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Copyright, Patent, and Trade Secret Protection for Computer Software in Western Europe, 8 Computer L.J. 327 (1988)

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COPYRIGHT, PATENT, AND TRADE SECRET PROTECTION FOR COMPUTER SOFTWARE IN WESTERN EUROPE*

by

JOHN P. SUMNER**
DIANNE PLUNKETT***

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I. INTRODUCTION

During the 1980's, Western Europe experienced a strengthening of computer software protection, through legislation and court decisions, similar to that experienced in the United States during this decade. The purpose of this article is to survey the copyright, patent, and trade secret protection available for computer software in Western Europe. The Article encompasses the countries of Austria, Belgium, Denmark, France, the Federal Republic of Germany, Ireland, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom.

The article will survey the copyright acts of each country for specific provisions related to computer software and for provisions such as the protection period, formality requirements, and work made for hire provisions. Copyright case law related to computer software protection will be reviewed for each country. The status of computer software patent protection will also be surveyed for each country. This includes protection under the European Patent Convention (EPC) and the Patent Cooperation Treaty (PCT), as well as protection under the statutes, proposed legislation, and case law for each Western European Country. The Article will also survey statutory provisions in each country which can be used to accomplish trade secret protection for computer software and review relevant case law in this area.

A. COPYRIGHT PROTECTION

Western European copyright protection for computer software has steadily increased throughout the 1980's. The copyright acts of France,¹ the Federal Republic of Germany,² Spain,³ and the United Kingdom⁴

1. See *infra* text accompanying note 125.
 2. See *infra* text accompanying note 169.

have been amended to specifically include computer software as copyrightable subject matter. Copyright act amendments have been proposed in Denmark,⁵ Italy,⁶ the Netherlands,⁷ Norway,⁸ Sweden,⁹ and Switzerland¹⁰ which will provide well-defined protection for computer software. For countries such as Austria,¹¹ Italy,¹² and the Netherlands,¹³ where the copyright acts do not specifically recognize the copyrightability of computer software, court decisions have recognized the copyrightability of computer software. In countries such as Belgium,¹⁴ Denmark,¹⁵ Ireland,¹⁶ and Norway,¹⁷ which have no specific provisions in their copyright acts related to computer software and no published decisions on point, legal scholars generally consider software to be copyrightable.

All of the nations which are the subject of this article have copyright statutes, as well as membership,¹⁸ in the Universal Copyright Convention (U.C.C.)¹⁹ and in the Berne Convention.²⁰ The U.C.C. and the Berne Convention are reciprocal agreements under which member countries provide nationals of other member countries the same protection as that given to their own nationals.²¹

National statutory copyright formalities consist of requirements

3. See *infra* text accompanying note 275.

4. See *infra* text accompanying note 333.

5. See *infra* text accompanying note 112.

6. See *infra* text accompanying note 214.

7. See *infra* text accompanying note 245.

8. See *infra* text accompanying note 265.

9. See *infra* text accompanying note 299.

10. See *infra* text accompanying note 315.

11. See *infra* text accompanying note 80.

12. See case cited *infra* note 217.

13. See cases cited *infra* note 246.

14. See *infra* text accompanying note 94.

15. See *infra* text accompanying note 111.

16. See *infra* text accompanying notes 201-02.

17. See *infra* text accompanying notes 261-62.

18. 4 M. NIMMER & D. NIMMER, *Nimmer on Copyright*, apps. 21 & 22 (1988) [hereinafter cited as NIMMER]. (U.C.C. members are listed in Appendix 21; Berne members are listed in Appendix 22.)

19. *Universal Copyright Convention, reprinted in id.* apps. 24 & 25 (Supp. 1978) (Appendix 24 contains the Geneva text of Sept. 6, 1952, and Appendix 25 contains the Paris text of July 24, 1971).

20. *Berne Convention, reprinted in id.* apps. 26 & 27 (Supp. 1978) (Appendix 26 contains the Brussels text of June 26, 1948, and Appendix 27 contains the Paris text of July 24, 1971).

21. Reciprocity is provided in Article II of the U.C.C. *Id.* app. 25-1 (Supp. 1978). Article 5(1) of the Berne Convention provides similar reciprocity. *Id.* app. 27-4 (Supp. 1978). See generally Vaver, *The National Treatment Requirements of the Berne and Universal Copyright Conventions* (pts. 1 & 2), 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 577 (1986), 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 715 (1986).

such as deposit, registration, notice, notarial certificates, fee payments, or manufacturing and publication requirements. The Berne convention has no formalities. The only U.C.C. formality is that of notice, which is required only for published works. The notice consists of the copyright symbol (a "c" within a circle), the author's name, and the publication date.²² The United States is a member of the U.C.C. but is not a member of the Berne Convention.²³

This Article will survey the copyright acts of each country for specific provisions related to computer software, as well as for provisions such as the protection period, formality requirements, and work made for hire provisions. Copyright case law related to computer software protection will also be reviewed for each country.

B. PATENT PROTECTION

With the exception of the British courts, Western European courts generally held that computer software was unpatentable prior to the 1980's.²⁴ This was the rule in the United States during that period.²⁵ As predicted,²⁶ however, patent protection for computer software in Western Europe is evolving toward the United States' position of accepting software patentability.

Court decisions, national patent office guidelines and proposed legislation in Western European countries demonstrate a greater acceptance of software-related inventions. Judicial decisions in France,²⁷ Germany,²⁸ Italy,²⁹ the Netherlands,³⁰ and the United Kingdom³¹ have

22. *Universal Copyright Convention*, Paris text of July 24, 1971, Article 3(1), reprinted in NIMMER, *supra* note 18, at app. 25-2 (Supp. 1978).

23. On May 29, 1987 Senator Leahy introduced a bill to amend the U.S. Copyright Act to enable the United States to join the 1971 Berne Convention for the Protection of Literary and Artistic Works. S. 1301, 100th Cong., 1st Sess. (1987). On October 5, 1988 the Senate passed the "Berne Convention Implementation Act of 1988" by a vote of 90 to 0. Equivalent legislation was introduced by Representative Kastenmeier on March 16, 1987. H.R. 1623, 100th Cong., 1st Sess. (1987). On May 10, 1988, the House of Representatives passed the "Berne Convention Implementation Act of 1988" (H.R. 4262) by a vote of 420 to 0.

24. See cases cited *infra* notes 345 (United Kingdom), 84 (Austria), 308 (Sweden), 322 (Switzerland).

25. The United States Supreme Court did not affirm the patentability of software until *Diamond v. Diehr*, 450 U.S. 175 (1981)(rubber-molding process using a mathematical algorithm held patentable subject matter, because there was no preemption of the algorithm and, when considered as a whole, the claimed invention was an application of a method of calculation).

26. Sumner & Lundberg, *The Versatility of Software Patent Protection: From Sub-routines to Look and Feel*, 3 COMPUTER LAW. 1, 9 n.12 (June 1986).

27. See case cited *infra* note 154.

28. See cases cited *infra* notes 186-87, 190 (a conservative approach, however).

29. See case cited *infra* note 224.

upheld the patentability of software-related inventions. Furthermore, the Examination Guidelines for the French,³² German,³³ and Swiss³⁴ Patent Acts permit the patenting of software-related inventions. In Italy, a bill has been introduced to amend the Patent Act to provide patent protection for computer programs.³⁵ Patents have been granted in Norway for software as a part of mechanical, electro-mechanical, or electronic equipment.³⁶

Nothing exemplifies the trend toward the acceptance of software patentability better than the European Patent Office (EPO) *Vicom Systems Inc.*³⁷ opinion. On July 15, 1986, the EPO Boards of Appeal interpreted the EPC provisions with respect to computer software patentability.³⁸ In *Vicom*, the court held that a claim directed to a technical process carried out under the control of a program, whether implemented by hardware or by software, is allowable under the EPC. It is allowable because protection is sought for the program application, rather than for the computer program as such.³⁹ The *Vicom* decision has far-reaching effects in Western Europe, because most European countries are members of the EPO. Given that the EPO scope of patent protection for computer software is now similar to the protection in the United States, it is wise to consider filing an application for a European patent as a complement to filing a United States patent.

This article will survey the status of patent protection for computer software under the EPC, the PCT, as well as under the statutes, proposed legislation, and case law of each Western European Country. The article will demonstrate that the most effective means of patenting software in Western Europe is the EPO. This is true from both a substantive and procedural perspective.

30. See cases cited *infra* notes 250-54.

31. See cases cited *infra* note 345. But see case cited *infra* notes 346-49.

32. *Directives Pour L'Examen Des Demandes De Brevets D'Invention*, INSTITUT NATIONAL DE LA PROPRIÉTÉ INDUSTRIELLE A-V11-6 (Jan. 1984) [hereinafter cited as FRENCH EXAMINATION GUIDELINES] (translated by Kathleen R. Terry, Office of Patents and Licensing, University of Minnesota).

33. *Examination Guidelines of the German Patent Office for Applications Comprising Data Processing Programs or Rules*, 89 BLATT FÜR PMZ 1 (Jan. 1987), *trans. in* 5 SOFTWARE PROTECTION 18 (Feb. 1987) [hereinafter cited as *German Examination Guidelines*].

34. See *infra* text accompanying notes 323-25.

35. See *infra* text accompanying note 226

36. See *infra* note 271 and accompanying text.

37. *Vicom Systems Inc.*, No. T 208/84 (EPO Technical Board of Appeal 3.5.1 July 15, 1986), *trans. in* 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 101 (1987).

38. See also Van Voorthuizen, *The Patentability of Computer Programs and Computer-Related Inventions under the European Patent Convention*, 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 627 (1987).

39. *Vicom*, No. T 208/84, at 9.

C. TRADE SECRET PROTECTION

Trade secret protection in Western Europe is a much less homogeneous body of law than copyright or patent law. No Western European country has a homogenous trade secret law. Software trade secrets are instead protected by a variety of laws: unfair competition, criminal statutes, breach of confidence, torts, unjust enrichment, passing off, marketing control acts, or as an industrial/manufacturing or commercial secret. Only Belgium⁴⁰ and France⁴¹ have court decisions in any of these areas.

Although contracting and licensing practices are not within the scope of this article, it is recognized that one can protect trade secrets in computer software through these means in all Western European countries. A contract or license normally protects trade secrets since the agreements typically require the parties to maintain the secrecy of trade secrets and other confidential and proprietary information, including information related to confidential and proprietary software. This article surveys each country's statutory provisions and case law which can protect computer software trade secrets.

II. PATENT CONVENTIONS

Given the increasing scope of both the EPC's and the PCT's influence, the function of these treaties will be discussed before covering in more detail software patent protection in the individual Western European countries. Patents can be obtained in Western European countries through four procedures: (1) directly filing a national patent in every applicable country; (2) filing via the PCT in applicable member countries; (3) directly filing a European patent application in the EPO for applicable member countries; and (4) seeking a European patent by filing via the PCT for countries which are members of both the PCT and the EPC.⁴² After evaluating the available procedures, the authors conclude that the EPO is now the preferred method of obtaining software patent rights in Europe. This is true when filing either directly with the EPO or with the EPO via the PCT.

When selecting one of the four filing options, an applicant generally should eliminate the first option of directly filing a national patent in every applicable country. This advice stems not only from the duplicative effort required, but also from the need to immediately translate the application into the national language. This is expensive. Furthermore, the official version of a patent is usually the filed version. With na-

40. See *infra* text accompanying notes 107-08.

41. See *infra* text accompanying note 167.

42. Patent Resources Institute, Inc., 2 INTERNATIONAL PATENT LAW EPC & PCT PRACTICE AND STRATEGY IV-5 (1980) [hereinafter cited as EPC & PCT PRACTICE].

tional patent filings, the translated version, not the English language version, is interpreted in a legal dispute. With both the PCT and the EPC, an English language version can be filed and is usually the official version which is interpreted in a legal dispute. Any translation errors can be corrected by reference to the English application (when dealing with technical subject matter, translation errors are the rule, not the exception).

When filing in only EPC member countries, an applicant should generally eliminate the second option, the PCT filing option. Although the drawbacks under the national filing option are reduced under the PCT filing option, there are still considerable duplicative efforts in dealing with several applicable national offices after completing the PCT procedures, as opposed to prosecuting a single application at the EPO. When the EPC was first instituted, practitioners were concerned with "placing all their eggs in one basket" by dealing with the EPO rather than with several national offices. In addition, the national courts' treatment of European patents was unknown. These fears have generally been unfounded.

The decision to file directly with the EPO, under option three, or to file with the EPO through the PCT for the applicable countries, under option four, depends generally on whether an application is sought for a PCT country which is not an EPC member, and also on whether PCT prosecution procedures are advantageous for the application. If rights are sought in only one PCT, but non-EPC, country in addition to EPC countries, the cost savings for filing and prosecution usually makes it advisable to file with the PCT first.

As indicated above, PCT prosecution procedures may offer advantages over EPO procedures for an application filed with the EPO via the PCT. For example, some PCT prosecution history remains confidential. After PCT prosecution, all that is available to the United States Patent and Trademark Office is the application, the search report and the preliminary examination report; the rest of the file normally remains confidential. Furthermore, PCT prosecution lasts thirty months. This usually gives the applicant more time to accomplish market research and to determine commercial viability. An applicant can then often knowledgeably consider application abandonment before incurring the greatest foreign patenting costs — namely, translation, national filing fees, maintenance costs and foreign associate charges.

