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SOFTWARE COPYRIGHT PROTECTION IN THE EUROPEAN COMMUNITY: EXISTING LAW AND AN ANALYSIS OF THE PROPOSED COUNCIL DIRECTIVE

James R. Warnot, Jr.†

INTRODUCTION

The increasing cost performance of computer hardware and the growing importance of end user interaction has caused software[1] to become a progressively larger proportion of a growing industry.[2] It is imperative that the growing efforts expended to develop software be properly rewarded. These rewards will be fully attained only if adequate intellectual property protection is afforded to the end results of the efforts. In many foreign jurisdictions computer software is protected only by copyright law, although it is

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1. "Software" and "computer program" are used interchangeably throughout this article, although purists will argue both that "software" encompasses works which are clearly not programs, such as some program documentation, and that certain programs embodied in hardware items are not software. "A 'computer program' is a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." 17 U.S.C. § 101 (1982).

Computer programs are usually categorized "as either application programs or operating system programs. Application programs perform a specific task for the computer user .... In contrast, operating system programs generally manage the internal functions of the computer or facilitate use of application programs." Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983). Another type of program, imbedded in the electronic circuits of the computer, is "firmware" or "microcode," which "consists of a series of instructions which tell a [computer] which of its thousands of transistors to actuate in order to perform the tasks directed by the macroinstruction set. As such, it comes squarely within the definition . . . which Congress added to the Copyright Act . . . ." NEC Corp. v. Intel Corp., 1989 Copyright L. Dec. (CCH) ¶ 26,379 (1989).

2. "Commercial software sales amounted in 1985 to between 30 and 39 billion dollars." *Green Paper on Copyright and the Challenge of Technology*, [1988] EUR. PARL. DOC. (COM No. 88) 1, 171 (1988) [hereinafter *Green Paper*]. The percentage of total revenue comprised by software of IBM, the world's largest computer hardware and software company, has grown from 10.6% in 1986 to 13.3% in 1988. The absolute dollar value of these sales has risen from $5.5 billion to $7.9 billion. IBM, 1988 ANNUAL REPORT 51 (1988).

protected by both patent and copyright law in some jurisdictions and in the United States.[3]

In conjunction with the trend in the rest of the world, computer software sales have rapidly expanded in the European Economic Community (Community).[4] The bulk of these sales are made by non-European companies.[5] To retain its technological competitiveness, Community industry must increase its share in this increasingly important market. Proper incentives for necessary development activity will be maintained only if Community States provide sufficient intellectual property protection for software. The existence of appropriate protection is currently uncertain in several Community States.[6] Protection in other states is well established, but a distinct lack of uniformity exists between the degree of protec-

3. For example, in Diamond v. Diehr, 450 U.S. 175 (1981), the United States Supreme Court determined that a process controlled by a computer program could be the subject of a patent, provided that it was more than the expression of a mathematical algorithm. For a current discussion of the patentability of programs, see McKelvey, *Patentable Subject Matter — Mathematical Algorithms and Computer Programs*, 1106 TRADEMARK OFF. GAZETTE 5 (Sept. 5, 1989).

Computer programs receive broad protection under copyright law in the United States as literary works. Registrations for programs by the United States Copyright Office, which are accorded a presumption of validity in judicial proceedings, 17 U.S.C. § 410(c) (1982), have been granted since at least 1964. Reg. No. A-688066, John Banzhaf III, published April 20, 1964.

The Copyright Act was amended in 1980 to clarify that programs are protected under copyright by adding provisions defining computer programs and allowing owners of copies of programs to make additional copies and modifications under certain circumstances. 17 U.S.C. §§ 101, 117 (amended 1980). The Copyright Office has established regulations specifying the appropriate deposit materials for computer program registrations. 37 C.F.R. § 202.20 (c)(2)(vii) (1988), *amended by* 54 Fed. Reg. 13,173 (1989).

Copyright protection in the United States is also well established by case law. Some of the more significant decisions include Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983) (copyright protection extends to operating system programs as well as application programs, object code representation as well as source code representation); Whelan Assocs., Inc. v. Jaslow Dental Laboratory, Inc., 797 F.2d 1222 (3d Cir. 1986), *cert. denied*, 107 S. Ct. 877 (1987) (copyrightable expression includes structure, sequence, and organization of a program); NEC Corp. v. Intel Corp., 1989 Copyright L. Dec. (CCH) ¶ 26,379 (1989) (microcode is protectible as a computer program).

A sampling of the numerous articles discussing this subject includes Menell, *Tailoring Legal Protection for Computer Software*, 39 STAN. L. REV. 1329 (1987); Nimmer, Bernacchi, & Frischling, *A Structured Approach to Analyzing the Substantial Similarity of Computer Software in Copyright Infringement Cases*, 20 ARIZ. ST. L.J. 625 (1988).

4. The European Economic Community consists of twelve Western European States. *See infra* note 11. The software market in Western Europe was estimated at $9.5 billion in 1985, 54% of this being the sale of standard packaged software. The sales of packaged software for microcomputers is growing at upwards of 30% yearly. *Green Paper*, *supra* note 2, at 172.

5. *Id.*

6. *See infra* note 35 and accompanying text.

tion available in those states.[7] To provide the maximum market access and the least risk of losing protection in a particular Community State, protection which is both strong and uniform across the Community is required.

Recognizing the need to clarify protection in Member States, copyright protection for software was discussed in the 1988 European Community Commission's *Green Paper on Copyright and the Challenge of Technology* (*Green Paper*)[8] which requested comments on key issues.[9] Recently, the Commission published a *Proposal for a Council Directive on Protection for Software* (Proposal) based on the studies preceding the publication of the *Green Paper* and the comments which were subsequently received.[10]

The Proposal establishes that computer programs shall be protected as literary works under national copyright legislation. As such, the Proposal will help establish the degree of stability necessary to ensure proper incentives for development of this vital industry. Included in the Proposal, however, are a number of provisions which limit the protection normally afforded literary works under general provisions of copyright law and international conventions. The author submits that these provisions are unnecessary and will only serve to create additional uncertainties for the developers of computer software.

This article begins by examining the general application of European Economic Community law to intellectual property. It will then review the protection currently afforded software in the various Community Member States, including a consideration of the international copyright conventions to which all the Member States belong. Lastly, this article will review and analyze the proposed Council Directive, including a comparison with analogous provisions of United States law. The article concludes that the Proposal is laudable in providing a common ground for protection of software in the Community Member States, but that some provisions of the Proposal would potentially weaken this protection and, therefore, should be modified or eliminated as suggested by the author.

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7. *See infra* notes 41-66 and accompanying text.

8. *Green Paper on Copyright and the Challenge of Technology*, EUR. PARL. DOC. (COM No. 88) 1 (1988).

9. *See infra* notes 69-70 and accompanying text.

10. *Proposal for a Council Directive on the Legal Protection of Computer Programs*, (1989) O.J. EUR. COMM. (No. C 91) 4 (1989) [hereinafter *Proposed Directive*]. A council directive is binding on each Member State. *See infra* note 12.

