



A Legal Guide for the
**SOFTWARE
DEVELOPER**

A Collaborative Effort

Minnesota Department
of Trade and Economic
Development

Merchant & Gould



A LEGAL GUIDE FOR THE SOFTWARE DEVELOPER

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A Collaborative Effort _____
Minnesota Department of Trade and Economic Development
Merchant & Gould P.C.

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PREFACE

This booklet is the second in a series of collaborative efforts by the Minnesota Small Business Assistance Office and Merchant & Gould, P.C. It follows on the success of *A Guide to Intellectual Property Protection* which is in its ninth edition. We have augmented this series with *A Legal Guide to the Internet* which is in its second edition. Like those Guides, this book seeks to be a primer for the inventor or a developer of a new product. It recognizes that in the case of software, the complexities of basic questions about intellectual property protection are often compounded. The availability and limits of intellectual property protection are of special importance for software products which may be used by a large number of users possessed of the equipment and expertise to copy or appropriate the software's main elements.

Like all publications of this kind, this Guide is not intended as a substitute for the advice of an attorney on the complexities of intellectual property law. Hopefully it will help frame issues and concerns for discussion with private legal counsel as well as with investors, bankers, potential developers, and customers. Preparation of this work has been a collaborative effort between the Minnesota Small Business Assistance Office and the law firm of Merchant & Gould, P.C. A particular note of thanks must go to the original authors John P. Sumner, D. Randall Boyer and Steven Lundberg and those individuals who have contributed to various revised editions: Brian H. Batzli, John Beard, Richard Gregson, Tom Hassing, John Reich, Phillip H. Smith (retired), Michael Schumann, Scott Steinbruner; and Madeline Harris and Ann Wilczynski of the Minnesota Small Business Assistance Office.

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INTRODUCTION

This booklet has been prepared to familiarize the inventor, creator, or developer of a new computer software product or software invention with the basic legal issues involved in developing, protecting and distributing that product or invention in the United States. To make this booklet short and direct enough to be of value to the developer, almost all of the issues and matters discussed are greatly simplified. Some less frequently encountered legal issues are discussed only in passing or not at all. This simplification renders much of the legal information in this booklet inappropriate to rely on as legal advice. A decision concerning how to protect and market your software product or invention should be made only after consulting a qualified intellectual property attorney. However, this booklet will introduce you to many of the basic legal concepts of the area and will identify potential problem areas. And, you will be able to better select and communicate with an attorney if you already have some knowledge of the basic legal concepts, potential problem areas, and opportunities for maintaining the proprietary nature of your software product or invention.

This booklet will first briefly outline basic types of software protection and related legal matters including patent protection, copyright protection, trade secret protection, protective legends, trademark protection, acquisition of rights in software and distribution of software. It will then discuss these matters in some detail and provide an overview of protecting software internationally. Finally, it will give an example of how many of these basic types of protection and related legal matters apply to a hypothetical spreadsheet software product.

AN OVERVIEW - THE SHORT COURSE

Basic Intellectual Property Rights: Patents, Copyrights, Trade Secrets and Trademarks

The Basic Intellectual Property Rights in Software: Patents, Copyrights, Trade Secrets and Trademarks. There are three direct types of intellectual property protection available to protect the technology in software products and inventions. These are patent protection, copyright protection and trade secret protection. Normally, at least two types of protection can be used to protect any given product. In many cases all three types of protection can be used. Trademark protection is considered another type of intellectual property protection. However, a trademark does not protect the technology in a product. Rather, it protects the name or appearance of the product and goodwill developed from sales of the product. An additional type of intellectual property protection relates to mask work rights, which can be obtained for semiconductor chip product layouts. However, since mask work rights have little to do with protecting software, they will not be discussed in this booklet.

Patent Protection

A utility patent can protect inventive functions, methods, systems or algorithms, including applied mathematical formulas, which are used or embodied in a software product. A patent protects the ideas and algorithms in a product as opposed to merely the particular set of code used to implement them. It is also the only form of protection which provides “exclusivity” in the marketplace

for an invention, effectively prohibiting even independent developers from making, selling, or using a product or feature similar to the protected invention. For these reasons it normally provides a much broader and more powerful form of protection than either copyright or trade secret protection does.

U.S. law requires that an invention be nonobvious to be protected by a patent. The test for nonobviousness is much less exacting than commonly believed. Over 10,000 U.S. patents have already been granted on software inventions, and the number of software patent applications filed in the U.S. Patent and Trademark Office has risen dramatically in recent years.

Copyright Protection

Virtually all computer software products may be protected by copyright. In essence, copyright protects against duplication or close imitation of the source or object code of the software product. In addition, copyright law may protect against the copying of a program's structure, sequence and organization and certain elements of a product's user-interface, or its "look and feel." Copyright law also grants the copyright holder the right to prevent others from modifying or adapting a software product for distribution as a modified product. Copyright protection is very easily obtained, is inexpensive, and is relatively easy to enforce in the case of outright copying of code. Copyright protection, however, does not protect certain important aspects of a software product. It cannot prevent the use of independently developed software. It cannot protect the underlying functions, methods, ideas, systems or algorithms used in a software product or invention. Patent and trade secret protection can be used to protect these.

Trade Secret Protection

Trade secret protection can also be used to protect software products. To qualify as a trade secret, the software product or feature sought to be protected must be of value, not readily known or ascertainable to others, provide the owner with a demonstrable competitive advantage and be subject to reasonable efforts to maintain its secrecy.

Code, ideas and concepts in code can be protected as trade secrets. Moreover, protection can last as long as the protected technology retains its status as a trade secret. However, trade secret protection cannot protect features of marketed software products that are readily ascertainable by lawful means. Nor can it protect against use of the technology by others who independently develop it (as patent protection can). Also, if an idea is maintained as a trade secret, it is possible for another individual or company to independently invent and patent the same idea, thus potentially precluding the party using trade secret protection from practicing the invention, or at least from marketing software using the invention.

While trade secret protection is an excellent protection scheme for software products under some circumstances, it is best used in combination with patent and copyright protection. The way in which this is done will be explained later.

Protective Legends

Any software product, whether published or not, should bear an appropriate protective legend. Software that is distributed to the public without a signed license agreement is normally considered “published.” On the other hand, software containing trade secrets that is under development or that is licensed to a limited number of end users under a trade secret license is usually considered “unpublished.” In the case of published software, the legend should include a copyright notice. In the case of unpublished software, the legend should include language indicating the trade secret nature of the software and a copyright notice which is consistent with the unpublished nature of the software.

Trademarks

Trademark protection is a fourth type of intellectual property protection. It does not protect the technology embodied in a software product, but protects the name, mark, or appearance of a software product and the related consumer goodwill developed in that name. A federal registration on a trademark or service mark can be a valuable property right. Trademark rights can exist forever,

so long as marks continue to be properly used and registrations are periodically renewed.

Acquisition of Rights in Software from Another Person or Company

Generally, when one acquires rights in a software product from another person or company, there are two types of rights that can be obtained. First, there is normally a right to possess and use a copy of the software product. Second, if specifically acquired by written agreement, there may be acquisition of intellectual property rights, such as the right to copy, modify and distribute the product. The right to possess and use the software product can be considered the minimum right normally acquired. However, it is important to realize that merely obtaining a copy of a software product does not convey intellectual property rights in the product (e.g., the right to copy, modify and distribute the product). For example, an outside consultant may develop software for a particular company. That company, however, may not own the right to copy, modify and distribute such software in the absence of a written agreement with the outside consultant providing these rights.

In addition, employees who participate in the development of software may own patent rights in the software that will remain the property of the employee unless their employment agreement requires assignment of these rights to the employer. The employer should also require the employee to refrain from disclosing to others confidential and proprietary information owned by the employer or acquired from others. Further, when acquiring software from an outside individual or company for use in a product to be distributed, obtaining a written agreement properly defining rights in inventions and other intellectual property rights is crucial. It is also important to protect acquired rights against premature termination. For example, it is possible to lose rights to use a software product if the license agreement defining the acquired rights permits arbitrary, premature termination of such rights.

Distribution

Software products are distributed either directly or indirectly to users through a chain of distribution ending with a distributor or value-added remarketer or, in the case of mass-marketed microcomputer software, with a mail order house or retailer. Recently, copies of software products are increasingly being distributed electronically over the Internet. A copy of a software product is typically licensed to the user for use as opposed to being sold outright. The distinction between a sale and a license is that a sale transfers complete ownership of the physical copy of the product to the user, who is free to do practically anything it wants with the product as long as copyright and patent rights are not violated. A license does not transfer ownership of the copy of the product but merely grants the user the right to use the software with certain restrictions. For example, a license may restrict the user to use the licensed copy on one particular computer at a particular site with network use expressly prohibited. Because of the additional control licensing can provide, it has become the favored method of distributing most software products. However, there are situations (such as in the use of mass-marketed software) in which the administrative burden or the difficulty of obtaining signed license agreements outweigh the benefits conferred.

Overview Summary

We have briefly outlined above the basic patent, copyright, trade secret, protective legend, trademark, acquisition and marketing concepts applicable to developing, protecting and distributing software products. With this overview in mind, we will now take a closer look at each of these areas.

PATENT PROTECTION

Many people in the software industry do not understand how to patent software, why it should be patented, or even that it can be patented. However, as far as patents are concerned, software can be considered much the same as other technologies. For instance, a word processing program can be considered an electric typewriter of sorts, while a drawing or graphics program can be considered an electronic equivalent of a mechanical drafting tool or system.

Database management programs can be considered in many respects akin to mechanical devices for organizing paper records and files such as Rolodex® card files. All such products, whether hardware or software, clearly can be protected under the patent system. Thus, thinking of software products as electronic machines or tools may help one to understand why they are patentable.

