Borland - Software Patent Testimony

Public Hearing on Use of the Patent System to Protect Software Related Inventions
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Robert Kohn, Chief Legal Counsel, Borland International

Mr. Kohn: Thank you, Commissioner Lehman, for the opportunity to testify today. I'm Bob Kohn, Vice-President of Corporate Affairs of Borland International, a leading developer and marketer of desktop and client-server computer software including D-Base, QuattroPro, Paradox, InterBase and Borland C++. I worked in the entertainment and computer software industries my entire career. My experience in the software industry includes many types of application, utility software for both mainframe and desktop computers. After a brief period of private practice and as Associate Editor of the Entertainment Law Reporter, I joined the legal department of Ashton-Tate Corporation in 1983. Until its acquisition by Borland in 1991, Ashton-Tate was one of the world's largest computer software companies. In 1985 I left Ashton-Tate to become Associate General Counsel to Kandell Corporation, a leading supplier of IBM mainframe software, and in 1987 I joined Borland as General Counsel.

I want to emphasize that I am sensitive to the need for the intellectual property protection on both a professional and personal level. My professional career is focused on protecting the valuable intellectual property assets of software companies. I'm also an author myself, having recently written a reference book on music licensing that was published by Prentice-Hall. To call order 1-800-223-0231. So I can certainly appreciate the need to protect intellectual property. And I hope I've made my point. If you need the number again I'll have it available.

Commissioner Lehman: Be careful, you know, works of the United States Government are not copyrightable, so if you get your stuff involved with ours you might have a problem.

Mr. Kohn: I'll try not to read my -- I'll try not to read my book into the record.

I'm testifying today in my capacity as Vice-President and General Counsel of Borland, a publicly-traded Silicon Valley company. On behalf of Borland I want to comment specifically on Question 4 in the Hearing Notice, and if time permits more generally on questions regarding the scope of protection for visual aspects of software programs.

Question 4 asks whether the present framework of patent, copyright, trademark and trade secret law effectively promotes innovation in the field of software. Like all other software companies, Borland invests heavily in both the creation and acquisition of new software products, and like other companies Borland needs strong government enforcement of existing intellectual property rights, especially in foreign markets, in order to protect its investments.

But it is particularly unproductive at these hearings and at other forms for public debate on these issues to hear two extreme views espouse. One group, generally small companies, argue for no protection or perhaps at best very weak protection. A second group, generally very large companies, addresses the issue of scope rather than enforcement, arguing that broader protection for software is necessary, and indeed the broader the protection the better. We believe that much of the polarization you have heard and will hear is the result of a confusion of what is being debated.

Protectionist interests in particular confuse enforcement of what is an undisputed intellectual property right with the underlying scope of intellectual property protection. We in the industry all understand that software as a product is particularly susceptible to unauthorized duplication. We therefore need strong enforcement of existing intellectual property rights to make sure that we are protected against the pirating of our software. But issues concerning the enforcement of intellectual property rights must not be confused with issues concerning the scope of intellectual property protection. It is too easy to wrap oneself in the proverbial American flag of antipiracy and anticonterfeiting enforcement. There is no dispute that strong antipiracy enforcement is required to promote the resources necessary for research and innovation. But it does not follow that because strong enforcement of intellectual property promotes innovation, a broader scope of intellectual property protection will also.

We should understand that many of those who very responsibly argue for limitations on the scope of intellectual property protection are not trying to defend pirates. They are, rather, trying to make a medium under which the proper scope of intellectual property protection as established by Congress and the Courts is respected and strongly enforced by the Administrative Branch of government.

This distinction between the enforcement of existing rights and a broadening of the underlying scope of protection was recently addressed at the 1993 Berkeley Roundtable on the International Economy in which the Vice-President, the Commerce Secretary and the Commissioner all participated.

The Report of the Roundtable on Maintaining Leadership in Software states the distinction between enforcement and scope very clearly. I'll include a block quote in my written testimony which begins with the following sentence: "Industry representatives argue that the importance of protecting intellectual property from theft by commercial counterfeiters and unscrupulous users must be distinguished from issues concerning the proper scope of intellectual property protection."

Unfortunately Question 4 in the Hearing Notice, in our view, heightens rather than diminishes the confusion and polarization. Question 4 seems to be based on a premise that strong protection for existing intellectual property rights necessarily implies a greater scope of intellectual property protection, and further that a greater scope of intellectual property implies a greater amount of innovation.

Implicitly, Question 4 neglects the important role that competition plays in encouraging innovation. We believe that the implication inherent in Question 4 should be the subject of much greater scrutiny and analysis. Within the industry we all, or at least most of us, agree that greater enforcement of intellectual property is necessary. What has fractionalized the industry is the attempt by some to use the need for greater enforcement to attempt to expand the scope of underlying intellectual property rights, particularly within the copyright area. As the Commissioner is aware, just two weeks ago the head of the Antitrust Division of the Department of Justice, Assistant Attorney General Ann Binghamen gave a major speech on the occasion of the sixtieth anniversary of the founding of the Antitrust Division. The Assistant Attorney General recognized the polarization within the industry that has been caused by attempts to increase the scope of intellectual property protection.

