

INTELLECTUAL PROPERTY

BASIC CONCEPTS AND PRINCIPLES

By

Charles F. Carletta, J.D.
Secretary of the Institute and General Counsel
Rensselaer Polytechnic Institute
Troy, New York 12180
Phone: (518) 276-6212
Fax: (518) 276-3100
Email: carlec@rpi.edu

Stetson University College of Law
National Conference on Law and Higher Education
February 2011

Table of Contents

I.	COPYRIGHTS.....	1
A.	Basis in U.S. Constitution	1
B.	Definition of Copyright.....	1
1.	Generally.....	1
2.	“Original Works of Authorship”	1
3.	What Cannot Be Copyrighted	2
C.	Computer Programs.....	2
D.	Idea vs. Expression of the Idea	2
E.	Derivative Works	3
F.	Rights of a Copyright Owner.....	3
G.	Who Can Claim Copyright.....	3
H.	Works Made for Hire	3
I.	Notice of Copyright.....	4
1.	The Berne Convention and the Copyright Notice.....	4
2.	The Elements of the Copyright Notice.....	5
3.	Position of Notice	6
J.	Copyright Registration	6
1.	Advantages of Registration	6
2.	One Registration Per Program	6
3.	General Copyright Information.....	7
4.	Form TX (for registration of copyright in literary works, for example).....	7
K.	Duration of Copyright	7
L.	Copyright Infringement.....	7
M.	Fair Use	8
1.	The Purpose and Character of the Use – Is it “Transformative”?.....	8
2.	The Nature of the Copyrighted Work.....	8
3.	The Amount and Substantiality of the Portion Taken.	9
4.	The Effect of the Use on the Potential Market for the Original Work.	9
N.	Advantages and Disadvantages of Copyright Protection.....	9
1.	Advantages	9
2.	Disadvantages	9
II.	TRADEMARKS.....	10

A.	Terminology	10
1.	Trademark.....	10
2.	Service Mark.....	10
3.	Trade Name.....	11
B.	Selection and Adoption of a Mark	11
1.	Types of Marks	11
2.	Pre-Adoption Investigation	12
C.	Registration of a Mark in the U.S. Patent and Trademark Office	13
1.	Advantages of Federal Registration	13
2.	Actual Use vs. Intent to Use Applications.....	14
3.	Term of a Registration	14
D.	The Care and Feeding of Marks	14
1.	Guidelines	14
2.	Licenses.....	15
IV.	PATENTS.....	15
A.	Generally.....	15
B.	What is Patentable Under U.S. Law	15
1.	Utility Patents.....	15
2.	Design Patents.....	16
3.	Plant Patents	16
C.	What is Not Patentable in the U.S.	16
D.	Pre-Filing Considerations	16
1.	When to File	16
2.	Preliminary Patentability Search	17
3.	First-to-Invent (U.S) vs. First-to-File (Foreign)	17
4.	What Constitutes an Invention.....	17
5.	Who Constitutes an Inventor	18
E.	How U.S. Patents are Obtained - Utility Patents.....	18
F.	Markings	18
G.	Provisional Applications.....	18
H.	Obtaining Patents in Foreign Countries.....	19
I.	Paris Convention for the Protection of Industrial Property	19
J.	Prosecution of Foreign Patent Applications	19

K.	Annual Taxes and Maintenance Fees	19
L.	Working of an Invention	19
M.	Duration of Foreign Patents	20
V.	TRADE SECRET PROTECTION.....	20
A.	Generally.....	20
B.	Maintenance of a Trade Secret.....	20
1.	Computer security measures to prevent unauthorized on-line access.....	20
2.	Requiring all outside parties to execute non-disclosure or confidentiality agreements.....	20
3.	Do not distribute the source code to an end user.....	20
4.	Having employees execute non-disclosure agreements.....	21
5.	Labeling all sensitive documents, such as drawings, "CONFIDENTIAL".	21
6.	Excluding the public from sensitive areas in a plant.	21
C.	Advantages and Disadvantages of Trade Secret Protection	21
1.	Advantages	21
2.	Disadvantages	21

INTELLECTUAL PROPERTY

BASIC CONCEPTS and PRINCIPLES

I. COPYRIGHTS

A. Basis in U.S. Constitution

The law of copyrights arises under the Constitution, Article 1, Section 8, Clause 8: The Congress shall have power . . . 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.

The term “writings” has been given a very broad interpretation such that it now means “works of authorship.”

B. Definition of Copyright

1. Generally

Copyright is a federal protection from unauthorized copying or performance (Title 17, United States Code) given to the authors of original works of authorship. Generally, most copyrightable works tend to fall into the following three statutory categories: (a) literary works (including computer programs); (b) pictorial, graphic and sculptural works; and (c) motion pictures and other audiovisual works. Examples of copyrightable subject matter include:

- songs, including the musical composition, the lyrics and a recorded performance
- movies (but not their titles)
- books (but not their titles)
- games
- photographs
- patterns on fabrics
- labels on products.

2. “Original Works of Authorship”

The work must be the product of original, creative authorship. “Original” does not mean “novel” as with patents, it just means that it was not copied from another’s work. Originality, even in the slightest degree, is all that is required. Additionally, copyright protection requires some degree of creative authorship. That means that for computer software, just about any program that is more than a few instructions in length is copyrightable.

