

*## Column: War Stories*

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# The Computer Says We Have 7 Copies...

*Whil Hentzen*

As the popular press is stuffing itself with the newest proposal for developing distributed applications, I've been thinking about the past. I remember when "how to" magazines covered techniques and processes for using products that were actually available for purchase and use – not simply article after article praising technologies that won't be available for years while spreading FUD about the competition. But enough about IBM's marketing approach in the '60's and '70's – what I've really been thinking about is how we've learned to develop applications in the past, and how we're going to do it in the future.

Learning to develop applications on the PC platform – standalone machines as well as LANs - was an interesting process. I learned to program using Fortran IV on a DEC PDP using 80 column cards submitted in batch to the gods behind the glass wall in the computer center. We wrote simulations for engineering problems. For example, one program I wrote calculated the optimal configuration of components in an automatic feedback system of some sort of mechanical device like an automobile's suspension system.

The program consisted of little more than a routine to define inputs, a huge section of terse mathematical calculations, and a routine to produce output. The majority of the time was spent writing code that mapped to the engineering calculations we had already figured out by hand. And, then, of course, debugging that code.

By comparison, programming business applications on the PC required very little in the way of math – figuring a running percentage is about as complex as the calculations get for most business applications.

On the other hand, the interface through which users enter data, the business rules, and the resulting output can become fairly complex. It's not because the math is hard, but because you have to define the user interface. And, of course, there are human interactions that you can't define in black and white. There are even human interactions that you just simply may not think of.

I remember walking into a bookstore to ask for a book by 60's radical Abie Hoffman not that long ago. There weren't any on the shelf, so I went to the counter. The clerk tapped on the keyboard, and then went back to the stacks to look with me. "That's odd," she said, after not finding any on the shelf herself either. "The computer says we have 7 copies of 'Steal This Book.'"