I. EUROPEAN COMMUNITY LAW

The European Economic Community is an association of twelve states whose overall objective is to "promote . . . a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between its Member States."[11] The Community governing bodies: the Council of Ministers, the Commission, the Court of Justice (Court), and the Assembly, can enact and enforce legislation which is binding on the Member States.[12]

The general language of Article 36 of the Treaty of Rome, referring to industrial and commercial property, initially created doubt whether copyright would come within the jurisdiction of Community law. The first several European Court intellectual property decisions dealt with patents and trademarks and did not address copyrights.[13]

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11. Treaty of Rome, Mar. 25, 1957, art. 2, 298 U.N.T.S. 11, 15. The Treaty of Rome established the European Economic Community, whose current member states are France, West Germany, Italy, the Netherlands, Belgium, Luxembourg, Ireland, United Kingdom, Denmark, Portugal, Spain, and Greece. The articles of the Treaty of Rome of particular importance to intellectual property are Articles 30-36, 298 U.N.T.S. at 26-29, which govern restrictions on imports, and Articles 85-86, 298 U.N.T.S. at 47-49, which address restraints of trade and monopolization.

12. For a condensed discussion of the composition and roles of these four entities, see *European Economic Community: Approaching Complete Formation*, 5 SANTA CLARA COMPUTER & HIGH TECH L.J. 497 (1989). For a more comprehensive treatment, see 4 H. SMIT & P. HERZOG, THE LAW OF THE EUROPEAN ECONOMIC COMMUNITY (1988).

Legislation requires interaction between the Commission, Council, and Assembly, with final enactment occurring upon Council approval. Article 189 of the Treaty of Rome specifies three types of legislative enactments: regulations, decisions, and directives. A decision is binding only on those parties to whom it is addressed. In contrast, a directive is binding on each member state, but requires member states to implement it through appropriate national legislation. A regulation is directly binding on all member states without any implementing national legislation.

Community law has supremacy over Member State national law regardless of whether any national legislation on a given topic exists. *See, e.g.*, Administrazione Delle Finanze Dello Stato v. Simmenthal SpA, 1978 E. Comm. Ct. J. Rep. 629, 3 Comm. Mkt. L.R. 263, 283-84 (1978) (Italian inspection charges on imported meat incompatible with Community directives which prohibited levying of custom duties or charges having an equivalent effect on these goods).

13. *See* Etablissements Consten S.A. and Grundig Verkaufs GmbH v. Commission, 1968 E. Comm. Ct. J. Rep. 299, [1966] Comm. Mkt. L.R. 418 (1966) (agreement giving single distributor exclusive trademark rights in a state may violate Article 85); Parke, Davis v. Probel, 1968 E. Comm. Ct. J. Rep. 55, [1968] Comm. Mkt. L.R. 47 (1968) (exercise of patent rights does not violate Article 86 unless it is an "improper exercise"); Sirena v. EDA, 1971 E. Comm. Ct. J. Rep. 69, [1971] Comm. Mkt. L.R. 260 (1971) (trademark license agreement may violate Article 85); Deutsche Grammaphon GmbH v. Metro-SB-Grossmärkte, 1971 E. Comm. Ct. J. Rep. 487, [1971] Comm. Mkt. L.R. 631 (1971), was the first case in

Any doubts which may have existed were resolved by *Coditel v. CinéVog Films S.A.*, which made it clear that the industrial property provisions of Article 36 included copyright.[14] In its next copyright decision, the Court explicitly stated that the industrial property provisions of Article 36 applied to copyright rights.[15] The inclusion of moral rights in the copyright law of some member countries does not change the basic economic character of the property right.[16]

Two principles of copyright law interact with provisions of Community law which provide for the free movement of goods: the principle of territoriality and the first-sale doctrine. The territoriality principle dictates that intellectual property is protected on a national basis and that international protection is actually based on a bundle of national rights.[17] The first sale doctrine exhausts the right of a copyright owner to control further distribution or sale of a particular copy after title has passed, being an application of the general rule disfavoring restraints on alienation.[18]

Article 36 of the Treaty of Rome attempts to balance the legitimate exercise of nationally conferred rights against the goal of free movement of goods by allowing justified restrictions for the protection of intellectual property.[19] The Court of Justice has recognized the need to perform this balancing on a case-by-case basis, declining to express a fixed rule.[20]

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which the Court discussed copyright, although the case actually dealt with German law providing the exclusive right to distribute records, a "neighboring right" to copyright.

14. Coditel v. CinéVog Films S.A., 1980 E. Comm. Ct. J. Rep. 881 (Coditel I) (retransmission of cable television broadcast from Germany to Belgium).

15. Musik-Vertrieb Membran GmbH v. GEMA, 1981 E. Comm. Ct. J. Rep. 147, 2 Comm. Mkt. L.R. 44, 64 (1981). Other rulings reaffirming that Community law is applicable to copyright include: Keurkoop v. Nancy Kean, 1982 E. Comm. Ct. J. Rep. 2853 (ladies' handbag design); and, Coditel II, 1982 E. Comm. Ct. J. Rep. 3381.

16. *GEMA*, 2 Comm. Mkt. L.R. at 64. Moral rights are independent of economic rights and include the author's right to prevent distortion, mutilation, or modification of his work. *See generally* DaSilva, *Droit moral and the Amoral Copyright: A Comparison of Authors' Rights in France and the United States*, 28 BULL. COPYRIGHT SOC'Y 1 (1980); Note, *The Doctrine of Moral Right: A Study in the Law of Artists, Authors, and Creators*, 53 HARV. L. REV. 554 (1940).

17. M. NIMMER & P. GELLER, INTERNATIONAL COPYRIGHT LAW AND PRACTICE EEC-9 (1989) [hereinafter M. NIMMER & P. GELLER]. Under international conventions such as the Berne Convention, a state may be required to afford protection to works authored in another country, but that protection is afforded according to the laws of such state, not according to the laws of the state in which the work is authored. *See infra* note 31.

18. *See, e.g.*, Copyright Act § 17(2) (W. Ger.). A statutory statement of the first sale doctrine in the United States is provided at 17 U.S.C. § 109 (1982).

19. M. NIMMER & P. GELLER, *supra* note 17, at EEC-13.

20. *See Parke, Davis*, [1968] Comm. Mkt. L.R. at 52-56. *See also* Pharmon BV v. Hoechst AG, 1985 E. Comm. Ct. J. Rep. 2281, 3 Comm. Mkt. L.R. 775 (1985) (patent right may be enforced in the Netherlands against imported goods made in the United Kingdom

Normal application of the territoriality principle would allow a right holder who has licensed rights in a given state to enjoin the licensee from exploiting those rights in another state. The Court of Justice has applied the first sale doctrine on a Community-wide basis, however, holding that sale in one state exhausts rights throughout the Community.

