

## What's New in MATLAB® R2024b?

### Environment

#### New Desktop for MATLAB (Beta)

Try new features including dark theme, an updated layout, and expanded search capabilities

To try these new features, download the [New Desktop for MATLAB \(Beta\)](#) on File Exchange.

#### Live Editor Fonts

Customize font, size, color, and formatting of text and code styles

Using the Customize Styles dialog box. You can apply your customized style to all new live scripts.



### Language and Programming

#### MATLAB Package Manager

Organize and distribute code using packages

Use the [MATLAB Package Manager](#) to create, find, install, and manage MATLAB packages.

A package is a collection of MATLAB code, related files, and a package definition file that defines the package identity and dependencies.



### MATLAB & Python



#### Support for version 3.12

MATLAB now supports CPython version 3.12. For supported version information, see [Versions of Python Compatible with MATLAB Products by Release](#).

#### Convert between Python and MATLAB dictionaries

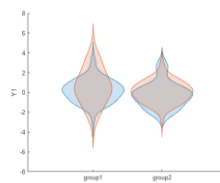
When passing data from Python to MATLAB, you can more easily convert Python dictionaries to MATLAB dictionaries. Additionally, MATLAB can now pass a MATLAB dictionary to Python as a matlab.dictionary object.



### Apps & Graphics

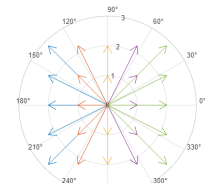
#### Violin Plots

Visualize grouped numeric data by using [violinplot](#).



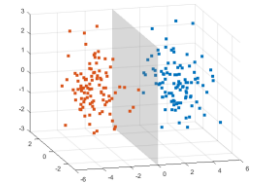
#### Compass Plots

Create compass plots in polar axes by using [compassplot](#).



#### Constant planes

Create infinite planes by using [constantplane](#).



#### uibutton and uitogglebutton

Specify HTML markup and display equations in button text by setting the *Interpreter* property.

Text

#### App Designer Dark Theme (Beta)

You can now have a dark theme for the development of your MATLAB apps in App Designer.



### Software Development Tools

#### Source Control Examples

Use [Git hooks in MATLAB](#)

This example [Use Git Hooks in MATLAB](#) shows how to use Git™ hooks in MATLAB to standardize your commit workflows.



#### MATLAB Test

Justify missing coverage for MATLAB source code

Improve your coverage metrics by using justifications to filter blocks of MATLAB source code that were covered by a method other than automated testing, for instance, by interactive testing.



### Application Deployment

#### MATLAB Runtime

Create a MATLAB Runtime installer for specified files

Create a MATLAB® Runtime installer, using [compiler.runtime.customInstaller](#), with a minimal size footprint that installs only the MATLAB Runtime components required to run the specified artifacts created with MATLAB Compiler™.



#### Security

Package Code with Secrets

You can use any `compiler.build` function with the `SecretsManifest` option to include a JSON file that specifies secrets to embed within your deployable code archive. See [Handle Sensitive Information in Deployed Applications](#).