Suggested reading

Listed are synopses of recent books that should be of interest to the readers of the *IBM Systems Journal*. Inquiries should be directed to the publishers cited.

A Structured Approach to Systems Testing, William E. Perry, QED Information Sciences, Inc., Wellesley, MA, 1983. 451 pp. (ISBN 0-89435-061-7). As the complexity of data processing systems has grown, the need has arisen to provide more comprehensive testing procedures. This book provides a structured methodology which the reader can use as a framework to establish testing procedures that are appropriate for his organization and the systems under development. Testing tools, techniques, and procedures are described for each of the traditional systems development life cycle phases. The discussion is organized logically, and structured such that each chapter may be directly applied to a function within the reader's organization. The book will be of considerable benefit to programmers, analysts, and data processing managers who are chartered with ensuring a high standard of quality in the software development process.

Assembly Language Programming for the IBM Personal Computer, David J. Bradley, Prentice-Hall, Inc., Englewood Cliffs, NJ, 1984. (ISBN 0-13-049189-6, 0-13-049171-3 (PBK)). For the high-level language programmer who wants to gain a further understanding of the internals of his IBM PC, this book is most worthy of recommendation. The author provides an introduction to computer fundamentals for those who are unfamiliar with the system architecture. He then describes the 8088 microprocessor, its instruction set, the interface to DOS and the assembler, the 8087 numeric data processor, ROM BIOS, and extensions which can be implemented to high-level languages using assembler. The book is well written and the material is logically presented. It would make an excellent reference or course text.

Computer Graphics for the IBM Personal Computer, Donald Hearn and M. Pauline Baker, Prentice-Hall, Inc., Englewood Cliffs, NJ, 1983. 330 pp. (ISBN 0-13-164335-5, 0-13-164327-4 (PBK)). This book would be of value to anyone who has an IBM PC, an interest in computer graphics, and a knowledge of BASIC. The level of material builds from an introduction to the hardware of the IBM PC, to a discussion of character graphics, and then pixel graphics. The rest of the book provides comprehensive coverage of the following subjects: plotting graphs, drawing curves, interactive techniques, transformations, animation, windows and spotlights, displaying solid objects, three-dimensional transformations, business graphics, educational graphics, and personal graphics. Each of the techniques presented is fully discussed and illustrated graphically. In addition, an important feature of the book is that BASIC code is included so that the reader can implement the examples on his own system. The book is well written, in a friendly, easily understood style, and should be of interest to all users from novice to advanced.

Controlling Software Projects, Tom DeMarco, Yourdon Press, New York, NY, 1982. 284 pp. (ISBN 0-917072-32-4). Systems implementers and developers are well aware that the objective of controlling and managing software projects to meet specific functional objectives within budget and on time is most often an elusive one. Many who are involved in the management of such endeavors might be inclined to use rule-of-thumb measures, or perhaps abdicate the task totally due to the imprecise nature of the problem. This book does an effective job of presenting the state of the art in organizing and controlling software projects so that they can be objectively measured. The author provides insight from his personal experience into the nature of the software development process, system models and metrics, cost models, and software quality. The book is written from a personal, realistic, entertaining point of view and is to be recommended to anyone with an interest in more effective management of the software development process.