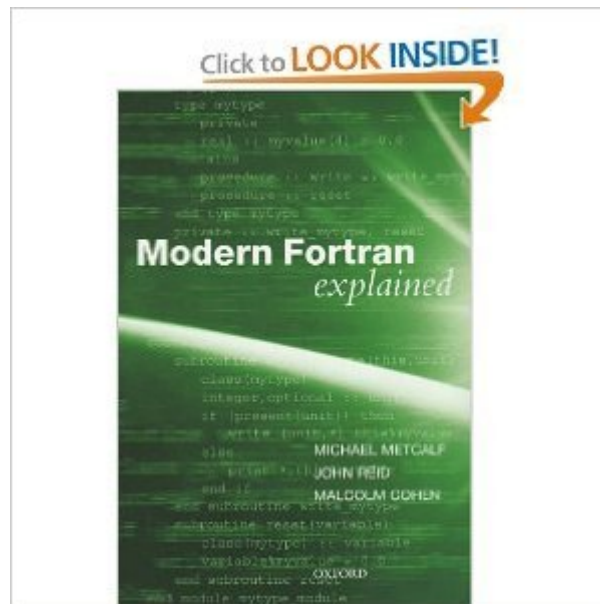


The book was found

# Modern Fortran Explained (Numerical Mathematics And Scientific Computation) 4th (Fourth) Edition



## Book Information

Paperback

ASIN: B0072H68C8

Average Customer Review: 3.8 out of 5 stars Â Â See all reviews Â (18 customer reviews)

Best Sellers Rank: #2,495,083 in Books (See Top 100 in Books) #86 in Â Books > Computers & Technology > Programming > Languages & Tools > Fortran

## Customer Reviews

This is the canonical book to learn modern Fortran from. It is written by people who actually use Fortran to do real science and while there are little things that I do differently (e.g. I prefer 4 spaces to 2 spaces, or prefer to always use "use something, only: xy" as opposed to just "use something", ...), this book is definitely my canonical reference besides the Fortran standard.

I could never get why this book receives so positive reviews. Various features of the language appear before they are properly introduced in the later chapters, which is confusing. Also, the implementation examples are hardly sufficient, most of which are either a pseudocode or a partially completed code. Considering that this book is supposed to teach you how to use Fortran 2008, this lack of helpful examples is frustrating. These two features make this book unusable for self-study.

Pretty tough read about the things you don't already know something about. I would love more examples of complete code. They have a lot of little snippets without an explanation of what else is needed to make them work. Also, there are some forward references - things that don't make sense until you have read the rest of the book. It would be quite hard to read this if you didn't already know a lot of Fortran, have some knowledge of Fortran standards since 1990, and know something about object oriented programming. That kind of knowledge is pretty much assumed. I would guess that a really good C++ expert could read it without too much prior knowledge of Fortran. The odd thing is that the first few chapters are pretty easy to read... The book is a lot easier to read than the Fortran standard itself. And it is a very comprehensive book.

I'm an experienced Fortran 90 programmer and loved this book as a go to reference for when I'm suffering brain fade. It's also a great expansion to explain the additional new features of F95, 2000, 2003 and 2008.

This book provides an excellent reference for someone like myself who programs scientific models in modern Fortran. I really appreciated the Fortran 2003 (information also available elsewhere) and Fortran 2008 (which this book is my primary reference). However, the spine of the paperback book separated as I keep it open on my desk and refer to often. If you want to use modern Fortran, this book will be a valuable addition to your bookshelf (or in my case, desktop).

I needed an update on my handy Metcalf, Reid & Cohen that covers Fortran 90/95 and recently bought this 2011 edition that covers Fortran 2008 features. It fully meets my expectations as being easy to use as a reference, and it explains the myriad of syntax, features and intrinsic procedures of Fortran 95/2003/2008, and clearly notes differences, such as the optional "kind" argument for some intrinsic procedures that is not present in the Fortran 95 standard but appeared in the 2003 or 2008 standards. Anyone that uses Fortran 95/2003/2008 should have a copy of this definitive book within reach.

