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TRADE SECRETS IN COMMERCIAL TRANSACTIONS AND BANKRUPTCY

LARS S. SMITH*

*J.D. 1992, LL.M.(IP) 1998. Lars S. Smith is an Assistant Professor at the Louis D. Brandeis School of Law at the University of Louisville. Professor Smith teaches courses in business and intellectual property law, with an emphasis on law and entrepreneurism.

I. INTRODUCTION

Success in business rests on a company's ability to innovate in the face of competition. In today's world, that innovation most often takes shape in the form of intangible assets -- intellectual property. Developing those assets requires a great deal of capital. As a result, a common source of financing is through banks. Since banks are conservative organizations that typically do not want to accumulate too much risk, most loans obtained from banks are secured by liens on all of a company's assets. Traditionally, this meant using equipment, buildings, and inventory as collateral. However, in today's high tech world, where the major assets of many corporations exist in the form of patents, copyrights, trademarks, and trade secrets, such intangible assets can have enormous value. For example, the Coca-Cola Company values its COCA-COLA trademark at around $ 34 billion.40_IDEA_549)_and_footnotes(n1);.FTNT n1

While much has been written about the issues surrounding security interests in patents, trademarks and copyrights,40_IDEA_549)_and_footnotes(n2);.FTNT n2 trade secrets are often ignored or dealt with superficially. Most articles focus on federally created and protected intellectual property. This paper focuses on the process and pitfalls of obtaining a security interest in trade secrets and the effect of bankruptcy on such collateral.

II. TRADE SECRET LAW

A. Uniform Trade Secrets Act

Unlike the three major areas of intellectual property law, patents, trademarks and copyrights,40_IDEA_549)_and_footnotes(n3);.FTNT n3 trade secret law is generally governed by state law.40_IDEA_549)_and_footnotes(n4);.FTNT n4 Trade secret law is

established by each separate state, in accordance with the statutes and common law of such state.40_IDEA_549)_and_footnotes(n5);.FTNT n5 However, most states40_IDEA_549)_and_footnotes(n6);.FTNT n6 have adopted a version of the Uniform Trade Secrets Act ("UTSA"), which defines a trade secret as follows:

"Trade Secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that:

(i) 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; and

(ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.40_IDEA_549)_and_footnotes(n7);.FTNT n7

It should be noted that in 1996, President Clinton signed the Economic Espionage Act (.EEA.) into law, thereby creating a federal system for the protection of trade secrets.40_IDEA_549)_and_footnotes(n8);.FTNT n8 The definition of trade secret under this act closely tracks that of the UTSA. 40_IDEA_549)_and_footnotes(n9);.FTNT n9 However, the EEA does not create a private right of action,40_IDEA_549)_and_footnotes(n10);.FTNT n10 and thus the definition of trade secret under the EEA will probably not be relied on to determine the rights of parties in bankruptcy. Therefore, for purposes of this paper the definition under the UTSA will be relied on.

B. What is Protected by Trade Secret Law

In defining the scope of a trade secret it is necessary to determine what type of property right the courts and legislatures have sought to protect under trade secret law. The trade secret property right is different from what is protected by the three other main branches of intellectual property law. Generally speaking, the basic right of an owner of a patent, copyright or trademark is protection from interference by the rest of the world with that owner's property. Even innocent infringement is prohibited under these laws.40_IDEA_549)_and_footnotes(n11);.FTNT n11

By comparison, trade secret law is concerned with the relationship between the parties in question. The majority of lawsuits involving trade secrets are brought by employers against their former employees, for a breach of confidence arising from the employment relationship between them.40_IDEA_549)_and_footnotes(n12);.FTNT n12 At its core, this type of case is based on a breach of contract theory, with the employee violating the terms of either an express or implied duty of confidence.40_IDEA_549)_and_footnotes(n13);.FTNT n13

The drafters of the UTSA acknowledged this aspect of trade secret protection. In the Commissioners. Comments to the UTSA, the drafters stated that "one of the broadly stated policies behind trade secret law is 'the maintenance of standards of commercial ethics.'"40_IDEA_549)_and_footnotes(n14);.FTNT n14 The UTSA itself protects against the "misappropriation" of a trade secret, which is defined as obtaining trade secret

information through improper means, or disclosure of the information by someone under a duty not to disclose it.40_IDEA_549)_and_footnotes(n15);.FTNT n15 Thus, if a party obtains the information other than through a misappropriation, then no violation of the UTSA has occurred.

Reverse engineering a lawfully obtained product to discover a trade secret, for example, is specifically recognized in the official comments as permissible.40_IDEA_549)_and_footnotes(n16);.FTNT n16 The Commissioners. Comments also recognize the ephemeral nature of a trade secret -- that an injunction against a violator of trade secret rights should only run for as long as the secret remains secret. Therefore if a third party discovers the secret during the period of an injunction, the Commissioners believe that the injunction should be dissolved, because the commercial advantage dissipates, thereby causing the .property right. in the information to vanish.40_IDEA_549)_and_footnotes(n17);.FTNT n17 By comparison, even if a new invention destroys the value of the patent infringed, the owner of the patent is still entitled to seek an injunction against someone infringing on the patent.

As a result, determining what the asset is when it comprises a trade secret can be difficult. If the trade secret is in the form of "know-how" contained in the minds of certain key technical personnel, and is protected by non-disclosure agreements executed by these employees, identifying and valuing the asset is problematic. Even if the company could obtain an injunction against such employees from revealing their know-how, marketing that information would be very difficult. If the trade secret is instead embodied in a written form, such as the Coca-Cola formula or a company's customer list, identifying and valuing it is considerably easier.

In this article, unless otherwise noted, it is assumed for the purposes of analysis that the trade secret in question meets the definition under the UTSA, and remains a secret. It is also assumed that the information comprising the trade secret is reduced (or easily reducible) to written form or otherwise readily transferable to third parties.

III. SECURITY INTERESTS IN TRADE SECRETS

A. Reasons for Obtaining a Perfected Security Interest Generally

As discussed in the introduction, almost any person interested in competing in the marketplace must raise capital in order to carry on his or her business. The two most common methods of raising capital are equity and debt financing -- either selling an interest in the business to investors, such as through a stock sale, or borrowing from a lender.

Equity financing has few direct costs to the business itself, because there is generally no obligation on the part of the business to repay an equity holder for their investment, at least if the investment is in common stock. However, along with the risk of losing the investment, an equity investor also shares in the unlimited upside potential of the company, which is one reason why investors buy stock. From the current owner's perspective, adding equity holders dilutes the current owner's interests.

Debt financing, by comparison, has an immediate effect on the business. bottom line. All lenders expect to be repaid, and contractually obligate the business to make periodic payments of principal and interest. However, a lender typically does not share in the

success of the business beyond the interest earned on its loan. So long as the business is meeting its debt service, all profits are retained by the business and ultimately paid out to the owners. As a result, lenders must take steps to ensure repayment of the loan in order to protect their limited earnings potential from any particular loan. Lenders therefore typically secure repayment of the debt by taking a lien on a business' assets. The form the lien takes depends on the type of asset pledged. For example, if the asset is real estate the lien would be secured by a mortgage. Under the regime of Article 9 of the Uniform Commercial Code ("UCC"), liens on personal property are referred to as security interests.40_IDEA_549)_and_footnotes(n18);.FTNT n18 The UCC is a set of uniform rules for commercial transactions and has been adopted, in one form or another, in all fifty states.

When a business is not making enough profit to cover the debt service to its lender, the lender is required to foreclose on its security interest in order to seek repayment of the debt. Since a sale of the assets is the only means to recover any part of the amount lent, the lender does not want to have to compete for the assets with other creditors of the now-defunct business. Therefore, prior to bankruptcy, the lender tries to obtain a security interest that is superior to all other creditors of the failed business, including the bankruptcy trustee. Such a lien is referred to as a perfected security interest under the UCC.40_IDEA_549)_and_footnotes(n19);.FTNT n19

B. The Application of UCC Article 9 to Security Interests in Personal Property

Pursuant to section 9-102, UCC Article 9 applies to transactions which are intended to create a security interest in personal property, including general intangibles.40_IDEA_549)_and_footnotes(n20);.FTNT n20 The purpose of creating a uniform law to deal with security interests in personal property was to eliminate much of the formality and confusion which existed under prior law. The system created under Article 9 was intended to be comprehensive and clear so that all types of personal property would be dealt with under the same statute and in a consistent manner.40_IDEA_549)_and_footnotes(n21);.FTNT n21

1. Classification of the Collateral

a) Generally

The UCC categorizes different types of personal property. For example, goods are divided into four categories, including consumer goods, equipment, farm products and inventory.40_IDEA_549)_and_footnotes(n22);.FTNT n22 Each of these categories is mutually exclusive.40_IDEA_549)_and_footnotes(n23);.FTNT n23 Although most of the provisions of the UCC apply to all types of collateral, there are certain special rules that apply to particular types of collateral.40_IDEA_549)_and_footnotes(n24);.FTNT n24 Determining the correct category can have important consequences.