In *Deutsche Grammaphon GmbH v. Metro-SB-Grossmärkte*,[21] the plaintiff West German record producer sought to prevent records it had sold under license elsewhere in the Community from being resold in West Germany. The Court held that the first sale in France exhausted the plaintiff's rights, emphasizing that a contrary result would isolate national markets in contravention of Article 36.[22] This issue becomes more difficult when national laws of the states in question provide for different royalty payments by users of copyrighted works. The Court has not ruled consistently in these cases.[23]

A potential conflict between exempting the exercise of intellectual property rights from prohibitions on restricting the movement of goods and the Article 85 prohibitions of restrictions on competition has been resolved by the Court. It has interpreted Article 85 as relating "only to agreements, decisions, and concerted practices and not to the exercise of legal rights as represented by intellectual property."[24] However, if the exercise of these rights is the object, means,

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under a mandatory license); Terrapin Ltd. v. Terranova Industrie C.A. Kapferer & Co., 1976 E. Comm. Ct. J. Rep. 1039, 2 Comm. Mkt. L.R. 482 (1976) (trial court must determine in a particular case whether exercise of trademark rights constitutes a disguised restriction on trade between states).

21. 1971 E. Comm. Ct. J. Rep. 487, [1971] Comm. Mkt. L.R. 631 (1971).

22. *Deutsche Grammaphon*, [1971] Comm. Mkt. L.R. at 649.

23. *Cf. GEMA*, 1981 E. Comm. Ct. J. Rep. 147, 2 Comm. Mkt. L.R. 44 (1981) (Court did not allow the plaintiff to collect additional royalties for performances in Germany of sound recordings manufactured in the United Kingdom, when the lower U.K. royalty had been paid) with Basset v. SACEM, 1987 E. Comm. Ct. J. Rep. 1747, 3 Comm. Mkt. L.R. 173 (1987) (Court upheld a French royalty higher than that in neighboring states, because it contained a separate element for mechanical reproduction of sound recordings, in addition to the normal performance royalty).

24. M. NIMMER & P. GELLER, *supra* note 17, at EEC-27. *See* Parke, Davis v. Probel, 1968 E. Comm. Ct. J. Rep. 55, [1968] Comm. Mkt. L.R. 47 (1968); EMI Records v. CBS United Kingdom Ltd., 1976 E. Comm. Ct. J. Rep. 913, 2 Comm. Mkt. L.R. 235 (1976) (exercise of trademark rights not prohibited, even if effect is equivalent to quantitative restrictions). *Cf. Deutsche Grammaphon*, where the Court stated that "although the Treaty leaves the *existence* and substance of industrial property rights untouched, . . . the *exercise* is completely subject to Community law." [1971] Comm. Mkt. L.R. at 647 (underline in original). The *Deutsche Grammaphon* Court presumably equated the existence of rights with the *Parke, Davis* and *EMI* Courts' concept of the exercise of rights and meant that the exercise of these rights is subject to Community law only to the extent it would unjustifiably restrict competition.

or result of a cartel, an Article 85 violation may exist.[25]

It is therefore possible for an Article 85 violation to occur if the enforcement of intellectual property rights by a licensee or a licensor against the importer of identical goods made in a territory outside that granted in the license constitutes an abuse of the power granted by the right.[26]

In *Nungesser and Eisele v. Commission*, a case involving plant-breeder's rights, the Court found that no violation existed given that the licensed product had special characteristics, was new on the market, and that considerable development costs had been expended in bringing it to market.[27] The Court considered this issue from the opposite perspective in *Coditel II*, a copyright case, stating that a violation would exist if the exercise of rights created artificial and unjustifiable competition barriers, if the exercise of rights made it possible to charge excessive fees, or if the general effect of such exercise of rights was to distort competition in the Community.[28] Given the uncertainty of the test put forth in *Coditel II*, it is likely that if the *Nungesser* criteria are not met, the exercise of exclusive rights will be found to violate Article 85.

II. SOFTWARE PROTECTION IN THE EUROPEAN COMMUNITY

Applying the Treaty of Rome provisions to copyright only becomes of interest when they dictate a different result than does the application of national law. Unless this conflict results, the copyright laws of each Community Member State, as influenced by the international copyright conventions, specify the degree of protection afforded software in such state.

All the Community States are members of both major copyright conventions, the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention), and the Universal Copyright Convention (UCC).[29] The Berne Convention is far more

25. M. NIMMER & P. GELLER, *supra* note 17, at EEC-27.

26. *See* cases cited *supra* note 13.

27. Nungesser and Eisele v. Commission, 1982 E. Comm. Ct. J. Rep. 2015, [1983] 1 Comm. Mkt. L.R. 278 (1983).

28. Coditel II, 1982 E. Comm. Ct. J. Rep. 3381 (exclusive broadcast license in Belgium does not violate Article 85 if none of the conditions exist).

29. Both the Berne Convention and the UCC are a series of separate acts, rather than a single instrument. The version of the Berne Convention in force in most Community States is the Paris Act of 1971, *reprinted in* 4 M. NIMMER & D. NIMMER, NIMMER ON COPYRIGHT app. 27 (1988) [hereinafter NIMMER ON COPYRIGHT]. Belgium, Ireland, and the United Kingdom, however, have acceded to the Brussels Act of 1948, 331 U.N.T.S. 217 (1948), for the bulk of its provisions, and to the Stockholm Act of 1967, 828 U.N.T.S. 221, for articles 22 to 38. Articles 22 to 38 provide governing and administrative rules for the Convention. Af-

comprehensive, having substantive provisions regarding protection requirements, categories of protected works, copyright ownership, the term of copyright, moral rights, and the rights of copyright owners.[30] Because of these substantive provisions, the Berne Convention may require more than the "national treatment" required by most industrial property conventions.[31]

The Berne Convention is self-executing in most of the Community at the time of accession, as are most treaties to the extent their terms allow.[32] The United Kingdom, however, does not consider its treaties to be self-executing, and implements conventions solely through domestic legislation.[33]

Software is absent from the list of examples of protected literary and scientific works in the Berne Convention and the UCC, which is not surprising considering that the industry was in its infancy in 1971 when the Conventions were last amended. The language of both Conventions is broad enough to include software.[34] Software is considered a literary work or a scientific work in most countries. The protection afforded software and the means by which this protection is implemented varies from state to state in the Community. It is necessary to examine this variance to under-

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ter many years of debate, the United States acceded to the Berne Convention in 1988, effective March 1, 1989. Berne Convention Implementation Act of 1988, Pub. L. No. 100-568, 102 Stat. 2853 (1988) [hereinafter "BCIA"]. For a discussion of which act applies in a given dispute, see M. NIMMER & P. GELLER, *supra* note 17, at INT-67 to 73. Community Member State accession to the UCC is split between the original Geneva Act of 1952, 216 U.N.T.S. 132 (1952), and the revised Paris Act of 1971, 943 U.N.T.S. 178 (1971).

30. For a thorough discussion of substantive copyright rights in the Community under the Berne Convention, see A. DIETZ, COPYRIGHT LAW IN THE EUROPEAN COMMUNITY (1978) [hereinafter A. DIETZ].

