

A THREAT TO FUTURE SOFTWARE

Last October Digital Research Inc. yielded to pressure from Apple and agreed to change its GEM software to decrease its resemblance to Apple Macintosh software. (GEM is an operating environment for several MS-DOS- and PC-DOS-based computers that allows a user to interact with a computer via windows and icons rather than the usual text-only commands.) Let's ignore, for the moment, the uncertain worth of a "visual copyright" (the legal term for Apple's copyrighting of the overall "look" of Macintosh software). Let's also ignore the ethics of Apple's actions. *The point to focus on, instead, is that Apple's actions are to no one's benefit:* Both the microcomputer industry and Apple itself will suffer from their effects.

Apple's actions will slow the growth of the microcomputer industry, which will hurt Apple by shrinking the potential microcomputer audience. Already, several small companies are worried that some project they're working on (and, often, they with it) will be cut down because it is "too Mac-like." In addition, the success of Apple's tactics may encourage other companies to try similar actions, thus increasing the paralysis and anxiety in the industry.

These actions will stifle the *incremental evolution* that is at the root of any significant growth in our industry. By "incremental evolution" I mean the process of gradual improvement of a product type that eventually leads to a more robust, useful product. For example, Ashton-Tate's Framework did not spring full-blown from the heads of the programming team at Forefront. It had its roots in Dan Bricklin's and Bob Franston's VisiCalc spreadsheet, Sorcim's Supercalc (which added functions and sold to a market not supported by VisiCalc), Mitch Kapor's VisiPlot (which gave the distinctive highlighted menu bar now used in so many programs), the software integration of Lotus 1-2-3, and the icons, windows, and pull-down menus of—well, you get the point. If companies are afraid to go to market with what they think are incremental—but distinct—improvements on a basic design, we will become a stagnant industry bounded by the usual and comfortable

According to Irving Rappaport, Apple's associate general counsel, Apple's intent is to prevent other companies from creating products that are easy to use because of their similarity to the Macintosh. "If people look at it and say, 'Gee, that's like the Mac—I can operate that,' when that's the result you get, it's over the line" of infringement of Apple's copyrights. The effect of this intent is to fragment the industry in the face of what was becoming a de facto standard for human-computer interaction. This lack of standardization will cause many people to stay uninterested in computers because they will have to relearn basic skills with each brand of computer they encounter. (Imagine how many people would drive cars if car manufacturers used different controls for every function in the car.)

Apple might argue that, by claiming a larger slice of a smaller pie, it will still come out ahead. We believe that it will be hurt directly by its actions and will end up with a smaller piece of a pie that is itself smaller. Apple will, in effect, build a wall around its ghetto of Macintosh products, thus limiting its own growth and encouraging people to "live" elsewhere.

Texas Instruments' TI-99/4A provides a good example. TI announced that it intended to directly profit from *all* software written for its machine by forcing third-party software developers to publish their products through TI. When a brave few brought out 99/4 cartridges on their own, TI added a proprietary chip to their cartridges that the computer required before it would run the enclosed software. Needless to say, the few developers working on 99/4 software wisely turned to support other computers.

The same may happen to Apple. IBM already sells over half the business computers bought today, and IBM PC-compatibles account for a fairly large slice of what's left. If Apple has been slowing the erosion of its market share to IBM with the Macintosh line (and I think it has), its current moves will alienate software and hardware developers, who will begin to lavish their creativity upon the more congenial IBM PC-compatible marketplace. And where innovation goes, the market will follow.

Consider: IBM made its software and

hardware architectures open. It allowed the development of innumerable hardware clones, many far more similar to IBM products than GEM is to the Macintosh desktop; consequently, the IBM PC-compatible market far outdistanced its combined competitors in less than two years. On the other hand, Apple is actively discouraging not only copying but also *borrowing* from its software design. It claims the sole right to benefit from a set of ideas that Apple itself has borrowed and improved on (the most direct borrowing was from work done at Xerox PARC). Given these two opposing directions, what do you think will happen?

A CALL TO ACTION

We at BYTE call on Apple to recognize the long-term implications of its actions and limit itself to prosecuting cases where the alleged theft is not of "looks" but of actual program code. Barring that, we call on Apple to license its allegedly copyrightable interface to markets that do not directly compete with its current or planned product line—if the licensing fees are reasonable, everyone will profit.

If neither of these things happen, we call on the judicial system to hand down rulings that reflect a strict interpretation of the visual copyright laws—that is, that a product is at fault only if it shows *no* distinguishing characteristics in appearance or operation from the alleged original; this would protect products that show incremental evolution. We also call on the industry to do two things. The first is to stand up to Apple and see the case decided on its legal merits. The second is to develop an alternative graphic interface and allow its wide adoption throughout the non-Apple computer community; in this way, the rest of us can get on with the business of making computers—in general—good enough that everyone will want to use them.

[Editor's note: Apple maintains that the agreement covers "only three specific products," but one of them is GEM Desktop, which defines the overall GEM environment. Also, according to Kathleen Dixon of Apple, the agreement includes any custom work DRI has done, including the modified GEM software that Atari uses in its 520ST computer.] ■

—Gregg Williams, Senior Technical Editor