CHAPTER 5

Germany

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Germany is the EC Member State which will be influenced by the EC Directive on software protection to the greatest extent. As I will demonstrate below, the Directive will lead to major changes affecting all areas of industry and culture.

PART 1. COPYRIGHT PROTECTION IN GERMANY

1.1. Introduction

1.1.1. The traditional concept of copyright protection

Copyright protection is provided by the Copyright Protection Act ('*Gesetz über Urheberrecht und verwandte Schutzgesetze*') of 9 September 1965[1] which has recently been amended by the Product Piracy Act of 7 March 1990.[2]

According to the Copyright Protection Act, all works of literature, science and art are copyrightable (§ 1(2) Copyright Act) if they represent own intellectual creations ('*persönliche geistige Schöpfungen*') in the sense of Article 2(2). The copyright protection is granted independent of any registration or formalities.

The copyright cannot be transferred to third parties; it represents an inalienable right of the creator (§ 29). Consequently, it is only possible to grant exclusive or non-exclusive licenses on the use of work to third parties (§ 31). These licenses can be closed in any form; no registration procedure is available for them.

Up to 1985, the German Copyright Act contained no regulations for the protection of software. Even the first court decisions on this issue were very uncertain as to whether or not programs were protected by copyright.[3] Therefore, the German legislator amended the Copyright Protection Act on 24 June

1. *Bundesgesetzblatt* 1965, I 1273.
2. *Bundesgesetzblatt* 1990, I 422.
3. *Cf.* Landgericht Mannheim, Judgment of 12 June 1981, 7 O 143/81, *BB* 1981, p. 1543; Landgericht Kassel, Judgment of 21 May 1981, 8 O 84/80, *BB* 1983, p. 992; OLG Karlsruhe, Judgment of 9 February 1983, 14 U 4/81, *BB* 1983, p. 994. For further references *cf.* Loewenheim, in: Schricker, *Urheberrecht*, Munich 1988, § 2 Note 74.

1985[4] to the effect that 'programs for data processing' are copyrightable in the same manner as are literary works.[5]

1.1.2. The 1989 report

In Summer 1989, the German Government published its report on the effects of the Copyright Act 1985.[6] This report was influenced by the EC Commission's plans for a new Directive on the Protection of Software and tried to illustrate how these plans may be transferred into German copyright law. The Government proposed to create a new neighbouring right for software for computer programs[7]: '*Such a neighbouring right does not depend on a certain standard of creativity and may offer exclusive rights of distribution and reproduction as well as protection against alteration.*'[8]

As Kindermann has already pointed out,[9] this proposal was insufficient. The creation of a new neighbouring right would imply a shorter term and a limited scope of software protection.[10] Besides, this proposal was incompatible with international trends in the WIPO,[11] GATT,[12] AIPPI[13] and the EC Commission,

4. *Bundesgesetzblatt* 1985, I 1137.
5. *See* § 2(1), '*Zu den geschützten Werken der Literatur, Wissenschaft und Kunst gehören insbesondere: 1. Sprachwerke, wie Schriftwerke und Reden, sowie Programme für die Datenverarbeitung (. . .).*'

   Apart from the copyright debate, the German courts have recently broadened the way for patent protection of software. *See* the Federal Supreme Court, 4 February 1992, X ZR 43/91 ('*Tauchcomputer*'), *Computer und Recht* 1992, p. 600. For further details *see* Manfred Kindermann, 'Softwarepatentierung. Stand der Rechtsprechung des BGH und EPA,' *Computer und Recht* 1992, pp. 577 *et seq.*
6. *Bundestags-Drucksache* 11/4929.
7. *See* Chapter II, Section E, pp. 40 *et seq.*
8. '*Ein solches Leistungsschutzrecht stellt keine Anforderungen an die Werkhöhe und kann ausschließliche Rechte der Verbreitung und Vervielfältigung sowie einen Schutz gegen Veränderung bieten.*' *Bundestags-Drucksache* 11/4929, p. 43 (author's translation). This proposal was supported by Dietz, *UFITA* 1989, pp. 72 *et seq.*
9. *Cf.* Kindermann, 'Urheberrechtsschutz von Computerprogrammen' (Copyright Protection of Computer Programs), *Computer und Recht* 1989, pp. 880 *et seq.*
10. *See* §§ 85(2), 87(2), 94(3) German Copyright Act; Sections 12(3), 13(3), 14(2) and 15(2) United Kingdom Copyright Act. *Cf.* Dietz, *UFITA* 1989, p. 71.
11. For the WIPO *see* the Memorandum prepared by the International Bureau in July 1991, WIPO/BCP/CE/I/2 and the Report of the First Session of the Committee of Experts on a Possible Protocol to the RBC, Geneva, November 1991, WIPO/BCP/CE/I/4. For a general study on the applicability of the Revised Berne Convention on software, *see* § 8.03 in Keustermans/Arckens (eds.), *International Computer Law*, New York, 1992.
12. *See Basic Framework of GATT Provisions on Intellectual Property, Statements of Views of the European, Japanese and United States Business Communities*, Brussels 1988. *See U.S. Proposal for Negotiations of Trade-Related Aspects of Intellectual Property Rights, Software Protection*, January 1988, pp. 14 *et seq.*

which have all been in favour of a copyright protection of software. Therefore, the Government withdrew its plans for a Copyright Amendment Act until the EC Directive on software protection came into force.

