CHAPTER 2

Protecting Proprietary Information

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CHAPTER 2

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Scope Note
This chapter provides an overview of intellectual property concerns of particular interest to business attorneys. It reviews the basic elements of trade secrets, patents, copyrights, and trademarks and provides guidance on the establishment of a proprietary rights protection program. The chapter concludes with a number of issues arising in particular business situations, including due diligence, debt transactions, assignments of assets, and joint ventures.

§ 2.1 THE NATURE OF INTELLECTUAL PROPERTY

In today’s competitive environment, a company’s success may depend on its acquisition and maintenance of rights in technology and information, or “intellectual property.” The familiar term “property” is used to refer to rights in tangible things. “Intellectual property” refers to rights in intangible things—rights in products of the mind or intellect arising under one or more of the following bodies of law:

• trade secret law,
• patent law,
• trademark law, or
• copyright law.

“Intellectual property” is an asset that, if not put to productive use, can quickly lose its value—indeed, is often time-limited. If wisely and timely exploited, however, it can be used to produce valuable goods or services, or turned into
cash by sale or licensing to others. Companies in such traditional sectors as financial services, advertising, consumer products and retailing, as well as high-technology companies, spend significant amounts of money to improve their technology and information assets and to acquire new ones. When Drexel Burnham Lambert, Inc., the investment banking firm that made “junk” bonds famous, filed for bankruptcy and attempted to sell off assets to raise money for creditors, it offered for sale what the Wall Street Journal called its “crown jewels”—computer databases of corporate contacts, technical information for pricing, and its computerized system for trading, selling, and researching high-risk, high-yield bonds. On the other end of the spectrum of corporate life, start-up or early-stage companies, intellectual property plays an equal or even more important role, as it is frequently the only asset on the balance sheet.

More so than tangible assets, intellectual property assets can be easily lost or stolen. Almost daily, the newspapers carry stories emphasizing the importance of intellectual property on the competitive battlefield: S.B. Thomas accuses Entenmann’s of filching crucial details about the equipment and ingredients used to make the famous nooks and crannies in its English muffins (Critser, “Keeping Secrets,” Time, Sept. 19, 1983, at 70); Peggy Lawton marches into court to protect her famous cookie recipe from ex-employees (INC., Jan. 1986, at 15); Polaroid is awarded more than $873 million in damages for Kodak’s infringement of its instant photography patents (Polaroid Corp. v. Eastman Kodak Co., 17 U.S.P.Q.2d 1711 (D. Mass. 1991); in early 2010 Boston Scientific agrees to pay Johnson & Johnson $1.725 billion to resolve a series of stent patent infringement suits; and in November 2010, in what is reported to be the largest copyright infringement award of all time, SAP is ordered to pay Oracle $1.3 billion for infringing its copyright in software and manuals (Gullo, “Oracle Wins $1.3 Billion Verdict for Closed SAP Unit’s Illegal Downloading,” Bloomberg, Nov. 24, 2010).

Whether the product is software, cameras, stents, or muffins, companies are preoccupied with finding ways to protect and profit from their proprietary information. Today, rather than proximity to raw materials or the ability to mass produce a commodity, a company’s competitive advantage frequently depends on its ability to protect and exploit its technology and proprietary information.

As a result, intellectual property law has become a primary focus of corporate interest. It is a country’s intellectual property laws that define the scope of protection available for technology and information. The terms used in intellectual property law—copyright, patent, trademark, and trade secret—are frequently misunderstood and misapplied. Volumes can be, and have been, written on each of the areas covered by this chapter. In the following pages, the basics of each form of intellectual property are described with particular emphasis on the implications for ownership rights and the practical considerations involved in the selection, acquisition, and continuation of types of protection available. Special
attention is placed on the relevance of intellectual property to the computer and biotechnology industries, two key industries in Massachusetts. The last section highlights the relevance of intellectual property to particular types of business transactions.

For a more detailed treatment of each of the respective areas, citations to treatises and other source material have been provided.

§ 2.1.1 Trade Secrets and Confidential Information

(a) Source of Law

State and Federal Law

Based on legal and equitable principles of state common law, trade secret law protects qualified information against unauthorized use or disclosure by others. For technology and information to qualify as a trade secret, it must provide economic value to its owner, and the owner must take affirmative steps to maintain confidentiality. The fundamental policy underlying trade secret law is “[t]he maintenance of standards of commercial ethics and the encouragement of invention.” Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 481 (1974). Trade secret law is part of the broader law of unfair competition and focuses on inequitable conduct: use or disclosure of information contrary to an express or implied restriction or knowledge gained by improper means. In addition to the common law, various federal and state statutes relate to and reinforce trade secret rights. E.g., Freedom of Information Act, 5 U.S.C. § 552; Trade Secrets Act, 18 U.S.C. § 1905; National Stolen Property Act, 18 U.S.C. § 2314; 18 U.S.C. §§ 1341–1346 (mail fraud); 18 U.S.C. § 2315 (receipt of stolen property).

Restatement Definition

Section 757 of the original Restatement of Torts, published in 1939, provides the most widely adopted definition of trade secrets.

A trade secret may consist of any formula, pattern, device or compilation of information which is used in one’s business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it.

Restatement of Torts § 757 cmt. b, at 5 (1939).
Uniform Trade Secrets Act

Case law applying the Restatement definition to various facts resulted in the uneven development of the law of trade secrets among the states and uncertainty regarding the limits of protection and available remedies. Accordingly, in 1979 the National Conference of Commissioners on the Uniform State Laws proposed the Uniform Trade Secrets Act (USTA) to codify the basic principles of trade secret law and, in the commissioners’ view, the better reasoned cases concerning remedies for trade secret misappropriation. USTA §§ 1–12, 14 U.L.A. 437–67 (1990).

The USTA defines a trade secret as “information . . . that . . . derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use.” USTA § 1(4). The principal difference between the USTA and the Restatement definitions is that the act does not require continuous use of the information in one’s business. Therefore, information with potential value or “negative” information (such as lengthy and expensive research that proves that a certain process will not work) may be considered a trade secret under the act. Further, unlike the Restatement approach in which accidental disclosure can be fatal for the trade secret owner, the USTA includes in its definition of misappropriation the use or disclosure of accidentally revealed information where the user knew or had reason to know that the information was accidentally disclosed. Also, consideration of the amount of effort or money expended in creating the trade secret is not a factor under the Uniform Trade Secrets Act definition, whereas those factors have occasionally been considered by courts in determining if information falls within the Restatement definition.

To date, some version of the USTA has been adopted in forty-five states plus the District of Columbia, making trade secret law a creature of statute in most states, but not Massachusetts.

Massachusetts Law

Massachusetts has both civil and criminal statutes that involve trade secrets. “The term ‘trade secret’ as used in this paragraph means and includes anything tangible or intangible or electronically kept or stored, which constitutes, represents, evidences or records a secret scientific, technical, merchandising, production or management information, design, process, procedure, formula, invention or improvement.” G.L. c. 266, § 30(4). Theft of a trade secret is a larceny. Buying, selling, or receiving stolen trade secrets is a felony. G.L. c. 266, § 60A. Also, the Massachusetts trade regulation statute provides remedies for trade secret
misappropriation. G.L. c. 93, § 42 (civil tort liability and punitive damages); G.L. c. 93, § 42A (1984) (injunctive relief). All of the cited statutes refer to the definition of trade secrets contained in the larceny statute. That definition now encompasses “anything tangible or intangible,” as had the common law approach. See Peabody v. Norfolk, 98 Mass. 452 (1868) (plaintiff invented a new machine and new process for the manufacture of gunny cloths; defendant was an employee with a nondisclosure provision in his employment contract who quit his job and built his own machines with the knowledge he gained; the court enjoined defendant from disclosing the secret). Moreover, liability attaches regardless of the value of the secret.

(b) What Is Protected: Subject Matter

The threshold issue in any trade secret controversy is whether trade secret information is, in fact, present. There is no exact prescription, since the existence and particular scope of a trade secret is fact-sensitive. Whether information qualifies as a trade secret depends on two basic elements—the nature of the information itself and the conduct of the parties (both the owner and the alleged misappropriator) with respect to that information. Massachusetts case law affords protection for trade secrets and confidential information where their use or disclosure would be a breach of contract or abuse of confidence. See Junker v. Plummer, 320 Mass. 76 (1946). The Restatement definition was adopted in J.T. Healy & Sons v. James A. Murphy & Son, 357 Mass. 728, 736 (1970) (court refused to protect the making and processing of jewelry findings (beads) because plaintiff had taken no action to protect it). See Swartz v. Shering-Plough Corp., 53 F. Supp. 2d 95 (D. Mass. 1999).

The types of information susceptible to protection under trade secret law are virtually unlimited. Unlike patents or copyrights, trade secret protection extends to a broad array of information that has competitive value and is actually treated by the owner as confidential. Among the categories of information for which trade secret protection has been applied are formulae, processes, methods and techniques, machines, products, plans, designs and patterns, customer lists, and business information. Furthermore, there is no requirement that information exist in tangible form in order to be considered a trade secret.

General business knowledge is not entitled to trade secret protection. In trade secret cases, courts consider the following factors enumerated in the Restatement commentary to determine whether the information constitutes a trade secret:

- the extent to which the information is known outside of the business,
the extent to which the information is known by employees and others involved in the business,

- the extent of measures taken to guard the secrecy of the information,

- the value of the information to the business and its competitors,

- the amount of effort or money expended by the business in developing the information, and

- the ease or difficulty with which the information could be properly acquired or duplicated by others.

Confidential Information and Trade Secrets Distinguished

Not everything that is “secret” is subject to protection as a trade secret. Information as to single or transitory events, whether or not related to the business, will generally not qualify as a trade secret. The amount of a sealed bid or the planned date for the announcement of a new product may in fact be secret, but neither meets the Restatement requirement of “continuous use,” since it is information as to single events. However, such “confidential information” is accorded protection akin to that available for trade secrets.

(c) Criteria

The primary advantage of trade secret protection is the ease with which it is obtained, for the criteria are not difficult to meet.

Novelty

Only minimal creativity or originality is required to justify trade secret protection, such that the information is not generally known in the trade or industry. Matters of public knowledge or common knowledge in the particular industry or trade are not protected.

Competitive Advantage

In order to merit trade secret protection, the information must confer an economic advantage over competitors, such that a competitor would have to expend time and money to develop it independently.
Expense or Investment

Cost, effort, and time to develop the information are factors in determining whether the trade secret is protected under the Restatement definition.

Relative Secrecy

The most important criterion in determining whether something is a protectable trade secret is whether it is indeed secret. Relative, not absolute, secrecy is required. The trade secret owner must use efforts reasonable under the circumstances to protect the trade secret. A key aspect of using "reasonable efforts" is putting employees on reasonable notice of the existence of confidential information and their duty not to disclose it. In *USM Corp. v. Marson Fastener Corp.*, 379 Mass. 90 (1979), the plaintiff took moderate but adequate protective measures to protect drawings, internal configuration, and component parts of a machine used in the manufacture of blind rivets. USM had used nondisclosure agreements, provided notice to its employees that their work involved access to trade secrets, and did not give plant tours to the general public. In *Eastern Marble Products Corp. v. Roman Marble*, 372 Mass. 835 (1977), trade secret protection was afforded where the plaintiff separated the manufacturing process of the plant from the public area and required nondisclosure agreements. See *Harvard Apparatus, Inc. v. Cowen*, 130 F. Supp. 2d 161 (D. Mass. 2001). In contrast, in *Incase Inc. v. Timex Corp.*, 488 F.3d 46 (1st Cir. 2007), the plaintiff was denied trade secret protection for its secure packaging design (for Timex watches) where, as found by the District Court, "no documents were marked 'confidential'...; there were no security precautions or confidentiality agreements; Incase had not told Timex the design was a secret; and Incase's principal designer... did not think the design was a secret."

(d) Scope of Protection

Trade secret law does not purport to grant even the most enterprising developer a monopoly in the trade secret. It does not provide the same type of protection as do the patent or copyright laws. The only protections afforded a trade secret owner are those against acquisition by improper means or breach of confidence. Trade secret law does not prohibit either independent development or acquisition by "proper" means, discovery through proper reverse engineering or disclosure without an obligation of confidentiality. Also, consistent with the balance of interests between the promotion of innovation and the protection of fairness in business competition, the law of trade secrets recognizes that "no restrictions should fetter an employee's right to apply to his own best advantage the skills and knowledge acquired by the overall experience of his previous employment."

A “misappropriation” occurs under the Restatement view under any of the following circumstances:

- the trade secret is discovered by improper means;
- the trade secret is disclosed or used in breach of a duty of confidentiality; or
- the trade secret is learned from a third party who, with notice that the information was secret, discovered it by improper means or in breach of a duty to another, or learned the secret with notice of the fact that it was secret and that its disclosure was made to him or her by mistake.

The Restatement imposes no liability upon one who innocently acquires another’s trade secret and discloses or makes use of it prior to receiving notice of its trade secret status. Even after receiving such notice, the recipient will not be liable for disclosure or use under the Restatement view if the innocent recipient paid value or materially changed his or her position prior to the receipt of such notice.

The Uniform Trade Secrets Act, § 1, includes a specific definition of “misappropriation.” Under the USTA, the mere acquisition of a trade secret is a misappropriation if the acquirer knows or has reason to know that the trade secret was acquired by improper means. Thus, the USTA continues the immunity afforded by the Restatement for disclosure or use made prior to notice that the information is the trade secret of another and was improperly acquired. However, the USTA does not always grant continuing immunity for disclosure or use made after receipt of such knowledge. Even where an innocent acquirer has paid value or materially changed his or her position, disclosure or use after receiving notice that the information is a trade secret of another constitutes misappropriation under the USTA except where the trade secret was acquired through accident or mistake.

**Remedies**

Injunctive relief is the most frequently sought remedy in trade secret cases. Damages are also available for trade secret misappropriation, either in lieu of or in addition to injunctive relief. In *Jet Spray Cooler, Inc. v. Crampton*, 377 Mass. 159 (1979), the court stated that three measures of damages are potentially available:

- the defendant’s profits realized from his or her tortious conduct,
• the plaintiff’s lost profits (but not both the defendant’s profits and the plaintiff’s lost profits), or

• a reasonable royalty—available only where the defendant has made no actual profits and the plaintiff is unable to prove a specific loss.

Punitive damages are also available under the common law for willful and deliberate misappropriation. Under the USTA, the court is authorized to award reasonable attorney fees to the prevailing party if

• a claim of misappropriation is made in bad faith,

• a motion to terminate an injunction is made or resisted in bad faith, or

• willful and malicious prosecution exists.

Attorney fees and costs have been awarded under a wide variety of circumstances under the common law as well.


(e) Examples from the Computer and Biotech Industries

Computer Software

Computer programs may be protected as trade secrets, although the owner has the burden of proving it has taken reasonable measures to maintain secrecy. See, e.g., Integrated Cash Mgmt. Servs. Inc. v. Digital Transactions Inc., 13 U.S.P.Q.2d 1397 (S.D.N.Y. 1989); Dickerman Assocs., Inc. v. Tiverton Bottled Gas Co., 594 F. Supp. 30 (D. Mass. 1984); Lane v. Commonwealth, 401 Mass. 549 (1988). In the Integrated Cash Management Services case, the federal District Court found that the architecture of the system, the way in which the components fit together, and the specific source code of each module were trade secrets. Many owners prevent or hinder imitation of their computer programs by prohibiting or strictly restricting distribution of the computer programs in source code form and by providing the computer programs in object code form only
under contractual restrictions that prohibit reverse engineering. For example, IBM made available source code for most of the operating system for its original personal computers to encourage third parties to develop compatible application programs, but consistently prohibited any distribution of source code of a critical portion, the BIOS, to impede the development of clones.

Biotechnology

Biotechnology, broadly defined as the use of living organisms to make commercial products, encompasses a variety of scientific disciplines and technologies, including genetics, biochemistry, recombinant DNA, monoclonal antibody production, tissue culture, and cell fusion technologies. In recombinant protein technology, the gene (a piece of DNA) coding for the protein is isolated, inserted into cultured cells, and produced by those cells in large quantities, resulting in products such as t-PA, interleukin-2, insulin, and growth hormone. Diagnostic tests can be based on monoclonal antibodies or DNA probes.

Unique to the protection of biotechnology is the fact that the information or invention sought to be protected is often embodied in the genetic information of living matter, such as an organism, cell, or microbe. The law of trade secrets clearly can be used to protect biotechnology inventions and information and may be of particular importance where the information is competitively important but does not meet all of the prerequisites for patentability. For example, a slight change in the amount or sequence of a particular nutrient in a bacterial culture media may significantly improve cell growth and increase production of a protein product the bacteria was generally engineered to produce; however, the change in amount or sequence may be considered “obvious” and, therefore, not patentable.

The problem biotechnology presents with respect to trade secret protection stems from the very nature and origins of the industry. The scientific system is based on discovery, disclosure through publication, duplication by others, and verification. Moreover, much of basic science research occurs in universities, where the academic tradition is frequent publication and oral presentations at conferences. The disclosure of a trade secret, whether by publication or by presentation at a scholarly conference, destroys the secrecy required for this method of protection. Also, products and processes are susceptible to reverse engineering.

§ 2.1.2 Patents

The technologies presented by the computer software and biotechnology industries continue to present challenges to U.S. patent law, for the courts, and for the U.S. Patent and Trademark Office (PTO). International trade agreements, including
implementation of the General Agreement on Tariffs and Trade (GATT), Uruguay Round, in the mid 1990s, have also caused major changes in U.S. patent law and practice.

(a) **Source of Law**

Patent rights arise exclusively under federal law based on the provision in the U.S. Constitution that authorizes Congress “To promote the Progress of Science and the useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” U.S. Const. art. I, § 8, cl. 8. A patent gives the owner of the invention the right to exclude others from making, using, selling, offering to sell, or importing the invention throughout the United States, typically for a period of twenty years from the earliest filing date. 35 U.S.C. § 154. In exchange for these rights, the patentee is required to disclose the invention in a patent application in sufficient detail to enable those of ordinary skill in the art to make and use the invention. Patent applications are typically published eighteen months from the earliest filing date unless a request for nonpublication is made, 35 U.S.C. § 122(b), and granted patents are published upon issuance unless subject to a secrecy order, 35 U.S.C. § 181. Thus, the public can learn about the invention and how it works and may use that information to produce a noninfringing, different, and better product or process.

**Practice Note**

Upon expiration of the patent, the patentee loses all exclusionary rights in the invention, and everyone is free to use it. The resulting disclosure and the eventual dedication of information to the public are primary purposes of granting patent protection.

Under its constitutionally granted authority to protect inventors’ rights, Congress has enacted comprehensive patent statutes since 1790. The current Patent Act was adopted in 1952 and is codified at Title 35 of the United States Code. The Patent and Trademark Office, charged with administration of the patent statute, has issued substantial regulations setting forth the implementing procedures and requirements for obtaining patent protection in Patents, Trademarks and Copyrights, 37 C.F.R. §§ 1.1–150.6, and has regularized and published many of its examining procedures and the standards it applies for the patentability of certain inventions in the *Manual of Patent Examining Procedure*.

The federal courts have exclusive jurisdiction over all matters relating to the patent laws, 28 U.S.C. § 1338(a), although they are statutorily required to defer to the decisions of the PTO, which has primary responsibility for sifting out unpatentable material. Although patent cases are initially brought in a variety of
federal District Courts, appeals may only be brought in the Court of Appeals for the Federal Circuit, established in 1982. 28 U.S.C. § 1295.

Practice Note
Patents are a matter of national law, but are subject to a number of international treaties. International patent protection must be carefully planned prior to any disclosure of the subject product or process and can be expensive.

(b) What Is Protected: Subject Matter

Since a patent grants a legal monopoly, the requirements for obtaining one are very strict. The “invention” must fall within the scope of patentable subject matter as defined in the Patent Act. Inventions that do not fit into one of the statutory categories are said to be nonstatutory and, accordingly, unpatentable.

There are essentially three types of patents: utility patents, design patents, and plant patents.