3. What Cannot Be Copyrighted

- Works that have not been fixed in a tangible form of expression, such as extemporaneous speeches or performances which have not been written or recorded.
- Titles of books or magazines (but the contents are protected by copyright), names, short phrases, slogans, brand names or trademarks, colorings or mere listings of ingredients or contents.
- Ideas, themes, procedures, methods of operation, systems, processes, concepts, principles or discoveries as opposed to a written description or explanation or illustration of the same.
- Works consisting entirely of information that is common property and containing no original authorship (standard calendars, tape measures, telephone directories, report forms, order forms, tables taken from public documents).

C. Computer Programs

In addition to patent protection, computer programs can be protected by copyright. The term “computer program” is defined by the Copyright Act as “a set of statements or instructions to be used directly or indirectly in order to bring about a certain result.” 17 U.S.C. §101. It includes application and operating systems in all programming languages and in any type of code (source code, object code and microcode) and whether fixed in hard copy or on tape, disks, ROM, chips, or other tangible embodiments. Associated written instructional material related to the development or explanation of the computer program (manuals, booklets, flowcharts and the like) are also copyrightable subject matter.

D. Idea vs. Expression of the Idea

§102(b) of the 1976 Copyright Act provides that:

In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated or embodied in such work.

Copyright protects only the expression of an idea, not the idea itself. That must be compared with patents which can protect the idea. Thus, a patentable invention or a trade secret can not be protected by copyright.

The “idea” embodied in a program can not be protected by copyright. Programmers are free to read copyrighted programs and use the ideas embodied in them in preparing their own works.

E. Derivative Works

Derivative computer programs are ones that are based upon or incorporate material from a previously published or registered or public domain program that has been revised, augmented, abridged or otherwise modified so that the modifications, as a whole, represent an original work of authorship which are subject to a new copyright.

F. Rights of a Copyright Owner

The owner of copyright has the exclusive right under 17 U.S.C. §106 to do and authorize each of the following:

- (1) to reproduce the copyrighted work;
- (2) to prepare new versions (or derivative works) based upon the copyrighted work;
- (3) to publicly distribute copies of the copyrighted work;
- (4) to perform the copyrighted work publicly in the case of literary, musical, dramatic and choreographic pantomimes, motion pictures and other audio visual works; and
- (5) to display the work publicly. Under this right, an artist can control the manner in which a gallery, museum or individual displays their work.

Violation of any of those rights will give rise to an action for copyright infringement with resultant injunctive relief, damages and possibly attorney's fees.

G. Who Can Claim Copyright

Only the author or those deriving rights through the author can claim copyright. Authors of a joint work are automatically co-owners of the copyright in a work unless there is an agreement to the contrary. The mere ownership of a copyrighted work does not mean that you own the copyright in it. There has to be written transfer of all of the copyrights in that work. 17 U.S.C. § 202.

H. Works Made for Hire

In the case of "works made for hire", it is the employer or other person for whom the work is prepared who is considered the "author" (i.e., the owner of the copyright) and not the employee or the person (such as an independent contractor) who actually created the work, unless there is an express written agreement to the contrary.

The copyright statute defines "work made for hire" as:

- (1) a work prepared by an employee within the scope of his or her employment; or

- (2) a work specially ordered or commissioned for use as a contribution to a collective work, as a part of a motion picture or other audiovisual work, as a translation, as a supplementary work, as a compilation, as an instructional text, as a test, as answer material for a test, or as an atlas, if the parties expressly agree in a written instrument signed by them that the work shall be considered a work made for hire. 17 U.S.C. §101.

Note that not every “work” prepared by an independent contractor on special order or commission is a “work made for hire.” Rather, works made for hire are only those that fall within one of the statutory categories set forth in 17 U.S.C. §101 and concerning which the parties enter into an express written agreement designating the work as such. Thus, if an architect draws up plans for you, you commission an artist to create a painting or an independent programmer creates a computer program for you, such works normally cannot be a “work made for hire,” and the architect, artist or programmer will own any copyright interest in those plans, picture or program unless there is a written agreement assigning copyright to you. One exception to the computer program example would be a video game program that contains audio. As an audiovisual work, it could be treated as a “work made for hire” if the parties so agree in writing. What about those people you commission to develop your advancement/development literature?

It is always recommended that written agreements be entered into with independent contractors stating that all copyrights in any original works of authorship fixed in any tangible medium of expression including designs, sketches, models, drawings, advertising, copy and computer software be assigned to the one who commissions the work without any additional compensation being paid.

One advantage to the copyright owner of a work being a legal “work made for hire” is that an author that has granted copyright to another by assignment or license may terminate the assignment or license and reclaim copyright ownership between 35 and 40 years after the assignment or license was granted. The termination provisions of the law do not apply to “works made for hire.” 17 U.S.C. § 203.

I. Notice of Copyright

A copyright exists in a work the moment it is created and fixed in a tangible medium. A notice of copyright should be placed on all published and unpublished copies of work though the law does not require use of such a notice for copyright to exist. The use of the copyright notice does not require advance permission from, or registration with, the Copyright Office.

1. The Berne Convention and the Copyright Notice

The U.S. is a member of the Berne Convention as of March 1, 1989. Therefore, it is no longer necessary to place a copyright notice on published copies of a work publicly distributed on or after March 1, 1989 for that work to be entitled to copyright protection. No work can now fall into the public domain because of publication without notice. Therefore, it is dangerous to assume that a work is in the public domain because no copyright notice appears on it. It is advisable to assume that, without evidence to the contrary, any copyrightable work is protected by copyright, regardless of whether it bears a notice.

As a practical matter, however, the notice should be placed on all copies of the work so that the potential infringer will know that the work is protected by copyright and will know the identity of the copyright owner.