1.1.3. The proposal and bill for a Copyright Protection Amendment Act

In April 1992, the Ministry of Justice published a first proposal for a Copyright Protection Amendment Act.[14] This proposal was not to be regarded as an official paper; according the ministry, it was meant to be a first discussion paper. The ministry invited about sixty organizations to a hearing on the paper on 7 May. Additionally, written statements could be submitted to the ministry until 15 May; a lot of criticism had been published on the proposal at the time.[15]

On 19 June 1992, the Ministry of Justice edited the first bill of a *Second Act for the amendment of the Copyright Act*.[16] In November 1992, the Ministry issued its final bill. The Bill was sent to Parliament for further debate,[17] and the subsequent Act entered into force on 24 June 1993.[18]

In general, the Ministry of Justice's papers are a simple translation of the Directive into German. There are only a few differences between the EC Directive text and the German proposal. This aspect has, however, been critized in advance by Willi Erdmann who is one of the judges within the first (copyright) senate of the Federal Supreme Court.[19] Erdmann held that the transformation of the EC Directive in general should be left to the courts. This idea is contradictory to Article 10 of the Directive which obligates all Member States

13. *See* 'Recordings of the AIPPI World Congress 1989 in Quebec,' *L'informatique et le droit d'auteur*, Cowansville 1990, pp. 11 *et seq.*
14. Reprinted in *Computer und Recht* 1992, 383–384 = *IuR-PC aktuell* 5/1992, pp. 1 *et seq.*
15. *Cf.* Michael Lehmann, 'Das neue deutsche Softwarerecht' *Computer und Recht* 1992, pp. 324–328.; Jochen P. Marly, 'Stellungnahme zum Diskussionsentwurf des Bundesjustizministeriums zur Änderung des Urheberrechtsgesetzes,' *Iur-PC* 1991, pp. 1620–1626; Manfred Broy and Michael Lehmann, 'Die Schutzfähigkeit von Computerprogrammen nach dem neuen europäischen und deutschen Urheberrecht – eine interdisziplinäre Stellungnahme,' *GRUR Int.* 1992, pp. 419 *et seq. Cf.* the proposal for a transformation act made by the Bundesverband Deutscher Unternehmensberater e.V. (BDU) in November 1991.
16. *Referentenentwurf für ein 'Zweites Gesetz zur Änderung des Urheberrechtsgesetzes', Stand: 19. Juni 1992*. The Bill contains the new regulations together with a detailed explanatory memorandum (referred to below as '*Explanatory memorandum*').
17. *Bundestags-Drucksachen* 12/3320 and 12/4022; *see* the notice in *Zeitschrift für Rechtspolitik* 1992, pp. 444 *et seq.* Dieter Schulte who describes himself as 'co-author' of the Bill has commented upon it in his article 'Der Referentenentwurf eines Zweiten Gesetzes zur Änderung des Urheberrechts,' *Computer und Recht* 1992, pp. 649 *et seq.*
18. Second Act on the Amendment of the Copyright Act ('*Zweites Gesetz zur Änderung des Urheberrechtgesetzes*'), *Bundesgesetzblatt* 1993 I, pp. 910 *et seq.*
19. *See* Erdmann and Bornkamm, 'Schutz von Computerprogrammen,' *GRUR* 1991, pp. 877, 880.

to change their statutes in accordance with the new system of software protection.

According to the Bill, software protection should be dealt with in a special section within the German Copyright Act (§§ 69a-69g). This conception is better than dealing with software in various parts of a copyright act, as is the case in Denmark.[20]

The ministry expressly states that the regulations of the EC Directive are not fully compatible with German copyright law. It seemed to be necessary to demonstrate this incompatibility by the introduction of a special chapter on software protection in the German Copyright Protection Act. The Ministry of Justice was afraid that otherwise the regulations on software protection may influence the traditional copyright law.

1.2. The Object of Protection

The legal gaps produced by German courts and legislation with regard to software protection has been one of the main reasons for the development of the EC Directive. The decisions of German courts on object of software protection especially have caused a lot of problems within Europe. Therefore, it is necessary to explain these decisions (a) before dealing with the changes in the EC Directive and (b) the new Bill.

1.2.1 The traditional scope of software protection

1.2.1.1. The decisions Inkassoprogramm and Betriebssystem

Up to the EC Directive, the courts had applied restrictive measures to decide whether a single computer program represents an own, intellectual creation according to § 2(2).

The first senate of the Federal Supreme Court has created a two-step test to define the individuality and creativity of a program.[21] Step one, the program in question has to be compared to similar programs in order to gauge its distinctions of selection, collection, arrangement, and division of information and statements. Step two, the distinctions of the computer program must reach far

20. *See* §§ 1(2), 11(2), 11a, 23(1) and (2), 42a, 42b of the Danish *Lov om ophavsretten til litterære og kunstneriske værker*. *Cf.* Arnadottir, 'Datenverarbeitung und Urheberrecht in Dänemark. Die erste nordische Urheberrechtsnovelle im Vergleich,' *GRUR Int.* 1990, pp. 290 *et seq.* *See also* Andersen and Schønning in the chapter on Denmark.

21. Decision of the Bundesgerichtshof of 9 Mai 1985 (I ZR 52/83), *BGHZ* 94, p. 276 = *Computer und Recht* 1985, p. 22 = 17 *IIC* 1986, p. 681 (English translation).

