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978-0-521-73258-1 - The Elements of MATLAB® Style

Richard K. Johnson

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The Elements of MATLAB® Style

The Elements of MATLAB Style is a guide for both new and experienced MATLAB programmers. It provides a collection of standards and guidelines for creating solid MATLAB code that will be easy to understand, enhance, and maintain. It is written both for individuals and for those working in teams where consistency is critical.

This is the only book devoted to MATLAB style and best programming practices, focusing on how MATLAB code can be written in order to maximize its effectiveness. Just as Strunk and White's *The Elements of Style* provides rules for writing in the English language, this book provides conventions for

- Formatting
- Naming
- Documentation
- Programming
- Testing

It also includes recommendations on use of the integrated development environment features that help produce better, more consistent software.

Richard K. Johnson has taught dozens of MATLAB courses for universities, companies, and the federal government. He is the author of *MATLAB Programming Style Guidelines* and the developer of the *Data Visualization Toolbox* for MATLAB. He has a Ph.D. in Engineering Science from University of California, San Diego, and is a former professor at Oregon State University.

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Preface

In 2002, I wrote a brief set of observations and thoughts on MATLAB® style for my coworkers. Other programmers found it useful, so I posted the “MATLAB Programming Style Guidelines” document on my website datatool.com. It has since been downloaded more than 40,000 times.

This book responds to that encouraging interest and incorporates what I have learned in the meantime. It joins a well-received series of style books on other languages, including *The Elements of Java Style*, *The Elements of C++ Style*, and *The Elements of C# Style*.

Much of the advice in this book may be familiar. This is deliberate because many of the programming principles described are valid across programming languages. However, the content has been extensively reworked and expanded here to address the unique characteristics of the MATLAB language and development environment environment, as well as the priorities and practices of MATLAB programmers.

Audience

This is a practical manual for the serious user who wants to become more productive. It provides guidance on clear and effective programming, particularly for those who develop with or for others.

This book is written for new MATLAB programmers who want to develop good habits, as well as for experienced

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x PREFACE

MATLAB programmers who want to get better and to understand why others use different style conventions.

This book is not intended to teach you the MATLAB language, but rather it focuses on how MATLAB code can be written in order to maximize its effectiveness. It assumes you are already familiar with MATLAB programming.