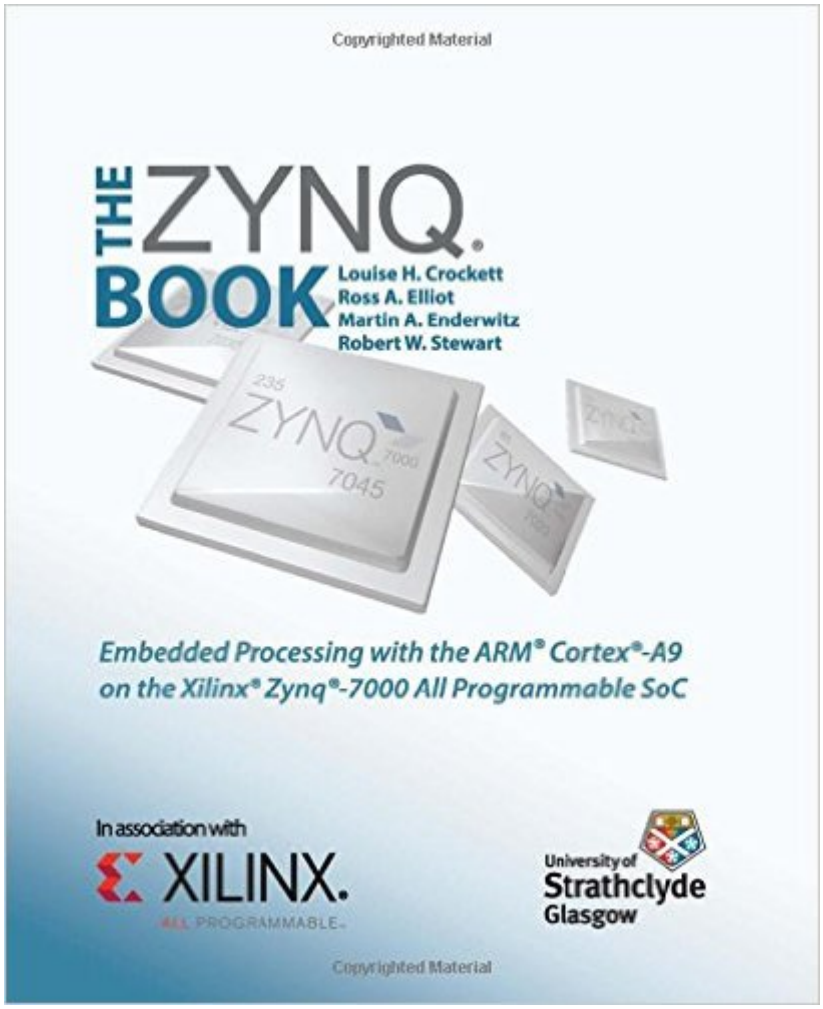
The Zynq Book: Embedded Processing With The Arm Cortex-A9 On The Xilinx Zynq-7000 All Programmable Soc



Synopsis

This book is about the Zynq-7000 All Programmable System on Chip, the family of devices from Xilinx that combines an application-grade ARM Cortex-A9 processor with traditional FPGA logic fabric. Catering for both new and experienced readers, it covers fundamental issues in an accessible way, starting with a clear overview of the device architecture, and an introduction to the design tools and processes for developing a Zynq SoC. Later chapters progress to more advanced topics such as embedded systems development, IP block design and operating systems. Maintaining a 'real-world' perspective, the book also compares Zynq with other device alternatives, and considers end-user applications. The Zynq Book is accompanied by a set of practical tutorials hosted on a companion website. These tutorials will guide the reader through first steps with Zynq, following on to a complete, audio-based embedded systems design.

Book Information

Paperback: 484 pages

Publisher: Strathclyde Academic Media (July 14, 2014)

Language: English

ISBN-10: 099297870X

ISBN-13: 978-0992978709

Product Dimensions: 7.5 x 1 x 9.2 inches

Shipping Weight: 1.9 pounds (View shipping rates and policies)

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Customer Reviews

3 Stars = "it's OK"Cover to cover it is a bit repetitious telling you why the device architecture is so great. It is pure marketing, once in the intro would be bad enough. It is written around the ZED and similar boards. It walks you through the sample projects that come with the boards and the board locked Vivado license. In the process you become more familiar with Vivado if you are transitioning from Xilinx ISE and the top level architecture of the Zynq 7000. All good things but that is the end of the story. You are running on a RTOS in the Zynq with a few hints on the architecture via the opportunity to re-configure the memory or I/O. I was looking for something deeper like details on

how to configure the device with a GBE interface and shared memory from scratch or even a good Hello World exercise. Something like the old Spartan 3 guides.