An applicant may also find it advantageous to file via the PCT, rather than the EPO, when only EPO countries are involved, if very little time remains before a statutory bar precludes a filing. United States citizen's PCT applications are filed in Washington D.C. and EPO applications are filed in Munich. This can be critical if a statutory bar date is close at hand, as mail delivery will take a few days longer for an EPO

filing. Finally, if an applicant chooses the EPO to do the PCT search and examination after going national to the EPO from the PCT, a European patent will usually issue without further prosecution.

With respect to any of these procedures, whether applicants elect to file with the EPO, the PCT, or through a direct filing, the contents of the application will be made public in most European countries eighteen months from the first filing date.⁴³ Applicants should, therefore, avoid using source code to disclose computer software inventions, if they wish to maintain the source code as a trade secret.⁴⁴

A. EUROPEAN PATENT OFFICE

The EPO, which began operations on June 1, 1978, has been delegated sovereign power in the field of patents by its contracting countries. These countries include Austria, Belgium, France, the Federal Republic of Germany, Greece, Italy, Luxembourg, the Netherlands, Spain, Sweden, Switzerland/Liechtenstein, and the United Kingdom.⁴⁵

National patent protection can be obtained in countries which have ratified the EPC. As previously indicated, this is frequently done by making a European patent application to the EPO in Munich and designating the countries within the system to be covered by the application. Once a European patent has been granted, and the appropriate national fees and translations submitted, the patent has the effect of a bundle of domestic patents for the designated countries. The rights given by the patent and the questions related to its infringement are then determined by domestic law.⁴⁶

The patent law governing the European Patent Office is the European Patent Convention (the Munich Convention of October 5, 1973). The EPC establishes a common law system which permits an applicant to file a single patent application in English, French, or German for multiple countries. A central office examines the application and applies a uniform substantive patent law. After the patent is issued, the entire patent (or just the patent claims, depending on the country's reg-

43. For purposes of this Article, it is assumed that a United States patent application has been filed and that foreign filings are made within one year, the allowed time to claim priority of the United States filing date. Time spans are measured, therefore, from the United States filing date, the convention date.

44. For a discussion of how to disclose a software invention see Sumner & Lundberg, *supra* note 26, at 7.

45. Patent Resources Group, *Implementation of Chapter II of the Patent Cooperation Treaty in the United States of America*, 1987 ANN. SPRING INST. 57 [hereinafter cited as *PCT Chapter II Implementation*]. Denmark, Ireland and Norway have signed, but not yet ratified, the EPC. See *infra* notes 117 (Denmark), 204 (Ireland), 267 (Norway).

46. See 2 Baker & McKenzie, *Computers & Software (Europe)*, 1.4 (1986); 2 EPC & PCT PRACTICE, *supra* note 42, at III-39 (1980).

ulations) must be translated into the national language of each country for which it applies. The patent's effect in the designated countries is the same as a national patent granted on filing directly with a particular nation.⁴⁷

Article 52 of the EPC limits the protection granted for computer programs:

- (1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step.
- (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:
 - (a) discoveries, scientific theories and mathematical methods;
 - (b) aesthetic creations;
 - (c) schemes, rules and methods for performing mental acts, playing games or doing business, and *programs for computers*;
 - (d) presentations of information.
- (3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.⁴⁸

Although Article 52 would appear to exclude computer programs as patentable inventions, EPO guidelines and recent EPO case law have interpreted the Article very narrowly. The EPO Guidelines of March 6, 1985,⁴⁹ as well as recent EPO case law,⁵⁰ permit the patenting of software-related inventions and exclude only software as such. An example of software as such is a software listing, i.e., the record itself, as opposed to a function within the software claimed as an invention. The latter is patentable, assuming that it meets the requirements of paragraph (1) above.

The EPO Guidelines determine the practice of the Examining and Opposition Divisions of the EPO. They are, however, not binding on the EPO Boards of Appeal. Nevertheless, the EPO Guidelines state that "[a] computer program claimed by itself or as a record on a carrier, is unpatentable irrespective of its content. The situation is not normally changed when the computer program is loaded into a known computer." On the other hand, the EPO Guidelines also state that "patent-

47. Chaskin, *Patent Cooperation Treaty, European and Community Patent Conventions*, in *Current Developments in Patent Law*, 113, 116 (Practising Law Institute [hereinafter cited as PLI] 1978).

48. 2K J. SINNOTT, *WORLD PATENT LAW AND PRACTICE* 22 (1987) (emphasis added).

49. *Guidelines for Examination in the EPO*, Chapter II, Part C, 2.3 (1985) OFFICIAL J. EPO 173, reprinted in Wallace, *The Patentability of Software — Related Inventions Under the European Patent Convention*, 1 *SOFTWARE L.J.* 249, 254 (1986) [hereinafter cited as *EPO Guidelines*].

50. See *infra* text accompanying notes 53-61.

ability should not be denied merely on the ground that a computer program is involved in its implementation."⁵¹

1. *The EPO Vicom Decision*

A recent EPO Boards of Appeal decision firmly established the patentability of software in Western Europe, at least through the EPO. In this decision, Vicom Systems Inc. claimed a digital image processing method which was implemented by a computer program.⁵² The EPO Examining Division refused to grant a patent on the grounds that the invention related to a mathematical method which was not patentable by virtue of Article 52(2)(a) and 52(3) of the EPC, and that the normal implementation of the claimed methods by a program run on a known computer could not be regarded as an invention in view of Article 52(2)(c) and 52(3) of the EPC.⁵³

The EPO Boards of Appeal held in *Vicom* that a claim directed to a technical process carried out under the control of a program, whether implemented in hardware or in software, cannot be regarded as relating to a computer program as such within the meaning of Article 52(3). It is the application of the program for which protection is sought. Consequently, the Boards of Appeal concluded that the claim was allowable under article 52(2)(c) and 52(3) of the EPC.⁵⁴ The Boards of Appeal reasoned that "an invention which would be patentable in accordance with conventional patentability criteria should not be excluded from protection by the mere fact . . . [of] its implementation [by] modern technical means in the form of a computer program . . ."⁵⁵ The court found it illogical to grant protection for a technical process controlled by a suitably programmed computer but not to grant protection for the computer itself when set up to execute the process controls.⁵⁶ The technical contribution of the invention when considered as a whole is decisive.⁵⁷ The court reasoned that to distinguish between implementation of an invention in hardware and in software is inappropriate, because the implementation choice is based on technical and economic considerations which bear no relationship to the inventive concept.⁵⁸

Many Western European countries have incorporated Article 52 of the EPC into their national patent laws.⁵⁹ National courts, however,

51. *EPO Guidelines*, *supra* note 49, at 257.

52. *Vicom*, No. T 208/84 at 4.

53. *Id.* at 1.

54. *Id.* at 9.

55. *Id.* at 11.

56. *Id.*

57. *Id.*

58. *Id.*

59. The countries, which are the subject of this article and which have also incorpo-

need not follow EPO decisions and may interpret Article 52 unfavorably toward software-related inventions. EPO member countries who have adopted Article 52, however, probably will interpret the provision similarly to EPO decisions. If a national court has not interpreted the national equivalent of Article 52, or has unfavorably interpreted Article 52 for software-related inventions, it may be preferable to file applications for software-related inventions in the EPO, which would then issue a corresponding national patent.

In view of the *Vicom* decision, broad protection is now available through the EPO for software which is susceptible of industrial application and so applied, which is new, and which involves an inventive step.⁶⁰ The EPO scope of protection for software patents is now similar to patent protection in the United States.⁶¹ It is, therefore, wise to file an application for a European Patent⁶² as a complement to filing a United States patent. This will protect a product in European markets; it will also prevent competitors from gaining experience and profits outside the United States with which to position themselves for entry into United States markets after the United States patent expires.

B. PATENT COOPERATION TREATY

As previously indicated, patents in Western Europe can be obtained not only by national filings or an EPO filing, but also via the PCT by designating national states or the EPO. The PCT is a worldwide convention which was entered into force on January 24, 1978. It has receiv-

rated Article 52 of the European Patent Convention into their national patent acts, include Austria, Belgium, France, the Federal Republic of Germany, Italy, Spain, Sweden, and the United Kingdom. Denmark and Norway have incorporated Article 52, even though they have not yet ratified the European Patent Convention. Ireland, the Netherlands, and Switzerland have not yet incorporated Article 52.

60. *Vicom*, No. T 208/84, at 3. The EPO has continued its trend of allowing software patents. See *X-Ray Apparatus/Koch & Sterzel*, T 26/86 (1/2 1988) OFFICIAL J. EPO 19 (1988) (EPO Technical Boards of Appeal, May 21, 1987). In answering whether a claim is directed to a computer program as such, the court held it unnecessary to compare or balance technical and non-technical elements. If the invention uses predominantly technical means, then it does not fall under the exclusion of article 52(2)(c) and (3). *Id.* at 9. But see *Christian Franceries*, No. T 16/83 (EPO Technical Board of Appeal Dec. 1985) 2 EPOR 66 (1988) (software regulating flow of vehicular traffic through a predetermined urban network held to be an unpatentable method of doing business because it was in fact a service activity producing an immaterial good whose production and consumption was simultaneous). This pre *Vicom* decision may be of little consequence since a proper analysis of the "as such" provision of Article 52(2)(c) would require an extremely strained interpretation to find a traffic control system to be a method of doing business. The question should not even arise for electro-mechanical systems.

61. See generally, Sumner & Lundberg, *supra* note 26.

62. It is also wise to file patents in Canada, Japan, and any other country which may provide a substantial market for the product.

ing offices at a national office within member countries.⁶³ After searching, the PCT forwards the applications to the designated national or regional office for examination. There are forty member countries within the PCT.⁶⁴ All of the countries which are the subject of this Article are members of the PCT, with the exception of Spain.⁶⁵

The principle objective of the PCT is to simplify the foreign filing of patent applications and to reduce costs by avoiding duplicate administration, search, and prosecution efforts. Under the PCT, an applicant must file in the official language of the receiving office of the country of the applicant's citizenship. For a United States citizen this means that an applicant can prosecute one application in English for all PCT countries in which protection is sought. Costs are further reduced by postponing application translation filings until after the search results are known, and in many cases, after substantial prosecution results are known.⁶⁶ If a search reveals prior art which could preclude an applicant's patent, or if a Chapter II international preliminary examination report is negative, the applicant may decide not to further pursue the application, thereby avoiding costly translations.

Rule 67.1 of the Regulations under the PCT states that:

No International Preliminary Examining Authority shall be required to carry out an international preliminary examination on an international application if, and to the extent to which, its subject matter is any of the following:

...

(vi) computer programs to the extent that the International Preliminary Examining Authority is not equipped to carry out an international preliminary examination concerning such programs.⁶⁷

The Guidelines for the International Preliminary Examination to be carried out under the PCT [hereinafter cited as PCT Guidelines] state that:

(f) *Computer programs* may take various forms, e.g., an algorithm, a flowchart or a series of coded instructions which can be recorded on a tape or other machine-readable record-medium, and can be regarded as a particular case of either a mathematical theory (see [a] above) or a presentation of information (see [e] above). If the contribution to the known art resides solely in a computer program, then the subject mat-

63. World Intellectual Property Organization, I PCT APPLICANT'S GUIDE, Annex C (July 1987).

64. See *PCT Chapter II Implementation*, *supra* note 45, at 3.

65. *Id.*

66. 1 EPC & PCT PRACTICE, *supra* note 42, at I-8. For a discussion of the advantages of filing under the EPO, PCT or the national systems, see 2 EPC & PCT PRACTICE, *supra* note 42, at V-65-67; *PCT Chapter II Implementation*, *supra* note 45, at 6-11 Annex G (advantages and disadvantages of the PCT).

67. 2L J. SINNOTT, *supra* note 48, at PCT-120.

ter may be excluded under PCT Rule 67. For example, a claim to a computer characterized by having the particular program stored in its memory or to a process for operating a computer under control of the program could be excluded as well as a claim to the program *per se* or the program when recorded on magnetic tape. No International Preliminary Examining Authority is required to carry out an international preliminary examination on computer programs to the extent it is not equipped to carry out such examination.⁶⁸

For applications filed with the PCT, United States applicants may designate as their searching authority either the United States Patent and Trademark Office or the EPO. Given the discretion permitted under Rule 67.1 of the PCT and under the PCT Guidelines, when an applicant elects the EPO as its searching authority, the EPO will not have prior art searches performed for computer programs. If, however, an applicant elects to have the United States as the searching authority, a search would be performed to the same extent as that of a United States national application. A United States Patent and Trademark Office search would be accomplished using the guidelines⁶⁹ in the *Manual of Patent Examining Procedure*.⁷⁰ No PCT filings have had any computer software issues litigated in the United States.⁷¹

III. AUSTRIA

A. COPYRIGHT

Copyrights in Austria are protected by the Federal Act on Copyright in Works of Literature and Art and on Related Rights of April 9, 1936, as amended through February 19, 1982. Works within the meaning of Article 1(1) of the Act are original intellectual productions in the fields of literature, music, art, and cinematography.⁷² Under Article 60, the general term of protection is seventy years after the author's death.⁷³ No formalities⁷⁴ are required. Article 61, however, provides

68. *PCT Chapter II Implementation, supra* note 45, at Annex I-22. The PCT Guidelines were prepared by the International Bureau of WIPO and agreed upon by the Interim Committee for Technical Cooperation at its seventh session which was held in Geneva during October 1977.