Utility Patents

To obtain a utility patent, the type of patent with which people are most familiar, an invention must accomplish an intended purpose, and the purpose must have some application for beneficial use. So-called perpetual motion machines are frequently cited as examples of nonuseful inventions.

There are essentially four categories into which inventions must fall to qualify for utility patent protection under Section 101 of Title 35:

- processes,
- machines,
- articles of manufacture, and
- compositions of matter.

A process is an act, or series of acts, that produces a desired result. Cochrane v. Deener, 94 U.S. 780, 788 (1876). The other three categories refer to physical things. A machine is a device that performs a useful operation. An article of manufacture is any tangible object (other than a machine or composition of matter) that is man-made and not found in substantially the same form in nature. Diamond v. Chakrabarty, 447 U.S. 303 (1980). A composition of matter includes the chemical or physical combination of two or more ingredients to produce a
mixture or compound in liquid, solid, or gas form. Discoveries of principles or mathematical algorithms are not proper statutory subject matter and, therefore, are not entitled to patent protection. *Diamond v. Diehr*, 450 U.S. 175 (1981).

**Design Patents**

Chapter 16 of the Patent Act provides for the issuance of design patents covering the appearance of an article of manufacture. 35 U.S.C. § 171. In general, the design must be new, original, and ornamental. Design patents are issued for fourteen years, with prerequisites substantially similar to those for utility patents, discussed above. In the case of design patents, the novelty requirement is measured by the average observer, while the nonobviousness test is measured by the skill of an ordinary designer.

**Plant Patents**

A new and distinct variety of plant may be afforded patent protection under Chapter 15 of the Patent Act. 35 U.S.C. § 161. In order to qualify, a variety of a plant must be new and distinct, must reproduce asexually, and must exist only in a cultivated state.

**(c) Additional Prerequisites for Inventions**

For an invention to be patentable, it must satisfy certain requirements discussed below.

**Reduction to Practice**

Under U.S. law, an invention is made when the inventor conceives of the invention and reduces it to practice. A mere idea for a new invention is not subject to patent protection; only the concrete embodiment of an idea—in other words, a new invention—may be patentable. This invention must also meet the requirements set forth below.

Reduction to practice can be either actual or constructive. Actual reduction to practice generally means making the invention in physical form or literally carrying out the steps of a process and successfully testing, demonstrating, operating, or otherwise using the invention for its intended purpose. However, the invention need not be in perfect or final form. Constructive reduction to practice consists of filing with the Patent and Trademark Office a patent application that completely discloses the invention.
In determining priority between two conflicting claims of first invention, the law looks to the dates of conception, the date of reduction to practice, and the reasonable diligence of the person first to conceive of the invention but not the first to reduce it to practice. 35 U.S.C. § 102. The U.S. system is different from that used in most other countries, where the first to file a patent application disclosing the invention is generally the one entitled to the patent. See discussion below. In the United States, if the person who first conceived of the invention exercises continuous, reasonable diligence in reducing the invention to practice, the first to conceive it will generally be entitled to the patent, even if someone else is the first to file a patent application.

**Practice Note**

Practitioners should be sure to monitor pending legislation in addressing patent issues. In the summer of 2011, as this publication was being finalized, the Leahy-Smith America Invents Act, H.R. 1249, had been passed by the House of Representatives and was pending before the Senate (which had passed similar patent reform legislation earlier in 2011). See generally U.S. Patent and Trademark Office, Leahy-Smith America Invents Act Implementation, at http://www.uspto.gov/patents/init_events/aia_implementation.jsp. Among other provisions, the legislation would change the “first to invent” system to a “first inventor to file” system.

**Novelty and Timeliness**

A fundamental requirement for patentability of an invention is that it must be “new.” 35 U.S.C. § 102. Novelty in the patent context is a complex concept. Essentially, the invention must not be known or used by anyone else in the United States, or patented or published anywhere, before the inventor’s date of invention (i.e., conception and reduction to practice), nor may it be in public use or on sale in the United States for more than one year prior to the filing of the application for patent (the “on-sale bar”). The activities constituting use, sale, or knowledge are largely a question of fact determined on a case-by-case basis. An actual sale or an offer for sale, made for purposes of commercially exploiting the invention or that has the effect of making the invention available to the public, may satisfy either the “use” or “sale” provisions of Section 102 of the Patent Act. A bona fide experimental use, for purposes of testing or evaluating the invention, does not give rise to a statutory bar under Section 102. Baker Oil Tools, Inc. v. Geo Vann, Inc., 828 F.2d 1558, 1563 (Fed. Cir. 1987); In re Brigance, 792 F.2d 1103, 1108 (Fed. Cir. 1986).

In a 1998 case, Pfaff v. Wells Electronics, Inc., 525 U.S. 55, the U.S. Supreme Court rejected the Federal Circuit’s “substantially complete” standard and established a
new “ready for patenting” test to determine when the on-sale bar begins to run. According to the Court, the one-year period begins when two things have occurred. First, the product has been the subject of a commercial offer for sale that is not primarily experimental. Second, the invention is “ready for patenting,” that is, the invention was either reduced to practice or the subject of an enabling disclosure, such as drawings or other descriptions sufficiently specific to enable a person skilled in the art to practice the invention. For a succinct discussion, see Jennifer F. Miller, “Pfaff Revisited: How the Federal Circuit Has Elaborated on the ‘Ready for Patenting’ Standard,” 2003 Duke L. & Tech. Rev. 0030.

Nonobviousness

The invention must not have been obvious to those of ordinary skill in the art at the time the invention was made. 35 U.S.C. § 103. Incremental or developmental advances are not sufficiently innovative. The invention must be different in form, method, or structure from existing technology (so-called prior art) so that it would not have been predictable based on the current state of the technology.

Adequate Disclosure and Candor

In exchange for the patent, the applicant is required to disclose the invention sufficiently to enable those skilled in the art to make and use it. 35 U.S.C. § 112. A patent application must include a specification and a drawing where applicable. Also, the specification must disclose the “best mode” of carrying out the invention known to the inventor. What is required is not an absolute test, but the preferred embodiment of the invention known to the inventor at the time of the patent application. See Dana Corp. v. IPC Ltd. P’ship, 860 F.2d 415 (Fed. Cir. 1988). The application and related papers filed on behalf of the inventor must disclose information material to the PTO’s examination, including any prior art known to the inventor.

(d) The Patent Application Process

Form and Content of Application

If the hurdles of patentable subject matter and the other prerequisites appear to be satisfied, the next step in the patent process is the application, which must include the “specification” of the invention, a drawing where necessary to an understanding of the invention, an oath or declaration, and the prescribed filing fee. The practitioner should consult The U.S. Patent and Trademark Office Web site, http://www.uspto.gov, for a host of information relative to patent applications. The site contains applications, information regarding fees, and links to
amendments in relevant legislation, as well as the text of pending or proposed legislation. The office also produces informative booklets containing answers to the more basic questions with respect to the patent application process. As a general rule, only the “inventor” may make an application, limiting the availability of patent protection to individuals, thereby excluding corporations. As with other personal property, however, a patent may be transferred or assigned to corporations as well as to individuals. In the case of multiple inventors, the application must be made jointly in the names of all of the inventors. 35 U.S.C. § 116. One who simply reduces the conception to practice without contributing to the conception is not considered an inventor. The failure to join one or more inventors or the inclusion of someone who is not really an inventor in the application can render any resulting patent invalid.

The specification must include a description of the invention, the best mode contemplated by the inventor of carrying out the invention, and one or more claims particularly pointing out and distinctly claiming the subject matter regarded as the invention.

**Practice Note**
The claims are the heart of the patent, forming the basis for the determination of patentability for issuance of the patent and questions of infringement following issuance.

**Types of Applications**
In addition to the standard application filed initially in the PTO, there are additional types of applications. See, e.g., Patents, Trademarks and Copyrights, 37 C.F.R. § 1.45(a) (joint applications). A “continuation application” can be filed when another application having a common inventor, disclosing the same subject matter and filed previously, is still pending in the PTO. A “continuation-in-part application” is one that discloses more subject matter than its parent. It may include new inventors and must include a new oath or declaration. A “divisional application” results from a finding that the original application claims more than one invention. An international or “PCT” application is one filed pursuant to the Patent Cooperation Treaty and is usually based on either a prior filed U.S. or foreign application.

**The Examination Process**
Once the filing requirements are satisfied, the application is assigned to an examining group in the PTO that has responsibility for the relevant area of technology. Generally, applications are reviewed by an examiner in the order filed.
The examiner makes a thorough review of the prior art relating to the subject matter of the invention and determines whether the form and claims meet the requirements of the Patent Act. The examiner’s decision is provided in writing to the applicant in what is called a PTO “action.” If the examiner determines that one or more claims do not meet the requirements for patentability, the action is called a rejection and must state the specific grounds or prior art leading to rejection. The applicant may reply to a rejection and request reconsideration or further examination, or amend the application, but a response must be made within six months or the application is deemed abandoned. 35 U.S.C. § 133. On the second or any subsequent examination or consideration, the action may be made final. The applicant’s response to a “final action” is limited to appeal, if a claim is rejected, or amendment of the application to cancel claims or comply with any requirements of form that the examiner has made. Alternatively, the applicant may pay a fee and file a request for continued examination and continue examination before the examiner.

If any claim has been rejected twice or made the subject of a final rejection, the applicant can appeal to the Board of Patent Appeals and Interferences. If that board’s decision is adverse, review may be requested in the Court of Appeals for the Federal Circuit or the U.S. District Court for the District of Columbia.

If different inventors file applications claiming substantially the same invention, an “interference” proceeding is instituted within the PTO to determine priority of invention. See discussion above.

Following issuance of a patent, any person may request a reexamination by the PTO based on prior art consisting only of patents or printed publications. At the conclusion of the proceeding, which is by statutory mandate conducted “with special dispatch,” a certificate setting forth the results is issued. As with other PTO proceedings, a patent owner may appeal any adverse decision to the Court of Appeals for the Federal Circuit or the U.S. District Court for the District of Columbia.

The Patent and Trademark Office has attempted to take steps to adapt to the demands of new technologies and the global economy. The PTO has improved its examination procedures to cope with the increasing number of software patent applications, improve the speed of prosecution, and enhance its database for prior art searching in the evaluation of software patent applications. In February 2011, the PTO updated its “Three Track” examination initiative, originally proposed in June 2010 (75 Fed. Reg. 31,763) to reduce what had become a three-year backlog.
Twenty-Year Term from Filing Date

The term of a U.S. patent filed after June 8, 1995 is twenty years from the earliest claimed utility application filing date, rather than seventeen years from the date of grant. 35 U.S.C. § 154. Historically, in the United States the seventeen-year term had been lengthened considerably by the examination procedure, which could take from two to ten years, combined with the practice of many applicants to file a succession of continuing applications to extend the period of pendency (the lag between the date of application and date of issue). The resulting so-called submarine patents emerged from the extended examination period, during which the application was kept secret under prior U.S. practice, into the middle of what was often an industry built around the technology now covered by the patent. (In contrast, most other countries required the publication of a patent application eighteen months from its filing date, giving notice to the public of the potential patent rights—which is now U.S. practice, except where the applicant requests nonpublication and certifies that it will not seek foreign patent rights. 35 U.S.C. § 122(b)(2)(B).)

Provisional Applications

Provisional applications are a tool available to permit the establishment of an early filing date followed within one year by a U.S. utility application or foreign patent application.

Practice Note
With low filing costs and the potential benefits of an early priority date, provisional patents provide an incentive to use the patent process to protect rapidly changing technology.

First-to-Invent Versus First-to-File

Inventors in all GATT countries now have the benefit of the rule previously accorded only to U.S. inventors, which permits proof of an invention date prior to the filing date to obtain priority. Accordingly, inventors are well advised to keep careful written records documenting the dates of conception and reduction to practice of their inventions.

Practice Note
See the practice note in § 2.1.2(c), above, regarding pending legislation concerning the “first to invent” system.
(e) **Enforcement of Patent Rights**

A patent is a negative right; it prevents others from making, using, selling, offering for sale, or importing the invention defined by the claims of the patent in the United States during the period of the patent’s enforceability. It is enforceable against both willful and innocent infringers, direct and indirect infringers, as well as against literal and equivalent infringements. Patent protection can provide relief against a wide range of potential misappropriations and infringing activities. No prior contractual or fiduciary relationship is required. The infringer need not have had access to the patented product or even have had knowledge or notice of the existence of the patent (although a finding of willful infringement will result in treble damages). In addition, persons “actively induc[ing] infringement” of a patent, or contributing to the infringement by selling or supplying components with no substantial noninfringing use, are also liable. 35 U.S.C. § 271(b), (c).

Once a patent has issued, a patent notice should be placed on products covered by the patent or, if impractical due to the nature of the product, on a label affixed to the package. Failure to mark the invention with a notice may result in the loss of the right to collect damages from an infringer prior to the time of actual notice.

The federal courts have exclusive jurisdiction over patent infringement actions, and each claim of a patent is presumed valid until proven otherwise. The patentee has the burden of proving infringement by a preponderance of the evidence. The prevailing party may be granted an injunction and damages and, in exceptional cases, reasonable attorney fees. The damages awarded are based on the patent owner’s lost profits or a reasonable royalty.

**Practice Note**

While the infringer’s knowledge of the patent or intent to infringe is not required for a finding of infringement, such evidence may show willful infringement (which requires clear and convincing proof) and increase the damages award by up to three times.

An alleged infringer can raise affirmative defenses to a charge of infringement directed to the validity or enforceability of the patent. The patent can be challenged as invalid based on prior art or for failure to meet the enablement, description, or best mode requirement, or on the grounds that the subject matter is not proper statutory subject matter. Under 35 U.S.C. § 273, one can defend against a claim of infringement of a “method” patent by showing that the alleged infringer “had, acting in good faith, actually reduced the subject matter to practice at least 1 year before the effective filing date of such patent, and commercially used the subject matter before the effective filing date.” Other defenses include inequitable or fraudulent procurement, patent misuse, laches, and estoppel.
Since its creation in 1982 with exclusive, nationwide jurisdiction over all appeals involving patents, the Court of Appeals for the Federal Circuit has developed a significant body of law defining the appropriate principles by which patent validity and infringement should be determined.

The protection granted by a patent is limited in both time and scope. Patent protection begins only upon the grant of a patent. However, 35 U.S.C. § 154(d) provides certain “provisional rights,” namely, that once issued the patentee is entitled to recover a reasonable royalty from anyone who, between publication and issuance, practices the invention with “actual notice of the published patent application” provided the patentee brings its infringement suit within six years after the patent issues. While the application is pending and before it is published, other means of protection, such as trade secret, must be used to protect the invention. Also, certain know-how, beyond that required to be disclosed in the patent, can be preserved and licensed as a trade secret. Trade secret protection is available even if the subject matter is patentable. Analogic Corp. v. Data Translation, Inc., 371 Mass. 643 (1976); Wireless Specialty Apparatus Co. v. Mica Condenser Co., 239 Mass. 158 (1921) (changes and improvements in manufacture of magnetic condensers).

(f) **Computer Software and Biotechnology**

**Computer Software**

Early cases approached the patentability of software cautiously. In 1981, the Supreme Court changed direction in the landmark decisions of *Diamond v. Diehr*, 450 U.S. 175 (1981) and *Diamond v. Bradley*, 450 U.S. 381 (1981), rejecting aspects of its own prior holdings and upholding the patentability of software. Since those decisions, numerous utility patents have issued for software.

Initially, most of the case law on software patentability focused on whether software constitutes patentable subject matter. See *In re Iwahashi*, 888 F.2d 1370 (Fed. Cir. 1989); *State St. Bank & Trust Co. v. Signature Fin. Group*, 149 F.3d 1368 (Fed. Cir. 1998). The availability of the Court of Appeals for the Federal Circuit since 1982 as a single national interpreter of a uniform patent statute has enhanced the importance and effectiveness of patent protection of software. Design patents for computer-related items have also increased, with patents issued for typefaces, game boards, and the designs of icons for computer screens.

In late 1990, the Court of Appeals for the Federal Circuit addressed whether source code must be filed with the patent application to satisfy the “enablement” requirement, holding that the amount of disclosure required may vary according to the nature of the invention, the role of the invention, the role of the program in
carrying it out, and the complexity of the contemplated programming. N. Telecom, Inc. v. Datapoint Corp., 908 F.2d 931 (Fed. Cir. 1990). In that case, involving a programmable processor-based batch data entry terminal, a disclosure of program code was not required.

The Court of Appeals for the Federal Circuit in 1994 reinforced the basic ruling in Diamond v. Diehr, 450 U.S. 175 (1981) that a claim does not become non-statutory subject matter simply because it uses a mathematical algorithm or computer program. In several cases involving the question of patentable subject matter, the Court of Appeals for the Federal Circuit emphasized the importance of well-drafted claims in which the software addresses a practical problem and is described as embodying, representing, or being intimately associated with one of the four Congressionally-defined basic categories of patents (a process, machine, article of manufacture, or composition of matter), rather than solving a mathematical concept or abstract idea. See In re Alappat, 33 F.3d 1526 (Fed. Cir. 1994); In re Trovato, 60 F.3d 807 (Fed. Cir. 1994); In re Lowry, 32 F.3d 1579 (Fed. Cir. 1994).

Closely related to the patentability of software is the patentability of business methods, which are typically embodied in software (and/or an Internet business). The IP world was shaken up when the Federal Circuit held in State Street Bank & Trust Co. v. Signature Financial Group (cited above) that business methods are patentable. However, the issue was rethought recently by the Federal Circuit and the Supreme Court. In In re Bilski, 545 F.3d 943 (Fed. Cir. 2008), the Federal Circuit held that a commodities hedging method developed by Bernard Bilski and Rand Warsaw did not embody patentable subject matter, holding that a process is patentable only if “(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.” The Supreme Court, in Bilski v. Kappos, 130 S. Ct. 3218 (2010), agreed that the subject hedging method was not patentable. However, it also held that, while the Federal Circuit’s “machine-or-transformation” test is a valuable clue to process patent eligibility, it is not the exclusive test. Subsequently, the Patent Office issued tentative guidance published in the Federal Register as “Interim Guidance for Determining Subject Matter Eligibility for Process Claims in View of Bilski v. Kappos,” 75 Fed. Reg. 43,922 (July 27, 2010).

Biotechnology

Congress has provided specific protection only to plants as a life form, under the Plant Patent Act of 1930, 35 U.S.C. §§ 161–164 (protects asexually propagated plant forms) and the Plant Variety Protection Act of 1970, 7 U.S.C. §§ 2321–2582 (protects sexually propagated plants in the form of seeds). The courts have
provided increasing patent protection for genetically engineered or modified life forms. In a landmark decision in 1980, the Supreme Court in *Diamond v. Chakrabarty*, 447 U.S. 303 (1980) held that a genetically altered living organism was the proper subject of a patent. Chakrabarty had used genetic engineering to create a new strain of bacteria with an improved capacity for degrading crude oil. By placing the focus not on the distinction between living and inanimate things but on the question of human intervention, the Supreme Court laid a solid foundation for the patentability of man-made life forms. Prior to 1987, the PTO generally declined to grant patents claiming living animal organisms. However, the PTO now issues patents covering nonhuman multicellular living organisms, including animals. On April 12, 1988, the first such animal patent was issued to Harvard University covering a “transgenic nonhuman mammal,” a genetically engineered mouse with an activated oncogene introduced into it, to make the mouse susceptible to cancer. U.S. Patent No. 4,736,866. The mouse develops tumors quickly if exposed to cancer-causing chemicals and thus serves as a valuable “cancer detective” in testing the effects of those chemicals on humans.

**Practice Note**

Examples of patentable biotechnology inventions include a biologically pure culture of a novel microbe, a cloned gene or regulatory sequence, a transgenic animal, an engineered protein, and a bacterial cell line produced through “in vitro” mutagenesis.

Given that the academic environment is the source of much of the biotechnology research, patent law has become the most prominent form of protection in the industry. Universities, which rely on industry research funds, generally cannot agree with their industrial sponsors to maintain research results in secrecy. Accordingly, most university funding agreements require the filing of patent applications on the funded research.

