

Editor's Comment

These reviews are particularly well suited to begin what will be a regular reviews section of the RECORD. Each of them discusses a paper in the ACM Computing Survey Special Issue on Data Base Management Systems. This issue (dated March 1976 but distributed in June) was produced with the editorial direction of E. H. Sibley. As Guest Editor, Sibley introduces subsequent papers with some brief but helpful remarks on the development of data base technology. He also presents a useful "outline" of the papers. (Sibley is also a co-author of one of these papers. See Minker's review below.)

In his introduction Sibley explains the motivation and rationale for the development of the data base concept; the problems which are enhanced once data resources are integrated; the need for a DBA function; and, finally, the idea of auditing and controlling data as an asset that is akin to the financial assets of an organization.

His outline of the papers nicely shows the relationship among the articles; and, he carefully bounds the scope of the entire issue by explaining that it focuses primarily on differences and similarities of various data models, with some insight into their implementations in current systems. To overcome the disparities in data base terminology with which we are all too familiar, a single example of a Presidential data base is used by all contributors.

This issue will be a valuable reference work for beginning students of data base. Also it should provide ample evidence, (for those who might still require it), that data base is clearly a well established discipline.

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[Those interested in reviewing papers or books of interest to SIGMOD readers should contact the Reviews Editor.]

Fry, J.P., Sibley, E.H. "Evaluation of Data-Base Management Systems"
ACM Computing Surveys 8 (1) (March 1976) 7-42.

Computing Reviews
Categories: CR 4.33, 4.34, 1.2

Data-base management systems provide generalized tools for the storage, retrieval, maintenance and manipulation of data-bases be they large or small. Since most organizations have data-bases that require manipulation, it is not surprising that a great deal of interest has been generated on the subject. The importance of data-base technology is evidenced by the large number of data-base management systems that have been developed, the numerous conferences that have been held on the subject, and the several journals that are devoted exclusively to the subject. Indeed, the article under review appears as the lead article in a special issue of Computing Surveys devoted exclusively to data-base management systems.

The intent of the article is to provide a brief introduction to data-base management, and to provide historical perspective upon the subject. Subsequent articles in the issue are devoted to the technological aspects of the various data-base models such as relational, network, and hierarchic.

The development of techniques for generalized systems arose in the mid 1950's primarily because of the needs of the military. Thus, the