

When Gates try to buy GeoWorks

At the start of the 90s, Berkeley Softworks became Geoworks, and with the new name - a whole new strategy and a new O.S.

Geoworks moved into Microsoft territory by creating a PC based O.S. to compete with *Windows*. However, in *GEOS* fashion, "*Geoworks Ensemble*" (known internally as *PC/GEOS*) was leaner, meaner and faster than *Windows 3.0* on the same hardware. *Geoworks Ensemble* would run nicely on a 386 or 486 PC that would not normally be powerful enough to run *Windows 95*.

Bill Gates called Brian Dougherty (Geoworks CEO) to discuss buying Geoworks and moving the developers to Seattle to incorporate some of the innovations in *PC/GEOS* into *Windows*. *PC/GEOS* had the Start Menu concept a full 2½ years before Microsoft. The developers were not interested in moving, and the lead VC advised against it.

He Bill Gates was actually very charming. Ballmer was the hammer. I met with Bill and several of the engineers on the *Windows* development team first, it turns out that several of those engineers were in another small Berkeley company with *Nathan Myhrvold* that Microsoft had acquired earlier. They were complimentary of what we had done and talked about joining forces to work on the next version of *Windows*. I should have listened to them, especially considering how MS stock appreciated from 1989 on.

Ballmer was the bad cop, he came in and said, «Look if you don't sell or license to us, we really have to crush you, we can't afford to have a competing PC operating system». I don't think he was trying to be mean or intimidating; it was just matter of fact. As I look back on it, if I were in his or Gates shoes I would have had the same attitude. The PC OS standard was a winner-take-all sweepstakes with billions of dollars hanging in the balance, the world doesn't really want to have to write software for multiple OSes.

A lot of people vanquished by Microsoft cry about their unfair business practices, I look at it differently; they were there first and fought tooth and nail to defend their business. I'd have done the same in their place.

Brian Dougherty "

PC/GEOS was a full pre-emptive multi-tasking, multi-threaded O.S. (yes, in 1990!). It had a postscript-like imaging model, complete with outline font technology and separate rotation, translation & scaling matrices for both the application and the U.I. (a leaf from *Mac OS X's* book; 10 years before)

Brian Dougherty describes *PC/GEOS's* U.I.:

The object oriented flexible user interface technology in *PC GEOS* is to this day the most sophisticated U.I. technology ever built into an OS. The team at Sun that developed Java

studied it and stole some of the concepts but in my opinion did not achieve the same level of sophistication.

Applications in *PC GEOS* contained a generic tree of objects describing the user interface features the app required with the ability to provide hints for how to realize those elements. The operating system then had a specific user interface library that would map those generic UI objects to specific UI elements like menus or dialog boxes.

The same binary of an application could be made to run under an entirely different look and feel. For example, at one point we wrote a Mac UI that turned a PC running *GEOS* into a machine that was almost indistinguishable from a Mac. You could go to preferences and select either the Mac UI or the Motif UI (*Windows*-like) and the system would restart and all of the applications would come up under the look and feel you selected. You almost have to see this live to believe how cool it was.

We actually got into extensive discussions with Apple about developing a low cost notebook that would run *GEOS* with the Mac UI. It got killed by the hardware group doing Mac notebooks, but it went all the way to a board meeting we attended with Scully et al before it died.

Brian Dougherty

The original *GEOS* still continued its life through licensing the O.S. to mobile phone and PDA manufacturers, appearing on early PDA devices like the Nokia Communicator 9000 & 9110.

This provided users with the power of the *GEOS* user interface (and *geoCalc*) on the emerging hardware.