The Power of Patent Protection

A patent can provide protection for product features which cannot be protected under either copyright or trade secret law. For instance, a patent can protect ideas, systems, methods, algorithms, functions and other aspects of software products that cannot be protected by copyright law under any circumstance and which in many cases cannot be protected as trade secrets. Patents also have a broad reach. A U.S. utility patent gives the owner the right to prevent others from making, using, or selling the invention throughout the United States. Patents are enforceable against an infringing software product regardless of the manner in which the infringing product is developed. Independent development is not a defense to patent infringement as it is in the case of actions for copyright infringement and trade secret misappropriation. In other

words, patents are exclusive; only one person or entity can receive a patent for a particular invention.

Patents obtained in countries outside the United States provide similar rights. Patents also provide powerful relief from infringement in the form of injunctions and monetary damages. Attorneys fees and triple damages are available in appropriate cases of willful infringement, which can be established by showing that the defendant had knowledge of the patent and did not act reasonably in deciding to infringe. Because of these remedies, in order to avoid the risk of a very costly outcome, the majority of competitors will not knowingly infringe a patent even if they doubt the patent's validity.

Unfounded Criticism

Patent protection is sometimes criticized for being too expensive to acquire, taking too long to obtain, costing too much to enforce, and being too unreliable. Further, it is sometimes stated that obtaining a patent requires total forfeiture of all trade secret rights in a program. All of these criticisms are greatly overstated and substantially unfounded.

Recently, patent protection of software has become controversial as patents are being issued to software developers as they apply to the operation of web sites on the Internet. One of the more famous, or infamous to some, is the so-called "One-Click" patent that was issued to Amazon.com. This patent claims protection of a method of operating a web site that permits a customer to check-out items to be purchased using a single mouse click on a web page assuming a customer profile containing payment and shipping information has been previously stored at the web site. Because this feature appears to be valuable to operators of web sites, enforcement of this patent would place other web sites at a disadvantage. Most of the criticism of these so-called "business method" patents asserts that these patents do not cover new ideas and thus should not be allowed. This criticism fails to appreciate two important features of the patent system.

First, any patent issued by the U.S. Patent Office is merely presumed to be valid based upon the prior art found by an

examiner or submitted to the Patent Office by an applicant. All prior art considered before the patent is allowed is listed upon the front page of the patent. As a result, any interested party can determine if the Patent Office has considered the best prior art that existed when the claimed invention was first made. If non-considered prior art can be identified that teaches the claimed invention, the presumption of validity can be overcome. In fact, the patent system provides mechanisms to cause a patent to be re-examined by the Patent Office based upon newly identified prior art. Additionally, the validity of a patent may be argued in a court proceeding. The possible issues related to asserting a defense of invalidity against a possible enforcement action by a patent owner are complex. As a result, one should consult a competent patent attorney when necessary. However, the criticism of software patents merely because they have been issued by the U.S. Patent Office is overly simplistic.

The criticism of software patents also missed a significant benefit to an industry as a whole that arises from the granting of patents. Every industry benefits from the public disclosure of how one makes and uses a particular invention. This information is required to be provided in every patent application filed. This information is made public when the patent issues in exchange for the rights provided by the patent. The criticism of software patents typically asserts that the subject matter of a particular patent has been done before by a different party or entity. However, publicly available documentation of the prior software systems of these “prior systems” is typically not available for others to read, to incorporate and use in later systems, and to improve upon in later systems. As a result, the public has not obtained any benefit from the prior development of an invention.

In contrast, once a patent is published the text and figures are available for inspection and copying by all parties who search the patent office files. Therefore, the patent system rewards inventors who submit patent applications covering technology that may have been made by others prior to the patent when the documentation of the prior development is not easily found. This reward encourages inventors to submit patent applications, and thus cause the public dissemination of information, even when subject matter of the patent may not be new. This reward is limited by the fact

that the patent's presumption of validity may be attacked once the previously unknown prior art is identified.

A patent is a much more reliable form of protection than is commonly believed. Witness the very powerful example of Polaroid's patent infringement suit against Kodak. The suit has forced Kodak to leave the "instant photography" business. Patent protection is actually inexpensive in view of its potential power. It can usually be obtained before it is needed. Patents are self-enforcing to a significant extent and in any event are not any less reliable or substantially more expensive to enforce than a trade secret claim, or even a copyright claim, in a complex software infringement lawsuit. Finally, the patent system has been substantially strengthened in recent years, making patents more valuable than ever.

Types of Patentable Software Inventions

Patent protection may be used to protect virtually any aspect of software. It is the best and usually the only effective protection against product imitation and "cloning." Examples of software features which may be protected include the following:

- Program algorithms;
- Display presentations or arrangements;
- Menu arrangements;
- Editing functions;
- Control functions;
- User-interface features;
- "Add -ins;"
- Utilities;
- Mathematical formulas used in a program to process data or control program execution;

- Spell-checking routines;
- Compiling techniques;
- Web page operations;
- Business methods;
- Program language translation methods; and
- Operating system techniques.

Forms of Subject Matter Protected

Software patents typically claim protection for either a method of performing a set of operations that provides a useful function, or an apparatus or machine that performs a set of operations that provide a useful function. These patents provide a patent owner the right to exclude others from making, using, and selling the protected software. The U.S. Patent Office has begun to also permit the issuance of patent claims which protect articles of manufacture which cover software products as is typically permitted in all other areas of technology. As a result, a patent owner may obtain patent protection for a computer-readable storage medium containing instructions that implement a patentable method. Such claims permit patent rights to be directly asserted against any seller of patentable software. Similar protection may also be available for software products that are electronically distributed over the Internet.

Novelty and Non-obviousness Requirements

A software invention must be novel and non-obvious to qualify for protection. The novelty requirement means that, in order to be patentable, an invention must be new as compared to prior technology. The requirement of non-obviousness means that the differences between the invention and the prior technology are more than “obvious” trivial variations. Unfortunately, it is not possible to give a precise definition as to what is or is not obvious,

because it is to a large extent a subjective judgment. However, if the invention provides significant new capabilities not found in prior technology, there is usually a good chance that patent protection can be obtained.

The determination of whether an invention is novel and nonobvious is made by comparing the claimed invention with documentation of prior art. Prior art refers to the evidence of previously developed systems that teach or suggest the features of a program that define an invention. The prior art typically uses “published” or publicly available documents that existed when the claimed invention was made. Other forms of prior art include evidence of public sale and public use of a system that teach or suggest the features of a program that define an invention.

Source or Object Code Need Not Be Disclosed

Where detailed illustration is not essential for a proper understanding of an inventive software feature, the U. S. Patent and Trademark Office (as well as the patent offices of other countries) encourages disclosure of the invention in the application in the form of pseudo code block diagrams and/or flow charts. Although one may include source code as part of this disclosure, it is not required. The applicant can usually meet the duty of disclosure with relatively high-level flow charts and diagrams.

Pseudo code and data or object structure diagrams can also be used and are particularly helpful in object oriented systems where a well defined process does not occur. If the code is disclosed in an application, it can be protected under copyright law. Likewise any copyrightable expression in high-level flow charts’ data structure diagrams and pseudo code can also be protected under copyright law by including a copyright notice with each of these disclosures in the patent application. In any event, usually only a small part of the total technology embodied in a software product need be disclosed to obtain a patent on an individual feature or function.

Trade Secret Status of a Patent Application

During processing, a patent application is initially held in secret by the U.S. Patent and Trademark Office. Further, under current law an application will not be published (i.e., distributed to the public) by the U.S. Patent and Trademark Office for a period of 18 months unless specifically authorized by the applicant. An applicant may also prevent the application from publishing if properly designated at the time the application is filed. An applicant may withhold an application from publication by asserting that foreign applications are not to be filed for a given application. As a result, an applicant may maintain control over the secrecy of the disclosed material, and the exact nature of the invention, until the patent issues. While awaiting issuance, the inventor may use the words “patent pending” to notify others that patent protection is being sought. A competitor’s uncertainty about the coverage of the patent when it issues may discourage it from copying the protected product even before the patent issues. Also, the prospect of an infringement suit can hamper a competitor’s ability to raise capital to develop a competing product.

Important Deadlines

There are important deadlines in seeking patent protection. As a general rule, for protection in the United States, a patent application must be on file in the U.S. Patent and Trademark Office within one year of the date on which the invention is first sold, offered for sale, used publicly, or publicly disclosed (e.g., in a printed publication). If an application is not on file within the prescribed period, the inventor’s rights to a patent for the invention are forfeited forever. To obtain patent protection in most foreign countries, a patent application should normally be filed before any public disclosure or public use anywhere.

The deadline rules stated above are greatly simplified and are intended only to give a sense of the deadline requirements of obtaining patent protection. These rules are not legally precise and are not legal advice. They should not be relied on to determine a right to file or when to file. There are many subtleties and nuances to the deadlines within patent law which must be appreciated before a sound legal conclusion can be reached

regarding any particular situation. For instance, under certain circumstances, a public use could be found where the invention is practiced secretly in a company's proprietary computer operation.

Design Patents

In addition to utility patents, there are also "design" patents. In contrast to a utility patent, which protects the functional aspects of technology, a design patent protects "ornamental" design, with the invention being in aesthetic appearance. Although currently in a state of flux, design patents may be available to protect the graphical aspects of computer screen displays. This area of the law is developing and so you should discuss this form of protection with your attorney. Other software-related designs which might be protectable by design patent include icons, softkey menu displays, type fonts, and ornamental border designs.

Much of what can be covered by a design patent can also be protected under copyright law. There are, however, differences in the legal basis for both of these rights which can give design patents advantages over copyright protection. Design patents are considerably simpler to prepare than utility patents and thus are considerably less expensive to obtain.

