

UIC John Marshall Journal of Information Technology & Privacy Law

Volume 10
Issue 3 *Computer/Law Journal - Fall 1990*

Article 4

Fall 1990

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Recommended Citation

Heon Hahm, Computer Protection Against Foreign Competition in the United States, 10 Computer L.J. 393 (1990)

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COMPUTER PROTECTION AGAINST FOREIGN COMPETITION IN THE UNITED STATES

The rapid pace of development in computer technology has created numerous problems in applying intellectual property laws originally geared towards protecting fundamentally different or archaic technologies.¹ Computer technology in the United States bases most of its protection on copyright law.² Copyright law, however, has not always provided consistent or adequate protection of computer programs, as different jurisdictions disagree on the applicability and extent of protection given.³ In the international market these problems of protecting computer technology become even more complex due to conflicting domestic laws⁴ and challenges faced by the computer industry in the United States from foreign competitors.⁵

1. See OFFICE OF TECHNOLOGY ASSESSMENT, INTELLECTUAL PROPERTY RIGHTS IN AN AGE OF ELECTRONICS AND INFORMATION 7-8 (1986).

2. One of the specific objectives of the 1976 Copyright Act may have been to provide adequate protection of computer programs. In 1974, Congress established the National Commission on New Technological Uses of Copyright Works (CONTU) to consider and recommend the extent to which computer programs should be given copyright protection. CONTU determined that computer programs should be protected "to the extent that they embody the author's original creation." NATIONAL COMMISSION ON NEW TECHNOLOGICAL USES OF COPYRIGHTED WORKS, FINAL REPORT 1 (1979) [hereinafter CONTU REPORT].

3. Compare *Tandy Corp. v. Personal Micro Computers*, 524 F. Supp. 171, 173 (N.D. Cal. 1980) (computer programs are works of authorship under section 101 and a program fixed in a ROM (read-only memory) is protected under section 102) with *Apple Computer v. Franklin Computer*, 545 F. Supp. 812 (E.D. Pa. 1982) (object code is utilitarian and therefore not copyrightable), *rev'd* 714 F.2d 1240 (3d Cir. 1983).

4. For example, copyright law in the United States provides protection for "original works of authorship fixed in any tangible medium of expression . . . from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." 17 U.S.C. § 102(a) (1988). Protection of computer technology in countries such as Japan, however, has proven more difficult. Japanese law makes no specific mention of computer software and much of the law's application to software must be implied. Comment, *Protections for Software Under U.S. and Japanese Law: A Comparative Analysis*, 7 B.C. INT'L & COMP. L. REV. 353, 380 (1984). Japanese copyright law protects a work if it is a "production in which thoughts or sentiments are expressed in a creative way and which falls within the literary, scientific, artistic or musical domain." *Id.* The Japanese law however, is similar to American law in that it does not extend protection to ideas, rather only to the expression of ideas. *Id.* at 381.

5. See *Unfair Foreign Trade Practices: Hearings Before the Subcomm. on Oversight*

This Note will analyze the extent of protection given to computer technology in the United States against foreign counterfeit and legitimate imports. It will also assess copyright protection in the United States by focusing upon problems encountered by Apple Computer, Inc. involving counterfeit computers from domestic and foreign competitors. It will conclude that laws in the United States do not provide adequate remedies to computer manufacturers in the United States against foreign competitors. However, even though remedies for counterfeit computer goods are both costly and time-consuming for the American petitioner,⁶ at a minimum, when a court finds infringement, preventive orders and remedies are available. This Note will argue that an even greater problem for the future arises for American computer manufacturers in the area of grey market goods.⁷ The current law concerning grey market goods will essentially permit imported items of same or like quality to compete with domestic goods.⁸ Thus, foreign copies of American computers may enter the American market legitimately and compete with domestically produced computers. This Note will examine some of the general problems posed by grey market goods to American industry and the methods used to try to block the goods from entering the country. Finally, it will conclude that though grey market computers pose a great potential threat to the American computer industry, unfair trade protections in conjunction with copyright law in the United States may provide an appropriate solution for protecting American computer technology.

I. UNFAIR TRADE PRACTICES: THE APPLE CASE

In 1983, the Subcommittee on Oversight and Investigations of the House Committee on Energy and Commerce held hearings on unfair

and Investigations of the House Comm. on Energy and Commerce, Part I, 98th Cong., 1st Sess. 155 (1983) [hereinafter *Unfair Trade Hearings I*].

6. *Unfair Foreign Trade Practices: Hearings Before the Subcomm. on Oversight and Investigations of the House Comm. on Energy and Commerce, Part II*, 98th Cong., 1st Sess. 114 (1983) (comment of Glenn E. Braswell, Executive Director of the Amusement Games Manufacturers Association) [hereinafter *Unfair Trade Hearings II*].

7. The Supreme Court has defined grey market goods as foreign-manufactured goods "bearing a valid United States trademark, that is imported without the consent of the U.S. trademark holder." *K mart Corp. v. Cartier, Inc.*, 486 U.S. 281, 282 (1988). Another definition includes "commodities bearing an authentic trademark that are manufactured under the supervision of the trademark owner, but diverted outside the trademark owner's designated distribution channel." Note, *Grey Market Goods and Modern International Commerce: A Question of Free Trade*, 10 FORDHAM INT'L L.J. 308 (1986-87); see also, *Olympus Corp. v. United States*, 792 F.2d 315, 317 (2d Cir. 1986).

