

# Undocumented Matlab

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

## PREPARING PROFESSIONAL REPORTS IN MATLAB

### COURSE OUTLINE



#### 1. Reporting tools available in MATLAB

- a. Command window
- b. Binary/textual file output
- c. Output of GUI contents
- d. MATLAB's Publish tool
- e. Output to Microsoft Office (XLS, PPT, DOC)
- f. Open-source Java-based reporting tools

#### 2. Formatting textual output

- a. Text alignment, format, tabulation
- b. Using color in Command Window output
- c. Performance considerations

#### 3. Preparing presentation-level GUIs

- a. Elements of good GUI design
- b. Avoiding common pitfalls
- c. Exporting GUIs
- d. Solving pixelization problems

#### 4. Using MATLAB's Publish tool

- a. Basic usage
- b. Exporting formats: HTML, PDF, DOC etc.
- c. Programmatic vs. interactive invocation
- d. Using markup tags for lists, equations etc.
- e. Customizing report properties

#### 5. Preparing automated MS Office reports

- a. xlsxwrite and its limitations
- b. Connecting to MS Office applications
- c. Using VBA within MATLAB code
- d. Formatting text: colors, fonts, formulas
- e. Embedding graphs and images
- f. Online documentation and support

#### 6. Additional tools

- a. Using 3<sup>rd</sup>-party open-source reporting tools
- b. Updating HTML webpages
- c. XML processing

#### 7. Where next? – topics and resources for further learning

### Summary

A 1-day Matlab course.

You will learn how to:

- Display formatted textual data on the MATLAB console
- Export MATLAB figures and GUI to a variety of file formats
- Create professional-looking reports in MATLAB using Microsoft Office (DOC, XLS, PPT)
- Use 3rd-party Java tools to create professional reports
- Use MATLAB's Publish tool to create HTML, LaTeX, PDF or other formats
- Interact with HTML webpages and XML data files

### Target audience

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

Basic familiarity with the Matlab environment is assumed.