2. The Elements of the Copyright Notice

- (a) For published works, there are three elements:
 - (i) The word “Copyright” or the abbreviation “©”;
 - (ii) The year date of first publication; and
 - (iii) The name of the owner of the copyright.

Additionally, the phrase “All Rights Reserved” can be added to the notice for protection in Latin American countries.

Therefore, the notice should appear as follows:

Copyright 2011 Rensselaer Polytechnic Institute. All Rights Reserved.

or

© 2011 Rensselaer Polytechnic Institute. All Rights Reserved.

The term “publication” under the Copyright Act means the distribution of copies “. . . of a work to the public by sale or other transfer of ownership, or by rental, lease, or lending” 17 U.S.C. § 101. Generally, software that is distributed to the public without a signed license agreement is considered “published.”

- (b) For unpublished works - It is recommended that a copyright notice be combined with a trade secret notice since most unpublished software works are also maintained as a trade secret:

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

“© 2011 RENSSELAER POLYTECHNIC INSTITUTE. ALL RIGHTS RESERVED.”

If space is limited, the following notice can be used:

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

“© 2011 RENSSELAER POLYTECHNIC INSTITUTE. ALL RIGHTS RESERVED.”
The year date in the above notices is the date of creation since the work is unpublished.

3. Position of Notice

The notice should be affixed in such a manner and location to “give reasonable notice of the claim of copyright.” The notice should be permanently affixed to the work and not placed on a detachable tag or label.

J. Copyright Registration

1. Advantages of Registration

- (a) registration (before or within five years after the first publication of the work) is prima facie evidence of the validity of the copyright and of the facts stated on the registration certificate;
- (b) registration is required to file suit for copyright infringement;
- (c) attorneys’ fees and statutory damages (*i.e.*, damages which may be collected by a successful copyright infringement plaintiff even in the absence of a showing of actual damages or lost profits) are not available where a work was unregistered at the time of the infringement unless the work was registered within three months after the first publication;
- (d) registration establishes a public record of the copyright claim; and
- (e) the registration may be recorded with the U.S. Customs Service, which will impound (and possibly destroy) imported infringing copies of the copyrighted work.

2. One Registration Per Program

The Copyright Office considers source code and object code as two representations of the same program. Therefore, for registration purposes, the claim is in the computer program rather than in any particular representation of the program. Thus, separate registrations of the source and object code of the same program are not appropriate.

The Copyright Office also considers the computer program and the associated screen displays as a single work, which can be registered in a single application. Therefore, the Copyright Office will not issue separate registrations for the screen displays as audiovisual works and for the computer program whose code has been registered as a literary work.

3. General Copyright Information

The Copyright Office has a general copyright Web site at <http://www.copyright.gov/>.

4. Form TX (for registration of copyright in literary works, for example)

Copyright forms may be obtained without charge from the Copyright Office:

Register of Copyrights
Library of Congress
Washington, D.C. 20559

or on the Web at <http://www.copyright.gov/forms/>.

Copyright applications may also be filed online through the Copyright Office eCO service, available at <http://www.copyright.gov/eco/>.

K. Duration of Copyright

For works created on or after January 1, 1978, and works originally created before January 1, 1978 but not published or registered by that date, the duration of a copyright is the life of the author plus 70 years. For a joint work by two or more authors who did not work for hire, copyright lasts for the life of the last surviving authors plus 70 years. In the case of a work for hire, the copyright endures for a term of the shorter of 95 years from its first publication, or 120 years from its creation. 17 U.S.C. § 302. Copyright in such works may not be renewed. Terms of copyright run to the end of the calendar year in which they would otherwise expire. 17 U.S.C. § 305.

L. Copyright Infringement

As noted above, a certificate of registration needs to be obtained before an action for copyright infringement can be instituted. The copyright owner must prove that the copyrighted work was copied, which is usually shown by evidence that the accused had access to the copyrighted work and that the work of the accused is substantially similar in appearance to the copyrighted work.

The remedies for copyright infringement include an injunction and impounding and destruction of the infringing article. 17 U.S.C. §502 and 503. Also, the copyright owner may obtain his or her actual damages and any profits of the infringer or, if the work is registered within three months of its publication, statutory damages, which may be as high as \$100,000 if willful infringement is found. 17 U.S.C. §504.

M. Fair Use

In determining whether people may use portions of copyrighted works in their teaching and scholarship without getting the permission of the copyright owner, the law permits some uses for nonprofit educational purposes, including fair uses. Unfortunately, the only way to get a definitive answer on whether something is a fair use is to have it resolved in federal court. Judges use four factors set out in Section 107 of the U.S. Copyright Act to resolve fair use disputes. These are:

- (a) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes;
- (b) the nature of the copyrighted work;
- (c) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
- (d) the effect of the use upon the potential market for or value of the copyrighted work.

These factors are only guidelines, however, and courts have a great deal of freedom to adapt them to particular situations, which can make the outcome in any given case difficult to predict. In very general terms, courts will examine the following considerations when evaluating these four factors:

1. The Purpose and Character of the Use – Is it “Transformative”?

If the copied material was used to help create something new rather than being merely copied verbatim into another work, it is more likely to be fair use.

Ask yourself:

- (a) Was the material you borrowed transformed by adding new expression or meaning?
- (b) Was value added to the borrowed material by creating new information, new aesthetics, new insights and understandings?

2. The Nature of the Copyrighted Work.

Borrowing from factual works, such as biographies, is more likely to be a fair use, than would be borrowing from fictional works.