The UCC defines general intangibles in the negative, as a type of personal property not included in property otherwise categorized.40_IDEA_549)_and_footnotes(n25);.FTNT n25 The definition of general intangibles operates as a catch-all for intangibles excluded under the definition of another type of personal property.40_IDEA_549)_and_footnotes(n26);.FTNT n26 The Official Comment to section 9-106 further defines general intangibles as "miscellaneous types of

contractual rights and other personal property that are used or may become customarily used as commercial security."40_IDEA_549)_and_footnotes(n27);.FTNT n27 The comment provides examples of general intangibles, such as patents, trademarks and copyrights.40_IDEA_549)_and_footnotes(n28);.FTNT n28 Trade secrets also fall into the category of general intangibles.40_IDEA_549)_and_footnotes(n29);.FTNT n29

b) Classification of Trade Secrets

As discussed above, the types of personal property that may be used as collateral to secure a loan are divided into separate, mutually exclusive categories under Article 9 of the UCC. The effect of this distinction is that if the asset is not included in the description of goods covered by the security interest, the lender does not have a priority interest in the asset. Instead, the asset remains part of the bankruptcy estate, free of any lien, and may be sold to pay off any general creditors. Thus, the importance of properly classifying the asset is key in a bankruptcy case. However, determining whether an item is a trade secret can be difficult at times. For example, in the bankruptcy case of United States v. Antenna Systems, Inc.,40_IDEA_549)_and_footnotes(n30);.FTNT n30 the U.S. District Court of New Hampshire had to determine whether blue prints and technical data, embodied in pieces of paper, were either goods or general intangibles under Article 9.40_IDEA_549)_and_footnotes(n31);.FTNT n31 The reason for the problem was that the bank that lent money to Antenna had not included general intangibles in its list of the types of property covered by the security agreement.40_IDEA_549)_and_footnotes(n32);.FTNT n32 Thus, Antenna had not granted the bank a security interest in general intangibles, and as such, the trustee in bankruptcy was free to sell the general intangibles to pay off the general creditors.40_IDEA_549)_and_footnotes(n33);.FTNT n33

The United States, as guarantor of the bank's debt to Antenna, sought to characterize these papers as goods so that its perfected security interest in goods covered the proceeds of the sale of the assets of Antenna.40_IDEA_549)_and_footnotes(n34);.FTNT n34 As discussed above, the broad category of goods is divided into four specific categories. The United States was arguing that the papers constituted goods under section 9-105, as either inventory or equipment.40_IDEA_549)_and_footnotes(n35);.FTNT n35

Because the property in question was in the form of paper documents,40_IDEA_549)_and_footnotes(n36);.FTNT n36 the property could be characterized as a form of good. Specifically, Article 9 defines "goods" as including "all things which are movable at the time the security interest attaches."40_IDEA_549)_and_footnotes(n37);.FTNT n37 However, the definition goes on to say that goods do "not include money, documents, instruments, accounts, chattel paper, general intangibles, or minerals or the like (including oil and gas) before extraction."40_IDEA_549)_and_footnotes(n38);.FTNT n38 Putting aside the issue of whether the drawings and blueprints had been created at the time the security interest was granted, such drawings and blueprints are clearly movable items. However, Article 9 recognizes that certain items could be movable and yet embody intangible property. Thus, Article 9 requires the court to determine whether the item in question is a general intangible. If the determination is affirmative, the item cannot be a good. It is also important to note that under this definition of goods, a general intangible can also be a

movable item, which is how a piece of paper can instead be characterized as a general intangible.

The Antenna Systems court noted that in making this distinction, the drawings and blueprints could be characterized as either type of collateral, but did not fit neatly into either category.40_IDEA_549)_and_footnotes(n39);.FTNT n39 The court focused on the fact that the information contained in the drawings was generally kept confidential by Antenna.40_IDEA_549)_and_footnotes(n40);.FTNT n40 The court also discussed how the blue prints and technical data were used by Antenna in its business, which included design and development of specific products for clients, as well as general research and development of future products. The latter was performed by the company's engineering department and sometimes by outside consultants.40_IDEA_549)_and_footnotes(n41);.FTNT n41 Ultimately the court ruled that the blue prints, drawings and technical data were "the visual reproductions on paper of engineering concepts, ideas and principles, which are general intangibles within the meaning of that term as used in the Uniform Commercial Code."40_IDEA_549)_and_footnotes(n42);.FTNT n42 As a result, the United States was held to have no security interest in the drawings, blueprints and technical data.40_IDEA_549)_and_footnotes(n43);.FTNT n43

2. Attachment of the Security Interest

a) Generally

In order to obtain an enforceable security interest in personal property, the security interest must attach to that property. If attachment has not occurred, then the security interest is not enforceable against either the debtor or third parties with respect to the collateral.40_IDEA_549)_and_footnotes(n44);.FTNT n44 Article 9 sets out three elements for attachment: 1) either the creditor has possession of the collateral pursuant to an agreement with the debtor, or, more commonly, the debtor has executed a written security agreement that describes the collateral; 2) the creditor has given value to the debtor; and 3) the debtor has rights in the collateral.40_IDEA_549)_and_footnotes(n45);.FTNT n45

If one of the above elements of attachment is missing, then the security interest is not enforceable, and the creditor is treated as a general creditor of the debtor and not as a secured party. In order to proceed against the collateral, the creditor would then have to obtain a judgment against the debtor, and levy on the property.40_IDEA_549)_and_footnotes(n46);.FTNT n46 The security interest attaches upon the last of the elements to occur, unless otherwise agreed.40_IDEA_549)_and_footnotes(n47);.FTNT n47

b) Attachment of a Security Interest in Trade Secrets

Article 9, section 203 does not explicitly limit attachment through possession to any particular type of collateral. Therefore, a creditor could conceivably take possession of a trade secret and attach its security interest to the trade secret. However, this action poses several concerns for the parties, such as the limitation of access to the information to maintain its trade secret status. From a more practical stand point, section 203 is not clear as to what it means to "possess" a general intangible. As one commentator describes the

problem, "it is obvious that the collateral involved must be capable of possession; that is, it must be tangible property."40_IDEA_549)_and_footnotes(n48);.FTNT n48 However, this concern is merely academic, because the creditor can never become perfected through possession.40_IDEA_549)_and_footnotes(n49);.FTNT n49

Given that a creditor will not attach its security interest in a trade secret by possession, the creditor will require the debtor to execute a written security agreement. The most important concern regarding the security agreement is the question of an adequate description of the collateral. A general discussion of this issue follows in Part III.B.3 of this paper.

Of greater interest in attachment is the question of whether the debtor has rights in the collateral. As discussed above, a trade secret encompasses information, which has independent economic value, and is subject to reasonable efforts to keep the information secret. Unfortunately, the UTSA does not define who owns a trade secret.40_IDEA_549)_and_footnotes(n50);.FTNT n50 Presumably, the party obtaining the economic value of the trade secret will have rights in the collateral sufficient to meet the Section 203 requirement. However, trade secrets are generally developed by employees (rather than acquired from third parties), and so consideration must be made of the employment relationship. If the trade secrets fall within the employee's job responsibilities, and there is an employment agreement clearly spelling out the ownership and disclosure rights, generally the employer will be found to be the owner.40_IDEA_549)_and_footnotes(n51);.FTNT n51 Even without an agreement, the general rule today is that the employer that hires an employee to develop ideas, or other information that falls within the employee's job responsibilities, owns the trade secret.40_IDEA_549)_and_footnotes(n52);.FTNT n52

However, where the information developed by the employee falls outside of his or her job responsibilities, ownership may not be as clear. In such circumstances, the employer may only obtain a "shop right," or no rights at all.40_IDEA_549)_and_footnotes(n53);.FTNT n53 A shop right basically amounts to a nonexclusive right to use the trade secret without liability to the employee.40_IDEA_549)_and_footnotes(n54);.FTNT n54 The employee retains ownership of the trade secret.40_IDEA_549)_and_footnotes(n55);.FTNT n55 As a result, while the creditor will be able to attach such shop right, it is not an asset that can be transferred, and thus would be of little value to the creditor.

Most of these issues can be resolved with tightly written employment agreements that require the employee to disclose the information, and clearly set out the employer's ownership of that information.40_IDEA_549)_and_footnotes(n56);.FTNT n56 Therefore, determining whether the debtor has rights in the collateral will be a very fact intensive issue. Any creditor relying on trade secrets to secure its debt must do an extensive review of the debtor's employment agreements, non-disclosure agreements, and general practices to secure and maintain its trade secret assets. Also, it will be problematic for a security interest to attach to knowledge held in the minds of employees. A creditor may be able to obtain an injunction to prevent disclosure of the trade secret should the creditor foreclose on the assets of the business. However, the creditor will be at a distinct disadvantage in trying to encourage the employees to disclose trade secrets that they hold in their heads.

The creditor should also consider including an after acquired property clause in its security agreement. As noted above, the security interest attaches at the time all of the elements of attachment occur. With an after acquired property clause, attachment can occur after the credit has been extended. Businesses generally create trade secrets on an ongoing basis, such as the creation and revision of customer lists. This information would become property of the borrower, and thus covered by the security interest, the moment the information comes into existence.

However, even though the security interest may attach to the trade secret, the practical problem is that the creditor may never be made aware of the existence of the trade secret. Therefore, the creditor should require the debtor to require its employees to disclose the trade secrets, and require the debtor to maintain records of such developments. If the information is held in escrow, the debtor should also have to provide the new information to the escrow agent on a regular basis.