§ 2.1.3 Copyrights

(a) **Source of Law**

Like the Patent Act, copyright law is exclusively a matter of federal law grounded in the same constitutional provision authorizing Congress to protect authors and inventors. The current copyright statute, the Copyright Act of 1976, with significant amendments in 1980, 1989, and 1998, is codified at Title 17 of the United States Code. (Prior to the Copyright Act of 1976, which took effect on January 1, 1978, there was a dual system of copyright, with “common law” copyright for “unpublished” works and “statutory” copyright for published works. The 1976 Act, the first comprehensive revision of U.S. copyright laws
since 1909, changed the touchstone of federal copyright protection from “publication” to “fixation”—discussed below—and provided for a single system of copyright, expressly preempting any state equivalent form of protection.) The U.S. Copyright Office, charged with administration of the copyright law, has issued substantial regulations setting forth interpretations of the copyright statute and the requirements for registration of claims for copyright. 37 C.F.R. §§ 201.1–270.5. The Copyright Office also publishes a Compendium of Copyright Office Practices, circulars on numerous copyright issues, and forms with instructions for copyright registration. The so-called Electronic Copyright Office now enables copyright owners to file copyright applications electronically over the Internet.

The federal courts have exclusive jurisdiction over all matters relating to the interpretation of copyright law, although the International Trade Commission also has jurisdiction under Section 337 of the Tariff Act of 1930.

The United States is a member of the Universal Copyright Convention and the Berne Convention, the two major multilateral copyright treaties.

(b) What Is Protected: Subject Matter

Copyright is the right of an author to control the reproduction, adaptation, public distribution, public display, and public performance of the author’s “work,” a term encompassing a wide variety of items including literature, sound recordings, computer programs, sculptures, photographs, and architectural plans. Unlike the Patent Act, which relates to the unauthorized practice of ideas, copyright law seeks to protect against unauthorized copying of the expression or form of an idea. The statutory provision defines copyrightable works as “works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.” 17 U.S.C. § 102(a). Protection starts when the work is initially created, expressed in the statute as “fixed in any tangible medium of expression,” and endures until seventy years after the death of the author or, in the case of anonymous works, pseudonymous works, and works made for hire, the shorter of 120 years from creation and ninety-five years from publication (see § 2.1.3(e), Term of Protection, below).

The Copyright Act lists, without limitation, the following eight general categories of works that are eligible for protection:

- literary works;
- musical works;
• dramatic works;
• pantomimes and choreographic works;
• pictorial, graphic, and sculptural works;
• motion pictures and other audiovisual works;
• sound recordings; and
• architectural works.

These categories are illustrative and not meant to be an exclusive listing. Computer programs, specifically referenced in the 1980 amendment to the Copyright Act, are considered literary works, but may be considered audiovisual works if they contain substantial display elements. Any unpublished work is protected within the United States, regardless of the author’s nationality; published works are eligible if the author is a national or domiciliary or sovereign authority of any nation with whom the United States has copyright convention or treaty relationships. Any other work is eligible if first published in the United States or in any nation belonging to the Universal Copyright Convention, or if first published by the United Nations or the Organization of American States.

**Practice Note**

It is critical to appreciate that copyright protects the particular form of expression adopted by the author; expressly excluded from copyright protection is any idea, procedure, process, system, method of operation, concept, principle, or discovery. 17 U.S.C. § 102(b). In dealing with copyrights, it is also important to distinguish between the copyright itself and the tangible property (book, sheet music, electronic CD, etc.) in which the expression is embedded.

Claims of copyright may be registered with the U.S. Copyright Office. Unlike the Patent Office, the Copyright Office performs only a minimal examination of the deposited material to determine the presence or absence of copyrightable subject matter, leaving other issues to be resolved in litigation.

**Criteria**

The fundamental criteria for copyrightability are fixation, originality, and expression.
Fixation

The fixation requirement simply means that there must be a physical embodiment of the work, even if it requires use of a machine to view it, that is sufficiently permanent or stable to be perceived, reproduced, or communicated. Accordingly, unfilmed improvisation or an untaped live broadcast would not qualify for federal copyright protection.

Originality

To be copyrightable, the work must be of independent development, owing its origin to the author. However, this requirement is one with a fairly low threshold, as there is no requirement of novelty, inventiveness, or aesthetic merit. Rather, the courts have stated that the work need have only a “spark” of creativity. See *Feist Publ’ns v. Rural Tel. Serv.*, 499 U.S. 340 (1991).

Expression

As noted above, copyright protects only the expression of an idea—how the author or artist expresses himself or herself in words, images, sounds, or forms—not the idea itself or any underlying facts or principles.

(d) Statutory Formalities: Notice, Registration, and Deposit

Notice

Proper notice of copyright ownership secures full protection under the 1976 Copyright Act. Although copyright protection is automatic, beginning with the fixation of an original work in some tangible form, under the 1976 Act, as originally enacted, copyright protection was lost if the work was published without carrying a proper copyright notice (see below).

Since the United States joined the Berne Convention for the Protection of Literary and Artistic Works, however, a notice of copyright on all publicly distributed copies is no longer mandatory for works first published on or after March 1, 1989. *Berne Convention Implementation Act of 1988*, Pub. L. No. 100–568, 1988 U.S. Code Cong. & Admin. News (102 Stat.) 2853. Yet there remain practical incentives for using a copyright notice, in particular, that the defense of “innocent infringement” is unavailable to one charged with copyright infringement when there was proper notice on the work. In addition, including a copyright notice is an inexpensive way to deter infringement by clearly indicating that the work is copyrighted. If a copyright notice is used, it should consist of the following three elements:
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- the word “Copyright,” the abbreviation “Copr.,” or the letter “C” in a circle, thus © (since this last is the universal symbol, it should always be part of the notice. Many U.S. publishers use the word followed by the symbol);
- the year of first publication; and
- the name of the copyright owner (or an abbreviation by which it is generally known, such as “IBM” for International Business Machines Corporation).

Registration

Since copyright automatically exists the moment an original work is fixed in tangible form, registration of a copyrighted work is not a condition for obtaining a copyright. However, registration with the Copyright Office is a prerequisite for a suit for infringement of a work originating in the United States or created by a U.S. national. Although an owner who has not registered has a valid cause of action, the owner’s rights may not be enforced until registration has occurred; once the copyright is registered, the owner can sue for alleged infringements occurring prior to registration. Moreover, registration provides prima facie evidence of the validity of the copyright and the truth of the statements contained in the registration if a work is registered before or within five years after publication. In addition, timely registration (i.e., within three months of publication) entitles the owner to attorney fees and statutory damages.

Deposit

Registration requires deposit of a copy of the work with both the Copyright Office and the Library of Congress, where it is available for public inspection (but, except in certain instances, not copying). 37 C.F.R. § 203.4(a); Copyright Office Circular 6. Copyright Office regulations exempt certain works from the deposit requirements, including scientific models, greeting cards, and lectures. 37 C.F.R. § 202.19. The regulations also provide for deposit of “identifying material” rather than complete copies for various works, including certain pictorial and graphic works, commercial prints and labels physically inseparable from a three-dimensional object, and certain computer programs and databases. 37 C.F.R. § 202.20(c). There is a procedure for special relief from the deposit requirements to allow for the deposit of identifying material rather than a complete copy of the work. 37 C.F.R. § 202.19(e).

The Berne Convention Implementation Act of 1988 applies to all copyrightable works first created after March 1, 1989. (Prior to that time, U.S. copyright owners
were protected through “national treatment” abroad under the Universal Copyright Convention.) For such works, use of a copyright notice is optional. Foreign owners do not have to register the works to sue for infringement in the United States, but must register to be entitled to recover “statutory damages” and attorney fees for infringement. Meanwhile, works of U.S. origin must be registered both to bring suit and to recover statutory damages and attorney fees.

(e) Term of Protection

In order to adequately protect a person’s copyrights, familiarity with the duration of copyright is essential. The Sonny Bono Copyright Term Extension Act, Pub. L. No. 105-298, 11 Stat. 2827 (1998), extended existing copyright terms by twenty years. The duration of current copyright terms are as follows:

- for works created prior to 1978, either in its original term or renewal term, the total term of copyright is ninety-five years, 17 U.S.C. § 304, as amended by Pub. L. No. 105-298, 11 Stat. 2827 (1998);

- for works created but not published or copyrighted before January 1, 1978, the copyright term is the life of the author plus seventy years, 17 U.S.C. § 303, as amended by Pub. L. No. 105-298, 11 Stat. 2827 (1998);

- for works created on or after January 1, 1978, copyright protection runs for the life of the author plus seventy years; for joint works, the term is seventy years after the death of the surviving author, 17 U.S.C. § 302(a), (b), as amended by Pub. L. No. 105-298, 11 Stat. 2827 (1998); and

- notwithstanding the above paragraphs, the term of copyright for anonymous and pseudonymous works and works made for hire created on or after January 1, 1978, endures until the first to expire of ninety-five years from first publication and 120 years from creation, 17 U.S.C. § 302(c) (as amended by Pub. L. No. 105-298, 11 Stat. 2827 (1998)).

All of the above terms of copyright run to the end of the calendar year in which they would otherwise expire. 17 U.S.C. § 305. Registration of copyright can be made at any time during the term of protection. 17 U.S.C. § 408(a).
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(f) **Scope of Protection**

The owner of copyright enjoys five primary exclusive rights in the work: reproduction, adaptation, public distribution, public performance, and public display. 17 U.S.C. § 106. These rights are elaborated upon below. The following aspects of copyright protection should be kept in mind as well:

- the owner of copyright in a sound recording has the exclusive right to do and authorize the digital audio transmission of the work, per 17 U.S.C. § 106(6);

- the author of a “work of visual art,” as defined in 17 U.S.C. § 101 (basically, signed, consecutively numbered, limited edition paintings, drawings, prints, sculptures, and photographs), has certain rights of attribution and integrity, per 17 U.S.C. § 106A; and

  - the circumvention of technological measures that effectively control access to a work;
  - the manufacture, import, or public offering of technology or services primarily designed or produced to circumvent such technological controls; and
  - the manufacture, import, or public offering of technology or services primarily designed or produced to circumvent technological measures that effectively protect a copyright owner’s rights.


**Reproduction**

The right of reproduction is the right to copy or duplicate the work.

**Adaptation**

The right of adaptation is the right “to prepare derivative works based upon the copyrighted work.” Any unauthorized translation, rearrangement, revision, or modification is an infringement of the adaptation right.
Public Distribution

The right to control public distribution by sale, transfer, rental, loan, or lease is an exclusive right of the copyright owner. Under the “first sale doctrine,” however, the owner of a particular copy of a work may resell or transfer it but cannot reproduce it for resale; once the first sale of a particular copy has occurred, the copyright owner has lost the right to control further distribution of that particular copy. 17 U.S.C. § 109(a). However, the rights of an owner or possessor arising after the “first sale” have been limited with respect to sound recordings, the musical works embodied in them, and computer programs (in other words, the rights of the copyright owner in sound recordings, musical works, and computer programs have been strengthened). 17 U.S.C. § 109(b).

Public Performance

The copyright owner of a literary, musical, dramatic, choreographic, pantomime, or audiovisual work has the exclusive right to “perform” the copyrighted work publicly, by reciting, playing, dancing, acting, or otherwise rendering it, whether directly or by means of a film, TV image, or other device or process.

Public Display

Similarly, the copyright owner of a literary, musical, dramatic, choreographic, pantomime, or audiovisual work, but also of pictorial, graphic, and sculptural works, has the right to show a copy of the work publicly, either directly or by means of a device or process, or, as to audiovisual works, to show individual images nonsequentially.

These exclusive rights are cumulative, and may be subdivided, separately transferred, and separately enforced. However, the rights are subject to a number of limitations, including fair use, library use, and archival use. See 17 U.S.C. §§ 107, 108, 110.

(g) Enforcement

Federal courts have exclusive jurisdiction over copyright suits. The courts have developed a two-fold test for infringement liability:

- ownership of a valid copyright and
- copying by the defendant.
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Since direct evidence of copying is often unavailable, copying is ordinarily established indirectly by evidence of *access* to the copyrighted work by the defendant and *substantial similarity* of the accused work to the copyrighted work.

Relief in copyright litigation includes the following:

- preliminary injunction to prevent copying or distribution of copies during the suit;
- impoundment of all copies or means by which copies may be reproduced during the suit;
- destruction or other reasonable disposition of all infringing copies or means by which such copies can be reproduced;
- money damages in the form of:
  - actual damages, plus the infringer’s profits not included in the actual damages; or
  - at the election of the claimant, with respect to infringements of registered works, statutory damages;
- increased statutory damages for willful infringements; and
- costs and attorney fees.

17 U.S.C. c. 5. In connection with money damages, the plaintiff must elect between actual and statutory damages; given the difficulty of proving actual damages and profits, statutory damages, which currently range between $750 and $30,000 with respect to any one work—which may be reduced to $200 if the infringer can prove innocent infringement, and may be increased up to $150,000 if the copyright owner can prove willful infringement—may be the only significant monetary relief available to the plaintiff.

(h) **Computer Software and Biotechnology**

**Computer Software**

white pages did not have sufficient originality to be copyrightable, and only the independent selection, coordination, or arrangement of a compilation of facts was protectable under copyright law. *Feist Publ'ns, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340 (1991). This express rejection of the “sweat of the brow” approach of prior cases has significant implications for the scope of protection for computer databases: since there is no copyright protection for facts themselves, as a result of *Feist*, U.S. copyright law protects only against reproduction of an *original selection or arrangement* of factual information, and not against the wide-scale appropriation of the facts themselves (without the original compiler’s selection and arrangement). Although computer programs were not mentioned in the 1909 Act or the 1976 Act, the 1980 amendments attempted to clarify the extent of copyright protection afforded computer programs by adding a definition of “computer program” and a new Section 117 that sets out permissible uses of copyrighted computer software, including a limited right for maintenance and repair to activate a machine that contains an authorized copy of a program.

However, the precise scope of copyright protection for software has not been definitively settled by the courts. The first generation of software copyright cases established that copyright protection extends to programs, in object code format as well as source code, and whether the program is fixed in ROM or other media. See *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983). The second generation of software copyright cases has been less definitive, but generally establishes that copyright protection extends beyond the literal code to the “look and feel” of a program—that is, to the program’s structure, internal logic, organization, user display formats, and external data manipulation features. *Plains Cotton Coop. Ass’n v. Goodpasture Computer Serv., Inc.*, 807 F.2d 1256 (5th Cir. 1987); *Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222 (3d Cir. 1986); *Lotus Dev. Corp. v. Paperback Software Int’l*, 740 F. Supp. 37 (D. Mass. 1990); *Mfrs. Techs., Inc. v. CAMS, Inc.*, 706 F. Supp. 984 (D. Conn. 1989); *Digital Communications Assocs., Inc. v. Softklone Distrib. Corp.*, 659 F. Supp. 449 (N.D. Ga. 1987); *SAS Inst., Inc. v. S&H Computer Sys., Inc.*, 605 F. Supp. 816 (M.D. Tenn. 1985).

**Protection of Look and Feel**

Although not a copyright term of art, the phrase “look and feel” is generally used to refer to the nonliteral elements of a computer program (its keystrokes and other means for invoking functions, its operational flow, and the visual and aural elements of its output), and the copyright protection of a program’s “look and feel” has occupied center stage of the software copyright cases. The U.S. District Court for the District of Massachusetts and the U.S. Court of Appeals for the First Circuit have joined in the fray.
The courts have devised a number of tests in their attempts to establish the boundaries of protectable expression. In the Second Circuit, the court in *Computer Associates International v. Altai Inc.*, 982 F.2d 693 (2d Cir. 1992) adopted a three-step “abstraction-filtration-comparison test” for judging whether the nonliteral elements of two computer programs are substantially similar, filtering out elements that are “idea” or dictated by efficiency or external factors or taken from the public domain, prior to comparison of any remaining elements, thus effectively narrowing the scope of protection. *Computer Assocs. Int’l, Inc. v. Altai, Inc.*, 982 F.2d at 706. The Tenth Circuit has also adopted the abstraction-filtration-comparison test, *Gates Rubber Co. v. Bando Chem. Indus. Ltd.*, 9 F.3d 823, 834 (10th Cir. 1993); *Autoskill, Inc. v. Nat’l Educ. Support Sys., Inc.*, 994 F.2d 1476, 1490–91 (10th Cir. 1993) (“permissible” method of analysis), while the Ninth Circuit has adopted an objective-subjective test, *Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1475–78 (9th Cir. 1992), and the Fifth Circuit has recognized that “market externalities” limit the scope of copyright expression, *Plains Cotton Coop. Ass’n v. Goodpasture Computer Serv., Inc.*, 807 F.2d 1256, 1261 (5th Cir. 1987).

In the First Circuit, prior to 1995, two District Court cases involving Lotus Development Corporation set forth comparatively broad protection for nonliteral elements of computer program user interfaces. See *Lotus Development Corp. v. Paperback Software International*, 740 F. Supp. 37 (D. Mass. 1990), and the series of decisions in *Lotus Development Corp. v. Borland International, Inc.*, 788 F. Supp. 78 (D. Mass. 1992), 799 F. Supp. 203 (D. Mass. 1992), 831 F. Supp. 202 (D. Mass. 1993), and 831 F. Supp. 223 (D. Mass. 1993). Lotus’s 1-2-3 spreadsheet program allowed users to manipulate and control the program using a series of menu commands such as “Copy,” “Print,” and “Quit,” either by highlighting them on the screen or by typing their first letter. It also allowed users to write time-saving macros, which automatically invoked a series of command choices with a single keystroke. Borland’s competing spreadsheet program, Quattro, included an “Emulation Interface” as part of its program, which, although visually different from Lotus’s 1-2-3, was a virtually identical copy of the entire 1-2-3 menu tree, in order to make it easier for users trained on 1-2-3 to switch to Quattro. Borland did not copy any of Lotus’s underlying code; only the words and structure of the command hierarchy. Four days after the District Court held in the *Paperback Software* case that the 1-2-3 menu structure, taken as a whole, was protected expression and infringed by Paperback Software, Lotus sued Borland for copyright infringement. The District Court, purporting to follow the Second Circuit’s abstraction-filtration-comparison test, held that Borland copied protectable elements of the user interface of Lotus’ 1-2-3 spreadsheet program when it included an emulation of the Lotus menu command hierarchy as an option in its Quattro Pro spreadsheet. *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 799 F. Supp. at 209. Further, the District Court held that even Borland’s
“key reader” (a program feature enabling Borland users to interpret and execute the user-written Lotus macros, often representing significant user investment of time and expense, by using the first letter of each command) was a copyright infringement because it employed a table that reproduced the entire 1-2-3 command hierarchy with the first letter of each command substituted for the full command name. *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 799 F. Supp. at 209.

On appeal, the First Circuit found the Second Circuit’s *Altai* abstraction-filtration-comparison test of little use, obscuring “the more fundamental question of whether a menu command hierarchy can be copyrighted at all.” *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 49 F.3d 807, 815 (1st Cir. 1995). The First Circuit ruled that the command hierarchy was an uncopyrightable “method of operation,” foreclosed from protection by Section 102(b) of the Copyright Act, explaining that the means by which users control and operate something and the names for the command terms and their arrangement in an inverted tree structure are the equivalent of the buttons on a VCR, and not copyrightable. See 17 U.S.C. § 102(b). A concurring opinion reached the same result, but based on the doctrine of fair use. *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 49 F.3d at 815–16. An equally divided U.S. Supreme Court affirmed the First Circuit. *Lotus Dev. Corp. v. Borland Int’l, Inc.*, 516 U.S. 233 (1996). This decision appears to represent the first appellate decision based on interoperability (the ability of different products to work together) and the interests of users who have invested substantial time learning the command structure of a popular program or devising macros for it, thus changing the balance of interests. See, e.g., *ILOG, Inc. v. Bell Logic, LLC*, 181 F. Supp. 2d 3 (D. Mass. 2002) (example of application of *Lotus* analysis).