See the judgment of the Oberlandesgericht Frankfurt of 6 November 1984, *Computer und Recht* 1986, p. 13; this court has tried to describe the conditions for copyright protection of software in a different way, with the approval of the Bundesgerichtshof

beyond the skills of an average programmer (*'Überdurchschnittlichkeit'*), otherwise the program is not copyrightable. Software consisting mainly of common and publicly-available elements is held to be uncopyrightable. Consequently, software piracy may only be prosecuted if an expert opinion proves that the form of a pirated program is above-average.[22]

1.2.1.2. Uncopyrightable software components

Additionally, some elements of a computer program have been held to be uncopyrightable *per se*:

— Computer programs 'created' by software generating programs do not enjoy any copyright protection.[23]
— Ideas and principles underlying a program are not protected by copyright. Only the form of a software product, i.e. the structure and arrangement of its source code, may be copyrightable. Consequently, the algorithm and the interfaces used by a program are free to be copied by other parties.[24]
— The object code of a program is regarded as being no original work within the frame of the Copyright Protection Act. In literature, it has been discussed defining the object code as a reproduction, translation or adaptation of the source code.[25]
— Up to now, three courts[26] have held that screen displays are not protected by copyright ('look and feel').[27] The judges stated that a screen display or the arrangement of commands cannot constitute a personal intellectual

22. *Cf.* Oberlandesgericht Frankfurt, Judgment of 20 April 1989, *NJW* 1989, p. 2631 = *GRUR* 1989, p. 678 = *Computer und Recht* 1989, p. 905; Oberlandesgericht Hamm, Judgment of 27 April 1989, *Computer und Recht*, p. 592.

23. LG Düsseldorf, *Informatik und Recht* 1988, p. 206; Moritz/Tybussek, *Computersoftware*, 2nd. ed. Munich 1992, Note 193; Redeker, *Der EDV-Prozeß*, Munich 1992, Note 17.

24. *See* Wenzel, 'Problematik des Schutzes von Computer-Programmen,' *GRUR* 1991, pp. 105 *et seq.*; Pilny, 'Schnittstellen in Computerprogrammen, Zum Rechtsschutz in Deutschland, den USA und Japan,' *GRUR* 1990, p. 431 at p.437; Von Hellfeld, 'Sind Algorithmen schutzfähig?' *GRUR* 1989, pp. 471 *et seq.*

25. *Cf.* Walburga Kullmann, *Der Schutz von Computerprogrammen und -chips in der Bundesrepublik Deutschland und den USA*, Berlin 1986, pp. 91 *et seq.*; M. Michael König, *Das Computerprogramm im Recht*, Cologne 1991, pp. 139 *et seq.*

26. Kammergericht, Judgment of 13 February 1987 (5 U 4910/84), *Computer und Recht* 1987, p. 850; Landgericht Hamburg, Judgment of 22 July 1988 (74 0 253/88), *Computer und Recht* 1989, p. 697 = *NJW* 1990, p. 1610; Landgericht Nürnberg-Fürth, Judgment of 16 May 1991 (1 HKO 0 3060/90), *Computer und Recht* 1993, p. 145 with a comment by Ralf Jersch.

27. *See* Jersch, *Ergänzender Leistungsschutz und Computersoftware*, Munich 1993, pp. 106 *et seq.*; Hoeren, 'Look and Feel im deutschen Recht,' *Computer und Recht* 1990, pp. 22 *et seq.*; Heymann, 'Look and Feel – juristisch gesehen,' *PC-Woche* of 23 February 1987. For the first 'Look & Feel' case in the United Kingdom (*John Richardson Computers* v. *Flanders and Chemtec* of 19 February 1993) *see* Vanessa Marsland, '"Look & Feel" case,' *Computers and Communications Bulletin* March 1993, p. 1.

creation according to § 2(2) Copyright Act especially since their structure is almost dictated by externalities.[28] Additionally, these elements have been regarded by the court as a mere means of the computer program so that they cannot, separate to the program, be protected under copyright law. As an alternative, the courts tend to decide look and feel cases on the basis of the Unfair Competition Act (*UWG*).

1.2.1.3. Computer games

With regard to computer games, several courts[29] stated that these games are protectable as videograms (*'Laufbildschutz'*; § 95 of the Copyright Act), even if they do not constitute original works.[30] Recent studies have demonstrated that computer games created in foreign countries are not protected as videograms under the German copyright Act.[31]

1.2.1.4. Criticism

These rules have been widely criticized in national and international literature[32]:

28. A similar line of argument may be found in the U.S. decision *Plains Cotton Cooperative Ass'n v. Goodpasture Computer Serv. Inc.*, 807 *F.2d* 1256, 1262 (5th Cir 1987).
29. Oberlandesgericht Karlsruhe, Judgment of 9 September 1986 (6 U 267/85), *Computer und Recht* 1986, p. 723; Landgericht Hannover, Judgment of 28 October 1987 (18 O 58/87), *Computer und Recht* 1988, p. 826; Landgericht Braunschweig, Judgment of 13 November 1990 (9 0 92/90), *Computer und Recht* 1991, p. 223. *See* Schroeder, 'Recent German Case Law on Copyright Protection of Video Games,' *EIPR* 1985, pp. 19 *et seq.*

