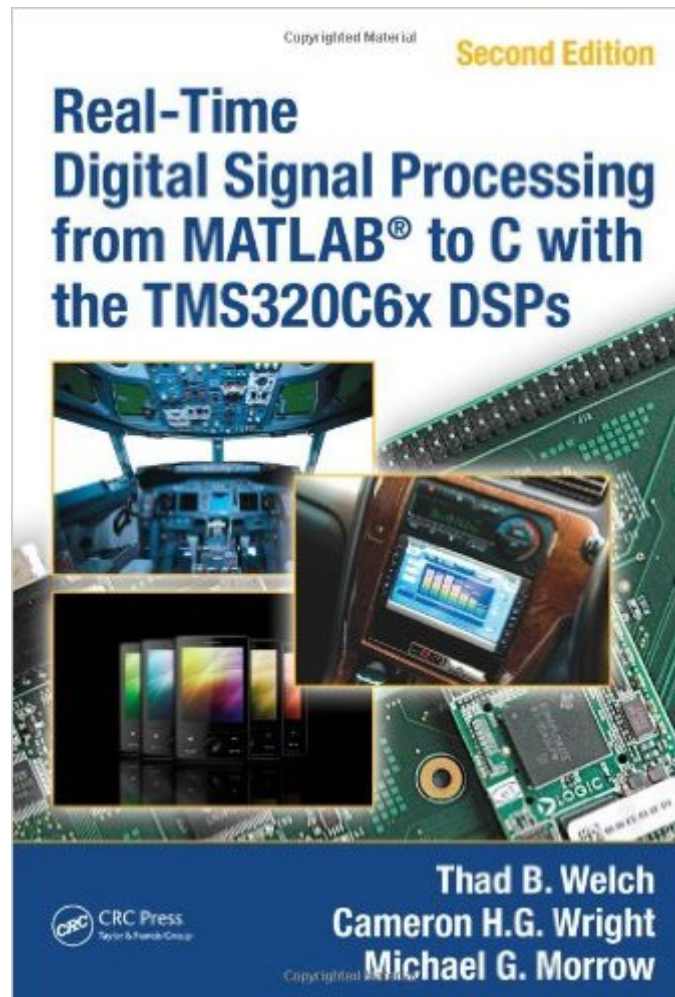


The book was found

Real-Time Digital Signal Processing From MATLAB® To C With The TMS320C6x DSPs, Second Edition



Synopsis

From the Foreword: "There are many good textbooks today to teach digital signal processing, but most of them are content to teach the theory, and perhaps some MATLAB® simulations. This book has taken a bold step forward. It not only presents the theory, it reinforces it with simulations, and then it shows us how to actually use the results in real-time applications. This last step is not a trivial step, and that is why so many books, and courses, present only theory and simulations. With the combined expertise of the three authors of this text the reader can step into the real-time world of applications with a text that presents an accessible path."

•Delores M. Etter, Texas Instruments Distinguished Chair in Electrical Engineering and Executive Director, Caruth Institute for Engineering Education, Southern Methodist University, Dallas, Texas, USA

Mastering practical application of real-time digital signal processing (DSP) remains one of the most challenging and time-consuming pursuits in the field. It is even more difficult without a resource to bridge the gap between theory and practice. Filling that void, Real-Time Digital Signal Processing from MATLAB® to C with the TMS320C6x DSPs, Second Edition is organized in three sections that cover enduring fundamentals and present practical projects and invaluable appendices. This updated edition gives readers hands-on experience in real-time DSP using a practical, step-by-step framework that also incorporates demonstrations, exercises, and problems, coupled with brief overviews of applicable theory and MATLAB® application. Engineers, educators, and students rely on this book for precise, simplified instruction on use of real-time DSP applications. The book's software supports the latest high-performance hardware, including the powerful, inexpensive, and versatile OMAP-L138 Experimenter Kit and other development boards. Incorporating readers' valuable feedback and suggestions, this installment covers additional topics (such as PN sequences) and more advanced real-time DSP projects (including higher-order digital communications projects), making it even more valuable as a learning tool.

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Customer Reviews

This is a very good book. I own Chassaing's and Donald Reay first edition as well as the updated version of Reay after Chassaing passed. These two books complement each other. This book gets to the main point very quickly in a simple way and covers MATLAB plus C algorithms pretty well. Where it may lack is that it doesn't go deep in assembly but I think that was intended. They cover a lot of important subjects beyond filtering. and they updated their software package files for the updated and cheaper TI entry board over logic's board. if you own either board you are fine. Reay's book complements with additional and very clever algorithms for efficient filtering in real time and he does go into asm examples. But Reay did not go into the many other topics they do here. word of caution. DSP is a complex subject. Final undergrad to first year grad. To understand the main ideas you must have studied some basics already. If you don't know the basic foundations of filtering (transfer functions, z plane) you will be a little lost. I think if you understand a bit on signals and their frequency counterpart and some basic decent first/second undergrad math you should be OK. the book does cover basics but briefly. there are some excellent theory online classes you could pick up at edx and coursera first. I also own kuo/lee's version for the fixed point c5505 and I must say this one is the best.

I've taught with their first book for 4 years now. Great stuff. This book is a perfect blend of theory and a top-down learning method for each of the topics. Gives a great basis for hands-on programming for DSPs and introduces a very nice (free) teaching tool, WinDSK.

If you already have some basic prior knowledge about DSP as well as programming in MATLAB and C, this is a pretty good book. Where it falls short is in explaining theory behind some concepts, but overall it's generally a good book.

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