Today’s client/server computing environment is evolving toward a more global enterprise-wide distributed computing environment in which the Internet is an integral element. The Internet has become an important competitive factor for software vendors. More software requires mass marketing and distribution techniques. These factors, as well as the other changing business conditions described below, continue to impact software licensing practices and legal protection for software.

**The World Wide Web is an increasingly important marketing and distribution channel**

- Software vendors must continue to integrate the Internet into their business in a wide variety of ways in order to maintain their competitive position. This integration will continue to grow as bandwidth expands and network security improves. The World Wide Web has become an important source of product and related information and is often the first place a potential customer looks for information about a vendor or product.

- The Web enables a powerful method of direct distribution which, however, can conflict with existing distribution channels. E-mail is a widely-used means of software maintenance communications. Software distribution over the Web began with trial and demonstration versions, and currently many software vendors use the Web for the delivery of actual release versions. Major software vendors have been quicker to adopt electronic distribution than smaller vendors. Licensing approaches must accommodate this electronic delivery of software. As indicated below, when desirable, the Web can help make license and other agreements enforceable.

**More software is distributed on a high volume, mass marketed basis**

- More software is sold or is attempted to be licensed through use of unsigned licenses in order to keep transaction expenses per unit commensurate with per unit revenue. A purported license agreement which is introduced after the sale has been consummated, however, may not be enforceable in the U.S. or elsewhere. Thus, many shrinkwrap transactions may be sales rather than licenses. More software transactions are also intended to be sales without any attempt to make them a license, particularly for consumer products. The consequence of being a sale is that scope of use and other customer restrictions in shrinkwrap licenses may not be enforceable.

Limitations on warranties and liabilities can be effective in a sales transaction if the customer has notice prior to the consummation of the transaction.

- The Web can be used to increase the probability of an enforceable license agreement both for electronic distribution and shrinkwrap distribution channels. A potential licensee can be led through license agreement screens and required to affirmatively indicate acceptance by “clicking” prior to downloading the software initially and for maintenance deliverables, even when initial distribution was by a shrinkwrap license. Currently, however, there is more of a marketing approach on many Web sites and less of a legal approach. Most vendors do not require license terms screens to be viewed prior to ordering. The process has been simplified to make viewing by the customer optional rather than mandatory. This is similar to the “maturity” of shrinkwrap licensing when packaging became marketing oriented rather than legally driven, as packaging was in the early days of mass market software. This “maturity” has occurred faster in distribution from Web sites.

- Proposed Uniform Commercial Code Article 2B, “Licenses” which addresses the validity of shrinkwrap and click licenses and other software licensing issues, continues to be in draft form and apparently will not be finalized for about another year. The proposal’s expanding scope and allegedly pro-vendor design have resulted in industry segments wanting more time to provide input. Under the proposal, a shrinkwrap or click license would be enforceable if there was an opportunity to review the license and an affirmative assent to the license such as clicking on an "I accept" icon. If the agreement cannot be reviewed until after payment is made, the license would be enforceable only if there is a right to a refund. “Unconscionable” terms would not be enforceable in either case.

- A Web site can also reduce costs in mass market transactions by providing effective installation assistance, frequently asked questions (“FAQs”) and other information. It can also facilitate compliance with consumer protection laws by making warranty information readily available by simply clicking on an icon.
The concept of “unavoidability” is specified as a factor for evaluating “clear and conspicuous” disclosures in communications with consumers in a May 6, 1998 Federal Trade Commission (“FTC”) request for comment on the applicability of its rules and guides to the Internet. Consumers “should necessarily be exposed to the disclosure in the course of a communication without having to take affirmative action, such as scrolling down a page, clicking on a link to other pages, activating a 'pop up,' or entering a search term to view the disclosure.” While applicable only to “consumers” and possibly only to warranty terms, the practical effect could be that an entire license or terms of use would have to be “unavoidable.” This position seems inconsistent with the FTC’s regulations on pre-sale availability of written warranty terms for catalog sales in 16 C.F.R. § 702.3(c), which permits disclosure in a special information section in the catalog.

Statutory intellectual property protection (patent, copyright, trademark) is extremely important in mass market channels. Only statutory protection is feasible when software is sold rather than licensed since no agreement is needed to implement such protection.

International transactions occur earlier and are an increasingly important source of revenue

International transactions are an important source of revenue for U.S. software vendors. According to INPUT, during 1997 business expenditures for system and application software products totaled $66 billion in countries outside the U.S., with about 70% or $45 billion being purchases from U.S. software vendors. Western Europe, Canada and Japan are the major markets for U.S. software. Statistics indicate that the greater a software vendor’s revenue, the higher the percentage generated overseas. Vendors with sales of over $100 million usually generate at least 40% of sales from foreign sources. International transactions require vendors to have more knowledge of local licensing and distribution legal requirements, such as the EU directive on copyright protection for software and agent termination laws.

The Web is a window to international business and creates a worldwide presence for a software vendor from the inception of a Web site. Multiple languages are being used on a number of Web pages in the marketing, FAQs and legal sections. This can facilitate compliance with local consumer protection laws that require agreements to be in the local language.

Software products with file encryption features still may require compliance with U.S. export controls to avoid potential legal problems.

Other licensing issues arise from changing computing environments, customer expectations and revenue mix and pressure.

License agreements and related pricing must be consistent with current network computing environments. These environments are becoming more enterprise-wide than hardware-oriented or even physical-site-oriented because of growing virtual computing environments. Economics and network speed have caused centralized computing, ultimately perhaps with an Intranet at the center, to be a viable business option.

