Notes

1. Edwin Lee, CEO of Pro-Log Corporation, offered the following proposal on June 10, 1983, as part of a panel discussion at the IEEE International Conference on Consumer Electronics, at Chicago, Illinois:

At the time of filing the (computer software copyright) applicant should be required to submit source code in a standard machine-readable form. Documents are to include a functional description of the software and flowcharts done to ANSI standards. This source code and these documents shall be released to the public at the end of the five-year [copyright] period and shall thereafter be in the public domain. Copyright protection is thereby to be granted in exchange for disclosure, as are patents.) Furthermore, the submitter shall be required to clearly indicate at the time of submission that part of the material which [he believes] is original with him and which parts were originated by others. Failure to do so truthfully will immediately void all protection for his work.

2. A further extension of the exemption from injunctions and of limitation of damages to a reasonable royalty had been suggested. Some persons feel that particular aspects of some programs, if subject to exclusive proprietary rights, may create "bottlenecks" to competition or barriers to entry. They feel that allowing intellectual property protection for operating system software and for microcode can prevent competitors from marketing emulators or peripheral devices that interface with the copyright owner's product. See, for example, the discussion of the Data General case in the February and April 1983 issues of IEEE Micro; a similar question was raised in the Apple-Franklin litigation and may be raised in the IBM-NCR litigation. In the case of microprocessor and mainframe micro-code, it is said that the cost of producing an equivalent microcode that has the same timing and other characteristics as the original may be prohibitive.

Accordingly, these persons would propose that competitors be allowed an access right (in effect, a compulsory, reasonable royalty license) to copyrighted software whenever it is established, as a practical economic matter, that it is likely that competition will be substantially lessened, or that there is a dangerous probability that a monopoly will be created, unless such access is allowed in return for payment of reasonable royalties. I do not believe that a sufficient factual case has yet been made showing the real need for such a provision in a federal software protection law. However, the issue certainly deserves consideration and discussion.

3. In the case of a video game, for example, one might want to enhance the program by altering a sequence to make it faster, more exciting, or more difficult; or one might want to alter the appearance of a character. One way to do this (the usual way) is to replace one or more entire EPROMs, even though only some of the lines of code in the EPROM need to be changed. (The replaced EPROMs are later erased and recycled.) Another (largely impracticable) way to do this is to add code to unused locations in the EPROM without touching the code that is to remain the same. The first way is said to be a copyright infringement. If the second way were somehow made practicable, such as by the availability of cheap, selectively erasable EPROMs, presumably it would not infringe.