Undocumented Matlab

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

USING JAVA IN MATLAB

COURSE OUTLINE

1. **Introduction to using Java in Matlab**
    a. Introductory overview of Java
    b. Using Java in Matlab
    c. Java/Matlab version compatibility
    d. Installing a different Java engine in Matlab
    e. Debugging Java code in Matlab
    f. Static vs. dynamic classpath
    g. JVM meta-files
    h. Using Java collection classes

2. **Using Java with Matlab GUI**
    a. Matlab and Java Swing
    b. Integrating Java controls
    c. Compatibility aspects and trade-offs
    d. Safe programming with Java in Matlab
    e. Java's Event Dispatch Thread and Matlab
    f. Containers & position – Matlab vs. Java
    g. Monitoring memory & CPU utilization
    h. Setting GUI Look-and-Feel
    i. Customizing uitools: uitable, uitree, uitab
    j. Using built-in Matlab controls/widgets
    k. Using JIDE
    l. Integrating 3rd-party Java GUI components: charts/graphs/widgets/reports

3. **Advanced Matlab-Java GUI**
    a. Using HTML
    b. Updating existing Matlab uicontrols
    c. Figure menu customization
    d. Figure toolbar customization
    e. Figure-level customization
    f. Handling Java events as Matlab callbacks
    g. Listening to property-change events
    h. Deployment issues

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

Summary

A full-day advanced Matlab course.

You will learn:

- how to use Java components and code from within Matlab
- how to use Java containers for storing data in appropriate data structures
- how to customize the figure's toolbar and main menu
- how to make a figure disabled, blurred, transparent, minimized or maximized
- how to use HTML for improved GUI control visualization
- how to integrate third-party Java components in Matlab GUI
- how to customize existing Matlab GUI using Java
- how to create a modern-looking professional GUI in Matlab

Target audience

Matlab users with a solid experience using Matlab graphics and GUI, who wish to improve their program's quality, appearance and usability; Matlab users who wish to sell professional-looking Matlab-based software GUI.

Familiarity with Matlab GUI is assumed. Familiarity with Java is NOT required.