31. *See* A. DIETZ, *supra* note 30, at 9. National treatment is the principle that a foreign national will be treated the same as a citizen under the laws of a particular state. *See* Nordemann, *The Principle of National Treatment and the Definition of Literary and Artistic Works*, 10 COPYRIGHT 300 (1989). As an example that the Berne Convention may require more than national treatment, consider the United States' implementation of Berne, under which foreign authors need not register a work as a prerequisite to bringing an infringement suit, although American authors must. 17 U.S.C. § 411 (1989). In most countries, however, foreign authors are protected by statutory provisions in the same manner as domestic authors. *See* Berne Convention art. 5(1), *reprinted in* 4 NIMMER ON COPYRIGHT, *supra* note 29, at app. 27-4 (Paris); Berne Convention art. 4(1), 331 U.N.T.S. at 223 (Brussels).

32. M. NIMMER & P. GELLER, *supra* note 17, at INT-57.

33. *Id.* at INT-60 n.284. The United States has also followed this approach in implementing the Berne Convention. *See* BCIA, Pub. L. No. 100-569, §§ 2, 3, 102 Stat. 2853 (1988) (adding 17 U.S.C. § 104(c)).

34. Berne Convention art. 2(1), *reprinted in* 4 NIMMER ON COPYRIGHT, *supra* note 29, at app. 27-1 (Paris); 331 U.N.T.S. at 221 (Brussels); UCC art. 1, 943 U.N.T.S. at 195 (Paris), 216 U.N.T.S. at 134 (Geneva).

stand a software developer's risk in marketing a software product in a particular state.

The state of protection for software is uncertain in Belgium, Ireland, Luxembourg, and Portugal because of a total lack of case law or specific statutory provisions. Representatives of these states have declared that the general provisions of copyright law protecting literary or scientific works should provide protection for software in these states.[35] In the absence of case law supporting this view, however, there is a risk that a product may not be protected in these states.

In those Member States which do provide protection, copyright law is the preferred means. Patent protection is not favored, and several Community States explicitly exclude computer programs from patent protection.[36]

The legislatures of both Denmark and Spain have recently added software to those states' copyright statutes, although there is no case law to date interpreting these statutes. The Danish legislature explicitly added "electronic data processing programs" to the list of literary works in the copyright statute.[37] The statute prohibits the production of machine-readable copies of programs, except that the owner of a copy may make "spare and security copies."[38] A licensee of a program, unless otherwise specified in the license agreement, may modify the program as necessary for the agreed use.[39] The Spanish legislature also specifically included software as copyrightable subject matter.[40]

The major economic powers of the Community, West Ger-

35. *See Green Paper, supra* note 2, at ch. 5, nn. 16-19 and accompanying text. Additionally, a Greek delegate to a meeting of the World Intellectual Property Organization in 1985 declared that the protection of software in Greece was uncertain. *Id.* at n.20. According to one recent article, however, "at least one Greek court has held that Greek copyright law already protects computer software." Lake, Harwood & Olson, *Tampering With Fundamentals: A Critique of Proposed Changes in EC Software Protection*, 6 COMPUTER L. 1, 8 n.6 (1989).

36. These states include Germany, § 1(2) of the Patent Act, as amended by the Law of December 16, 1980; France, Patent Law of January 4, 1968; United Kingdom, § 1(2)(c) of the Patents Act; Italy, Patent Act of June 29, 1939, as amended by the Law of June 22, 1979; as well as, Spain, Denmark, Belgium, and Luxembourg, *See Green Paper, supra* note 2, at ch. 5, n.4.

37. Copyright Amendment Act of 1989, § 1 (Den.).

38. *Id.* § 11(a). This right is similar to that provided under the United States Copyright Act. *See* 17 U.S.C. § 117 (1982).

39. Copyright Amendment Act of 1989, § 42(a) (Den.). This is a similar provision to that provided under the United States Copyright Act. *See* 17 U.S.C. § 117 (1) (1982). The United States statute, however, only applies to owners of copies of a program, not to licensees.

40. Le de Propiedad Intelectual n.22/87, arts. 91-100 (1987).

many, France, Italy, the United Kingdom, and the Netherlands, all provide copyright protection for computer software, either through case law or specific statutory provisions.[41] The major divergence in the laws of these states regards the degree of originality required for a work to constitute copyrightable subject matter. Recent decisions of the German Federal Court of Justice (Bundesgerichtshof) and the French Supreme Court (Cour de Cassation) have left the scope of software protection in those states uncertain.

In its *Inkasso-Programm* decision of May 9, 1985, the Bundesgerichtshof made it clear that software is protectible under copyright law in Germany as a scientific work, but that a threshold requirement of originality must be met.[42] A new program must be sufficiently different from existing programs so that it is not a mere "mechanical-technical elaboration and development of what was previously known," and the skills necessary to develop it must be greater than those of a programmer with "general, average ability."[43] If these requirements are met at any stage of the development process, the operational program will be protected, although the manifestation of a particular development stage that does not meet these requirements may not be protected.[44]

Subsequent to *Inkasso-Programm*, computer programs were explicitly added to the statutory list of works protected by copyright.[45] Since no explicit requirement for software originality appears in the statute, case law interpreting the originality requirement for other types of works should apply to software. Federal Court of Justice decisions subsequent to *Inkasso-Programm* which have addressed the originality requirement have held it suffi-

41. *See infra* notes 42-64 and accompanying text.

42. Judgment of May 9, 1985, Bundesgerichtshof, BGHZ, W. Ger., reported in English at 17 INT'L REV. INDUS. PROP. & COPYRIGHT L. 681 (1986) (Suedwestdeutsche Inkassso KG v. Bappert & Burker Computer GmbH) [hereinafter *Inkasso-Programm*].

43. *Inkasso-Programm*, *supra* note 42, at 688. This requirement is significantly greater than the general copyright principle of originality, according to which "[a]ny distinguishable variation of a prior work will constitute sufficient originality to support copyright if such variation is the product of the author's independent efforts, and is more than merely trivial." 1 NIMMER ON COPYRIGHT, *supra* note 29, at 2-11 (1989). Unless specifically discussed, this originality standard applies in all Community States. *See, e.g. infra* note 48 and accompanying text.

44. *Inkasso-Programm*, *supra* note 42, at 688. A similar rationale to that in *Inkasso-Programm* was used in the Judgment of Jan. 29, 1985, Oberlandesgericht, Frankfurt, W. Ger., with a decision favorable to the plaintiff program developer. *See also* Judgment of Aug. 29, 1985, Landesgericht, W. Ger., reported in English at 17 INT'L REV. INDUS. PROP. & COPYRIGHT L. 691 (1986) (originality requirement met if several possible solutions to the problem and the process requires intellectual latitude on the part of the programmer).

45. Copyright Act of 1965, § 2(1) (amended 1985) (W. Ger.).

cient for copyright protection that the work be the result of intellectual effort.[46] It is therefore questionable whether the strict originality requirement of *Inkasso-Programm* will be followed in future cases.

