# Computer Law—A Primer on the Law of Software Protection

by David R. Ellis

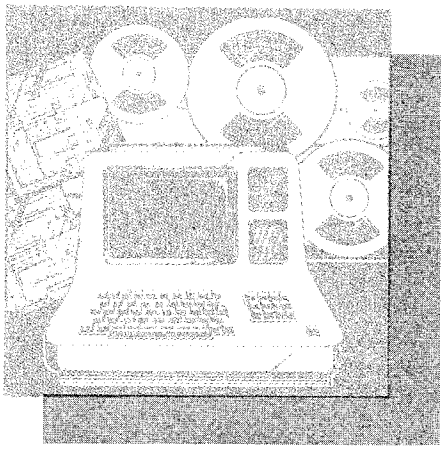
In recent years computer law has gained increasing acceptance as a recognized area of the law. The Florida Bar, for example, now has a separate computer Law Committee with more than 100 members who have conducted seminars, published articles and engaged in other activities traditionally carried on in established areas of the law.

Computer law incorporates and expands upon a number of the traditional disciplines, including contract law, copyrights, patents, trademarks and trade secrets, antitrust and unfair competition, and civil and criminal litigation. Since many practicing attorneys today are faced with advising their clients on matters relating to computers and are themselves automating their offices to include computer systems, it is hoped that this article will be helpful in providing an introduction to one aspect of computer law — the legal protection of proprietary computer software.

There are four principal methods of obtaining protection of computer software: copyrights, trade secrets, trademarks, and patents. Each of these methods is discussed in this article.

## Copyrights

Perhaps the most important method of protecting computer software is through the law of copyrights, a statutory scheme of protection dating back almost 200 years in this country to the Constitution. Although Franklin, Madison and Hamilton did not have personal computers at their disposal, they established a concept of protection for authors and inventors by granting them exclusive rights in their writings and discoveries for limited periods of time.[1] When Congress applied this concept to computer programs by an amendment to the Copyright Act in 1980,[2] it provided that the author of a copyrighted computer program has the exclusive right



to manufacture, copy and distribute his program and any derivative versions, and to authorize others to do so during the term of the copyright (lifetime plus 50 years for individuals, 75 years for corporations).[3]

The author of a copyrighted computer program thus has the right to restrict all persons from copying his program without his consent and to bring suit against violators who infringe on his copyright. There are but three exceptions, and these can be invoked by the user only in specified circumstances.

The first exception is essentially a technical point: it is not an infringement of the copyright owner's rights if the copy is created as an essential step in the utilization of the program by the computer.[4] This means that if, as the program runs, a duplicate is necessarily created or transformed inside the computer, there is no infringement of the author's copyright.

The second specific exception is more practical. A user may make a copy of his program for archival purposes; he must however, destroy that copy in the event he sells or otherwise ceases to have a lawful right to possess it.[5]

The third exception is called the doctrine of "fair use." Under certain conditions, a user may have a limited right to duplicate all or part of a copyrighted work for purposes such as criticism, comment, news reporting, teaching, scholarship or research. In determining whether the use in a particular case is a fair use, a number of factors are considered, such as the purpose of the use, including whether it is for commercial or nonprofit educational purposes; the nature of the work; how much of the work is used and how substantial that portion is in relation to the entire work; and the effect of the use upon the potential market or value of the work.[6]

Before a copyright can be enforced in court, the author must properly mark and register his copyrighted work. Thus, the original and all copies of a computer program must be marked with a copyright notice — either the word "Copyright," the abbreviation "Copr.," or the symbol ©, the date and the authors name, *e.g.* © 1986 Ima Lawyer.[7] The copyright notice should appear on all documentation, and at the beginning of all printouts and screens generated from the program. Failure to include the notice could mean loss of the copyright, with the result that the program would be in the public domain and thus available to anyone to use, copy or sell.

The copyright may be registered by completing an application and depositing a copy of the program with the U. S. Copyright Office in Washington, D.C.[8] Registration perfects the rights obtained by affixing the notice by permitting the copyright owner to sue in federal court to stop infringers. In a case of copyright infringement, the court can issue an injunction prohibiting further infringement, and can award damages to the copyright owner based on his lost profits, the infringer's ill-gotten gains, or statutory damages where neither of the above can be established.[9]

## Trade Secrets

The second method of protecting computer software is trade secrets. Trade secrets are a nonstatutory area of law that offers protection against theft of computer programs, and also on a broader basis, against misappropriation of other valuable ideas and items that are useful to a company's business.