Because of the highly functional nature of computer software, the courts continue to struggle in deciding what elements of a computer program should be considered protectable expression, and what elements should be left unprotected under various traditional “limiting” doctrines of copyright law, such as the idea/expression dichotomy, the merger doctrine, scènes a faire, and the limits imposed by Section 102(b) of the Copyright Act (system, method of operation, process, or procedure). 17 U.S.C. § 102(b).

It is important to note, particularly given the uncertain scope of copyright protection for software, that parties may contract to waive their rights or establish their own relationships with respect to copyrighted material. Typically, this is accomplished by a license agreement. See *ProCD v. Zeidenberg*, 86 F.3d 1447 (7th Cir. 1996) (shrinkwrap license that is presented to user and permits return and refund if not acceptable is enforceable and not preempted by Copyright Act). Beware, however, of using an agreement to extend the reach of the copyright unreasonably—for example, to a broad noncompetition covenant, which
may be unenforceable as a misuse of copyright. See Lasercomb Am. v. Reynolds, 911 F.2d 970 (4th Cir. 1990).

When registering a claim of copyright in a software program, the application must be accompanied by a deposit of “identifying material,” which the Copyright Office has interpreted in the context of computer programs to require a deposit of the program source code form. However, where trade secret protection is a concern, there are provisions for the deposit of only specified portions of the source code, or “special relief” may be requested to permit deposit of less than the source code for the entire program or deposit with blocked-out portions. 37 C.F.R. § 202.20(c)(2)(vii).

**Practice Note**

Applicants may insist on submitting only object code (with an accompanying written attestation that the deposit contains original authorship), but such a submission will be accepted by the Copyright Office under its “rule of doubt,” whereby the applicant can obtain a certificate of registration but without benefit of the presumption that the registered work actually contains copyrightable authorship.

**Biotechnology**

Some commentators have suggested that copyright protection is available for recombinant DNA or other genetically engineered works. Burk, “Copyrightability of Recombinant DNA Sequences,” 29 Jurimetrics J. 469 (1989); Davidson, “Common Law, Uncommon Software,” 47 U. Pitt. L. Rev. 1037, 1104–05 (1986); Kayton, “Copyright in Living Genetically Engineered Works,” 50 Geo. Wash. L. Rev. 191 (1982); Comment, “Copyright Protection for the Intellectual Property Rights to Recombinant Deoxyribonucleic Acid: A Proposal,” 19 St. Mary’s L.J. 1083 (1988). However, to the author’s understanding, these propositions have not been tested in court, and the Copyright Office has indicated that it will not grant copyrights to gene sequences or DNA molecules. 7 Genetic Engineering News, Mar. 1987, at 19, col. 1.

**(i) Semiconductor Chip Protection Act**

Semiconductor chips, or integrated circuits, are an essential component of the modern computer. The semiconductor industry, assailed by knockoffs and genuine competition from companies in other countries in the late 1970s, felt that the traditional forms of intellectual property did not prove adequate for the protection of chips. Following several years of lobbying efforts, special legislation, called “The Semiconductor Chip Protection Act,” was enacted in 1984 to protect the “mask work” used to etch, deposit layers of silicon, and process the chip.
While the Semiconductor Chip Protection Act is analogous to copyright, and indeed is appended to the Copyright Act in the U.S. Code, 17 U.S.C. §§ 901–914, a significant difference from copyright law is the explicit right to develop a new chip by reverse engineering an existing (and protected) one. Both the Copyright Office and the Patent and Trademark Office administer the act and have issued rulings and regulations. The Copyright Office deals with registration while the PTO determines the protection to be afforded mask works from other countries. Although enacted in 1984, by 2010 there were only two reported cases under the act—Brooktree Corp. v. Advanced Micro Devices, Inc., 977 F.2d 1555 (Fed. Cir. 1992), which permitted recovery of lost profits suffered by Brooktree as a result of AMD’s violation, and Altera Corp. v. Clear Logic, Inc., 424 F.3d 1079 (9th Cir. 2005), which refused to allow a claim of copyright misuse absent an allegation of copyright infringement.

(j) Wire Fraud and Copyright

Wire fraud and copyright met on the “information superhighway” on the Massachusetts stretch of roadbed. David LaMacchia, a twenty-one-year-old MIT student and computer expert, used MIT’s computer to gain access to the Internet and set up an electronic bulletin board, encouraging correspondents to upload popular commercial software programs that could then be downloaded for free. Although his scheme allegedly cost the copyright holders of the computer programs over $1 million, he apparently neither sought nor derived any personal economic gain. A federal grand jury returned a one-count indictment charging LaMacchia with conspiracy to violate the wire fraud statute, 18 U.S.C. § 1343. Although the federal District Court was not pleased with LaMacchia’s conduct, describing it as “heedlessly irresponsible, and at worst as nihilistic, self-indulgent, and lacking in any fundamental sense of values,” it felt compelled to dismiss the indictment. The court found that the unique nature of copyright and the great amount of care Congress has taken in criminalizing conduct under the Copyright Act placed the alleged infringing activity outside the scope of general criminal statutes. To uphold the government’s interpretation of the wire fraud statute would serve to criminalize the conduct of “the myriad of home computer users who succumb to the temptation to copy even a single software program for private use. It is not clear that making criminals out of a large number of consumers of computer software is a result that even the software industry would consider desirable.” United States v. LaMacchia, 871 F. Supp. 535, 544 (D. Mass. 1994).
§ 2.1 ADVISING A MASSACHUSETTS BUSINESS

(k) Additional Information

Many basic points relating to copyright protection and registration can be found on the Web site of the U.S. Copyright Office, http://www.copyright.gov. The site is a useful resource for attorneys who practice in this area of the law, as well as other lawyers and nonlawyers who desire a deeper understanding of copyrights. Additionally, copyright publications and forms can be ordered from the Library of Congress, Copyright Office, Publications Section, LM-455, 101 Independence Avenue, S.E., Washington, D.C. 20559-6000.

Practice Note
The Copyright Office has warned that paper forms are being phased out.

§ 2.1.4 Trademarks

Companies use “marks”—names, logos, and symbols—to identify their products or services and to distinguish them from similar products or services offered by others.

(a) Subject and Source of Law

Trademarks, Service Marks, and Trade Names

A trademark is a word, symbol, design, or any combination of words and/or designs that is used by a manufacturer or merchant to identify the source of its products and to distinguish them from the products of others. While a trademark may identify the company that is the source of the product, valid marks need not, and many valuable marks do not. A service mark is used in the sale or advertising of services to identify the services of a particular person and to distinguish them from the services of others. Trademarks and service marks are covered by the Federal Trademark Act of 1946, more commonly known as the Lanham Act, codified at Title 15 of the U.S. Code. 15 U.S.C. §§ 1051–1128. A trade name is the name of a corporate, business, or professional organization used to symbolize the reputation of a business as a whole. A company may choose to use all or part of its trademark or service mark for one or more of its products or services. While there is no protection under the Lanham Act for trade names per se, a trade name is generally protected by the common law of unfair protection and by state statutes.

The policy underlying trademark law is largely consumer protection—to prevent mistake, deception, and confusion with respect to the origin of goods and services.

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Accordingly, marks that are utilitarian in nature, confusingly similar to other marks, immoral or vulgar, or include the flag or coat of arms of any governmental entity or the name of another person (without the person’s written consent) do not qualify for protection.

The use of a mark benefits the manufacturer or vendor of a product or service as well as the consuming public. A mark serves as an advertising tool, protecting the manufacturer’s investment in a product or service by establishing goodwill for and reputation of that product or service and by prohibiting others from unfairly trading on that reputation and goodwill. Likewise, trademark protection guards the public from inadvertent or intentional use of confusing or misleading marks.

There are significant differences between trademarks, on the one hand, and copyrights and patents on the other. The U.S. Constitution requires that patents and copyrights be granted only for a limited period of time. The basic right in a trademark arises under common law, and federal (or state) registration merely confirms and supplements that right with certain procedural advantages. Unlike a patent or copyright, a trademark will remain the exclusive property of its owner forever if it is not abandoned and does not become “generic” (as described below).

While state and federal law are sources of protection for marks, the Lanham Act provides a system of federal registration for rights in marks and allows nationwide protection, access to the federal courts, and constructive notice of trademark protection. The Lanham Act also serves as a federal unfair competition law by prohibiting false advertising, including the marketing of goods and services in deceptive ways. The Lanham Act, originally enacted in 1946, was comprehensively revised pursuant to the Trademark Law Revision Act of 1988, Pub. L. No. 100–667, 1988 U.S. Code Cong. & Admin. News (102 Stat.) 3935.

(b) Selection of a Mark

Selection of a mark involves both legal and marketing considerations. For a mark to have marketing value, it should be pleasing to the sight and hearing, easy to pronounce and remember, and have no unfavorable associations or connotations. From a legal point of view, the level of protection of a mark varies with the “strength” or distinctiveness of the mark. Fanciful words, such as Exxon, Kodak, or Q-Tips, form the strongest marks and are entitled to the broadest scope of legal protection. Ordinary words applied arbitrarily to unrelated goods or services, such as Apple computers or Camel cigarettes, also constitute strong marks. Narrower protection is afforded to marks that are suggestive of the associated product’s or service’s features, such as Whaler sandwiches or Roach Motel cockroach traps, although such marks may facilitate consumer
acceptance. However, marks that describe a quality or element of the goods or services with which they are used (such as Micro for something small), are merely laudatory (Veryfine for fruit juices), are geographically descriptive of the source of the goods or services (Boston Beer), or are generally known as surnames (Smith Brothers cough drops) cannot be protected unless through extensive use they acquire “secondary meaning”—that is, the relevant purchasing group has come to associate the marks with the source.

Generic words—i.e., words that identify the type of product or service involved—are not protectable as marks because no one is permitted to monopolize an item’s common everyday designation. For example, “Light Beer” and “Lite Beer” are generic terms for a type of beer light in body, taste, or calories and are not subject to trademark protection. In a noteworthy case, the Federal Circuit upheld the rejection by the PTO of the Boston Beer Company’s efforts to federally register as its trademark the phrase “The Best Beer in America,” holding that some phrases are so highly laudatory as to be incapable of acquiring the “distinctiveness” required to serve a trademark (source-identifying) function. In re Boston Beer Co. L.P., 198 F.3d 1370 (1999). In addition, if a registered mark becomes generic, its registration may be canceled and it ceases to be protectable by the owner. Marks that have become generic include aspirin, cellophane, and elevator; many companies have undertaken advertising campaigns and other significant efforts to keep their popular marks (such as Xerox, Post-it, Rollerblade, and Google) from becoming generic.

After several potential marks are identified, they should be preliminarily screened to identify any existing same or similar marks. A comprehensive search of the remaining short list of marks should be performed by a professional search company or trademark counsel. The resulting professional search report should be analyzed by a trademark attorney to determine whether the PTO is likely to permit registration of the mark, the level of risk (low, moderate, or high) of infringement of an existing mark, and the relative strength of the mark. Frequently, the search report will reveal unregistered marks or marks with abandoned, canceled, or expired federal registrations; follow-up investigation is advisable to determine whether these prior marks remain in use. Because the laws of the U.S. (unlike many other countries) protect marks that are in use but not registered, even meticulous screening, professional analysis, and follow-up investigation cannot guarantee that the mark finally selected will be free from a claim of infringement by a prior, undisclosed user. A trademark or service mark search significantly reduces, but does not eliminate, the possibility of claimants with prior rights in a mark.
(c) **Nontraditional Marks: Colors, Scents, Sounds**

The Supreme Court has held that color alone may be registrable as a trademark under the Lanham Act. *Qualitex Co. v. Jacobson Prods. Co.*, 514 U.S. 159 (1995). Various objections had served to prohibit registration, such as “shade confusion,” the difficulty of resolving disputes over what shade of color a competitor can lawfully use (blue packets of artificial sweetener); “color depletion,” unfairly disadvantaging competitors by depleting the number of colors available to them (yellow antifreeze bottles); and the functionality of the color (pink fiberglass insulation, green front-end loaders). Color is not inherently protectable as a trademark, however, and will require a fairly rigorous demonstration of association of the color with the source of the product to merit trademark registration.

In addition to the potential protectability of color, courts and the PTO have recognized the ability of other unusual features to serve a source-identifying function, including scents (plumeria-scented sewing thread and embroidery yarn, Reg. No. 1639128, cancelled for failure to renew); tactile sensations (a velvet wine-bottle cover was registered in 2006 by American Wholesale Wine & Spirits, Inc., as Reg. No. 3155702); sounds (NBC’s chimes, Reg. No. 916522; AOL’s “You’ve Got Mail,” Reg. No. 2821863; and Homer Simpson’s “D’oh!,” registered in 2008 as Reg. No. 3411881); and even motions (LucasArts registered a moving mark as Reg No. 1872866, as did 20th Century Fox in Reg. No. 1928423).

(d) **Establishing Trademark Rights**

**Use Requirement**

In the United States, trademark and service mark rights are established and maintained through the adoption and actual use of a mark on products or in the provision or advertising of services. Except as described below, mere intent to open a business or to use a mark in the future is insufficient to establish trademark or service mark rights.

**Practice Note**

In contrast, many countries allow persons to register and reserve rights in marks that they neither use nor have a bona fide intent to use.

Actual first use of a distinctive mark in commerce is important in establishing the priority of rights over a user of a conflicting mark. A mark is generally enforceable only against subsequent use of the same or a confusingly similar mark in connection with the same or related goods or services. When a conflict arises between rival claimants, proof of priority of use will ordinarily be a critical element.
to prevail. Therefore, careful records should be kept of the date of the mark’s first use.

**Intent-to-Use Registration**

In 1988, the law was amended to permit the reservation of a mark before any use of the mark occurs, provided there is a *bona fide intent* to use the mark in commerce. Within six months of allowance of the intent-to-use application, the applicant must file an affidavit stating that the mark has in fact been used, but also has the option to request a six-month extension to file the statement. The first such extension is automatically granted; subsequent six-month extensions—up to a total of three years postallowance—can be obtained only upon a showing of good cause. Only after the applicant files the statement will the PTO issue a registration. The effective date of registration relates back to the filing date of the intent-to-use application.

An application for registration of a mark in the United States is made in the PTO. A registration under the Lanham Act is effective for ten years. However, the full term of protection is subject to filing an affidavit of continued use in the sixth year (subject to a six-month grace period). Marks may be renewed for additional ten-year periods with proof of continued use (the sixth-year affidavit is required only during the initial term).

**Benefits of Federal Registration**

Although trademark rights are acquired by appropriation and use, and exist independently of registration, federal registration under the Lanham Act confers both procedural and substantive benefits.

Registration on the principal register affords the owner maximum benefits. Registration on the supplemental register is granted under the more relaxed standard that the mark is “capable of distinguishing applicant’s goods or services”; a supplemental registration confers fewer benefits and may be thought of as a holding pen for descriptive marks until they acquire distinctiveness.

Registration on the principal register constitutes prima facie evidence of the validity of the registration, the registrant’s ownership of the mark, and the registrant’s exclusive right to use the mark in connection with the specified goods or services. Such registration provides nationwide constructive notice to the public, effectively eliminating a second user’s good-faith defense. After five years of continuous use following registration, and upon the filing of an affidavit of continuing use with the PTO, the registrant’s exclusive right to use the mark becomes “incontestable,” except as to prior continuous users and subject to the
defenses that the mark is functional, is being used fraudulently, or has been abandoned or become generic, or that the registration was obtained fraudulently or in violation of the prohibition on registering immoral matter, U.S. flags, or the names of living individuals without consent.

Registration on either the principal or supplemental register entitles the owner to

- use the R-in-a-circle symbol—®—or one of the alternative statutory forms of notice, “Registered in U.S. Patent & Tm. Off.” or “Reg. U.S. Pat. & Tm. Off.”;
- sue in federal court; and
- seek injunctive relief, money damages (including the defendant’s profits, the registrant’s damages, court costs, and, in “exceptional” cases, attorney fees), and the destruction of labels, signs, advertising, and packaging materials bearing an infringing mark.

State Registration

Most states have enacted state trademark and service mark registration statutes based, in many instances, on the International Trademark Association’s Model State Trademark Bill. These state laws provide a mechanism for registering marks used exclusively within one state or otherwise not qualifying for federal registration. State registration is typically quick and inexpensive because the application is examined primarily for conformity to requirements of form. A state registration adds little substance to the owner’s rights under common law principles of trademark and unfair competition, but will be included in most search reports to alert subsequent users of the mark’s existence. Usually the state registration will constitute statewide constructive notice. In addition, a state registration permits the owner to use the legend “Registered Trademark [Service Mark]” or “Reg.Tm.[Sm.]” which may be of psychological importance and have potential deterrent value.

(e) Rights of the Trademark Owner

A trademark owner’s most fundamental right is the right to prevent others from trading on the owner’s goodwill by confusing or deceiving the public into purchasing a product or service through the use of a confusingly similar mark. The essential question is whether the use of a similar mark by another results in a “likelihood of confusion” among the buying public. The factors to be considered include
the strength of the mark,

• the degree of similarity between the products or services,

• the degree of similarity between the marks,

• overlapping marketing channels,

• sophistication of the prospective buyers,

• the cost of the goods/services,

• the likelihood of expansion of product lines (a.k.a. the “zone of expansion”), and

• the defendant’s good faith in adopting its mark.

The owner of a federally registered mark can bring an infringement action in either federal or state court. Remedies under the Lanham Act (as noted above) include injunctions against infringement, as well as recovery of the defendant’s profits, damages sustained by the owner of the mark, costs of the action, and, in exceptional cases, attorney fees.

(f) Abandonment of Trademark or Service Mark Rights

Abandonment of a mark generally extinguishes the former owner’s protectable rights in the mark. Under the Lanham Act, abandonment of a mark is a complete defense in an infringement lawsuit, forms the basis for cancellation of a federal registration at any time, and prevents the mark’s registration from impeding an application for federal registration of a confusingly similar mark.

Abandonment can arise in two ways under the Lanham Act. First, abandonment can occur through nonuse of the mark together with the intent by its owner not to resume use. Second, abandonment can occur when any course of the registrant’s conduct, including acts of commission or omission, causes the mark to lose its significance as an indication of origin.

Under the first standard, intent not to resume use typically must be inferred from the surrounding circumstances. The Lanham Act provides that nonuse for three consecutive years is prima facie evidence of abandonment. 15 U.S.C. § 1127. If a delay between the initial use and the commencement of continuous use is expected, or there is a lapse in use after any period of continued use, the mark’s owner should build a record showing that it intends to resume use in order to rebut any inference of abandonment. The owner should create and retain records.
documenting the developmental history of the product or service, the commercial reasons for delay, and the fact that the owner expects to resume regular use, for example, when distribution programs or service capabilities are ready for full-scale business or when certain improvements needed for profitable marketing are successfully implemented.

Abandonment through loss of trademark or service mark significance typically occurs in a number of contexts. All rights in a mark will be extinguished if the mark becomes a generic or common descriptive word for the associated product or service. Aspirin, shredded wheat, cellophane, and escalator are well-known words that were once proprietary trademarks. An owner may also lose rights in a mark if it fails to police and challenge misuse and infringement of the mark and such misuse or infringement becomes so prevalent that the relevant consuming public no longer associates the mark with a single source of goods or services. Steps to avoid this result include the monitoring of marks published for opposition in the PTO’s Official Gazette, monitoring use of the mark in trade publications and print and electronic media, and written notice to any infringing party and other proactive conduct to extinguish infringement.

Other ways in which a mark owner may have its rights in a mark deemed abandoned is through unsupervised or “naked” licensing of the mark or by “assignment in gross.” All trademark or service mark license agreements should include a provision allowing the licensor a right to control the nature and quality of the goods or services with which the mark is used, generally including specified inspection rights to ensure compliance, of which the owner should avail itself from time to time (some courts have held that merely possessing the contractual right to control quality, but never making efforts to exercise this right, is not sufficient to avoid abandonment). Further, assignment of a mark without an assignment of the accompanying goodwill operates as an abandonment of the assignor’s rights in the mark. Unless evidence to the contrary exists, there is a presumption that trademark or service mark rights pass with the sale of a business with which the mark was used.

