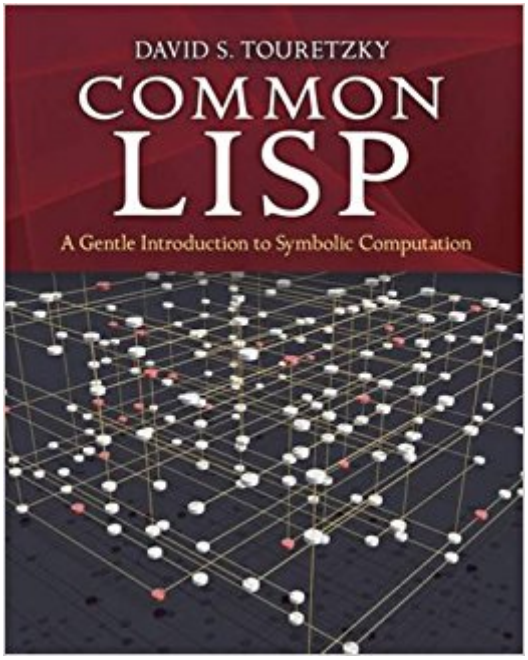
Common LISP: A Gentle Introduction To Symbolic Computation (Dover Books On Engineering)



Synopsis

This highly accessible introduction toÂ Lisp is suitable both for novices approaching their first programming language and experienced programmers interested in exploring a key tool for artificial intelligence research. The text offers clear, reader-friendly explanations of such essential concepts as cons cell structures, evaluation rules, programs as data, and recursive and applicative programming styles.The treatment incorporates several innovative instructional devices, such as the use of function boxes in the first two chapters to visually distinguish functions from data, use of evaltrace notation in later chapters to illustrate the operation of evaluation rules, and "Dragon stories" to explain recursion. The book contains nearly 400 diagrams and illustrations, and 77 pages of answers to exercises. Advanced topics and "toolkit" sections, and a variety of complete programs, extend readers' programming power.

Book Information

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Customer Reviews

My copy is worn out, and I sure could use a NEW one...! When I buy a book, I seldom know whether it will become a staple of my library or not. This has, over the years, become part of the most central core. I have worked in LISP off and on for years, and this book unfailingly gets me back on in a hurry. Not only is it the clearest tutorial on LISP I know (it's even a literate, pleasant read!), it has the only discussion of recursion I know that's clear and fun.

It would be simply awesome if you could order this book on-demand from the original publisher. If

that were the case I would pay well for a fresh new copy. I have currently worked through the .pdf version available online ([...] and I can honestly say that this book is far better in content and, more importantly, in presentation than any other programming book I have eve read (and I have read many). After tiring from tinkering with languages such as Java (big and burdensome), C/C++ (great languages provided you like writing long, and I mean long programs, to get basic things done), C#/ASP (I hate Microsoft and will never go back) and PHP (a hack par non) I wanted to try another language that rekindled my desire to program. Enter Lisp (as well as Python, but that's another story) and Professor Touretzky's book. I tried Graham's On Lisp but found it too pedantic and verbose (maybe later), I tried Steele's Common Lisp (good but misses the mark for beginners), I tried Seibel's Practical Common Lisp (good but remind me of a Murach hack book on how to program in XYZ with little emphasis on presenting the actual language and more on hey dude here's a cool program), I tried Barski's Land of Lisp (similar to Seibel in that it's cool if you like little explanation of the language with major emphasis on just cut and paste programs), then I came across Touretzky's Common Lisp and now I love the language. The material is presented in a sound logical and user-friendly manner and, more importantly, Touretzky explains the ins-out and how-to's of the language using carefully crafted examples, exercises and well laid out diagrams. If you want to learn a language that will awaken you and teach you how to think about programming in a new light, then I highly recommend reading this book. If you come from another language or languages, you should be able to work through this text in a relatively short period of time and, after this, move on to other books or resources. After this I would recommend Steele's, then Graham, and then Keene (I am currently working through the latter two).Bottom-line - do your self a favor and buy a used copy or lobby the publisher to provide it on-demand.

I have been involved for three decades now with Lisp and I consider this to be a tremendous introduction to the Language. The author is meticulous in detail and writes with a sharp, witty style. The treatment of Lisp evaluation is classic in clarity and brevity. The author gives good examples throughout the text. His fancy trace utility in the books appendix is useable and an excellent example of Lisp diagnostics.

This is an excellent tutorial. A good place to start before reading any of Graham's books.Although the book is now out of print, you can use the link below to download the pdf at no expense.[...]

Reviewers who mention this as an "old" title might be missing the more recent fact that Dover has

republished this classic with comments (and web resources) as recent as 2006 and later. This huge 500 page introduction (including for raw beginners) to programming, though exampled in LISP, covers the entire field of programming from data structures to algorithms, garbage collection, paradigms, and even circuits/ memory/ stacks/ registers and much more.Any bright High School student could pick this up and get a better foundation in programming than dozens of the "top" intro to programming books I've reviewed that go for $150 plus! Chapter 8, on recursion, though giving LISP examples, is perhaps the best explanation of this key technique ever given anywhere outside of Godel Escher Bach!The author is a true teacher in every sense of the word. He tells you what you're about to learn, teaches it, examples it, looks at it from numerous angles including graphics, code, math and analogy, then gives dozens of (solved!) exercises to confirm your understanding. The appendices are golden with rare glossaries, advanced topics and wonder of wonder, ANSWERS to the exercises! If you teach intro to programming (regardless of your favorite language), this is a must have for your instructional design, and if you're into self study, save yourself a ton of money and heartache with other texts and check this one out first.Functional is coming back in a big way, and common lisp is far from dead even though it was one of first ever along with its big brother Fortran way back when. I learned it in that era, and a book like this would have been astonishing. Highly recommended and thank you Dover for the bright new edition.

I did not know anything about Lisp and this book is teaching me the basics of the language very clearly. You could not ask for a better beginners book. five stars plus...

When i decided to buy this book, i knew nearly nothing about Common Lisp other than some myths. As i went deeper in the book; i saw that many of those myths were nothing but only the muds thrown with an ill manner over Common Lisp because of jealousy. Touretzky introduces every concept in a quite pedagogic way giving no more than a newcomer can handle. At the end of each chapter he even treats some advanced topics like tail recursion, macros etc. The only absence in the book, as far as i see, is object oriented programming features - CLOS - and package system which are not critically necessary for a novice so do not expose a serious problem, i think. I strongly recommend this monumental book to everyone who is planning to learn Common Lisp.

Common Lisp LISP, Lore, and Logic: An Algebraic View of LISP Programming, Foundations, and Applications Common LISP. The Language. Second Edition ANSI Common LISP Common Lisp Programmer's Guide to Common LISP Object-Oriented Common LISP Common Lisp and Artificial Intelligence Programming in Common LISP Object-Oriented Programming in COMMON LISP: A Programmer's Guide to CLOS Practical Common Lisp (Expert's Voice in Programming Languages) The Elements of Artificial Intelligence Using Common LISP Paradigms of Artificial Intelligence Programming: Case Studies in Common Lisp Using OpenMP: Portable Shared Memory Parallel Programming (Scientific and Engineering Computation) Using MPI - 2nd Edition: Portable Parallel Programming with the Message Passing Interface (Scientific and Engineering Computation) Using Advanced MPI: Modern Features of the Message-Passing Interface (Scientific and Engineering Computation) Using MPI-2: Advanced Features of the Message Passing Interface (Scientific and Engineering Computation)