Undocumented Matlab

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

ADVANCED MATLAB GUI

COURSE OUTLINE

1. **Advanced GUI topics**

   a. GUI conventions and best practices

   b. GUI tradeoffs and design principles

   c. Writing robust fault-tolerant code

   d. Avoiding common GUI pitfalls

   e. Passing information around the GUI

   f. Improving Matlab GUI performance

   g. GUI units and resizing

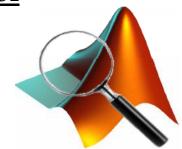   h. Advanced topics in GUI programming

2. **Customizing the figure window**

   a. The figure's main menu

   b. Context menus

   c. Using HTML

   d. Toolbars

3. **Integrating & interacting with GUI controls**

   a. Integrating ActiveX and Java controls

   b. GUIDE vs. m-programming trade-offs

   c. GUI callback programming

   d. Dynamic (automatic) updates/refreshes

   e. Using timers for periodic updates

   f. Listening to control action events

   g. Adding new properties to uicontrols

   h. Using hidden/undocumented properties

   i. Listening to property-change events

4. **Uitools**

   a. Uitable

   b. Uitree

   c. Uitab & uitabgroup

   d. Uiundo

   e. Other uitools

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

Summary

A full-day advanced Matlab course.

You will learn:

- how to write robust fault-tolerant GUI
- how to apply best practices in your GUI applications
- how to customize the figure's toolbar and main menu
- how to use HTML for improved rendering of menus, labels and controls
- how to integrate ActiveX and Java components in Matlab GUI
- how to improve the performance and interactivity of your Matlab GUI
- how to customize your Matlab GUI in ways that you never knew were possible

Target audience

(1) Matlab users with a solid experience using Matlab graphics and GUI, who wish to improve their program's quality, appearance and usability.

(2) Matlab users who wish to sell professional-looking Matlab-based GUI software.

Basic familiarity with Matlab GUI is assumed.

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