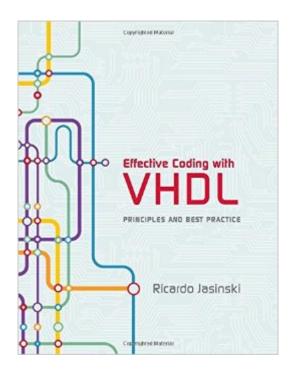
The book was found

Effective Coding With VHDL: Principles And Best Practice (MIT Press)





Synopsis

This book addresses an often-neglected aspect of the creation of VHDL designs. A VHDL description is also source code, and VHDL designers can use the best practices of software development to write high-quality code and to organize it in a design. This book presents this unique set of skills, teaching VHDL designers of all experience levels how to apply the best design principles and coding practices from the software world to the world of hardware. The concepts introduced here will help readers write code that is easier to understand and more likely to be correct, with improved readability, maintainability, and overall quality. After a brief review of VHDL, the book presents fundamental design principles for writing code, discussing such topics as design, quality, architecture, modularity, abstraction, and hierarchy. Building on these concepts, the book then introduces and provides recommendations for each basic element of VHDL code, including statements, design units, types, data objects, and subprograms. The book covers naming data objects and functions, commenting the source code, and visually presenting the code on the screen. All recommendations are supported by detailed rationales. Finally, the book explores two uses of VHDL: synthesis and testbenches. It examines the key characteristics of code intended for synthesis (distinguishing it from code meant for simulation) and then demonstrates the design and implementation of testbenches with a series of examples that verify different kinds of models, including combinational, sequential, and FSM code. Examples from the book are also available on a companion website, enabling the reader to experiment with the complete source code.

Book Information

Series: MIT Press

Hardcover: 624 pages

Publisher: The MIT Press (May 27, 2016)

Language: English

ISBN-10: 0262034220

ISBN-13: 978-0262034227

Product Dimensions: 7 x 1.1 x 9 inches

Shipping Weight: 2.5 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars Â See all reviews (1 customer review)

Technology > Hardware & DIY > Maintenance, Repair & Upgrading #2128 in Books > Textbooks

Best Sellers Rank: #576,654 in Books (See Top 100 in Books) #72 in Books > Computers &

> Computer Science > Programming Languages #2686 in Books > Engineering & Transportation

Customer Reviews

buy for my friend. She like it

Download to continue reading...

Effective Coding with VHDL: Principles and Best Practice (MIT Press) Finite State Machines in Hardware: Theory and Design (with VHDL and SystemVerilog) (MIT Press) RTL Hardware Design Using VHDL: Coding for Efficiency, Portability, and Scalability Hacking: The Ultimate Beginners Guide (Computer Hacking, Hacking and Penetration, Hacking for dummies, Basic security Coding and Hacking) (Hacking and Coding Book 1) Java: The Ultimate Guide to Learn Java and C++ (Programming, Java, Database, Java for dummies, coding books, C programming, c plus plus, programming for ... Developers, Coding, CSS, PHP Book 2) SQL: Beginner's Guide for Coding SQL (database programming, computer programming, how to program, sql for dummies, java, mysql, The Oracle, python, PHP, ... (HTML, Programming, Coding, CSS Book 7) JAVA: The Ultimate Guide to Learn Java Programming Fast (Programming, Java, Database, Java for dummies, coding books, java programming) (HTML, Javascript, ... Developers, Coding, CSS, PHP Book 1) Principles of Cyber-Physical Systems (MIT Press) Game Sound: An Introduction to the History, Theory, and Practice of Video Game Music and Sound Design (MIT Press) Planning Ideas That Matter: Livability, Territoriality, Governance, and Reflective Practice (MIT Press) Zeitmanagement mit Microsoft Office Outlook, 8. Auflage (einschl. Outlook 2010): Die Zeit im Griff mit der meistgenutzten BÃ rosoftware - Strategien, Tipps ... (Versionen 2003 - 2010) (German Edition) Principles & Practice Of ICD-10 Coding Chestnut's Obstetric Anesthesia: Principles and Practice: Expert Consult - Online and Print, 5e (Chestnut, Chestnut's Obstetric Anesthesia: Principles and Practice) Colposcopy: Principles and Practice, Text with DVD, 2e (Apgar, Colposcopy: Principles and Practice) Cardiopulmonary Bypass: Principles and Practice (Gravlee, Cardiopulmonary Bypass: Principles and Practice) ASTNA Patient Transport: Principles and Practice (Air & Surface Patient Transport: Principles and Practice) Principles and Practice of Psychiatric Nursing, 10e (Principles and Practice of Psychiatric Nursing (Stuart)) Key Papers in the Development of Coding Theory (leee Press Selected Reprint Series) Digital Design with RTL Design, VHDL, and Verilog Advanced Digital Logic Design Using VHDL, State Machines, and Synthesis for FPGA's

Dmca