

Undocumented Matlab

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

BEST PRACTICES IN MATLAB PROGRAMMING

COURSE OUTLINE



1. Effective use of built-in Matlab tools

- a. Desktop: workspace browser; file browser; path tool; data viewer; data importer; command window; command history; docking groups
- b. Figure window: the standard, annotation and lighting toolbars; plot editor; data statistics tool; curve fitting tool
- c. Matlab editor: integrated debugger; mlint code analyser; publish tool
- d. Profiler tool
- e. Integrated help/documentation tools
- f. Using the publish tool

2. Using external resources

- a. FEX
- b. CSSM
- c. Answers forum
- d. Matlab Central (MLC)
- e. Online websites
- f. Blogs

3. Coding conventions, guidelines and best practices

- a. The importance of maintainability, with specific recommendations
- b. Documentation principles and guidelines
- c. M-files vs. scripting
- d. MATLAB function types
- e. MATLAB data-storage types
- f. Considerations in using different MATLAB data types
- g. GUI conventions & best practices
- h. Best-practices for improved application performance (speed)
- i. Writing robust fault-tolerant code
- j. Avoiding common pitfalls

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

Summary

A 1-day Matlab course.

You will learn how to:

- create high-quality, robust and maintainable Matlab programs
- avoid and solve potential pitfalls in your program's execution
- use online and offline resources that will enable you to continue learning advanced topics by yourself, at your own pace

Target audience

Matlab users of any level, from beginners to advanced, who wish to improve their program's maintainability and usability.

Basic familiarity with the Matlab environment, data types and functions is assumed.