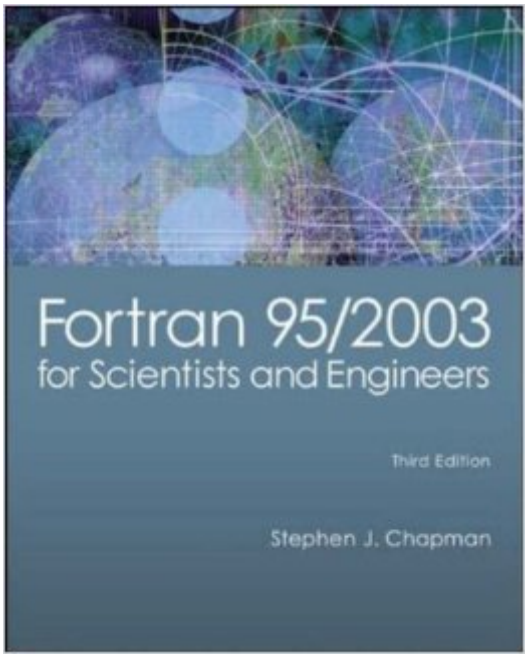
Fortran 95/2003 For Scientists & Engineers



Synopsis

Chapman's Fortran for Scientists and Engineers is intended for both first year engineering students and practicing engineers. This text is the most current alternative for Fortran. It simultaneously teaches the Fortran 95/2003 programming language, structured programming techniques, and good programming practice. Among its strengths are its concise, clear explanations of Fortran syntax and programming procedures, the inclusion of a wealth of examples and exercises to help students grasp difficult concepts, and its explanations about how to understand code written for older versions of Fortran.

Book Information

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Customer Reviews

Well, I liked this book very much and therefore I want to write a short opinion/review on it (although I am short on time here and have never written an opinion on before!). To put it concisely, this is a 'must have' book for any Fortran programmer. If you are shopping for a good Fortran book, this is what you are looking for! It takes you from the very first step and drops you off at a fairly high level around chapter 9. (And from where, I guess, instead of a book, you would like to consult your compiler's documentation!)My background is in financial engineering, and I was looking for some specialized number-crunching language to write my code in (real-time models). A friend suggested Fortran, and after consulting some serious people in physics/engineering, I decided to settle on it. My problem was that there were only a handful of Fortran books here, and only that many reviews on them. So I picked this one along with METCALF/REID/COHEN's 'fortran 95/2003 explained'. And I must say that a lack of quantity was compensated for by an abundance of quality.Chapman has

also incorporated a lot of example code in this book, and that makes it worthwhile to cheat a bit before tackling a new chapter! He also stresses a lot on good programming practice, and his background makes us take his suggestions seriously. Those who work on mission-critical industrial strength code in financial industry know what I am talking about. So, if you are a newbie to Fortran, and want to learn it correctly the first time, you should consider this book. If you have a higher budget, consider METCALF et al. as an additional aid.my 2 cents!

It’s hard to understand who the target audience is for this book. It is so bloated with endless basic programming fundamentals and practices that the details of the Fortran language itself are hard to pick out. I first programmed in Fortran (it was spelled FORTRAN then) in 1965, hadn’t worked with it for about 30 years, and - as an experienced programmer/engineer - needed to get up to speed expeditiously on current language details for a specific project. This book was not a good choice; it’s huge and seems to be aimed at someone learning programming as a discipline from scratch, using, for some bizarre reason, Fortran as the ’learning language’. Given the more modern learning languages available, I can’t imagine anyone actually doing this, but if there is such a person, this book is for you. As a language reference for even moderately experienced programmers it’s essentially unusable. Also, the shear physical size of the paperback book (almost 1000 pages) makes it far too fragile for the constant thumbing needed to find the code syntactical nuggets buried in its depths. My volume is literally falling apart after only about 3 weeks of (frustrating) use as a reference. I’ve ordered Gehrke - Fortran 95 Language Guide as a replacement - hopefully a better choice.

This is a very nice book for someone learning the basics of Fortran (or even the basics of Fortran *and* the basics of programming, although nowadays I doubt there are many people having to learn Fortran as their first programming language). The pace of book is slow, with number of examples and useful programming advices scattered along the way, which makes it perfect for use in introductory courses, as well as for self-study for someone learning programming. For more experienced programmers, however, mentioned pace will be too slow; especially distracting is the use of both flow diagrams, and pseudo-code (often even in several, gradually more detailed, variations), for the solution clarification, before actual Fortran code presented. However, seems like there is no middle ground here - some of the other good Fortran books, like Fortran 95/2003 Explained (Numerical Mathematics and Scientific Computation) read like language manual, without much examples; thus Chapman book still well deserves recommendation for anyone that is learning

Fortran for the first time; for an experienced Fortran programmer looking for reference text, it's probably better to search elsewhere.

As someone who never programmed before, i love this book. It is a really easy intro to how to write programs, it has examples of programs for every concept, offers questions/quizzes in the chapter, gives little side notes of 'good programming practice', and at the end of every chapter has programs ideas to write that are very interesting.

When I was growing up, I learned a number of programming languages. When I set off for college, I knew I was going to need to learn Fortran (I was in the engineering school), so I taught it to myself and spent years trying to forget it. For it's time, it was a useful language, there are some useful features to it for numeric computing and there's a lot of code already written in it so it's hard to avoid--but compared to modern languages it's rather annoying to write in (lack of pointers, etc.). So, I've sometimes had to maintain code written in Fortran 77, but would not consider myself an expert.Recently, I had to go to a workshop on crystallography software and the library we were looking at was in fortran 95. The conference was in France and having never programmed in fortran 95 before, I decided to pick up a book to come up to speed. This book was great for that. It let me know which features of the language were available in 90/95/2003. It was also very easy to read if you know a modern language and needed to come up to speed fast. I didn't see many choices when I was looking for books, but this one seems quite sufficient as a reference.

Modern C++: An Intensive Course for Scientists, Engineers, and Programmers (C++ In-Depth) C++ for Engineers and Scientists (Introduction to Programming) MATLAB - Programming with MATLAB for Beginners - A Practical Introduction to Programming and Problem Solving (Matlab for Engineers, MATLAB for Scientists, Matlab Programming for Dummies) Water Wave Mechanics for Engineers and Scientists: 2 (Advanced Series on Ocean Engineering)