8. See Knoll, *Gray-Market Imports: Causes, Consequences and Responses*, 18 LAW & POL'Y INT'L BUS. 145, 152 (1986).

trade practices in the high technology and electronics fields.⁹ The Committee was concerned with the loss of revenue and employment caused by competition from pirated copies of video games or computers sold in foreign or domestic markets.¹⁰ The Committee considered the viability of the American computer industry to be potentially threatened by the flood of copies from Taiwan and other East Asian countries.¹¹ Litigation brought by Apple Computer, Inc. ("Apple") against foreign and domestic companies exemplifies the problems in protecting American computer manufacturers from these unauthorized copies of their products.¹²

Apple's primary complaints were against look-alike Apple II computers which began to be manufactured in early 1982 in Far Eastern marketplaces.¹³ These counterfeit Apples could easily be purchased for anywhere from one-fourth to one-half the price of a real Apple computer.¹⁴ The counterfeit computers were copies of the real Apple II Plus in almost every respect including the circuit board, software and outward resemblance.¹⁵ Apple thus began to file lawsuits against foreign and domestic infringers in federal courts of the United States and in foreign courts to protect their property rights.

A. *APPLE COMPUTER, INC. V. FORMULA INTERNATIONAL, INC.*

One typical case involved Apple's suit against Formula International, Inc. ("Formula"), a California company which sold computer kits designed to be compatible with Apple II software under the trademark "Pineapple."¹⁶ The Ninth Circuit affirmed the district court's preliminary injunction prohibiting Formula from copying and distributing computer programs with copyrights owned by Apple and from using the trademark "Pineapple" on its products.¹⁷

9. *Unfair Trade Hearings I*, *supra* note 5.

10. *Id.*

11. *Id.* at 156 (statement of John C. Dingel Chairman of the Sub-Committee on Oversight and Investigations of the House Committee on Energy and Commerce).

12. At the time of the hearings, Apple had filed 40 lawsuits in various countries around the world. *Unfair Trade Hearings I*, *supra* note 5, at 161 (statement of Albert Eisenstat, Vice President, Secretary and General Counsel, Apple Computer, Inc.). Apple also later obtained an order from the International Trade Commission excluding the importation of products infringing Apple's property rights. See *In re Certain Personal Computers and Components Thereof*, 224 U.S.P.Q. (BNA) 270, 285 (1984).

13. *Unfair Trade Hearings I*, *supra* note 5, at 161 (statement of Albert Eisenstat, Vice President, Secretary and General Counsel, Apple Computer, Inc.).

14. *Id.*

15. *Id.*

16. *Apple Computer, Inc. v. Formula Int'l, Inc.*, 725 F.2d 521, 522 (9th Cir. 1984).

17. *Id.*

1. *Copyright Claims*

Formula contended that the computer programs involved in the suit were not protected by copyright because they controlled the internal operation of the computer, were only "ideas" or "processes," and were therefore unlike copyrightable application programs.¹⁸ The court, however, rejected their arguments.

First, the court relied upon the recommendations made to Congress by the National Commission on New Technological Uses of Copyright Works (CONTU) which specifically rejected suggestions to provide copyright protection only to programs which lead to copyrighted output.¹⁹ CONTU determined that since the Copyright Act was designed to protect all works of authorship from the moment of fixation in any tangible medium of expression, there should "be no distinction made between programs which are used in the production of further copyrighted works and those which are not."²⁰

Second, the court placed emphasis on the Copyright Act's definition of a "computer program" as "a set of statements or instructions to be used *directly or indirectly* in a computer in order to bring about a certain result."²¹ The court thus noted that Congress had accepted CONTU's recommendations in drafting the Copyright Act and made no distinction between the copyrightability of programs which directly interact with the user and those which manage the system.²²

The court also rejected Formula's idea-expression dichotomy because "the distinction between ideas and expression is intended to prohibit the monopolization of an idea only when there are a limited number of ways to express that idea."²³ As applied to computers, use of specific instructions by programmers, even if previously copyrighted, will not constitute infringement if they are the "only and essential means of accomplishing a given task."²⁴ However, if other language is available, programmers may read copyrighted programs and use the ideas to prepare their own works.²⁵ Since Apple sought only to protect its specific set of instructions and had adequately shown numerous other methods for writing the programs involved, the court held that the internal programs were copyrightable.²⁶

18. *Id.* at 523.

19. *Id.* at 524; see also CONTU REPORT, *supra* note 2, at 23.

20. CONTU REPORT, *supra* note 2, at 21.

21. 17 U.S.C. § 101 (1988) (emphasis added).

22. Apple Computer, Inc. v. Formula Int'l, Inc., 725 F.2d 521, 525 (9th Cir. 1984).

23. *Id.*

24. CONTU REPORT, *supra* note 2, at 20.

25. *Id.*

26. *Formula Int'l*, 725 F.2d at 525. The court also pointed out that Formula had provided no authority to support their contention that copyrightable expression is "expres-

The Ninth Circuit's outcome in *Formula International* thus accords with the Third Circuit's holding in *Apple Computer v. Franklin Computer*.²⁷ These circuits will generally find object codes and internal systems operating programs to be copyrightable expressions of ideas. However, other jurisdictions may follow the district court's decision in *Apple Computer v. Franklin Computer*,²⁸ which the Third Circuit reversed. Such courts may find object codes, especially those stored in ROMs, to be utilitarian in nature, not humanly intelligible, and, therefore, not copyrightable.²⁹ Some jurisdictions will consider object codes to be copyrightable derivative works³⁰ of the source codes.³¹ Thus, it is readily apparent that the federal courts lack consistency in their interpretation of copyright law for protecting computer object codes and ROMs. This may subject software developers to great costs in obtaining and insuring appropriate protection of their programs.³²

Despite the inconsistencies in copyright protection, however, copyright law provides better protection than other intellectual property laws, such as patent or trade secret law. Patent law³³ is generally unsuitable for computer protection because few computer programs can meet the novelty and nonobvious requirements for patent protection.³⁴ Inventors will receive an exclusive license for a specified time period but must also fully disclose the details of their inventions.³⁵ Although the incentive for exclusivity may be attractive to many software developers, mandatory disclosure of program secrets may equally deter them from seeking patent protection.³⁶ An even greater disincentive is the

sion that must be communicated to the computer user when the program is run on the computer." *Id.*

27. 714 F.2d 1240 (3d Cir. 1983). In reversing the district court's decision that an object code stored in a ROM was not copyrightable, the Third Circuit in *Franklin Computer* held that any programs that perform the same function as an existing operating system constitute an expression of an idea and are therefore copyrightable. *Id.* at 1253.