(g) **Domain Names and the Internet**

The Internet, a massive electronic matrix of interconnected networks of computers all over the world, has been described as the “information superhighway,” providing access to information on government, world affairs, health, and nearly every other topic imaginable. More importantly for businesses, the Internet has been heralded as the ultimate marketing tool for the computer age. All a company has to do is set up an electronic “page” on the World Wide Web, at its chosen “domain name” (Web address), and the public can visit the company’s Internet “showroom” at any time without leaving the comfort of their own home or office.
Practice Note

Most companies prefer to adopt as their domain name their already existing and well-known company name or registered trademark, or some variation of it.

Domain names have produced an explosion of trademark battles. Competitors and third parties have registered as their own domain names the registered trademarks of others. A former MTV employee registered the domain name “mtv.com,” giving rise to a trademark infringement suit by MTV, subsequently settled. A New York journalist registered the domain name McDonalds.com, and McDonald’s Corporation had to spend $3,500 to provide Internet access to a New York City school to get the journalist to surrender the name. Sprint Communication Corporation tried to register “mci.com,” although this attempt was blocked.

For companies seeking to challenge another person’s adoption or use of a particular domain name, there are two basic routes. The first is an administrative challenge under the Uniform Domain Name Dispute Resolution Policy of the Internet Corporation of Assigned Names and Numbers (ICANN), which requires the challenger to show that it owns a mark that is the same or confusingly similar to the challenged domain name, that the registrant has no legitimate rights in that name, and that the name was registered and used in bad faith. The remedy for a successful challenge is cancellation or transfer of the domain.

The second is a civil suit under the Anticybersquatting Consumer Protection Act, enacted in 1999, which created a new cause of action allowing suits against anyone who, having a bad intent to profit from another’s mark, registers, traffics in, or uses a domain name that is confusingly similar to that mark or, if the mark is famous, is confusingly similar to or dilutive of that mark. In addition to damages for violation, the court may order forfeiture, cancellation, or transfer of the domain name. 15 U.S.C. § 1125(d). This act also created a cause of action against a person who “registers a domain name that consists of the name of another living person, or a name substantially and confusingly similar thereto . . . with the specific intent to profit from such name by selling the domain name for financial gain.” In addition to damages, a successful plaintiff can obtain injunctive relief, including forfeiture or cancellation of the domain name or its transfer to the plaintiff; the court in its discretion may award costs and attorney fees to the prevailing party. 15 U.S.C. § 8131.

(h) Computer Software and Biotechnology

The rules relating to protection of trademarks for computer or biotechnology products do not differ from those applicable to other goods and services. However,
computer trademarks can present problems. For example, in *Goal Systems International, Inc. v. CPI Corp.*, 225 U.S.P.Q. 739 (D. Minn. 1984), the vendor of a computer program known as “Phoenix” sought to enjoin the use of that term by a manufacturer of word processors; the court declined to issue an injunction, noting that the customers of both companies were sophisticated. *Cf.* *McDonald’s Corp. v. Arche Techs., Inc.* (N.D. Cal. 1990) (defendant computer maker enjoined from using a golden arch logo under a California dilution statute, but no infringement of the fast food retailer’s federal trademark and service mark registrations of the “golden arches” logo); *Safeguard Bus. Sys., Inc. v. New Eng. Bus. Sys., Inc.*, 696 F. Supp. 1041 (E.D. Pa. 1988) (“Fastform” permitted to be used for both an accounting system and word processing software).

### § 2.1.5 Selection of Appropriate Form of Protection

The different forms of protection described above constitute the body of intellectual property law. In some cases, the combination of two or more forms may yield greater protection for a particular product, technology, or information than one form alone. In other cases, one form of protection is sufficient. To the extent one or more such forms are available, several issues must be considered to determine which, if any, protection should be pursued.

For any particular product, technology, or information, one or more such forms may be available, and the selection of the appropriate form or forms of protection depends on practical, technical, and business considerations as well as the legal issues of qualification for particular forms of protection. Further, if more than one is available, the relative costs and benefits need to be analyzed for the optimal selection.

As described above, the various forms of protection have quite different characteristics. Their combination may provide strengths; some forms are mutually exclusive: for example, trade secret protection in the patented aspects of a product or technology is irrevocably lost when the patent issues.

**Practice Note**

An example of successful concurrent use of trade secret and copyright protection is *GCA Corp. v. Chance*, 217 U.S.P.Q. 718 (N.D. Cal. 1982), where a preliminary injunction was granted on the basis of trade secret misappropriation and copyright infringement claims involving unpublished computer programs.

Copyright and patent protection can be combined to protect different elements of the same product. For example, patent protection may be secured on the novel aspects of the processes underlying a computer program, while copyright protects
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the program expression. *In re Yardley*, 493 F.2d 1389 (C.C.P.A. 1974); Kline, “Requiring an Election of Protection for Patentable/Copyrightable Computer Programs” (Parts I and II), 67 J. Pat. & Trademark Off. Soc’y 280, 339 (1985). As noted above, the publication of a patent application or issuance of a patent results in public disclosure of the contents of the patent application, destroying any trade secret disclosed in the patent file.

Trade secret law can be used to protect information relating to an invention. Upon issuance of the patent (or earlier publication of the application), the information contained in the patent application is published and, therefore, no longer secret, but unpatentable know-how and other information properly not disclosed that is associated with the invention may remain secret as long as sufficient disclosure is made in the patent application to satisfy the statutory disclosure requirements. *Modern Controls, Inc. v. Andreadakis*, 578 F.2d 1264, 1269 n.10 (8th Cir. 1978); *Data Gen. Corp. v. Digital Computer Controls, Inc.*, 357 A.2d 105, 113 (Del. Ch. 1975). Further, trade secret protection remains available if a patent application is rejected or abandoned (provided the application has not already been published). Trade secret law is not preempted by the federal patent laws. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470 (1974).

Copyright law protects the expression of an idea; patent law protects the physical exploration, embodiment, or implementation of an idea; trade secret law may protect both expression and physical embodiment of the idea, as well as the idea itself, to the extent it can be maintained a relative secret. Trademark law, on the other hand, does not protect the underlying invention, idea, or product, but rather protects the commercial identity of the product or service, the name and brand by which it is known in the marketplace, as a means both to assure buyers of the quality associated with a particular source and to distinguish the product or service from those of other persons.

Some labels and trademarks can be copyrighted. Patent and trademark law overlap where a package or product shape is alleged to function as a trademark—a shape that is functionally advantageous enough to obtain a utility patent cannot be nonfunctional so as to qualify for trademark protection. *Best Lock Corp. v. Schlage Lock Co.*, 413 F.2d 1195 (C.C.P.A. 1969). This earlier ruling was affirmed in *TrafFix Devices, Inc. v. Marketing Displays, Inc.*, 532 U.S. 23 (2001), in which a unanimous Supreme Court held that the dual spring structure of a highway construction sign that had been the subject of a utility patent was ineligible for trademark protection after the patent expired. However, dual patent and trademark protection may be available for a design patent where the shape or configuration of an article or container not only is new, original, and ornamental, but also functions to identify and distinguish the source of goods. *In re Mogen David Wine Corp.*, 372 F.2d 539 (C.C.P.A. 1967). *But see Kellogg Co. v. Nat’l Biscuit Co.*, 305 U.S. 111 (1938).
§ 2.2  ANTITRUST CONSIDERATIONS PERTAINING TO LICENSING PRACTICES

Practitioners must be aware of the effect and applicability of antitrust laws on intellectual property licensing practices. Courts have analyzed a company’s refusal to license copyrighted works under antitrust laws, and the Department of Justice and the Federal Trade Commission have released antitrust guidelines for the licensing of intellectual property. Relevant case law and these guidelines should be consulted.

§ 2.2.1  Refusal to License

Permissible licensing practices were addressed in Data General Corp. v. Grumman System Support Corp., 36 F.3d 1147 (1st Cir. 1994). The Appeals Court affirmed in part the jury verdict in favor of Data General on its copyright infringement and trade secret misappropriation claims. Perhaps the most important aspect of the case was the attack on Data General’s licensing practices, which restricted licensees of its diagnostic software for computers to those customers performing their own maintenance, as a violation of the antitrust laws. Grumman had alleged that Data General’s actions constituted an unlawful tying arrangement and its refusal to license its software was a monopolization violation. The First Circuit, in a decision favoring copyright holders, found insufficient evidence that Data General conditioned the licensing of its software to a promise to either purchase services from Data General or not purchase services from anyone else. Further, the First Circuit found that a refusal to license a copyrighted work is a presumptively valid business justification for any immediate harm to consumers. The court confirmed the propriety of Data General’s unilateral refusal to license its copyrighted software to anyone other than qualified self-maintainers. In a related case, underscoring the megabucks nature of intellectual property disputes, the District Court granted summary judgment to Data General against the parent company of Grumman Systems Support as vicariously liable for the copyright and trade secret judgments, a total of $63,294,000 (including a $9 million award based on a finding that the trade secret misappropriation was willful). Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d at 1180–88.

§ 2.2.2  DOJ/FTC Antitrust Guidelines for the Licensing of Intellectual Property

In April 1995, the Antitrust Division of the Department of Justice (DOJ) and the Federal Trade Commission (FTC) released new antitrust guidelines for the licensing of intellectual property. Under the 1995 guidelines, licensing arrangements are
analyzed under the “rule of reason” unless the likely effect of a restraint is plainly anticompetitive and per se illegal. Specifically, the guidelines apply the rule-of-reason framework to resale price maintenance (where the licensor fixes the licensee’s resale price for the licensed product), tying arrangements (which condition the licensing of one item on the purchase of another), cross-licensing (where two or more owners of different technologies license each other), exclusive dealing arrangements, and grantbacks (where the licensee gives the licensor the right to use the licensee’s improvements to the technology). These guidelines establish a safety zone for intellectual property licensing arrangements for entities that collectively account for not more than 20 percent of each relevant market affected by the restraint (as long as the restraint is not anticompetitive on its face). In addition, the guidelines affirmatively state that nonexclusive licensing arrangements are unlikely to result in anticompetitive effects, and that if the companies affected by the license would not have been actual or likely competitors in a relevant market absent the license, generally the arrangement cannot result in harm to the economy and will not be considered to have an adverse effect on competition.

The FTC and DOJ weighed in again in 2007 with their joint report, “Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition.” The report followed a series of hearings conducted in 2002, entitled “Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy.” The agencies emphasized that they would analyze most conduct involving IP rights under a flexible “rule of reason” approach. Among the specific conclusions reached were the following:

- antitrust liability would be unusual for mere unilateral refusals to deal, whereas conditional refusals causing competitive harm would be subject to antitrust scrutiny;
- combining complementary patents within a pool is generally pro-competitive;
- collecting royalties after the patent term may be efficient, for example, by permitting licensees to pay lower royalties over a longer period, thus reducing the “deadweight loss associated with a patent monopoly”;
- the agencies would apply a rule-of-reason analysis to assess IP license agreements, including nonassertion clauses, grantbacks, and reach-through royalty agreements.

Courts have also weighed in on the relationship of intellectual property to antitrust law. In In re Independent Service Organizations Antitrust Litigation (CSU, L.L.C. v. Xerox Corp.), 203 F.3d 1322 (Fed. Cir. 2000), the Federal Circuit affirmed a District Court decision that rejected antitrust liability based on Xerox’s unilateral refusal to sell patented parts or to license patented and copyrighted software to independent service organizations seeking to compete with Xerox in the servicing of its copiers and printers. As the court stated, a patentee is “under no obligation to sell or license its patented parts and does not violate the antitrust laws by refusing to do so.” In re Indep. Serv. Orgs. Antitrust Litig. (CSU, L.L.C. v. Xerox Corp.), 203 F.3d at 1328.

§ 2.3 EMPLOYMENT/OWNERSHIP ISSUES: WORK FOR HIRE, HIRED TO INVENT, AND RELATED DOCTRINES

The nature and interrelationship of the various forms of intellectual property and the different interests protected have critical importance with respect to ownership of the rights to the information, materials, and inventions developed or used in a company’s business.

The copyright and patent laws, both creatures of statute, have specific provisions relating to the identity of the owner. However, neither the Restatement of Torts nor the Uniform Trade Secrets Act impose upon an owner of a trade secret any formal “ownership claim” requirements, nor is such a requirement imposed by the case law.

§ 2.3.1 Copyright Ownership Considerations

The 1976 Act contains a number of assumptions concerning initial ownership of copyright for individual authors, joint authors, works made for hire, and contributions to a collective work. The circumstances under which a piece of work was created must be taken into consideration. In addition, a copyright owner may transfer his or her rights in a work, subject, however, to inalienable termination rights pursuant to Section 203 of the Copyright Act.
(a) **Authorship**

Initially, copyright vests in the author or authors of the work. Under the 1909 statute, the act of publication was usually regarded as the pivotal act in securing federal protection, and copyright protection was usually secured by the publisher. Before 1978, when copyright was regulated by the 1909 Act, either federal statute or state common law protected a literary work, photograph, painting, or other copyrightable work, depending on whether the work had been published. If it was unpublished, the creator had a common law copyright protected by state law; if publication had occurred, then federal law applied. Under the 1976 Act, both published and unpublished copyrightable works are protected by the federal statute. Under the 1976 Act, the act of fixation of an original work in tangible form supersedes publication as the crucial copyright act, and the author is clearly identified as the first owner of copyright.

Where two or more authors create a work, the 1976 Act provides that the joint authors are “coowners of copyright in the work,” with each having the right to do with the work as he or she wishes, subject to a duty to account to other coowners. 17 U.S.C. § 201(a). A joint work is one prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole. Under the majority view, to qualify as a joint author one must contribute copyrightable authorship to the work, not merely ideas or other noncopyrightable contribution. *See Ashton-Tate Corp. v. Ross*, 916 F.2d 516 (9th Cir. 1990).

A joint work should be distinguished from a collective work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole.

**Example**

If two or more persons collaborate in the creation of a work, or write separate subparts intending to merge them into a single work, they are joint authors for copyright purposes and coowners of copyright in the entire work. By contrast, if two or more persons write separate subparts that are subsequently merged into a single work, the resulting work is a collective work, and the authors are entitled to ownership of copyright in their respective subparts, but not to coownership of copyright in the work as a whole.
(b) **Works Made for Hire**

In the case of works made for hire, the 1976 Act provides that the employer or other person for whom the work made for hire was prepared is considered the author and owns all of the rights comprised in the copyright. There are two categories of works made for hire:

- a work prepared by an employee within the scope of his or her employment and
- any of nine specific types of works (identified below) that are specially ordered or commissioned from an independent contractor or consultant, provided that the parties agree in writing that the work shall be considered a work made for hire and the nature of the work fits within the statutory categories.

This second category of works made for hire—specially ordered or commissioned works—covers certain situations where a work is ordered or commissioned from an independent contractor or consultant. To qualify as a work made for hire, in addition to the express written agreement of the parties that it is to be considered a work made for hire, the work must fit within one (or more) of the specified statutory categories, which include the following:

- a compilation;
- a contribution to a collective work;
- supplementary material such as illustrations, musical arrangements, or editorial notes;
- a part of a motion picture or other audiovisual work;
- a translation;
- an atlas or an instructional text;
- a test; and
- answer material for a test.

If the work does not fit within one of these categories, even if specially ordered or commissioned, it will not be considered a work made for hire. Most computer programs do not fit within any of these categories and may not be treated as works made for hire under the Copyright Act, even if specially ordered or commissioned, unless authored by an employee. (Some possible exceptions exist,
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such as a module developed for inclusion in a larger program; software documentation serving as an instructional text; and “porting” an existing program to another computer language or hardware platform.)

Since many copyrightable works do not fall under the limited categories of works eligible for work-for-hire treatment under the second category, a number of cases have considered the extent to which a relationship may be considered “employer-employee” to trigger application of the first category of the work-for-hire provision. Some courts adopted a “right to control” test, others an “active supervision” test, and still others a more literal interpretation. The Supreme Court resolved the split among the circuits in 1989 in Community for Creative Non-Violence v. Reid, 490 U.S. 730 (1989), affirming the use of common law agency principles in determining if a commissioned party is an employee for purposes of the work-for-hire doctrine.

Practice Note
Since there is no bright-line test, in those industries that have traditionally relied on oral agreements with freelancers and independent contractors, such as publishing and computer software, unless the commissioning party can be assured that it may consider the contractor as its employee, some form of written agreement is critical, and an agreement combining work-made-for-hire designation with an immediate backup assignment (“In confirmation thereof, I hereby assign . . .”) is the gold standard.

Two important consequences flow from work-made-for-hire treatment in either category, at least from the employer’s point of view. The employer’s rights are not subject to termination after a period of time at the behest of the individual author or the author’s family (under Section 203 of the Copyright Act), and a work made for hire is governed by a different term of protection than that which applies to a work of individual or joint authorship. The copyright for a work for hire lasts for ninety-five years from the date of first publication or 120 years from the date of creation, whichever comes first, whereas the copyright for a work that is not a work made for hire lasts for the life of the author plus seventy years (even if the copyright is assigned to another person). All transfers, assignments, and licenses of copyrights (excluding those transferred to an employer as a work make for hire) are terminable, upon two to ten years’ notice, during a five-year period beginning thirty-five years after the assignment or license; this right is not subject to waiver in advance. Further, if an outside contractor or consultant is engaged for any work, the engagement should be in writing and should include language of assignment.
Transfer

Ownership of a copyright, or any of the exclusive rights separately, may be transferred by assignment, mortgage, or exclusive license. Upon the death of the owner (if the owner is a natural person), the copyright is treated as personal property. A person owning an exclusive right may sue in its own name anyone who has infringed that particular right. Under the Copyright Act, the transfer must be in writing and signed by or on behalf of the owner of the rights conveyed. A transfer may be recorded in the Copyright Office.

§ 2.3.2 Trade Secrets and Patents

Absent an express agreement with respect to ownership of employee developments, the ownership of trade secrets and confidential information developed by an employee will depend on the purpose for which the employee was hired and whether the discovery was within the scope of the employee’s employment or involved the use of the employer’s resources. Common law rules governing ownership of employee inventions have developed under patent law, and the same principles are generally applied to trade secrets and confidential information.

Three different categories of employment have different implications for ownership. Robert L. Gullette, “State Legislation Governing Ownership Rights in Inventions Under Employee Invention Agreements,” 62 J. Pat. & Trademark Off. Soc’y 732 (1980). Some courts use a simpler distinction between inventive and noninventive employees. See, e.g., United States v. Dublier Condenser Corp., 289 U.S. 178, amended, 289 U.S. 706 (1933). In the first category, where the employee is hired to invent a specific invention, or achieve a specific result, the resulting invention is within the scope of employment and belongs to the employer.

In the second category, the employee has been hired to invent, but has no specific instructions and no specific invention or result is expected. Inventions by this type of employee may fall outside the scope of employment and may not necessarily relate to the employer’s business and, therefore, may belong to the employee. The employer must demonstrate that the resulting invention was within the scope of employment, and thus under an implied contract belongs to the employer, or the employer should obtain an express agreement as to ownership.

In the final category, where an employee has not been hired to invent, even if the employee discovers inventions that are of use to the employer or relate to the employer’s business, the common law rule is that the invention belongs to the employee, regardless of whether employer time or facilities have been used in the course of the inventing. The underlying rationale is that the employee is not compensated for inventing.
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However, even where the employee owns the discovery, the ownership is subject to a “shop right” in favor of the employer. Under this doctrine, if the employee uses the employer’s time, materials, tools, or facilities to create an invention, the employer has a nonexclusive royalty-free right to practice the invention. However, since the underlying premise of the shop right rule is implied consent by the employee, the shop right may be negated if the employee can show that the employer misrepresented the potential of the invention.