Length of U.S. Patent Term

The term of a utility patent depends upon the date on which a patent application was first filed because of several changes made in the U.S. patent laws based on the General Agreement on Tariffs and Trade (GATT). A Patent Term is defined as follows:

- For utility patents filed on or after June 8, 1995:
- Term of twenty years from the date of filing;
- Issued and enforceable patents which issued prior to June 8, 1995: The term of these patents is automatically modified to the longer of: (a) twenty years from the date of filing; or (b) seventeen years from the date of issue; and

- Patents issuing after June 8, 1995 from an application which was filed prior to June 8, 1995: The term of these patents is the longer of: (a) twenty years from the date of filing; or (b) seventeen years from the date of issue.

When calculating the twenty (20) year rule, if the application relies on an earlier filed application, then the earlier application's filing date is used.

Provisional Applications

Provisional applications provide a method for an applicant to gain an early U.S. filing date relatively inexpensively. For example, currently, the Patent Office filing fees for a provisional application are \$75 to \$150 depending on the status and size of the applicant. The life of the provisional application is one year from the date of filing and is non-extendible.

During this one year time period, the application is not examined and the twenty (20) year term of any patent issuing from the application does not begin to run. Like a regular utility application, the application must list inventors, provide drawings (if necessary for the understanding of the invention), and comply with disclosure and best mode requirements, among others. However, no claims are required in the provisional application.

If the applicant wishes to maintain the benefit of the provisional application, a regular application must be filed while the provisional application is pending (e.g., before the expiration of the one year life). In addition to adding claims and complying with other matters, the regular application must also include at least one inventor who was listed as an inventor on the provisional application.

Although the pendency of the provisional application does not begin the twenty year term of a U.S. patent, the filing does commence the one year Paris Convention priority period for filing foreign applications. Therefore, foreign filings must be filed by the first anniversary of the earliest provisional application. Because these are general rules, you should be sure and discuss strategies,

pros, and cons of filing a provisional application with your attorney before doing so.

Proof of Inventorship

The United States patent system is based on a “first to invent” standard, while most other countries award patents based on “first to file.” What this means is that in the event of a dispute over who is entitled to a patent, the U.S. Patent Office resolves the dispute by reviewing the facts surrounding the dates of invention. Under the U.S. system, the person with an earlier invention date prevails.

A date of invention involves two separate dates: the date of conception of all elements included in an invention and the date of reduction to practice. A date of invention typically corresponds to a date of conception that has been followed by a reduction to practice. The filing of a patent application that completely describes how to make and use an invention provides a constructive reduction to practice for an invention when the invention has not been completely implemented. Because a date of conception is always prior to the date of reduction to practice, the filing of an application will conclusively provide evidence of the invention disclosed in an application as of the date of filing. As a result, the preparation and filing of a patent application may be useful in the defense against a subsequently invented system as the filed application will provide nearly conclusive evidence of the prior invention of a software program.

Prior to the adoption of both GATT and NAFTA, U.S. patent law provided that activities which occurred outside of the United States could not be relied upon to prove a date of invention. Most often this worked to the detriment of foreign applicants because they were severely limited on the activities which they could use to prove a date of invention. However, after the effective dates of this portion of the GATT (and NAFTA) legislation, applicants can rely on activities which occur in World Trade Organization countries after January 1, 1996 to prove dates of inventorship. For NAFTA countries, activities after December 8, 1993 in NAFTA countries can be relied upon. These changes are not retroactive, but instead apply only to applications filed after the above dates.

Summary

Patent protection is a powerful form of software protection which can and should be used aggressively. It can be creatively applied to protect many features of an invention which cannot be protected by copyright or trade secret protection. In most cases, the only disadvantage to obtaining patent protection is the cost. The cost, however, is minimal compared to typical software development expenditures and the value of achieving the exclusive right to market the technology being protected by the patent.

COPYRIGHT PROTECTION

THE BASIC FEATURES AND LIMITATIONS OF COPYRIGHT PROTECTION

Copyright protection is another powerful form of protection for a software product. The owner of copyrighted software has the exclusive right to control:

- Duplication of the software other than for archival purposes;
- Preparation of derivative versions of the software for distribution to others; and
- Distribution of copies of the software to the public, by sale, rental or otherwise.

The Copyright Act strictly prohibits anyone from attempting to perform the above exclusive rights without permission from the copyright owner.

The exclusive right to control duplication protects the owner of a software product against unauthorized copying, such as where the source or object code of the product is copied verbatim. It can also protect against certain indirect forms of unauthorized copying such as unauthorized translation of a product's code to a different programming language, and it may even protect against use of the code's structure, sequence and organization as a detailed outline to prepare a substantially similar program.

The right to control the preparation of derivative versions of a software product is an important and valuable aspect of copyright protection. This right makes it unlawful for someone developing a

competing product to modify, adapt or change a software product without authorization from the owner of the copyright in the product. There is an important exception to this right. Users of a software product who own a copy of the software may make or authorize the making of an adaptation of that software product, provided that the adaptation is created as an essential step of the owner/user in the utilization of the software product in conjunction with a machine and that it is used in no other manner.

This right does not necessarily apply in the case where the software is licensed if the licensee bargains this right away in the license. The right to control distribution is another independent right granted to the copyright owner by copyright law. This right can be transferred by the owner to a distributor while, for example, the right to reproduce copies for distribution by the distributor remains with the owner.

Generally, copyright protection is effective for the life of the author plus 50 years, or 75 years if the work was developed as a “work made for hire” (i.e., developed by an employee within his or her scope of employment). Thus, a copyright lasts considerably longer than a patent (up to a 20-year term for a U.S. utility patent) but potentially not as long as a trade secret, which can theoretically last forever.

It is important to understand that copyright law cannot protect the ideas embodied in a software product, just as a copyright cannot protect the ideas communicated by a story or a description in a book. The ideas embodied in a software product include any methods, systems, algorithms, and applied mathematical formulas used or implemented by the product. Copyright law cannot protect a product from being imitated or cloned so long as only unprotected ideas are imitated or copied. Thus, copyright law has a broad reach in the sense that it is available to protect virtually any software product, but the protection afforded is very limited in subject matter scope in comparison to patent and trade secret protection.

Copyright protection is available to protect any type of code, including source code, object code, machine code, firmware, and on any medium (such as magnetic disk, ROM or in print form). Further, copyright protection is available to protect automated data

bases (as compilations) which use some degree of selection, coordination or arrangement of data. Moreover, it does not matter whether the software is an application program or an operating system.

Copyright protection also appears to be available to protect certain aspects of a software product's user-interface, or what has come to be known as its "look and feel." Although some courts have found to the contrary, the protection available to user-interface features through copyright law will likely be limited in the long run to artistic expression which can exist independently of the utilitarian features of the screen-display.

The right to control distribution is another independent right granted to the copyright owner by copyright law. This right can be transferred by the owner to a distributor while, for example, the right to reproduce copies for distribution by the distributor remains with the owner.

Publication

As is further discussed below, the copyright notice used on a software product depends on its status as "published" or "unpublished." Software that is distributed to the public without a signed license agreement is normally considered "published." However, software that is under development or that is licensed to a limited number of users under a trade secret license is usually considered "unpublished."

Copyright Notice

Any software product, whether published or not, should bear an appropriate protective legend. In the case of published software, this legend should include a copyright notice. In the case of unpublished software, a copyright notice should also be included, but it should be included in a manner which ensures that others understand the unpublished status of the software.

Generally, software products published prior to March 1, 1989, must have a copyright notice. However, under some circumstances deficient or missing notices for such products can be corrected retroactively. This is discussed further in the “Protective Legends” section, which also addresses the proper form and placement of protective legends for published and unpublished software products.

Maintaining Archives

It is important to maintain two copies (one copy if a second copy can be easily reproduced from one copy) of each version of a software product and related software documentation. The copies should be kept in archives so that they can be later used to aid an infringement investigation and/or to obtain registrations, if necessary. The original and each released version should be retained in these archives as long as any version of the software is supported (e.g., marketed software) or used (e.g., internally used software).

Copyright Registration

Generally speaking, a copyright in a product can be registered in the United States at any point during the life of the copyright. However, to qualify for the benefits of attorneys’ fees and “statutory damages” as discussed earlier, registration in the U.S. Copyright Office must occur prior to the act of infringement against which the copyright is sought to be enforced.

To obtain a registration, a developer must file with the U.S. Copyright Office a properly completed application (usually a Form TX), a \$30 fee and two copies (if the software is “published”) of at least a limited portion of the code sought to be protected (the “deposit”). If the software contains trade secrets, the Copyright Office has “special relief” provisions which allow the registrant to meet the deposit requirement by supplying one copy of the source code and/or object code with up to fifty percent of the trade secret portions blocked out. To have the best evidence for use in a potential infringement suit, it may be wise to deposit virtually all

pages of the source listing, or at least to deposit representative portions of the source code from each module in the program (with trade secret portions blocked out). In any event, the trade secret status of the software can be maintained in registered software.

Typically, the Copyright Office will process a normal software registration within two to three months after receiving the application (three to four months for “special relief” registrations). The Copyright Office will expedite the handling of a copyright registration if the copyright is the subject of a lawsuit. A special request to expedite the handling of the registration must be made with an additional fee in addition to the normal \$30 filing fee. Since using the wrong dates or mischaracterizing the software or its status on the application can render a copyright registration ineffective, it is strongly suggested that a knowledgeable attorney be consulted to review both the copyright application and the deposit before it is submitted to the Copyright Office.

Enforcement

Remedies for infringement of the exclusive rights of a copyright owner include injunctions, criminal penalties, impounding and disposing of infringing articles, and monetary damages. Statutory damages, costs and attorneys’ fees are available if, and only if, a registration is obtained before the act of infringement requiring suit. Importation of infringing copies can also be prevented under laws pertaining to United States Customs.

