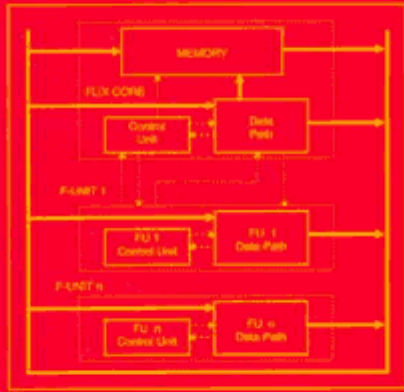


VHDL AND FPLDs

IN DIGITAL SYSTEMS
DESIGN, PROTOTYPING AND
CUSTOMIZATION



by
Zoran Salcic

CD Rom Included

VHDL and FPLDs in Digital Systems Design, Prototyping and Customization

by

Zoran Salcic

*The University of Auckland, New
Zealand*

VHDL and FPLDs in Digital Systems Design, Prototyping and Customization treats three aspects of digital systems: design, prototyping and customization, in an integrated manner using two technologies. The two technologies are very high-speed integrated circuit (VHSIC) (VHDL) and field-programmable logic devices (FPLDs). VHDL is used for modeling and specification; FPLDs are used for implementation.

VHDL and FPLDs in Digital Systems

Design, Prototyping and Customization is divided into three parts. Part I provides an introduction to the basic features of VHDL with emphasis on modeling and design. All types of VHDL models including behavioral, structural and dataflow models are presented. Part 2 is a bridge to designing and prototyping using FPLDs as the prototyping and implementation technology. Part 3 contains a number of examples and case studies that demonstrate the effectiveness of using VHDL and FPLDs in the design of real systems.

VHDL and FPLDs in Digital Systems Design, Prototyping and Customization is an invaluable comprehensive reference for the digital designer. This work includes examples and software tied to real-world FPLDs. The reader can see how the material presented applies to real-world devices and can experiment with the software. Also included are large-scale designs like the FLIX microcomputer that demonstrates the power of VHDL.

CD-ROM INCLUDED

VHDL AND FPLDS IN DIGITAL SYSTEMS DESIGN, PROTOTYPING AND CUSTOMIZATION includes a CD-ROM that contains Altera's® MAX+PLUS II® 7.21 Student Edition Programmable Logic Development Software. MAX+PLUS II is a fully integrated design environment that offers unmatched flexibility and performance. The intuitive graphical interface is complemented by complete and instantly accessible on-

line documentation, which makes learning and using MAX+PLUS II quick and easy. The MAX+PLUS II version 7.21 Student Edition offers the following features:

- Operates on PCs running Windows 3.1, Windows 95 and Windows NT 3.51 and 4.0.
- Graphical and text-based design entry, including the Altera Hardware Description Language (AHDL) and VHDL.
- Design compilation for Product-term (MAX ® 7000S) and look-up table (FLEX ® 10K) device architectures.
- Design verification with full timing simulation.

Kluwer Academic Publishers, Boston

- Hardbound, ISBN 0-7923-8144-0
April 1998, 576 pp.