Three decisions of the Cour de Cassation on March 6, 1986, established that computer programs may be protected in France under the Copyright Act of 1957.[47] The Court held in each case that neither the form of expression of the work nor the presence of aesthetic value was determinative in establishing whether protection was warranted. The Court, however, found the originality requirement traditionally applied to literary works unsuitable for video games and computer programs. It held that the works must embody an intellectual contribution. By requiring both novelty and inventiveness, the concept of originality espoused by the Court is more akin to that of patent law than of copyright law.[48]

France codified its protection of software ("logiciels") in 1985.[49] These rights, although codified in the copyright statute, have important distinctions from the protection afforded other works. The statute "includes provisions setting a shorter term of protection . . ., modifying the normal grant of moral and economic rights directly to actual authors, governing the treatment of foreign software, hedging one common limitation of rights, and regulating remedies."[50] The provisions are included to adapt copyright law to the unique characteristics of computer software. The statute does

46. Judgment of Nov. 20, 1986, Bundesgerichtshof, [1987] GEWERBLICHER RECHTSSCHUTZ UND URHEBERRECHT [G.R.U.R.] 360; Judgment of July 2, 1987, Bundesgerichtshof, [1988] G.R.U.R. 33. In the opinion of at least one commentator, this interpretation will be followed in future cases interpreting the 1985 amendment. Kindermann, *The International Copyright of Computer Software*, COPYRIGHT, Apr. 1988, at 201 [hereinafter Kinderman].

47. Judgment of Mar. 7, 1986, Cass. ass. plén., Fr., 1986 REVUE INTERNATIONALE DU DROIT D'AUTEUR [R.I.D.A.] 134 (video game); Judgment of Mar. 7, 1986, Cass. ass. plén., Fr., 1986 R.I.D.A. 132 (video game); Judgment of Mar. 7, 1986, Cass. ass. plén., Fr., 1986 R.I.D.A. 130 (computer program).

48. Note, 1986 R.I.D.A. 136. Another interpretation is given in Kindermann, *supra* note 46, at 207. "Copyrightability is rather to be determined by an overall assessment that takes in the composition of the program as shown in the program flow chart and its expression in the program instructions worked out. If those elements are more than just the application of automatic and compelling logic, and lead to an individual structure, the program is eligible for copyright protection." *Id.*

49. Copyright Act of 1957, art. 3, Fr. (amended 1985 by art. 1-V., Law No. 85-660, on the rights of authors, performers, record and videotape producers and communication enterprises).

50. M. NIMMER & P. GELLER, *supra* note 17, at FRA-27. The term of protection, twenty-five years from the date of creation, conflicts with Article 7 of Berne, which provides for a term of fifty years beyond the death of the author. *Id.* at FRA-32 to 33.

not impose special originality requirements. Since the Cour de Cassation judgments establishing the originality requirement were rendered after the Act's enactment and, since the Court was aware of the Act, the originality requirements set forth in the judgments are presumably still valid, even though the cases arose under the 1957 Act.

In the United Kingdom, Italy, and the Netherlands, on the other hand, the traditional requirement of originality is applied with resulting strong protection for software, although specific statutory provisions exist only in the United Kingdom. British courts have determined that expansive protection for computer programs as literary works exists under the Copyright Act of 1956. This has included protection for utility programs as well as for application programs.[51] Protection has also been extended to the object code manifestation of a program.[52]

Parliament clarified that programs were protected in the same way as literary works by enacting specific legislation in 1985.[53] Restricted acts include translating a program from one computer language to another and storage of the program in a computer.[54] The entire program need not be copied for a court to find infringement; copying of a substantial portion is sufficient.[55] The House of Lords has not yet ruled on software protection.

The Italian and Dutch courts rely on the general language of their respective copyright statutes as a basis for protecting computer programs. There are no express statutory provisions in Italy for the copyright protection of computer programs. However, decisions of the Italian courts have established a high degree of national protection for software.

The first Italian decision addressing copyright protection of software was *Unicomp v. Italcomputers*, which held that software

51. Gates v. Swift, [1982] REPORTS OF PATENT CASES [R.P.C.] 339 (Ch. 1982).

52. *Id.*; Sega Enterprises v. Richards, [1983] F.S.R. 73 (Ch. 1983). Protection of the object code manifestation of a program is well established in the United States. *See supra* note 3.

53. Copyright (Computer Software) Amendment Act, 1985 (U.K.).

54. *Id.* §§ 1, 2. The British position on translated programs is similar to that taken in the United States, where courts have recognized a broad protection when the infringing program is written in a different computer language. *See, e.g.*, Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc., 797 F.2d 1222 (3d Cir. 1986), *cert. denied*, 107 S. Ct. 877 (1987). The United States copyright statute, however, allows the owner of a copy of a program to copy it into his computer to the extent necessary to utilize it. 17 U.S.C. § 117 (1982). Under the British statute, this is a restricted act if done without the permission of the copyright owner.

55. Copyright Act, 1985, § 49(1) (U.K.).

was protected as a creative scientific intellectual work under the amended Copyright Act of April 22, 1941.[56] This decision was significant because it confirmed that a translation from one programming language to another is a derivative work and thus an infringement if unauthorized.[57]

On February 6, 1987, the Italian Supreme Court (Corte di Cassazione), in *S.I.A.E. v. Pompa*, a criminal case, verified that software is copyrightable subject matter.[58] The Court listed four factors to be considered, holding that software satisfied all four for protection to obtain: the product must be creative and the expression of intellectual work; the result must be capable of being used by third parties; the work must have some low level of merit to establish the required originality; and the work must be a new contribution belonging to a field of art indicated in the statute, software being a scientific work.[59]

Although it is debatable whether the "capable of being used by third parties" requirement is met by microcode or firmware permanently embedded in a machine, the Pretura of Rome held it protectible in *IBM Italia v. Bit Computers*.[60] Italian decisions, therefore, demonstrate that software receives a high degree of protection in that state, despite the absence of any specific statutory language.

The Dutch Copyright Act, like the Italian Act, does not specifically include software as a copyrightable work. The general terms of the statute provide protection for "any production in the literary, scientific or artistic fields, whatever may be the mode or form of expression."[61] A proposal introduced in 1987 to specifically include programs as protectible works was withdrawn pending Community legislation.[62]

Dutch courts have held that the broad language of the Copyright Act encompasses software. In *HIC/BAS*, a lower court held that even partial copying of a program was an infringement, so long as the portion copied was an intellectual achievement in recogniza-

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56. Judgment of Apr. 11, 1984, Pret., Pisa, Italy, 1986 GIURISPRUDENZA ITALIANA [Giur. Ital. II] 215.

57. *See supra* note 54 and accompanying text for the United States and British positions on this issue.

58. Judgment of February 6, 1987, Corte Cass., Italy, 1987 DIRITTO DI AUTORE 162.

59. Note that the originality requirement expressed by the Italian court reflects general copyright principles. *See supra* note 43.

