

References

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Book reviews

Cobol Programming, by Peter Abel, 1980; 408 pages. (Prentice Hall, £8.40)

Although this book is subtitled *A Structured Approach*, the structure of the book leaves something to be desired. The first chapter, as an introduction to computers, is redundant. If the reader needs this information he will almost certainly not be able to profit from the rest of the book.

The book is based on IBM implementations of COBOL, which makes some of it of limited value. This is, sadly, especially true of the chapters on file organisation methods: sequential files are adequately covered; indexed files are described including much of the gory detail of overflow records; relative files receive only a sketchy treatment; one chapter describes IBM's VSAM files but with no discussion of when such organisation is appropriate.

A major criticism, which is often applied to such books, is the use of the flowchart as a design tool. Structured analysis and design are not mentioned at all, and the flowcharts incorrectly map the PERFORM . . . UNTIL . . . format. Since the programs are correct, they do not implement the given flowcharts; this is confusing to the novice and irritating to the informed.

Several criticisms of detail will suffice to give a flavour of the style. A section is devoted to describing buffers on p. 105, and the only other reference to this topic is a single paragraph on p. 302. REDEFINES is used in example programs before its effect is explained. MOVE CORRESPONDING, whose use can be a major aid in a well organised COBOL program, is described with three short paragraphs and a 16 line listing; the data movements which occur as a result of the example are not disclosed!

Use of the standard COBOL syntax notation is somewhat sporadic, and a summary in an appendix would have been a useful adjunct. The typographical layout of the book could be better: all COBOL is reproduced from chain-printer output, which is occasionally illegible. The author's narrative style is on the whole clear, but his objectives would have been better met by choosing a more limited language subset and giving it fuller treatment. In short, there are better books on COBOL. They are, however, often more expensive.

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More Chess and Computers, by D. Levy and M. Newborn, 1980; 177 pages. (Computer Science Press, \$12.95)

This book analyses a number of chess games involving computers played in the years 1975–1978. It starts by outlining the bet made by David Levy in 1968 that no computer would beat him in a match within 10 years. Several challenges were made and most of the resulting games are analysed in the book. The second chapter "The State of the Art" describes several of the games involving the strongest computer chess program CHESS 4, plus one game involving a purely positional program from Germany. The third chapter, on Blitz play, analyses the defeat by CHESS 4.6 of various chess Masters and one Grand Master (Michael Stean) at Blitz chess. Chapter 4 discusses two tournaments which took place in 1977, *The Second World Computer Championship* in Toronto and *The Eighth ACM Computer Championship* in Seattle.

Perhaps the most interesting part of the book is Chapter 5 which describes the relatively new field of microcomputers and chess. This is the commercial end of computer chess and inevitably financial considerations place very tight restraints on the program designer. Chapter 6, "Computer Chess Miscellany" is followed by Appendices on an unsolved problem and a listing of over 50 games played in computer tournaments in 1977. Finally there is a bibliography on computer chess.

The book is unfortunately marred by numerous errors. One might expect a few errors of chess notation involving ambiguous moves or erroneous use of the + symbol for check, but not the large percentage of errors in the illustrated board positions. As none of the illustrations have any indication of their location in a game, the reader must assume that they are positioned correctly in the text. In fact six of the illustrated positions were in the wrong place in the text and in addition seven illustrations had pieces missing, wrongly positioned on the board or transformed to a different piece type.

In summary, the book gives a good description of the state of the art up to 1978, but the reader should ignore the illustrations and play the games through with a chess set.

P. KENT (Didcot)