

**IP Protection Strategy for Highly Sensitive, Short Life-Cycle
Software Driven Analytical Technologies**

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This is a plain language outline of a suggested Intellectual Property (IP) protection strategy that is appropriate for a typical financial services company's R&D position, one which provides flexibility to react to future challenges to such a company's proprietary IP assets.

In highly competitive fields, especially those driven by "bleeding-edge" technologies, such as the Investment & Financial Analysis field, the question of how to appropriately protect an especially advantageous advancement is a difficult question to answer. This difficulty is compounded if the advancement is software driven or relates to other art fields where the post-release product life-cycle can be relatively short, i.e., five to ten years.

Generally, in the US, where software based technologies are routinely protected under existing intellectual property (IP) laws, there are two sets of laws under which a protective strategy can be formulated: Trade Secret law and Patent law.¹ Although these two bodies of law are separate and distinct, they are not mutually exclusive for the purpose of developing and implementing an IP protection strategy in a situation where the protection of a highly sensitive proprietary technology is desired for an indefinite but relatively short period of years - as compared to the term (20 years) of an issued US patent.

The purpose of this Memorandum is to suggest an IP protection strategy for a Highly Sensitive, Short Life-Cycle, Software Driven Analytical Technology, which strategy concurrently combines aspects of both Trade Secret law and Patent law: (1) to preferentially keep the technology secret, but (2) which has the flexibility to respond to the technology being copied by others in the market place upon the loss of secrecy (due to theft, reverse engineering or independent discovery). Alternatively, if the company should envision a substantial licensing opportunity, it can be very beneficial to have a patent application

¹ Copyright law is not being considered here as an appropriate protective strategy because: (1) the subject technology's products have a relatively short life-cycle, and (2) the difficulty of preventing engineering around copyrighted source code. Also, to receive copyright protection, the material to be protected (e.g., source code) must be published.

available on the technology to facilitate exploiting the opportunity.

Strategic Steps

1. Establish and implement a Trade Secret policy within the company and in other business-to-business interactions. As we understand it, a Trade Secret policy is to be addressed by another firm. Nevertheless, we include a few notes on the protection of Trade Secrets applicable to the US. The specifics of this policy should include: development & use of standard non-disclosure/confidentiality agreements for inclusion in an employment manual, and for presentation to vendors; modularizing software development; etc.).

Generally, a Trade Secret is:

- *information* (technical & non-technical)
 - that has *economic value* (or give the owner an economic advantage over competitors)
 - which is not generally known or readily ascertainable (does not have to be “absolutely” secret), and
 - the owner *makes reasonable efforts* (internal & external) to keep the information secret.

Protect your Trade Secrets as a part of your general business practices:

- identify & understand your key trade secrets (everything cannot be secret);
 - the degree of protection for a trade secret is directly linked to how well secrecy is maintained; and
 - practical measures reasonable to the value of the technology should be implemented and documented.

2. Establish and implement a Patent protection policy. It is this aspect of the IP protection strategy that we are to address here in at least a general way. Our suggestion is that the company’s IP protection strategy should include implementation of the following steps:

- (a). File a US provisional patent application on the technology as it currently exists.
- (b). File follow-up US provisional patent applications as often as necessary to bring new developments under the protection of the strategy.
- (c). Convert all such pending US provisional patent applications having to do with a single technology into a single fully comprehensive US utility application before the anniversary date of the filing of the earliest provisional application.
 - ***include in the utility filing a Request for Non-Publication to maintain secrecy.***
- (d). Monitor the status of the utility application in the US Patent Office to

assure that there is no erroneous or inadvertent pre-publication mistake made in the USPTO.

(e). File follow up Continuation-in-Part applications in the USPTO based on a previously existing US utility application (again requesting non-publication) as the technology continues to develop, and (optionally) abandon the previously existing application.

The above suggested Patent protection strategy is intended to assure that as long as there is a US patent application pending on the technology, if the trade secret aspect of protection is breached or otherwise overcome, then the company will still have the possibility of protecting the technology, after it has become known to the public. Further, another purpose is to better ensure that the company can continue to practice the invention, despite being informed of third party patent rights (cross-licensing or foreclosing competitor's entry into the market).

Plain Language Explanation of the Patenting Strategy

The above patent protection strategy can be thought of as a variation on the old "submarine" patent strategy.² A "submarine patent" is an old, informal term used to describe a patent application that is kept secret for a long period of time, and is not published before it is granted - a relatively long time after the initial application was filed. The term is used as an analogy to a submarine, the presence of which is unknown to the public so long as it stays under water (i.e., remains unpublished). Once the technology becomes generally used in the field, the hidden application is then allowed to issue into a "submarine patent" and to "torpedo" the competition, catching them off guard. Abusive aspects of this practice were previously possible under the US patent law, but were largely eliminated when the US signed the GATT/TRIPS agreement (administered by the WTO) which limited patent terms to 20 years measured from the original filing or priority date.

An applicant's legitimate need for secrecy is still recognized and still provided for under US patent law. Currently, US patent applications ordinarily are published after 18 months from the filing or priority date. However, upon the filing of a US utility patent application, an applicant can request that the application NOT be published by expressly declaring that s/he does not intend to file a corresponding patent application in a country that requires publication at 18 months. This non-publication request keeps the application secret. So, although the enforceable life of a patent issued on a "submarine" application can no longer be extended, it is potentially possible to keep the technology secret and concurrently have the option of US patent protection for a period of up to 20 years, provided development

² Another analogy is that of a land mine, the location of which is unknown until it's too late to avoid them.

of the technology also continues during this period.³

The downside of a request for non-publication is that the applicant must give up the opportunity of filing a foreign patent application if secrecy beyond the 18 month period is desired and forego any defensive benefit that publication might afford. However, currently many non-US jurisdictions are not particularly supportive of pure software applications. So, the more a technology is software drive, in view of the general reluctance toward software patents, it may be not be much of a detriment to give up patent protection at least in such countries.

Now a word about US provisional patent applications which we recommend that the client company focus on now and continue to file in the future. A US provisional patent application is never published, and is never available to the public, unless it is the subject of a priority claim in a subsequent US (or foreign) patent application that is published. Therefore, if a US patent application claiming priority to one or more US provisional applications is never published, then all provisional applications are also never published.

Our recommended Strategy – Preserving the most options, & costs

Prepare regular US application (7000 – 12000 USD) and request search report from, for example, the EPO (\$5500) or the Swiss patent office (\$4500), and use results to improve US application (iterative cost of perhaps \$4000). File US application with a non-publication request. If the search results were positive, consider filing an European application (\$8000) and giving up secrecy (although most likely will not file with EPO). File periodic US continuation applications (~\$4000 each) adding the latest developments again with non-publication request.

Conclusion

The rules are complex and the variables significant. Seek counsel from a patent firm that truly knows US patent law, preferably a firm with licensed US patent attorneys-at-law on staff, and avoid the firms that say they're experts by virtue of their having attended a seminar or a summer course on the subject. A summer course cannot substitute for 4 years of formal training in US law and the passing of the requisite licensing exams.

Work closely with your patent counsel to manage the rules to your advantage. In this way you can avoid pitfalls, reduce overall costs and maximize value.

If you have any questions regarding the information presented in this article, please do not hesitate to contact us at moetteli(AT)patentinfo.net.

³ It is not permitted in practice before the US Patent Office to prolong prosecution simply for the purpose of delay. It is important to show reasonable continuing development of the technology throughout the application process.