A trade secret is a formula, pattern, device or information which is used in the operation of a business and provides the business an advantage or an opportunity to obtain an advantage over those who do not know or use it.[10] A trade secret includes scientific, technical or commercial information such as designs, processes, procedures, or supplier or customer lists. In order to remain a trade secret, its owner must take measures to prevent it from becoming available to individuals other than those expressly selected by the owner to have access to it. Under the law, the trade secret owner is protected against disclosure or unauthorized use of the secret by those to whom it has been confided under a restriction of nondisclosure or use when knowledge is gained, not through the intention of the owner, but through some improper means such as theft or wiretapping.

To be a trade secret does not necessarily mean that only one or two people know it. Rather, a wide circle of individuals may know the secret if the owner has taken appropriate safeguards to restrict overall access. For example, a software developer may reveal the program code to its employees in order for them to debug, modify or enhance the program, without the element of secrecy being lost. Similarly, the developer may license the use of the software to its customers without losing trade secret protection if it takes proper precautions.

The steps a firm must take to safeguard the secrecy of its information and prevent it from falling into the public domain may vary according to the nature of the information and the person given access to it. With computer software, it is advisable for a company to have a written agreement with each of its employees and outside contractors making it clear that the developer regards its programs as proprietary, that it retains all ownership rights, and that all information, data, flow charts and diagrams, source and object code, and documentation are to be held in confidence and not be disclosed to any outside party without the express written consent of the company.

With regard to the software it offers to its customers, the developer should have a comprehensive software license agreement asserting trade secret protection and requiring the customer to acknowledge the software's proprietary nature and agree to appropriate confidentiality and nondisclosure restrictions. No software should be released to prospective or actual customers without first obtaining a signed license agreement; to do so runs the risk of the program's losing its trade secret protection and falling into the public domain.

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The typical software license agreement will include restrictions by which the user agrees that he will not copy the program or disclose it to third parties without the consent of the developer. Sometimes an exception is made for archival copies for backup purposes; in other instances, the user may be permitted to make a limited number of copies for use on multiple computers at the same site, either with or without an additional fee.

Wrongful disclosure or use of a trade secret may be enforced in court against anyone who has a duty to maintain its secrecy. Therefore, a software vendor could sue a customer who violates a software license by making unauthorized copies or disclosures to outside parties. Similarly, a software developer could sue a former employee or contractor who has disclosed or marketed the same or similar program in violation of their confidential relationship or contract. In some cases, the developer might also have a right of action against a third party recipient if that person knew that the program was a secret and that its disclosure was a violation of the disclosing party's relationship or contract with the developer.

## Trademarks

A third major area of law affecting computer software is the law of trademarks. A trademark protects the name of the product rather than its contents. Thus, a software developer might name his law office accounting program "Counselor Counter" to identify his particular program and distinguish it from competing software products sold by others.

A software developer who sells his program only in Florida may register his trademark with the Department of State in Tallahassee for a period of 10 years, with the right to renew each 10 years thereafter.[11] By so doing, he can prevent others from using the same or confusingly similar trademark for a similar product in Florida.

If the program is sold in more than one state, the trademark may be registered in the U.S. Patent and Trademark Office in Washington.[12] A federal trademark is good for 20 years and may be renewed as long as it continues to be used.[13] A federal trademark gives the owner the exclusive right to use the trademark throughout the United States, and to prevent others from doing so by suing in federal court. Before attempting to register a trademark, it is usually advisable to search the records of the PTO to determine whether there have been any previous filings or registrations of this or any similar name. Often such a search is extended to include all of the state trademark offices, and various publications such as trade directories, in order to reduce the likelihood that the trademark has been previously used or registered by another party. This kind of search can be done relatively inexpensively through services that use computers to search the records efficiently.

Once the trademark is registered, either at the state or federal level, the registrant can bring suit against any one who has infringed it.[14] Infringement means the unauthorized use of the trademark in connection with any product, service or advertising where the use is likely to cause confusion or mistake or to deceive the user as to the true source of the product.