License pricing models are evolving at the same time as computing environments are changing. Some customers desire actual usage or transaction pricing within a distributed network or from the Web rather than hardware-dependent pricing schemes, such as the number of servers, concurrent users or size of the CPU on which the software runs.

Customers desire platform-independent licensing under which one license and license fee permits software to be used on a variety of different computer platforms within a business instead of buying a different license for each version of the same software used on a different platform.

Signed license agreements are generally more user-friendly. Even when a signed license agreement is employed, such agreements tend to be more readable, user-friendly and balanced in risk allocation between the vendor and customer. The business goal is to reduce the cost and time of the negotiation phase of the sales cycle while maintaining a basic level of protection. The time and expense of this process must be commensurate with the revenue to be generated from the transaction. While some negotiation may always be required, the strategy is to minimize it by improving the chances of receiving a customer’s positive response to a standard agreement.

Most software vendors are offering broader and longer performance warranties for their software products because customers want a vendor to stand behind its products. Most customers are asking software vendors for Year 2000 warranties and many customers also want a warranty of “virus
free” software. Such expanded warranties must be evaluated in conjunction with limitation of liability provisions. The real risk allocation in the event of a breach of warranty depends on the applicability of exclusions for types of damages (including lost profits) and monetary liability caps.

The American Institute of CPA’s Statement of Position 97-2, “Software Revenue Recognition,” will have a greater impact on delaying financial statement revenue recognition than prior positions. The design of license agreement payment terms and other provisions must consider this policy. Inducements to enter a deal, other concessions to customers and strategic service obligations will particularly impact the timing of revenue recognition. Customization and implementation services for large scale software products also must be carefully structured. Tracking the allocation of costs for specific services is important so that corresponding expenses can be deferred if revenue must be deferred.

Contractual terms and conditions for strategic services need the same degree of attention as license agreements since service revenues are a more important part of certain software vendors’ revenue mix. For example, an EDA software design tool vendor may offer IC design services in addition to distributing the tools. Such basic provisions as statements of work, milestones, schedules and deliverables need careful attention, particularly by product companies moving into the services business.

The use of mass market software is growing throughout the enterprise which means corporate and other major software customers desire volume licenses of some type for such widely-used application software. They also may desire value-added services in such arrangements. These multi-copy arrangements can help reduce the incidence of piracy of such applications. Corporate policy and educational efforts are needed, however, to ensure compliance with scope of use and other licensing restrictions.

More insurance policies are available for intellectual property infringement risks. The application process can be very detailed, however, especially for patent coverage, and exclusions and coverage caps need to be carefully considered.

Copyright is a key method of legal protection for software both in the U.S. and internationally

- Copyright law continues to be a key legal protection mechanism because of the low cost, ease and speed with which it can be implemented in the U.S. and elsewhere. As indicated, copyright protection is extremely important in mass market channels since no enforceable agreement is needed for implementation. Copyright protection for software is available in more countries than patent protection and is much easier to implement. Copyright protection is available for software in over 60 major countries throughout the world including all major market countries. Patent protection for software-related inventions is available in fewer countries but including key market countries such as the U.S., Japan, Western Europe and Korea. The scope of patent protection is probably narrower in most other countries than in the U.S.

- While the availability of copyright protection has increased significantly around the world, enforceability continues to be a major practical problem. Piracy rates continue to be high, particularly in Asia, Latin America and Eastern Europe which results in billions of dollars of lost revenue for U.S. software vendors. Most overseas software infringements are literal; that is, outright piracy rather than subtle copying.

- Patent protection should be considered for key market countries for core, long-life software features. International patent protection must be considered early in the invention cycle and prior to any commercialization so that core software features are not inadvertently barred from such protection in other countries.

- Provisional patents are being used more in the U.S. as a relatively quick and inexpensive way to obtain priority of patent rights for software-related inventions. A regular application has a priority date as of the provisional application if it is filed within one year of the provisional application.

- The patent infringement risk in a license agreement is generally allocated to the vendor who puts software into distribution channels. Major software vendors continue to build patent portfolios of software-related inventions for both offensive and defensive purposes. A portfolio can be used defensively for cross-licensing and to otherwise fend off or reduce the royalty impact of infringement claims. While vendors carefully craft and qualify intellectual property
indemnity provisions, particularly with respect to patents, the bottom-line commercial reality is that customers with leverage will usually force vendors to provide a reasonable degree of protection against patent, copyright, and trade secret claims in the geographical territory where the software will be used or distributed.

- Even though more state and national statutes have been enacted addressing trade secret protection, implementing such protection still likely requires a contract in order to establish reasonable confidentiality requirements, even if only the object code is delivered. While the Web enables a “click” process for increasing the enforceability of a confidentiality provision in mass market transactions, such protection may not be possible because of the sheer number of copies distributed. On the other hand, if the confidentiality obligations are reasonable, there should be no negative consequences for including the provision.

- In other markets, the trade secret provision is often negotiated when a signed license is employed, which can slow down the sales cycle. Therefore, vendors must critically evaluate whether and how to try to implement trade secret protection. Patent and copyright protection are often acceptable alternatives.

**Conclusion**

- The U.S. software industry is evolving toward more flexible licensing practices and pricing methods that reflect the overall business value of software to customers and the changes in computing environments. The growing use of mass market methods for software distribution makes statutory copyright and patent protection increasingly important since no agreement is needed for implementation. Finally, the Internet impacts software vendors in a wide variety of ways ranging from use of click licenses in distribution from the Web to changes in a customer’s computing environment. Licensing practices need to continue to adapt to these changing business condition.