Borrowing from an unpublished work is less likely to be a fair use than borrowing from a published work.

3. The Amount and Substantiality of the Portion Taken.

The less material borrowed, the more likely that the copying will be excused as fair use. Even taking a small portion of a work, however will not be a fair use if the portion taken is the “heart” of the work.

4. The Effect of the Use on the Potential Market for the Original Work.

If your use deprives the copyright owner of income or undermines a new or potential market for the copyrighted work, it is less likely to be fair use.

While fair use is intended to apply to teaching, research and similar activities, an educational purpose alone does not make a use fair. The purpose of the use is only one of four factors that must be analyzed to determine whether a use is lawful. For that reason, we are providing you with a Checklist for Fair Use (**Appendix A**) that may aid your analysis of whether a particular use or copy of any pre-existing work being made may be a fair use, even (and especially) if the original work was not published.

Another reason to use the checklist is to provide an important means for recording your decision-making process. Maintaining a record of your fair-use analysis is critical to establishing your reasonable and good-faith attempts to apply fair use to meet your educational objectives. The law offers some protection for educators who act in good faith.

As you use the checklist and apply it to your situation, you are likely to check more than one box in each column and even check boxes across columns. Some checked boxes will “favor fair use,” and others may “oppose fair use.” A key concern is whether you are acting reasonably in checking any given box. The ultimate concern is whether the cumulative “weight” of the factors favors or opposes fair use.

N. Advantages and Disadvantages of Copyright Protection

1. Advantages

The advantages of copyright protection are that copyright registrations are relatively easy to obtain, in a relatively short period of time for a low cost and are easily maintained. Also, the term of a copyright is very long; and copyright litigation is significantly less expensive than corresponding patent or trade secret litigation.

2. Disadvantages

The disadvantages of copyright protection are that copyrights do not protect the underlying ideas or functions performed by the software, even with the expansion of copyrights beyond the literal codes to the “look and feel” of the programs. Thus, it may be relatively easy to avoid copyright infringement and yet have a program perform the same function as a copyrighted program by changing the expression of the original program. Also, since ideas are not protected under copyright law, two

programmers may independently create and be entitled to copyright protection in their respective programs, which may be very similar, if not identical, to each other.

II. TRADEMARKS

The Trademark Office has a very informative Web site at:

<http://www.uspto.gov/trademarks/basics/index.jsp>

A. Terminology

1. Trademark

A trademark or “brand name” comprises any:

- **word or group of words, such as a slogan** (RENSSELAER POLYTECHNIC INSTITUTE, DON’T LEAVE HOME WITHOUT IT),
- **logo, symbol, pictorial representation or design** (NIKE “Swoosh”, LACOSTE Alligator, apple for APPLE computers, five interlocking Olympic rings),
- **numeral(s), letter(s) or combination thereof** (501 for jeans, IBM for computers, RPI, V-8 juice),
- **shape of a container or packaging** (COKE bottle, conical top of CROSS pen),
- **color** (orange for THE HOME DEPOT stores, pink for Corning’s insulation),
- **sound** (lion roar for MGM, chimes for NBC, roar of a motorcycle for Harley-Davidson), or
- **scent** (“the mark consists of a high impact, fresh flower fragrance reminiscent of plumeria blossoms” - U.S. Reg. No. 1,639,128) which
- **is adopted and used** in commerce by a manufacturer or business person;
- **to identify** that person’s goods;
- **to distinguish** those goods from goods sold by another; and
- **to indicate** the source of the identified goods.

2. Service Mark

A service mark is used in the sale or advertising of services to identify the services of one person and distinguish them from the services of others, such as McDONALD’S and OFFICE DEPOT.

Service marks are afforded the same legal protection as trademarks, and are also able to be registered in the same manner and with the same effect.

3. Trade Name

Normally, the name of a business entity is not able to be registered unless it is used as a trademark or service mark. A trade name is usually identified by its ending in the term “Company/Co.,” “Corporation/Corp.,” “Inc.” or “Ltd.” (McDonald’s Corporation [trade name] v. McDONALD’S restaurants [service mark]). Trade name infringement is actionable under federal and state laws.

B. Selection and Adoption of a Mark

1. Types of Marks

There is a hierarchy of marks, with the most distinctive and the ones with the wider scope of protection being a **fanciful** or **arbitrary** mark, followed by a **suggestive** mark and then a **merely descriptive** mark. It is best to select a mark that is fanciful, arbitrary or suggestive. The more distinctive the mark, the better the chance of protecting and registering it.

- (a) **Fanciful** - a mark that is created solely for the purpose of functioning as a mark and has no other meaning: XEROX, KODAK, EXXON, CLOROX, KOTEX and POLAROID.
- (b) **Arbitrary** - a mark comprising a common word or symbol which is arbitrarily applied to the goods or services in question in such a way that it is not descriptive or suggestive (i.e., the word or words used for the mark do not in any way describe anything about the product at all), such as: COMMAND hair care products, SHELL gasoline, APPLE computers, ICE CREAM chewing gum, and GUESS? jeans.
- (c) **Suggestive** - a mark which merely “suggests” but does not describe qualities or functions of a particular product or service. If the qualities are not instantly apparent and there must be an exercise of imagination in order to convey the characteristics or qualities of the product or service, the mark is suggestive: CROSSTALK software, STRONGHOLD nails, 7-ELEVEN retail store services, COPPERTONE tanning products, RAPID SHAVE shaving cream, GLEEM toothpaste, ROACH MOTEL roach bait, WOOLITE wool cleaner and HONEY MAID graham crackers.
- (d) **Merely Descriptive** - a merely descriptive mark generally has the narrowest protection because it immediately identifies or brings to mind the characteristics, qualities, ingredients, functions, composition, purpose, attribute, use or other features of a product or service and is able to be protected only upon a showing through use and advertising of a “secondary meaning” or acquired distinctiveness, namely, that the consumer accepts and recognizes the mark as denoting only one source: CHAP-STICK chapped lip treatment, SHEAR PLEASURE beauty salon, HAIR COLOR SO NATURAL ONLY HER HAIRDRESSER KNOWS FOR SURE hair coloring, BEEF AND BREW restaurants, and HOUR AFTER HOUR deodorant.
- (e) **Generic** - the common name of a class of things and is, by definition, incapable of indicating source and never can function as a trademark or service mark (i.e., “whiskey,” “computer software,” “mouse,” “disk,” “keyboard”). Terms which, at one time, functioned as trademarks