In a case of infringement, the court can order the infringer immediately to cease his unauthorized use of the mark. The court can also order all infringing products destroyed and award money damages to the trademark owner. In determining the amount of damages, the court may require the infringer to pay to the trademark owner all profits derived from the wrongful use, plus the costs of suit.[15]

### Patents

A fourth method of protecting software is through the law of patents. A patent is a grant by the federal government to an inventor giving him the right to exclude all others from making, using or selling his invention throughout the United States, its territories and possessions.[16] Patents are granted by the government acting through the Patent and Trademark Office.

A patent may be issued to anyone who invents or discovers a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement of these items. A mere idea or suggestion is not eligible for a patent, nor are methods of doing business or printed matter. These items may, however, be eligible for trade secret protection, which can be significant though not necessarily as valuable as patent protection.

Discoveries of the laws of nature are also not patentable. Thus the mathematical equations which describe Newton's laws of motion could not be patented, but a motor vehicle which necessarily follows those laws as an essential element of its functioning may well be patentable.

Similarly, mathematical algorithms used in computer programs are not themselves patentable since they are essentially laws of nature. However, in recent decisions, the U. S. Supreme Court has ruled that the utilization of these algorithms in an original and useful computer program may rise to the level of invention sufficient to support the grant of a patent to the developer of the program.[17]

> A person who develops an invention without knowing that it has been previously patented still infringes on the patent and can be sued by the patent owner.

To be patentable, the invention must truly be novel. If the invention has been patented or described in a printed publication anywhere in the world, or has been in public use or on sale in this country before the applicant made his invention, he may not obtain a patent. Also, if the invention has been patented or described in a printed publication anywhere, or has been in use or on sale in this country more than one year before the date of filing of the application, a patent cannot be granted. This is true whether the publication, use or sale was by the inventor himself or another person.[18]

In addition, even if the exact invention has not previously been patented or described, it may not be patented if it is essentially an improvement of an existing invention that would be obvious to a person having "ordinary skill in the art."[19] Thus an updated or enhanced computer program that can simply manipulate more calculations, handle more accounts or carry more items of inventory than its predecessor would probably be considered "obvious" to a competent computer programmer ordinarily skilled in the art of writing computer software and thus would not be patentable.

The term of a patent runs for 17 years

from its date of issuance by the Patent and Trademark Office.[20] As noted above, a patent grants the inventor the right to exclude others from making, using or selling the patented invention during its term. The patent does not, however, by itself grant the inventor the right to make, use or sell the invention. Thus, a software developer with a valid patent is not automatically free to practice his invention — for example, if his program necessarily incorporates the patent of an earlier developer, he would not be able to make, use or sell his program unless he first obtained a license from that patent owner. If he did not obtain such a license, he would be deemed to be infringing on the rights of the prior patentee.

Anyone who makes, uses or sells a patented invention without the authority of the patent owner is an infringer.[21] One area where patents differ from trade secrets is that a patent can be enforced against an independent developer of the same invention while a trade secret cannot. Thus, a person who develops an invention without knowing that it has been previously patented still infringes on the patent and can be sued by the patent owner.