    Some courts, however, still refuse to accept the copyrightability of computer games making no reference to § 95 of the Copyright Act; *see* Oberlandesgericht Frankfurt, Judgment of 13 June 1983 (6 W 34/83), *GRUR* 1983, p. 753 (*'Pengo'*); Judgment of 21 July 1983 (6 U 16/83) *GRUR* 1983, p. 757 (*'Donkey Kong junior'*); Judgment of 4 August 1983 (6 U 19/83), *GRUR* 1984, p. 509 ('Donkey Kong junior II'); Landgericht Münster, Judgment of 4 October 1988 (7 Qs 58/88 III), *Computer und Recht* 1989, p. 927; Judgment of 18 October 1988 (7 Qs 56/88 I), *Computer und Recht* 1989, p. 928 commented by Etter.
30. *See* Syndikus, 'Computerspiele und Urheberrecht,' *Computer und Recht* 1988, pp. 819 *et seq.*; Gravenreuth, 'Computerspiele und Urheberrecht,' *Computer und Recht* 1987, pp. 161 *et seq.*; Hoeren, 'The protection of software in the Federal Republic of Germany – recent developments,' *Computer Law & Practice* 1990, p. 134.
31. *See* Katzenberger, 'Kein Laufbildschutz für ausländische Videospiele in Deutschland,' *GRUR Int.* 1992, pp. 513 *et seq.* This opinion has now been approved by the decision of the Oberlandesgericht Frankfurt of 6 August 1992 (6 U 69/92), *Computer und Recht* 1993, p. 29.
32. *See* generally Bauer, 'Rechtsschutz von Computerprogrammen in der Bundesrepublik Deutschland,' *Computer und Recht* 1985, pp. 5 *et seq.*; Haberstumpf, 'Grundsätzliches zum Urheberrechtsschutz von Computerprogrammen,' *GRUR* 1986, pp. 222 *et seq.*; Junker, 'Die Entwicklung des Rechtsschutzes für EDV-Leistungen in den Jahren 1988 und 1989,' *NJW* 1991, pp. 2117 *et seq.*; Jochen Marly, *Softwareüberlassungsverträge*, Munich 1991, pp. 40 *et seq.*; Röttinger, 'Abkehr vom Urheberrechtsschutz für Computerprogramme?,' *Informatik und Recht* 1986, pp. 12 *et seq.*; Schroeder, 'Copyright in Computer Programs – Recent Developments in the Federal Republic of Germany,' *EIPR* 1986, pp. 88 *et seq.*

- The application of these rules results in about 90% of software being unprotected against piracy.
- The extensive protection of computer games leads to a preposterous legal situation. Whereas expensive commercial software may be copied without the consent of the author, each computer 'kid' copying a computer game may be prosecuted as copyright infringer.

1.2.2. Legal changes

1.2.2.1. Software as literary work

Article 1 of the Directive states that the EC Member States shall protect computer programs as literary works by copyright within the meaning of the Revised Berne Convention (*RBC*). This reference to the RBC is made to underline that the international copyright law has to be applied to computer programs, too.

The Act does however not expressly state that computer programs have to be regarded as literary works. According to § 1(1) of the Act, § 2 of the Copyright Act shall be amended to the effect that *'Sprachwerke, wie Schriftwerke, Reden und Computerprogramme'* should be protected under copyright. The Bill regards computer programs as *'Sprachwerke'* (works of language) and as different from *'Schriftwerke'* (literary works). This terminology demonstrates the (characteristically German) problem of classifying software within the copyrightable works.[33]

1.2.2.2. Definition of software

The Bill expressly defines software as being *'computer programs in any form and including their preparatory design material'* (§ 69a(1)). This definition corresponds with Article 1(1) of the Directive and the definition of software in the Directive's recital. The Ministry has as yet omitted a special reference to 'programs integrated in hardware' which was part of the proposal.

In accordance with the EC Directive, the protection granted by the Bill shall apply to any form of expression of the computer program (§ 69a(2)).

Consequently, the new Copyright Act will extend to the object code and the source code in the same way. Some authors have held that copyright protection can only granted to the source code, but not to the object code being a mere

33. *See* Jochen Marly, 'Stellungnahme zum Diskussionsentwurf des Bundesjustizministeriums zur Änderung des Urheberrechtsgesetzes (Teil 1),' *Jur-PC* 1992, p. 1620 at pp. 1622 *et seq.*; Eike Ullmann, 'Urheberrechtlicher und patentrechtlicher Schutz von Computerprogrammen,' *Computer und Recht* 1992, p. 641

technical transformation of the source code.[34] This opinion will be overruled with the enactment of the Amended Copyright Act.

1.2.2.3. Excluded objects

Ideas and principles which underlie any element of a computer program, including those which underlie its interfaces, are not protected (§ 69a(2)).

This statement only repeats a general principle of copyright law. The idea of a work is unprotectable whilst the expression and the 'form' of an idea may be granted protection. It is however very complicated to make a clear distinction between idea and expression; many authors tend to refute this distinction as being unclear and ambiguous. In my view, the 'idea/expression dichotomy' has its origin in the Platonic conception of incorporal, pure ideas. This conception has already been successfully disproved by Aristoteles when he proved that idea and expression cannot be separated, but that they form an inseparable unit (theory of *hylemorphism*). However, the German Minister of Justice leaves this difficult problem to be solved by the courts.[35]

In accordance with the EC Directive, the Act states that the principles underlying the 'interfaces' of a program are not protected (§ 69a(2)). The Bill contains no definition of the term 'interface.' The Minister of Justice only hinted at the recital to the EC Directive which defines 'interfaces' as being '*the parts of the program which provide for (. . .) interconnection and interaction between elements of software and hardware.*'

