Kenneth E. Iverson



Born December 17, 1920, Camrose, Alberta, Canada; with Adin Falkoff, inventor and implementer of the programming language APL.

Education: BA, mathematics, Queen's University at Kingston, Ont., 1950; MA, mathematics, Harvard University, 1951; PhD, applied mathematics, Harvard University, 1954.

Professional Experience: assistant professor, Harvard University, 1955-1960; research division, IBM Corp., 1960-1980; I.P. Sharp Associates, 1980-1987.

Honors and Awards: IBM Fellow, 1970; AFIPS Harry Goode Award, 1975; ACM Turing Award, 1979; IEEE Computer Pioneer Award, 1982; National Medal of Technology, 1991; member, National Academy of Engineering.

Iverson has been one of those lucky individuals who has been able to start his career with a success and for over 35 years build on that success by adding to it, enhancing it, and seeing it develop into a successful commercial property. His book *A Programming Language* set the stage for a concept whose peculiar character set would have appeared to eliminate it from consideration for implementation on any computer. Adin Falkoff is credited by Iverson for picking the name APL for the programming language implementation, and the introduction of the IBM "golf-ball" typewriter, with the replacement typehead, which provided the character set to represent programs. The programming language became the language of enthusiasts (some would say fanatics) and the challenge of minimalists to contain as much processing as possible within one line of code. APL has outlived many other languages and its enthusiasts range from elementary school students to research scientists.

BIBLIOGRAPHY

Biographical

Falkoff, Adin D., and Kenneth E. Iverson, "The Evolution of APL," in Wexelblat, Richard L., ed., *History of Programming Languages*, Academic Press, New York, 1981, Chapter 14.

Iverson, K.E., "A Personal View of APL," *IBM Systems J*, Vol. 30, No. 4, 1991, pp.582-593.

Significant Publications

Falkoff, A.D., and K.E. Iverson, "The Design of APL," *IBM J Research and Development*, Vol. 17, No. 4, 1973, pp. 324-334.

Iverson, Kenneth E., *Machine Solutions of Linear Differential Equations: Applications to a Dynamic Economic Model*, PhD thesis, Harvard Univ., 1954.

Iverson, Kenneth E., *A Programming Language*, John Wiley, New York, 1962. Iverson, Kenneth E., *Elementary Functions*, Science Research Associates, Chicago, 1966.

UPDATES

Ken Iverson died 19 October, 2004 (MRW 2012)