60. Judgment of July 4, 1988, Pret., Rome, Italy.

61. Copyright Act of 1912, art. 10, § 3 (Neth.).

62. M. NIMMER & P. GELLER, *supra* note 17, at NETH-16.

ble form.[63] The court held that exact copying was not necessary to a finding of infringement, substantial similarity being enough.[64] Other courts have granted similar protection.[65] The Dutch Supreme Court (Hoge Raad) has not yet addressed the issue.

The current protection for software in the Community is not consistent among the Member States. The national courts which have addressed the issue have generally granted protection, albeit applying different standards for determining what degree of originality is necessary. The legislatures of the Community States are slowly recognizing the need for statutory amendments to clarify this matter. Given the importance of the software industry and the resulting need for uniformity of protection in the Member States, Community legislation is clearly needed.[66]

III. COMMUNITY RESPONSE: GREEN PAPER

The governing bodies of the Community recognize that consistent protection of software in Member States is important to the economic development of the Community. In its White Paper discussing completing the internal market, prepared as a precedent to the "1992" legislation, the Commission undertook to submit a proposal on the protection of software to the Council by the end of 1987.[67] Although it did not meet this ambitious schedule, Chapter 5 of the *Green Paper on Copyright and the Challenge of Technology* specifically addresses software.[68]

After reviewing the importance of software to the economic development of the Community, the current legal status of software

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63. Judgments of Jan. 30, 1981 and May 14, 1982, Arrondissementsrechtbank [Rb.], 's-Hertogensboch, Neth., [1983] B.I.E. 323.

64. *Id.*

65. *See, e.g.*, Judgment of Oct. 17, 1986, Rb., Haarlem, Neth., [1987] 1 INFORMATIERECHT 9; Judgment of Mar. 31, 1983, Gerechtshof [Ger.], Amsterdam, Neth., [1983] 3 AUTEURSRECHT A.M.R. 56 (Video game).

66. For a discussion of the power of the Community to enact and enforce this legislation and its jurisdiction over copyright, see *supra* notes 12-16 and accompanying text.

67. *Completing the Internal Market, White Paper from the Commission to the European Council*, [1985] EUR. PARL. DOC. (COM No. 85) 310 (1985). The Single European Act, designed to complete the process of creating a single European market, which was initiated by the Treaty of Rome, was passed in 1986. Single European Act, 1986, [1987] O.J. EUR. COMM. (No. L 169) 1 (1987). For discussions on the effect of this Act, see K. Meessen, *Europe en Route to 1992: The Completion of the Internal Market and Its Impact on Non-Europeans*, 23 INT. L. 359 (1989); Schildhaus, *1992 and the Single European Act*, 23 INT'L L. 549 (1989).

68. *Green Paper*, *supra* note 2. Other areas addressed by the *Green Paper* are piracy, audio-visual home copying, distribution rights, exhaustion and rental rights, data bases, and the role of the Community in multilateral and bilateral external relations. *Id.*

in the Member States, prior Community involvement, and the areas which a directive should address, the *Green Paper* requested comments on whether:

> a) the protection should apply to computer programs fixed in any form;
> b) programs should be protected where they are original in the sense that they are the result of their creator's own intellectual effort and are not commonplace in the software industry;
> c) access protocols, interfaces and methods essential for their realization should be specifically excluded from protection;
> d) rights to authorize restricted acts should include a broad use right either formulated as such or as a consequence of rights to authorize reproduction, rental, adaptation and translation; for these latter rights, specific provision should be made in any event;
> e) the adaptation of a program by a legitimate user exclusively for his own purposes and within the basic scope of the license should be permitted;
> f) the reproduction of a computer program for private purposes should not be permitted without authorization of the right holder whereas the production of back-up copies by a legitimate user should be permitted without authorization;
> g) the term of protection should start with the creation of the program and last for an appropriate number of years to be fixed by the directive; a choice will have to be made between a period of 50 years and one in the region of 20 or 25 years;
> h) the issue of computer programs, including authorship in respect of computer-generated programs, should be left largely to Member States but with national laws having to establish who, in the absence of contractual arrangements to the contrary, is to be considered the author;
> i) protection would be available for creators who are nationals of States adhering to the Berne Convention or the Universal Copyright Convention or enterprises of such countries or possibly to all natural and legal persons irrespective of origin or domicile;
> j) in infringement cases the onus of proof in respect of copying should be shifted to the alleged infringer once the plaintiff makes available to the Court the different versions of his program to which he has access and shows similarity and that the alleged infringer has had access to the right holder's program.[69]

Comments from user groups and from Japan advocated a lesser degree of protection than did comments from groups representing software and computer vendors. The comments of the Con-

69. *Green Paper*, *supra* note 2, at 200-201.

federation of European Computer Users Association (CECUA) are illustrative of the former category.[70]

CECUA opined that all forms of expression of a program should be protected and that some level of originality should be specified. It declined to advocate an *Inkasso*-like standard, since that would dictate a lesser degree of protection in the Community than in the United States, an undesirable situation.[71] In all other areas, however, CECUA advocated weaker protection than did vendor groups: access protocols and interfaces should not be protected; users should have broad rights, including the rights to adapt and make back-up copies; 20-25 years is the appropriate term of protection; ownership of custom made software should vest in the customer; and the burden of proof of infringement should remain on the plaintiff throughout the judicial proceedings.[72]

A good example of the manufacturers' perspective is found in the comments of the European Association of Manufacturers of Business Machines and Data Processing Equipment (EUROBIT).[73] Like CECUA, EUROBIT advocates that programs should be protected regardless of the mode of fixation, and that the minimal originality typically required in Berne Convention countries, that the work be the result of the creator's intellectual effort (i.e., not copied), should be used.[74]

On most other points, however, EUROBIT's position diverged from CECUA's: interfaces should not be excluded from protection

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70. Memo from CECUA to the Commission (Sept. 29, 1988) (discussing the standpoint of European computer users associations to the *Green Paper on Copyright*) [hereinafter CECUA Memo].

71. *Id.* United States copyright law protects any original work. The required degree of originality is not high. *See supra* note 43. Both the Berne Convention and the UCC dictate that a country need only protect foreign works to the same extent it protects works of domestic authors, provided that the minimum Convention requirements are met. Berne Convention art. 5 (1), *reprinted in* 4 NIMMER ON COPYRIGHT, *supra* note 29, at App. 27-4 (Paris); art. 4(1), 331 U.N.T.S. at 223 (Brussels); UCC art. II (1), 943 U.N.T.S. at 195 (Paris), 216 U.N.T.S. at 136 (Geneva).

