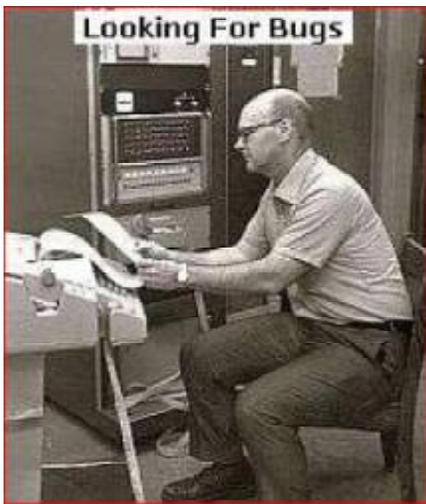


Into The Computer Age

In between my three stints as a R&D section manager with Hewlett-Packard, I experienced periods of benign neglect. I would be left to my own devices to putter around on whatever interested me.

I had my first exposure to computers during one of those periods. A time share Basic Language terminal was available in the lab. A colleague showed me how to logon and how to write a simple program. I was intrigued with it and I was quickly writing some moderately sophisticated programs. HP began supplying some of them to customers with the purchase of a gas chromatograph. One such program was Simulated Distillation. This program was in demand by refineries for monitoring the performance of their distillation towers.

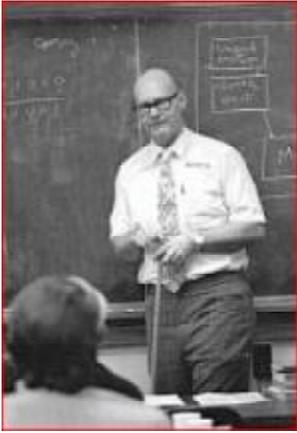


Some time later the first mini computer came into the lab. It had 4K (12-bit words) core memory and no other storage. Disk systems were prohibitively expensive in those days. Input and output was limited to printing and punched paper tape the 10 character per second teletype produced. I buried my nose in the computer manuals to teach myself Fortran. It was the only high level language available, so I rewrote Simulated Distillation in Fortran. I patiently ran my source code through a four-pass compiler. I was up to my ears in punched paper tape.

As customer desires for enhancement continued, Fortran ran out of gas because of the computer memory limits and I had to dig out the manuals again and learn Assembly Language. The listing for the last such program I did was about 50 pages in length. We sold a lot of these, and I'm happy to say that we never had a bug report from a customer.

Still later, with more sophisticated computer equipment, I branched out into programs for real time data acquisition and processing for up to 16 of our gas chromatographs running simultaneously. When it became apparent that this was potentially a new product, I found myself again playing a management role with a group of six extremely bright and rambunctious young computer science graduates. I sometimes felt more like a father to them than a manager. The resulting product became the basis for a whole new business for HP.

It is perhaps noteworthy that I have had no formal computer training.



After the product was introduced, I spent a good deal of time lecturing and training customers on the use of the systems. This involved visiting laboratories of petroleum and chemical plants along the east coast, gulf coast and up the Mississippi River. The photograph was taken in a pharmaceutical plant in Greenville, SC. I had planned a five day session.

None of the attending people were computer literate, and by the third day I could see that they were lost. I scrapped my lecture and said, "Now let's solve some of your problems." I programmed their system to take care of several of the quality control analyses which they performed. When I left, I think I could have been elected mayor.

Advent of the PC

A year or so before my retirement in 1988 the first IBM personal PC came into the lab. I was allowed to take it under my wing. It was very primitive by today's standards, but I was like a bull dog with a rag doll as I helped to transform it into a useful tool for the lab.

As I look back I have many pleasant memories.