Another consideration is that the asset exists only as long as the requirements of the UTSA are met. Once the information becomes public knowledge, it is no longer a trade secret, and is no longer property.40_IDEA_549)_and_footnotes(n57);.FTNT n57 Once disclosed, the property right is lost forever. The loss can occur without wrong doing, such as the sale of an item that embodies the trade secret.40_IDEA_549)_and_footnotes(n58);.FTNT n58 If the trade secret is able to be reverse engineered, or is otherwise apparent from the item itself, it is nevertheless lost.40_IDEA_549)_and_footnotes(n59);.FTNT n59 Thus, a security interest that may have attached to a trade secret at the time the loan was made can evaporate. Creditors must pay close attention to the nature of the trade secret to determine its likely duration.

3. Description of the Collateral

a) Generally

As noted, the security agreement must describe the collateral in which the debtor has granted the security interest.40_IDEA_549)_and_footnotes(n60);.FTNT n60 Section 9-110 of the UCC governs sufficiency of description and states that "for the purposes of this Article any description of personal property or real estate is sufficient whether or not it is specific if it reasonably identifies what is described."40_IDEA_549)_and_footnotes(n61);.FTNT n61 The drafters went further in the Official Comment to this section to explain that they were rejecting cases that adopted the .serial number. test.40_IDEA_549)_and_footnotes(n62);.FTNT n62 Now the description only has to describe the collateral in sufficient detail such that it is possible to identify the thing described.40_IDEA_549)_and_footnotes(n63);.FTNT n63 This is consistent with the belief that Article 9 creates a notice system for security interests in personal property.

The drafters' intent was to create a system that avoided the formalistic and complex systems that existed with chattel mortgage systems. "The scheme of this Article is to make distinctions, where distinctions are necessary, along functional lines. This has made possible a radical simplification in the formal requisites for creation of a security interest."40_IDEA_549)_and_footnotes(n64);.FTNT n64 The case law has generally followed this admonition for simplifying the process of obtaining a security interest in personal property, and has not required an overly formalistic requirement for what

constitutes an adequate description of the collateral for purposes of the security agreement.40_IDEA_549)_and_footnotes(n65);.FTNT n65 Nevertheless some courts have required a "particularity almost reminiscent of the preCode chattel mortgage acts."40_IDEA_549)_and_footnotes(n66);.FTNT n66 However, the common requirement is that the security agreement describe the collateral with sufficient clarity so that others can determine that the parties intended to create a security interest in the collateral.40_IDEA_549)_and_footnotes(n67);.FTNT n67

b) Description of Trade Secrets

When collateral is a trade secret there is a clear tension for the creditor between the requirement of secrecy to maintain the trade secret, and the requirement to reasonably describe the collateral to meet the requirements of the UCC. (The debtor, on the other hand, wants as little information to be disclosed as possible.) The dilemma for the creditor is how broad it can make the description while still meeting the minimum requirements of the UCC. While a description of "all assets" has been found to be over-broad,40_IDEA_549)_and_footnotes(n68);.FTNT n68 the UCC permits listing the assets by "Codedefined type (e.g. equipment, inventory, accounts, chattel paper, general intangibles, consumer goods, farm products, etc.) . . ."40_IDEA_549)_and_footnotes(n69);.FTNT n69 Thus, courts have found that a description of the collateral as "general intangibles" is adequate.40_IDEA_549)_and_footnotes(n70);.FTNT n70 Another court held that a security agreement that described the collateral as general intangibles included a covenant not to compete.40_IDEA_549)_and_footnotes(n71);.FTNT n71 No case law discusses what is minimally required for an adequate description of trade secrets, however. Presumably, so long as the security agreement and financing statements list trade secrets as one type of general intangible covered by the security interest, this description is sufficient.

The creditor relying on trade secrets as security should have the information reduced to written form, or at least identified with sufficient definiteness so that if the creditor does foreclose on the assets, the creditor can marshal the trade secrets. Detailed information need not, and should not, be listed in the financing statement or security agreement. Instead the creditor should insist that the information be available to the creditor upon the occurrence of a default. One solution might be to keep the trade secret information in escrow pending an event of default. This approach would pose no hardship on the debtor, as one aspect of intellectual property is that it can be possessed simultaneously by multiple parties. However, the escrow agent would have to agree not to disclose the information except under very limited circumstances.

4. Perfection of the Security Interest

a) Generally

In order to obtain priority status under Article 9, the secured creditor must perfect its security interest. As described in the Official Comment to section 9-301, a perfected security interest is a "security interest in personal property which cannot be defeated in insolvency proceedings or in general by creditors."40_IDEA_549)_and_footnotes(n72);.FTNT n72 Under Article 9, the drafters intended the meaning of the term "perfection" to be coextensive with that in the

Bankruptcy Act.40_IDEA_549)_and_footnotes(n73);.FTNT n73 As a result, if a creditor is perfected under the UCC, that perfected status will be respected under the Bankruptcy Code.

Under Article 9, anything less than perfection is inadequate, because even though the security interest has attached, the secured party is still not protected against most third parties. If unperfected, the secured party's interest in the debtor's property is subordinate to many creditors and other third parties, including a lien creditor.40_IDEA_549)_and_footnotes(n74);.FTNT n74 This observation is key because the bankruptcy trustee is defined under Article 9 to be a type of lien creditor, and thus has priority over the assets of a debtor under Article 9.40_IDEA_549)_and_footnotes(n75);.FTNT n75 Therefore, under the UCC the trustee in bankruptcy can defeat an unperfected secured party.

Part 3 of Article 9 sets forth the methods of obtaining a perfected security interest in personal property. Although several methods are possible, under section 9-302, unless specifically permitted or exempted, the only method of perfecting a security interest is by filing a financing statement.40_IDEA_549)_and_footnotes(n76);.FTNT n76 The types of collateral in which a security interest may be perfected through methods other than filing are listed in subsection 1 of section 9-302.40_IDEA_549)_and_footnotes(n77);.FTNT n77 Subsection 3 sets forth those types of security interests in which filing of a financing statement is ineffective. One such type of security interest includes an interest in property for which a federal statute establishes a national registration system.40_IDEA_549)_and_footnotes(n78);.FTNT n78 This assertion has been interpreted to include filing of security interests in federally protected intellectual property, such as copyrights.40_IDEA_549)_and_footnotes(n79);.FTNT n79

The requirements for a financing statement are set forth in section 9-402. The form is sufficient if it contains the name and address of both the debtor and the secured party, and a statement about the types of collateral secured, or a specific description of the items.40_IDEA_549)_and_footnotes(n80);.FTNT n80 Minor mistakes that are not misleading will not destroy the effectiveness of the filing.40_IDEA_549)_and_footnotes(n81);.FTNT n81 The filing system creates a notice system, which is meant only to put people on notice of the existence of a security interest. It is not intended to create the security interest, as with a real estate mortgage.40_IDEA_549)_and_footnotes(n82);.FTNT n82

The place for filing the financing statement is set forth in section 9-401. In most states, the filing is made both with the Secretary of State's office, as well as with a local filing office, such as the town hall where the debtor is located.40_IDEA_549)_and_footnotes(n83);.FTNT n83 Section 9-103 sets out the rules for determining which state's laws apply concerning the place for filing in a multi-state transaction. For general intangibles, it is the law of the jurisdiction where the debtor is located that governs how to perfect the security interest.40_IDEA_549)_and_footnotes(n84);.FTNT n84 Under these rules, the debtor is .deemed located at his place of business if he has one, at his chief executive office if he has more than one place of business, otherwise at his residence..40_IDEA_549)_and_footnotes(n85);.FTNT n85

Perfection occurs when the security interest has attached and the steps needed to perfect that interest have occurred.40_IDEA_549)_and_footnotes(n86);.FTNT n86 If the creditor must file a financing statement to perfect its interest, then the financing statement must be filed in a timely fashion; otherwise it is not effective against other parties that take an interest in the debtor's property before the filing is made.40_IDEA_549)_and_footnotes(n87);.FTNT n87

b) Perfection of a Security Interest i n Trade Secrets

Given that trade secrets are intangible assets, it would be conceptually difficult for a creditor to take possession of them. Presumably, to avoid arguments about who has possession of a general intangible, and whether such possession is sufficient possession to perfect the security interest, the UCC does not include general intangibles in the type of collateral in which a creditor may perfect its security interest by possession (i.e. without filing).40_IDEA_549)_and_footnotes(n88);.FTNT n88 The drafters of the UCC reinforced this point in the Official Comments to section 9305 by stating, "This section permits a security interest to be perfected by transfer of possession only when the collateral is goods, instruments, . . . documents or chattel paper: that is to say, accounts and general intangibles are excluded."40_IDEA_549)_and_footnotes(n89);.FTNT n89 As a result, if the security interest is to attach to a general intangible, the debtor -- the owner of the trade secret -- must execute a security agreement and file a financing statement with the state agency or agencies listed in section 9-401.40_IDEA_549)_and_footnotes(n90);.FTNT n90

IV. BANKRUPTCY

Laws governing insolvency were considered important enough in the creation of the United States, that the framers included specific constitutional authority for Congress to pass national legislation controlling bankruptcies.40_IDEA_549)_and_footnotes(n91);.FTNT n91 Congress passed the first significant bankruptcy legislation in 1898, referred to as the Bankruptcy Act.40_IDEA_549)_and_footnotes(n92);.FTNT n92 This Act has been amended numerous times since 1898.40_IDEA_549)_and_footnotes(n93);.FTNT n93