She said, "The substantive reach of the exclusive rights granted under the intellectual property laws also has been a matter of particular concern and ferment in the software industry. The Courts and the agencies have been faced with difficult decisions about the scope of both patents and copyrights in this field, as is clear to anyone who has paid attention to the long series of important court decisions on computer software copyrights, including Whelan, Altai, and the recent decisions in Lotus v. Borland, now under review in the 1st Circuit. The scope of copyright protection for computer software has we believe important competitive implications as well as important implications for the incentives to innovate."

We are particularly heartened to hear Assistant Attorney General most eloquently state her concern about attempts to increase the underlying scope of intellectual property protection. Again, please permit me to quote what she had to say. "Given my strong belief in competition, I think the courts should be hesitant to read the statutory grant provisions expansively, but should recognize the anticompetitive potential of restrictive practices at or beyond the borders of clearly-conveyed statutory rights."

While the Assistant Attorney General was directly addressing only the courts, we believe the same cautions should apply to the Administrative Branch of government as well.

Many questions to be addressed at these hearings deal with the visual aspects of computer screen displays. In evaluating the proper scope for protection for the individual aspects of computer programs, we believe that the Patent and Trademark Office would do well to consider the analytical framework employed by the engineers and computer scientists as opposed to the lawyers and judges in the software industry.

As the Commissioner is aware, much of the original and seminal work in graphical user interface analysis and design was done at Xerox Corporation in the 1970s. The research at Xerox formed a wealth of user interfaces far beyond just those of Xerox's products. Apple's MacIntosh and Lisa, Hewlett-Packard's New Wave, Microsoft's Windows, X-Windows, IBM's Office Vision and OS/2 to name just a few. Much of the research at Xerox was published in scholarly papers for distribution both inside and outside of Xerox. The most famous of those papers, entitled "A Methodology for User Interface Design," was published by Xerox Palo Alto Research Center in January of 1977. Because of the enormous importance of this paper, I'm going to attach it to Borland's written comments and ask that you consider it as part of these proceedings.

The Xerox research produced a methodology of interface design that is based upon what Xerox researchers called a taxonomy or classification for user interface analysis. This taxonomy is designed to permit analysis and evaluation of what each aspect or component of a user interface does. The taxonomy was created for software analysis and not for any legal purpose, but remarkably it dovetailed seamlessly with the overall intellectual property scheme of patents, copyrights and trade secrets established by Congress.

As the Xerox research concluded, every user interface has three separable components; one, the user's conceptual model; two, the control mechanism or command invocation of the product; and three, the visuals, or the information display. The user's conceptual model is the abstraction selected by the software developer which users can relate to the task they are trying to perform.

For example, the spreadsheet metaphor is the conceptual model that underlies Borland's QuattroPro line of products. Under our intellectual property scheme, the conceptual model of a particular piece of software would not be protectable at all except of course insofar as it may be protected by trade secret or under the terms of a contract or confidential relationship. The command invocation or control mechanism of the user interface is the mechanism that extracts the functionality built into the software. It is a set of actions and results defined in particular relationships to one another. Menu items and keystrokes are part of the control mechanism and were clearly identified as such by the Xerox research published in the mid-seventies. Indeed, the control component was originally called the command language.

Under the intellectual property scheme established by Congress, the control mechanism of the software product falls within the ambit of patent law, specifically utility patents. In order to secure utility patent protection over a control mechanism, an inventor should be required to satisfy the statutory requirements of novelty, advancement over the prior art and so forth. For example, if the user

entered a database by first clicking on the picture of the door to simulate knocking, and then clicking on the picture of the door-knob to simulate turning it, the sequence of steps would be part of the control mechanism and must satisfy the rigors of patent examination if it is to be protected. If the command mechanism does not meet the rigors of patent protection, it should not be protected by any other form of intellectual property protection such as copyright.

Finally, in Xerox's terminology, there are programs of visuals. The screen displays of many sophisticated user interfaces have a truly separable visual or expressive component. Images that can be manipulated through animation techniques.

The Congressional scheme provides for protection of these visuals, and under both statute and the case law, the visual display of the computer program may be protected by copyright law if and only to the extent its artistic features can be identified separately from and are capable of existing independently of the utilitarian aspects of the software program. Note that the definition of computer program under copyright law is a set of statements or instructions to be used directly in a computer in order to bring about a certain result. The screen display is a certain result of the set of statements or instructions that comprise the underlying computer program and must therefore independently qualify as a work of authorship.

Those are my two paragraphs. Thank you for the opportunity to appear here today and I would be happy to answer your questions.

Commissioner Lehman: Thank you very much, Mr. Kohn. I just note you refer to Question 4 in our Federal Register Notice which states that -- which asks the question, Does the present framework of patent, copyright and trade secret law, A, effectively promote innovation in the field of software, and, B, provide the appropriate level of protection for software-related inventions. I don't read those as implying that we should raise the level of protection; in fact I read those as an open-ended question as, What is the appropriate level? and that may well be a lower level. It may be no level at all, and I think the questions we've asked would suggest that we do have an open mind about that.

Mr. Kohn: I'm glad to hear that the Commission has an open mind about these issues. I think that, looking at the background section of the hearings, I don't have it in front of me, specifically emphasizes the innovation that's promoted by protecting intellectual property, and the point that I made is that there is absolutely no reference whatsoever to the importance of competition in promoting innovation, and you mentioned earlier, to an earlier witness, that -- you suggest that the competition issues might be more appropriately addressed under Antitrust provisions, but it is an intellectual property issue, and that's precisely what Ann Binghamen had said in her speech. It is an intellectual property program, we are after all talking about government-granted monopolies.