I came to this book already having an understanding of Fortran 90 and having already written several large codes with it, but needing much guidance in the modern features made available in the 95, 03 and 08 standards details and wanting examples of how to implement these. This is one of the rare programming books that will always stay within reach at my desk. I agree with other reviewers that the book is very difficult to just read from beginning to end; it does jump around quite a bit, and it is meant much more to be a reference book for one looking for certain key features and maybe already having an understanding of other features. I am undecided whether it would be a good introduction, as I already had an understanding of the language fundamentals before reading, but I do like the repeated use of clear examples littering the text.

I am still looking for a good book on modern Fortran, something like Herbert Schildt on C/C++. At times Metcalf, et al, seem to be talking to a novice programmer, but then they launch off into abstract programming concepts suitable for a language standard. Many of the snippets are just expressions without assignments. In fact, they don't even get into simple scalar assignments until two thirds into chapter 3 -- after explaining arrays and structures. Program units and procedures are not touched on until chapter 5. An introductory "Hello, World!" would have been nice. They really seem to have trouble figuring out who their audience is. It's like they are paraphrasing the 90/95/2003/2008 standards to a novice programmer. And sin of all sins, they say GOTO is still OK! Come on. Users of this book will not learn how to write good Fortran with it. And we have enough

lousy Fortran already. It really is possible to write readable, maintainable, even object oriented Fortran. I've even written readable FORTRAN 77. With no GOTOs!! I am an experienced engineering programmer (16+ years) in FORTRAN 77, Ada, C/C++, Java, Matlab and Python, but I am finding it very difficult to get through this book without becoming very frustrated. Modern Fortran looks to be a fantastic language for Scientists and Engineers solving applied math and physics problems. It is very math oriented, unlike C/C++ which is geared more for non applied math algorithms. But, it is a slow slog to get into without a good reference. I'm going to try the Jeanne Adams, et al, Fortran 2003 Handbook. I'm not sure it will be much better.

[Download to continue reading...](#)

Modern Fortran Explained (Numerical Mathematics and Scientific Computation) 4th (Fourth) Edition  
Fortran 95/2003 Explained (Numerical Mathematics and Scientific Computation) Numerical  
Computing With Modern Fortran (Applied Mathematics) Fortran 77: With Numerical Methods for  
Engineers and Scientists/Book and Disk Fortran 77 and Numerical Methods for Engineers  
Numerical Recipes in FORTRAN Numerical Methods with Fortran IV Case Studies Fortran 77  
Programming: With an Introduction to the Fortran 90 Standard (International Computer Science  
Series) Using Advanced MPI: Modern Features of the Message-Passing Interface (Scientific and  
Engineering Computation) A Concise Introduction to Image Processing using C++ (Chapman &  
Hall/CRC Numerical Analysis and Scientific Computing Series) Scientific Software Development in  
Fortran Using MPI - 2nd Edition: Portable Parallel Programming with the Message Passing Interface  
(Scientific and Engineering Computation) Numerical Methods of Statistics (Cambridge Series in  
Statistical and Probabilistic Mathematics) Using OpenMP: Portable Shared Memory Parallel  
Programming (Scientific and Engineering Computation) Using MPI-2: Advanced Features of the  
Message Passing Interface (Scientific and Engineering Computation) axiom(TM): The Scientific  
Computation System Large Eddy Simulation for Compressible Flows (Scientific Computation)  
HITTESDORF CORBA/IIOP CLEARLY EXPLAINED (Clearly Explained) 11+ Maths and Numerical  
Reasoning: Eureka! Challenging Exam Questions with full step-by-step methods, tips and tricks  
(Eureka! Challenging Maths and ... Questions for the Modern 11+ Exam) (Volume 3) Diversity and  
the Tropical Rain Forest: A Scientific American Library Book (Scientific American Library Series)

[Dmca](#)