The general purpose of the bankruptcy law is to provide individuals with a fresh start and businesses with an opportunity to either restructure their debt or to orderly liquidate.40_IDEA_549)_and_footnotes(n94);.FTNT n94 Through the process of bankruptcy, the assets of the debtor40_IDEA_549)_and_footnotes(n95);.FTNT n95 are marshaled while the debts of the debtor are quantified and categorized, creating an .estate..40_IDEA_549)_and_footnotes(n96);.FTNT n96 Once this process is completed, the assets of the estate are used to pay off the creditors to the extent that there are sufficient assets in the estate to do so.40_IDEA_549)_and_footnotes(n97);.FTNT n97 Bankruptcy cases are administered by Bankruptcy Courts, which are adjuncts of the U.S. Federal District Courts.40_IDEA_549)_and_footnotes(n98);.FTNT n98

A. General Bankruptcy Procedures

1. Filing for Bankruptcy

A bankruptcy case is generally started by filing a petition with the bankruptcy court.40_IDEA_549)_and_footnotes(n99);.FTNT n99 Petitions are either voluntarily

filed by the debtor,40_IDEA_549)_and_footnotes(n100);.FTNT n100 or by three or more creditors of the debtor.40_IDEA_549)_and_footnotes(n101);.FTNT n101 The filing of the bankruptcy petition creates a bankruptcy estate, which includes "all legal and equitable interests of the debtor in property as of the commencement of the case."40_IDEA_549)_and_footnotes(n102);.FTNT n102 In the case of a voluntary petition, the filing of the petition constitutes the order for relief.40_IDEA_549)_and_footnotes(n103);.FTNT n103 In other words, the bankruptcy court is not required to determine whether or not the bankruptcy is appropriate -- that determination is automatic, subject to the right of the court to dismiss the case.40_IDEA_549)_and_footnotes(n104);.FTNT n104

Under the Code, a debtor can file several different types of bankruptcies. Most common is the Chapter 7 liquidation.40_IDEA_549)_and_footnotes(n105);.FTNT n105 A Chapter 7 filing is available to individuals and businesses, and results in all of the assets of the debtor being liquidated to pay off, to the extent possible, all of the creditors of the estate.40_IDEA_549)_and_footnotes(n106);.FTNT n106 In the case of an individual, the debtor is entitled to exempt certain property from the estate and thus from liquidation. The purpose of this entitlement is to leave the individual debtor with some minimal assets with which to get a "fresh start."40_IDEA_549)_and_footnotes(n107);.FTNT n107 The individual debtor also has the option of filing a Chapter 13 bankruptcy, which allows the debtor to keep his or her assets, while promising to pay of his or her creditors over a set period of time.40_IDEA_549)_and_footnotes(n108);.FTNT n108

In the case of a Chapter 7 corporate debtor, no exemptions exist to protect its assets because the organization will be liquidated to pay off its debts. After the bankruptcy is complete, the corporate debtor typically no longer exists as its assets have been sold off.40_IDEA_549)_and_footnotes(n109);.FTNT n109 Analogous to the individual debtor, a corporation can avoid such drastic results by filing a Chapter 11 reorganization.40_IDEA_549)_and_footnotes(n110);.FTNT n110 Under Chapter 11, the corporation restructures its debt to pay off existing creditors, while at the same time operating as a going concern. The debtor corporation exits from bankruptcy in accordance with a plan of reorganization that either it, or the creditors, devise.40_IDEA_549)_and_footnotes(n111);.FTNT n111 The creditors, instead of being paid off through the sale of the assets, organize into creditors. committees to supervise the operation of the business and the adoption and implementation of the plan of reorganization.40_IDEA_549)_and_footnotes(n112);.FTNT n112

Once the petition is filed, several events occur that have an impact upon the debtor, its creditors, and the rights of the parties to act after the filing of the petition. One of the most powerful tools provided to debtors in bankruptcy is the automatic stay. After the petition is filed, most legal actions against the debtor occurring outside of the bankruptcy must be stopped, and sorted out in the bankruptcy case.40_IDEA_549)_and_footnotes(n113);.FTNT n113 Although some actions may still be maintained, for the most part the automatic stay gives the debtor a great deal of protection from creditors. 40_IDEA_549)_and_footnotes(n114);.FTNT n114 Eventually, the stay is removed, but generally not until after the bankruptcy case has been closed, and the debtor's estate settled.40_IDEA_549)_and_footnotes(n115);.FTNT n115 A party in

interest can petition to have the stay lifted, but only upon a showing for cause that the debtor has no equity in the property, or that the creditor's loan is secured by real estate and the debtor has failed to make payments on the debt so secured.40_IDEA_549)_and_footnotes(n116);.FTNT n116

2. Trustee in Bankruptcy

After the filing of the petition, the United States Trustee convenes a meeting of the creditors.40_IDEA_549)_and_footnotes(n117);.FTNT n117 At this meeting, the creditors and the U.S. Trustee have the opportunity to question the debtor under oath.40_IDEA_549)_and_footnotes(n118);.FTNT n118 In the case of a Chapter 7 liquidation filing, the creditors also elect a trustee to administer the estate of the debtor.40_IDEA_549)_and_footnotes(n119);.FTNT n119 The trustee in bankruptcy is a unique party, charged with the duty of collecting all of the debtor's assets, reducing them to money, and paying off the estate's debts.40_IDEA_549)_and_footnotes(n120);.FTNT n120 The trustee is also specifically charged with challenging any claims which are improper, as well as opposing the debtor's discharge if appropriate.40_IDEA_549)_and_footnotes(n121);.FTNT n121 Under the Code, the trustee's duties are supplemented with a great deal of power to take charge of the estate. First, those holding property for the debtor, or owing a debt to the debtor, must turn over the property and payments to the trustee.40_IDEA_549)_and_footnotes(n122);.FTNT n122 The trustee also has the authority to void certain preferential or fraudulent transfers made by the debtor prior to the filing of the petition.40_IDEA_549)_and_footnotes(n123);.FTNT n123

The trustee is also deemed to be a perfected lien creditor and bona fide purchaser for value, as of the date of filing the bankruptcy petition.40_IDEA_549)_and_footnotes(n124);.FTNT n124 This status gives the trustee in bankruptcy priority over all other creditors except for creditors with a perfected security interest as of the date of filing the petition. As a result, the trustee often exercises its power to challenge whether in fact a security interest is perfected, in order to free up the asset that is otherwise subject to the security interest, to use to pay off the general creditors of the estate.

The trustee can also reject executory contracts.40_IDEA_549)_and_footnotes(n125);.FTNT n125 An "executory contract" though not defined in the Code, amounts to a contract under which the obligations of the parties call for future performance. The power to reject an executory contract means that the trustee can reject any contract that is not beneficial to the estate, thereby converting the other party into an unsecured creditor of the estate. As a result, instead of obtaining performance of the debtor, and thus the full value of the contract, the other party has to line up with all the other creditors to obtain its share of what remains in the estate after all the priority creditors have been paid.

B. Trade Secrets as Assets of the Bankruptcy Estate

The bankruptcy estate contains all property in which the debtor has a legal or equitable interest.40_IDEA_549)_and_footnotes(n126);.FTNT n126 Trade secrets are specifically included in the definition of intellectual property, along with patents, patent applications and copyrights.40_IDEA_549)_and_footnotes(n127);.FTNT n127 The

debtor has an obligation to include trade secrets on its schedule of assets, and to disclose the assets to the trustee.40_IDEA_549)_and_footnotes(n128);.FTNT n128 The consequences of not including trade secrets on a schedule of assets can be dire: the bankruptcy court may dismiss the debtor's petition, subjecting the debtor to suit by all his creditors.

In the case of In re McGee, Robert McGee filed a Chapter 7 bankruptcy petition after his kit car business failed.40_IDEA_549)_and_footnotes(n129);.FTNT n129 During the process of his individual bankruptcy, McGee sold certain assets, including designs and a Bill of Materials, to Contemporary Motor Classics, another kit car company.40_IDEA_549)_and_footnotes(n130);.FTNT n130 McGee had not listed this information on his schedule of assets.40_IDEA_549)_and_footnotes(n131);.FTNT n131 Two individual creditors of McGee challenged the discharge of their debt because McGee had not listed these assets.40_IDEA_549)_and_footnotes(n132);.FTNT n132

McGee executed three Bills of Sale for the tangible property, the designs, and the Bill of Materials, wherein he represented that he was the owner of such property.40_IDEA_549)_and_footnotes(n133);.FTNT n133 However, McGee argued that the designs and Bills of Materials were effectively worthless without his technical expertise, and that the Bill of Sale was actually a consulting contract.40_IDEA_549)_and_footnotes(n134);.FTNT n134 Therefore, the designs were not assets that needed to be scheduled. In fact, the court held that a major portion of the price paid was for McGee's sourcing ability, that is, his knowledge of parts suppliers for the cars that he built.40_IDEA_549)_and_footnotes(n135);.FTNT n135