A patent can issue only to a natural person or the patentee’s assignee (which may be a legal entity, such as a corporation). An express agreement transferring or assigning inventions or discoveries to the employer avoids the uncertainties of common law, assures an effective patent assignment, and may be essential to an effective trade secrets assignment. Use of a so-called holdover or trailer clause in a written agreement also gives the employer the opportunity to preclude an employee from trying to avoid the assignment of an invention by leaving a critical step incomplete until after terminating the relationship; clauses relating to post-termination inventions are generally valid if reasonably related to the former employment and reasonably limited in time. See Nat’l Dev. Co. v. Gray, 316 Mass. 240, 250 (1944). Moreover, a written agreement to assign may enable the employer (or other assignee) to file a patent application on behalf of and as agent for the inventor if the inventor refuses to execute the application or cannot be found or reached after diligent effort. An invention assignment is interpreted and enforced under state law, and its provisions supersede the common law rules otherwise applicable.

A number of states have enacted statutes regarding the use and scope of employee invention assignment agreements. These laws allow agreements within certain terms and invalidate provisions, or even entire agreements, that fail to comply with their requirements. The statutes differ in the extent of coverage they provide.

Practice Note
Although Massachusetts does not have such a statute, companies with facilities and employees in other states should determine if any statutory restrictions are applicable in those locations.

§ 2.3.3 Rights and Duties of Employees

(a) General Principles

In Junker v. Plummer, 320 Mass. 76 (1946), the court recognized that an employee, upon terminating employment, may carry away and use the general skill
or knowledge acquired during the course of the employment. See also Peggy Lawton Kitchens, Inc. v. Hogan, 18 Mass. App. Ct. 937 (1984). However, the relationship of employer and employee creates certain obligations, including the obligation of an employee to refrain from using, for his or her own advantage or that of a rival and to the harm of his or her employer, confidential information that the employee has gained in the course of his or her employment. Woolley’s Laundry, Inc. v. Silva, 304 Mass. 383, 386 (1939). This duty arises from basic principles of equity and does not depend on the existence of a written contract. New Eng. Overall Co. v. Woltmann, 343 Mass. 69, 75 (1961). The fact that the employee does not physically take from the former employer any list or paper “does not prevent the former employee from being enjoined if the information which he gained through his employment and retained in his memory is confidential in nature.” Jet Spray Cooler, Inc. v. Crampton, 361 Mass. 835, 840 (1972). An employee may bring to the job considerable knowledge and extensive experience acquired prior to that particular employment. If an employer seeks to restrain the employee’s subsequent use of special abilities, “the employer has a heavy burden of isolating the secret for which he claims protection and of demonstrating that the employee is left free—questions of good faith and reasonable contract restrictions apart—to use the knowledge and skill he brought to the job.” Dynamics Research Corp. v. Analytic Scis. Corp., 9 Mass. App. Ct. 254, 268 (1980).

As competition intensifies and technological change accelerates, the protection of intellectual property becomes increasingly important to the survival and success of companies of all types and sizes. In recent years, there has been an explosion of intellectual property litigation arising from claims that proprietary information has been stolen by key employees defecting to competitors. Thus, case law provides guidance on the scope of proper conduct for departing employees and competing businesses.

The basic precepts of trade secret law in the employment context can be simply stated:

- protectable trade secrets or confidential information consists of information used in a business that gives an opportunity to gain a competitive advantage;

- an employee may not solicit the employer’s customers, and managerial employees (at least) may not solicit the employer’s employees, on another’s behalf while still working for that employer;

- an employee has an obligation not to use or disclose an employer’s trade secrets and confidential information after employment ends,
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regardless of whether the employee has signed an express nondisclosure agreement;

• an employee may not act for his or her future interests at the expense of the employer by using the employer’s funds, physical resources, or employees for personal gain or by a course of conduct designed to hurt the employer;

• an at-will employee may properly plan to go into competition with his or her employer, may take active steps to do so while still employed, and has no general duty to disclose such plans to the employer; and

• to be entitled to protection against a former employee’s use of company information, the employer must have taken reasonable precautions to safeguard the confidentiality of the information.

(b) Reasonable Precautions to Safeguard Confidentiality

In Data General Corp. v. Grumman System Support Corp., 36 F.3d 1147 (1st Cir. 1994), discussed above in connection with its antitrust implications, the federal District Court noted that Data General took reasonable precautions to protect its diagnostic software through the following steps:

• the employer obtained confidentiality agreements from employees;

• at termination of employment, employee interview checklists were completed;

• the company distributed a brochure that detailed its confidentiality policy;

• the company used security guards;

• the company required visitors to sign in;

• the company did not allow unescorted visits;

• the company restricted employee access to development areas;

• the company labeled computer tapes as property of the company;

• the company used a copyright notice;

• the company did not distribute source code; and

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• the company obtained customer agreements preventing unauthorized disclosure to third parties.

Data Gen. Corp. v. Grumman Sys. Support Corp., 36 F.3d 1187–89 (1st Cir. 1994). Reasonable precautions were found lacking in Augat, Inc. v. Aegis, Inc., 409 Mass. 165 (1991) (Augat I); and Augat, Inc. v. Aegis, Inc., 417 Mass. 484 (1994) (Augat II). In that situation (appealed several times on the issue of the proper calculation of damages), although a managerial employee planning to leave to join a competing start-up had provided the start-up with his employer’s gross annual sales figures to help in writing the business plan to obtain venture capital, the court found that there was no misappropriation of confidential information because the employer did not consistently and diligently treat the level of its annual sales as a confidential corporate fact.

Preparing to Compete: Recruitment of Employees

In Augat, the Supreme Judicial Court made it clear that a key managerial employee, while still employed, may not secretly solicit key employees to leave their employment to join in a competitive enterprise while he or she has a duty to maintain at least adequate managerial personnel. One of three stockholders who had sold a company to Isotronics, a manufacturer of high reliability metal microcircuit packages used to house electronic circuits, waited until his agreement not to compete expired and formed a competing company, Aegis. He then contacted an Isotronics general manager, offering him employment and equity in Aegis, and the general manager accepted. Prior to leaving Isotronics, however, this managerial employee secretly solicited four other senior managerial Isotronics employees to join Aegis once it had funding. In the span of two months, the general manager and three other key employees left Isotronics and joined Aegis. The court held that Aegis was liable under G.L. c. 93A for the former Isotronics general manager’s breach of his duty of loyalty to Isotronics in not protecting his employer’s interests against the loss of key employees to Aegis.

Inevitable Disclosure

Even in the absence of a noncompetition agreement, some employers have attempted to enjoin a former employee from working for a competitor on the ground that the employee will inevitably disclose trade secrets or confidential information in working for the competition by virtue of the employee’s job responsibilities. Massachusetts courts have not clearly spoken on this issue. Inevitable disclosure was addressed in the federal arena in a Seventh Circuit case, Pepsico, Inc. v. Redmond, 1995 U.S. App. LEXIS 10903 (7th Cir. 1995), pertaining to a senior executive involved in the fierce beverage-industry competition over “sports” drinks. The court found compelling the combination of the similarity
in job responsibilities at the strategic level and the conduct of the former employee in his lack of candor prior to terminating his former employment and upheld an injunction based on the likelihood of the employee’s inevitable disclosure of the former employer’s trade secrets.

In the First Circuit, in *Campbell Soup Co. v. Giles*, 47 F.3d 467, 470–72 (1st Cir. 1995), a former employer failed to obtain an injunction. The court distinguished the midlevel sales position occupied by the former employee of Campbell Soup from the senior executive position in *Pepsico* and also found a different balance on the issue of conduct because in this case the credibility issue favored the employee, not the former employer.

A recent case relevant to this discussion, arising under New Hampshire law, is *Amsys, Inc. v. Computational Dynamics North America, Ltd.*, 595 F.3d 75 (1st Cir. 2010). The case involved a former employee of Amsys who had signed an employment agreement with a broadly worded noncompetition covenant, but who then left to work for a competitor, CDNA. Amsys argued that to enforce the covenant it had to show only that the employee had access to confidential Amsys information and that he was being employed in a position where he was likely to use it—a version of inevitable disclosure (though relying here on a written covenant). The First Circuit upheld the District Court’s denial of an injunction, holding that to enforce a restrictive covenant in New Hampshire, the employer must show that the covenant is no broader than needed to protect a legitimate employer interest, that it will not unduly burden the employee, and that it does not injure the public interest. Here the Circuit Court would not find that the District Court abused its discretion in holding that Amsys had failed to prove that enforcing the covenant was needed to protect its legitimate interests. The District Court had relied, in part, on the testimony of a CDNA manager that it had a strict policy against employees using former employers’ confidential information, that it was not employing this employee in a position where he might use the Amsys information, and that the information would not be useful to it because the companies’ respective products used very different architectures. In short, a former employer appears to have a heavy burden to meet in New Hampshire to enforce even a written and signed noncompetition covenant relying on inevitable disclosure grounds, let alone obtain an injunction in the absence of a written covenant not to compete.

**Covenants Not to Compete**

A 1992 First Circuit decision compares Massachusetts and New Hampshire law regarding the enforceability of restrictive covenants in employment contracts. *Ferrofluidics Corp. v. Advanced Vacuum Components, Inc.*, 968 F.2d 1463, 1468–71 (1st Cir. 1992). In deciding a choice of law question, articulating the
Massachusetts rule that a restrictive covenant “is not invalid and may be enforced in equity provided it is necessary for the protection of the employer, is reasonable in time and space, and is consonant with the public interest,” Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1468 (quoting Novelty Bias Binding Co. v. Shevin, 342 Mass. 714, 715 (1961)), and the New Hampshire rule that a restrictive covenant is considered reasonable so long as it is “no greater than necessary for the protection of the employer’s legitimate interest, does not impose undue hardship on the employee, and is not injurious to the public interest,” Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1469 (quoting Moore v. Dover Veterinary Hosp., Inc., 367 A.2d 1044, 1047 (N.H. 1976)), the court concluded that the rules are essentially the same in both states, imposing a reasonableness standard. There are three approaches taken by courts presented with unenforceable provisions—the “all or nothing” approach, which voids the restrictive covenant entirely; the “blue pencil” approach, which enables the court to enforce the reasonable terms provided that the covenant remains grammatically coherent once its unenforceable provisions are excised; and the “partial enforcement” approach, which reforms and enforces the restrictive covenant to the extent it is reasonable absent circumstances indicating bad faith or overreaching by the employer.

Both Massachusetts and New Hampshire take the “partial enforcement” approach. Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1469. In Ferrofluidics, the court declined to apply an automatic “bad faith” rule regarding the timing of the initial presentation of the restrictive covenant to the employee, although it did observe that the absence of notice might suggest overreaching and bad faith insofar as it placed the employee in a weaker bargaining position than he or she might have enjoyed, for example, prior to leaving his or her previous job. Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1469. In addition to timing, the court identified several possibly relevant considerations as to the good faith of the employer:

- whether the employer’s general practice regarding employee constraints is fair and designed only to protect legitimate interests;
- whether the employer gave the particular employee a reasonable opportunity to read and understand the covenant;
- whether the employer allowed (or, if asked, would have allowed) the employee to obtain modifications of the covenant or to decline to execute it altogether; and
- whether the terms of the restrictive covenant are so overbroad that they operate, “by in terrorem effect, to subjugate employees unaware of the tentative nature of such a covenant.”
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Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1471 (quoting Blake, “Employee Agreements Not to Compete,” 73 Harv. L. Rev. 625, 683 (1960)). The court emphasized the balance that reviewing courts must strike between vigilance in protecting employees against overbroad and oppressive restrictions on their ability to work and earn a living and an awareness that employers, too, work for a living and are entitled to reasonable protection against the predations of unscrupulous former employees. Ferrofluidics Corp. v. Advanced Vacuum Components, Inc., 968 F.2d at 1471 (quoting Blake, “Employee Agreements Not to Compete,” 73 Harv. L. Rev. 625, 683 (1960)).

In the recent First Circuit case, Astro-Med, Inc. v. Nihon Kohden America, Inc., 591 F.3d 1, 13 (1st Cir. 2009), the court interpreted Rhode Island law to uphold a District Court decision that awarded over $1 million against the departed employee, Kevin Plant, and his new employer, Nihon Kohden, which competed with Astro-Med in the neurological equipment market. Plant had signed an employment agreement that contained noncompetition and trade secrecy clauses. Thereafter, his job changed from product specialist to field sales representative, without a new employment agreement being signed. The court found the noncompetition covenant valid and enforceable, rejecting not merely Nihon Kohden’s jurisdictional and venue challenges, but also its arguments that the court could not enforce an overly broad noncompete (the District Court had reduced the application of the noncompete from North America and Europe to Florida) until a court issues a ruling to limit its excesses and that material job changes as occurred here void a noncompete. To support the latter argument, the defendants relied on Massachusetts case law holding that “[e]ach time an employee’s employment relationship with the employer changes materially such that they have entered into a new employment relationship a new restrictive covenant must be signed,” Lycos, Inc. v. Jackson, 2004 Mass. Super. LEXIS 348 (Mass. Super. Ct. Aug. 24, 2004). (The court also references an earlier Massachusetts case, F.A. Bartlett Tree Expert Co. v. Barrington, 353 Mass. 585 (1968).) The First Circuit noted that in these Massachusetts cases, the courts found that the earlier employment agreements had been rescinded by mutual consent; further, the employees in these cases had refused to sign new employment agreements proffered by their employers that again contained a noncompete, and there was no such evidence of mutual revocation or refusal in the present case. The court also found that the evidence was sufficient to support the damages amount awarded by the jury.

Practice Note
There is an important lesson to be learned, with particular regard to the Massachusetts case law cited. Not only Massachusetts lawyers, but lawyers everywhere, should counsel their employer clients that if they make material changes to the job duties of employees—
particularly key employees whose agreement not to compete is considered important—they should obtain these employees’ express consent to the terms of the original employment agreement that continue to matter (or have them execute new employment agreements containing these terms), including covenants not to compete and covenants not to solicit employees and customers.

Further, in drafting a covenant not to compete, employers should carefully consider the extent of the real need for protection. Traditionally, two legitimate business interests have been identified by the courts: the protection of the goodwill of the employer and the protection of trade secrets or confidential information. However, the first, goodwill, continues to be eroded as a recognized protectable interest and is frequently outweighed by considerations of the relative conduct of the parties. In two 1994 Superior Court cases, separate judges concluded that the goodwill with clients sought to be protected belongs to the employee salesperson, not the ex-employer. First E. Mortgage Corp. v. Gallagher, 22 M.L.W. 48 (Aug. 15, 1994); Tac Temps, Inc. v. Simpson, 22 M.L.W. 48 (Aug. 15, 1994). In 1993 as well, a Superior Court judge declined to enforce an otherwise reasonable six-month restrictive covenant against a cable TV system installer, finding that the former employer’s goodwill would not be impaired as the installer had been let go precisely because the former employer had lost its contract to provide services for the cable TV system in the relevant geographic area. D.C. Wiring, Inc. v. LaMontagne, 22 M.L.W. 11 (Dec. 29, 1993). Also in 1993, in Noblepharma USA, Inc. v. Straumann Co., 21 M.L.W. 46 (Aug. 2, 1993), an employee with a two-year noncompetition agreement joined a competitor after seeking employment for one year, and then tried to negotiate conditions acceptable to the former employer. The judge denied a preliminary injunction, finding that no trade secrets were involved, goodwill did not seem to be jeopardized because the employee denied soliciting any former customers, and the restrictive covenant essentially deprived the employee of the ability to earn his livelihood by prohibiting him from working for any competitor in the United States.

Even the employer’s interest in protecting trade secrets is reviewed with care. In a January 1994 decision, Danieli v. Braverman, 22 M.L.W. 21 (Jan. 1, 1994), a Superior Court judge found that the conference and exposition registration manager of a company that provided event planning did not violate a noncompetition agreement merely by accepting a similar job with a competitor, and that the former employer must do more than simply allege that the employee had access to trade secrets to restrain her from joining a competitor. The judge said employers cannot restrain employees from using the skills and intelligence acquired or improved through experience or instruction received in the course of employment.

There is a downside risk to litigation against former employees and competitors. In a 1993 suit by a company engaged in the sales and service of publishing
equipment, two employees had informed some customers that they were leaving their employment with the plaintiff and responded to inquiries by telling customers they would be employed by the competitor. The former employer alleged that the two employees wrongfully used the customer list and that the competitor helped the employees appropriate the former employer’s customer lists when they changed jobs. The jury found the suit baseless and awarded the competitor $625,000 on its abuse of process counterclaim, and then doubled the award to $1.25 million under G.L. c. 93A, finding that the former employer acted willfully or knowingly in filing the groundless suit merely to gain a competitive advantage. Opti-Copy, Inc. v. Dalpe, 22 M.L.W. 15 (Dec. 27, 1993). A new trial was ordered on the issue of damages. Opti-Copy, Inc. v. Dalpe, 23 M.L.W. 16 (Feb. 6, 1995).

Practice Note
It has been argued that by allowing liberal enforcement of noncompetition covenants, Massachusetts encourages technical professionals to move to other jurisdictions—most prominently, California—where such covenants are generally not enforceable against employees. Therefore, legislation has been introduced in the Massachusetts legislature to prohibit the enforcement of these covenants unless they meet strict conditions, including (in the draft introduced in 2011) that the court consider the employee’s economic circumstances and the effect of enforcement.

§ 2.4 Establishing a Proprietary Rights Protection Program

Intellectual property assets are assets of the business, as are its real property, tangible property, cash, and other assets. An effective proprietary rights protection program provides for the ongoing identification of commercially and competitively important information and materials, periodic review of the optimal methods of protection for such information and materials, and the establishment and maintenance of policies and procedures for a company to use the legal protection available in the most cost-effective manner.

The particular approach adopted must be tailored to fit the organization’s specific needs, based in large part on the manner in which the company exploits or utilizes its proprietary information. Practical measures should be taken not only to ensure the protection of valuable information, but also to evidence attempts to keep trade secrets and to enforce the statutory forms of protection (patent, copyright, and trademark).
§ 2.4.1 Identification of Proprietary Assets

The first step is to identify the company’s proprietary technology as well as the more general business information that enables the company to compete more effectively in generating and marketing that technology.

All types of corporate information are candidates for protection. The identification should be both generic and specific. Generic categories might include scientific, business, personnel, financial, and customer items; specific items within this framework might include marketing studies, research reports, and pricing strategies.

§ 2.4.2 Physical and Organizational Precautions

To effectively use the law of trade secrets, copyrights, patents, and trademarks, policies and procedures must be established within the company to ensure that the legal requirements for such forms of protection are satisfied.

(a) Physical Security Measures

Buildings

Physical access to the company’s buildings should be limited to restrict access to buildings or building areas where trade secrets and confidential information are kept. Procedures should be established to restrict, monitor, and chaperone visitors to the company through the use of self-locking doors to the outside, monitored public access doors, sign-in sheets, identification badges, and guards. Plant tours should be restricted to areas where confidential information cannot be seen or observed. Areas where trade secrets are used, kept, or under development should be segregated through the use of guards, locks, and surveillance cameras. Employees should be required to use sign-in sheets, logs, and identification badges and notices of trade secret policies should be posted. Even employees should not be given free access to all areas, but should be given access to secure areas only as their work requires.

Restricted Areas

Within each restricted area, security procedures should be followed. Photocopying should be restricted, locks used on file cabinets and computers, and removal of information forbidden or limited. Intrusion detection devices should be considered. Records of access to the restricted areas should be kept. For particularly sensitive projects, ideally the work would be broken into segments so that only a
few employees know the details of the entire project. All copies of data should be stored and maintained in a secure area, with an archival copy maintained at another secure site. Copying machines should be segregated from areas where confidential documents are used or maintained. Open workspace should be free of confidential material when unattended. Appropriate warnings should be posted.

Computer System Security

Information stored electronically is particularly vulnerable to unintended or unauthorized access. Passwords or other access keys should be used (and changed regularly) to prevent unauthorized access to confidential information stored on computer systems. When transmitting information electronically to another site, scrambling or coding should be used. The copying of computer-stored information on portable media (such as disks and flash drives) should be prohibited or restricted. All tangible embodiments of trade secrets and confidential information, such as computer disks, printouts, manuals, drawings, source code, or other materials, should be marked as secret and confidential and should be logged and all copies numbered.