69. U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE, *MANUAL OF PATENT EXAMINING PROCEDURE* 2100-2 (5th ed. 1983) (U.S. case law on software patentability is summarized in section 2110, Patentable Subject Matter — Mathematical Algorithms or Computer Programs).

70. Telephone interview with Louis O. Maassel, U.S. Patent and Trademark Office (May 12, 1987).

71. *Id.*

72. See 1 UNESCO & WIPO, *COPYRIGHT LAWS AND TREATIES OF THE WORLD*, Austria: Item 1-1 (Supp. 1981-83) [hereinafter cited as *WORLD COPYRIGHT LAWS*].

73. See *id.* at Austria: Item 1-14.

74. See *supra* text at note 22.

for optional registration.⁷⁵

Article 42 of the Austrian Copyright Act allows the reproduction of "isolated copies" for "personal use."⁷⁶ Some Western European countries with similar provisions have revised their copyright statutes⁷⁷ or have proposed revisions⁷⁸ which would exclude computer software from this provision. These revisions are advantageous to software vendors, because software is generally licensed by the copy, with exception made only for backup and archival copies such as in the United States.⁷⁹ Hopefully, Austria will similarly revise their Copyright Act.

Computer Programs are not specifically mentioned in the Austrian Copyright Act. An April 1986 decision of the Austrian High Court upheld copyright protection for computer software. This decision granted an injunction against the distribution and sale of a pirated operating system for a home computer. The Court found for the plaintiffs, despite the defendant's argument that the program was a standard, generally available operating system.⁸⁰

B. PATENT

Section 1 of the Austrian Patents Act of 1970 as amended through 1984 provides patentability tests of novelty, nonobviousness, and industrial application.⁸¹ Austria is a member of the EPC and the PCT. Section 1 of the Austrian Patent Law⁸² reflects Article 52⁸³ of the EPC with respect to software patentability.

Austrian case law regarding software-related inventions is not clear. The few decided cases⁸⁴ have probably lost much of their weight because they were rendered before Austria aligned its national law with that of the EPC. The decisions generally excluded software inventions

75. See WORLD COPYRIGHT LAWS, *supra* note 72, at Austria: Item 1-14-15.

76. *Id.* at Austria: Item 1-9.

77. See *infra* text accompanying notes 175-76 (Germany).

78. See *infra* text accompanying notes 301-302 (Sweden); *contra infra* text accompanying notes 113-14 (Denmark).

79. 17 U.S.C. 117 (1980).

80. du Mesnil de Rochemont, *Copyright and Fair Trade Laws Against Software Piracy in European Civil Law Countries*, 6 SOFTWARE PROTECTION 1, 5 (Sept 1987).

81. See 2B J. SINNOTT, *supra* note 48, at Austria-2.

82. See *id.*

83. See *supra* text accompanying note 48.

84. *Algorithmus*, (Austrian Patent Office, Appeals Division 1970), [1971] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 337, *trans. in* 2 INT'L REV. INDUS. PROP. COPYRIGHT L. 206 [1971]; *Lineare Programmierungseihrichtung III* (Austrian Patent Office Nullity Division 1968), [1968] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 381; *Zinszahlen-Rechenprogramm* (Austrian Patent Office, Appeal Division 1967), [1968] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 211.

and were overly broad. They are likely to be reviewed in view of the general trend toward a more favorable position regarding the patentability of software-related inventions.⁸⁵

C. TRADE SECRET

Computer software trade secrets in Austria should be protectable under the Federal Law Against Unfair Competition of September 26, 1923 as amended through March 6, 1980. Section 1 provides that "[a]ny person who, in the course of business activity for purposes of competition commits acts contrary to honest practices may be enjoined from such acts and held liable for damages."⁸⁶ Section 11 prohibits employees from making unauthorized disclosures of industrial secrets confided in, or accessible to, them during their term of employment. Section 12 prohibits unauthorized persons from exploiting or communicating to other persons, for competitive purposes, documents or instruments of a technical nature which have been entrusted to them in the course of business activity.⁸⁷ No Austrian court decisions applying unfair competition law to computer software trade secret issues have been found, however.

IV. BELGIUM

A. COPYRIGHT

Copyright protection for literary and artistic works in Belgium is governed by the Law on Copyright of March 22, 1886 as amended through March 11, 1958. Protection has been extended to scientific works by the Berne Convention of September 6, 1952, approved by the Belgian laws of June 26, 1951 and April 20, 1960.⁸⁸ Protection begins from the moment of creation and, under Article 2, exists for fifty years after the author's death.⁸⁹ No formalities⁹⁰ need be observed to qualify for protection.

Although the Belgium copyright laws do not specifically mention computer programs, a majority of legal authors believe that Belgian copyright law protects computer programs as original works of authorship.⁹¹ Belgian courts have not yet had the opportunity to state clearly

85. H. HANNEMAN, *THE PATENTABILITY OF COMPUTER SOFTWARE* 209-213 (1985).

86. WIPO, *1 INDUSTRIAL PROPERTY LAWS & TREATIES*, 5-001, 001 (Supp. 1986).

87. *Id.* at 003.

88. BAKER & MCKENZIE, *supra* note 46, at 9.3.

89. *See* WORLD COPYRIGHT LAWS, *supra* note 72, at Belgium: Item 1-1 (Supp. 1959).

90. *See supra* text accompanying note 22.

91. *See* Hanotiau & Peters, *Software Protection Against Third Parties in Belgium*, 1 SOFTWARE L.J. 303, 304 (1986); Keustermans, *Protection of U.S. Computer Software In Belgium and The Netherlands*, 2 COMPUTER LAW. 19, 19 (Oct. 1985).

whether copyright protection is appropriate for computer software.⁹² It is expected that when the issue is raised in a Belgian court, existing French case law, which holds that computer programs can be protected by copyright,⁹³ will influence the court.⁹⁴

B. PATENT

The Chapter II, Part 1 General Provisions of the Belgian Patent Law of March 28, 1984, enforceable from January 1, 1987, provide the patentability requirements of novelty, industrial purpose, and inventive activity (nonobviousness).⁹⁵ Belgium is a member of the EPC and of the PCT. Section 3⁹⁶ of the Belgian patent law reflects the software patentability provisions of Article 52⁹⁷ of the EPC.

Belgian courts have not yet had to decide whether computer programs are patentable.⁹⁸ Since there is French judicial authority for the patentability of software,⁹⁹ it is likely that Belgian courts would concur due to the similarities in the views of the Belgian and French courts.¹⁰⁰

C. TRADE SECRET

Trade secrets in Belgium can be protected under the Unfair Competition Act of July 14, 1971 as well as under the Penal Code. Article 54 of the Unfair Competition Act prohibits "[a]ny act contrary to honest usage in commercial matters by which a merchant or artisan injures or attempts to injure the professional interests of one or more other merchants or artisans."¹⁰¹ The advantages of this act are twofold:

[I]t not only allows the plaintiff to bring an action for damages before the commercial court, but also an action to refrain (an action of cessation) before the president of this court. The action is very fast. If very urgent, it is possible to have a judgment within forty-eight hours or less, and if successful, the president orders the competitor to stop his unfair activities and, in most cases, imposes a penalty for any

92. Hanotiau & Peters, *supra* note 91, at 303.

93. *See infra* text accompanying notes 144-50.

94. BAKER & MCKENZIE, *supra* note 46, at 1.9.

95. *See* 2B J. SINNOTT, *supra* note 48, at Belgium-12.

96. *See id.*

97. *See supra* text accompanying note 48.

98. Hanotiau & Peters, *supra* note 91, at 303-04; Bown, *Status of Protection for Software in the UK and Other Countries*, 2 COMPUTER L. & PRAC. 46, 53 (1986).

99. *See infra* text accompanying notes 154-55.

100. *See* Gevaert, Zaharant, Oosterhaan, Boll, Stein, Barreiros, Massot, Riera, Heuss, Wood, *The Licensing and Protection of Software in Europe: An International Roundtable*, 4 SOFTWARE PROTECTION 1, 2 (July 1985) [hereinafter cited as Gevaert & Zaharant].

101. 1 A. WISE, TRADE SECRETS AND KNOW-HOW THROUGHOUT THE WORLD § 1.08[19] (1976).

noncompliance.¹⁰²

The President of the Commercial Court of Brussels applied the Unfair Competition Act in a September 17, 1982 decision.¹⁰³ The court found that the use of program copies without author's authorization is contrary to fair practices in commercial matters.¹⁰⁴

Penal Code provisions which may apply to computer software trade secrets include Article 491, Abuse of Confidence¹⁰⁵ and Article 461, Theft.¹⁰⁶ A December 13, 1984 decision of the Antwerp Court of Appeals applied the Penal Code.¹⁰⁷ The court held that computer software could be the subject of theft.¹⁰⁸

V. DENMARK

A. COPYRIGHT

Copyrights in Denmark are protected by Law No. 158 on Copyright in Literary and Artistic Works of May 31, 1961 as amended through June 8, 1977 (Law No. 240). The general period of protection under Article 43 of the Danish copyright law is fifty years after the author's death.¹⁰⁹ No formalities¹¹⁰ are required.

Danish copyright law does not specifically mention software. There is a general consensus, however, that computer programs are considered a literary work under Danish copyright law.¹¹¹ A working group commissioned by the Danish Ministry of Culture has proposed amendments to the copyright law which would provide well-defined protection for computer software.¹¹²

Article 11 of the Danish copyright law permits private copying of computer software by stating that "[s]ingle copies of a disseminated work may be produced for private use, but must not be used in other ways."¹¹³ Current copyright act revision proposals do not completely

102. Hanotiau & Peters, *supra* note 91, at 304-05.

103. See *S.V. Administra v. N.V. Synectics*, [1983] REVUE DE DROIT COMMERCIAL BELGE 641 (1982).

104. *Id.*

105. A. WISE, *supra* note 101, at § 1.07[3][a].

106. *Id.* at § 1.07[3][c].

107. Hanotiau & Peters, *supra* note 91, at 305.

108. *Id.* at 306.

109. See WORLD COPYRIGHT LAWS, *supra* note 72, at Denmark: Item 1-6 (Supp. 1978).

110. See *supra* text accompanying note 22.

111. Andersen, *Copyright Law Revision*, 1 COMPUTER L. A.'S INT'L UPDATE 10 (July, 1986).

112. See Damsbo, *Recent Developments in Denmark*, 2 COMPUTER L. A.'S INT'L UPDATE 3 (Apr. 1987); Andersen, *supra* note 111, at 10.

113. See WORLD COPYRIGHT LAWS, *supra* note 72, at Denmark: Item 1-2 (Supp. 1978).

prohibit the private copying of computer software.¹¹⁴

B. PATENT

Patentability tests under the Danish Patents Act of 1967 as amended through June 1978 include a Section 1 industrial application test¹¹⁵ and a Section 2 novelty test.¹¹⁶ Denmark is a member of the PCT and has signed, but not yet ratified, the EPC.¹¹⁷ Section 1(2)(iii) of the Danish Patents Act¹¹⁸ has been amended to conform to the software patentability provision of Article 52(2)(c)¹¹⁹ of the EPC. There are no reported cases on the patentability of software in Denmark.¹²⁰

C. TRADE SECRET

Trade secrets in computer software should be protectable in Denmark under the Act on Marketing, Act No. 297 of June 14, 1974, which came into force May 1, 1975, and under Section 264 of the Danish Penal Code. There is little meaningful Danish case law in the trade secret area,¹²¹ and no cases have been found on the issue of the protection of trade secrets in computer software.

The Danish Act on Marketing protects trade secrets under both Sections 1 and 9. Section 1 is the "general clause." It prohibits private businesses and comparable public services from committing "acts which are contrary to good commercial practices."¹²² Section 9 of the Danish Act on Marketing prohibits the improper procurement of trade secrets, the unauthorized distribution of legally obtained information, the unauthorized distribution to third parties of information intrusted to one in connection with their job, and the use of a trade secret obtained in violation of the foregoing if the person knew, or should have known, that the information was obtained in violation of the foregoing.¹²³

Section 264 of the Danish Penal Code provides that a person who illegally enters the premises of another with the intent to procure infor-

114. Anderson, *Programmable Machines and Processes Committee Report*, AM. INTELL. PROP. L. A. BULL. 37, 42 (Jan. - Mar. 1987).

115. See 2C J. SINNOTT, *supra* note 48, at Denmark-24.

116. *Id.* at Denmark-25.

117. *Manual for the Handling of Applications for Patents, Designs and Trade Marks Throughout the World*, (Manual Industrial Property B.V., Amsterdam) Denmark-1 (Octrooibureau Los En Stigter ed. Supp. Nov. 1984) [hereinafter cited as *World Patent Manual*].

118. See 2C J. SINNOTT, *supra* note 48, at Denmark-24.

119. See *supra* text accompanying note 48.

120. H. HANNEMAN, *supra* note 85, at 244.

121. See 5 A. WISE, *supra* note 101, at § 9.01 (1976).

122. *Id.* at § 9.04.