The problem for McGee was that the Bill of Materials was a vendor list for companies that supplied parts.40_IDEA_549)_and_footnotes(n136);.FTNT n136 An engineer for Contemporary stated that the main reason for contracting with McGee was to tap his sourcing ability, but that the Bill of Materials contained enough information to determine where the parts were sourced.40_IDEA_549)_and_footnotes(n137);.FTNT n137 McGee argued that the list was created after his petition filing, based on his technical knowledge, and that without his technical knowledge it had no value.40_IDEA_549)_and_footnotes(n138);.FTNT n138 The court disagreed and held that the written Bill of Materials embodied McGee's technical ability and that Contemporary executed the Bills of Sale to obtain the written list.40_IDEA_549)_and_footnotes(n139);.FTNT n139

The court ruled that McGee owned the technical information.40_IDEA_549)_and_footnotes(n140);.FTNT n140 He never argued in any of the pleadings that his defunct corporation had owned the technical information. Instead, in the first Bill of Sale, he stated that he was the owner of the property.40_IDEA_549)_and_footnotes(n141);.FTNT n141 His only defense was that his technical knowledge was not of the type that needed to be disclosed on his asset schedule.40_IDEA_549)_and_footnotes(n142);.FTNT n142

The court disagreed. More specifically, it noted that trade secrets were enumerated in the definition of intellectual property under the Code, and that property of the estate includes all legal and equitable interests in property.40_IDEA_549)_and_footnotes(n143);.FTNT n143 The court held that it was

necessary to look to state law to determine whether such technical information was property.40_IDEA_549)_and_footnotes(n144);.FTNT n144 The court cited Virginia's version of the Uniform Trade Secrets Act and case law to determine whether the type of information at issue constituted a trade secret.40_IDEA_549)_and_footnotes(n145);.FTNT n145 Comparing the Seventh Circuit's holding in Uniservices40_IDEA_549)_and_footnotes(n146);.FTNT n146 (a bankruptcy case applying Indiana trade secret law) to Virginia trade secret law, the court found that this type of confidential information is protectable property under Virginia law.40_IDEA_549)_and_footnotes(n147);.FTNT n147 Specifically, the court held that the information was not generally known or easily ascertainable, and that the purchaser would obtain economic value from the Bill of Materials.40_IDEA_549)_and_footnotes(n148);.FTNT n148 The court also noted that McGee had assigned a value to the information in one of the Bills of Sale he executed with Contemporary.40_IDEA_549)_and_footnotes(n149);.FTNT n149 In the end, the court did not allow McGee to discharge any of his debts.40_IDEA_549)_and_footnotes(n150);.FTNT n150

As this case establishes, trade secrets are assets that the trustee is to collect and reduce to money to pay off the creditors of the estate. Thus, identifiable trade secret information must be disclosed by the debtor in its bankruptcy petition, or the debtor runs the risk of not having its debts discharged for concealing assets from the trustee.

Of course, determining what constitutes a trade secret, and thus an asset in the estate, can be difficult. The definition of intellectual property in the Code was added in 1988 in the Intellectual Property Bankruptcy Protection Act of 1988 (.IPBPA.).40_IDEA_549)_and_footnotes(n151);.FTNT n151 Trade secrets arise by operation of law, when a party has taken steps to protect information sufficient to meet the State's definition of a trade secret. For purposes of bankruptcy, this makes determining what constitutes property of the estate difficult to determine. The legislative history of the Intellectual Property Bankruptcy Protection Act states that a trade secret is only intellectual property to the extent it is so protected under State law.40_IDEA_549)_and_footnotes(n152);.FTNT n152

The Intellectual Property Bankruptcy Protection Act added section 365(n) to the Bankruptcy Code. This section protects a licensee of intellectual property owned by a bankrupt licensor, when the trustee in bankruptcy decides to reject the license. The licensee is entitled to retain its rights under the license, but only to the extent that the intellectual property is protected under non-bankruptcy law.40_IDEA_549)_and_footnotes(n153);.FTNT n153 This entitlement requires the trustee, and ultimately the court, to determine what part of the information licensed actually consists of a trade secret. If the information does not rise to the level of a trade secret, then the trustee may reject the contract as executory.

Further, subsection n does not protect the licensee's right to enforce collateral covenants if they impose affirmative duties on the rejecting licensor, since these duties may be impractical to perform.40_IDEA_549)_and_footnotes(n154);.FTNT n154 For example, if the license agreement places obligations on the bankrupt licensor to train the licensee's employees on a machine, maintain a machine, or "to defend the intellectual property against infringement claims," those obligations would be terminated as of the

time of the trustee's rejection of the contract.40_IDEA_549)_and_footnotes(n155);.FTNT n155 The licensee's acceptance of the contract under 365(n) does not affect this outcome either.40_IDEA_549)_and_footnotes(n156);.FTNT n156 However, at least one court has classified a mutual covenant to keep information confidential as a "negative duty" and thus enforceable, even after rejection.40_IDEA_549)_and_footnotes(n157);.FTNT n157

Another problem faced in bankruptcy is that the general rule holds that any paper filed in a bankruptcy case is a matter of public record.40_IDEA_549)_and_footnotes(n158);.FTNT n158 Upon the motion of a party in interest, the bankruptcy court is required to protect an entity with respect to its trade secrets or confidential research, development, or commercial information.40_IDEA_549)_and_footnotes(n159);.FTNT n159 The court may also protect such assets on its own motion.40_IDEA_549)_and_footnotes(n160);.FTNT n160 Nevertheless, the general rule is that all papers are public documents. Thus, unless the debtor, the trustee, or a party in interest brings the existence of trade secrets to the attention of the court, no action will be taken to protect trade secrets.

The difficulty is determining whether the trade secret exception to the general rule of public access to court records is a question of fact. Therefore, litigation regarding a particular asset's status may be necessary. In addition, the request must be made by a party in interest. It is conceivable that a licensor, in a fully paid licensing agreement, will not be treated as a creditor of the estate, and therefore will not be a party in interest in the bankruptcy case.

C. Copyright/Trade Secret Overlap in Bankruptcy

1. Avalon Software

In June, 1997, the Bankruptcy Court for the District of Arizona ruled on the validity of a security interest held by a bank on a debtor's computer programs in In re Avalon Software, Inc.40_IDEA_549)_and_footnotes(n161);.FTNT n161 In Avalon, Imperial Bank had lent money to Avalon Software, Inc., which at the time of Avalon's bankruptcy filing amounted to $ 1,483,662.40_IDEA_549)_and_footnotes(n162);.FTNT n162 The bank had secured Avalon's debt by obtaining a security interest in Avalon's personal property, including general intangibles, as well as after acquired property.40_IDEA_549)_and_footnotes(n163);.FTNT n163 Although the bank attempted to perfect its security interest by filing a UCC-1 financing statement with the Arizona Secretary of State's office, the bank did not file any documents with the Copyright Office.40_IDEA_549)_and_footnotes(n164);.FTNT n164 While Avalon had registered the copyrights in its originally developed software, it apparently did not register copyrights on any newly developed programs.40_IDEA_549)_and_footnotes(n165);.FTNT n165 Ultimately, all of Avalon's assets were sold.40_IDEA_549)_and_footnotes(n166);.FTNT n166 The remaining issue in the case was whether the bank's lien on the software was perfected, and thus attached to the proceeds of the sale of the assets, or whether the bank was unperfected with respect to the software, and thus merely a general creditor of Avalon.40_IDEA_549)_and_footnotes(n167);.FTNT n167

As noted, Avalon had only registered the copyright with the Copyright Office for earlier versions of its products through 1991. With respect to new products or the updated

versions of old products, no registrations had been filed after 1991.40_IDEA_549)_and_footnotes(n168);.FTNT n168 The court discussed the application of Arizona's UCC statute, and the effect of the step back provision of 9-104(1) of the Arizona version of the UCC.40_IDEA_549)_and_footnotes(n169);.FTNT n169 The court held that because the Copyright Act has a procedure to record transfers of copyright, and such transfers include security interests in copyrights, a creditor can only perfect its security interest in a copyright by filing with the Copyright Office.40_IDEA_549)_and_footnotes(n170);.FTNT n170 As the bank never filed any documentation with the Copyright Office evidencing its security interest, the security interest went unperfected.40_IDEA_549)_and_footnotes(n171);.FTNT n171

Apparently conceding that it was unperfected with respect to the registered copyrights, the bank tried to argue that the step back provisions of the UCC did not apply.40_IDEA_549)_and_footnotes(n172);.FTNT n172 In other words, if the copyright owner fails to register, then the creditor's security interest is perfect under the rules of the UCC -- by way of filing a financing statement only. The court easily rejected this argument because registration is not a prerequisite to obtaining copyright protection.40_IDEA_549)_and_footnotes(n173);.FTNT n173 Since the protection arises as a matter of law, without any filing necessary, the rules regarding the transfer of an interest in a copyright must therefore still apply. As the court noted, a work "which is entitled to be registered at the U.S. Copyright Office, but is not, does not carry a different 'label' or become something different solely because it was not registered at the U.S. Copyright Office."40_IDEA_549)_and_footnotes(n174);.FTNT n174 The security interest in the copyright must still be filed with the Copyright Office, and nowhere else.

Apparently based on the logic that unregistered copyrights maintain their character as a copyright, the court goes on to say that a creditor cannot re-characterize the .product. as a trade secret and perfect its security interest elsewhere. 40_IDEA_549)_and_footnotes(n175);.FTNT n175 Thus, a filing is still needed with the Copyright Office.