Marking and Control of Documents

Control over documents is essential for the success of any proprietary rights program. The first step is the selection of the documents that need to be protected. Overinclusiveness is almost as problematic as underinclusiveness. A high-level manager should be designated in each department to determine what documents and other materials should be protected as confidential. Once selected, the appropriate proprietary information legends should be applied. Confidential documents should be reassessed periodically to determine whether the information contained remains confidential. Obsolete or unwanted confidential documents should be disposed of through the use of shredding machines or incineration. If documents must be sent to another destination, a secure delivery service should be employed; consider using a double envelope, with the inside envelope bearing the appropriate security legend. If hand-carrying is unavoidable, documents should be kept in the individual’s personal possession, sealed in an addressed and legended envelope, not displayed or read in public or on public transport, and kept in a locked container or briefcase.

Document Company Security Efforts

A written company policy should be adopted and periodically reaffirmed. Employees should be required to initial and return a copy of the policy upon commencement of employment and a periodic reminder should be circulated. From time to time, the policy should be reexamined for possible updating. An audit
trail should be created of employee access to secure areas and to computer files. Most importantly, the company should keep records to document the time of creation and value of the technology or information. Such records could include time sheets, budgets, and invoices showing the time, effort, and expense of creating and protecting the technology or information.

(b) Employee Security Measures

It is important for the business to create a climate of awareness among its employees that they have an obligation to preserve and protect its proprietary information.

Entrance Interviews

Each potential employee should receive an explanation of the company security procedures and policy and be provided a copy of the security policy in writing, with an acknowledged receipt from the employee. Specific trade secrets, confidential information, and patents and copyrights to which the employee may have access should be identified. A signed nondisclosure and assignment of invention agreement should be standard. Employees should be required to identify and put into writing any preexisting inventions, ideas, or knowledge to which the employee claims ownership. Prior employment assignments should be screened to ensure no “infection” of the company’s technology or information.

Plant Restrictions

Posters that remind employees of their obligations can be placed in appropriate areas of the plant. Restricted areas, where confidential information is kept or used, should be posted and access restricted.

Periodic Reminders

Managers should periodically remind employees working under their supervision of their confidentiality obligations. If there is a house journal, periodic reminders should be included in it, or a reminder memorandum should be periodically circulated.

Limited Access

Ignorance is the best guardian of a secret. Only employees with a need to know confidential information should have access to it, and then only to that portion of information they require.
Invention Records

One of the biggest problems encountered by companies in the protection and management of their intellectual property is simply “surfacing” the technology for review and evaluation. The preservation of evidence showing date of conception, date of creation, or reduction to practice and diligence in between is particularly important in the context of patents in the event a question of priority of invention develops. It is also important in the context of copyrights and trade secrets in case a question of independent development develops. Employees who may create or invent protectable matter should keep daily records in a notebook, with corroboration by witnesses as appropriate, and the notebooks should be preserved. Invention record forms should be completed and reviewed by legal counsel or other appropriate persons.

Intellectual Property Review Committee

Technology development is an evolving and iterative process. The technology itself may transform from one category of intellectual property to another, or the law may change to accommodate new forms of technology. An intellectual property review committee, whose responsibility is to make a technical, business, and legal evaluation of a company’s technology and information, could review invention records, determine the value of the technology or data, and recommend the best and most cost-effective mode of protection. In addition, in light of the rapid pace of change in both technology and the applicable law, this committee could have the responsibility for overseeing periodic intellectual property “audits” of the company.

Monitor Publications, Articles, and Manuals

All material that will be published by employees (and, where possible, by consultants) and disseminated to the public, including advertising, press releases, speeches, and other promotional materials, should be screened to ensure that appropriate notices of copyright, trademark, and patent are provided, to avoid inadvertent disclosure of information intended to be kept secret and to monitor the date of disclosure of inventions to preclude loss of patent protection under the one-year on-sale bar. Manuals that are distributed to the customer public with the company’s products should be screened to protect against revealing protected proprietary information.

Exit Interviews

Efficient exit interview procedures for departing employees are important. The interviewer should provide a written reminder of the employee’s continuing
obligation not to use or disclose confidential information and recover all keys, badges, security passes, computer disks, laptop computers, Blackberries and other digital assistants, and documents from the employee, recording that these items were collected. The interviewer also has the opportunity to learn where the employee plans to be employed in the future. If a new employer is a competitor, an advisory letter to the new employer may be appropriate, with a copy to the employee, noting that the employee had access to confidential and proprietary information and has a continuing duty not to disclose (or possibly a noncompetition or nonsolicitation covenant that must be obeyed).

**Practice Note**
The content of the exit interview should be confirmed in a memorandum of the meeting signed by the employee.

§ 2.4.3 **Dealings with Third Parties**

Intellectual property is property—it is either an asset of the company or someone else’s asset.

(a) **Nondisclosure Agreements**

It may be necessary to reveal confidential information to third parties in the course of business, such as to suppliers, customers, licensees, contractors, or potential business partners. A confidentiality or nondisclosure agreement (NDA) should be signed by the third party before negotiations begin, and the third party should be required to restrict access to confidential information on a need-to-know basis and to obtain confidentiality agreements from all its employees, advisors, and consultants who may need access to it. Someone should be tasked to ensure that any requirements for protection are complied with—for example, many NDAs provide that the only disclosed information that will be subject to confidential treatment is information contained in tangible items marked “confidential” or information disclosed orally that is followed (within ten to thirty days) by a written summary identifying what confidential information had been shared.

The agreement with the third party should also specify who owns improvements to the idea or invention and specify rights to use after expiration or termination of the agreement. Careful records should be kept to track confidential information disclosed or provided in tangible form (such as a prototype or confidential documents) and to retrieve confidential documents and materials. An express sunset clause (i.e., a clause stating that the agreement not to disclose or use endures only for two, three, or five years after disclosure) should not be agreed to,
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except with respect to information one is confident will either be public or valueless after that sunset date.

(b) The Special Problem of Consultants

A business may hire an outside consultant to perform work that requires disclosure to the consultant of its existing trade secrets or that will result in the creation of new trade secrets or copyrightable or patentable works by the consultant for the business. The consultant’s obligation to assign any and all copyrights and patents and ownership of the trade secrets, and not to disclose any confidential information of the business, should be the subject of a written consulting agreement before the commencement of services.

(c) Government Agencies

Businesses performing under, or bidding on, government contracts must carefully scrutinize the patent and data rights clauses used by the contracting offices for the different governmental agencies. Certain versions of these clauses require the contractor to confer extensive rights to use proprietary information upon the government agency, and proprietary rights can be permanently lost or substantially diluted for failure to mark materials provided with appropriate legends. Even if a company is not a government contractor or subcontractor, confidential documents may be provided to a government agency in connection with a public offering or other regulated activity. To ensure that government officials receiving documents containing confidential information do not inadvertently release them in response to a third-party request under the Freedom of Information Act, any such documents should be prominently marked with a confidentiality legend containing a specific reference to the applicable exemption from disclosure under the Freedom of Information Act or any other applicable confidentiality procedure followed, such as the confidential submission procedures followed by the Securities and Exchange Commission.

(d) Receipt of Confidential Information from Third Parties

A company may receive unsolicited trade secrets, inventions, business ideas, and other materials that could trigger costly litigation, absent appropriate safeguards. A department or a particular nonskilled, nontechnical person should be assigned to review all letters that appear to contain unsolicited materials. Prior to further action on the unsolicited materials, a waiver form should be executed by the submitter. Significant problems may arise if the submitted material is related to development work being carried on by the recipient, especially if the submitted material is rejected and the recipient thereafter introduces a product embodying
the idea of the person submitting it. The submission of an idea may not create a binding obligation if the company obtains a waiver from the submitter. To effect a waiver, submission forms should be tailored to the type of idea submitted. The best approach is to develop a plan whereby persons submitting these ideas are informed at the outset of company policy and are made to express, in writing, their understanding that the company will in no way be bound contractually merely because of the submission of the idea or invention.

(e) Participation in Trade Groups and Standard-Setting Organizations

Many companies seek to participate in trade groups and standard-setting organizations as a means to ensure that they remain familiar with trends in their industry and that they have the opportunity to contribute to and direct the evolution of standards for the technologies that will dominate their market. However, it is critical that a business evaluate the application agreements and promulgated policies of these organizations before joining or contributing to them, since often the group’s intellectual property rights (IPR) policy has implications for the licensing and enforcement of the patents and other intellectual property of members, participants, and contributors. For example, many IPR policies require member representatives sitting on task forces to disclose any patents essential to implementing a technology standard that is under consideration by the task force and may also dictate the type of patent license (e.g., reasonable and nondiscriminatory (RAND) or royalty-free (RF)) that the member must offer other members and third parties.

§ 2.5 INTELLECTUAL PROPERTY IN SELECTED BUSINESS TRANSACTIONS

With the growing recognition in the financial community that the intellectual work product embodied in computer software, technology, and other industries is an asset of great value and of vital importance to a company’s competitive edge within any industry, the protection of this “intellectual capital” has become increasingly important.

In any financial transaction in which value is attributed to intellectual property assets, the practical and legal issues raised by the nature of the candidate’s assets must be considered in structuring the transaction and allocating risks and value, conducting due diligence, and preparing the documentation of the transaction.
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§ 2.5.1 Due Diligence

The investigation of a candidate for financing or acquisition must take into account the practical and legal issues raised by the nature of the candidate’s assets. The level of investigation, or “due diligence,” appropriate to a particular situation varies, of course, with the facts and circumstances involved, including the dollar amount of the transaction and the anticipated importance of the candidate (and its products) in the investigator’s portfolio or product line. The principal purpose of the investigation is to verify the assumptions underlying the price or dollar amount of the transaction.

In conducting the investigation, the candidate’s proprietary technology, or what it makes or provides, as well as the more general business information that enables the candidate to compete more effectively in making and marketing that technology, such as customer lists, employee job descriptions, marketing plans, brand name identification, etc., should be reviewed. Once the technology, products, and confidential business information have been reviewed, the components requiring protection can be reviewed to determine the method or methods of legal protection available. The market and methods of distribution for existing and potential technology and products should be examined to select the channels of distribution and the methods of protection that will maximize profits.

The technical merit of the candidate’s products can be evaluated by the investigator’s own technical staff or by independent expert consultants. Marketability can be addressed by the candidate through its own competitive analyses and other market information. The cornerstone of the investigation is the confirmation of the ownership rights of the candidate in its assets, its continued protection of its proprietary rights, and its freedom to operate in its market with its technology, products, and services.

(a) Ownership Issues

Once the candidate’s assets have been identified and classified as to applicable method of protection, the candidate must be in a position to document its ownership of, or rights to, the technology.

Determination of Origin; Open Source

The origins of the candidate’s products should be carefully investigated to ensure that the appropriate steps have been or can be taken to secure and preserve the necessary rights for commercial exploitation. Particular areas of concern include the rights of the founders, research and development (R&D) partnership
financing, government-sponsored research, affiliation with a university or other academic institution, and implications of employee or third-party development.

If the company develops and licenses computer software, the diligence investigation should include a review of the open source practices of the candidate. Several types of open source licenses contain a “viral” aspect that seeks to open the user’s distributed software to the same free use and adaptation rights as they grant—the GPL (GNU General Public License) is the most popular version of this approach. Therefore, to be sure that it can continue to claim proprietary ownership and control over its software product line, the candidate must be able to demonstrate either that its developers made no use of open source code in developing its products, or that if they did the nature of the use, along with the nature of the open source license terms, has not dedicated the candidate’s software products to uncontrolled public uses.

**Founders**

The candidate must be able to document its succession to all intellectual property rights used in the conduct of its business. Accordingly, the investigator should determine when work began on the candidate’s products (e.g., preincorporation) and whether the founders have assigned their rights to the candidate upon organization. Further, the existence of competing claims to the intellectual property rights should be explored. If the candidate commenced operations fairly recently, the investigator should review any agreements between the founders and prior employers, the founders’ conduct in terminating prior employment, the nature of the business of the prior employers, the founders’ duties as employees, and the implications of any “assignment of inventions” or noncompetition agreements.

**R&D Partnerships**

A financing device occasionally used is the R&D partnership. This may be structured as a seed-capital equity partnership or may be organized by an existing corporation to finance the development of a specific product, product line, or technology. The assignment and licensing agreements that form the underlying structure should be carefully reviewed not only for tax implications but for ownership issues: How has the “technology” been defined? Who owns ancillary or “spin-off” developments? How are royalties calculated?

**Government-Sponsored Research**

The use of government funds, whether by grant or under a contract, has important implications with respect to the government’s rights in the resulting product
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and the method of protection available. For example, the development of software in a project financed in part with federal funds may preclude any proprietary rights of the candidate in the software.

Affiliation with a University or Other Academic Institution

If any of the developers are affiliated with a university or other academic institution, the policies of that institution should be examined for any claim of ownership or other rights that that institution may have.

Implications of Employee or Third-Party Development

As discussed above, absent an express agreement, the ownership or other rights of an employer in the items produced by its employee varies, depending on whether patents, trade secrets, or copyrights are involved. In general, the key element is the nature and scope of employment. The identity of the candidate’s key employees, including specifically those personnel having access to confidential information, and the dates they commenced employment should be obtained. Next, their employment agreements should be reviewed for assignment and ownership of inventions and works of authorship, and for confidential treatment of proprietary information. The existence and nature of any noncompetition covenants or agreements with previous employers should also be reviewed.

Practice Note

For items developed for the candidate by third parties, it is critical to have an agreement between the candidate and the developer providing for the ownership of the work product and prohibiting disclosure or other use. For companies with facilities in other states or countries, the laws of the relevant jurisdiction should be reviewed, as some states and nations have statutes that address the employer’s rights to employee discoveries.

(b) Protection of Proprietary Rights

The investigator should review the candidate’s proprietary protection plan and implementation of that plan with respect to the company’s proprietary technology and information.

Assuming ownership issues have been resolved, the candidate’s compliance with the statutory formalities for maintaining rights should be reviewed. For patents that already issued and for patent applications, the investigator should review the relevant files at the U.S. Patent and Trademark Office for any oppositions, interference proceedings, or claimed security interests. If export of products is contemplated or
ongoing, a review of the foreign patent situation is also required. Finally, the candidate’s vigilance in policing its patents should be analyzed, both in terms of infringing activity within the United States and in terms of attempted importation of infringing goods. The investigator should review the federal registration status of all works protected by copyright. The investigator should review the candidate’s product identification practices, any certificates of registration, the steps the candidate takes to discover and curtail infringement, and the candidate’s proper use of its trademarks and trademark notices in advertising, product brochures, and other materials. The candidate’s agreements should be reviewed for proprietary rights issues in particular. If the candidate has licensed its trademarks, the license agreements should be reviewed to ensure they contain appropriate rights to control quality, and the candidate’s conduct should be considered to ensure that it has actually monitored quality and thereby avoided abandoning its licensed marks.

(c) Market Impediments

In some cases, it may be appropriate to investigate the marketability of the product, process, or technology. A careful search at the PTO (and foreign counterparts) will reveal unexpired patents that could be infringed by the target company’s products, processes, or technology. A trademark search likewise could produce useful information. Further, the breadth or narrowness of any applicable patent claims should be assessed.

§ 2.5.2 Debt Transactions

(a) Third-Party Rights and Loan Risks

As described above, intellectual property law is designed to reinforce incentives for artistic and scientific achievement by balancing the rights of the developer against the interests of others who desire to use the creation or development. Intellectual property law essentially defines the exclusive rights of one party and the means for enforcing those rights against others. In contrast, the law of credit finance distributes financial risks, providing a framework for loan transactions in which the secured lender gets rights of access to the borrower’s property if the borrower fails to voluntarily pay its debts.

For almost every company, access to financing is a necessary element of growth and expansion. For the company that wants to borrow funds, the feasibility of using technology or information assets as security is based on the extent to which they comprise a significant part of the company’s value. For the technology-based company, intellectual property generally forms the greatest base of assets.
To serve as collateral in any debt transaction, intellectual property presents its own peculiar set of problems. The scope of copyright and patent protection, as we have seen, is being stretched and strained by new information technologies. Questions of control over the asset have an obvious influence on financial investment as well as creative effort, determining at least in part the value of the asset as collateral. From a lender’s perspective, the value of a security interest in any collateral is determined in part by its market value. This valuation is a special problem in dealing with intellectual property. The market value of intellectual property, which determines the value of a security interest, is influenced by the inability of others to duplicate the technology or information, the legal rights or position the secured lender holds with respect to the collateral, and the legal conditions and costs associated with enforcing the lender’s rights against the borrower and other claimants who assert rights in the collateral.

(b) Intellectual Property as Collateral: Perfection and Priority

The rules for acquiring and perfecting security interests in intellectual property assets are unsettled, at best. The fundamental concerns are to identify which documents are necessary to grant the security interest in all rights necessary to foreclose on such collateral and pass good title to purchasers and where one must file to perfect the security interest.

Intellectual property rights are personal property, falling generally within the Uniform Commercial Code (UCC) and, for secured lending, under Article 9. To the extent that they are governed by the UCC, intellectual property rights are usually treated as “general intangibles,” defined in G.L. c. 106, § 9-102 as “[A]ny personal property, including things in action, other than accounts, chattel paper, commercial tort claims, deposit accounts, documents, goods, instruments, investment property, letter-of-credit rights, letters of credit, money, and oil, gas, or other minerals before extraction. The term includes payment intangibles and software.” While a UCC security interest is enforceable between the lender and the borrower from the time that an agreement is established between the parties, the lender’s rights against third parties usually depend on whether and when the lender took steps to “perfect” its security interest. In most commercial transactions, perfecting a security interest requires that the lender record that interest in an appropriate public filing system for the particular type of collateral. Perfecting a security interest in a general intangible typically is accomplished by filing a financing statement in the appropriate state offices. Section 9-104(a) of the Uniform Commercial Code states that Article 9 does not apply to security interests subject to any statute of the United States. The current rules relating to intellectual property assets represent an uneasy blend of federal and state law. For patents, copyrights, and some trademarks, both federal and state law contain
recording rules and some priority of rights provisions that may be applicable. The law is unclear, however, as to whether both sets of rules apply and to what extent they interrelate. As a practical matter, lenders file in as many places as possible. However, the current financing environment results in duplication of filing efforts with remaining uncertainty concerning applicable rights, thereby increasing both costs and risks.

Filing and perfection rules ultimately determine a creditor’s priority as compared with third parties. Under both common law and Article 9, priority rules are preempted to the extent that federal law applies. The federal intellectual property laws only partially address priority issues.

**Trade Secrets**

Trade secrets present the easiest cases to deal with, at least initially, as state law governs and there are no federal preemption problems. Typically, the trade secret asset is represented by license agreements, in which the owner of the trade secret receives consideration from a licensee for the right to use the asset. Under Article 9 of the UCC, the right to receive license income is an “account,” and a security interest in an account is perfected by filing in the appropriate state offices a financing statement as a “general intangible.”

However, some courts have had difficulty in distinguishing intangible trade secret rights from the borrower’s tangible property or other proprietary rights. If the embodiment of the secret is a tangible item, the proper UCC classification would be “goods.” Compare *In re Bedford Computer Corp.*, 62 Bankr. 555 (Bankr. D.N.H. 1986) (creditor claimed an interest in source code), with *United States v. Antenna Sys., Inc.*, 251 F. Supp. 1013 (D.N.H. 1966) (security interest in inventory, work in progress, contract rights, and equipment of a software company did not extend to blueprint and technical data).

In addition, trade secrets often exist in tandem with other forms of protection and may “transform” into other intellectual property, such as when trade secrets become the subject of an issued patent. The secured lender should monitor changes and file an appropriate sequence of notices because a duly perfected security interest in a trade secret will not be perfected against a bona fide purchaser of a U.S. patent subsequently obtained on that trade secret.