but which, as a result of widespread use, came to mean to the general public the product itself instead of merely one manufacturer's brand or version of the product include: aspirin, cellophane, cola, cornflakes, cube steak, dry ice, escalator, high octane, kerosene, lanolin, linoleum, mimeograph, murphy bed, nylon, raisin bran, refrigerator, shredded wheat, trampoline, yo-yo and zipper.

Thus, the term "BRILLIANT" would be:

- merely descriptive for diamonds,
- suggestive for furniture polish, and
- arbitrary for applesauce.

2. Pre-Adoption Investigation

Once the mark is selected, but prior to its use, a thorough search should be undertaken to determine whether the mark is available for both use and federal registration. Sources for such investigation include:

(a) Records of the U.S. Patent and Trademark Office

A prospective trademark user is charged with constructive notice of any identical or confusingly similar mark that is federally registered. Even though a confusingly similar mark appears as an abandoned application or an expired registration, the owner of that mark may still be using the mark and, thus, have common law rights against a subsequent user.

A preliminary search of the Trademark Office records can be conducted on-line on the Trademark Office database known as TESS (trademark electronic search system) at <http://www.uspto.gov/>.

Also, if use of the mark is contemplated in any foreign countries, the trademark and service mark records of those countries should also be searched. Preliminary searching of the trademark records of many companies can be accomplished through paid services such as Thomson Compumark's SAEGIS® trademark searching service. <http://saegis.compumark.thomson.com/saegis/app/home/>.

(b) State Trademark Records

Again, the SAEGIS® database can be utilized to search the trademark and service mark records of the various states.

(c) Web searches (e.g., through Google search engine)

(d) Professional trademark searching services provide the most comprehensive and reliable searching of multiple federal, state and common law databases, and the Web for purposes of clearing a mark for use or registration (e.g., Thomson Compumark; CSC)

(e) **Misconceptions**

(i) The fact that one has incorporated, qualified to do business under a name or registered the name in the assumed name records of a particular state does not automatically give rise to the right to use the name as a mark.

(ii) A person does not have an absolute right to use his or her name as a trademark or service mark.

(iii) Registration in a state of the mark as a trademark or service mark does not necessarily mean it is permissible for the owner of that state registration to use the mark everywhere.

(iv) An assignment of a mark, absent the goodwill of the business connected therewith, is invalid.

(v) If using anything other than a full trademark search performed by a professional searching service, you should be aware that the absence of an exact match for your contemplated mark in your search does not necessarily mean the mark is available for use or registration. Marks that may be similar in terms of appearance, sound, commercial impression or connotation, even if not exact matches, may conflict with your mark. Also, multiple common law databases should be checked by a skilled researcher.

(vi) The presence of an exact match for a mark in one of the searches does not necessarily mean the mark is not available for use or registration. Consideration must be given to whether the proposed mark would create a “likelihood of confusion,” which includes, among many other factors, a comparison of similarity or relatedness of the goods and services with which each mark would be used, the similarity of the marks in question, and several other factors that will be considered by the USPTO trademark examiner and the courts.

C. Registration of a Mark in the U.S. Patent and Trademark Office

The U.S. Patent and Trademark Office has a web site on the basic facts of registering a trademark at: <http://www.uspto.gov/web/offices/tac/doc/basic/>.

1. Advantages of Federal Registration

Registration of a mark on the Principal Register allows an owner:

- to prevent registration of the identical or confusingly similar marks;
- to secure injunctive relief and damages against infringers in federal court;
- to assert the registration in federal court as prima facie evidence of the validity of the registration, of the ownership of the mark and of the right to exclusively use the mark in commerce in the U.S. and its territories and possessions;

- to have the registration treated as incontestable after five years use;
- to eliminate the defense of innocent adoption by anyone using the mark after the date of registration, thereby affording nationwide protection to registered marks, regardless of the areas in which the mark is actually used; and
- to prevent the importation of goods bearing infringing or counterfeit marks by recording the mark with U.S. Customs.

2. Actual Use vs. Intent to Use Applications

A dual-application system exists in the U.S. Patent and Trademark Office, which permits the filing of trademark/service mark applications based upon an intent to use the mark in commerce, as well as applications based on actual use of the mark in commerce. While an application may be filed based on a bona-fide intent to use the mark, however, the applicant will still have to make actual use of the mark in commerce before the mark can be registered.

3. Term of a Registration

Federal trademark/service mark registrations are valid for a period of ten years and are renewable for ten year periods as long as the mark remains in actual use.