123. *Id.*

mation concerning the industrial or commercial affairs of another, or with the intent to obtain documents and other material relating to trade secrets, is subject to imprisonment or a fine.¹²⁴

VI. FRANCE

A. COPYRIGHT

Copyright protection was extended to computer software when the French Copyright Act of March 1957, Law No. 57-298 on Literary and Artistic Property [hereinafter the 1957 Act] was amended with the enactment of Law No. 85-660, Articles 1 and 45-51,¹²⁵ effective January 1, 1986 [hereinafter the 1986 Act]. This amendment included software in the list of works covered by existing copyright law. Article 48 of the 1986 Act limits the software protection period to twenty-five years after creation¹²⁶ rather than fifty years after first publication as Article 21 of the 1957 Act provides for other works.¹²⁷ The French Copyright Act requires neither formalities¹²⁸ nor provides registration procedures.

Under Article 45 of the 1986 Act, software created by employees within the scope of their duties belongs to their employer.¹²⁹ Legislators, however, intended to exclude independent software contractors from this provision. Copyrights in software created by an independent contractor would be owned by the independent contractor, unless the commissioning party obtains an assignment.¹³⁰

Unlike other copyrighted works in France, Article 46 of the 1986 Act prohibits authors from claiming a "moral right" to refuse the distribution of an adaptation of a software program.¹³¹ "Moral rights" permit an author to oppose any unauthorized modification of the work.¹³²

Except for one backup copy, Article 47 of the 1986 Act prohibits all

124. *Id.* at § 9.03.

125. Law of July 3, 1985, L. No. 85-660, [1985] JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE 7495, reprinted in 28 DALLOZ-SIREY, LÉGISLATION 361, transl. in Bertrand, *Copyright Protection for Computer Software in France Under the Law of July 3, 1985*, 4 SOFTWARE PROTECTION 5, 6-7 (1985), amending French Copyright Act of 1957, L. No. 57-298, [1957] JOURNAL OFFICIEL DE LA RÉPUBLIQUE FRANÇAISE 4131.

126. *Id.*

127. WORLD COPYRIGHT LAWS, *supra* note 72, at France: Item 1-3 (Supp. 1958).

128. See *supra* text at note 22.

129. 1957 Act, *supra* note 125, at art. 45. Article 1 of the 1957 Act provided that rights vested in a work belonged to the author. WORLD COPYRIGHT LAWS, *supra* note 72, at France: Item 1-1 (Supp. 1979-80).

130. See Clay & Cousin, *The New French Law on the Protection of Computer Software*, 2 COMPUTER LAW. 5, 6 (Sept. 1985).

131. 1986 Act, *supra* note 125, at art. 46.

132. Articles 6, 19, and 32 of the 1957 Act gave the author a "moral right" to oppose any adaptation of his work. WORLD COPYRIGHT LAWS, *supra* note 72, at France: Item 1-1 (Supp. 1979-80) (article 6), *id.* at 3 (Supp. 1958) (article 19), *id.* at 5 (article 32).

unauthorized reproduction, including fair use.¹³³ Article 47 also prohibits the use of software, except as permitted under the license agreement.¹³⁴ A bill was introduced into Parliament on April 6, 1988 to amend Article 47 as follows:

Universities and graduate schools, however, will be allowed to reproduce the software they have acquired for their educational activities, provided that these copies are not used outside of these universities and/or schools.¹³⁵

A software copyright may be assigned or licensed for a lump sum consideration under Article 49 of the 1986 Act.¹³⁶ For other copyrightable works, an assignment or license is generally invalid unless the consideration is in some way proportional to the revenues received by the assignee or licensee in exploiting the work.¹³⁷

A mechanism under Article 50 of the 1986 Act allows copyright owners to obtain evidence of infringement. "Saisie contrefaçon" discovery procedures allow the presidents of civil courts to authorize the police to seize allegedly fraudulent copies of the software.¹³⁸

Article 51 of the 1986 Act¹³⁹ grants protection to foreigners, subject to a reciprocity requirement in their countries or to the application of either the U.C.C. or the Berne conventions.¹⁴⁰

The 1986 Act is silent in several important areas. It does not address the legal status of software created before the 1986 Act became effective. The 1986 Act provides no deposit or registration mechanism. The 1986 Act does not define what is within the scope of an employee's duties. This leaves copyright ownership issues unclear. The 1986 Act does not define the date of creation. Is it the date the author stopped writing the program? Do new releases postpone the date? Another area of uncertainty, inherent in the 1986 Act, is the effect the twenty-five year French protection period will have compared to other countries' copyright acts which generally offer fifty years of protection. For example, under Article 7(8) of the Berne Convention,¹⁴¹ French software is not entitled to a longer protection period in Berne countries than that granted under French law. In Berne countries, such as Great

133. 1986 Act, *supra* note 125 at art. 47. Article 41 of the 1957 Act provided a "fair use" exception. *Id.* at 7 (Supp. 1958).

134. *Id.*

135. Bertrand & Couste, *Current Issues Concerning French Software Protection*, 6 SOFTWARE PROTECTION 1, 5 (May 1988).

136. 1986 Act, *supra* note 125 at art. 49.

137. 1957 Act, *supra* note 125 at art. 35.

138. 1986 Act, *supra* note 125 at art. 50.

139. 1986 Act, *supra* note 125, at art. 51.

140. See *supra* text accompanying notes 18-23.

141. See NIMMER, *supra* note 18, at app. 27-7. The same reciprocity issue arises under Article II of the UCC. See NIMMER, *supra* note 18, at app. 25-1 (Supp. 1978).

Britain and Germany, works are protected for fifty years. In these countries, French software will only be entitled to twenty-five years of protection, i.e., the same period offered by France to other nationals.

The protection period issue is further complicated by the provision in Article 55 of the French Constitution of 1958 that any treaty ratified by France shall "have an authority superior to that of [French] laws."¹⁴² The first time a software developer invokes the benefits of the software copyright amendments, the amendments' constitutionality may be challenged.¹⁴³

In three, March 7, 1986, French Supreme Court rulings, *Babolat Maillot Witt v. Pachot*,¹⁴⁴ *Atari Inc. v. Valdon*,¹⁴⁵ and *Williams Electronics Inc. v. Tel, Jeutel*,¹⁴⁶ copyright protection was extended to computer programs.¹⁴⁷ The *Babolat* court held computer software is original and therefore protectable if the author "had shown an individual personal effort beyond the mere application of an automatic and compelling logic and that this effort was fixed in an individualized structure."¹⁴⁸

The recent case of *Blyth Computers v. Prisma Press* also dealt with the right to publish articles on unlocking and duplicating copy-protected software.¹⁴⁹ On April 14, 1986, the Court of Paris held that a magazine article showing how to unlock OMNIS 3 software constituted copyright infringement.¹⁵⁰

B. PATENT

Article 6 of the French law on Patents of Invention of January 2, 1968 as amended July 13, 1978 sets forth the patentability requirements of novelty, industrial character and inventive activity (analogous to non-obviousness under United States law).¹⁵¹ France is a member of the

142. A. VON MEHREN & J. GORDLEY, *THE CIVIL LAW SYSTEM*, 229, 240 (2d ed. 1977).

143. Bertrand, *Copyright Protection for Computer Software in France Under the Law of July 3, 1985*, 4 *SOFTWARE PROTECTION* 5, 8 (Aug. 1985).

144. See generally No. 237 Paris Cour de Cassation, March 7, 1986, *trans. in* 18 *INT'L REV. INDUS. PROP. COPYRIGHT L.* 228 (1987).

145. See generally No. 238 Paris Cour de Cassation, March 7, 1986, *trans. in* 18 *INT'L REV. INDUS. PROP. COPYRIGHT L.* 550 (1987).

146. See generally No. 239 Paris Cour de Cassation, March 7, 1986, *trans. in* 18 *INT'L REV. INDUS. PROP. COPYRIGHT L.* 552 (1987).

147. See Bertrand, *French Supreme Court Declares Software Video Games "Original Works of Authorship" Under the 1957 Copyright Act*, 4 *SOFTWARE PROTECTION* 14, 14-15 (Feb. 1986).

148. 18 *INT'L REV. INDUS. PROP. COPYRIGHT L.* 289 (1987).

149. *Blyth Computers v. Prisma Press*, Trib. gr. inst., Paris, 14 avril 1986, *EXPERTISES* 1986, no. 84, at 132, *cited in* Bertrand & Couste, *supra* note 135, at 4.

150. Bertrand & Couste, *supra* note 135, at 4.

151. See 2C J. SINNOTT, *supra* note 48, at France-3.

PCT and the EPC. EPC Article 52(2)(c)¹⁵² is embodied in Article 7 of the revised Act.¹⁵³ Although this provision excludes computer programs as such from patent protection, a Paris Court of Appeals decision limits the exclusion. The *In re Schlumberger*¹⁵⁴ decision accepted patentability for processes where computer software helps carry out one or more steps. *Schlumberger* held that patentability cannot be denied to a process for the mere reason that one or more steps is carried out by a computer program; the court reasoned that otherwise a majority of important recent inventions would be unpatentable, since software is often a component of today's inventions.¹⁵⁵

The French Patent Office Guidelines,¹⁵⁶ complemented by the EPO Guidelines of March 6, 1985,¹⁵⁷ and recent case law from the EPO¹⁵⁸ extend the scope of software patent protection and leave no doubt regarding the patentability of software-related inventions. Assuming that Article 6 patentability requirements¹⁵⁹ are met, broad patent protection for software inventions is available in France.

C. TRADE SECRET

Although France has no trade secret law, computer software trade secrets could be protected under manufacturing secret doctrines, the Penal Code, unfair competition law, or under unjust enrichment principles.

In France, the combination of a manufacturing secret and a commercial secret is analogous to an Anglo-American trade secret.¹⁶⁰ Manufacturing secrets have been defined as "any manufacturing process, whether or not patentable, having a practical or commercial value, put into operation by a manufacturer and kept secret from his competitors who do not know it [the secret]."¹⁶¹ Article 418 of the French Penal Code punishes unauthorized employee communications of manufactur-

152. See *supra* text accompanying note 48.

153. See 2C J. SINNOTT, *supra* note 48, at France-3.

154. Paris Cours d' appel (June 15, 1981), reprinted in [1982] ANNALES PROPRIÉTÉ INDUSTRIELLE 24 (1982).

155. *Id.* at 28.

156. See generally *French Examination Guidelines*, *supra* note 32. "A computer program . . . can take various forms, such as algorithms, flowcharts or a series of written instructions If a claim has as its sole object a computer program per se, that claim is rejectable. On the other hand, processes to an industrial objective including some program steps are not rejectable." *Id.* at A-V11-6.

157. See *supra* text accompanying note 49.

158. See *supra* text accompanying notes 52-60.

159. See *supra* note 151.

160. 3 A. WISE, *supra* note 101, at § 3.01[1].

161. *Id.* at § 3.01[2].

ing secrets.¹⁶² When a company develops software for its own use, it is considered a company asset even if the software is not a manufacturing or commercial secret. In the absence of noncompetition agreements, employees must keep the software secret during and after their employment.¹⁶³ Commercial secrets are those which focus upon a commercial enterprise's books of account.¹⁶⁴

Unfair Competition principles can be applied to French trade secret misappropriation. Article 1382 of the Civil Code provides the basis for this action. The provision states that "[a]ny act [done] by a person which causes damage to another obliges the person by whose fault it occurred to repair it."¹⁶⁵ The elements of an action in unfair competition are:

- (1) That the defendant's actions were unfair insofar as the ethics and standards of fairness of the particular business or industry are concerned; good faith is no defense;
- (2) That the defendant was a competitor or potential competitor of the plaintiff;
- (3) That the defendant's act or acts caused him some modicum of damage; and,
- (4) That the damage was proximately caused by the defendant's acts.¹⁶⁶

A January 14, 1988 decision of the Paris Court of Commerce held that even if it is legal in some cases to use a software package which permits duplication of copy-protected software, the sale of such programs to unlock Dbase III software constitutes unfair competition.¹⁶⁷

Under the doctrine of unjust enrichment, "if a person is unjustly enriched at the expense of another, the latter is entitled to an indemnity equal to his enrichment."¹⁶⁸

VII. FEDERAL REPUBLIC OF GERMANY

A. COPYRIGHT

A June 24, 1985 amendment¹⁶⁹ to Section 2(1) of the German Act dealing with Copyright and Related Rights of September 9, 1965¹⁷⁰ spe-

162. *Id.*

163. Bertrand, *Software Protection, Protection and Licensing of Software in France, Canada, Japan and Southeast Asia*, at 2.9 (Minn. Intellectual Prop. L. A. CLE Oct. 1986).

164. 3 A. WISE, *supra* note 101, at § 3.09[3].

165. *Id.* at § 3.08[2].

166. *Id.* at § 3.08[3].

167. Bertrand & Couste, *supra* note 135, at 4.

168. 3 A. WISE, *supra* note 101, at § 3.09[3].

169. [1985] BGB1 Nr. 33, *trans. in 2 WORLD COPYRIGHT LAWS*, *supra* note 72, at Germany: Item 1-1 (Supp 1984-86).

170. [1965] BGB1 Nr. 51.

cifically includes computer programs as protected works. Under Article 64, copyright protection is available from the moment of a work's creation and for seventy years after the death of the author.¹⁷¹ No formalities¹⁷² are required. Registration procedures are not provided by the act.