GATT-based Changes in U.S. Copyright Laws

The U.S. Copyright statute was also changed due to the U.S. adoption of various GATT provisions. One of the changes is relevant to computers and computer software. More specifically, the provision relating to rental rights in computer programs and sound recordings was extended. These rights grant the copyright owner the ability to prevent those with copies of the work from renting, leasing or lending such copies to others for commercial advantage. Rental rights were established before the passage of GATT in order to eliminate the practice of renting popular software

titles for limited time (e.g., such as overnight). It was felt that such rentals increased the potential risk of software piracy. The passage of GATT removed the original expiration date for these rights.

Summary

Copyright protection is available to and should be used to protect virtually all software products. While it is excellent protection against unauthorized duplication, it cannot protect many important features of a software product. It is best used in combination with patent and/or trade secret protection, which can often protect the other important features.

TRADE SECRET PROTECTION

Many software products or features can be protected as a trade secret. To qualify as a trade secret, the software product or software feature sought to be protected must be of value and not readily known or ascertainable to others. A trade secret must also provide a demonstrable competitive advantage and be subject to reasonable efforts to protect and maintain it.

Reasonable Efforts to Maintain Secrecy

A software company should undertake certain internal and external procedures to enhance the company's claim that its trade secrets are subject to reasonable efforts under the circumstances to maintain their secrecy.

Implementing internal and external safeguards to maintain the secrecy of trade secrets and other confidential and proprietary information is of critical importance. Instituting a comprehensive employee program, placing special protective notices and legends on materials which indicate that such materials contain trade secrets or other confidential and proprietary information, maintaining physical security measures, and placing appropriate nondisclosure provisions in agreements with third parties are some of these internal and external safeguards.

Internal Procedures to Maintain Secrecy

There are a multitude of internal procedures that a company can adopt to enhance its claim that it is reasonably protecting its trade

secrets and to demonstrate its intention to keep its trade secrets and other confidential and proprietary information confidential.

Establishing an employee program to protect trade secrets is the most important internal procedure. Such a program includes the following:

- Requiring all salaried employees to sign written nondisclosure agreements as a condition of their hiring, and
- Similarly requiring all hourly employees to sign statements reciting the company's policies with respect to its trade secrets and other confidential and proprietary information.

The employee program should also include placing notices of the company's policies with respect to its trade secret and other confidential and proprietary information prominently on bulletin boards and other areas in which employees would be likely to see them (e.g., the company lunchroom), and disseminating memoranda to employees on an annual basis to remind them of company policies. Finally, a company's employee program should include the performance of exit interviews when employees leave the company's employment. During these exit interviews, the employee should be reminded of the company's policies with regard to its trade secrets and other confidential and proprietary information.

In addition to the employee program, there should be a reasonable level of physical security at company offices to physically safeguard its trade secrets and other confidential and proprietary information. Some common physical security measures that should seriously be considered include:

- Keeping all trade secret and other confidential and proprietary information under lock and key (or, if "on-line," subject to computer security measures to prevent unauthorized access) and restricting access to such information to only those employees who need access to perform their respective jobs;
- Restricting access to certain parts of company offices to authorized personnel only;

- Keeping all important doors locked;
- Maintaining a register to be signed by all visitors;
- Requiring that visitors be escorted;
- Requiring approval of a corporate officer for any office tours and restricting the scope of such tours; and
- Requiring all employees and visitors to wear distinguishing badges, especially to gain access to restricted areas.

External Procedures to Maintain Secrecy

In addition to internal procedures to maintain the secrecy of all trade secret and other confidential and proprietary information, there should also be certain external procedures that will reasonably protect information outside the company. The single most important external procedure that must be adopted is the insertion of nondisclosure provisions in all agreements under which trade secret or other confidential and proprietary information may be disclosed. Without nondisclosure provisions in all agreements with “outsiders” (any non-employees), any information that is disclosed to outsiders could become public domain information free from any trade secret obligation, thus causing complete loss of trade secret protection with regard to such information. Also, any trade secret or other confidential and proprietary information disclosed to an outsider should contain a protective legend (see “Protective Legends” section below).

Legal Duties Providing Foundation for Scope of Protection

Trade secret law prevents those who are under a legal duty from disclosing trade secret and other confidential and proprietary information to any third party who does not have a right to know the information. Therefore, trade secret protection hinges upon establishing a legal duty under which the trade secrets will be protected.

Typically, there are two foundations for establishing this legal duty. First, there is an implied duty at law (arising without any agreement) for employees not to disclose trade secret and other confidential and proprietary information of their employers to third parties. It is important to realize that employees are under a duty even without a written agreement. However, a written employee nondisclosure agreement is by far the best way of establishing this legal duty. A written document can more clearly establish the employee's knowledge of the existence of trade secrets and other confidential and proprietary information and can more directly establish a company's reasonable efforts to protect not only its own information but also the trade secrets and other confidential and proprietary information which belongs to third parties and is disclosed in confidence to the company. Second, there is a duty established by an appropriate agreement not to disclose trade secret and other confidential and proprietary information to third parties. Generally speaking, a contractual legal duty is the only way to establish the legal duty with respect to parties that are not employees. Therefore, all written agreements between a company and nonemployees that contemplate the disclosure of trade secret or other confidential and proprietary information should include a nondisclosure provision which establishes the legal duty of the recipient of the information not to disclose it to third parties.

Major Advantages and Disadvantages to Trade Secret Protection

There are three major advantages to trade secret protection of software technology. First, trade secret protection protects valuable software ideas and not merely the expression of those ideas as copyright protection does. Second, it can effectively protect special features in marketed software products as long as the features are not readily ascertainable by observation or through reverse engineering. And third, if the trade secret protection can be maintained, there is no limit to the length of time under which protection is available, unlike patent and copyright protection.

However, there are a few major disadvantages to trade secret protection. First, trade secret protection will only protect trade

secrets against disclosure by parties who have a legal duty not to disclose. So, in most situations, only employees and parties under a contractual duty not to disclose are affected by this protection.

Second, trade secrets cannot protect mass-marketed software product features that are readily ascertainable. Third, unlike patent protection, trade secret protection does not prohibit independent development. If a company independently develops a trade secret even though another company had developed it first, the second company would not be infringing the initially developed trade secret. It is a trade secret of each company as long as both keep it secret. Finally, the internal and external procedures required to maintain secrecy can be quite expensive.

Enforcement

Remedies for trade secret infringement include, under appropriate circumstances, both injunctive relief and damages, although damages may be awarded independent of the injunctive relief. Damages may be based on the infringed party's losses or the infringer's profit or some combination; in addition, under appropriate circumstances, punitive damages may be awarded.

Relationship to Patent Laws and the First Inventor's Defense

After several years of active lobbying, the U.S. patent laws were amended by the American Inventors Protection Act of 1999, (hereinafter "AIPA"). One of the most important facets of the AIPA is the First Inventor Defense. In this defense, the AIPA creates a prior use defense to allegations of patent infringement when the proper criteria are met. While ostensibly broad, a failure to demonstrate a reasonable basis for raising the defense may result in an award of attorneys fees against any one relying on the defense. With the burden of proof resting on the party relying on the defense, allegations of patent infringement may be defended against by establishing that the activity complained of was initiated more than one year prior to the filing date of the patent being asserted.

To apply the defense, several conditions must be met.

- The activity complained of must involve a method of doing business. These “methods” apply to any industry that relies on trade secrecy for protecting methods for doing or conducting the operations of their business;
- The activity complained of must also have been reduced to practice more than one year before the filing date of the patent at issue;
- The alleged infringer must have undertaken the activity in good faith, i. e., without knowledge of the patentees’ intentions or competing efforts; and
- Further, the activity being complained of must have taken place in a commercial environment.

There are certain exceptions to commercial use for nonprofit entities such as universities, research centers, and hospitals. However the definition of “commercial use” is an actual arms length sale or transaction. The method in commercial use may be either an internal method or external. This criteria finds support in the legislative history of the AIPA which notes that commercial use does not require that the subject matter at issue be accessible or otherwise known to the public.

The First Inventor Defense does have several negative limitations on its use. First the defense is not a general license; issues of claim scope and sales volume are of concern. To assert the defense, an alleged infringer must meet the criteria of the statute on a claim by claim basis. However, once this is done the legislative history of the statute does note that there is to be elasticity in the quantity or volume of use.

The defense is also limited geographically and personally. Specifically, when the operation of the business to which the defense is applicable is moved or transferred, the further use of the defense is limited. With this occasion, the defense may be asserted only for those activities which predate the later of the transfer or the filing date of the patent. The defense is also a personal defense

and cannot be transferred to a third party except as an ancillary portion of a commercial sale.

Summary

Trade secret protection is available and should be used to protect any software product or special feature in the product (including documentation) which gives a competitive advantage in the marketplace and is not readily ascertainable to others using the product. While it is an excellent protection under such circumstances, it cannot protect many important ideas, information or features that are published or readily ascertainable to others using the product. It is best used in combination with patent and copyright protection, which can often protect the other important ideas and features.

PROTECTIVE LEGENDS

As discussed in the “Copyright Protection” section of this booklet, any software product or similar copyrightable work, whether published or not, should bear an appropriate protective legend. The appropriate form of a copyright notice differs depending upon whether the work is published or unpublished. For a published work, the notice to be effective in the United States must contain the following three elements:

- (1) The letter “c” in a circle, such as “(©)”, the word “Copyright,” or the abbreviation “Copr.”;
- (2) The year of first publication of the work; and
- (3) The full name of the owner of the copyright, or an abbreviation by which the name can be recognized, or a generally known alternative designation of the owner.

