What's New in MATLAB® R2023b?

Environment

Live Editor Tasks
Create Live Editor task from selected cod with interactive controls
You can convert a selection in the Live Editor that contains code, text, and interactive controls into your **own Live Editor task**.

```
tree = @(c,x,r) cumsum(exp(sqrt(-1)*(c*x.*x + r)));
c = pi*(1+sqrt(5))/2;

npts =   68                      * 100;
x = 0:npts;
r =  3                        ;
z = tree(c,x,r);

plot(real(z),imag(z),".");
axis equal
axis on
axis ([-20 80 -20 80])
```

Export function to md and ipynb file
Convert live scripts and functions to Markdown files and Jupyter notebooks
You can convert live scripts and functions to Markdown files and Jupyter® notebooks by using the **export** function

Source Control & Integration

Git source control API
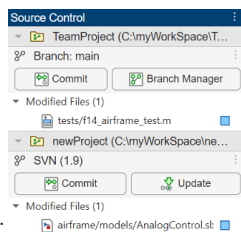**Interact with Git source control programmatically**
You can now programmatically interact with source control, with all common functionalities: **gitclone**, **gitrepo**, **createBranch**, etc.

Source Control in MATLAB Online
Perform operations using unified panel
See all active repo, manage modified files, and perform source control operations.

Database

Relational Database
Interact with databases using ORM
Object relational mapping (ORM) is a software layer that provides the capability to interact with relational databases using MATLAB® objects. See example: **Read and Write Objects to Relational Database Using ORM Workflow**.
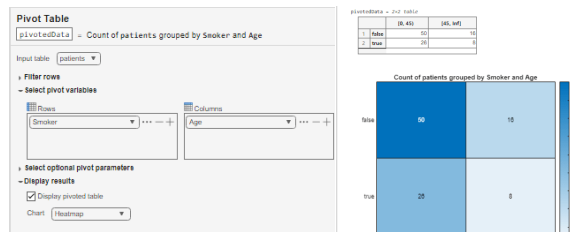
Data Analysis & Mathematics

Pivot Table Live Editor Task
Interactively summarize tabular data in pivoted table
Use the **Pivot Table** task in the Live Editor to interactively perform a pivoting operation on data in a table or timetable.
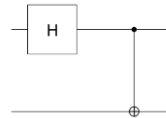
Quantum Computing
The MATLAB Support Package for Quantum Computing
Build, simulate, and run quantum algorithms.
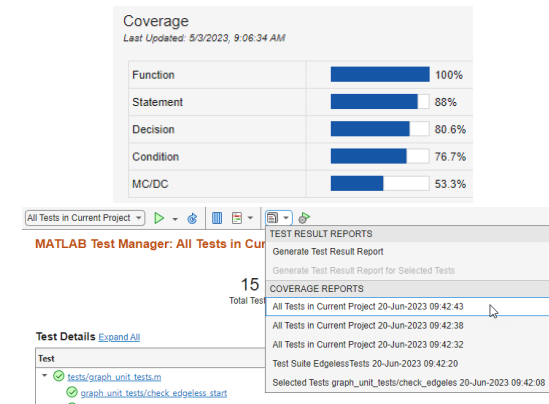See **Introduction to Quantum Computing** for more information.

MATLAB Test

Code Coverage and Code Quality Dashboard
Interactively collect coverage results and view timestamps for metric results in the Code Quality Dashboard
You can now collect coverage in the MATLAB Test Manager when you run selected tests or test suites. In R2023b, each section of the **Code Quality Dashboard** displays a timestamp that indicates when the software collected the results.
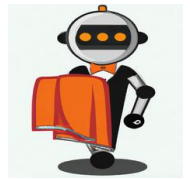
Apps & Graphics

ChatGPT+MATLAB = MatGPT
MATLAB app & class to access ChatGPT API from OpenAI
Load a list of prompts for specific use cases and engage in conversations with ease. If you're new to ChatGPT and prompt engineering, **MatGPT** is a great way to learn.
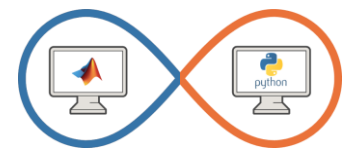
Web App
Embed MATLAB Web App Using iframe HTML Element
You can embed MATLAB® web apps in other web pages using an iframe HTML element. For details, see **Embed MATLAB Web App Using iframe HTML Element**.

Data exchange
You can now seamlessly facilitate data exchange between a custom web page and a MATLAB web app. For details, see **Exchange Data Between Custom Web Page and Embedded MATLAB Web App**.

MATLAB & Python

Python: Support for version 3.11
MATLAB now supports CPython version 3.11, in addition to existing support for versions 3.9 and 3.10. See **all supported versions by release**.

Resolve Python configuration issues
Error messages provide additional help for you to resolve these Python configuration issues. See **Configure Your System to Use Python**.