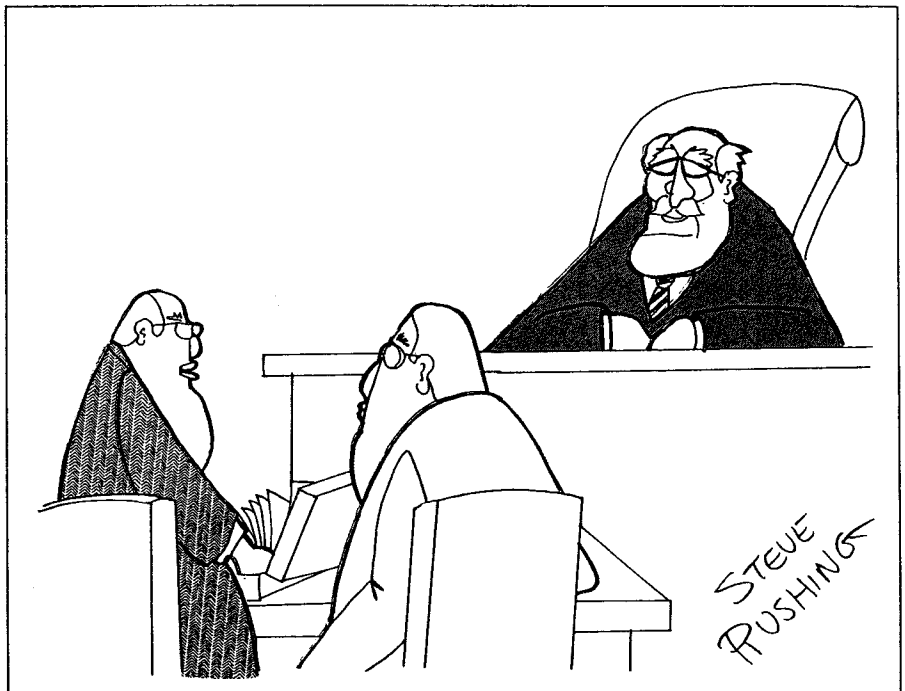
In trade secret law, by contrast, it must be shown that the invention was actually obtained through wrongful disclosure of the trade secret. Thus if an individual independently develops a software system functionally equivalent to another's unpatented system, he will not be liable for infringement or trade secret misappropriation if he had no access to the original program.

Patents may be enforced in federal court through injunctions and awards of money damages.[22] The patented articles must be marked with the word "patent" and the number of the patent in order to give notice to would-be infringers.[23] If the patentee fails to mark his product properly, he may not recover damages from the infringer unless the infringer was duly notified of the infringement and continued to infringe after receiving the notice. The marking of an item as patented when it is not in fact patented is against the law and subjects the violator to a penalty.[24]

## Summary

Taken together, the methods discussed above offer a fair degree of legal protection for proprietary computer software. The law in this area is continually evolving as lawyers, judges and legislators seek to keep up with rapid developments in technology. Thus, it is important for legal practitioners to understand the law of software protection so they can advise software developers and users on how to safeguard their rights when they create, develop and use this increasingly valuable and seemingly omnipresent resource in today's society. EJ

[1] U.S. CONST., art 1, §8.
[2] Pub. L. 96-517, §10(a), Dec. 12, 1980, 94 Stat. 3028.
[3] 17 U.S.C. §§106, 302.
[4] 17 U.S.C. §117(1).
[5] 17 U.S.C. §117(2).
[6] 17 U.S.C. §107.
[7] 17 U.S.C. §401.
[8] 17 U.S.C. §408.
[9] 17 U.S.C. §§501 *et seq.*
[10] *See e.g.* FLA. STAT. §812.081.
[11] FLA. STAT. §§495.011 *et seq.*
[12] 15 U.S.C. §1051.
[13] 15 U.S.C. §§1058a, 1059.
[14] 15 U.S.C. §§1114 *et seq.*, FLA. STAT. §§495.131, 495.141.
[15] *Id.*
[16] 35 U.S.C. §154.
[17] Diamond v. Diehr, 450 U.S. 175 (1981); Diamond v. Diehr, 450 U.S. 381 (1981), *aff'g* because of an equally divided court. In re Bradley, 600 F.2d 807 (1979).
[18] 35 U.S.C. §102.
[19] 35 U.S.C. §103.
[20] 35 U.S.C. §154.
[21] 35 U.S.C. §271.
[22] 35 U.S.C. §§281, 283 and 284.
[23] 35 U.S.C. §287.
[24] 35 U.S.C. §292.




"Where's the Brief?"

*David Ellis, Largo, practices in the areas of computer law, corporations, contracts, and copyrights, trademarks and trade secrets. A graduate of M.I.T. and Harvard Law School, he is a member of the Florida and New York bars, and the American Bar Association sections on Science and Technology and Patents, Trademarks and Copyrights. He is also a member of The Florida Bar Computer Law Committee, the Data Processing Management Association, and the Association for Computing Machinery. He has spoken on computer law, contracting, and the protection of proprietary software and intellectual property to various groups throughout Florida. He writes a regular monthly column on computer law for "The Data Bus," Florida's computer newspaper.*

*He writes this article on behalf of the Computer Law Committee, Clyde Wilson, Jr., chairman.*