Although an effective notice for the United States may use either the “(©)”, the word “Copyright” or the abbreviation “Copr.”, **THERE ARE CERTAIN FOREIGN COUNTRIES IN WHICH THE “(©)” MUST BE USED IN ORDER TO HAVE AN EFFECTIVE COPYRIGHT NOTICE.** While it may not be possible to use the “(©)” within the code itself because there is no ASCII character for it, it should at least be used on labels affixed to the software or if possible used on the screen displays of the software where it can be graphically generated. Within the code itself where the “(©)” is not available, it is recommended to use the symbol “(C).” Although this symbol has not been officially sanctioned by the U.S. Copyright office, at least one court has found it acceptable. However, it is very possible that this alternative copyright symbol

will not be accepted in foreign countries. Thus, it is of paramount importance that the “(©)” be used on labels on the media containing the software and on associated documentation.

Also, in several Latin American countries an enforceable copyright notice must include the phrase “All Rights Reserved”. Therefore, by combining all the elements, the recommended notice for a published software product that was published in 1989 and owned by XYZ, Inc., would look like this:

(©) Copyright 1989 XYZ, Inc. All Rights Reserved.

If a published software product is substantially enhanced, the date in the copyright notice may be left the same; having too old of a date in the copyright notice will not take away the effectiveness of the notice, even though it may shorten the normal duration of protection. However, it is typically preferable to replace the original publication date for substantially revised published works. The original publication date can either be replaced with the year in which the substantially revised version is published, or the original date can be left in place and the date of each substantial published revision added, with each year being separated by a comma. The latter approach may be preferable, since the copyright notice then essentially reveals the history of the original publication and each substantial revision. Using this approach, it is more difficult to make a fatal error in the copyright notice, since the original date is still present and since the new date would apply only to changed material in the copyrighted work (if too recent a date is used, it can have the effect of omitting the copyright notice altogether). If only trivial revisions are made, or if one is indefinite about whether substantial revisions have been made, use only the prior date or dates.

In contrast to published software, many types of software are unpublished. Most software products are unpublished during their development phase. Except for mass-marketed microcomputer software products, most licensed software products remain unpublished, assuming that they are distributed through license agreements which are agreed to and signed by all parties along the distribution chain, including the end user. Finally, even if the object code of a software product is distributed with a copyright notice

applicable to published works, the source code of the product and other confidential and proprietary software documentation is virtually always maintained as a trade secret and is, therefore, unpublished. These unpublished works benefit from a form of copyright notice that will not imply publication and potential loss of trade secret status. The applicable notice should be placed on all media, should be embedded in the source and object code of the product (preferably in each module) so that it will appear on any object or source code listing, and should appear on the product screen display at initialization or log-on.

Since unpublished works are also normally maintained as trade secrets, it is appropriate to combine an unpublished copyright notice with a legend applicable to protecting trade secrets and other confidential and proprietary information. Set forth below are two examples of a combined unpublished copyright notice and trade secret legend. Where space on a product permits, it is suggested that the following larger combined copyright/trade secret protective legend be placed on all trade secret or other confidential and proprietary media and be embedded in all trade secret or other confidential and proprietary code, preferably as a header in each code module. In the legend, "**CLAIMANT**" should be replaced with the name of the copyright owner, which is normally the name of a company (in the copyright notice at the end of the legend, the formal name of the company, e.g. "XYZ, INC." is preferred; in the earlier locations of "**CLAIMANT**," the common name of the company, e.g., "XYZ," may be used).

CLAIMANT CONFIDENTIAL AND PROPRIETARY

THIS WORK CONTAINS VALUABLE CONFIDENTIAL AND PROPRIETARY INFORMATION. DISCLOSURE, USE OR REPRODUCTION WITHOUT THE WRITTEN AUTHORIZATION OF **CLAIMANT** IS PROHIBITED. THIS UNPUBLISHED WORK BY **CLAIMANT** IS PROTECTED BY THE LAWS OF THE UNITED STATES AND OTHER COUNTRIES. IF PUBLICATION OF THE WORK SHOULD OCCUR THE FOLLOWING NOTICE SHALL APPLY:

"COPYRIGHT (©) 20XX CLAIMANT ALL RIGHTS RESERVED."

Although the full copyright/trade secret protective legend indicated above is preferred, the following abbreviated protective legend may be used where there is insufficient room for the full legend.

THIS IS AN UNPUBLISHED WORK CONTAINING CLAIMANT CONFIDENTIAL AND PROPRIETARY INFORMATION. IF PUBLICATION OCCURS, THE FOLLOWING NOTICE APPLIES:

“COPYRIGHT (©) 20XX CLAIMANT ALL RIGHTS RESERVED.”

As used in these notices, 20XX preferably is the year of creation. The year of creation is preferable over the year of publication because these materials contain trade secret or other confidential and proprietary information and are not published. If the material is substantially revised, the 20XX date may remain the same; preferably, however, the 20XX date for substantially revised materials should be either the year in which the new version is created or the original year together with each year in which the creation of a substantial revision is completed, with each year being separated by a comma. The latter approach may be preferable, since the copyright notice then essentially reveals the history of the original creation and each substantial revision. Using this approach, it is more difficult to make a fatal error in the copyright notice, since the original date is still present and since the new date would apply only to changed material in the copyrighted work. If only trivial revisions are made, or if one is unsure about whether substantial revisions have been made, use only the prior date or dates. For embedding either of these notices in source or object code, replace the symbol “(©)” with “(c)”.

The full, larger copyright notice/trade secret legend indicated above has several advantages. It places employees of the copyright owner on notice that the software is confidential and proprietary and should not be released without appropriate contractual provisions. It also places third party employees of any licensee of the software product on similar notice. The notice further places any party who inadvertently receives the software on notice that the software developer claims both trade secret and copyright protection in the software. This can be an important message to

software users as well as to attorneys of third parties, many of whom still do not realize that copyright protection automatically exists under current law. In addition, the copyright notice is stated to apply, but only if publication occurs. This approach avoids any argument that “publication” has occurred through mere use of a standard copyright notice.

Whether used internally only or marketed by a license agreement, it is suggested that all trade secret or other confidential and proprietary software include in a very prominent position the full, larger combined copyright/trade secret protective legend set forth above. It should appear on the cover (or the first page, if no cover is used) of each theory of operation, source listing or other proprietary software documentation copy. On each of these documents, it should appear prominently on the first page. If trade secret or licensed software is also stored on magnetic, semiconductor or other machine readable media, it is recommended that the full, larger combined copyright/trade secret protective legend also be embedded in code in each media component (e.g., in each separate disk), preferably in each code module, so that it appears in an object code or source listing of that component or module. The notice should also appear on screen displays at initialization or log-on. In addition, media (e.g., a disk, diskette, or tape) containing a source program should display the notice prominently. Typically, special labels are created containing the protective legend and are fixed to the media.

In addition to the above full, larger copyright/trade secret protective legend on the first page (or cover page, if one exists), every human-readable copy of a theory of operation, source listing or other proprietary software documentation piece should have the following legend printed, in large bold type, at the top or bottom of the front and back cover of the document, and on every page within the document:

CLAIMANT CONFIDENTIAL AND PROPRIETARY

As was indicated previously, “**CLAIMANT**” in this legend should be replaced with the name of the software owner, which is usually the company name of the software developer or other owner, and may be the common name of the company, e.g., “XYZ,” rather than the formal name, e.g., “XYZ, Inc.”.

In addition to the complete copyright/trade secret protective legend being embedded in chips containing trade secret, licensed, or other confidential and proprietary software, it is suggested that, at a location on or in the machine containing the chips, the following notice be included:

CLAIMANT CONFIDENTIAL AND PROPRIETARY

THIS MACHINE CONTAINS VALUABLE CONFIDENTIAL AND PROPRIETARY INFORMATION. DISCLOSURE, USE OR REPRODUCTION OUTSIDE OF CLAIMANT IS PROHIBITED EXCEPT AS AUTHORIZED IN WRITING. THIS MACHINE CONTAINS AN UNPUBLISHED WORK WHICH IS PROTECTED BY THE LAWS OF THE UNITED STATES AND OTHER COUNTRIES. IF PUBLICATION OCCURS, THE FOLLOWING NOTICE SHALL APPLY:

“COPYRIGHT (©) 20XX CLAIMANT ALL RIGHTS RESERVED.”

In those cases where space is limited, and preferably in all instances, an abbreviated external legend should also be placed on each chip containing trade secret, licensed, or other confidential and proprietary software as follows:

UNPUBLISHED (©)20XX CLAIMANT CONFIDENTIAL

In these notices, 20XX is preferably the year of creation. The year date 20XX is preferably updated, using the previously described guidelines for unpublished works, whenever substantial revisions are made. Again, the word “CLAIMANT” should be replaced with the name of the copyright owner. For protection in Latin American countries, the phrase “ALL RIGHTS RESERVED” should be added to the above abbreviated notice.

Finally, if distribution of a software product to the United States government is contemplated, be forewarned that in many instances special United States government notices and legends must be placed on the product to maintain copyright and trade secret protection. The government regulations discussing these notices and legends are too long and complex to address in this booklet.

However, before agreeing to distribute a product to the U.S. government, you should consult an intellectual property attorney knowledgeable about these regulations. **If this is not done, intellectual property rights in a software product can easily be permanently lost.**

The previously described protective legends are generally very useful. However, because of the fast changing law with respect to software, and because of the widely varying circumstances which may be used in marketing trade secret, licensed, or other confidential and proprietary software, **it is generally advisable to review each software product protection scheme on an annual basis with an intellectual property attorney knowledgeable about software protection.**

Summary

Any software product, whether published or not, should bear an appropriate protective legend. Software that is distributed to the public without a signed license agreement is normally considered “published.” On the other hand, software containing trade secrets that is under development or that is licensed to a limited number of end users under a trade secret license is usually considered “unpublished.” In the case of published software, the legend should include a copyright notice. In the case of unpublished software, a copyright notice can be included, but it should be included in a manner which ensures maintaining the unpublished nature of the software. The protective legend for unpublished software should also include language indicating the trade secret nature of the software.