The Japanese Federation of Economic Organizations (Keidanren) did not favor as broad protection in these two areas as did CECUA. It maintained that certain manifestations of programs, such as microcode, should not be protected. It also advocated that a required degree of creativity be specified. *Views of Keidanren on the Commission Green Paper on Copyright and the Challenge of Technology*, KEIDANREN (JAPANESE FEDERATION OF ECONOMIC ORGANIZATIONS), SUBCOMM. ON INTELL. PROP. RTS., COMM. ON INDUS. TECH. 6, 7 (Aug. 30, 1988)

72. CECUA Memo, *supra* note 70.

73. *See Statement of EUROBIT on the "Green Paper on Copyright and the Challenge of Technology,"* EUROPEAN ASSOCIATION OF MANUFACTURERS OF BUSINESS AND DATA PROCESSING EQUIPMENT (EUROBIT) (Sept. 8, 1988).

74. *Id.*

when they represent the expression of an idea; the rights of authors should be extended to include a rental right; a general right of use would violate the Berne Convention; any right of adaptation or private use should be precluded unless agreed to by the right holder; a 50 year term of protection, beginning with publication and first distribution, is desireable and necessary to conform to the Berne Convention.[75]

IV. THE COMMISSION PROPOSAL

The Commission's proposal for a Council Directive[76] will not fully satisfy either of the opposing camps of vendors and users, incorporating as it does pieces of what both desire. The fundamental principle expressed in the proposed Directive is that computer programs will be protected as literary works under copyright law, thus according them international protection under the Berne Convention and the UCC.[77] The explanatory section of the Proposal makes it clear that the standard of originality is merely "that the work has not been copied. No other aesthetic or qualitative test should be applied."[78] Computer generated programs are also protectible if they meet this standard.[79]

Reflecting the controversy over the copyrightability of interfaces, the Proposal is confusing and contradictory on this subject. The substantive provisions of Article 1(3) state, albeit by negative implication, that the specifications of interfaces may be copyrightable expression to the extent that they do not constitute ideas or principles.[80] This is consistent with the traditional idea/expression dichotomy of copyright law.[81] The eighth introductory "Whereas" clause of the Proposal, however, defines the specifications of interfaces as uncopyrightable ideas and principles.[82] The substantive

75. *Id.* However, EUROBIT's position on the term of copyright protection also conflicts with Berne. *See infra* note 90 and accompanying text.

76. *Proposed Directive*, *supra* note 10.

77. *Proposed Directive*, *supra* note 10, art. 1(1), at 8. *See supra* note 34 and accompanying text.

78. *Proposed Directive*, *supra* note 10, at 9. Article 4(a) explicitly states that the same standard of originality is to be applied to computer programs as to other works. Contrary positions expounded by the French and German Supreme Courts may require legislative clarification in those countries. *See supra* notes 43-51 and accompanying text.

79. *Proposed Directive*, *supra* note 10, art. 4(b), at 13.

80. *Id.* at art. 1(3), at 13.

81. This fundamental rule of copyright law states that an idea is not copyrightable, whereas the expression of that idea is, assuming it is capable of being expressed in more than one way. Baker v. Selden, 101 U.S. 99 (1879); Mazer v. Stein, 347 U.S. 201 (1954). The current United States Copyright Act codifies this principle at 17 U.S.C. § 102(b) (1982).

82. *Proposed Directive*, *supra* note 10, at 9, 13. The clause defines "interfaces" as princi-

provisions will presumably control.

Article 1(3) also states that programs are proper subject matter for copyright, but that "the ideas, principles, logic, algorithms or programming languages underlying the program" are not.[83] While the idea/expression dichotomy precludes copyright protection for ideas and principles, copyrightable expression can exist in logic, algorithms, and programming languages, depending on how those terms are defined. Logic can be defined to include the sequence of steps in a program, the structure, sequence, and organization of a program, or program flow charts.[84] All of these aspects of a program can comprise protectible expression. "Algorithm" has many different meanings as applied to computer programs and can encompass works which clearly contain copyrightable expression, such as entire programs or major subsections thereof.[85] Programming languages are expressions of sets of commands and instructions and thus should also be protectible.[86] The author of a programming language may wish to devote it to the public to provide an incentive for the development of programs in such language, but this is a consideration which is irrelevant in determining whether copyrightable expression exists in the language.

The provisions of Article 1(3) may therefore potentially be construed to exclude properly copyrightable material from protection, thus conflicting with the Berne Convention. The motivation behind these provisions is to prevent a copyright owner from restraining trade by monopolizing works which some advocates maintain should be in the public domain.[87] Existing Community law can address any antitrust violations, and legislation which may jeopard-

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ples describing logical and physical interaction required to "permit all elements of software and hardware to work with other software and hardware and with users in all the ways they are intended to function." To the extent interfaces are only principles or ideas, they are not copyrightable. The concept of an interface, however, often extends to implementations of these ideas. These implementations are usually copyrightable expression.

83. *Id.* at art. 1(3), at 13.

84. IBM EUROPE, COMMENTS OF IBM EUROPE TO THE COMMISSION OF THE EUROPEAN COMMUNITIES ON THE PROPOSAL FOR A COUNCIL DIRECTIVE ON THE LEGAL PROTECTION OF COMPUTER PROGRAMS (1989) [hereinafter COMMENTS OF IBM EUROPE]; DIGITAL EQUIPMENT CORPORATION, COMMENTS OF DIGITAL EQUIPMENT CORPORATION ON THE EXPLANATORY MEMORANDUM AND PROPOSED DIRECTIVE, (1989) [hereinafter COMMENTS OF DEC].

85. *See* COMMENTS OF IBM EUROPE, *supra* note 84; COMMENTS OF DEC, *supra* note 84.

86. *Id.*

87. *See Green Paper, supra* note 2, at 173-74 (describing IBM's undertaking, at the Commission's insistence, to provide relevant interface information about products to competitors).

ize conformance with international conventions is unwarranted and unwise.[88] Since the courts can use the idea/expression dichotomy to exclude interfaces, logic, programming languages, and algorithms which do not constitute copyrightable expression from protection, specific statutory provisions are unnecessary.

The Proposal, keeping with the Commission's desire to conform to the Berne Convention requirement, accords computer programs a protection period of fifty years from the date of creation.[89] It is very difficult to determine the date of creation for a computer program, however. Most programs have a complicated development cycle. Is a program created when it will first operate, albeit in an unsatisfactory manner, or when all problems are resolved? In addition to this difficulty, the Proposal conflicts with the Berne Convention protection term of fifty years from the death of the author or, in the case of anonymous or pseudonymous works, fifty years from the date of public availability.[90] A computer program is most similar to a pseudonymous work, in all except those rare cases where it is authored by a single individual or small group of individuals. The date of availability of a program is therefore the appropriate beginning of the term of protection.

Article 4 of the Directive enumerates the acts which the author can control: reproduction, adaptation, and distribution.[91] Reproduction is defined to include loading the program into the computer, viewing it, and storing it in memory, recognizing that these acts are the usual precursors to making an unauthorized copy. The introductory commentary explains that adaption should be broadly interpreted to include translation, not just modification.[92] The right of distribution is limited by the principle of exhaustion.[93] The wording of the Proposal is ambiguous in that it could be interpreted to mean that the sale of one copy could exhaust the author's rights with respect to all subsequent copies. This is surely not the intent of the Commission and should be clarified.

