Charles Bachman

Born December 11, 1924, Manhattan, Kan.; Proposer of a network approach to storing data as in the Integrated Data Store (IDS) and developer of the OSI Reference Model.

Education: BS, mechanical engineering, Michigan State University, 1948; MS, mechanical engineering, University of Pennsylvania, 1950.

Professional Experience: Dow Chemical Corporation, 1950-1960; General Electric Company, 1960-1970; Honeywell Information Systems, 1970-1981; Cullinet, 1981-1983; founder and chairman, BACHMAN Information Systems, 1983-present.

Honors and Awards: ACM Turing Award, 1973; distinguished fellow, British Computer Society, 1978.

Bachman began his service to the computer industry in 1958 by chairing the SHARE Data processing Committee that developed the IBM 709 Data Processing Package (9PAC), and which preceded the development of the programming language Cobol. He continued this development work through the American National Standards Institute SPARC Study Group on Data Base Management Systems (ANSI/ SPARC/DBMS) that created the layer architecture and conceptual schema for database systems. This work led to the development of the international "Reference Model for Open Systems Integration," which included the basic idea of a seven-layer architecture, the basis of the OSI networking standard. Bachman received the 1973 ACM Turing Award for his development of the Integrated Data Store, which lifted database work from the status of a specialty to first-class citizenship in computing. IDS provided an elegant logical framework for organizing large on-line collections of variously interrelated data. The system had pragmatic significance also in taking into account advice on expected usage patterns, to improve physical data layouts. The facilities of IDS were fully integrated into the Cobol language and so became available for full-scale practical use. Bachman was cited for the completeness of this conception-from the underlying modeling to installation in the field-and for its proven impact on data processing. In 1983 he founded Bachman Information Systems, Inc., whose products pioneered the concepts of reverse engineering.

BIBLIOGRAPHY

Significant Publications

Bachman, C., "The Programmer as a Navigator," *Comm. ACM*, Vol. 16, No. 11, 1973, p. 653ff.

UPDATES

(Portrait inserted by MRW, 2012)