COMBINING PATENT, COPYRIGHT AND TRADE SECRET PROTECTION

A software product can be protected by combining patent, copyright and trade secret protection. Copyright protection can almost always be used in combination with either patent and/or trade secret protection. A feature can be patented without sacrificing trade secret protection for the source or object code that implements the feature. So, as a practical matter, trade secret and patent protection can be combined to protect different technical aspects of a particular feature. Furthermore, certain features of a software product can be patented while retaining trade secret protection for the remaining features and aspects of the product.

What needs to be disclosed in order to patent an inventive aspect or portion of a software product often constitutes a relatively minor portion of the trade secret information related to the product. While trade secret rights will be forfeited in disclosed material, what is not disclosed may be maintained as a trade secret. Since the source and object code of the software product normally do not need to be disclosed in a patent application, the code can usually be maintained as a trade secret.

A software developer can combine these forms of protection to protect different aspects of the developer's software product. Some parts or aspects of a package may be protected with trade secret protection, other parts with patent protection, and the entire package may be subject to copyright protection. Developers should take time to strategize with their attorneys to determine which "mix" of protection is best for each product or product feature.

TRADEMARK PROTECTION

The primary purpose of a trademark is to serve as a unique indication of the source or origin of a product or service so that satisfied customers will associate a particular trademark with a particular company, and will ask for the product by that particular mark. In this manner, the trademark provides valuable goodwill. Trademarks may consist of color schemes, product shapes, and even sounds and smells, although they are typically words or names. Therefore, you should try to select a trademark that will:

- Clearly identify the software owner's company as the origin of the software;
- Represent quality; and
- Serve as a foundation for marketing and advertising the software product.

The selection of a trademark can enhance the trademark owner's ability to obtain registration and prevent others from using the same or similar marks. Names being considered or used for a trademark can generally be classified into four basic categories:

- Generic or merely descriptive;
- Descriptive;
- Suggestive; and
- Arbitrary, fanciful or coined.

Generic words or merely descriptive terms are generally unprotectable as marks, since they are terms required in the trade or by competitors to fairly or aptly describe the nature of products.

Descriptive trademarks are weak marks and can only be protected after extensive use and promotion. A mark is descriptive if it describes what the product is. For example, the trademark “Data Processor” would probably be considered merely descriptive for a computer, since it merely describes the product. Examples of descriptive terms in the computer business are as follows:

advanced	micro
computer	mini
cpu	modular
data	research
digital	software
electronics	systems
instrument	technology
logic	ultra

Similarly, a trademark such as “Minnesota Software” would be considered geographically descriptive, and could only be protected after extensive sales and promotion so that it could be proved that the software industry recognized the name as a trademark of a particular company.

Suggestive names only “suggest” the characteristics of a product and do not merely describe the product. Suggestive trademarks are stronger trademarks, and hint at some quality of the product without actually telling exactly what the product is. Examples of suggestive trademarks are: “Wordstar®,” “Verbatim®,” “Supercalc®,” and “Visicalc®.”

Arbitrary, fanciful, or coined trademarks are the best choice in terms of trademark strength. These are words that have absolutely no meaning in the particular trade or business prior to their adoption by a particular manufacturer for use with its goods or services. After use and promotion, these marks are instantly identified with a particular company, and the exclusive right to use the mark is easily asserted against potential infringers. Examples of fanciful trademarks include KODAK® for cameras and XEROX® for photocopiers. Examples of arbitrary and coined marks are:

LOTUS®, PEACHTREE SOFTWARE®, APPLE COMPUTER®, SQZ®, CROSSTALK®, TOPS®, INTEL®, and INMAC®.

Federal Registrations

Federal registrations can be valuable property rights and provide protection for the owner's trademark or service mark. Further, trademark rights do not have a limited term (as do patents and copyrights), and registrations may be continually renewed so long as the mark remains in proper use.

Under the Federal trademark law the filing of an application for registration provides (contingent on issuance of the registration) a nationwide right of priority effective against everyone except a prior user, or prior applicant or registrant. When a registration has been issued for five years and the necessary affidavit is filed, rights in the registered mark also become incontestable and the registration cannot normally be canceled.

An application for registration may be filed based upon use of the mark in commerce or upon a good faith intent-to-use (ITU) the mark on specified goods or services. To file for registration based on prior use of the mark, the applicant must have used the mark in the ordinary course of trade and not merely in a token manner to reserve a right in the mark.

ITU Applications

If a mark has not yet been placed in use, but the applicant wishes and intends to adopt and use the mark for specified products or services, an ITU application should be promptly filed.

An ITU application for registration is based on a claim that the applicant has a bona fide intention, under circumstances showing good faith, to use the mark in commerce on particular goods or services. Such applications are examined for conflict with other prior registrations or applications. After the ITU application is allowed, there is an initial six month period for the applicant to

submit evidence that the mark has been placed in use in the ordinary course of trade. Additional six month extensions are available providing a total of 36 months from the date of allowance to submit the proof of use.

Trademark Infringement

A trademark can be infringed even if the infringer is not using an identical mark. Trademark infringement occurs when another trademark is confusingly similar to the original trademark. Whether the two trademarks are confusingly similar depends on a number of factors, including:

- The existence of actual confusion in the marketplace between the two marks;
- Similarity of the marks in terms of appearance, sound and meaning;
- Similarity of the goods or services being identified by the two marks;
- The strength of the prior mark;
- The sophistication of the consumers who buy the particular products or services;
- The similarity of the channels of distribution of the products or services (that is, whether they are both sold in the same type of stores);
- The degree of commercial competition between the two trademark users; and
- The distinctiveness of the trademarks (that is, whether they are somewhat descriptive or arbitrary and fanciful).

As with patents, the U.S. Patent and Trademark Office has no program for monitoring the potential infringement of registered marks, nor will the Office enforce trademark rights on behalf of the owner of a federally registered trademark. Once a trademark owner determines that someone else is potentially infringing the company's trademark, the trademark owner must bear the expense of enforcing the company's rights.

Frequently, a simple letter to the infringer requesting that he or she cease use of the mark will end the matter. However, if the infringing party is not cooperative, the controversy may require litigation. The commercial value of the trademark may nevertheless justify the expense involved in a trademark infringement suit.

Trademark Clearance Searches

Whenever a company or business adopts any type of name or mark for new products, services, company name or corporate name, there is a significant risk that the name or trademark will conflict with marks already in use by other businesses. Since the cost of replacing packaging materials, labels and marketing literature or defending against a claim of infringement may be quite significant, businesses should request search investigations before adopting new names or trademarks.

As part of a trademark search investigation, the investigator prepares a search report to determine the availability of a name or mark for use and registration. The search report usually includes an abstract of trademark references developed in the search and a legal opinion concerning the availability of the name or mark for use and registration.

In contrast to the present U.S. practice of establishing trademark rights based upon first use, or the first to file an ITU application, nearly all other countries base trademark rights upon first registration, without regard to first use. Presently in the United States, the first business to adopt and commercially use the name or mark or the first applicant to file an ITU application, establishes a claim of ownership of rights in the name. Therefore, in order to reduce the risk of conflict with another name in use, or on file, search investigations are performed to determine if there are any

other businesses which may be using a conflicting name and whether or not there are any prior registrations or pending applications.

Summary

The owner of a trademark may prevent others from using a mark that is confusingly similar to the owner's mark. A trademark can be quite valuable because it identifies the product or service as originating from a certain source. Over time it is hoped that the public will recognize the trademark as representing a certain level of quality and will build its allegiance towards purchasing the trademark owner's product or service in the future.

Federal registrations also offer valuable protection for the mark. Once a registration has been issued for five years and the required affidavit is filed, the registration becomes incontestable.

SOFTWARE ACQUISITION

In addition to properly protecting its software products, the software developer should also properly acquire the ownership of the intellectual property rights (i.e., patent, copyright, trade secret and trademark rights) in the products it markets. As a general rule intellectual property rights in software are owned in the first instance by the individual who creates the software. The ownership of these intellectual property rights is separate and distinct from the right to own, possess or use a copy of the software. Unless intellectual property rights are transferred from the creator to another person or entity by operation of law or by agreement, the rights remain in the creator. Before a software developer engages an employee or independent contractor to participate in the development of a new software product, the company should be able to trace the ownership of the intellectual property rights in the product through the agreements, documents or laws being relied upon. Otherwise, after the product is developed, the software developer may proceed to market a product which it actually has no right to market and may thus incur significant liability because of the mistaken belief that it owns the intellectual property rights in its products.

Obtaining Rights in Copyrights

The copyright in software is automatically transferred from the creator to the entity for which the software is created if the creator is an employee of that entity and the software development was within the creator's scope of employment. Even though this transfer occurs by operation of law and does not require a written agreement to accomplish it, it is wise to use an employee agreement to document the transfer. Otherwise, without an

agreement, unnecessary disputes can arise between the parties over the scope and terms of the transfer.

Outside of the employee-employer situation, a written agreement is necessary to transfer or assign the copyright in virtually every instance. Therefore, if an independent contractor is hired to develop software for a company and the company wants to own the copyright in the software, then the company should enter into a written agreement in advance. This insures that the copyright is properly assigned and disputes are avoided.

Obtaining Rights in Inventions and Ideas

Rights in software inventions and ideas subject to patent or trade secret protection are normally owned by the inventor/developer in the absence of an agreement to assign the rights to the employer or other entity financing the development of the software. The exception to this rule is when an employee or independent consultant is hired or engaged for the express purpose of making or developing the software invention or idea in which the rights are sought. However, even if an employee or independent consultant creates an invention in which the employer may not have ownership rights, the employer normally obtains an implied, nonexclusive license to practice the invention. This type of implied license, often referred to as “shop rights,” does not arise in the case of copyright protection and may not arise in the case of trade secret protection.