Additionally, between the fifth and sixth year from the date of a federal registration, the registrant must file a declaration or affidavit that the mark is still in use as of that date. In addition, to secure renewal of the ten year registration term, an Affidavit of Use must also be filed in the year prior to the end of each registration term. Failure to file such a statement will cause the registration to be canceled by the Trademark Office.

D. The Care and Feeding of Marks

Trademarks and service marks are valuable assets. Their proper use should be an essential concern of the owner to avoid misuse, which can destroy the legal significance of the mark, as well as create an unfavorable commercial impression.

1. Guidelines

Proper usage for trademarks and service marks to prevent genericide (*i.e.*, a mark becoming generic and, thus, ceasing to indicate source) includes:

- Always use the mark as a proper adjective which modifies a noun, such as CABBAGE PATCH KIDS dolls, LEVIS jeans, XEROX photocopiers.
- Never use a mark in the possessive form, in the plural form or as a verb.
- Avoid prefixes, suffixes, additions or deletions of the mark.

- Distinguish the mark in use from surrounding text such as with a distinctive type face, quotation marks, all capital letters or, at the very least, capitalize the first letter of each word of the mark.
- For marks registered in the U.S. Patent and Trademark Office, use the symbol “®” or the phrase “Registered in the U.S. Patent and Trademark Office” or “Reg. U.S. Pat. Tm. Off.”
- For unregistered marks, use either the informal notice “™” for trademarks or “SM” for service marks, or a legend linked by an asterisk to the mark, indicating “A trademark/service mark of XYZ Company.”

2. Licenses

Never allow a third-party to use your mark without entering into a written license agreement, which, at a minimum, provides for your ability to monitor and control the nature and quality of the goods or services in connection with which the mark is used by the licensee. Otherwise, you may have a naked license which may dilute the distinctiveness of your mark and result in loss of your trademark rights. Also, provide in the agreement for the licensee to notify you of potentially infringing marks so that you may police your mark, since unauthorized uses of your mark will dilute your scope of protection.

IV. PATENTS

A. Generally

A patent is a right to exclude others from making, using or selling a claimed invention throughout a country, such as the United States, for a limited period of time, namely, twenty (20) years from the date of filing the application of a utility patent and fourteen (14) years from issuance for a design patent. A patent may be considered a contract between the inventor and the Government: the inventor gives a public disclosure in return for a limited monopoly for a certain period of time, after which the public is free to use the invention. After a patent expires, it cannot be renewed; anyone may then use the patented invention without the inventor’s permission.

Those seeking further information on U.S. patents may want to look at the Web site for the U.S. Patent and Trademark Office at: <http://www.uspto.gov/patents/>.

B. What is Patentable Under U.S. Law

To be patentable in the U.S., an invention must be useful (35 U.S.C. §101), new (35 U.S.C. §102), and nonobvious (35 U.S.C. §103). There are two common types of patents: utility patents and design patents.

1. Utility Patents (35 U.S.C. §101, *et seq.*) cover the useful or working features of an invention and are divided into three categories: (a) mechanical; (b) chemical; and (c) electrical. Utility patents have a term of twenty (20) years from the date of filing. They can be for:

- a process (or act or series of steps performed on a subject which transforms it);
- a machine (a structure which has moving parts);
- a manufacture (a tangible object made by man other than a machine or composition of matter, such as a screwdriver); and
- a composition of matter (uniting two or more ingredients either chemically or physically to produce a new and homogeneous mass).

2. Design Patents (35 U.S.C. §§171-173) cover the physical appearance or ornamental design of an article of manufacture and have a term of fourteen (14) years. A design patent offers less protection than a utility patent because only the appearance of an article is covered, not the manner of its manufacture or functioning.

3. Plant Patents (35 U.S.C. §§ 161-164) cover certain new and distinct, invented or discovered asexually reproduced plants. A plant patent permits its owner to exclude others from making, using, offering to sell, selling or importing the plant for up to twenty (20) years from the date of filing.

C. What is Not Patentable in the U.S.

- . Printed matter (e.g., business forms).
- . Something naturally occurring in nature.
- . A method of doing business.
- . Scientific principles.
- . A chemical compound having no utility.

D. Pre-Filing Considerations

1. When to File

Under current U.S. law, an inventor loses his or her right to patent their invention if they fail to file a patent application within one (1) year from:

- (a) the first public (and non-experimental) use of the invention; or
- (b) the first sale or offer for public sale of the invention; or
- (c) the first printed publication of the invention. 35 U.S.C. §102.

While the U.S. allows a one (1) year grace period after a first public use, first sale or first publication of the invention, most other countries require “absolute novelty,” that is, the invention must not have been publicly used or sold nor any publication made of the invention anywhere in the world before filing in those countries.

2. Preliminary Patentability Search

It is advisable to conduct a preliminary patentability search in the U.S. Patent and Trademark Office to determine if the invention is patentable over the “prior art,” which includes U.S. and foreign patents, publications and devices.

Additionally, you can conduct a patent search on the Internet. The Patent Office has a free patent search Web site at <http://patft.uspto.gov/>.

3. First-to-Invent (U.S) vs. First-to-File (Foreign)

Under former U.S. patent laws, a patent was granted to the first to invent, not the first to file a patent application as in all other countries. Thus, in the U.S. the earliest proof of the date of conception was important because in a situation where two or more persons were claiming the same invention, the one who could prove priority of invention would have been accorded the rights in the patent for that invention. Therefore, the U.S. inventor should reduce to writing a description of their invention, including drawings and photographs if available, and have it signed and dated by one or more witnesses who did not participate in the development of the idea and who understand the invention.