28. 545 F. Supp. 812 (E.D. Pa. 1982), *rev'd* 714 F.2d 1240 (3d Cir. 1983).

29. *See id.* at 814; *Data Cash Sys. v. JS&A Group, Inc.*, 480 F. Supp. 1063 (N.D. Ill. 1979), *aff'd on other grounds*, 628 F.2d 1038 (7th Cir. 1980).

30. A "derivative work" is defined as "a work based upon one or more preexisting works, such as translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted." 17 U.S.C. § 101 (1988) (emphasis added).

31. *See, e.g.*, *GCA v. Chance*, 217 U.S.P.Q. (BNA) 718 (1982).

32. *See Comment, supra* note 4, at 372.

33. The Patent Act provides that "whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101 (1988).

34. *See id.* § 103.

35. *Id.* § 112.

36. International Bureau of the World Intellectual Property Organization, *Model Pro-*

lengthy backlog of patent applications which may preclude the developer from obtaining patent protection before the software becomes obsolete.³⁷

Trade secret³⁸ law may protect a computer program in three ways: 1) a program may be designed to run only on the owner's computer; 2) a program may be sold or leased to a limited number of users who must sign a trade secret protection agreement; or 3) a program may be sold to the public at large, but be designed to be undecipherable or uncopyable.³⁹ However, trade secret laws also pose several dangers due to the fact that programs are open to discovery by any fair and honest means of independent invention, accidental disclosure or reverse engineering.⁴⁰ Further abuse can occur through breach of contract or a breakdown of joint venture with another company.⁴¹ A licensee may attempt to sell its technical exchange agreement to a third party,⁴² or a company may breach its joint venture agreement with a computer company by misappropriating its trade secrets.⁴³

Trade secret claims are also brought under state common law⁴⁴ and may be preempted if protecting the work is within the scope of federal copyright law.⁴⁵ Thus, even if trade secret law is applicable, the copyright doctrine will still prevail.

2. Trademark Claims

The Ninth Circuit in *Formula International* also affirmed the district court's conclusion that Formula had infringed upon Apple's trade-

visions on the Protection of Computer Software, reprinted in 11 LAW & COMPUTER TECH. 2, 5 (1978).

37. See Comment, *supra* note 4, at 360.

38. A "trade secret" is defined as

any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers.

RESTATEMENT OF TORTS, § 757 comment b (1939).

39. See Comment, *supra* note 4, at 373.

40. *Id.*

41. *Id.*

42. See *Com-Share v. Computer Complex*, 338 F. Supp. 1229 (E.D. Mich. 1971).

43. See *University Computing v. Lykes Youngstown*, 504 F.2d 518 (5th Cir. 1974). Misappropriation may also occur when an outside company attempts to obtain trade secrets from a computer company's employees. See, e.g., *Telex v. International Business Machines*, 510 F.2d 894 (10th Cir. 1975) (Telex was held to have misappropriated IBM trade secrets by hiring away IBM employees).

44. Bender, *Trade Secret Software Protection*, § 4-4 COMPUTER L. SERVICE 2 (1977).

45. See 17 U.S.C. § 301 (1988).

mark by affixing the trademark "Pineapple" to its products.⁴⁶ The court applied a two-part test to determine whether 1) Apple had a likelihood of success on the merits and 2) if so, whether irreparable harm was likely.

First, the court ruled that the district court could find that the word "Pineapple" was "confusingly similar to the Apple trademark when used on related goods."⁴⁷ Since the addition of the prefix "Pine" to "Apple" was likely to cause consumer confusion and could suggest that the computer kits were manufactured by licensees or subsidiaries of Apple, the court held that Apple had demonstrated a likelihood of success on the merits of its trademark infringement claim.⁴⁸

Second, having satisfied the first prong of the test, the court held that "the district court could have reasonably concluded that continuing infringement would result in loss of control over Apple's reputation and loss of good will."⁴⁹ In contrast, Formula would not suffer equivalent harm as it had "only recently entered the computer market and its computer sales constitute[d] a minor percentage of its total sales."⁵⁰ Thus, Apple had appropriately demonstrated that "a possibility of irreparable harm to [it] and that the balance of hardships [was] tipped in [its] favor."⁵¹

B. ITC UNFAIR TRADE EXCLUSIONARY ORDERS

On January 31, 1983 Apple filed a complaint with the International Trade Commission (ITC) seeking a general exclusion order under section 337 of the Tariff Act of 1930⁵² prohibiting the importation of all in-

46. *Apple Computer, Inc. v. Formula Int'l, Inc.*, 725 F.2d 521, 526 (9th Cir. 1984).

47. *Id.*

48. *Id.* A more detailed analysis of trademark law is more appropriate in examining the grey market industry and will follow later. See *infra* text accompanying notes 86-134.

49. *Formula Int'l*, 725 F.2d at 526. "Good will" derives from the producer's investment and maintenance of high-quality goods to meet consumer expectations associated with the trademarked product. See Knoll, *supra* note 8, at 157-58. The producer's investment is compensated by the flow of future premiums due to the trademark's good will. See *id.* at 158.

50. *Formula Int'l*, 725 F.2d at 526.

51. *Id.*

52. 19 U.S.C. § 1337(a) (1988). The Tariff Act states:

Unfair methods of competition and unfair acts in the importation of articles into the United States, or in their sale by the owner, importer, consignee, or agent of either, the effect or tendency of which is to destroy or substantially injure an industry, efficiently and economically operated, in the United States, or to prevent the establishment of such an industry, or to restrain or monopolize trade and commerce in the United States, are declared unlawful, and when found by the Commission to exist shall be dealt with, in addition to any other provisions of law, as provided in this section.

