

Undocumented Matlab

unbelievable features; unbelievable quality; unbelievable cost effectiveness; unbelievable service

CREATING INTERACTIVE MATLAB GUI

COURSE OUTLINE



1. Introduction to Matlab GUI

- a. GUIDE – MATLAB’s Graphical User Interface Design Editor
- b. Using GUIDE to design a custom GUI
- c. Available built-in MATLAB uicontrols
- d. GUIDE’s utility windows
- e. Creating and using an application’s main menu, toolbar and context menus
- f. The GUIDE-generated file-duo
- g. Understanding basic design principles

2. Customizing GUI appearance and behavior

- a. Important figure and uicontrol properties
- b. Customizing GUI properties, position and behavior
- c. Attaching callback functionality to GUI components
- d. The handles data struct
- e. Mechanisms for information sharing between GUI components/windows
- f. Using handle visibility
- g. Programmatic control and interaction with GUI components

3. Uitable

- a. Displaying data in a MATLAB GUI table
- b. Reading uitable data
- c. Controlling column data type
- d. Customizing uitable appearance
- e. Uitable callbacks
- f. Introduction to further customizations at the Java level

4. Performance considerations

- a. Speeding up the initial GUI generation
- b. Improving GUI responsiveness
- c. Avoiding common performance pitfalls

5. Where next? – topics and resources for further learning

Summary

A 1-day Matlab course.

You will learn how to:

- apply GUI design principles in Matlab
- create simple Matlab GUIs
- manipulate and customize graphs, images and GUI
- store and reuse graphs, images, and GUI
- display Matlab data in a variety of GUI manners, including data tables
- understand performance implications, to improve GUI speed

Target audience

Matlab users of any level, from beginners to advanced, who wish to improve their program’s appearance and usability. For this course, programming experience is advantageous, but NOT necessary.

Matlab users who have prior experience with GUI Matlab should consider the Advanced Matlab GUI course instead.