**Patents**

The Patent Act mandates the recording of “assignments, grants and other conveyances” of patents, and any assignment, grant, or conveyance is void as against any subsequent purchaser or mortgagee for a valuable consideration,
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without notice, unless recorded in the PTO within three months from its date or prior to the date of subsequent purchase or mortgage. However, the statute does not expressly cover the recording of security interests, and the recordation of any instrument except a patent assignment or grant lies within the PTO’s discretion. Compare *Holt v. United States*, 73-2 U.S. Tax Cas. (CCH) ¶ 9680 (D.D.C. 1973), in which the court held that a valid security interest existed in certain patent applications in which a security interest was granted without assignment of the applications, and Section 261 of the Patent Act was not applicable insofar as the security interest did not involve a transfer of title, with *In re Otto Fabric, Inc.*, 55 Bankr. 654, 657 (Bankr. D. Kan. 1985), rev’d sub nom. *City Bank & Trust Co. v. Otto Fabric, Inc.*, 83 Bankr. 780 (D. Kan. 1988), in which the court held that a UCC filing did not perfect a security interest since the PTO maintained an “adequate filing system that entirely preempts UCC filing.” See also *In re Transportation Design & Technology, Inc.*, 48 Bankr. 635 (Bankr. S.D. Cal. 1985), in which the court held that a security interest is not a conveyance of present ownership and is not required to be recorded with the PTO, but nevertheless held that the federal patent system is partly preemptive, filing in the PTO is adequate against all parties, but not necessary, while a UCC filing protects the creditor against judgment liens.

This position was largely adopted by the Ninth Circuit in *In re Cybernetic Services, Inc. v. Matsco, Inc.*, 252 F.3d 1039 (2001), which held that a federal filing is not required to perfect a security interest against a lien creditor in bankruptcy. However, in a 2002 Federal Circuit case, *Rhone-Poulenc Argo, S.A. v. DeKalb Genetics*, 284 F.3d 1323, the court stated in dicta that a bona fide purchaser defense is probably available to a subsequent purchaser against any claim that is not recorded at the PTO.

When the Patent Act was enacted, most secured lending involved transfers of title. Since modern security interests usually leave title in the borrower, it is unclear whether the patent recording system in the PTO under the Patent Act preempts state law, or whether a security interest in patents must be recorded as a general intangible in the appropriate state offices under Article 9. Traditional practice has been to record in the PTO a patent collateral assignment containing a grant of all of the borrower’s interest in the patent or patent application to the lender, with an exclusive license back, and to perfect the grant of the security interest by filing UCC financing statements in the appropriate state offices covering the grant of security interests as “general intangibles.” The following requirements of Patents, Trademarks and Copyrights, 37 C.F.R. § 1.331 (1989), must be met to obtain recordation of a document with the PTO:

- Registered patents should be identified by registration number and date of registration; patent applications should be identified by serial number or international application number and date of filing;
in both cases, the inventor’s name and the title of the invention should also be provided.

- If the assignment is executed concurrently with the filing of the patent application (i.e., before a number issues), the application should be identified by the date of execution, name of the inventor, and title of the invention. An assignment should not be executed prior to the filing of the patent application.

- The recordation document must be accompanied by the statutory recordation fee. See 37 C.F.R. § 1.21(h).

The assignment document should include provisions beyond the statutory requirements: specifying the geographical scope of the assignment, granting rights to apply for foreign patents as applicable, conveying rights to the underlying invention, conveying the right to sue for past infringements, and indemnification against liability as a third-party defendant in an infringement or invalidity proceeding.

Practice Note
It should be noted that the description of the collateral most likely includes more than the patent, as the right to receive royalties under a license is a contract right, not an interest in the patent, and an interest in the product of a patented process is an interest in goods, not in the patent.

Finally, from the borrower’s perspective, ideally the assignment document should include a mechanism for cancellation of the assignment without the need for the borrower to obtain the signature of the lender/creditor.

Copyrights

The Copyright Act expressly permits recordation of a security agreement, making it unnecessary to obtain a collateral assignment of the copyright from the borrower. The Copyright Act authorizes filing of “transfers” of registered copyrights, 17 U.S.C. § 201, defining a “transfer of copyright ownership” as including a “mortgage . . . of a copyright or of any of the exclusive rights comprised in a copyright,” 17 U.S.C. § 101. The security agreement must meet the requirements of 17 U.S.C. § 205 and 37 C.F.R. § 201.4. Although only a written document, not recordation, is required for a valid transfer, recordation is necessary to prevail over subsequent transferees. For recordation, 37 C.F.R. § 201.4(c), (d) requires that the document
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- bear the actual signature of the copyright owner, or if a photocopy of the original is submitted, be accompanied by a sworn or official certification;
- be complete by its terms (rather than be marked as an exhibit);
- be legible and capable of reproduction in legible copies; and
- be accompanied by the statutory recordation fee.

While recording a security interest with the Copyright Office affords the lender some protection against further transferees of a registered copyright, federal filing alone suffers from certain weaknesses. First, no security interest can be recorded until the copyrighted work itself has been registered. This requires consideration of the deposit requirement and possible disclosure of confidential information. (See discussion under § 2.1.3(h), Computer Software and Biotechnology, above.) Second, “after-acquired” property is not efficiently handled. Unlike Article 9 filings, which routinely cover subsequently acquired property within the general description of the collateral, the indexing system in the Copyright Office operates according to the particular copyright and does not contemplate subsequent works eligible for separate registration. This limitation imposes on the lender the practical requirement of including and enforcing a provision in its agreement with the borrower for refile when new works are developed. Moreover, as for the document to be recorded in the Copyright Office, a Form UCC-1, even if completed so as to satisfy the recordation requirements of the Copyright Act, typically does not specifically transfer any rights in the subject collateral or even state that a security interest is granted. Accordingly, a “memorandum of security interest” complying with Copyright Office regulations is preferable.

In a case of first impression, the U.S. District Court for the Central District of California held that a lender may perfect a security interest in a registered copyright (or receivables deriving from a copyright) only by recording its security interest at the Copyright Office. In re Peregrine Entm’t Ltd., 116 Bankr. 194, 16 U.S.P.Q.2d 1017 (C.D. Cal. 1990).

While recordation with the Copyright Office apparently preempts state filing systems, the prudent course is to record a security interest under the UCC in appropriate state offices as well as with the Copyright Office. (As implied above, filing with the state may be the only course available if the copyrights are not registered.) The absence of any express provisions in either the Copyright Act or Copyright Office regulations addressing the rights and obligations of persons holding security interests in copyrights leaves open the question of whether perfection is in fact preempted. More importantly, recordation with the Copyright
Office will not perfect a security interest in tangible manifestations of the copyrighted work, such as a computer program, motion picture print, or original work of art, whereas the description of collateral in a UCC financing statement typically covers such tangible items. Finally, foreclosure is governed by state law in the jurisdiction where the collateral is located even if a federal basis for jurisdiction exists. Foreclosure on copyrights, patents, or trademarks under state law typically requires a creditor’s bill in equity, as distinguished from foreclosure on collateral representing the tangible manifestation of copyrights, trademarks, and patents under UCC § 9-504.

Like the UCC approach, priority under the Copyright Act is also based on a first-to-file rule. However, the Copyright Act provides a grace period where a transfer recorded within thirty days after it is made (sixty days for foreign transfers) has priority over subsequent transfers if the copyright is registered. 17 U.S.C. § 205(c)–(e). However, a nonexclusive license takes priority over a competing transfer if the license occurred first and is in writing, whether or not it was recorded. 17 U.S.C. § 205(f).

An unregistered copyright is perfected by filing a Form UCC-1 in the appropriate state offices, identifying the collateral as completely as possible, including title and author. Collateral consisting of the tangible embodiment of the copyrighted work should be separately perfected by recordation in the appropriate state offices.

**Trademarks**

Trademark rights arise under federal law, state statutes, and common law. The Lanham Act makes no express provision for recording security interests, although it does provide for recording assignments of trademarks. Since the borrower typically continues to own the collateral until default, the federal Lanham Act does not clearly preempt the state UCC filing provisions. See *In re Chattanooga Choo Choo*, 98 Bankr. 792 (Bankr. E.D. Tenn. 1989). Like the practice with patents, however, the prudent approach is to file a trademark collateral assignment with the PTO, with a license back to the borrower, and a UCC financing statement that includes trademarks as “general intangibles” with the appropriate state offices. Various state trademark statutes also provide for the separate state recording of trademark collateral assignments relating to trademarks registered under state statutory trademark provisions. In addition, financing statements should be filed in the appropriate state offices to perfect security interests in any tangible collateral associated with the assigned trademarks, such as equipment used to manufacture marked goods.

Whether a security agreement or a collateral assignment is used, the transaction must comply with trademark law to have value. To be valid, the transfer of a
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trademark requires a transfer of the goodwill of the business to which it relates. 15 U.S.C. § 1060. Federal trademark law prohibits “assignments in gross,” and the security interest or collateral assignment restricted solely to the mark is considered an assignment in gross. See VISA U.S.A., Inc. v. Birmingham Trust Nat’l Bank, 696 F.2d 1371, 1375 (Fed. Cir. 1982); Haymaker Sports, Inc. v. Turian, 581 F.2d 257, 261 (C.C.P.A. 1978). In addition, the lender must assume the obligation to monitor the quality of operations under the trademark to avoid invalidity as a naked license. See generally VISA U.S.A., Inc. v. Birmingham Trust Nat’l Bank, 696 F.2d at 1377. Therefore, the license back should include language relating to rights of inspection and quality control standards. These additional requirements may be viewed as increasing the costs of such a transaction to the lender. The secured lender can probably fulfill the monitoring obligation by including in the assignment covenants by the borrower that the quality of the relevant goods or services will be maintained consistent with the quality standards observed at the closing, that the production of the goods or the delivery of the services will not be modified without prior written consent from the secured lender, and that the borrower will submit periodic officer’s certificates certifying compliance with the covenants. The document granting the security interest should also specify the geographical scope of the security interest and expressly grant the secured lender the right to sue and recover damages for past infringements.

Special issues arise with respect to “intent to use” (ITU) applications, which cannot be assigned until the filing of an amendment or affidavit alleging use, except for an assignment to a successor to the business of the applicant to which the mark pertains, if the business is ongoing and existing. 15 U.S.C. § 1060(a)(1). In Clorox v. Chemical Bank, 40 U.S.P.Q. 2d 1098 (1996), the Trademark Trial and Appeal Board held an assignment of an ITU application as part of a security agreement prohibited, but noted that granting a mere security interest would not be considered an assignment.

Practice Note
In short, when dealing with ITUs—and trademarks generally—working with a competent trademark attorney is critical.

(c) Character of the Lending Transaction

Other important issues impact borrower and lender rights in intellectual property.

Rights Prior to Default

The question of who owns the intellectual property prior to default or complete performance by the borrower is clearly critical. As mentioned, the labels used in security interests in patents and trademarks, “collateral assignments,” may be
problematic. In a collateral assignment, the lender receives an assignment of the borrower’s intellectual property rights and gives back a license to use those rights.

Under the Uniform Commercial Code, title to the collateral remains undisturbed and the borrower retains possession and use of the collateral until default (unless the security agreement provides otherwise). Upon default, the lender has an immediate right to take possession of tangible property and the cash flow from intangible property. G.L. c. 106, §§ 9-607, 9-609.

The UCC approach should control if the transaction is a secured transaction. However, some early intellectual property cases, predating the UCC, indicated that a mortgage may entail a current transfer of ownership. The modern view follows the UCC in reducing the importance of title and possession. The borrower retains most rights in the property under intellectual property law, and the lender is not a necessary party in infringement actions and need not (unless the security agreement so requires) consent to or participate in further licensing of the technology. However, the modern view leaves uncertain the legal effect of a collateral assignment. If an assignment transaction creates a security interest, the borrower retains title and control over the property. If the transaction conveys title, the borrower retains only those rights contained in license-back provisions. Although most licenses give the obligations of enforcing any rights against infringement and the costs of perfecting and maintaining the underlying intellectual property right to the borrower, under federal law the lender-owner remains a necessary party in any intellectual property lawsuit.

Rights After Default

If the transaction conveys title to the lender, a default should simply terminate the license to the borrower. Ownership remains in the lender, based on the assignment. From the borrower’s perspective, then, the property would be lost upon default. Moreover, unless the agreement otherwise provides, the lender retains an action on the debt while the borrower receives no credit toward the debt from the value of the lost property.

Although this is consistent with title conveyance in a collateral assignment, caution should be followed given the UCC Article 9 characterization of collateral assignments as secured interests. If the transaction is treated as a security interest and the lender does not comply with UCC § 9-203, the lender may not be entitled to enforce its security interest even as against the borrower. The lender, in both the agreement and in postdefault conduct, should assume the transaction is a secured loan even if characterized as a collateral assignment. By treating a license as a secured loan in the event of default, the lender has an immediate
right to receive collections from any third party (such as sublicensees) and to take possession of the collateral. Under UCC § 9-505, if the lender wants to retain rather than sell the property, it may propose in writing to retain the property in satisfaction of the debt in strict foreclosure if the borrower does not object within the statutory notice period. Otherwise, the lender must dispose of the property in a “commercially reasonable” sale under UCC § 9-504, which can be either a public auction or a private sale. With little guidance as to what constitutes a commercially reasonable sale of intellectual property, the contract terms should specify the standards for such a sale.

§ 2.5.3 Bankruptcy

In response to the Fourth Circuit’s ruling in Lubrizol Enterprises Inc. v. Richmond Metal Finishers, Inc., 752 F.2d 1043 (4th Cir. 1985), the 1988 Intellectual Property Amendments to the U.S. Bankruptcy Code were enacted to provide certain protections for licensees of intellectual property when the licensor enters bankruptcy. 11 U.S.C. § 365(n).

Generally, Section 365 of the Bankruptcy Code provides that the debtor has the right to assume or reject any executory contracts. The courts are inclined to view the concept of an executory contract quite broadly, and the Lubrizol court was no exception. In Lubrizol, a license to a manufacturer for use of a process for metal finishing was determined to be an executory contract and the licensor was allowed to reject the contract so that it might relicense the technology to others.

Under the 1988 amendments, special provision is made when the executory contract involves intellectual property (defined broadly, but excluding trademarks). The substantive amendments provide that if the licensor chooses to reject the contract, the licensee may either treat that rejection as a termination of the contract (provided that the licensor’s rejection would constitute a breach of the license sufficient for the licensee to terminate the license under either the terms of the license or as a matter of law) or choose to retain all of its rights under the contract except for the right to ongoing services from the licensor. In addition, if the licensee retains its rights, it will also be entitled to any intellectual property for which the contract provides (such as computer source code); in return, the licensee is required to make all royalty payments to the licensor and to waive any administrative claims or rights of set-off.

To obtain the benefits of the 1988 amendments, particular care should be taken in the drafting of the license agreement (particularly the payment provisions) and, if a bankruptcy of the licensor does occur, the licensee must make an affirmative election of termination or continuation of the license and should not rely on the damages provisions in the rejected contract. In In re E.I. International,
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123 Bankr. 64 (Bankr. D. Idaho 1991), the Bankruptcy Court for the District of Idaho issued the first opinion applying the 1988 amendments. The licensor rejected its software development and license agreement with a hydroelectric company. The licensee then filed a damages claim against the licensor in the amount of $3.6 million based on the damages provisions of the license agreement. The Bankruptcy Court determined that the licensee had effectively elected to retain its rights under the agreement by accepting the benefits of the software and therefore had waived its claim arising from the rejection of the contract by the licensor. As a result, the licensee’s claim was limited to its actual out-of-pocket costs, which it had sustained prior to the bankruptcy filing (approximately $150,000).

§ 2.5.4 Mergers and Acquisitions

The general business considerations in any acquisition typify the acquisition of a company with significant intellectual property assets or the assets themselves—the buyer desires better or more technology, better or more personnel, better or more facilities, a bigger or better customer base, and an adequate return on its investment; the seller desires to maximize its return, and may want to retain certain assets, rights, or obligations as well. Of particular concern with respect to technology-based companies are the facts that employees are critical, marketing and distribution channels may be complicated, and valuation may be difficult, with book value typically low. In any acquisition, intellectual property rights are probably important.

§ 2.5.5 Assignment of Intellectual Property Assets

Generally, intellectual property assets are personal property and may be assigned in any manner that is sufficient to assign other forms of personal property, such as by bill of sale. However, the courts generally treat contracts for rights in intellectual property like contracts for personal services, which may not be transferred or assigned without the permission of the other party. In addition, certain intellectual property assets have particular requirements for recordation of assignments.

(a) Patents

Assignments of patents, patent applications, and certain grants of rights in either must be in writing and recorded with the PTO within three months from the date of the assignment or the transfer is void against a subsequent purchaser or mortgagee for valuable consideration without notice of the assignment. So that the entire acquisition agreement does not have to be filed at the PTO, use of a separate
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patent assignment suitable for recording is suggested. The requirements for recordation are discussed above.

(b) Copyrights

Transfers of copyright ownership, other than by operation of law, must be in writing and signed by the owner of the copyright. Although recordation of a transfer of copyright is not required for a valid transfer, it is necessary to protect against a subsequent transfer by the seller. A transferee will prevail over any subsequent attempted transfer if it is recorded with the Copyright Office within one month of its date (two months for foreign transfers). If the transfer is not timely recorded, a later transferee who purchased in good faith for valuable consideration will prevail if the later transfer is recorded prior to the recordation of the earlier transfer. The First Circuit in *SAPC v. Lotus Dev. Corp.*, 921 F.2d 360 (1st Cir. 1990), addressed the issue of whether a provision in an asset purchase agreement conferring all of the seller’s right, title, and interest, whether tangible or intangible, in its copyrights and computer programs also conveys any causes of action for prior infringements of the transferred copyrights. The court concluded it did, following its general rule that the party seeking to deviate from the terms of a broad and general conveyance has the burden of proving the asserted specific exception.

(c) Trademarks

Assignment of a trademark or service mark must be accompanied by an assignment of the goodwill of the business to which the mark relates. Federally registered marks or applications, including intent-to-use applications (which can only be assigned with the transfer of an ongoing business), must be assigned in writing and recorded with the PTO within three months or are void against a subsequent purchaser for valuable consideration without notice. For recording purposes, use of a separate trademark assignment is suggested. Common law marks and trade names may be assigned with or without a writing, subject, of course, to the statute of frauds. State registrations must generally be assigned in writing, and a notice of assignment filed with the relevant state authorities.

Past Infringement

Subject to limited exceptions, an assignment of any of the statutory forms of intellectual property may not include the right to sue for infringement occurring prior to the date of assignment, unless the instrument of assignment expressly includes such rights.


§ 2.5.6 Corporate Partnering

Companies often team together in strategic alliances to bring new products to market. In what is variously called a joint venture, strategic partnership, or corporate partnership, companies join together to combine technological innovation, organizational expertise, and capital.

Joint venture arrangements come in a variety of forms with a variety of partners. Typically, corporate partnering involves the contribution of capital and marketing and distribution resources by one corporate partner and the contribution of technology and entrepreneurial drive by the other partner. Corporate partnering takes a variety of forms, depending on the tax needs of the partners, the stage of development of the underlying technology, the nature of the markets to be addressed, the relative size and maturity of the partners, and the particular combination of strengths and weaknesses that the parties bring to the joint enterprise.

(a) The Partners

Typically, the joint venture partners include a larger, established company with broad existing product lines; mature manufacturing, sales, marketing, and support organizations; well-established distribution networks; and considerable financial resources, and a smaller company in the early stages of growth that offers state-of-the-art technology or products in a complementary or critical area as well as entrepreneurial drive.

(b) Capital and Technology

For the smaller company, the relationship provides a source of capital, typically at less dilution than in a traditional venture capital investment; access to markets through existing sales and distribution channels; organizational support in the capital-intensive areas of manufacturing, quality assurance, and maintenance and field support; and credibility from the close association with the successful larger company. The larger company benefits from the relationship through the acquisition of technology or new products at a lower cost or on a faster schedule than would be possible through internal development or outright acquisition.

(c) Intellectual Property

The treatment of confidential and proprietary information of the parties is at the heart of the commercial transaction. Both parties expect the existing proprietary information and technology to be improved upon or enhanced in the course of the joint enterprise. The joint venture agreement or agreements must include
provisions relating to the ownership, protection, and licensing of all intellectual property rights. The parties must clearly define and account for preexisting intellectual property assets to be transferred or licensed to the venture, define the respective rights to use that technology and the intellectual property assets created during the term of the venture, and distinguish between rights that exist during the term of the relationship and those that will continue after the relationship has ended.

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