However, this statement in § 69a(2) leads to many difficult problems. Parallel to the EC Directive, the Act's text makes no reference to programming languages and algorithms. It is very unclear why the EC Commission has omitted these items. Only the recital refers to these topics by stating that the ideas and principles underlying the 'logic, algorithms and programming languages' are not protected under the Directive. This (non-binding) statement may only be interpreted to the, astonishing, effect that algorithms and programming languages themselves are copyrightable.[36]

34. Kullmann, *Der Schutz von Computerprogrammen und -chips*, *op.cit.* (note 25), p. 92 at p. 94; Waltl, *Geschützte und nicht geschützte Computerprogramme*, Diss. Berlin 1990, pp. 74 *et seq.*

35. *Explanatory memorandum*, p. 18. Dieter Schulte has yet stated that any deviation from the idea-expression dichotomy has to be regarded as irrational; *cf.* Schulte *op.cit.* (note 17), *Computer und Recht* 1992, p. 648 at p. 649. This statement is not explained by Schulte; he is only referring to another author (Hellfeld, *GRUR* 1989, p. 471 at p. 473).

36. A different view has been taken by Felix Thomann, *Grundriss des Softwareschutzes*, Zürich 1992, p. 9, footnote 31. Thomann states (without any argument) that algorithms and programming languages are not protected under the EC Directive. It is amazing to read that Eike Ullmann (Judge at the first senate of the Federal Supreme Court) is using the same argument; *cf.* Ullmann, *op.cit.* (note 33), *Computer und Recht* 1992, p. 641 at p. 642.

1.2.2.4. Standard of originality

Unlike Denmark, France, The Netherlands and Great Britain, the German Government has decided to include a definition of originality in its Bill. According to § 69a(3) of the Bill, computer programs are protected if they are individual works in the sense that they are the result of the author's own intellectual creation; to determine its eligibility, no other criteria, especially no qualitative or aesthetic tests, should be applied.

a. Differences with the EC Directive

This standard of originality is slightly different from the EC Directive. Article 1(3) of the Directive defines the originality required for copyrightability of software as follows, '*A computer program shall be protected if it is original in the sense that it is the author's own intellectual creation. No other criteria shall be applied to determine its eligibility for protection.*'

It is very easy to recognize that Article 1(3) of the Directive contains no reference as to the qualitative or aesthetic merits of a program. This peculiar element in the German Bill has been taken from the recital to the Directive which expressly states that '*no tests as to the qualitative or aesthetic merits of the program should be applied.*' However, the text of the recitals is not legally binding and need not be implemented in the Member States. The EC Commission obviously did not want the prohibition of qualitative or aesthetic tests to become legally binding. Why has the German Ministry of Justice decided to contradict this decision and implement parts of the recitals?

b. The German problem of understanding Article 1(3) of the Directive

Germany has many problems with Article 1(3) of the Directive. According to the Directive, a program will only be protected if it represents the 'own intellectual creation' of an author. This is exactly the same definition which the German Copyright Act formulates in § 2(2). A work is said to be original under this Act if it is a '*persönliche*' (own), '*geistige*' (intellectual) '*Schöpfung*' (creation). The German Federal Court stated that this 'average programmer' test mentioned above constitutes the adequate way of deciding whether a computer program is an 'own intellectual creation' or not. Therefore, Article 1(3) of the Directive *per se* would not force the German Federal Supreme Court to change its restrictive jurisdiction on the copyrightability of software.[37]

c. The recitals to the EC Directive and the German Bill

German computer lawyers have pointed out that a prohibition of qualitative or aesthetic tests would be detrimental to changing the jurisdiction of the German

37. *Cf.* Frank A. Koch and Peter Schnupp, *Software-Recht*, Berlin 1991, p. 35; Thomas Hoeren, 'The EC directive on software protection – a German comment,' *Computer Law & Practice* 7 (1991), pp. 246 *et seq.*

Federal Court.[38] The 'average programmer' test is based upon the idea that copyrightable software has to meet very high standards of quality. This idea is contradictory to a concept of copyright which forbids any qualitative or aesthic standards. This new concept indicated in the recitals to the EC Directive has the effect that any trivial, banal and commonplace software would be protected by copyright.

The German Ministry of Justice tries to use this new concept in order to overcome the courts and their reluctance to grant copyright protection for software. With the implementation, the legal situation changed totally. Any software producer will be able to claim the copyrightability of his products. Software piracy in any form will be prosecuted, with no difference between:

— commercial and private use of the pirated copy;
— computer games, standard or customized software.

d. The content of the term 'qualitative'

However, the terminology of the Act is very vague and ambiguous. On the one hand, § 69a(3) prohibits the use of qualitative or aesthetic criteria to test the copyrightability of software. But on the other hand, the Act does not define the terms 'qualitative' or 'aesthetic.' What does the legislator regard as 'non-qualitative'? Does 'non-qualitative' mean 'quantitative'? But how can one check the copyrightability of a program in a quantitative manner?[39]

The first comments on the Bill[40] state that § 69a(3) refers to the *'kleine Münze'* (small change) of copyright protection. The idea of the *'kleine Münze'* was developed by several courts at the beginning of this century.[41] They had held that telephone books, collections of recipe and pricing lists can be protected under copyright if

— their form and way of gathering facts include some individual and creative elements and
— these elements are not commonplace and banal.