Among many other amendments made by the Leahy Smith America Invents Act, enacted September 16, 2011, the U.S. shall become a First-Inventor-to-File jurisdiction, effective as of March 16, 2013.

4. What Constitutes an Invention

The inventive process has two steps: (A) conception and (B) reduction to practice.

(a) Conception

Conception is the formulation in the mind of an inventor of the complete means for solving a problem. The mere recognition of a problem or a desirable result or a general approach to solving the same without the perception or realization of means by which the result can be produced or the result accomplished or the problem solved will not suffice as conception.

(b) Reduction to Practice

An invention is not complete until it has been reduced to practice either actually or constructively. Actual reduction to practice means (1) the physical construction of the invention, and (2) the testing of the physical embodiment to determine whether it performs as contemplated.

5. Who Constitutes an Inventor

The following is the basic standard for determining joint ownership:

A joint invention is the product of collaboration of the inventive endeavors of two or more persons working toward the same end and producing an invention by their aggregate efforts. To constitute a joint invention, it is necessary that each of the inventors work on the same subject matter and make some contribution to the inventive thought and to the final result. Each needs to perform but a part of the task if an invention emerges from all of the steps taken together. It is not necessary that the entire inventive concept should occur to each of the joint inventors, or that the two should physically work on the project together. One may take a step at one time, the other an approach at different times. One may do more of the experimental work while the other makes suggestions from time to time. The fact that each of the inventors plays a different role and that the contribution of one may not be as great as that of another, does not detract from the fact that the invention is joint, if each makes some original contribution, though partial, to the final solution of the problem.

E. How U.S. Patents are Obtained - Utility Patents

U.S. patents are issued by the U.S. Patent and Trademark Office, Washington, D.C. An application is filed with the Patent Office that includes: (1) drawings showing various views of the invention; (2) a specification describing the invention in detail, including statements as to what the inventor believes is new and patentable; and (3) one or more claims which define the subject matter of the invention. The application is then examined in the Patent Office by a patent examiner who is knowledgeable in the particular technology of the invention. The examiner will conduct his or her own search of the prior art. The process can take 18-24 months.

F. Markings

While the application is pending in the Patent and Trademark Office, the inventor can mark their device “patent pending” or “patent applied for” although no suit for infringement can be brought until a patent actually issues.

When the U.S. patent issues, the notice “patent” or “pat.”, together with the number of the patent should be placed on the article itself or at least on the packaging or instructions therefor.

G. Provisional Applications

It is possible to file a “provisional” patent application in the U.S. Patent and Trademark Office as a way of postponing the cost and effort of preparing and filing a “regular” or utility application at a very low cost (\$125.00 for “small entities”, such as individual inventors, companies with less than 500 employees and non-profit institutions, and \$250.00 for all others). 35 U.S.C. §111(b); 13 CFR 121.802. The applicant may wait up to one (1) year before filing the utility application, with the filing date of the provisional application serving as the priority date for the subsequent utility application. A

provisional application allows the term “patent pending” to be applied in connection with the description of the new invention.

H. Obtaining Patents in Foreign Countries

To obtain patent protection abroad, the inventor must file and prosecute a patent application in each foreign country in accordance with that country’s law. There is no one international patent filing which will result in a patent that will be recognized in all countries.

I. Paris Convention for the Protection of Industrial Property

Most countries of the world, including the U.S., belong to the Paris Convention and will recognize a priority date. The filing of a patent application in a “home” Convention country will allow the inventor up to one (1) year to file the application in another Convention country and be provided a right to the filing date in the home country for priority purposes against any third party. In other words, an application filed in a Convention country within twelve (12) months of the original filing date in another Convention country would be considered as having been filed on the same date as the initial filing. This will allow the inventor to defray expenses for foreign filings for one (1) year in order to permit a better evaluation of the commercial potential of the invention in a particular country without a loss of rights.

J. Prosecution of Foreign Patent Applications

Many foreign patent offices, such as those in Canada, the United Kingdom and West Germany, have an examination system similar to the U.S. Patent Office. While a patent application remains secret and confidential within the U.S. Patent Office until the U.S. patent issues, however, most all other countries provide to the public an opportunity to oppose or protest the issuance of an application to patent by “laying open” or publishing the application a certain period after filing.

K. Annual Taxes and Maintenance Fees

Almost all countries, including the U.S., require the payment of a tax or annuity to maintain the patent in force.

L. Working of an Invention

Some countries, such as France, require the patentee to “work” the invention (e.g., manufacture and/or sell the invention or offer it to a licensee) in that country within a specified term after issuance of the patent with the resultant forfeiture of rights to the patent or the grant of a mandatory license to a licensee demanding such a license.

M. Duration of Foreign Patents

The terms of foreign patents vary from five (5) to twenty (20) years and occasionally higher. The patent term may start from the priority date or, from the date the patent issues.

V. TRADE SECRET PROTECTION

A. Generally

Trade secret law prevents those who are under a legal duty from disclosing trade secrets and other confidential and proprietary information to any third party who does not have a right to know the information. Trade secrets are governed by state law, which standards vary from state to state. In N.Y., for example, a “trade secret” consists of a formula, process, device, or compilation, which one uses in their business, and which gives them an opportunity to obtain an advantage over competitors who do not know or use it.

To qualify as a trade secret, it must relate to a trade or business; it must be a secret (i.e., not known publicly or known generally within the trade or business concerned); and it must be used, or if not used, intended for use in a trade or business. Also, so-called “negative information” which is information as to what will not work, can be a trade secret.