Unfortunately, the court misses the point of the distinction being made by the bank. The computer software produced by Avalon contains two different assets: copyrights and trade secrets. Concededly, the proper place to file a security interest in a copyright is with the Copyright Office. The granting of a security interest in a copyright is a transfer of that copyright under the Copyright Act, and recordation of the transfer in the Copyright Office is required under the Copyright Act for the transfer to be constructive notice against subsequent transferees.40_IDEA_549)_and_footnotes(n176);.FTNT n176 Whether or not the Copyright Act preempts the UCC (federal law v. state law) regarding recording security interests, the UCC specifically provides for a step back to the federal system.40_IDEA_549)_and_footnotes(n177);.FTNT n177

However, this partial step back applies only to the property -- here copyright -- governed by the statute. The Copyright Act nowhere discusses the recordation of transfers of trade secrets, let alone the perfection of security interests in trade secrets. This is because the Copyright Act does not preempt trade secret law. In fact, the two systems of protecting intellectual property are generally antithetical. The Copyright Act generally protects a work that is disclosed to the public.40_IDEA_549)_and_footnotes(n178);.FTNT n178 Trade secret law protects that

which is kept from the public, and the protection dissipates as more people are permitted to know the secret.

This observation is not to say that there is no overlap between these property rights. In fact, what is protected under trade secret law overlaps with other property schemes as well. For example, trade secret law similarly protects information that has economic value to businesses, such as inventions and discoveries, which are protected under the patent laws. However, in Kewanee Oil Co. v. Bicron Corp., the United States Supreme Court held that state trade secret laws are not preempted by the federal Patent Act.40_IDEA_549)_and_footnotes(n179);.FTNT n179

The same is true with copyrights and trade secrets. What the court misunderstood in Avalon is that computer software can and does contain both copyrightable material and trade secret information. Although a computer software manufacturer does distribute copies of its software publicly, that software is typically distributed in machine readable format, know as object code. While it is possible to reverse engineer object code, the resulting material is not as useful as one might imagine. The object code does not contain the most valuable information, such as a programmer's notes. Since it is strictly the code that tells the computer hardware how to operate, this information is far more valuable as a trade secret, than as a copyrightable work. Thus, it is the ideas contained in the notes that are important. As ideas may not be copyrighted, however, realistically the only obtainable protection is as a trade secret.

Unfortunately the Avalon court did not discuss the distinction between trade secrets and copyrighted works. The holding merely stated, without any analysis, that if the computer software is copyrightable, then one can only perfect a security interest in such software by filing with the Copyright Office.40_IDEA_549)_and_footnotes(n180);.FTNT n180 As previously stated however, computer software contains more than just copyrightable material. It may also contain inventions that are patentable. Surely the court would not have argued that the only place to perfect a security interest in a patented software program is with the Copyright Office. It seems obvious that a filing with the Patent and Trademark Office would be necessary as well.

It appears that the court gave short shrift to the issue of perfecting a security interest in trade secrets in software because the court was not impressed with the bank's weak attempts to get around its sloppy banking practices. Had the bank taken reasonable steps to protect its interests, perhaps the court would have been more sympathetic. The bank appears not to have given the issue of perfecting its interests much thought, and the court was not going to go out of its way to help the bank. However, in .sanctioning. the bank for its mistakes, the court unfortunately used reasoning that is unsupported in law.40_IDEA_549)_and_footnotes(n181);.FTNT n181

2. Registering the Copyrightin Software with Trade Secrets

Under the Copyright Act, registration of a copyright claim requires that the registrant deposit a copy of the work with the Copyright Office.40_IDEA_549)_and_footnotes(n182);.FTNT n182 The Copyright Office's procedures for depositing copies of a work to register a copyright are set forth in 37 C.F.R. $ S 202.20.40_IDEA_549)_and_footnotes(n183);.FTNT n183 With respect to

registering the copyright in a computer program, the Copyright Office requires the deposit of a copy of the source code for the software.40_IDEA_549)_and_footnotes(n184);.FTNT n184 Source code is the human readable form of a computer program, written in a programming language such as C, BASIC, or Fortran. This code is not the format used by a computer -- that is known as object code, and is in machine-readable format. Object code is very difficult to interpret, and few (if any) programmers can readily understand object code.

The Copyright Office requires that the registrant generally include the first twenty-five pages and last twenty-five pages of the source code.40_IDEA_549)_and_footnotes(n185);.FTNT n185 However, because $ S 705(b) of the Copyright Act requires that all registered works be available for public inspection40_IDEA_549)_and_footnotes(n186);.FTNT n186, software companies complained that this requirement destroyed the protection of the trade secrets contained in the software that was registered.40_IDEA_549)_and_footnotes(n187);.FTNT n187 In response to these complaints, the Copyright Office revised its deposit requirement for computer programs.40_IDEA_549)_and_footnotes(n188);.FTNT n188 Typically, the party registering the copyright in a computer program can deposit the first and last twenty-five pages of the source code, with the trade secret elements redacted from the copy (so long as the redacted portion does not exceed the unredacted portion).40_IDEA_549)_and_footnotes(n189);.FTNT n189

If the registrant does not want to deposit the source code, it can deposit the object code format of the source. However, such a registration is subject to the Copyright Office's rule of doubt.40_IDEA_549)_and_footnotes(n190);.FTNT n190 Although the registration will be accepted, the Office will not make a determination as to the existence of any copyrightable material contained in the work.40_IDEA_549)_and_footnotes(n191);.FTNT n191

V. CONCLUSION

At first blush, obtaining a perfected security interest in a trade secret may seem like a straightforward matter. Trade secrets are general intangibles under the UCC,40_IDEA_549)_and_footnotes(n192);.FTNT n192 and as such can only be perfected by the borrower executing a written security agreement, and by filing a financing statement.40_IDEA_549)_and_footnotes(n193);.FTNT n193 Given that trade secret rights are creations of state law,40_IDEA_549)_and_footnotes(n194);.FTNT n194 a creditor does not need to be concerned about the effect of federal statutes on the process.

However, it is the ephemeral nature of trade secrets that pose the greatest risk to creditors that rely on such property as collateral. In the first instance, it is property for only so long as the statutory requirements are met.40_IDEA_549)_and_footnotes(n195);.FTNT n195 Even if the secret is divulged illegally, once known by the public, it is lost.40_IDEA_549)_and_footnotes(n196);.FTNT n196 Further, an important purpose of the UTSA is to protect confidential relationships between parties in business together.40_IDEA_549)_and_footnotes(n197);.FTNT n197 How a creditor can foreclose on ideas held in someone's head is something left to science fiction writers.

There are many trade secrets that can be recorded and transferred with relative ease however. Many of these have great value and are assets that a business may wish to use as collateral for loans. In order for a creditor to be reasonably assured that it has a lien on something of value that can be used to satisfy a debt, the creditor should consider taking the following steps.

1. The creditor should perform an intellectual property audit. In addition to seeking to identify the parameters of assets owned, the creditor should use this opportunity to discover whether the borrower has adequate policies in place to protect its trade secrets generally.

2. The creditor should require the borrower to have a confidentiality policy that insures that all trade secrets are protected. This policy must be known by the borrower's employees, and the borrower should take reasonable steps to enforce this policy.

3. The creditor should require that the borrower's employees with access to confidential information execute non-disclosure agreements. Such agreements should clearly state that information developed by the employee during his or her employment, and for a reasonable time after termination, is the property of the borrower, exclusively.

4. The creditor should ensure that those employees hired by the borrower with the specific responsibility to invent or develop technology for the borrower, must also execute employment agreements with clear obligations to disclose all inventions, and confirm that all inventions developed during the term of employment, and for a reasonable time thereafter, are the property of the borrower.

5. The creditor must remain careful not to jeopardize the asset in its vigilance to protect against future loss. Trade secrets will be lost if reasonable care is not taken to protect them.

As a result, very few employees of the lender should ever have access to a borrower's trade secrets.

n1 See Robert G. Gibbons & Lisa M. Ferri, The Legal War Against Cyberspace Privacy, N.Y.L.J., Aug. 5, 1990, at 1.

n2 See, e.g., Allison Sell McDade, Trading In Trademarks -- Why the Anti-Assignment in Gross Doctrine Should Be Abolished When Trademarks Are Used as Collateral *77 TEX. L. REV. 465 (1998);* Alice Haemmerli, Insecurity Interests: Where Intellectual Property and Commercial Law Collide, *96 COLUM. L. REV. 1645 (1996);* Patrick R. Barry, Note, Software Copyrights as Loan Collateral: Evaluating the Reform Proposals *46 HASTINGS L.J. 581 (1995);* Thomas L. Bahrick, Security Interests in Intellectual Property, *15 AIPLA Q.J. 30 (1987);* Robert S. Bramson, Intellectual Property as Collateral -- Patents, Trade Secrets, Trademarks and Copyrights, *36 BUS. LAW. 1567 (1981).* This is not intended to be an exhaustive list. However, the Bramson article is often cited as one of the first articles to discuss the issue in depth.

n3 See *35 U.S.C. § § 1*.376 (1994 & Supp. IV (1998)); *15 U.S.C. § § 1051*.1127 (1994 & Supp. IV (1998)); and *17 U.S.C. § § 101*.1101 (1994 & Supp. IV (1998)), respectively.