Under Articles 1 and 7, copyright vests in its creator.¹⁷³ This is true even in an employer/employee relationship. Case law, however, supports a tacit conveyance of the right to use works created by employees in the performance of their work duties, to the employer. The employee who creates a work is obligated to assign the right of use to the employer. These principles also apply to software developed on commission.¹⁷⁴

Under Article 53 of the 1965 Act, single copies of a work can be made for "personal use".¹⁷⁵ The 1985 Amendment excludes computer programs from the Article 53 (4)(b) personal copying exception, unless the owner's permission is given.¹⁷⁶

Although the German Copyright Act protects computer programs, the courts must yet satisfactorily resolve questions regarding the scope of copyright protection. The Federal Supreme Court *Inkasoprogramm*¹⁷⁷ decision, [hereinafter cited as the *Collection Program* decision] addressed the scope of protection issue. This decision was rendered two months prior to the 1985 amendment to the Copyright Act. The 1985 Copyright Act, however, does not affect the legal theory underlying the *Collection Program* decision, since the decision recognized that computer programs are eligible for copyright protection as literary or scientific works under Section 2(1) of the Copyright Act.

The court in *Collection Program* held that programs must be examined on a case-by-case basis to determine whether there is sufficiently original creative authorship. "[T]he question of degree of originality is measured by the overall intellectual-creative impression of the concrete embodiment, in overall comparison with previous embodiments (citation omitted). This comparison does not include an examina-

171. 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Germany: Item 1-13 (Supp. 1973).

172. See *supra* text accompanying note 22.

173. 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Germany: Item 1-2 (Supp. 1976).

174. Mattfeld, *Protection of Software Against Third Parties in the Federal Republic of Germany*, 1 SOFTWARE L.J. 314, 344-48 (1986).

175. 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Germany: Item 1-9 (Supp. 1973).

176. [1985] BGBI Nr. 33, *trans.* in 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Germany: Item 1-10 (Supp. 1984-86).

177. Decision of the Federal Supreme Court, No. I ZR 52/83 (May 9, 1985), *trans.* in 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 681 (1986). Other recent District Court software copyright opinions include AMSDOS, a decision of the Munich District Court. No. 7012031/85 (Aug. 29, 1985), *trans.* in 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 691 (1986).

tion as to novelty"¹⁷⁸ The Supreme Court found that it was not evident from the code listing what original characteristics the Court of Appeals could note; thus, the court remanded the question of copyrightability to the trial court¹⁷⁹ with guidelines on the issue of originality.

The *Collection Program* decision leaves computer program copyright protection uncertain. The court intended to avoid conferring copyright protection on algorithms and other mathematical or technical theories which, as elements of science, must remain in the public domain and accessible to everyone in their unapplied form. If, however, as the court stated, the level of copyright protection lies considerably beyond the skill of the average programmer and requires more than that accomplished by mere mechanical technical linking and assembly of the material,¹⁸⁰ many programs will not receive copyright protection and technical innovation will be discouraged.¹⁸¹

For section 2(2) of both the revised Copyright Act and the former Copyright Act to apply, works must be "personal intellectual creations." Personal intellectual creativity can be tested for originality without comparing the work to previous works. Comparisons with previous works will inevitably lead to an evaluation of the degree of technical innovation. This approaches what the Court sought to avoid — an examination of novelty.¹⁸² Hopefully, the Federal Supreme Court will revisit this issue.

B. PATENT

Section 1 of the Federal Republic of Germany Patent Law of January 2, 1968 as amended through December 16, 1980 defines an invention as patentable if it is new, involves an inventive step, and is susceptible of industrial application.¹⁸³ The Federal Republic of Germany is a member of the PCT and the EPC. Section 1 of the 1968 Patent Act was revised December 16, 1980 to incorporate Articles 52(1)-(3)¹⁸⁴ of the EPC.¹⁸⁵

In the past, obtaining patent protection for computer related inventions was limited in West Germany. Generally, protection was only obtained for inventions which relate to the internal operation of the

178. 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 687 (1986).

179. *Id.* at 690.

180. *See id.* at 688.

181. *See Soma, A Comparison of German and U.S. Experiences in Software Copyrights*, 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 751, 756 (1987).

182. *See generally* Geissler, *Program Copyright — Patent Law in Disguise*, 17 INT'L REV. INDUS. PROP. COPYRIGHT L. 608 (1986).

183. *See* 2D J. SINNOTT, *supra* note 48, at West Germany-78.21.

184. *See supra* text accompanying note 48.

185. *See* 2D J. SINNOTT, *supra* note 48, at West Germany-78.21.

computer, such as when novel computer hardware is claimed or if the computer is operated in a novel way.¹⁸⁶ This remained true¹⁸⁷ until recently.

The German Patent Office Examination Guidelines for Applications Comprising Data Processing Programs or Rules were issued in December 1986.¹⁸⁸ The Guidelines stated that "[i]nventions are also eligible for patent protection when they comprise a data processing program, a computational or an organizational rule, other software features or a program-type process (in the following program-related inventions). A prerequisite is, however, that the inventions are of a technical character."¹⁸⁹

On August 12, 1987, the Federal Patent Court issued a decision that liberalized its software patent approach. In this decision, the court examined the invention's technical nature as a whole, noting that the requisite technical nature or teaching was found in the invention's "technical success." The court noted that the process invention related to an algorithm, but held such an invention to be patentable under Section 1 if used in a technical process. The court recognized that under prior decisions, qualification for patentability on inventions involving algorithms required a change in the physical appearance of the object processed. The court held that this requirement was too restrictive and deemed that a process was patentable without changing the physical appearance of an object, if there was a "technical success." The court referred to the EPO guidelines for an example of patentable subject matter. The court overturned the Examining Division's rejection and returned the application for further consideration by the German Patent Office.¹⁹⁰

The German Patent Court also accorded operating system programs

186. See H. HANNEMAN, *supra* note 85, at 203. See generally, *Rolled Bar Cutting*, [1981] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 39 (Fed. Sup. Ct. Sept. 16, 1980); *Anti-lock Break System*, [1980] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 849 (Fed. Sup. Ct. May 13, 1980); *Error Location*, [1978] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 420 (Fed. Sup. Ct. Feb. 14, 1978), *trans. in* 10 INT'L REV. INDUS. PROP. COPYRIGHT L. 489 (1979); *Test Method*, [1978] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 102 (Fed. Sup. Ct. June 7, 1977), *trans. in* 9 INT'L REV. INDUS. PROP. COPYRIGHT L. 363 (1978); *Straken*, [1977] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 657 (Fed. Sup. Ct. April 12, 1977), *trans. in* 9 INT'L REV. INDUS. PROP. COPYRIGHT L. 459 (1978); *Disposition Program*, [1977] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 96 (Fed. Sup. Ct. 1976), *trans. in* 8 INTL. REV. INDUS. PROP. COPYRIGHT L. 558 (1977).

187. See generally, *Programmiereinrichtung*, 89 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 354 (Federal Patent Court, Nov., 13 1986), *trans. in* [1/2 1988] OFFICIAL J. EPO 51 (1988); *Digitale Signalverarbeitung*, 88 GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT 307 (1986), *headnotes trans. in* [1/2 1988] OFFICIAL J. EPO 49 (1988).

188. See generally *German Examination Guidelines*, *supra* note 33.

189. *Id.*, *trans. in* 5 SOFTWARE PROTECTION 18 (Feb. 1987).

190. R. GABLE & D. WISE, *Survey of Recent International Developments in the Protec-*

and application programs equal treatment under patent law.¹⁹¹

C. TRADE SECRET

In the Federal Republic of Germany, trade secrets which are incorporated in computer software can be protected under the Act Against Unfair Competition (UWG) of 1909, revised July 25, 1986.¹⁹² The UWG applies only to the industrial use or to the application of computer programs, not to personal copying. Under the UWG, it is an offense for an employee to disclose an industrial or commercial secret. Industrial and commercial secrets are secrets which are associated with business and not generally known or available. The owner must also have an effective interest and an intent in maintaining secrecy.¹⁹³ Both the employee and the instigating competitor may be fined or imprisoned.¹⁹⁴ The court may require the return of the contested information, or prevent further distribution, as well as award damages.¹⁹⁵ Under the UWG, slavish imitation (identical or nearly identical copying) of another's work is actionable, if it deprives the creator of just benefits. Protection can only be claimed for the period in which the creator should reasonably receive an investment return.¹⁹⁶

VIII. IRELAND

A. COPYRIGHT

Section 8(4) of the Irish Copyright Act, No. 10, of April 8, 1963 (entered into force on October 1, 1964), revised December 11, 1987,¹⁹⁷ protects literary works for fifty years from the end of the calendar year in which the author died.¹⁹⁸ No formalities¹⁹⁹ are required.

The Irish Copyright Act contains no specific reference to computer programs. Legal scholars believe, however, that the definition of "literary work" in section 2 of the 1963 Act, which includes "any written ta-

tion of Computer Technology: West Germany, 11-12 (May 5, 1988) (presentation before the Computer Software Committee of the A.I.P.L.A.) [hereinafter *Gable & Wise*].

191. *Elektronisches Übersetzungsgerät* (Federal Patent Court, March 18, 1986), *trans. in* 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 805 (1987) (electronic translation device).

192. *Act for the Amendment of Provisions in the Areas of Business, Consumer, Labor and Social Law*, July 25, 1986, [1986] BGB1 1169 (1986).

193. 3 A. WISE *supra* note 101, at § 4.01[1].

194. *Id.* at §§ 4.04[3][i], [4][d], [6][k].

195. *Id.* at § 4.04[6][m].

196. Mattfeld, *supra* note 174, at 350-51.

197. *News Ireland: New Copyright Act*, 19 INT'L REV. INDUS. PROP. COPYRIGHT L. 293 (1988).

198. *See* 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Ireland: Item 1-6 (Supp. 1964).

199. *See supra* text accompanying note 22.

ble or compilation,"²⁰⁰ could include any form of a computer program.²⁰¹ There are no reported cases on the copyrightability of computer programs in Ireland.²⁰²

B. PATENT

Section 2 of the Irish Patents Act of 1964 provides that inventions must be novel and useful.²⁰³ Ireland is a member of the PCT and has signed, but not ratified, the EPC.²⁰⁴ The Patents Act of 1964 makes no reference to computer programs and has not yet been revised to reflect Article 52²⁰⁵ of the EPC.²⁰⁶

The Irish Patent Office has never had a patent application for a computer program.²⁰⁷ The Irish Patent Office, however, sympathetically views the EPO position²⁰⁸ that software-related inventions are patentable. The Patent Office would, therefore, consider an application for an invention which provides new technical features and is software-driven, if the technical character of the invention derives from something more than the program, or novel hardware is included, or a computer program controls a new industrial or manufacturing process.²⁰⁹

C. TRADE SECRET

In Ireland, common law breach of confidence can be used to protect trade secrets. Under a breach of confidence cause of action, the court first decides whether, from the relationship between the parties, an obligation of confidence exists regarding information which has been imparted. The next question is whether the communicated information can be regarded as confidential. The degree of skill, time, and labor involved in compiling the information is important in considering these issues. If the information is confidential, then the person to whom it is

200. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Ireland: Item 1-1 (Supp. 1964).

201. Earley, *The Protection of Computer Software Against Third Parties in Ireland*, 1 SOFTWARE L.J. 361, 362 (1986).

202. See *id.* at 362-63. The only Irish case which considered any aspect of software copyrightability is *Noraut Ltd. v. Kimble Ireland Ltd.*, High Court, March 22, 1984, Gannon, J., unreported. In granting the interlocutory injunction, the judge found that copyright existed in the computer program and that it was almost impossible to create such a similar program without copying. The case is unsatisfactory precedent, however, because it was an oral judgment on an interlocutory hearing for an injunction and there has been no final hearing. *Id.*

203. See 2E J. SINNOTT, *supra* note 48, at Ireland-3.

204. See *World Patent Manual*, *supra* note 117, at Ireland-1 (Supp. 1985).

205. See *supra* text accompanying note 48.

206. See generally 2E J. SINNOTT, *supra* note 48, at Ireland.

207. Earley, *supra* note 201, at 365.

208. See *supra* text accompanying notes 49-60.

209. Earley, *supra* note 201, at 364-65.

given has a duty to act in good faith. This means that the information must be used for its intended purpose and not used to the detriment of the person who gave it. No Irish case has applied these principles to a breach of confidence involving the misuse of computer programs. These principles should clearly apply, however, in appropriate cases.²¹⁰

IX. ITALY

A. COPYRIGHT

Copyrights are governed by the Law for the Protection of Copyright and Other Rights Connected with the Exercise Thereof, Law No. 633 of April 22, 1941 as amended through July 29, 1981. Article 2575 of the Italian Civil Code could also protect copyrights.²¹¹

Protection under Article 25 exists for the duration of the author's life plus fifty years.²¹² Under Article 1 of the Italian Copyright Act, copyright subsists in intellectual works having a creative character in the fields of literature, graphic arts, architecture, theatre, and cinematography.²¹³ The Italian Copyright Act does not specifically mention computer software as copyrightable. Legislation has been introduced which would clearly acknowledge the copyrightability of software.²¹⁴

In the past, it was unclear whether software was protected under the copyright itself (*diritto d'Autore*) as a creative work, or under the rights related to the copyright (*diritti connessi*) as an engineering work. Under Article 106²¹⁵ of the Italian Copyright Act, protection of a creative work is not subject to any formality, while an engineering work must be filed with UPLAS (*Ufficio della Proprieta Letteraria Artistica e Scientifica*) in order to obtain protection. Works filed with UPLAS are not kept secret and the authors are not entitled to compensation if third parties use their works for nonprofit purposes. In the last year, UPLAS accepted a large number of computer program filings.²¹⁶ A Supreme Court decision, however, affirmed that software is subject to copyright as a creative work and protected under civil and criminal laws.²¹⁷

210. *Id.* at 365-66.

