Computer Currents

Programming in the Key of C

Have personal computers made the art of programming easier? Perhaps. These books prove that programming is more accessible than ever and even fun, if approached properly. With the right software and guide, and some time and patience, you can invent a little program to do your bidding. Your confidence in your computer will grow, too, as you really begin to take advantage of your machine.

☐ HARVEY, Brian & Matthew Wright. **Simply Scheme: Introducing Computer Science.** MIT Pr. 1994. 583p. ISBN 0-262-08226-8. $49.95 with diskette.

Should programming be a matter of learning where to put the semicolon and goto? According to Harvey and Wright, absolutely not. Programming, especially when you're starting off, is about the big picture, learning how to use your imagination and not your grammar. The authors use Scheme, a dialect of Lisp, as their base. Scheme and Lisp are symbolic programs that let you create programs that will write programs. Exercises throughout with Scheme help you get up to speed quickly and even have a good time. The first half of the book makes you comfortable with functions, leading you to projects involving bridge games and tic-tac-toe. In the second half, you deal with recursion, abstraction, files, and vectors. By the end of these chapters, you're ready to use Scheme to tackle databases and spreadsheets. *Simply Scheme* proves that programming can be accessible as long as it stimulates, rather than deadens, the imagination. This book will give you a sense of the inner workings of computer applications like no other.

☐ HOUSEMAN, Doug. **Late Night with MacHack: Mac Tools, Toys & Tales.** M&T Bks. 1994. 244p. ISBN 1-55851-395-7. **pap.** $29.95 with CD-ROM.

Among Macintosh programmers and even Macintosh fans, there may be nothing more fabled than the MacHack Conferences. Born in 1986 at Ann Arbor, MacHack has become the event for Macintosh programmers, a circus to create the best program or hack and win the ultimate peer recognition, the Best Hack Award. This book's CD-ROM, which contains many successful MacHack hacks and other information, is alone worth the price of the book. The book is organized in chronological order of the conference, so programs grow in sophistication over time. If you need yet another reason to prove the utility and sheer enjoyment of the Macintosh, this package is for you.

Start out simple

☐ NEIBAUER, Alan R. **Your First C/C + + Program.** Sybex. 1994. 367p. ISBN 0-7821-1414-8. **pap.** $24.99 with diskette.

Many professional programmers are learning C and C + + programming. Why not start with C and C + +? Neibauer gives you the tools and the right kind of instruction to get you up to speed with C at a rudimentary level. He correctly explains the importance of thinking about the structure of program in his first chapter before introducing one term from C. With that in mind, he leads you through variables and constants, input and output, operators and functions, conditionals and loops, and other crucial elements before you finally arrange your own program. Exercises and examples are scattered throughout the book, and the diskette includes a compiler. The arrangement of C details is not overwhelming for the beginner and is excellent as a refresher for the more experienced programmer.

☐ PATTIS, Richard E. **Karel the Robot: A Gentle Introduction to the Art of Programming.** 2d ed. Wiley. 1994. 160p. ISBN 0-471-59725-2. **pap.** $18.95.

Since 1981, Karel the Robot has been instructing students in the delicate practice of programming. With all sorts of new ways to teach programming, is the Karel method still valid? As long as introductory programming is about learning to think, there's room for Karel and his universe. You learn in the beginning about Karel's world and how to move him around ever so carefully in his streets and avenues. From these simple steps, you learn how to improve Karel's programming vocabulary so that you can do more with less code. You then advance to conditional statements and more complicated repeating instructions, ending up with skills such as ordering your robot to search his space for objects. Karel proves that a lot of programming expertise can be taught with a few well-chosen exercises and an emphasis on logical thinking and clean programming. Let's hope Karel the Robot never ends up on the junk heap.

For the advanced only

☐ PERRY, Paul & Stephen Potts. **Crash Course in C.** Que. 1994. 2d ed. 242p. ISBN 1-56529-940-X. **pap.** $19.99.

Perry and Potts assume that their readers already know a lot of computer basics and are not learning C for fun but for survival. What does *Crash Course in C* try to do? The first five pages give you a history of C; by page 13, you're working on your first program in C, calculating the area of a circle. In quick order, variables and operators, input and output, and conditional statements are treated and tested. With this information, you move on to more complicated areas such as functions, preprocessor directives, pointers, and other C concepts. The pace of this book is not for the beginner but for someone familiar with programming and capable of carrying their experiences to C.

☐ STEVENS, Al. **Al Stevens Teaches C: An Interactive Tutorial.** MIS Pr. 1994. 294p. ISBN 1-55828-387-0. **pap.** $24.95 with diskette.

C and C + + are definitely the hot languages, if the raw output of the publishing industry is any clue. The author, a columnist for *Dr. Dobb's Journal,* boasts of his invention of at least a 100,000 lines of C. So are we in safe hands? Stevens asks his readers to trust him as he explains C with lines of C. The first chapter takes you right into a short program that includes a number of C concepts that may not be obvious to a beginner at first blush. Is it fair to ask a beginner to try to understand a preprocessor directive in the first chapter (something that won't be treated in detail until the end of the book)? Despite the weight of Stevens's authority and his code experiences, his approach may not be right for mere mortals. Perhaps it's just for programmers with other languages in their minds. The book includes Quincy, a MS-DOS C interpreter, so you can do the exercises, even if you don't quite follow Stevens's leaps. In eight chapters, Stevens touches all of the C bases in this book, such as variables, constants, functions, libraries, flow control, and other issues. But you might look at another C introduction if you really are a neophyte.

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