n4 But see infra notes 7.9 and accompanying text regarding the enactment of the Economic Espionage Act of 1996 (.EEA.), Pub. L. No. 104-294, 110 Stat. 3488 (codified as amended at *18 U.S.C. § § 1831*.1839 (Supp. IV (1998)). The EEA does not create a private right of action, but only criminal sanctions for violations of the EEA. As a result, its effect on the handling of trade secrets in bankruptcy will not be considered in this paper. Specifically, it does not impact the method or effect of perfecting a security interest in trade secrets. Nevertheless, for definitional purposes, it is interesting to note the definition of a trade secret under the EEA. See infra note 9 and accompanying text.

n5 See 1 ROGER M. MILGRIM, MILGRIM ON TRADESECRETS § 1.01(1) at 1-4 (rel. no. 61, Mar. 1999).

n6 See id. at 1-38 to 39.

n7 See Uniform Trade Secrets Act § 1(4) (1985); see also Uniform Trade Secrets Act (visited Mar. 13, 2000) <http://www.nsi.org/Library/Espionage/usta.htm>.

n8 Pub. L. No. 104-294, 110 Stat. 3488 (codified as amended at *18 U.S.C. § § 1831*-1839 (Supp. IV (1998)). As one commentator has noted, "The Economic Espionage Act of 1996 now creates federal trade secret rights." R. Mark Halligan, The Economic Espionage Act of 1996: The Theft of Trade Secrets Is Now a Federal Crime, Paragraph 12 (visited Mar. 13, 2000) <http://www.exeepe.com/mnallign/crime.html>.

n9 See *18 U.S.C. § 1839*(3) (Supp. IV (1998)).

> The term "trade secret" means all forms and types of financial, business, scientific, technical, economic, or engineering information, including patterns, plans, compilations, program devices, formulas, designs, prototyp es, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing if.
>
> (A) the owner thereof has taken reasonable measures to keep such information secret; and
>
> (B) the information derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable through proper means by, the public . . . .
>
> Id.

n10 See id. § 1832. Further, the EEA provides for criminal sanctions for theft of trade secrets. An organization can be fined up to $ 5 million, whereas an individual can receive up to $ 500,000 in fines, and/or up to ten years imprisonment. See id. For crimes relating to international espionage the punishments for organizations can range up to $ 10

million, whereas for individuals punishments can be up to a $ 500,000 fine, and/or up to fifteen years imprisonment. See id. § 1831.

n11 See Robert G. Bone, A New Look at Trade Secret Law: Doctrine in Search of Justification, *86 CAL. L. REV. 241, 243-44 (1998).*

n12 See *id. at 244-45.*

n13 Id. In fact Professor Bone believes that because the emphasis of trade secret law is on protecting contractual relationships, trade secret law is not needed as a separate legal theory. See *id. at 245.* Bone states, "Simply put, the thesis is that there is no such thing as a normatively autonomous body of trade secret law . . . . [Rather,] trade secret law is merely a collection of other legal norms -- contract, fraud, and the like -- united only by the fact that they are used to protect secret information." Id.

n14 Uniform Trade Secrets Act § 1, Commisioners. Comment (1985) (quoting *Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470, 181 U.S.P.Q. (BNA) 673 (1974)).*

n15 Id. § 1(1) -- (2).

n16 See id., Commissioners. Comment.

n17 See id. § 2, Commissioners. Comment.

For example, assume that A has a valuable trade secret of which B and C, the other industry members, are originally unaware. If B subsequently misappropriates the trade secret and is enjoined from use, but C later lawfully reverse engineers the trade secret, the injunction restraining B is subject to termination as soon as B's lead time has been dissipated. All of the persons who could derive economic value from use of the information are now aware of it, and there is no longer a trade secret under Section 1(4).

Id.

n18 See U.C.C. § 9-101, Official Comment (1999). It should be noted that the following is not an exhaustive study of the nuances of the law governing perfection of security interests. Rather, it is a summary of the process with an emphasis on perfecting a security interest in trade secrets.

n19 See id. § 9-301.

n20 See id. § 9-102(1)(a).

n21 See id. § 9-101, Official Comment.

n22 See id. § 9-109, Official Comment 2.

n23 See id.

n24 See id. § 9-102, Official Comment 5.

n25 See id. § 9-106.

n26 See id., Official Comment. Other types of intangibles which are otherwise categorized include documents, chattel paper, instruments and accounts.

n27 Id.

n28 See id.

n29 See 8 WILLIAM D. HAWKLAND ET AL., UNIFORM COMMERCIAL CODE SERIES, § 9-106:3, at art. 9-476-77 (1997).

n30 *251 F. Supp. 1013 (D.N.H. 1966).*

n31 See *id. at 1015.*

n32 See *id. at 1014.*

n33 See *id. at 1016.*

n34 See *id. at 1015.*

n35 See id. The court cited U.C.C. § 9-105(f) for the definition of "goods." See id. However, the court was citing to an earlier version of Article 9. Section 9-105(f) is now the definition of the term "document." U.C.C. § 9-105(f) (1999). The proper section that defines "goods" under the current version of Article 9 is section 9-105(h). Id. § 9-105(h).

n36 The term "document" above is used in its ordinary meaning. However, under Article 9 of the UCC, the term .document. has a specific definition, which is either a document of title or a warehouse receipt. U.C.C. § 9-105(f) (1999).

n37 U.C.C. § 9-105(h) (1999).

n38 Id. (emphasis added).

n39 See *Antenna Systems, 251 F. Supp. at 1016.*

n40 See id.

n41 See id.

n42 Id. Note that Antenna Systems refers to the Uniform Commercial Code as the Code. Prior to 1978, the U.S. bankruptcy law was embodied in the Bankruptcy Act. In 1978 Congress replaced the Act with the Bankruptcy Code, and thus most modern bankruptcy cases refer to the U.S. bankruptcy laws as the Code, and the Uniform Commercial Code as the UCC. This paper follows this same nomenclature.

n43 See id.

n44 See U.C.C. § 9-203(1) (1999).

n45 See id. § 9-203(1)(a)-(c).

n46 See id. § 9-203, Official Comment 5.

n47 See id. § 9-203(2).

n48 HAWKLAND ET AL. supra note 29, § 9-203:4, at art. 9-958.

n49 See discussion infra Part III.B.4.

n50 See 2 MILGRIM, supra note 5, app. 9D, at 9D-18 (rel. no. 46, July 1994).

n51 See 2 MELVIN F. JAGER, TRADE SECRETS LAW, § 8.01[2], at 8-5 (rel. no. 19, Oct. 1995).

n52 See id. § 8.01[1], at 8-2 (rel. no. 26, May 1999).

n53 See id. § 8.01[2], at 8-4 to 5 (rel. no. 26, May 1999).

n54 See id. § 8.01[1], at 8-2 (rel. no. 26, May 1999).

n55 See id. § 8.01[2], at 8-4 (rel. no. 26, May 1999).

n56 See id. at 8-5 (rel. no. 19, Oct. 1995).

n57 See 1 MILGRIM, supra note 5, § 6.03[1], at 6-5 (rel. no. 27, Oct. 1999) (citing *Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984)).*

n58 See id. at 6-6 (citing *Acuson Corp. v. Aloka Co., 10 U.S.P.Q.2d (BNA) 1814 (Cal. Ct. App. 1989)).*

n59 See id. at 6-8 (citing *Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 9 U.S.P.Q.2d (BNA) 1847 (1989)).*

n60 See U.C.C. § 9-203(1)(a) (1999).

n61 Id. § 9-110.

n62 See id., Official Comment 1.

n63 See id.

n64 § 9-101, Official Comment.

n65 See generally HAWKLAND ET AL. supra note 29, § 9-110:2, at art. 9-650 to 651.

n66 Id. at art. 9-650.

n67 See id. at art. 9-655.

n68 See id. at art. 9-673 to 678.

n69 Id. at art. 9-676.

n70 See, e.g., *In re Dillard Ford, Inc., 940 F.2d 1507 (11th Cir. 1991)* (financing statement that created a security interest in debtor's general intangibles and other property rights complied with description requirement of UCC so as to sufficiently perfect security interest in creditor's "dealer proceeds withheld fund.").

n71 See *In re Griffith, 194 B.R. 262, 267 (Bankr. E.D. Okl. 1996).*

n72 U.C.C. § 9-301, Official Comment 2 (1999).

n73 See id., Official Comment 1. The drafters referenced section 60 of the Bankruptcy Act. This concept of a perfected security interest in personal property, which defeats the bankruptcy trustee, was set forth in the Bankruptcy Code of 1978. See *11 U.S.C. § 547*(d) (1994).

n74 See U.C.C. § 9-301(1)(b) (1999).

n75 See id. § 9-301(3). Whether the drafters of Article 9 attempted to be deferential to the bankruptcy trustee is arguable. Had this section provided otherwise, it would have been specifically preempted by § 544 of the Bankruptcy Code, which states specifically that the bankruptcy trustee has the rights of a lien creditor. *11 U.S.C. § 544* (1994 & Supp. IV 1998). See discussion infra Part IV.A.2 regarding the powers of the trustee in bankruptcy.

n76 See U.C.C. § 9-302(1) (1999).

n77 See id. § 9-302(1)(a) -- (g).

n78 See id. § 9-302(3)(a).

n79 See, e.g., *In re Peregrine Entertainment, Ltd., 116 B.R. 194 (C.D. Cal. 1990).*

n80 See U.C.C. § 9-402(1) (1999).