However, the concept of the *'kleine Münze'* is linked with aesthetic and qualitative elements, too. In order to determine the banality of a program, it is necessary to qualify its creative elements. Therefore, the Bill does not allow reference to the *'kleine Münze.'* Each trivial computer program is copyrightable if it includes one individual element.

38. *See* Thomas Heymann, 'Softwareschutz nach dem EG-Richtlinienentwurf,' *Computer und Recht* 1990, pp. 10 *et seq.*
39. *Cf.* the detailed study of A.A. Quaedvlieg, *Auteursrecht op techniek*, Zwolle 1987, pp. 3 *et seq.*
40. *Cf.* Broy/Lehmann, *op.cit.* (note 15), *GRUR Int.* 1992, p. 421; Ullmann, *op.cit.* (note 33), *Computer und Recht* 1992, pp. 642–643. Marly, *op.cit.* (note 33), *Iur-PC* 1992, p. 1625 proposed that the term 'own intellectual creation' should be defined in the new act as 'being not copied and result of skill and efforts.' This text is obviously contrary to the articles of the EC Directive.
41. *See* the list of references in Gernot Schulze, *Die kleine Münze und ihre Abgrenzungsproblematik bei den Werkarten des Urheberrechts*, Freiburg 1983, pp. 13 *et seq.*

e. Comparison with the Anglo-American standard

Most comments on the Directive support the *opinio communis* that the definition of originality in the Directive has been influenced by the Anglo-American copyright system excluding any qualitative test for originality.[42] This view is, however, wrong. Of course, all works which originate from the author and have not been copied are protected under American copyright law.[43] But, additionally, the work must not be 'trivial.' In the famous decision *Bleistein* v. *Donaldson Lithography Co.*,[44] Mr. Justice Holmes stated that qualitative criteria should not be applied to copyright *'outside of the narrowest and most obvious limits.'* That is the reason why a lot of U.S. decisions denied the copyrightability of a work because of its triviality or the absence of creativity.[45]

This view has been supported even by the U.S. Supreme Court in its recent decision on *Feist Publications Inc.* v. *Rural Telephone Service Co. Inc.*[46] The judges stated that originality *'necessitates independent creation plus a modicum of creativity.'*[47] The court emphasized in this decision that a work may only be regarded as copyrightable if *'it possesses at least some minimal degree of creativity.'*[48] Therefore, the Supreme Court held that a compilation of facts is not protected by copyright if it is obvious and commonplace.[49]

The same situation may be found in Great Britain. As in the United States, the British courts refused copyright protection to works consisting of commonplace material.[50] The judges had always stated that copyrightability depended upon a substantial or sufficient effort and skill expended by the author on his

42. *See* for instance Harry Small, 'The EC's draft directive on the protection of computer software,' (1989) 3 *IPB Review*, p. 24; Nicholas Higham, 'Software protection versus interoperability,' *The Law Society's Gazette*, Nr. 9, 6 March 1991, p. 27.
43. *Cf. Alfred Bell & Co.* v. *Catalda Fine Arts, Inc.*, 191 *F.2d* 99, 102 (2d Cir., 1951). *See also* § 7.49 in Keustermans and Arckens (eds.), *International Computer Law*, New York 1992.
44. 188 *US* 239, 250 (1903).
45. *See Consumer Union of United States, Inc.* v. *Hobart Mfg. Co.* 199 *F.Supp.* 860 (S.D.N.Y. 1961); *Tate Co.* v. *Jiffy Enterprises Inc.* 16 *FRD* 571 (E.D. Pa. 1954); *Kanover* v. *Marks*, 91 *USPQ* 370 (S.D.N.Y. 1951); *Smith* v. *Muehlebach Brewing Co.*, 140 *F.Supp.* 729 (S.D. Mo. 1956).
46. Decision of 27 March 1991, 18 *USPQ2d* 1275. The decision has been reprinted in Egbert J. Dommering and P. Bernt Hugenholtz (eds.), *Protecting works of fact*, Deventer 1991, pp. 97 *et seq.* For a detailed study on the effects of this decision *cf.* Sylvia Khatcherian, *The position of database providers in the United States following the Supreme Court Decision in Feist Publications, Inc. v. Rural Telephone Service Co.*, Paper presented at the 10th Biennial Conference IBA, Hongkong, 2 October 1991, pp. 4 *et seq.*
47. 18 *USPQ2d* 1276.
48. 18 *USPQ2d* 1278.
49. 18 *USPQ2d* 1276; *cf.* the decision of the Second Circuit of 23 September 1991 (*Key Publications, Inc.* v. *Chinatown Today Publishing Enter., Inc.*, No. 91–7235).
50. *Cf. MacMillan & Co. Ltd.* v. *Cooper (K.& J.)* (1923) 40 *TLR* 186; *G.A. Cramp & Sons Ltd.* v. *Frank Smythson Ltd.* (1944) *AC* 329; *Exxon Corporation* v. *Exxon Insurance Consultant International Ltd.* (1982) *Ch* 119; *Independent Television Publications Ltd.* v. *Time Out Ltd.* (1984) *FSR* 64.

creation of the work.[51] Therefore, the South African Supreme Court argued in 1982[52] that there could be no copyright in a computer program which was 'too trivial.'

These considerations show that a minimum of qualitative or aesthetic merits is necessary to grant copyright protection even according to the Anglo-American copyright law; otherwise, any four-lined BASIC program written by a schoolboy has to be regarded as copyrightable. Therefore, the Green Paper defined the originality by using a lower threshold of qualitative criteria: '*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.*'[53] With the EC Directive and its implementation, it is as yet impossible to use any qualitative test, although a sole non-qualitative test of originality is also impossible.