Id.

fringing computers into the United States.⁵³ "To obtain relief under section 337, [the] complainant must prove: 1) the existence of an unfair method or act in the importation of foreign products; 2) the existence of an industry producing such products within the United States; 3) that the effect of the unfair method or act is to destroy or substantially injure that industry in the United States; 4) that such industry is efficiently and economically operated; or 5) that the effect of such unfair methods is to prevent the establishment of a United States industry or to restrain or monopolize trade and commerce in the United States."⁵⁴ The ITC concluded that a violation of section 337 had occurred on the basis that 1) the patents and copyrights involved were valid, enforceable and infringed; 2) an industry, efficiently and economically operated, existed in the United States; and 3) the importation of the subject articles had the tendency to substantially injure the industry.⁵⁵

1. *Unfair Methods or Acts: Patent and Copyright Infringement*

The ITC found both direct and contributory/induced infringement of Apple's patents on the personal computers.⁵⁶ The ITC affirmed the administrative law judge's finding that every personal computer, with the exception of two, had circuitry identical to Apple circuits and infringed their patents.⁵⁷ However, the ITC held that the judge's finding of no infringement for the two exceptions was erroneous. Since the unstuffed motherboard was labeled with part names which, if properly inserted, would infringe the patent claims, the ITC found contributory/induced patent infringement for one computer system.⁵⁸ Because the circuitry was identical, and, with the exception of a missing switch to operate color signals, the resulting graphics would have been the same, the ITC held that the second system directly infringed on Apple's patents.⁵⁹

The ITC also found copyright infringement of the Apple programs.

53. See *In re Certain Personal Computers and Components Thereof*, 224 U.S.P.Q. (BNA) 270, 271 (1984).

54. Note, *Protection of Computers and Computer Software Before the United States International Trade Commission: In Re Certain Personal Computers and Components Thereof*, 15 GA. J. INT'L & COMP. L. 627, 640-641 (1985).

55. *Certain Personal Computers*, 224 U.S.P.Q. (BNA) at 271.

56. See *id.* at 277-279.

57. *Id.* at 277.

58. *Id.* at 283.

59. See *id.* The ITC rejected the respondent's arguments that "whereby" clauses in Apple's patents required the display of colored graphics and thus caused no infringement. *Id.* A "whereby" clause is a patent term in which the previously recited structure in a claim will necessarily and inherently generate the results followed by the word "whereby." Ex parte Ashton, 26 U.S.P.Q. (BNA) 334, 335-36 (P.O. Bd. App. 1935). The Commission also found that the "reverse doctrine of equivalents" did not apply since

Apple had established prima facie ownership of the copyrights by presenting valid registration certificates.⁶⁰ With the exception of two systems, the ITC found that all the computer systems involved had chips containing programs virtually identical to the Apple copyrighted programs.⁶¹ The ITC held that these personal computers directly infringed the Apple copyrights.⁶²

The ITC also found contributory infringement because copyrighted Apple programs had been copied onto ROM chips and were then inserted into ROMless computers and motherboards.⁶³ The Commission determined that parties "who import or sell ROMless computers or components with identical motherboards have reason to know that activity which results in such direct infringement is occurring or will occur."⁶⁴

2. *Injury to a Domestic Industry*

Having established that unfair methods or acts had occurred, the ITC then concluded that the extent of Apple's domestic production activities provided substantial evidence to indicate that a domestic industry existed within the meaning of section 337.⁶⁵ It agreed with the administrative law judge's finding that this industry was economically and efficiently operated.⁶⁶

The ITC also held that the domestic industry was substantially injured by the infringing imports due to the large number of infringing competitors and their substantially lower prices.⁶⁷ These lost sales would have a significant negative impact on the economic performance of the domestic industry.⁶⁸

3. *Remedy*

Due to the large number of already established infringing imports and the apparent existence of even more, the ITC determined that a general exclusion order was the appropriate remedy due to the large number of already established infringing imports and the apparent

there was "in reality no change in principle as required under that doctrine." *Certain Personal Computers*, 224 U.S.P.Q. (BNA) at 283.

60. See *Certain Personal Computers*, 224 U.S.P.Q. (BNA) at 277.

61. *Id.*

62. *Id.*

63. *Id.* at 279.

64. *Id.*

65. *Id.* at 284.

66. *Id.*

67. *Id.*

68. *Id.* at 285.

existence of even more.⁶⁹ The order prevented any personal computers and components which directly or contributorily infringe any of the involved patents or copyrights from entering the United States.⁷⁰ The order also excluded any ROMless computers or components which could be shown to be associated with imported infringing ROMs or were intended to receive infringing ROMs in the United States.⁷¹

4. *Analysis*

Although Apple's section 337 complaint was successful, the efficacy of ITC remedies is still questionable. First, the ITC may have more difficulty finding unfair methods or acts under section 337 if copyrighted programs are not as blatantly infringed as they were in the Apple case.⁷² Much of the ITC's conclusive findings depended upon expert testimony presented by Apple who was able to show how the competitors' programs and circuitry were virtually identical to Apple programs and circuitry.⁷³ Thus, partially copied programs or component parts present a less clear-cut case of infringement, and, therefore, may escape ITC scrutiny.

Second, since a prerequisite to section 337 is that substantial injury to the domestic industry must have occurred, a complainant must have already sustained substantial losses before a remedy can be given.⁷⁴ Only large, well-established companies could effectively seek ITC remedies since smaller firms lack the revenue and time to invest in ITC investigations.⁷⁵ Also, time works against the section 337 complainant, as much computer software quickly becomes obsolete. Even if the complainant is successful in its claim, it may have an ineffective exclusion order due to the lengthy ITC investigative process which may take as long as a year or more to complete.⁷⁶ Thus, a company must not only

69. *Id.*

70. *Id.*

71. *Id.*

72. As noted before, the patent and copyright infringements were based on the ITC's finding that the competitors' circuitry, chips and motherboards were virtually identical to those in Apple computers and components. *See id.* at 283.

73. Dr. Paul T. Hulina, Associate Professor of Electrical and Computer Engineering at Pennsylvania State University devised a special test program to compare the contents of the respondents' ROM chips with those contained in an Apple computer. *See id.* at 279.