This book is a mixed bag. It has some useful sections, but too much of it is filled with extraneous material and boilerplate. Do we really need multiple chapters on descriptions of tools like Vivado HLS, or the history of Linux, or superficial explanations of real-time multitasking? Important stuff, like the Zynq boot sequence, is relegated to a final short chapter. Since this book was apparently sponsored by Xilinx, it's not surprising that much of it reads like a marketing brochure. It would have been much more useful to have a few completely worked out examples, like how to build embedded Linux for Zynq from scratch. To be fair, it does link to some on-line tutorials that are useful. If the target audience is hobbyists without much knowledge of the basics of computing that professionals take for granted, then I suppose there's a place for this book, but it's certainly not the definitive practical Zynq reference I was looking for.

The complexity of Xilinx's ZYNQ SoC device can be overwhelming, being one of the most (THE most?) highly integrated programmable devices available. This book renders the device completely approachable, however. Besides its particular usefulness as an introduction to developing with the ZYNQ family, the book offers an excellent overview of SoC technology in general. This is exactly the book I wish I'd had a year ago when I developed a project using the XC7Z010 device.

I am new to FPGAs and Xilinx software, so I was hoping that it would help me understanding how it all comes together. I purchased it because the Contents at the beginning of the book was very promising. However the actual contents of the book was extremely general - a common sense - and most of it would apply to any other product or company. Unfortunately, it was absolutely useless to me.

This book and a low cost board such as the Zybo will get you going ASAP.http://www..com/gp/product/B00IX4038E/ref=s9_simh_gw_p328_d0_i1?pf_rd_m=ATVPDKIKX0DER&pf_rd_s=center-2&pf_rd_r=04PFAMJGJMCGPBTMR69S&pf_rd_t=101&pf_rd_p=1688200382&pf_rd_i=507846

Nice book that has all the fundamentals of the current Zynq device family from Xilinx. I'm going to use it for future course I'm going to teach.

Good introduction to the Zynq development board, ARM processors, and Xilinx development tools if you’re new to the field and trying to gain some expertise.

The Zynq Book: Embedded Processing with the Arm Cortex-A9 on the Xilinx Zynq-7000 All Programmable Soc Arm Action, Arm Path, and the Perfect Pitch: Building a Million-Dollar Arm Embedded Systems (Introduction to Arm\xae Cortex\u2122-M Microcontrollers) Embedded Systems with ARM Cortex-M Microcontrollers in Assembly Language and C Embedded Systems with ARM Cortex-M3 Microcontrollers in Assembly Language and C Embedded Systems: Real-Time Operating Systems for Arm Cortex M Microcontrollers Digital Signal Processing Using the ARM Cortex M4 TI MSP432 ARM Programming for Embedded Systems: Using C Language (Mazidi & Naimi ARM Books) The Definitive Guide to the ARM Cortex-M3, Second Edition ARM Assembly Language Programming & Architecture: Second Edition (Mazidi & Naimi ARM Books Book 1) Arm Knitting: 24 Simple and Popular Arm Knitting Patterns: (Modern Crochet, Knitting Projects, Cochet Projects, DIY Projects, Crochet For Beginners, Crochet ... Tunisian Crochet,Make Money With Crochet)) FPGA Prototyping By Verilog Examples: Xilinx Spartan-3 Version 7000 Years of Jewelry Fast and Effective Embedded Systems Design: Applying the ARM mbed Professional Embedded ARM Development Surviving the SOC Revolution: A Guide to Platform-Based Design Toxic Tourism: Rhetorics of Pollution, Travel, and Environmental Justice (Albma Rhetoric Cult & Soc Crit) The Zynq Book Tutorials for Zybo and ZedBoard Digital Signal Processing with Field Programmable Gate Arrays (Signals and Communication Technology) Applied Control Theory for Embedded Systems (Embedded Technology)