

Undocumented Matlab

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

CREATING INTERACTIVE MATLAB GUI

1-DAY SEMINAR



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 application toolbar, main menu 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. Sharing data between GUI components
- f. Using handle visibility
- g. Formatting using HTML
- h. 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. Further customizations at the Java level

4. Matlab's new AppDesigner

- a. AppDesigner environment, widgets and code
- b. The web-based future of Matlab's GUI
- c. AppDesigner vs. GUIDE – pros & cons

5. Performance considerations

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

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

Summary

A 1-day Matlab seminar.

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 the appearance and usability of their programs.

For this seminar, programming experience is advantageous, but NOT necessary.

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