Listed are abstracts from recent papers and books by IBM authors. Inquiries should be directed to the publications cited.

Abstracts

Ink-jet printing, Larry Kuhn (GPD Tucson, AZ) and Robert A. Myers (RES Yorktown Hts, NY), *Scientific American* **240,** No. 4, 162–178 (April 1979). Ink-jet printing is one of the new dot-matrix printing technologies particularly suited to computer printing because of its greater resolution, quietness, and adaptability to size, style, etc. This paper presents a good tutorial on the subject, discussing the history of ink-jet development and then discussing three specific methods in detail. A single stream of drops is steered electrostatically in the first method and electromagnetically in the second method. The third method uses multiple ink jets.

Computer programming and the human thought process, W. J. Tracz (FSD Owego, NY), *Software—Practice and Experience* **9,** No. 2, 127–137 (February 1979). This paper looks at the human thought process and how it applies to computer programming. After a presentation of an overview of the human cognitive process, the various stages of programming and their relation to this process are discussed. Comments on the value of new programming techniques such as structured programming are made.

Networking: Building a software bridge between multiple hosts, Albert J. Hedeen (DPD Research Triangle Park, NC), *Data Communications* **8,** No. 3, 87–100 (March 1979). IBM programs that support the linking together of computer systems into a network, mainly the several Advanced Communications Function products, are defined, and descriptions of how they work are given. Other topics include network recovery, expansion, control and management as accomplished by the ACF products.

The art of software testing, Glenford J. Myers (Systems Research Institute, New York, NY), John Wiley & Sons, Inc., New York, NY (1979). This book is a practical handbook, illustrated with examples, on software testing. Chapters are included on test-case design, program inspections, module and higher-order testing and debugging. There is also a chapter that surveys test tools and provides an extensive bibliography for each kind of test tool.

Data and reality, William Kent (GPD San Jose, CA), North-Holland Publishing Company, New York, NY (1978). This book takes a different and interesting look at the structure of data, exploring the constructs of data and their central characteristics. These characteristics are then related to various data models. The focus is on the information content of data models, not the use of the models themselves. The book alternately views information in the real world and in the computer.