Nevertheless, because of uncertainty in the legal rules governing ownership of intellectual property, it is strongly suggested that the software developer use written agreements with employees and independent consultants in order to clearly document the transfer to the software developer’s company of patent, copyright, trade secret and trademark rights in developed software and in other inventions and works of authorship. Unless the person was initially engaged as an employee or independent contractor, subject to the condition of signing such an agreement, the software developer should consider the need for providing additional consideration to the person in order to make enforceable a new agreement or the addition of assignment provisions to an existing agreement.

Intellectual property rights in a software product and rights to use, modify or distribute such a product are not always acquired through a complete assignment of the ownership interest. Software developers often use a written license agreement to acquire rights of less than full ownership. For example, many software publishers use license agreements with software authors as the means to acquire the right to modify and/or distribute products created by the authors.

Protecting Licensing Rights

Protecting the use, modification and distribution rights in software products that have been acquired through licenses is very important. Unless the acquiring software developer helps protect the rights in these software products, it may not only be subject to embarrassing and costly litigation and penalties, but the licensor/supplier could prevent the software developer from using, distributing or marketing a software product critical to the company's success. Also, it is important to protect the rights which have been acquired under license agreements from premature termination. For example, it is possible that the software developer could lose rights to use a software product if the license agreement permits arbitrary termination of the licensed rights.

Summary

It is very important to use written agreements to document ownership by the software developer of intellectual property rights (i.e., patent, copyright, trade secret, mask work and trademark rights) in its software or other computer products. Before engaging an employee or independent contractor to participate in the development of a new software product, the software developer should have the employee or contractor sign an agreement assigning or transferring to the company all right, title and interest in and to the software product, including the associated intellectual property rights. Otherwise, the company may market a product which it actually has no right to market under the mistaken belief that it owns the product when an employee or independent contractor may own a part of it.

It is also very important to protect the licensing rights that the software developer possesses in software products of other companies. Often, the ability of the company to market its products depends on its rights to market and use software products of other companies. Of course, the rights of a software developer to modify and distribute another company's software should always be documented through the use of carefully written agreements.

DISTRIBUTION OF SOFTWARE

Software products are distributed either directly to end users or indirectly to them through a chain of distribution usually starting with a distributor or value-added remarketer and, in the case of mass-marketed microcomputer software, usually ending with a mail order house or retailer. Software products typically are not “sold” to the end user but are “licensed” to the end user for its use. A “sale” transfers complete ownership of the copy of the product to the user, who is free to do practically anything it wants with the product as long as the copyright and patent rights in the product are not violated.

Copyright and patent protection can provide considerable protection for software copies that are “sold.” For example, if a customer owns a copy of a software product, the customer cannot copy it (except to make an archival backup copy as permitted by the copyright law); nor can a customer change the code of the product in order to develop a competing product without the software developer’s express authorization (this would violate the software developer’s rights to control the preparation and distribution of derivative works). Further, a customer or competitor would infringe any patented processes or ideas embodied in the software product if they were to copy and use them competitively. And finally, since under normal circumstances only a copy of the object code of the product would be sold, the source code could be maintained as a trade secret.

As previously indicated however, there is an important exception to the prohibition against an owner of a copy preparing a derivative work. Users of software who own a copy of the software may make or authorize the making of an adaptation of that computer program, provided that the adaptation is created as an

essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner. As also previously indicated, this right of a user would apply only if the copy of the computer program was “sold” to the user so that the user would be an “owner” of the copy. If the computer program copy is licensed to the user, the user’s rights with respect to the preparation of a derivative work would be determined by the license agreement. At the time of publishing this edition, the U.S. Congress was considering amending this section of the copyright laws. Accordingly, you should consult with your attorney regarding the status of the right to prepare a derivative work as an essential step in the utilization of the computer program.

If a software product is licensed, the customer, or the “licensee,” does not own the copy it has licensed. Rather, the software developer, the “licensor,” retains ownership of the copy and merely permits the licensee to use it. The terms and conditions of use are normally described in a “license agreement.” Normally, the customer/licensee can use the licensed copy only if it abides by the terms of such a license agreement. If the customer violates the agreement, the license normally requires that the licensed copy be returned. A license agreement usually prohibits the customer/licensee from engaging in certain activities that it could otherwise engage in if it owned a copy of the software product. For example, typically a software license requires the customer/licensee to treat the software as a trade secret, prohibits reverse engineering of the software by the licensee, forbids the licensee from transferring the licensed copy by loan or sale to another party, requires that the software be used at a particular site or on a particular computer, and forbids use of the software on a computer network.

Because of the additional control licensing can provide, most companies prefer to license rather than sell copies of their software. In order to accomplish this, the license agreement must be agreed to and signed by both the licensor and licensee before the licensee can use the software. Even companies which mass market software through mail order houses or retailers often attempt to impose license restrictions by use of “shrink-wrap” license agreements. A “shrink-wrap” license agreement is a short pre-printed license agreement. In the past, the agreement was typically “shrink-wrapped” under the clear plastic or cellophane packaging of a

software product, and was ostensibly assented to by the customer through the tearing of a seal or label on the software diskette.

Currently, many companies have eliminated placing the license on the outside of the box in which the software is distributed. Instead, the license is printed on an envelope containing the software and packaged inside the box. In any event, since these agreements are normally not signed, and therefore not expressly agreed to by the customer, their enforceability is uncertain. If these agreements are not enforceable, then copies of mass marketed software would probably be considered sold and not licensed.

A signed license agreement is the typically favored method of controlling distribution because of the added protection it can afford. While this approach is still preferred for most software, there are situations in which the administrative burden or the difficulty of obtaining signed license agreements outweigh the benefits conferred. Sometimes controls afforded by a license agreement are not necessary to protect a product because patent, copyright, and trademark rights provide adequate protection. This can particularly be the case when comprehensive patent protection has been obtained or is contemplated. In such a case, there may be no need to potentially annoy the customer with a “shrinkwrap” or other license agreement.

If a software developer decides to market one or more of its software products through signed license agreements, it is important to recognize that such agreements can apply not only to software marketed on disks or other transportable media, but also to firmware, i.e., to software embedded in semiconductor chips.

Summary

Any plan for distributing a software product should always include a strategy for protecting the intellectual property contained in the product. When combined with other appropriate forms of protection, signed end user license and distribution agreements afford the most comprehensive vehicle for affording this protection.

INTERNATIONAL PROTECTION

Intellectual property laws are territorial in scope. Each country has its own set of intellectual property laws. While there have been efforts to harmonize the laws over the years, such as via the recent GATT treaty, the laws vary significantly from country to country. In many countries, intellectual property protection for software is not as developed as it is in the United States. It is important for companies who plan on selling and/or developing software in foreign countries to seek advice on the intellectual property laws of the countries where the software is to be sold and/or developed. The companies should also give consideration to intellectual property protection in those countries where competition might arise and/or pirating of software might occur.

Patent Protection

In order to obtain patent protection in foreign countries, an application must be filed in those countries where protection is desired. There are two regional patent offices (European Patent Office and OAPI), whereby a single application can be filed with the regional office for all of the member countries of that regional patent office. Once the patent application is allowed by the regional office, the patent must then be registered in each member country where protection is desired.

As a general rule, in the United States a patent application must be on file with the patent and trademark office within one year of the date on which the invention is first sold, offered for sale, used publicly, or disclosed in a printed publication. To obtain patent protection in most foreign countries, a patent application should

normally be filed before any public disclosure or public use anywhere. As noted above, this general rule is greatly simplified and an attorney should be consulted.

By international treaty, many countries recognize the United States patent application filing date if the corresponding foreign patent applications are filed within one year of the United States filing date (six months in the case of design patent applications). However, there are a few significant countries which are not members of this international treaty. These countries generally do not recognize United States filing dates.

As noted above, like the United States wherein the first inventor is awarded a patent, almost all foreign countries have a first to file system. The party who is the first to file is awarded the patent. Therefore, it is important to file as early as possible if foreign patent protection is desired.

In the United States, a patent application may be maintained in secret until such time as a patent issues. Most foreign countries publish patent applications after a period of time, typically 18 months from the United States filing date. Thus, the material contained in the application will be disclosed to the public at this time, and can affect trade secret protection status of the information in the application. While the United States has recently amended its laws to begin publishing applications at 18 months, provisions allow applicants to prevent this from occurring under certain circumstances.

Subject matter entitled to patent protection will vary from country to country. Most industrialized countries do grant patent protection for software related inventions. However, many developing countries lag behind in the patentability of software related inventions.

The cost of filing foreign patent applications is very substantial—particularly in the developed countries where translations are required. Moreover, like the United States, most foreign countries require maintenance payments throughout the life of the patent to maintain the patent in force. Therefore, careful consideration should be given when filing foreign patent applications. Factors to consider include the countries where there is a potential market,

countries where competitors are located and/or likely to develop software, and countries where the software was actually developed.

Copyright Protection

It is advisable to include a copyright notice as provided in the legends portion of this booklet. Use of copyright notice is particularly important to maintaining copyright rights under the Universal Copyright Convention and the Buenos Aires Convention, which afford copyright protection in various foreign countries. Even in Berne Convention member countries, where notice is not required, it is advisable to include a proper notice.

As with the United States, most countries do not require registration of copyright to obtain or maintain copyright rights. However, in many countries, registration of copyright can provide significant advantages, such as increased damages, special relief, proof of ownership, etc. Moreover, some countries provide a special copyright-type registration for software.

Many countries have in recent years significantly strengthened the remedies available for enforcement of copyright. These remedies include civil, administrative, and criminal remedies. In many countries it is possible to obtain search and seizure orders (often referred to as “Anton Pillar Orders”).

