to search the documentation. Documentation will be displayed in a new pop-up window. If the pop-up window does not appear, check to see if you have any pop-up or adblockers that may be preventing them from being displayed. Either disable the pop-up blocker or permit pop-ups from mathworks.com to use the documentation.

File Management and Cloud Storage

Everyone with a MathWorks account has 250 MB of cloud storage called MATLAB Drive (many campus licenses and some industry licenses have 5 GB so you may have more). You can view your files and storage usage at <https://drive.matlab.com>. MATLAB Online and MATLAB Mobile both sync to MATLAB Drive.

Adding Files to your MATLAB Drive to use in MATLAB Online

Below are 4 ways to get files from your computer into MATLAB Online but you need only one. If you're new to MATLAB and using the free license for this course, you probably don't need to add any files yourself at first. Just follow the instructions provided with the first programming assignment. This assignment is part of (in week 4, and it is called "Homework 3") and all the homework materials will be added to your MATLAB Drive storage.

As you progress through this course, or you if you already have MATLAB installed, you'll probably want to add files from your computer to MATLAB Drive. There are several ways to do this (if you have MATLAB installed on your computer we recommend using method 4 below).

1. Drag Files into MATLAB Online
 - a. Login to MATLAB Online
 - b. Change the Current Folder to the location you wish to add the files
 - c. Open your file explorer and navigate to the location of the files you wish to add to your cloud storage.
 - d. Drag the files from your file explorer into the Current Folder in MATLAB Online
2. Use the Upload Button in MATLAB Online
 - a. Login to MATLAB Online
 - b. Change the Current Folder to the location you wish to add the files
 - c. In the Home Tab, under "File" press the "Upload" button
 - d. Navigate to the files you wish to add
 - e. Select the files to add (you can add multiple files, but not a folder) and click "Open." This will upload the files.
3. Use the MATLAB Drive website at <https://drive.matlab.com>
 - a. Login to your MATLAB Drive account
 - b. Click into the folder where you wish to add the files
 - c. Press the upload button located in the upper left
 - d. Navigate to the files you wish to add
 - e. Select the files to add (you can add multiple files, but not a folder) and click "Open." This will upload the files and you'll see them when logging in to MATLAB Online
4. Use MATLAB Drive Connector – If you have MATLAB version R2017a or later installed, we recommend using this method. By using MATLAB Drive Connector, you can work in MATLAB Online, or your desktop and changes will be reflected in both places. MATLAB Drive Connector is free to anyone, so you can use this method even if you don't have MATLAB installed. MATLAB Drive Connector creates a MATLAB Drive Folder on your computer. Files created or uploaded to MATLAB Online will automatically be synced to your desktop, and files added to your MATLAB Drive folder will automatically be uploaded to your cloud storage.
 - a. Go to the [MATLAB Drive Connector product page](#) and select the installation for your OS.
 - b. Follow the steps to install MATLAB Drive.
 - i. Make sure to use the same MathWorks account you use to access MATLAB Online.
 - ii. Make a note of the location where the MATLAB Drive folder will be placed on your computer. For example, on Windows, the default location is:
"C:\Users\<your_windows_user_name>"

- c. Once installed and connected, move any files on your computer you wish to add to MATLAB Online to your newly created MATLAB Drive folder.
- d. In the future, you only need to do step c)!

Downloading Files from your cloud storage to desktop

While the license for the course is for 12 weeks, you always have access to your cloud files at <https://drive.matlab.com>. However, you may still want to download your files to keep after the course. Again, there are several ways to download files.

1. Download from MATLAB Online using the download button – If only downloading a single file or two, this is the easiest way:
 - a. Inside MATLAB Online, select the file to download in the Current Folder (*only one file at a time is supported*)
 - b. In the Home tab under “File” click “Download”
 - c. Select the location on your computer to download the file
 - d. Click Save
2. Download from MATLAB Online using the ZIP function – Use this method if you have many files to download.
 - a. Navigate to the folder containing the files to download
 - b. Use the ZIP function to create a zip file. See the [documentation for ZIP](#) for syntax and examples of using the ZIP function.
 - c. In the Current Folder, select the newly created zip-file.
 - d. In the Home tab under “File” click “Download”
 - e. Select the location on your computer to download the file
 - f. Click Save
 - g. In your computer, unzip the folder to view and use the files.
3. Use the MATLAB Drive website at <https://drive.matlab.com> – Similar to method 1, only one file at a time is supported.
 - a. Login to the MATLAB Drive webpage
 - b. Navigate to the file to download and select it.
 - c. In the top of the page, near the center, click Download
 - d. Select the location on your computer to save the file
 - e. Click Save
4. Use MATLAB Drive Connector – If you use MATLAB Drive Connector, your cloud files are automatically synced to your computer! Follow the install steps above (you only need to install once so don’t repeat this).
 - a. Go to the [MATLAB Drive Connector product page](#) and select the installation for your OS.
 - b. Follow the steps to install MATLAB Drive.
 - i. Make sure to use the same MathWorks account you use to access MATLAB Online.
 - ii. Make a note of the location where the MATLAB Drive folder will be placed on your computer. For example, on Windows, the default location is:
“C:\Users\<your_windows_user_name>