1.3. The Subject of Protection

1.3.1. Traditional regulations

The copyright tradition in Continental Europe has enumerable problems with the development of works in employment relationships.[54] Since the French revolution, it has been regarded as an inalienable right of mankind to express its creativity in original works. Therefore, the creator of a work is designated as the rightholder even if he has been employed to produce the work. In addition, the German Copyright Act does not recognize legal entities as rightholder.

Consequently, the employee is, in principle, regarded as the copyright owner according to German copyright law. Contractual limitations to this principle are invalid. On the contrary, the employer acquires no copyright in the software although he may have engaged his employee to create computer programs.

However, the employer has to be granted rights for software to the extent to which the purpose of the employment contract requires, save in the case of an express agreement to the contrary (§ 31(5)) referring to the so-called '*Zweckübertragungstheorie*').[55] It has been discussed very controversially how this

51. *See Dutt (S.K.)* v. *Law Book Co.* (1954) *Al.J.* 125; *Gouindan* v. *Gopalakrishna Kone* (1955) *Mad.W.N.* 369.
52. *Northern Office Mirco Computers* v. *Rosenstein* (1982) *FSR* 124.
53. COM (88) 172 final, S. 200 (Rdn. 5.8.2.). *See* Cees van Rij, 'EEC Green Paper,' *International Media Law* 6 (1988), p. 75 at p. 76; Adrian Sterling, 'EC Green Paper on Copyright,' *Computer Law & Practice*, November/December 1988, p. 64 at pp. 65 *et seq.*
54. *See* Michel Vivant, 'Copyrightability of Computer Programs in Europe,' in: A.P. Meijboom and C. Prins (eds.), *The Law of Information Technology in Europe 1992*, Deventer 1991, p. 103 at p. 110.
55. *Cf.* Bundesarbeitsgericht, Judgment of 13 September 1983 (3 AZR 371/81), *GRUR* 1984, p. 429; Bundesgerichtshof, Judgment of 22 February 1974 (I ZR 128/72), *GRUR* 1974, p. 480. *See* Herbert Buchner, 'Der Schutz von Computerprogrammen im Arbeitsverhältnis,' in: Michael Lehmann (ed.), *Rechtsschutz und Verwertung von Computerprogrammen*, Cologne 1988, Part XI, pp. 266 *et seq.*; Günther Holländer, *Arbeitnehmerrechte in Software*, Bayreuth 1991, pp. 122 *et seq.*; Rolf Sack, 'Computerprogramme und Arbeitnehmer-Urheberrecht,' *BB* 1991, pp. 2165 *et seq.* with further references.

principle may be applied to the software market. Meanwhile, a kind of *opinio communis* has been established focusing on the following items:

— If an employee has primarily been charged with the development of computer programs, the employer has a right to be granted an exclusive license to exploit the created software commercially.[56]
— An employee may produce a computer program during an employment relationship although he has not been appointed as software developer. In this situation the employer may demand a single license to use the software in his business.[57] It is, however, doubtful if the employer may additionally exploit the software commercially.[58]
— An employee is free to use and exploit software which has been produced outside of working hours. It has, however, been discussed if certain regulations of patent law should be applied to this case by analogy.[59] This discussion is based on the fact that an employee who has made an invention during his free time has to offer a patent license to his employer (§ 19 of the '*Arbeitnehmererfindungsgesetz*'[60]).
— The employer has no rights in software which has been developed before an employment contract has been entered into or after the contract has been terminated.[61] A software developer must not, however, stop the creation of a program in order to terminate his employment contract and exploit the program for his own; otherwise the employer will be given an exclusive license although the program has been developed independent of the employment relationship.[62]

56. *Cf.* Oberlandesgericht Karlsruhe, Judgment of 27 May 1987, *Computer und Recht* 1987, p. 763; Landesarbeitsgericht Munich, Judgment of 15 May 1986, *Computer und Recht* 1987, p. 509; Landesarbeitsgericht Schleswig-Holstein, Judgment of 24 June 1981, *BB* 1983, 994; Oberlandesgericht Koblenz, Judgment of 13 August 1981, *BB* 1983, p. 992.
57. *Cf.* Bundesgerichtshof, Judgment of 9 May 1985, *Computer und Recht* 1985, p. 22.
58. *Cf.* Koch, 'Urheberrechte in Computerprogrammen im Arbeitsverhältnis,' *Computer und Recht* 1985, p. 89; Herbert Buchner, 'Der Schutz von Computerprogrammen im Arbeitsverhältnis,' in: Michael Lehmann (ed.), *Rechtsschutz und Verwertung von Computerprogrammen*, Cologne 1988, p. 273.
59. *Cf.* Buchmüller, *Urheberrecht und Computersoftware*, Münster 1987, p. 99; Henkel, 'Beteiligung eines Arbeitnehmers an der wirtschaftlichen Verwertung der von ihm entwickelten Software,' *BB* 1987, pp. 836–837.
60. Gesetz über Arbeitnehmererfindungen of 25 July 1957, *Bundesgesetzblatt* 1957 I, p. 756. *Cf.* Junker, *Computerrecht*, Baden-Baden 1988, pp. 238–241.
61. Bundesgerichtshof, 10 May 1984 (I ZR 85/82), *GRUR* 1985, p. 129; Landesarbeitsgericht Munich, Judgment of 16 May 1986 (4 Sa 28/86), *Recht der Datenverarbeitung* 1987, p. 145.
62. Federal Supreme Court, 21 October 1980 (X ZR 56/78), *NJW* 1981, p. 345.