74. Competitor prices for the infringing imports ranged from \$300 to \$700. Approximately 3,000 infringing computers had been seized by U.S. Customs officials who testified that this number represented only 5-15% of the total number of infringing computer imports. *Id.* at 284.

75. *Unfair Trade Hearings II*, *supra* note 6, at 114.

76. Section 337 investigations are required to be completed within twelve months, or eighteen months for more complicated investigations. 19 U.S.C. § 1337(b)(1) (1988). Computer protection investigations may last longer than the requisite twelve months due to

establish substantial injury to the domestic industry involved but must also risk pursuing claims for products no longer in demand.

Third, even if an ITC order affects popular products which remain in demand and continue to be imported into the United States, the efficacy of the order depends upon the ability of United States Customs officials to properly implement it. Though Customs officials and inspectors have become more educated in computer piracy problems,⁷⁷ they still encounter difficulties in enforcing the exclusion order since their resources are limited.⁷⁸ For example, when Customs attempted to identify whether the computer component circuitry violated an Apple patent, Customs stated that it might be necessary to examine every computer and component imported into the United States regardless of make, model and type.⁷⁹ The costs and time involved in such an endeavour would be enormous despite Customs' best efforts.⁸⁰

Furthermore, Customs officials are often unable to distinguish between infringing and non-infringing circuitry. Importers may render their computers inoperative to avoid Customs testing, modify case design to avoid easy visual detection, and scramble pirated programs so those programs appear not to include Apple software, then rescamble them for subsequent purchase by American distributors.⁸¹ The methods for avoiding detection may become far too sophisticated to Customs officials to properly decipher.

In order to make ITC procedures more effective, several recommendations have been made. The schedule for reviewing petitions for temporary exclusions orders could be shortened to sixty days.⁸² Since temporary orders may take up to nine months to be granted and infringing imports continue to enter the country until the order is granted, shortening the period would minimize the complainant's

their relative novelty. See, e.g., *Certain Personal Computers*, 224 U.S.P.Q. (BNA) at 271 (investigation lasted 14 months).

77. See *Unfair Trade Hearings I*, *supra* note 5, at 163-64 (statement of Albert Eisenstat, Vice President, Secretary and General Counsel, Apple Computer, Inc.).

78. Letter from the Director, Office of Trade Operations, U.S. Customs Service to the Chairman, International Trade Commission (Feb. 3, 1984) and letter from the Assistant Commissioner, Office of Commercial Operations, U.S. Customs Service, to the Chairman, International Trade Commission (Mar. 7, 1984).

79. Letter from the Director, Office of Trade Operations, U.S. Customs Service to the Chairman, International Trade Commission (Feb. 3, 1984) and letter from the Assistant Commissioner, Office of Commercial Operations, U.S. Customs Service, to the Chairman, International Trade Commission (Mar. 7, 1984).

80. *Id.*

81. *Unfair Trade Hearings I*, *supra* note 5, at 162 (statement of Albert Eisenstat, Vice President, Secretary and General Counsel, Apple Computer, Inc.).

82. *Unfair Trade Hearings II*, *supra* note 6, at 331.

losses.⁸³ Section 337 of the Tariff Act could also "be amended to provide for forfeiture or destruction of illicit merchandise rather than mere exclusion."⁸⁴ This would greatly deter the infringing imports due to the substantial potential losses faced by foreign manufacturers.

However, implementing these recommendations still would not solve some of the inherent problems in ITC orders and may even give rise to some new ones. For example, shortening the schedule of petitions may limit some of the losses due to procedural inefficiencies, but still does not resolve substantive problems. American computer manufacturers will continue to suffer losses incurred in applying for the exclusion order and the necessity of finding substantial harm to an industry before action can be taken. Even if the complainant is successful, there is no guarantee that he will recover all or even most of the losses incurred. The ITC should focus more upon preventive measures against unfair trade practices instead of granting remedies after damage has already been incurred.

Furthermore, requiring illicit merchandise to be forfeited or destroyed at the port of entry may be too drastic a measure to take against foreign manufacturers. Since Customs officials lack the high level of expertise to detect and distinguish all infringing imported computers, the potential margin for error is too great. Legitimately manufactured foreign computers could be mistakenly identified and subsequently forfeited or destroyed as pirated computers. This could have serious repercussions on American trade relations with other nations.

The best solution is to continue and improve the education of American Customs officials so they may investigate, identify and seize pirated computer goods at the entry ports.⁸⁵ Better general knowledge of computer technology would enable Customs officials to detect and distinguish legitimate computer goods from counterfeits. Through proper education, Customs officials could also keep abreast of the newest methods used by foreign manufacturers to avoid detection at American entry points. Thus, efficient implementation of ITC orders would not only successfully implement the remedies sought by the complainants, but also serve as an effective deterrent against future infringers. In this sense, ITC orders could become both successful remedial and preventive measures against foreign counterfeit goods.

83. *Id.*

84. *Unfair Trade Hearings I*, *supra* note 5, at 164 (statement of Albert Eisenstat, Vice President, Secretary and General Counsel, Apple Computer, Inc.).

85. *Id.* at 163.

II. PROBLEMS FOR THE FUTURE: COMPUTERS IN THE GREY MARKET

Grey market⁸⁶ computers pose potential problems for computer manufacturers in the United States because items intended to be marketed abroad in foreign markets may be imported into the United States to compete with like goods.⁸⁷ To date, computer grey market cases have only involved component chips as opposed to complete systems.⁸⁸ However, the domestic computer industry will become further troubled as conflicts regarding grey market imports remain unresolved.⁸⁹ Thus, although the foreign counterfeit industry does pose threats to the computer industry in the United States, established remedial measures, though flawed, are available to domestic producers. Grey market computers, on the other hand, will possibly cause greater harm to the industry in the United States since attempts to find sufficient and consistent solutions have failed.