One significant right that sale of a particular copy of a program would not exhaust under the proposed Directive is the right of the copyright owner to control subsequent leasing and rental of that

88. *See supra* notes 24-28 and accompanying text.

89. *Proposed Directive*, *supra* note 10, art. 7, at 14.

90. Berne Convention art. 7, *reprinted in* 4 NIMMER ON COPYRIGHT, *supra* note 29, at app. 27-6 (Paris); 331 U.N.T.S. at 227 (Brussels).

91. *Proposed Directive*, *supra* note 10, art. 4, at 14.

92. *Id.* at 11.

93. *Id.* art. 4(c), at 14. *See supra* notes 17-23 and accompanying text.

copy.[94] This provision recognizes that a program can easily be copied when it is rented, thus depriving the copyright owner of a sale.

Article 5 of the Directive includes two significant exceptions to the rights granted in Article 4. The seller or licensor of a program will only be able to control subsequent adaptations necessary for the use of a program if this condition is memorialized in a signed writing.[95] For example, adoption of this provision will invalidate certain portions of so-called "shrink-wrap" licenses, by which the "licensee" customers are advised of their rights by a license "agreement" contained within the product package.[96] Although this provision will certainly be opposed by software vendors, the rights granted are consistent with the statutory rights granted to purchasers of programs in the United States whose rights are not further restricted by contract.[97]

The second exception in Article 5 is that the rights of the copyright owner may not be used to restrict the use of a program by the public in nonprofit libraries.[98] Although the motivation behind this exception is laudable, its practical application will require careful policing to ensure that an owner's rights are maintained. The ease of copying a program makes it unlikely that most libraries where users would execute a program would be able to prevent copying.

On the issue of authorship, the proposed directive will vest rights in the author or authors, unless the work is commissioned or created by an employee within the scope of employment, in which case, the copyright would vest in the commissioning party or employer, respectively.[99] Except for a commissioned work, this provision is similar to United States law. Unless the work falls into an enumerated category and the parties agree in writing, copyright in a

94. *Proposed Directive, supra* note 10, art. 4(c), at 14. The United States Copyright Act does not provide this protection for the owners of program copyrights, although it does for the owners of sound recording copyrights. 17 U.S.C. § 109 (amended 1984). Recognizing that copying a program is even simpler than making a tape recording of a phonograph, Congress is currently considering two bills which would provide similar protection for owners of program copyrights. S. 198, 101st Cong., 1st Sess. (1989); H.R. 2740, 101st Cong., 1st Sess. (1989).

95. *Proposed Directive, supra* note 10, art. 5(1), at 14.

96. A shrink-wrap license purports to bind the purchaser. It states that the buyer has only purchased a license to use the copy, not the copy itself, and includes certain restrictions on use. The Commission's rejection of these licenses is reflected in the proposed directive. *Id.* at 12.

97. *See* 17 U.S.C. § 117 (1982).

98. *Proposed Directive, supra* note 10, art. 5(2), at 14. This provision is consistent with the United States Copyright statute regarding rental of phonograph records and the pending bills regarding rental of software. *See supra* note 94.

99. *Proposed Directive, supra* note 10, art. 2, at 14.

commissioned work in the United States vests in the author, not with the commissioning party.[100]

The Proposal also attempts, although in a limited manner, to provide the moral rights guaranteed by the Berne Convention.[101] The prefatory material to the Directive explains that the actual author will continue to have the right to claim paternity, but not the right to integrity of his work.[102] The right to integrity of a work is less relevant with respect to computer programs than other works, since continual modification, upgrading and re-utilization of portions or the entirety of computer programs is standard industry practice.

The Proposal also has some noncontroversial provisions protecting an author from secondary infringements and providing that the proposed copyright rights do not impinge on any other legal rights which may currently exist, such as those provided by patent, trade secret, unfair competition, or contract law.[103]

V. CONCLUSION

The European Economic Community was established with the goal of forging the aggregation of Member States into a single economic entity. Achievement of this goal requires elimination of trade barriers between states, including providing a common set of standards for product developers who wish to market a given product in all Member States. Computer software is a key growth product in the Community, and it is incumbent on the Community's governing bodies to require that the Member States provide consistent and strong intellectual property protection across the Community for the developers of this product.

Although software is currently protected in most Community

100. 17 U.S.C. §§ 101, 201(b) (1982). This result was recently verified by the United States Supreme Court in Community for Creative Non-Violence v. Reid, 109 S. Ct. 2166 (1989).

101. Berne Convention, art. 6 bis, *reprinted in* 4 NIMMER ON COPYRIGHT, *supra* note 29, at app. 27-5 to 27-6 (Paris); 331 U.N.T.S. at 227 (Brussels). The United States accession to the Berne Convention, which is not self-executing and therefore required implementation through specific statutory provisions, does not provide for moral rights. This exclusion will probably be challenged under the Supremacy Clause of the United States Constitution. NIMMER ON COPYRIGHT, *supra* note 29, at COMM-13 to -16 (Special Supp. 1989).

102. *Proposed Directive, supra* note 10, at 9-10.

103. *Id.* arts. 6, 8, at 14-15. The Article 6 provision on secondary infringement provides that articles designed to defeat copy protection imbedded in a program infringe the program copyright owner's rights. A United States circuit court which addressed this issue held that a program designed to defeat copyright protection did not infringe, since it was capable of a substantial non-infringing use, allowing creation of an archival copy as permitted by 17 U.S.C. § 117. Vault Corp. v. Quaid Software Ltd., 847 F.2d 255 (5th Cir. 1988).

States, there is neither a statutory nor case law basis for this protection in four states. Those states which do provide protection do not apply the same standards, particularly regarding the issue of originality, so that a given work may be protected in one state but not in another. This state of affairs is clearly not conducive to the development of a common European market.

The Commission's *Proposal for a Council Directive on Protection for Software* is a significant step towards providing consistent protection for software in the Community. Consistent protection is essential in providing the optimum incentive to develop these increasingly important products. The Proposal establishes a common set of standards for software protection. It sets forth copyright as the appropriate form of intellectual property protection, with programs defined as literary works. It embraces the principles of the Berne Convention and, thus, provides a basis for protection of Community developed programs outside the Community. In attempting to incorporate the desires of those who advocate more open access to software, however, the Proposal has provisions which conflict with traditional copyright principles and the Berne Convention. These provisions are not necessary. Current Community antitrust law provides adequate protection against acts by software authors who abuse the exclusive property rights granted by copyright law.

The modifications suggested in this article eliminate these inconsistencies and provide proper protection for both users and vendors. The other suggested modifications clarify ambiguous portions of the Proposal. Failure to adopt modifications similar to those proposed will greatly weaken the beneficial potential of the Proposal. Incorporation of the modifications should provide a framework for proper protection within the Community and ensure appropriate international protection under the Berne Convention and the Universal Copyright Convention.