

A PROGRAMMER'S STORY

The Life of a Computer Pioneer

Per Brinch Hansen

In 2002, Per Brinch Hansen was awarded the IEEE Computer Pioneer medal “For pioneering development in operating systems and concurrent programming exemplified by work on the RC 4000 multiprogramming system, monitors, and Concurrent Pascal.” On this occasion, IEEE called Brinch Hansen one of a handful of computer pioneers who was responsible for advancing both operating systems development and concurrent programming from ad hoc techniques to systematic engineering disciplines.

As a student of electrical engineering, Brinch Hansen dreamt of making fundamental contributions to a new field. In 1963, he graduated from the Technical University of Denmark without any programming experience—it was not yet being taught, and there were no textbooks available on programming languages, compilers or operating systems. That was his main reason for choosing to work in computing!

Over the next forty years, he worked as a systems programmer in Denmark and a computer scientist in America. He witnessed computer programming change from an amateur activity into something resembling an engineering discipline.

This autobiography is the story of Brinch Hansen’s professional life and his personal impressions of the birth of modern programming. He traces his school years, engineering studies, and the beginning of his career in Denmark. And he recounts his exciting and frustrating years as a researcher at Carnegie-Mellon, Caltech, USC, University of Copenhagen, and Syracuse University.

He tells his story in nontechnical detail with candid anecdotes about computer pioneers he has known, such as Peter Naur, Jørn Jensen, Edsger Dijkstra, Niklaus Wirth, Tony Hoare, Ole-Johan Dahl, Alan Perlis, Nico Habermann, Jim Horning, Don Knuth, Charles Simonyi, Butler Lampson, Bill Wulf, Gordon Bell, Carver Mead, Ivan Sutherland, Seymour Ginsburg, Harlan Mills, Geoffrey Fox, Chuck Seitz, David May, Dennis Ritchie, and others.