A. BACKGROUND

Controversies regarding grey market imports arise primarily in three different situations. The first situation involves parallel unauthorized imports which compete with authorized imports (case 1). An American importer of a foreign-made, trademarked good may be circumvented by an independent third party who also imports the good into the United States.⁹⁰ Second, after an American trademark is registered by a domestic firm which is a subsidiary, parent or the same as a foreign manufacturer, goods bearing the same trademark are then imported into the United States by a third party (case 2).⁹¹ Third, unauthorized imports may compete with domestically produced goods bearing the same trademark because foreign licensees of the trademark

86. See *supra* note 7 and accompanying text. For a more complete discussion on issues concerning grey market imports, see Knoll, *supra* note 8; Mackintosh & Graham, *Grey Market Imports: Burgeoning Crisis or Emerging Policy*, 11 N.C.J. INT'L L. & COM. REG. 293 (1986).

87. See Hansen, *Gray Market Goods: A Lighter Shade of Black*, 13 BROOKLYN J. INT'L L. 249 (1987).

88. See, e.g., *NEC Electronics v. CAL Circuit Abco*, 810 F.2d 1506 (9th Cir. 1987).

89. The Reagan Administration set up the Working Group on Intellectual Property of the Cabinet Council and Commerce and Trade to study the problems presented by grey market imports and formulate policy solutions. The group presented six different options but was unable to recommend any single one to the Administration. INSIDE U.S. TRADE, April 26, 1985, Annex.

90. See, e.g., *Vivitar Corp. v. United States*, 593 F. Supp. 420 (1984), *aff'd*, 761 F.2d 1552 (Fed. Cir. 1985), *cert. denied*, 474 U.S. 1055 (1986).

91. *K mart Corp. v. Cartier, Inc.*, 486 U.S. 281 (1988). Another variation of the same scheme is when a corporation in the United States sets up a subsidiary or manufacturing division abroad for domestic distribution. If the subsidiary or division also sells the for-

subsequently import their goods to the United States (case 3).⁹²

Protections against grey market imports are generally based upon provisions in the Lanham Act⁹³ and section 526 of the Tariff Act of 1930.⁹⁴ Section 526 prohibits the unauthorized importation of American trademarked goods, except as provided by customs regulations which allow unauthorized goods to enter the United States if imported by companies related to or authorized by the American trademark owner.⁹⁵ Thus, section 526 and its exceptions focus upon the legitimacy of the act of importation. The Lanham Act, on the other hand, provides general trademark protections and thus focuses more upon the authenticity of the trademark and the interests of the trademark owner. Most of the controversies have therefore centered upon how the section 526 exceptions and Lanham Act provisions will be applied in grey market cases.

B. SECTION 526 EXCEPTIONS

The main conflict involving section 526 is based upon claims by trademark owners that the customs regulations exception is inconsistent with the language and intent of the statute.⁹⁶ Until recently, the courts were split on this issue.⁹⁷ However, in *K mart Corporation v. Cartier, Inc.*,⁹⁸ the Supreme Court determined that the Customs Service regulation was consistent with section 526 insofar as it permitted the importation of foreign manufactured goods by a party who is the same as or is under the "common control" of the American trademark

eign manufactured goods abroad, those goods may be imported into the United States to compete with the domestic sales. *Id.* at 294.

The Court lays out three cases in which grey market imports occur that are the same as those articulated here. *See id.* at 284. The Court does not, however, include a fourth situation in which goods produced in the United States for export are then imported back to the United States without the trademark owner's authorization. *See, e.g., In re Certain Alkaline Batteries*, 225 U.S.P.Q. (BNA) 823, 824 n.2 (1984) (disapproved by President Reagan pursuant to 19 U.S.C. § 1337(g) (1982), 50 Fed. Reg. 1655), *reprinted in* 225 U.S.P.Q. (BNA) 862, *appeal dismissed sub nom. Duracell, Inc. v. United States Int'l Trade Comm'n*, 778 F.2d 1578 (Fed. Cir. 1985) [hereinafter *Certain Alkaline Batteries*].

92. *See, e.g., Certain Alkaline Batteries*, *supra* note 91, at 823.

93. 15 U.S.C. §§ 1114, 1124 (1988).

94. 19 U.S.C. § 526 (1988).

95. *See* 19 C.F.R. § 133.21(c)(1)-(3) (1989).

96. *See Coalition to Preserve the Integrity of Am. Trademarks v. United States*, 598 F. Supp. 844 (D.C. 1984), *rev'd*, 790 F.2d 903 (D.C. Cir. 1986), *aff'd in part, rev'd in part*, 486 U.S. 281 (1988) [hereinafter *COPIAT*].

97. *Compare Vivitar Corp. v. United States*, 761 F.2d 1552, 1557-60 (Fed. Cir. 1985) and *Olympus Corp. v. United States*, 792 F.2d 315, 317-19 (2nd Cir. 1986), with *COPIAT*, *supra* note 96, at 907-916.

98. 486 U.S. 281 (1988).

holder.⁹⁹ The Court held that the phrases "owned by" and "merchandise of foreign manufacture" in section 526 were sufficiently ambiguous to allow such statutory construction for the case 1 and 2 exceptions.¹⁰⁰

However, the Court struck down the "authorized use" exception¹⁰¹ because it was inconsistent with the "plain language" of section 526.¹⁰² It determined that "[u]nder no reasonable construction of the statutory language can goods made in a foreign country by an independent foreign manufacturer be removed from the purview of the statute."¹⁰³ *K mart Corp.* thus effectively bars grey market imports arriving in the United States via independent foreign manufacturers who are authorized to use the American trademark (case 3).¹⁰⁴

Consequently, computer manufacturers in the United States are largely protected from imports arriving from foreign sources over whom they have absolutely no control. However, the narrow decision in *K mart Corp.* did not address ways to determine ownership or common control when applying the regulation exception.¹⁰⁵ *K mart Corp.* leaves the Customs Service and grey market plaintiffs with no judicial guidance other than a fact-finding analysis to determine whether the foreign importer fits under the ownership or common control exception.