211. Lavoro, *Commentario del Codice Civile: Articoli 2569-2583* 144 (1977).

212. 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Italy: Item 1-4 (Supp. 1981-83).

213. *Id.* at Item 1-11.

214. Bill no. 1746 published March 25, 1986 entitled "Regulations for the Protection of Electronic Computer Programs" as well as a bill published July 9, 1986, would amend the Italian Copyright Act to acknowledge the copyrightability of computer programs. See Anderson, *supra* note 114, at 43.

215. 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Italy: Item 1-13.

216. Gable & Wise, *supra* note 190 at 17 (contribution on Italy by Pirillo).

217. In re: S.I.A.E. v. Domenico Pompa, No. 1323 Corte Suprema di cassazione (Nov. 24, 1986), cited in Righetti, *Italy: New Filing System Adopted for Computer Software*, 3

A new filing system for computer programs, the Societa Italiana Autori ed Editori (SIAE), has been adopted. Filing this voluntary deposit has several advantages. The software filed with the SIAE is not open to public inspection. The author has economic rights to the work, as well as the right to prevent others from modifying the work. Although filing a creative work is optional and not strictly necessary to prove ownership rights, it proves that a work existed as of a particular date.²¹⁸

Computer programs developed by employees belong to employees unless there is a contract to the contrary or a written agreement to transfer the right of use to the employer. Under such agreements, the economic exploitation right is also transferred to the employer.²¹⁹

B. PATENT

Section 12 of the Italian Patents Act of 1939 as amended through 1979, provides the patentability tests of novelty, industrial application, and inventive activity.²²⁰ Section 16 also requires that an invention not be obvious from the state of the art to an expert in the art.²²¹ In 1979, Italy ratified the EPC. Article 12 of the 1979 Italian Patents Act²²² conforms with Article 52²²³ of the EPC. Italy is also a member of the PCT.

One Supreme Court decision²²⁴ concluded that computer programs are patentable, but only indirectly, that is, together with the generally accepted patenting of production processes or machines involving the utilization of the electronic program.²²⁵ Bill No. 1746, "Regulations for the Protection of Electronic Computer Programs" was published on March 25, 1986. This bill would provide patent protection for computer programs.²²⁶

Computer L. A.'s Int'l Update 7, 7 (Oct. 1988). Supreme Court decisions, although authoritative, are not binding *per se* for first instance and appeal courts. A copyright act amendment is still necessary to clarify this question. See Wise, *Survey of Recent International Developments in the Protecting of Computer Technology*, Presentation of the A.D.P.L.A. Computer Software Committee 5, 7 (Oct. 20, 1988) (contribution on Italy by Bosotti).

218. Gable & Wise, *supra* note 190, at 17 (contribution on Italy by Pirillo).

219. Cavasola, *Legal Protection of Software Against Third Parties in Italy*, 1 SOFTWARE L.J. 367, 371 (1986).

220. See 2F J. SINNOTT, *supra* note 48, at Italy-5.

221. *Id.* at Italy-6.

222. *Id.* at Italy-5.

223. See *supra* text accompanying note 48.

224. SNAM v. Patent Office, Supreme Court Ruling 3169 (May 14, 1981), [1981] GIURISPRUDENZA ANNOTATA DI DIRITTO INDUSTRIALE, 58 No. 1371.

225. Cavasola, *supra* note 219, at 368.

226. See Anderson, *supra* note 114, at 43.

C. TRADE SECRET

Trade secrets within computer software in Italy may be protected under various Italian Civil and Penal Codes. As in France²²⁷ and Germany,²²⁸ Italy also recognizes industrial and commercial secrets. No case law has been found, however, which applies any of these legal theories to computer software. Applicable Italian Civil Code sections for software protection include Articles 2105, 2622, 2598-2601, and 2041-2043. Article 2105 of the Italian Civil Code imposes an obligation of faithfulness upon the employees or consultants of an industrial or commercial company. It forbids them from disclosing information concerning the organization and the production processes of the company, or from using such information in a way which may cause damage to the company's activity. Whereas Article 2105 applies to employees, Article 2622 prohibits management from unauthorized use or divulgence of trade secrets.²²⁹

Unfair competition protection is available under Article 2598-2601 of the Italian Civil Code,²³⁰ especially with respect to slavish imitation.²³¹ Furthermore, Article 102 of the Copyright Act protects entrepreneurs against unfair competition. This includes imitations of a competitor's products.²³²

Under Article 2043 of the Italian Civil Code, the general principles of tort liability provide that "[a]ny intentional or negligent act which causes unjust damage to another obliges the party who committed the act to repair the damage."²³³ This law provides general protection in contrast to the law of unfair competition which applies only to entrepreneurs. In tort liability, however, the injured party must prove fraud or tort.²³⁴ As a last resort, the party may seek an action for unjust enrichment under Articles 2041-2042 of the Civil Code.²³⁵

Articles 621-622 of the Italian Penal Code can be used to protect trade secrets within computer programs. Article 621 prohibits divulging or using of secret documents.²³⁶ This may apply to program documentation and code listings. Articles 622²³⁷ and 623²³⁸ of the Italian Penal

227. See *supra* text accompanying notes 160-64.

228. See *supra* text accompanying notes 192-93.

229. 4 A. WISE, *supra* note 101, at § 5.04[3].

230. *Id.* at § at 5.04[2][a]-[c].

231. *Id.* at § 5.04[2][e][ii].

232. 2 WORLD COPYRIGHT LAWS, see *supra* note 72, at Italy: Item 1-16 (Supp. 1979-80).

233. 3 A. WISE, *supra* note 101, at § 5.04[5].

234. See Casavola, *supra* note 219, at 370; 3 A. WISE, *supra* note 101, at § 5.04[5][a].

235. 3 A. WISE, *supra* note 101, at § 5.04[6].

236. *Id.* at § 5.03[4].

237. *Id.* at § 5.03[3].

238. *Id.* at § 5.03[2].

Code apply to those with knowledge of a scientific/industrial or commercial secret by virtue of their status, office, profession, or trade who use it for personal gain.

Trade secrets within computer software could also be protected as an industrial or commercial secret. An industrial secret is a secret not published in Italy and not generally known or readily available to the Italian public at large, to the relevant Italian experts in the field, or to Italian competitors. An industrial secret is also connected with manufacturing or production activities in which the holder has a justifiable economic interest in maintaining the secret. The holder of an industrial secret must also manifest an intention to maintain the secret. A commercial secret is similarly defined, except that it pertains to aspects of the enterprise rather than to manufacturing or production activities.²³⁹

X. NETHERLANDS

A. COPYRIGHT

The Dutch Copyright Act of September 23, 1912, as amended through October 27, 1972, protects literary, scientific, and artistic works.²⁴⁰ The term of protection under Article 37 is fifty years after the author's death.²⁴¹ The act requires no formalities.²⁴²

The Dutch Copyright Act does not mention computer software as a work protected by copyright. Section 3, however, protects any work, whether expressly mentioned in the Act or not,²⁴³ which satisfies the condition of originality. Most Dutch legal authorities agree that software is copyrightable.²⁴⁴ In 1984, a government working group recommended amending the Copyright Act to specifically mention "computer programs in source or object code" as copyrightable subject matter.²⁴⁵ Case law also supports the copyrightability of computer programs.²⁴⁶

239. *Id.* at § 5.01[2][d].

240. Article 1. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Netherlands: Item 1-1 (Supp. 1973).

241. *Id.* at Item 1-10.

242. See *supra* text accompanying note 22.

243. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Netherlands: Item 1-2 (Supp. 1973).

244. See Davidson, Greguras, Bahrck, *International Software Protection: What U.S. Practitioners Should Know to Protect Their Clients' Interests in Foreign Markets*, [1985] COMPUTER SOFTWARE AND CHIPS PROTECTION AND MARKETING 53, 96 (PLI 1985); Oosterbaan, *Protection of Computer Software in the Netherlands*, COMPUTER L. A.'S INT'L UPDATE 3, 4 (Aug. 1985); Spoor, *Protection of Computer Software in the Netherlands*, 1 SOFTWARE L.J. 373, 376 (1986).

245. See Oosterbaan, *supra* note 244, at 4; Spoor, *supra* note 243, at 373.

246. See Keustermans, *supra* note 91, at 20; Keplinger, *International Protection for Computer Programs*, NINTH ANNUAL COMPUTER LAW INSTITUTE, 251, 282 (PLI 1987).

B. PATENT

The Netherlands Patents Act of November 7, 1910, as amended December 13, 1978, provides the patentability tests of novelty, nonobviousness, and industrial application in Sections 1, 2A and 3 respectively.²⁴⁷ The Netherlands are a member of the PCT and the EPC. The Netherlands Patent Act has not incorporated Article 52²⁴⁸ of the EPC, and the Act does not specifically mention computer software.²⁴⁹

Recent decisions²⁵⁰ have noted the EPO Guidelines²⁵¹ and the *Vicom* decision²⁵² and have permitted the patenting of software-related inventions. A September 12, 1985 decision of the Appeal Division of the Patent Office found that the functioning of a computer is determined by the program stored in working memory. Loading a different program directly addressable by the computer means that a technically different device is created. This is patentable, in principle, on the basis of program characteristics.²⁵³ A May 11, 1987 decision of the Appeal Division of the Patent Office held that a method for processing information with the aid of a computer is in principle patentable.²⁵⁴

C. TRADE SECRET

The Netherlands has no trade secret law. Unfair competition law and Criminal Code provisions are, however, applicable. No case law applying any of these legal theories has been found, however.

The general law of unfair competition, based upon principles of equity, should apply to computer software. The following elements are necessary to maintain a cause of action for unfair competition against a third party for misappropriation of trade secrets. The plaintiff must show that secret information was taken, that the taker knew or had reason to know of its secrecy, that the information was obtained through improper means, that damages resulted from the act, and that

247. See 2G J. SINNOTT, *supra* note 41, at Netherlands-2-3.

248. See text accompanying note 48.

249. See generally 2G J. SINNOTT, *supra* note 48, at Netherlands.

250. For a good discussion of the development of the patentability of computer software under Dutch patent law, see generally Martin, *The Patentability of Program-Related Inventions in the Netherlands*, 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 621 (1987).

251. See No. 15495 (Appeal Division of the Patent Office Sept. 12, 1985), [1-2/1988] OFFICIAL J. EPO 71, 74 (1988).

252. See No. 16624 (Appeal Division of the Patent Office) (May 11, 1987) [1-2/1988] OFFICIAL J. EPO, 75, 78 (1988).

253. See No. 15495 (Appeal Division of the Patent Office, Sept. 12, 1985), [1-2/1988] OFFICIAL J. EPO 71, 73 (1988).

254. See No. 16624 (Appeal Division of the Patent Office) (May 11, 1987) [1-2/1988] OFFICIAL J. EPO, 75, 78 (1988).

a competitive relationship existed between the parties.²⁵⁵ Additionally, Article 1401 of the Civil Code protects against flagrant imitation.²⁵⁶ The courts have also applied the Criminal Code.²⁵⁷

XI. NORWAY

A. COPYRIGHT

Copyrights are protected by the Act Relating to Proprietary Rights in Literary, Scientific or Artistic Works, No. 2 of May 12, 1961, as amended through June 3, 1977. Copyright arises automatically upon creation of the work. The general term of protection under Article 40 is fifty years from the author's death.²⁵⁸ No formalities²⁵⁹ need be observed.

The Norwegian Copyright Act does not include work for hire provisions. The author owns the copyright. A company or an institution cannot be the original copyright owner. It is rare, nevertheless, to find specific provisions in employment contracts which assign an employee's copyrights to the corporation.²⁶⁰

The Section 43 "catalogue rule" of the Norwegian Copyright Act protects works which are not sufficiently original to obtain copyright, but which are nevertheless the result of considerable skilled work.²⁶¹ The rule protects compilations, catalogues, tables, collections, etc. It protects data bases and other data compilations directly. This rule will most likely also apply to computer programs.²⁶² The catalogue rule limits protection to ten years from the date of publication.²⁶³

Even if the copyright law protects computer programs, it remains to be seen how the courts will interpret this issue in practice.²⁶⁴ Specific copyright act amendments tailored for program protection are in progress.²⁶⁵

255. Davidson, *supra* note 244, at 97.

256. Baker & McKenzie, *supra* note 46, at 1-12.

257. Criminal Chamber of the Court of Appeals of Arnhem (Oct. 27, 1983), [1984] NEDERLANDSE JURISPRUDENTIE Nr. 80.

258. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Norway: Item 1-7 (Supp. 1979-80).

259. See *supra* text accompanying note 22.

260. Bull, *Legal Protection of Computer Software in Norway*, 1 SOFTWARE L.J. 383, 387 (1986).

261. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Norway: Item 1-8 (Supp. 1979-80).