n81 See id. § 9-402(8).

n82 See id. § 9-402, Official Comment 2.

n83 See id. § 9-401(1).

n84 See id. § 9-103(3)(b).

n85 Id. § 9-103(3)(d).

n86 See id. § 9-303(1).

n87 See id. § 9-312(5) & Official Comment 4.

n88 See id. § 9-305.

n89 Id., Official Comment 1 (emphasis added).

n90 See id. § 9-401.

n91 See U.S. CONST. art. I, § 8, cl. 4.

n92 See Bankruptcy Act of 1898, ch. 541, 30 stat. 544 (codified as amended at *11 U.S.C. § § 101*-1330 (1994 & Supp. IV 1998)).

n93 See, e.g., Bankruptcy Amendments Act of 1938, Pub. L. No. 106-73, 52 Stat. 840 (repealed 1978); Enactment of Title 11 of the United States Code, Pub. L. No. 95-598, 92 Stat. 2549 (1978) (codified as amended at *11 U.S.C. § § 101*-1501 (1994 & Supp. IV 1998); Bankruptcy Amendments and Federal Judgeship Act of July 10, 1984, Pub. L. 98-353, 98 Stat. 333 (codified as amended in scattered sections of *28 U.S.C. (1994), 11* U.S.C. (1994 & Supp. IV 1998)). Currently, Congress is considering amending the Bankruptcy Code again to make bankruptcy discharges more difficult for individual filers. See H.R. 833, 106th Cong. (1999).

n94 See DOUGLAS G. BAIRD, THE ELEMENTS OF BANKRUPTCY 14-19 (1993).

n95 The party in bankruptcy is no longer referred to as a "bankrupt."

n96 BAIRD, supra note 94, at 12.

n97 See id.

n98 See id. at 19-27.

n99 The following is not an exhaustive study of the nuances of the law of bankruptcy. Rather, it is a summary of the Bankruptcy Code and basic bankruptcy procedure.

n100 See *11 U.S.C. § 301* (1994).

n101 See id. § 303(a)(1).

n102 Id. § 541(a)(1).

n103 See id. § 301.

n104 See id. § 305. A dismissal has the effect of reinstating the rights of the debtor and creditors as they were, just prior to the filing of the petition. See id. § 349(b).

Dismissal does not bar a later discharge of the debtor's debts, unless the bankruptcy court so orders. See id. § 349(a).

n105 See id. § § 701.766.

n106 See id. § § 721.728.

n107 See id. § 522. The exemptions are either those set out in this section, or, if a state elects, that property exempted under state law. See also BAIRD, supra note 94, at 14.

n108 See *11 U.S.C. § § 1301*.1330 (1994 & Supp. IV (1998)).

n109 See BAIRD, supra note 94, at 15.

n110 See *11 U.S.C. § § 1101*.1174 (1994 & Supp. IV (1998)).

n111 See id. § § 1121.1129.

n112 See id. § 1102.

n113 See id. § 362(a).

n114 See id. § 362(b).

n115 See id. § 362(c).

n116 See id. § 362(d).

n117 See id. § 341(a).

n118 See id. § 343.

n119 See id. § 702.

n120 See id. § 704.

n121 See id.

n122 See id. § 542.

n123 See id. § § 547.548.

n124 See id. § 544.

n125 See id. § 365(a).

n126 See id. § 541(a)(1).

n127 See id. § 101(35A). Interestingly, trademarks are not included in the definition.

n128 See id. § 521; see also *In re McGee, 157 B.R. 966, 974-75 (Bankr. E.D. Va. 1993).*

n129 *McGee, 157 B.R. at 969-70.*

n130 See id.

n131 See id. McGee had also not listed the stock in his kit car company, which ceased operations 2 years prior to his bankruptcy filing. See id.

n132 See *id. at 968.*

n133 See *id. at 970*

n134 See *id. at 971.*

n135 See id.

n136 See id.

n137 See id.

n138 See *id. at 972.*

n139 See id.

n140 See *id. at 974.*

n141 See id.

n142 See *id. at 974-75.*

n143 See *id. at 975.*

n144 See id. (citing *In re Uniservices, 517 F.2d 492 (7th Cir. 1975)).*

n145 See *McGee, 157 B.R. at 975* (citing VA. CODE ANN. § § 59.1.336; *Dionne v. Southeast Foam Converting, 240 Va. 297, 302*, (1990)).

n146 *In re Uniservices, 517 F.2d 492 (7th Cir. 1975).*

n147 See *McGee 157 B.R. at 974.*

n148 See *id. at 976.*

n149 See id.

n150 See id.

n151 Pub. L. No. 100-506, 102 Stat. 2538 (codified as amended at *11 U.S.C. § § 101,* 365(n) (1994).

n152 See S. REP. NO. 100-505, at 7-8 (1988), reprinted in 1988 U.S.C.C.A.N. 3200, 3204-05.

n153 See *11 U.S.C. § 365*(n)(1)(B) (1994).

n154 See 4 COLLIER BANKRUPTCY PRACTICE GUIDE Paragraph 68.03[11], at 68-49 to 50 (rel. no. 38, Jan. 1995) (Lawrence P. King ed., 1999).

n155 Id.; see *11 U.S.C. § 365*(n)(2) -- (3) (1994).

n156 See 4 COLLIER, supra note 154, at 68-49 to 50 (rel. no. 38, Jan. 1995).

n157 In re Szombathy, Nos. 94-B15536, 95- *A01035, 1996 WL 417121*, at *11 (Bankr. N.D. Ill., July 9, 1996), rev.d in part, No. 97- *C481, 1997 WL 189314* (N.D. Ill. Apr. 14, 1997).

n158 See *11 U.S.C. § 107*(a) (1994).

n159 See id. § 107(b)(1).

n160 See id.

n161 *209 B.R. 517 (Bankr. D. Ariz. 1997).*

n162 See *id. at 519.*

n163 See id.

n164 See *id. at 519-20.*

n165 See *id. at 520.*

n166 See id.

n167 See id.

n168 See id.

n169 See *id. at 520-21.*

n170 See id.

n171 See *id. at 521.*

n172 See id.

n173 See id.

n174 Id.

n175 Id.

n176 See *In re Peregrine Entertainment, Ltd., 116 B.R. 194 (Bankr. C.D. Cal. 1990).*

n177 See U.C.C. § § 9-104(1), 9-302(3) -- (4) (1999).

n178 Unpublished, and thus secret, works are clearly protected under the 1976 Copyright Act. The rights protected under the act, set forth in § 106, generally are of the character of a public dissemination of the works. See *17 U.S.C. § 106* (1994 & Supp. IV 1998). Any such public display, performance, or distribution of the work would destroy the trade secret character of the work however, given that secrecy is a key element in the definition of trade secret. See supra note 7 and accompanying text.

n179 *416 U.S. 470, 474, 181 U.S.P.Q. (BNA) 673, 676 (1974)* (asserting that trade secret and patent law are in fact complementary).

n180 See *Avalon Software, 209 B.R. at 521-22.*

n181 The court also misstates the law with respect to perfection issues under the Copyright Act. First, the court states that to obtain a security interest in a copyright, the creditor must follow both the UCC and federal copyright law. See *Avalon, 209 B.R. at 520-21.* However the court later cites U.C.C. § 9-104(1) in its analysis, stating that the U.C.C.'s filing location requirements do not apply. See *id. at 522.* The problem is that if section 9-104(1) governs, Article 9 would not apply at all, let alone to the filing requirements. Further, the court states, without citing authority, that a security interest filing with the Copyright Office "also extends to the proceeds naturally derived from the copyrighted material." *Id. at 522.* In fact, § 205 of the Copyright Act says nothing about proceeds. *11 U.S.C. § 205* (1994). Rather, this concept is derived from the UCC. Finally, the court also states that an "after acquired property" clause in a security agreement filed with the Copyright Office would perfect the bank with respect to updates and modifications in the computer software. See *Avalon, 209 B.R. at 522.* Again, nowhere does § 205 of the Copyright Act discuss "after acquired property." *11 U.S.C. § 205* (1994). "After acquired property" is also derived from the UCC. See U.C.C. § 9-204, Official Comment 1 (1999).

n182 See *17 U.S.C. § 408* (1994 & Supp. IV 1998).

n183 37 C.F.R. § 202.20 (1999). Section 202 of Title 37 of the Code of Federal Regulations governs all issues regarding registration of claims to copyright.

n184 See Registration of Claims to Copyright Deposit Requirements for Computer Programs Containing Trade Secrets and for Computer Screen Displays, *54 Fed. Reg. 13173, 13173 (1989)* (to be codified at 37 C.F.R. pt. 202).

n185 See id.

n186 *17 U.S.C. § 705*(b) (1994).

n187 See Registration of Claims to Copyright Deposit Requirements for Computer Programs Containing Trade Secrets and for Computer Screen Displays, *54 Fed. Reg. at 13173.*

n188 See id. (summary).

n189 See 37 C.F.R. § 202.20(c)(2)(vii)(A)(2) (1999).

n190 See id. § 202.20(c)(2)(vii)(B).

n191 See id.

n192 See supra notes 25-29 and accompanying text.

n193 See discussion supra Part III.B.4(a).

n194 See supra notes 4-7 and accompanying text.

n195 See discussion supra Part II.B.

n196 See id.

n197 See id.