Furthermore, the Court in *K mart Corp.* did not address any of the conflicting theories regarding the applicability of the Lanham Act which has caused confusion in both the courts and the International Trade Commission.¹⁰⁶ Thus, even if a foreign importer is allowed to im-

99. *Id.* at 294.

The exceptions discussed by the Court in § 133.21 provide in part:

(c) Restrictions not applicable. The restrictions set forth in paragraphs (a) and (b) of this section do not apply to imported articles when:

(1) Both the foreign and the U.S. trademark or trade name are owned by the same person or entity;

(2) The foreign and domestic trademark or trade name owners are parent and subsidiary companies or are otherwise subject to common ownership or control . . . ;

(3) The articles of foreign manufacture bear a recorded trademark or trade name applied under authorization of the U.S. owner

19 C.F.R. § 133.21(c)(1)-(3) (1989).

100. *K mart Corp.*, 486 U.S. at 281.

101. See 19 C.F.R. § 133.21(c)(3). See also *supra* note 99 and accompanying text.

102. *K mart Corp.*, 486 U.S. at 294.

103. *Id.*

104. *Id.* at 281.

105. See *id.*

106. *Compare Osawa & Co. v. B & H Photo*, 589 F. Supp. 1163, 1168-70 (S.D.N.Y. 1984) (trademark owner showed irreparable harm by showing consumer confusion, damage in consumers' eyes to reputation, and devastating effects on business resulting from grey market imports) with *Olympus Corp. v. United States*, 792 F.2d 315, 321 (2d Cir. 1986) (Lanham Act does not bar goods if they are genuine; only if they "copy or simulate" a

port grey goods into the United States because he falls under the "common control" exceptions to section 526, a producer in the United States may still pursue relief under the Lanham Act and common law trademark protection.

C. THE LANHAM ACT AND TRADEMARK PROTECTION

Section 42 of the Lanham Act prohibits the importation of goods into the United States bearing the trade name or trademark that "shall copy or simulate" a registered trade name or trademark.¹⁰⁷ Although grey market goods are genuine trademarked items, some jurisdictions have construed the marks or names to be illicit copies because they infringe the trademark owner's rights.¹⁰⁸ Grey market importers benefit from sales because they have not incurred any of the costs invested by the trademark owner.¹⁰⁹ As a result, the importer's prices are substantially lower than the trademark owner's and deprives them of part of their expected return on their investments.¹¹⁰ Thus, opponents of grey goods claim that grey marketeers are "free riding" on the efforts of American trademark owners who have incurred the costs but are losing the sales to cheaper, lower quality goods bearing their trademark.

The Lanham Act also allows a trademark owner to take action against anyone who, without his consent, uses "a reproduction, counterfeit, copy, or colorable imitation of a registered mark" which is "likely to cause confusion, or to cause mistake, or to deceive."¹¹¹ Most American trademark owners complain that grey market goods are unfair copies because they deceive consumers and erode market goodwill.¹¹² Consumers may assume that all goods with a particular trademark are physically identical, covered by uniform warranties or backed by the

trademark); see also, *Certain Alkaline Batteries*, *supra* note 91, at 826-32 (territoriality principle incorporated into section 42 of Lanham Act prohibits importation of genuine Belgium Duracell batteries into the United States).

107. 15 U.S.C. § 1124 (1988).

108. See *A. Bourjois & Co. v. Katzel*, 260 U.S. 689 (1923). The *Katzel* Court held that the American trademark owner of a French perfume held exclusive rights to distribute in the United States and had developed domestic goodwill separate from the French manufacturer. *Id.* at 690, 692. Thus, *Katzel* stands for the territoriality principle of trademark law which does not allow a nation's trademark laws to be applied extraterritorially to create a "universal" trademark right. See *COPIAT*, *supra* note 95, at 848; see also *Certain Alkaline Batteries*, *supra* note 91, at 826-32.

109. Gilbert, Ludwig & Fortine, *Federal Trademark Law and the Gray Market: The Need for a Cohesive Policy*, 18 LAW & POL'Y INT'L BUS. 103, 112 (1986). These expenses may include marketing activities, promotions, and warranty services. *Id.*

110. *Id.*

111. 15 U.S.C. § 1114(1)(a) (1988).

112. See, e.g., *NEC Electronics v. CAL Circuit Abco*, 810 F.2d 1506, 1508 (9th Cir. 1987)(NEC-USA charged Abco with consumer confusion since some purchasers mistakenly thought Abco chips were protected by NEC-USA's servicing and warranties).

reputation of the trademarked company, regardless of who resells or distributes them.¹¹³ In reality, however, many grey goods lack factory authorized service and fail American quality specifications.¹¹⁴ Electronic goods, for example, may operate only on foreign voltage or improper shipment may damage their quality and effectiveness.¹¹⁵

However, application of the Lanham Act claims against grey market goods has been inconsistent. The ITC found Lanham Act violations based upon the territoriality principle¹¹⁶ and prohibited grey goods from entering the United States because grey market importers had misappropriated benefits of consumer goodwill that they did not create.¹¹⁷ Some courts upheld Lanham Act claims by focusing upon the statutory language regarding consumer deception and confusion as opposed to the authenticity of the trademark.¹¹⁸ Other jurisdictions will not grant Lanham Act relief when the complaining party is related to the foreign manufacturer.¹¹⁹ Finally, some courts have dismissed Lanham Act complaints as inapplicable because they consider grey market trademarks to be genuine, not counterfeits or copies.¹²⁰

Thus, although some of the controversies regarding grey market goods may have been resolved by the Supreme Court's decision in *K mart Corp.*, the scope of the decision fell short of resolving conflicts in applying trademark claims under the Lanham Act. Confusion regarding trademark rights over grey goods will therefore continue as courts remain split over the Act's applicability.

