Recent Papers by IBM Authors

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• *Book abstract*

Programming Languages: History and Fundamentals, J. E. Sammet (FSD Cambridge), Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1969, 785 pages. $18.00.

The primary purpose of this book is to serve as a reference for an overall view of higher level languages. The book brings together in one place, and in a consistent fashion, fundamental information on programming languages including history, general characteristics, similarities, and differences. A second purpose of the book is to provide specific basic information on all the major, and most of the minor, higher level languages developed in the United States. The third purpose of the book is to provide history and perspective for this aspect of the programming field. Approximately 120 languages are described, where FORTRAN is considered as *one* language.

The first three chapters discuss general concepts, nontechnical, and technical characteristics of programming languages. Chapters IV through VII discuss, respectively, languages used primarily for numerical scientific problems, business data processing, string and list processing and formal algebraic manipulation. Chapter VIII discusses multipurpose languages. In each of these five chapters the history of the language is given, followed by a discussion of its nontechnical and technical characteristics based on the outline given in earlier chapters. Chapter IX discusses about 50 languages used in specialized application areas. Chapter X discusses a few significant unimplemented concepts, and the last chapter contains the author's personal views on future long range developments in programming languages.

There are two appendices, one containing an author list and the other a list of all the languages described in the book. The language list gives for each language the meaning of its acronym, a very brief description, and the one or two best references for it. There is a subject index, and a name and system index. There are more than 800 individual bibliographic citations, including specific bibliographies for each language; these are listed at the end of each chapter.