262. See Bull, *supra* note 260, at 388.

263. See 2 WORLD COPYRIGHT LAWS, *supra* note 72, at Norway: Item 1-7 (Supp. 1979-80).

264. See Bull, *supra* note 260, at 388.

265. Keplinger, *supra* note 246 at 283.

B. PATENT

Norwegian patents are governed by the Norwegian Patent Act of December 15, 1967, as amended through February 8, 1980. Section 1 of this Act provides the patentability test of industrial utilization, while Section 2 provides the test of novelty.²⁶⁶

Norway is a member of the PCT and has signed, but not yet ratified, the EPC.²⁶⁷ Nevertheless, the software patentability provision of Article 52(2)(c)²⁶⁸ of this convention has been incorporated into Section 1 of the Norwegian Patents Act.²⁶⁹ There are no reported cases on the patentability of software in Norway.²⁷⁰ Patents have, however, been granted for software as a part of mechanical, electro-mechanical, or electronic equipment.²⁷¹

C. TRADE SECRET

Trade Secrets in Norway can be protected under both unfair competition and criminal laws. No court decisions have been found, however, which apply any of these legal theories to computer software.

The unfair competition laws are codified in the Act of Marketing Control of June 16, 1972. "The most important provision of the Norwegian Marketing Act is the so called 'general clause,' which reads: In commercial activity any action which is contrary to good trade custom among business people shall be prohibited . . ."²⁷² This provision can cover almost any conduct which infringes a computer program or the rights of its licensee.²⁷³

The Norwegian criminal law also protects trade secrets. The technology must, however, be a trade secret in fact.²⁷⁴

XII. SPAIN

A. COPYRIGHT

The Intellectual Property Law of November 11, 1987 provides copyright protection for computer software. Article 10(1)(i) lists computer software as protectable subject matter.²⁷⁵ Title VII, Articles 95 through

266. See 2G J. SINNOTT, *supra* note 48, at Norway-74-75.

267. See *World Patent Manual*, *supra* note 117, at Norway-1.

268. See *supra* text accompanying note 48.

269. See 2G J. SINNOTT, *supra* note 48, at Norway-74.

270. H. HANNEMAN, *supra* note 85, at 244.

271. Gevaarert & Zaharant, *supra* note 100, at 3.

272. Bull, *supra* note 260, at 385 (quoting Act of Marketing Control, Nov. 1972).

273. *Id.*

274. *Id.*

275. Intellectual Property Law of November 11, 1987, *trans. by* Gomes-Acebo & Pombo, Madrid, at 7.

100 are devoted to software protection. Article 97 protects exploitation rights for fifty years.²⁷⁶ Article 100 provides that software may be registered with the Industrial Property Registry.²⁷⁷

For purposes of the new law, Article 96(1) defines a computer program as "any sequence of prompts or instructions designed to be used either directly or indirectly in a computer system to perform a function or a job or to obtain a given result, irrespective of its form of expression and fixing."²⁷⁸ Protection is also extended to technical documentation and users' manuals in Article 96(2),²⁷⁹ and to updates and derivative works in Article 96(4).²⁸⁰ Article 96(3) provides that software that is "part of a patent or . . . utility model shall enjoy, without prejudice to the provisions herein, the protection that should be applicable under the industrial property legal system."²⁸¹

Article 98(1) provides that unless otherwise specified, "assignment[s] of the right of use shall be understood to be non exclusive and non transferable, and . . . such assignment[s] [are] made exclusively to meet the user's requirements."²⁸² Article 98(2) provides that with the exception of backup copies, software cannot be reproduced without consent. This prohibition applies to personal use as well.²⁸³ Article 98(3) provides that it is permissible to load software into internal memory for utilization purposes.²⁸⁴ Article 98(4) provides that a user can make derivative works of computer software for their exclusive use.²⁸⁵

B. PATENT

The new Spanish Patent Law of March 20, 1986, became effective June 26, 1986. This Act repealed provisions of the Industrial Property Act related to patents and utility models.²⁸⁶ Spain is not a member of the PCT, but became a member of the EPC effective October 1, 1986. Article 4 of the new Spanish Patent Law provides the patentability tests of novelty, industrial application, and an inventive step (nonobviousness).²⁸⁷ Article 4 of the Spanish Patent Law²⁸⁸ incorporates Article

276. *Id.* at 33.

277. *Id.* at 34.

278. *Id.* at 33.

279. *Id.*

280. *Id.*

281. *Id.*

282. *Id.*

283. *Id.* at 34.

284. *Id.*

285. *Id.*

286. See *World Patent Manual*, *supra* note 117, at Spain-1 (Supp. 1986).

287. See 2H J. SINNOTT, *supra* note 48, at Spain-94.

288. *Id.*

52²⁸⁹ of the EPC. At present, no cases have been found on the patentability of computer software in Spain.

C. TRADE SECRET

Computer software trade secrets in Spain should be protectable as industrial secrets under Articles 497-499 of the Spanish Penal Code. There is practically no case law which aids in defining the concept of "industrial secret,"²⁹⁰ let alone addresses the protection of computer software as a trade secret.

Article 497 of the Spanish Penal Code refers to "secrets" in general and punishes the taking of such papers and their divulgence to a third party.²⁹¹

Article 498 of the Spanish Penal Code prohibits directors or employees, who in such capacity know their principals' secrets, from divulging the secrets.²⁹²

Article 499 of the Spanish Penal Code provides that a manager, employee, or worker of a factory or other industrial enterprise, who divulges the secrets of the enterprise to the detriment of the enterprise, shall be punished by imprisonment and fines.²⁹³

XIII. SWEDEN

A. COPYRIGHT

Swedish copyrights are protected under Law No. 729, of December 30, 1960 on Copyright in Literary and Artistic Works, as amended through December 9, 1982. The Article 43 protection period under Swedish copyright law is fifty years after the year in which the author died.²⁹⁴ There are no formalities.²⁹⁵ Section 49 provides a "catalogue rule" similar to that of Norway.²⁹⁶ The provision protects "[c]atalogues, tables, and similar compilations in which a large number of particulars have been summarized . . ."²⁹⁷ As in Norway,²⁹⁸ this provision could protect computer data bases and some computer programs.

In a report entitled "Copyright and Computer Technology," the Committee on the Revision of the Copyright Law proposed amend-

289. See *supra* text accompanying note 48.

290. 5 A. WISE, *supra* note 101, at § 10.02[1].

291. *Id.*

292. *Id.*

293. *Id.*

294. 3 WORLD COPYRIGHT LAWS, *supra* note 72, at Sweden: Item 1-7 (Supp. 1981-83).

295. See *supra* text accompanying note 22.

296. See *supra* text accompanying note 261.

297. 3 WORLD COPYRIGHT LAWS, *supra* note 72, at Sweden: Item 1-8 (Supp. 1981-83).

298. See *supra* text accompanying note 262.

ments to the Swedish Copyright Act which would provide well-defined protection for computer software.²⁹⁹ Although no proposal was made for including a definition of "computer program" in the amended Copyright Act, the committee unequivocally took the view that computer programs are literary works and therefore protected.³⁰⁰ Although copying for private uses is permitted under section 11 of the present Copyright Act,³⁰¹ the committee proposed that computer programs be excluded from this exception.³⁰² The committee proposal permits backup copies but not unauthorized software rentals.³⁰³ Under section 9 of the Current Copyright Act, works created within the framework of the activities of public authorities are outside the scope of copyright protection.³⁰⁴ Under the committee proposal, however, computer programs would be an exception to this rule.³⁰⁵ There have been no court decisions concerning computer software copyright.³⁰⁶

B. PATENT

Section 1 of the Swedish Patents Act of 1967 as amended through 1983 requires that patentable inventions be susceptible of industrial application. Section 2 adds a novelty requirement.³⁰⁷ Sweden is a member of the PCT and of the EPC.

A 1974 Swedish Supreme Administrative Court decision found that a method of programming a known computer according to a specified algorithm was unpatentable.³⁰⁸ Section 11.2.1 of the explanatory notes to the Swedish Patents Act of 1978 cites this decision with approval.³⁰⁹ Section 11.2.5 of the explanatory notes furthermore states that "[c]omputer programs as such have been considered to be in principle of the same character as information for human intellect and thereby not patentable as such."³¹⁰ The future course of Swedish practice on the pat-

299. Justitiedepartement, Upphovsrättsdatorteknik, [1985] *Statens Offentliga utredningar* 51, summarized in English in 5 SOFTWARE PROTECTION 13 (Dec. 1986) [hereinafter cited as *Swedish Committee Report*].

300. *Id.* at 14.

301. See 3 WORLD COPYRIGHT LAWS, *supra* note 72, at Sweden: Item 1-3 (Supp. 1981-83).

302. *Swedish Committee Report, supra* note 299, at 14.

303. *Id.*

304. See 3 WORLD COPYRIGHT LAWS, *supra* note 72, at Sweden: Item 1-2 (Supp. 1981-83).

305. *Swedish Committee Report, supra* note 299, at 14.

306. Keplinger, *supra* note 246, at 284.

307. See 2H J. SINNOTT, *supra* note 48, at Sweden-82.2.

308. *Benson & Tabbot, REGERINGSRÄ ENS ÅRSBOK* s.19 (1974) (binary coded decimal conversion algorithm).

309. *Ändringar i Patentlagen m.m., [1977/78:1 Del A] Regeringens Proposition* 162.

310. *Id.* at 174.

entability of software-related inventions could be influenced to a large extent by the practice developed by the EPO.³¹¹

C. TRADE SECRET

Sweden has no trade secret law as such. Trade secrets as formulas and general written information are only protected during employment against intentional misuse. Aside from employment situations, trade secrets are only protected in the form of drawings, prototypes, or other technical prototypes which have been received in confidence and only if misused intentionally. New legislation regarding counterfeit goods has been proposed and may enter into force within the near future.³¹²

XIV. SWITZERLAND

A. COPYRIGHT

Swiss copyrights are protected under the Federal Law concerning Copyright in Literary and Artistic Works of December 7, 1922 as amended through June 24, 1955. Under Article 36, the term of protection is fifty years after the author's death.³¹³ No formalities³¹⁴ are required. Computer software is not specifically mentioned as protectable subject matter.

A new draft of the Swiss Federal Copyright Law on Author's Rights and Related Protection Rights is presently before the Swiss parliament. Enactment is expected by 1989. The proposed legislation contains a section on the copyright protection of data processing programs.³¹⁵

The new legislation provides copyright protection for electronic data processing, independent of their form of representation, and for computer programs and parts of programs. This protection also includes associated documentation which describes how to use the structure and function. It does not include programs that are obvious in their structure or solution procedures.³¹⁶ The proposed protection period for computer software is twenty-five years from program development.³¹⁷

311. See H. HANNEMAN, *supra* note 85, at 245.

312. Gullikson, *Licensing Executives Society 1988 International Trade Secret Protection Survey*, 23 LES NOUVELLES 6 (Sept. 1988) (survey is contained in blue insert).

313. See 3 WORLD COPYRIGHT LAWS, *supra* note 72, at Switzerland: Item 1-7 (Supp. 1979-80).

314. See *supra* text accompanying note 22.

315. Gable & Wise, *supra* note 190, at 17 (contribution by Schlaepfer on Switzerland).

316. *Id.* at 18.

317. *Id.* at 18.

B. PATENT

Section 1 of the Swiss Patents Act of 1954 as amended December 17, 1976, provides patents for inventions which are novel, applicable in industry,³¹⁸ and which are not obvious from the prior art.³¹⁹ Switzerland is a member of the PCT and the EPC. To conform to the EPC, the 1954 Federal Law on Patents was redrafted in 1976. It became effective on January 1, 1978. Computer software, however, is not mentioned in the revised Patent Act.³²⁰ Case law prior to the adoption of the EPC³²¹ denied patent protection to computer software.³²² Section 223.4 of the 1984 *Swiss Guidelines for the Examination of Patent Applications* stated that user programs were not patentable, whereas system programs, in principle, could be patentable.³²³

The Swiss Patent Office recently issued new guidelines for the examination of inventions involving computer programs.³²⁴ The new guidelines state:

- (a) Method claims containing computer program features would be acceptable if they also include other, technical features that are intrinsically associated with the program being claimed and are directly linked to the solution of the technical problem being solved.
- (b) Apparatus may be defined by functional features provided such features imply a particular structure. When such features appear in the form of a program that is integrated in the apparatus, they may also be accepted if the claim includes other, constructive features of the apparatus with which the program is related to solve the technical problem posed by the invention.
- (c) Since computer programs are only accepted in claims for the purpose of establishing relationships with other, technical (functional or structural) features of the claimed subject-matter, they should be set forth in a manner that is understandable to the man of the art; a mere list of instructions in programming language would not satisfy this requirement. In the description, the program could be expressed in programming language on a complimentary basis. If

318. See 2I J. SINNOTT, *supra* note 48, at Switzerland-2.

319. *Id.* at Switzerland-103.

320. See generally *id.* at Switzerland-103-29.

321. See *supra* text accompanying notes 47-48.

322. *In re Canquihem* (Swiss Federal Supreme Court, Dec 12, 1972), *trans.* in 5 INT'L REV. INDUS. PROP. COPYRIGHT L. 448 (1974); *Bewehrungs-Rechenprogramm* (decision of the Office for the Protection of the Intellectual Property, Sept. 3, 1968), [1969] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT, INTERNATIONALER TEIL 142, *trans.* in 1 INT'L REV. INDUS. PROP. COPYRIGHT L. 148 (1970).

