1. Record Nr. UNINA9910457526403321 Autore Altman Yair M. Titolo Undocumented secrets of MATLAB-Java programming / / Yair Altman Pubbl/distr/stampa Boca Raton:,: CRC Press,, 2012 **ISBN** 0-429-10486-3 1-283-59633-4 9786613908780 1-4398-6904-9 Edizione [1st edition] Descrizione fisica 1 online resource (680 p.) 518.0285/53 Disciplina Soggetti Numerical analysis - Data processing Java (Computer program language) Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali A Chapman & Hall book. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Front Cover; Dedication; Contents; Preface; Chapter 1: Introduction to Java in MATLAB®; Chapter 2: Using Non-GUI Java Libraries in MATLAB®; Chapter 3: Rich GUI Using Java Swing; Chapter 4: Uitools; Chapter 5: Built-In MATLAB® Widgets and Java Classes; Chapter 6: Customizing MATLAB® Controls; Chapter 7: The Java Frame; Chapter 8: The MATLAB® Desktop; Chapter 9: Using MATLAB® from within Java; Chapter 10: Putting It All Together; Appendix A: What Is Java?; Appendix B: UDD; Appendix C: Open Questions Sommario/riassunto Preface The Matlab programming environment uses Java for numerous tasks, including networking, data-processing algorithms, and graphical user-interface (GUI). Matlab's internal Java classes can often be easily accessed and used by Matlab users. Matlab also enables easy access to external Java functionality, either third-party or user-created. Using Java, we can extensively customize the Matlab environment and application GUI, enabling the creation of very esthetically pleasing applications. Unlike Matlab's interface with other programming languages, the internal Java classes and the Matlab-Java interface were never fully documented by The MathWorks (TMW), the company that

manufactures the Matlab product. This is really guite unfortunate: Java

is one of the most widely used programming languages, having many times as many programmers as Matlab. Using this huge pool of knowledge and components can significantly improve Matlab applications. As a consultant, I often hear clients claim that Matlab is a fine programming platform for prototyping, but is not suitable for real-world modern-looking applications. This book aimed at correcting this misconception. It shows how using Java can significantly improve Matlab program appearance and functionality and that this can be done easily and even without any prior Java knowledge. In fact, many basic programming requirements cannot be achieved (or are difficult) in pure Matlab, but are very easy in Java. As a simple example, maximizing and minimizing windows is not possible in pure Matlab, but is a trivial one-liner using the underlying Java code:--