A trade secret can be protected without a written agreement and can remain able to be protected as long as the information remains a trade secret. A trade secret does not prevent someone from “reverse engineering” the secret or independently developing it, unless there is a contractual prohibition to the contrary (e.g., a provision expressly prohibiting reverse engineering of a program by decompilation or disassembly).

Public distribution of the object code does not mean that the software at the source code level cannot be protected as a trade secret.

Trade secret “misappropriation” consists of use or disclosure of a trade secret acquired through a relationship of trust (e.g., employment), or through fraud or other improper means, such as theft, bribery or hacking. Remedies include injunctive relief and damages.

B. Maintenance of a Trade Secret

How “secret” should the trade secret be maintained? The test is the reasonableness of the precautions taken. Some examples include:

- 1. Computer security measures to prevent unauthorized on-line access.**
- 2. Requiring all outside parties to execute non-disclosure or confidentiality agreements.**
- 3. Do not distribute the source code to an end user.**

4. **Having employees execute non-disclosure agreements.**
5. **Labeling all sensitive documents, such as drawings, “CONFIDENTIAL”.**
6. **Excluding the public from sensitive areas in a plant.**

C. Advantages and Disadvantages of Trade Secret Protection

1. Advantages

Trade secret protection protects ideas, not merely the expression of ideas as with copyrights, as long as those ideas are not readily observable or obtainable through reverse engineering. The subject matter protected as a trade secret does not have to rise to the level of a patentable invention. As long as a trade secret remains a secret and provides a competitive advantage, there is no time limit as to the length of protection, unlike patents and copyrights.

2. Disadvantages

A trade secret remains a trade secret only as long as it is secret. Therefore, trade secrets cannot protect those things which are readily observable or can be reverse engineered. Unlike patent protection, trade secret does not prohibit independent creation by another party.

APPENDIX A

CHECKLIST FOR FAIR USE

Please complete and retain a copy of this form in connection with each possible "fair use" of a copyrighted work for your project

Copyrighted Work: _____ Copyright Owner: _____ Your Name: _____

Project: _____ Material to be Taken: _____ Date: _____

PURPOSE

Fair Use

Not Fair Use

- | | |
|---|--|
| <input type="checkbox"/> Teaching (including multiple copies for classroom use) | <input type="checkbox"/> Commercial activity |
| <input type="checkbox"/> Research | <input type="checkbox"/> Profiting from the use |
| <input type="checkbox"/> Scholarship | <input type="checkbox"/> Entertainment |
| <input type="checkbox"/> Nonprofit Educational Institution | <input type="checkbox"/> Bad-faith behavior |
| <input type="checkbox"/> Criticism | <input type="checkbox"/> Denying credit to original author |
| <input type="checkbox"/> Comment | |
| <input type="checkbox"/> News reporting | |
| <input type="checkbox"/> Changes the work for a new use | |
| <input type="checkbox"/> Restricted access (to students or other appropriate group) | |
| <input type="checkbox"/> Parody | |
-

NATURE

Fair Use

Not Fair Use

- | | |
|--|--|
| <input type="checkbox"/> Published work | <input type="checkbox"/> Unpublished work |
| <input type="checkbox"/> Factual or nonfiction-based | <input type="checkbox"/> Highly creative work (art, music, novels, films, plays) |
| <input type="checkbox"/> Important to favored educational objectives | <input type="checkbox"/> Fiction |
-

AMOUNT

Fair Use

Not Fair Use

- | | |
|--|---|
| <input type="checkbox"/> Small quantity | <input type="checkbox"/> Large portion or whole work used |
| <input type="checkbox"/> Portion used is not central or significant to entire work | <input type="checkbox"/> Portion used is central to work or "heart of the work" |
| <input type="checkbox"/> Amount is appropriate for favored educational purpose | |
-

EFFECT

Fair Use

Not Fair Use

- | | |
|--|--|
| <input type="checkbox"/> User owns lawfully acquired or purchased copy of original work | <input type="checkbox"/> Could replace sale of copyrighted work or significantly harm potential sales for original work (or works based on it) |
| <input type="checkbox"/> One or few copies made | <input type="checkbox"/> Affordable permission available for using work |
| <input type="checkbox"/> Does not significantly harm the copyright owner's ability to sell copies of original work | <input type="checkbox"/> Numerous copies made |
| <input type="checkbox"/> Copyright holder does not sell a similar product | <input type="checkbox"/> You made it accessible on Web or in other public forum |
| <input type="checkbox"/> The work is not reasonably available for license | <input type="checkbox"/> Repeated or long-term use |
| <input type="checkbox"/> New work performs different function than original | <input type="checkbox"/> New work performs similar function as original |

This document is based substantially on a checklist provided as a courtesy of the Copyright Management Center, IUPUI, 530 W. New York St., Indianapolis, IN 46202.

Distributed by the Office of the General Counsel, Rensselaer Polytechnic Institute.

The presenter wishes to acknowledge the contributions of *William H. Needle* (needlew@ballardspahr.com) for his efforts at organizing intellectual property material on behalf of the National Association of College and University Attorneys. Mr. Needle engages exclusively in the practice of patent, trademark and copyright law and also serves as an Adjunct Professor at Georgia State University College of Law. The presenter also acknowledges the contributions of *Martin J. Ricciardi* (mricciardi@woh.com) for amending, updating and editing this presentation. Mr. Ricciardi is an intellectual property attorney practicing at Whiteman Osterman & Hanna LLP, Albany, New York, who advises the Rensselaer Polytechnic Institute Office of the General Counsel and its Office of Technology Commercialization.