There are many differences in the copyright laws of various countries which can significantly impact copyright rights and enforcement of those rights. For example, in many countries, unlike the United States, a company cannot be an “author” of a work. If a software development company attempts to stop or enjoin a “software pirate” from sales of software wherein the company is named as the author, the software pirate will use this as a basis for delaying issuance of the injunction. Additionally, in many countries, individual authors have “moral rights” in the software or the right to object to any distortion, mutilation, or other modification of their work that would be prejudicial to the author’s honor or reputation. Individual developers can attempt to use this as a basis to prevent modification of software they have developed without further remuneration by the company.

Written agreements addressing ownership of copyright are extremely important in foreign countries. It is critically important that such agreements be reviewed by legal counsel familiar with the local laws of the country in question.

Trade Secret Protection

Trade secret protection of software related products is problematic in developing countries where there are no trade secret laws or where laws have only recently been introduced. Even in the developed countries, trade secret laws vary greatly. As a result, trade secrets can be difficult to enforce in a foreign country where the laws are not well developed and the judicial system has little experience with such issues.

The best advice is not to disclose trade secret information to parties in foreign countries unless absolutely necessary. Of course, sometimes it is necessary to disclose trade secret information, such as when having software developed or associated hardware developed in a foreign country. In these instances, it is critical that there be a written trade secret agreement signed by the parties and that all trade secret materials be clearly marked as a proprietary trade secret. Special measures should be taken to maintain the secrecy of the information including restricting access, maintaining physical security measures, having written employee agreements, etc.

Some countries require that trade secret agreements be reviewed and approved by an appropriate government agency. Unless approved, such agreements may be unenforceable. In the case of joint ventures or the like where a royalty is paid on trade secret information or know how, some countries limit the amount of royalties and the duration in which royalties can be paid.

If your company has a development site, joint venture, etc., in a foreign country it is particularly important to educate the local management and employees regarding trade secret rights. The concept of trade secret protection is so new to some countries, that the average employee has no concept of what constitutes a trade secret and/or the rights of the company relative to its trade secrets.

Local management and employees should be made aware of the competitive importance in maintaining trade secrets. It can be a good idea to get local enforcement authorities involved in the educational process.

Trademark Protection

Unlike the United States, where limited trademark rights are acquired through use of the mark on the software, trademark rights in most foreign countries are obtained only through registration of the mark. With a few exceptions, trademark rights are granted on a first to file basis, e.g., the first party to file obtains trademark rights. This sometimes results in situations where a company is prevented from using its corporate name or mark in a foreign country because another party has previously registered the mark.

Careful consideration should be given to filing trademark applications in foreign countries where marketing a product or doing business in the near future is anticipated, e.g., in three to five years. One useful strategy is to file the company's house mark (a house mark is a mark which is used on all or many of the company's software products) in an expanded list of countries.

Most countries allow registrations to be canceled by a third party if it can be shown that the mark is not being used in the country. However, what constitutes use of the mark in a country is being liberalized in many countries such that advertising in a publication is often sufficient evidence of use. Complete records of all business activities in each country should be maintained so that, if necessary, use in the country can be proven.

Unlike the United States, many countries provide for registration of corporate names on a federal or national basis. In these countries it is advisable to register the corporate name as well as trademark(s) so as to obtain the maximum benefit of the registration laws.

Summary

The intellectual property laws pertaining to software related products vary widely from country to country and are rapidly undergoing change. While the international market arena offers tremendous sales potential, it also offers many legal pitfalls to the unwary. Legal advice specific to the country in question should always be sought.

A HYPOTHETICAL CASE

We will now consider a protection scheme for a hypothetical software product. The hypothetical software product we will consider is called Super Spreadsheet, and it is an electronic spreadsheet to be distributed to the mass market. The Super Spreadsheet product includes all of the standard electronic spreadsheet functions such as the assignment of formulas to cells in the spreadsheet matrix, a command language including such functions as “go to,” “sum,” “divide by,” “copy,” “delete,” and “move.” The Super Spreadsheet product has a hierarchical command structure implemented in a pop-down menu system. It also has a standard file structure for the storage of spreadsheet templates and data. The Super Spreadsheet product is distributed to the mass market in object code form. Repus Company, the company that distributes the Super Spreadsheet product, does not attempt to obtain signed license agreements from its customers. The following discussion illustrates how copyright, trade secret, patent protection and trademark laws can be applied to protect the Super Spreadsheet product.

Copyright protection is available to protect the source and object code of the program and the program documentation, including the user manual. This protection, however, would be limited in scope and could not prevent others from copying the functions or features of the software. Rather, with respect to the software code itself, copyright protection only protects against copying the program code and the preparation and distribution of derivative works based on the program code.

Copyright law may also, to some extent, protect the structure, sequence, and organization of the code. The extent of this protection varies from jurisdiction to jurisdiction. In addition,

although some courts have found to the contrary, the protection available to user-interface features through copyright law is likely limited to any artistic expression which can exist independently of the screen-display utilitarian features. Design patent protection might also be available to protect the graphical aspects of the screen display.

As long as the source code (which is not distributed) is subject to reasonable efforts to protect its confidentiality, it may be protected as a trade secret. The distributed object code, however, cannot be considered a trade secret unless the “shrink-wrap” license agreement under which it is distributed contains provisions that maintain the trade secret status and is valid and enforceable. As discussed above, the validity and enforceability of such a contract is uncertain. If the agreement is unenforceable, each distributed software copy is considered sold, not licensed. The commands, functions, file structures and other aspects of the Super Spreadsheet product which are apparent from watching the spreadsheet operate or from reading the manuals or books written about the spreadsheet may not be considered trade secrets, even if the “shrink-wrap” license agreement is enforceable. These aspects of the product are readily ascertainable and available to a large number of people who would not be bound by the “shrink-wrap” license agreement.

The best means for protecting these “readily ascertainable” features of the Super Spreadsheet product is patent protection. New spreadsheet features or functions such as a new windowing system or a new system to minimize recalculation time are the type of things that may be protected by patents. If a patent is obtained on several key functions or features of the spreadsheet, the Super Spreadsheet product will enjoy immunity from cloning, because the potential clone could not include all of the functions or features of the protected product without infringing the patent. Additionally, many types of algorithms or other programming inventions present in the source code, and thereby concealed in the object code of the distributed program, could also be protected with a patent. However, if these features are not susceptible to reverse-engineering from the object code, then trade secret protection is an alternative form of protection for these features.

As far as trademark protection is concerned, the mark “SUPER SPREADSHEET” would probably be considered descriptive. The word “spreadsheet” itself would be considered generic because the term specifies what the product is. The term “super” would probably be considered descriptive of the speed and advanced qualities of the spreadsheet. Used together the two words would constitute a descriptive mark which would be a very weak trademark until such a time as it might establish enhanced rights through extensive sales and promotion, thus enabling proof that the software industry recognized the mark as a trademark of the company. Repus Company, however, could obtain strong rights in the coined term Repus (“super” spelled backwards) if properly used as a trademark and if it was otherwise available for use.

The company could promptly file for registration of both trademarks based upon an intent-to-use (ITU) as soon as the company finalizes its plans to adopt the mark or marks on the noted products. The filing of such an ITU application would provide the basis for a nationwide right of priority upon filing.

The company could also wait until the mark or marks have been used in the ordinary course of trade, and file for registration based upon use of the mark or marks in commerce. However, there is a definite advantage in promptly filing for registration, because of the nationwide right of priority provided upon filing.

CONCLUSION

Patent protection is a powerful form of software protection which should be used aggressively. It can be applied to protect many features which cannot be protected by copyright or trade secret protection. In most cases the only significant disadvantage to obtaining patent protection is the cost. The cost, however, is minimal compared to typical software development expenditures and to the dollar value of maintaining an exclusive market in the product or features protected.

Copyright protection is available and should be used to protect virtually all software products. However, while it is excellent protection against unauthorized duplication and the preparation and distribution of derivative works, it cannot protect many important features of a software product. Thus, copyrights are best used in combination with patent and trade secret protection.

Trade secret protection is available and should be used to protect any software product or special feature in the product (including documentation) which gives a competitive advantage in the marketplace and is not readily ascertainable by persons using the product. While it is an excellent protection under such circumstances, it cannot protect many important ideas or features which are published or readily ascertainable to others using the product. Additionally, trade secrets do not protect against independent creation by a third party. Therefore, it is best used in combination with patent and copyright protection, which can often protect other important ideas and features.

Any software product or similar copyrightable work, whether published or not, should bear an appropriate protective legend. It is important to include an appropriate copyright notice on the media

containing the software and embedded in the code of the product. The appropriate form of a copyright notice differs depending upon whether the work is published or unpublished. When distributing through signed license agreements, the software is normally considered unpublished, and a special form of combined trade secret and copyright notice should be used.

A trademark identifies products or services as originating from a particular source so that satisfied customers will associate the trademark with a particular company. Such an association provides the trademark with valuable goodwill. Therefore, a strong trademark can play an important role in the successful marketing of a software product.

It is very important to document the software developer's ownership of intellectual property rights (i.e., patent, copyright, trade secret and trademark rights) in its software products. It is also very important to protect the licensing rights which the software developer acquires in software products from other companies. Of course, these rights should always be documented through the use of carefully written agreements.

Any plan for distributing a software product should always include a strategy for protecting the intellectual property contained in the product. Use of protective legends and an appropriate mix of patent, copyright, trade secret and trademark protection together with signed end user license agreements affords the most comprehensive strategy for achieving maximum protection. It is generally advisable to review software product distribution and protection strategies on an annual basis with an intellectual property attorney knowledgeable about software protection.

Foreign laws differ and are rapidly expanding and changing. Therefore, legal advice on the laws of the country in which the software will be distributed or developed should always be sought, to insure proper protection.