D. COPYRIGHT LAW IN THE UNITED STATES: A PLAUSIBLE SOLUTION

Although controversies regarding the grey market industry in general will continue, computer manufacturers in the United States may find an appropriate solution in American copyright law in conjunction with unfair trade protections under the Tariff and Lanham Acts. If claims under the Tariff Act and the Lanham Act fail, the computer manufacturers in the United States may resort to the Copyright Act since trademark decisions have no bearing on the use of copyright law to block grey market goods.¹²¹

113. Hanson, *supra* note 87, at 252.

114. *See id.*

115. *Id.* at 252 n.9.

116. *See supra* note 108 and accompanying text.

117. *See Certain Alkaline Batteries*, *supra* note 91 at 830; accord *A. Bourjois & Co. v. Katzel*, 260 U.S. 689, 692 (1923). *COPIAT*, *supra* note 95, at 848.

118. *See, e.g., Osawa & Co. v. B & H Photo*, 589 F. Supp. 1163, 1168 (S.D.N.Y. 1984).

119. *See, e.g., NEC-Electronics v. CAL Circuit Abco*, 810 F.2d 1506, 1510 (9th Cir. 1987).

120. *See, e.g., Olympus Corp. v. United States*, 792 F.2d 315, 321 (2d Cir. 1986).

121. Donahue, *The Use of Copyright Laws to Prevent the Importation of "Genuine Goods"*, 11 N.C.J. INT'L L. & COM. REG. 183, 193 (1986).

Section 602 of the Copyright Act prohibits the importation of copies of a work acquired outside the United States without the authority of the copyright owner.¹²² Importation of copies are prohibited regardless of whether they are infringing or legitimate copies.¹²³ Thus, the plain language of the statute clearly prohibits the unauthorized importation of copies as a violation of the copyright owner's exclusive right to distribute copies under section 106(3).¹²⁴

The only caveat in applying section 602 to grey market imports lies in the first sale doctrine under section 109(a) of the Act.¹²⁵ Under the first sale doctrine, a copyright owner may exercise distribution rights with respect to the initial sale.¹²⁶ After the first sale, however, the copyright laws will not prevent or restrict the resale or transfer of this work.¹²⁷ Thus, an American copyright owner of a computer program may be unable to block the importation of foreign copies if a valid initial sale of those copies occurred.

However, the legislative history of the Act indicates that the first sale doctrine has no application to section 602 in prohibiting the unauthorized importation of copyrighted works.¹²⁸ The House Report states that section 602 makes both piratical copies and unauthorized importa-

122. 17 U.S.C. § 602(a) (1982). Section 602(a) provides:

Importation into the United States, without the authority of the owner of the copyright under this title, of copies or phonorecords of a work that have been acquired outside the United States is an infringement of the exclusive right to distribute copies or phonorecords under section 106, actionable under section 501.

Id.

123. *See id.* § 602(b). The section provides in part:

In a case where the making of copies or phonorecords would have constituted an infringement if this title had been applicable, their importation is prohibited. In a case where the copies or phonorecords were lawfully made, the United States Customs Service has no authority to prevent their importation unless the provisions of Section 601 are applicable. . . .

Id. (emphasis added).

124. *See id.* § 106(3). That section provides that "the owner of copyright under this title has the exclusive rights to do and to authorize any of the following: . . . (3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending." *Id.* *See also* Donahue, *supra* note 120, at 194.

125. 17 U.S.C. § 109(a) (1982). Section 109(a) provides:

Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner to sell or otherwise dispose of the possession of that copy or phonorecord.

Id.

126. Donahue, *supra* note 121, at 194.

127. *Id.*

128. H.R. REP. NO. 1476, 94th Cong., 2d Sess. 8 (1976) [hereinafter HOUSE REPORT]; *see also* S. REP. NO. 473, 94th Cong., 1st Sess. 7 (1976) [hereinafter SENATE REPORT].

tion of lawfully made copies an act of infringement.¹²⁹ Whereas, previously copyright owners could only prevent the importation of pirated copies,¹³⁰ one of the main purposes of enacting section 602 was to also eliminate the importation of lawfully made copies which infringe the copyright owners' exclusive distribution rights.¹³¹ The House determined that "the mere act of importation in this situation would constitute an act of infringement and could be enjoined."¹³² Also, the Senate Report indicated that an unauthorized importer could be sued for damages and enjoined from making use of the copies even before public distribution took place in the United States.¹³³

Consequently, both the language of section 602 and its legislative history indicate that the first sale doctrine has no impact upon unauthorized import cases.¹³⁴ An American computer manufacturer may therefore pursue copyright claims against grey market importers if protections against unfair trade fail. Although copyright law is also somewhat flawed in its ability to protect computer manufacturers' interests, the doctrine in conjunction with unfair trade claims under the Tariff Act and the Lanham Act may provide more complete protection than the trade statutes alone. A computer manufacturer may thereby minimize his overall losses by first filing unfair trade claims and then attempting to eliminate further unfair competition by grey marketeers by enforcing his copyright interests under section 602.

III. CONCLUSION

The unique aspects of computer technology make it difficult to fully protect a manufacturer's or software developer's rights. Copyright law has proven sufficient for general protection of computer technology, but is inconsistently applied for more complex details, such as object codes and ROM chips. These problems are heightened in international trade as American computer industrialists attempt to protect their interests against infringing foreign competitors. The remedies available to the American computer manufacturer appear inherently flawed when applied to the computer industry since substantial losses must first be incurred and adequately proven before the courts will grant relief. In the meantime, the manufacturer incurs even more losses since foreign counterfeits continually pour into the country.

Furthermore, the threat of legitimate grey market goods poses

129. HOUSE REPORT, *supra* note 128, at 169.

130. Act of Mar. 4, 1909, ch. 320, 35 Stat. 1075 (repealed 1976).

131. HOUSE REPORT, *supra* note 128, at 170.

132. *Id.*

133. SENATE REPORT, *supra* note 128, at 151-52.

134. Donahue, *supra* note 121, at 195-96.

greater problems for the computer industry. Unlike the remedies for actions against counterfeit goods, computer manufacturers in the United States are helpless in obtaining relief if the competitive items are found to be genuine trademarked goods with appropriate authorization for import into the United States.

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