323. *Richtlinien Für Die Sachprüfung Der Patentgesuche*, 223.4 (June 1984) (published by the Federal Office for Intellectual Property, Bern; translated by Erich Hintzen, Office of Patents and Licensing, University of Minnesota).

324. *Gable & Wise*, *supra* note 190, at 18 (contribution by Matthews on Switzerland).

the program pages satisfy the formal requirements for drawings, they would be printed at the prescribed rate for drawings.³²⁵

C. TRADE SECRET

Although Switzerland has no trade secret law as such, the Anglo-American trade secret concept corresponds to a combination of Swiss industrial and commercial secrets.³²⁶ There may be limited protection for Swiss trade secrets under the unfair competition laws, the Penal Code, or unjust enrichment principles. No cases have been found which apply any of these legal theories to trade secrets within computer software, however.

An industrial secret is a secret which is related to a manufacturing process or method and not in the public domain or generally available. The holder must also have an interest in maintaining the secret.³²⁷ Commercial secrets relate to nontechnical commercial matters.³²⁸

On December 19, 1986 Switzerland passed a new Federal Law Against Unfair Competition (UCL). It was entered into force on April 13, 1987. Article 1 guarantees fair and honest competition in the interest of all market participants. Article 2 consists of a general clause which Article 3 more specifically defines. This contains a catalogue of unfair competitive practices. Article 4 governs the unfairness of inducement to violate or vitiate a contract, and Article 5 prohibits slavish imitation.³²⁹ Protection under the UCL is limited for two reasons. First, the courts have interpreted economic competition to mean that the competitors are in the same market. It cannot be invoked against non-competing customers or other third parties using the software. Second, there is no case law stating that mere unauthorized use of software violates good faith.³³⁰

Article 162 of the Swiss Penal Code provides that "[a]nyone who discloses industrial or commercial information of a secret nature which he was bound not to disclose under a legal or contractual obligation, and anyone who takes advantage of the disclosure shall, upon complaint, be punished by fine or imprisonment."³³¹

As a last resort, Article 62 of the Swiss Code of Obligations may provide an unjust enrichment cause of action. This provides that one

325. *Id.* at 18-19.

326. 4 A. WISE, *supra* note 101, at § 8.01.

327. *Id.*

328. *Id.*

329. See *News and Information: Switzerland, New Unfair Competition Law Passed*, 18 INT'L REV. INDUS. PROP. COPYRIGHT L. 302, 302 (1987).

330. Kienast, *Protection of Computer Software Against Third Parties in Switzerland*, 1 SOFTWARE L.J. 397, 398-99 (1986).

331. 4 A. WISE, *supra* note 101, at § 8.05[2][c].

who, "without legitimate cause, is enriched at the expense of another is obligated to make restitution."³³²

XV. UNITED KINGDOM

A. COPYRIGHT

The Copyright Act of November 5, 1956, enforced as of June 1, 1957 [hereinafter cited as the 1956 Act], was amended by the Copyright (Computer Software) Amendment Act of 1985 [hereinafter cited as the 1985 Act].³³³ The copyright protection period for literary, dramatic and musical works under Section 2, Paragraph 3, is fifty years from the end of the year in which the author died.³³⁴ No formalities³³⁵ are required. No registration procedures are provided. Several court decisions supported the view that software was protected as a literary work under the 1956 Act.³³⁶

The 1985 Act was designed specifically to protect computer programs. The 1985 Act is the only measure under United Kingdom law which deals solely with the protection of computer programs. Section 1 provides the same protection for computer programs, including those made before the 1985 Act, as for a literary work under the 1956 Act.³³⁷ The 1985 Act does not define computer software, but Section 1(2) considers a program translation to be a restricted adaptation.³³⁸

As under Section 4 of the 1956 Act, intellectual property rights to software developed by an employee in the course of employment belong to the employer. If, however, the author is an independent contractor, the intellectual property rights vest in the independent contractor.³³⁹

The intellectual property reform Bill, known as the Copyright, Designs and Patents Bill was introduced into Parliament on October 29, 1987. The Bill was closely modeled after the April, 1986 White Paper, Intellectual Property and Innovation. The Bill will rewrite much of the existing intellectual property legislation and will completely replace the 1956 Copyright Act as amended. Continued copyright recognition is ac-

332. *Id.* at § 8.06[12][c].

333. Copyright (Computer Software) Amendment Act, 1985, ch. 41.

334. See 3 WORLD COPYRIGHT LAWS, *supra* note 72, at United Kingdom: Item 1-2 (Supp. 1972).

335. See *supra* text accompanying note 22.

336. See *Thrustcode Ltd. v. W.W. Computing Ltd.*, [1983] FLEET ST. REP. 502, 502 (1983); *Systematica Ltd. v. London Computer Centre Ltd. and Idnani*, [1983] FLEET ST. REP. 313, 313 (1982); *Sega Enterprises Ltd. v. Richards*, [1983] FLEET ST. REP. 73, 75 (1982).

337. Copyright (Computer Software) Amendment Act, 1985, ch. 41.

338. 3 WORLD COPYRIGHT LAWS, *supra* note 72, at United Kingdom: Item 1A-1 (Supp. 1984-86).

339. Evans, *Protection of Software Against Third Parties in the United Kingdom*, 1 SOFTWARE L.J. 407, 409-10 (1986).

corded to computer programs.³⁴⁰

B. PATENT

Section 1 of the United Kingdom Patents Act of 1977 provides the patentability tests of novelty, industrial application, and an inventive step.³⁴¹ Section 2 provides that inventions must not be obvious with regard to any matter previously made available to the public, anywhere in the world, by written or oral description, by use, or in any other way.³⁴² The United Kingdom is a member of the PCT and the EPC. Section 1 of the Patents Act of 1977 incorporates Article 52³⁴³ of the EPC.³⁴⁴

Under the 1949 Patents Act, case law supports the patentability of programs which control a computer and also for methods which involve the use of a programmed computer.³⁴⁵ The only decision dealing with computer software under the 1977 Act is Merrill Lynch's Patent Application No. 8527346, *Automatic Securities Trading System*. In this application, a first decision was rendered on September 11, 1986. The hearing officer concluded that the subject matter was unpatentable under Section 1(2) of the U.K. Patents Act of 1977 because it constituted a method for doing business.³⁴⁶ In an attempt to overcome the Section 1 rejection, the applicant submitted a first and second amended main claim. The hearing officer applied a "point of novelty" test in holding that the original and the first amended main claim lacked the prerequisite "technical feature." The Patent Court upheld the hearing officer's rejections and Merrill Lynch was permitted to amend their claims in an effort to formulate allowable claims.³⁴⁷ Merrill Lynch amended the claims, and the hearing officer noted that an amended claim "may include a technical structure."³⁴⁸ Despite the Patent Court's statement to the contrary,³⁴⁹ the Merrill Lynch decision indi-

340. Marsland, *United Kingdom*, 2 COMPUTER L. A.'S INT'L UPDATE 11 (Nov. 1987). The bill passed the House of Commons in July 1988 and will be considered by the House of Lords during the fall of 1988. Durie, *United Kingdom 3 Computer L. A.'s Int'l Update* 8 (Oct. 1988). The right to control rental will be one of the exclusive rights given to software copyright owners. *Id.* at 9.

341. See 2D J. SINNOTT, *supra* note 48, at Great Britain-207.

342. *Id.* at Great Britain-208.

343. See *supra* text accompanying note 48.

344. See 2D J. SINNOTT, *supra* note 48, at Great Britain-208.

345. See *Slee & Harris' Application*, [1966] REPORTS OF PATENT CASES 194, 198; *Burroughs Corporation (Perkins') Application*, [1974] REPORTS OF PATENT CASES 147, 161.

346. *In the Matter of Patent Application No. 8527346* at 7-9 (Sept. 11, 1986).

347. *Merrill Lynch Inc.'s Application* [1988] REPORTS OF PATENT CASES 1, 14 (Apr. 7, 1987).

348. Gable, *Computer Software*, [1988] AIPLA BULLETIN 134, 134 (April-June 1988).

349. *Merrill Lynch Inc.'s Application* [1988] REPORTS OF PATENT CASES 1, 14 (Apr. 7, 1987).

cates that the U.K. Patent Office has applied a more restrictive interpretation of Article 52 of the EPC than that set forth in the *Vicom* decision.

C. TRADE SECRET

Computer software trade secrets in the United Kingdom can be protected under the law of confidence or under the common law doctrine of passing off. No court decisions have been found, however, which apply any of these legal theories to computer software. The common law action under the confidence doctrine requires the plaintiff to prove that the information is of a confidential nature and was communicated under circumstances importing an obligation of confidence (such as to an employee) and that the defendant made an unauthorized disclosure of that information.³⁵⁰

Trade secrets can also be protected by the common law doctrine of passing off. Under this doctrine, it is an actionable wrong for a party to pass off goods as the goods of another. This doctrine can be very important in protecting the commercial use of computer programs, since their economic life is often very short and the goodwill that they enjoy can be easily lost by the actions of an unscrupulous imitator. For such an action to be successful, there must be a misrepresentation made by a trader, in the course of trade, to prospective customers, which will reasonably and foreseeably injure the good will of another, and has, or will, cause actual damage to that trader.³⁵¹ There is no English criminal law pertinent to trade secrets. The law of trade secrets/confidential information in Great Britain is entirely civil case law. This appears to be the case even when there is a theft of secret documents, material, etc., which would theoretically constitute a theft under the Theft Act of 1968.³⁵²

XVI. CONCLUSION

Given the increasing scope of computer software patent protection in Western Europe, it is wise to use patent protection when applicable. A patent is frequently a stronger form of intellectual property protection than a copyright, because patents protect ideas, not merely the expression ideas as does a copyright;³⁵³ furthermore, patents are the only means of exclusively protecting a software invention.³⁵⁴

350. 2 A. WISE, *supra* note 101, at § 2.03[1].

351. Evans, *supra* note 339, at 413, *citing* *Saltman Eng'g Co. Ltd. v. Campbell Eng'g Co. Ltd.*, 1 All. E.R. 413 (1963).

352. 2 A. WISE, *supra* note 101, at § 2.08[1].

353. 17 U.S.C. § 102 (1980).

354. Only one person or entity is granted a patent for particular invention. Copyright

From a substantive perspective, the EPO's position³⁵⁵ on software patentability renders a European patent the best vehicle with which to accomplish broad software patent protection in Western Europe. The EPO is also a superior means of obtaining software patent protection from a procedural perspective. This is true when either filing directly with the EPO or when filing with the EPO via the PCT.

Both patents and copyrights are likely to be a more predictable form of software protection than trade secret protection in Western Europe. Trade secret protection suffers from a lack of intercountry uniformity and from a dearth of court cases involving software issues.

License agreements³⁵⁶ with nondisclosure provisions are likely to remain a frequently used means of software protection in Western Europe; such agreements provide a practical approach to achieving trade secret protection. Since the copyrightability of software is generally recognized in Western European case law and statutes,³⁵⁷ it is wise to label and embed all licensed software with a copyright notice which complies with UCC formalities.³⁵⁸ This will satisfy the copyright requirements of all Western European countries as well as those of Section 401(b) of the United States Copyright Act.

and trade secret protection, on the other hand, are not exclusive; they cannot be used to prevent others from independently developing a competing computer program. Two competitors can independently develop similar, or even identical, unpatented software. Each competitor can then use its software without accounting to the other, even if they protect their respective software using copyright and trade secret laws.

355. See *supra* text accompanying notes 48-60.

356. Software vendors normally prefer to license software in object code form rather than in human readable source code form. Object code is written as a series of ones and zeros and is readable by computer hardware. This further protects the ideas embedded within the software, as such code can be read by a highly skilled technician only with a great deal of time and effort. On the other hand, many software distributors and users want source code licensed to them to enable them to independently maintain or enhance the software. Some vendors agree to provide source code either directly or through an escrow agreement using strict licensing provisions of confidentiality and ownership. These agreements typically include vendor ownership of any modified code.

357. See *supra* text accompanying notes 1-17.

358. A notice such as the following which indicates that the work is unpublished and contains trade secrets is probably best.

CLAIMANT CONFIDENTIAL & PROPRIETARY
 THIS WORK CONTAINS VALUABLE CONFIDENTIAL & PROPRIETARY
 INFORMATION. DISCLOSURE, USE, OR REPRODUCTION WITHOUT
 WRITTEN AUTHORIZATION OF CLAIMANT IS PROHIBITED. THIS UN-
 PUBLISHED WORK BY CLAIMANT IS PROTECTED BY THE LAWS OF THE
 UNITED STATES AND OTHER COUNTRIES. IF PUBLICATION OF THE
 WORK SHOULD OCCUR, THE FOLLOWING NOTICE SHALL APPLY:
 "COPYRIGHT © 19XX CLAIMANT. ALL RIGHTS RESERVED."

In this notice, it is recommended that 19XX represent the year of creation rather than the year of publication since these are trade secret and/or licensed materials rather than published materials. Claimant represents the name of the copyright owner.

Software developers need not rely on only one form of protection. Patents, copyrights, trade secrets, and licensing can be used simultaneously to protect a given software package.³⁵⁹ It is wise to review the law of the country in which protection is sought and elect all applicable forms of protection.

359. See Sumner & Lundberg, *supra* note 26, at 4.