— The employee has no right to royalties for the use of his software by his employer because he has already been paid his wages for the development of the program.[63] It may only be considered to grant extra remuneration to an employee whose wages have become disproportionately small compared to the economic success of his software (*'Sonderleistungstheorie'*).[64]
— The inalienable 'moral' rights are always left with the employee. These rights include the right to be named as author and the right to modify the software (§ 39).

This legal situation is very unfortunate for the employer – especially in comparison with the Anglo-American copyright system where the employer holds the authorship of all works created by an employee in the execution of his duties.

1.3.2. The new regulations

The EC Directive on software protection has, however, led to an adaptation of the German law towards the Anglo-American attitude.[65] According to the Ministry of Justice, Article 2(1) and (2) and Article 3 of the Directive do not require being implemented into German law.[66] As mentioned above, the traditional Copyright Act already contains a provision whereby the author of a work shall be the natural person or the group of natural persons who have created the work. The German legislative bodies do yet not wish to accept legal persons as authors.

In § 69b(1), the Act deals with the copyright in employment cases. If a computer program is created by an employee in the execution of his duties or by following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights[67] in the program so created, unless otherwise provided by contract. This regulation must also be applied in employment contracts governed by public law (§ 69b(2)).[68]

This provision leads to a major change in the German Copyright Act. The employer will be granted all economic rights even if his employee has not been

63. Landesarbeitsgericht, 16 May 1986 (4 Sa 28/26), *Recht der Datenverarbeitung* 1987, p. 145.
64. Bundesarbeitsgericht, 30 April 1965, *GRUR* 1966, p. 88. The academic literature is supporting this idea with reference to § 36 of the Copyright Act; *cf.* Fromm/Nordemann/Vinck, *Urheberrecht*, 7th ed. Stuttgart 1988, Sect. 36 Note 4.
65. *See* Article 2(3) of the Directive: *'Where a computer program is created by an employee in the execution of his duties or following the instructions given by his employer, the employer exclusively shall be entitled to exercise all economic rights in the program so created, unless otherwise provided by contract.'*
66. Explanatory Memorandum, p. 21.
67. The Ministry of Justice pointed out the problem of translating 'economic rights' into German. This (vague) term may be translated as *'wirtschaftliche Rechte'* (this wording has been used in the proposal) or as *'vermögensrechtliche Befugnisse'* (as used in the draft).
68. This section has been part of the proposal. I suppose it was integrated in the Bill due to a proposal of Marly, *Jur-PC* 1992, p. 1626.

appointed as a full-time software developer. In addition, he will not have to demand his rights (even in front of a court) but he will be the owner of the rights immediately, even if the employee refuses.

The term 'economic rights' does not include moral rights.[69] Therefore, the author of software will even in employment cases have the right to

— decide whether a work should be published;
— be named as author, and especially;
— resist modifications to a work.

These rights are inalienable and may never be transferred.

1.4. Restricted Acts

According to the traditional copyright regulations, the copyright owner has, *inter alia*, the exclusive right to

— reproduce the work (§ 16);
— distribute the work to the public (§ 17);
— exploit or publish any adaptation of the work (§ 23).

The extension of these four rights has been changed in many ways by the Act.[70]

1.4.1. Reproduction right

During the past years, there has been extensive discussion on the term 'reproduction.' The reason for this discussion is that the Copyright Act contains no definition of this term. § 16(1) simply states that the reproduction right is the right to produce copies of the work, notwithstanding the method used or the number of copies produced.

This legal gap leads to doubts as to whether the reproduction right comprises the storage of software in the memory of the computer and its display on the screen. This depends on the question whether a reproduction requires a permanent and stable fixation of the work. The German courts have not yet decided this controversial question; the Federal Supreme Court refused to decide the item in the *Nixdorf* case.[71] Therefore, it has been very controversially discussed whether the loading of software in a workstation of a local network constitutes a 'reproduction' within the Copyright Protection Act.

69. That is also the opinion of the Ministry of Justice; *cf. Explanatory memorandum*, p. 24.
70. However, the Act does not deal with other traditional rights combined with copyright. For instance, the transmission right (§ 15(2) of the German Copyright Act) could be important with regard to telesoftware and the use of software in networks.
71. Decision of 4 October 1990 (I ZR 138/89), *Computer und Recht* 1991, p. 80.

Unfortunately, the Bill also refrains from giving a more detailed definition of the term 'reproduction.' In particular, the Bill does not decide whether the loading, displaying and storage of a computer program has to be regarded as 'reproduction.' § 69c(1) simply repeated the wording of Article 4 under a. of the EC Directive to the extent that '*insofar as loading, displaying, running or storage of the computer program necessitate such reproduction, such acts shall be subject to authorization by the rightholder.*' This regulation stipulates that loading, running or storage of the computer program does not in principle constitute a reproduction; the authorization of the rightholder is necessary only if these actions require such reproduction. This interpretation has been supported by Jean François Verstrynge (EC Commission) at the World Computer Law Congress 1991 in Los Angeles. There, Verstrynge emphasized that

> 'the Commission never intended to say, and indeed never said that other acts which involve reproduction of the program, like transmission or storage, are themselves restricted acts. If they can be performed without reproducing the program, as some of them may well be in the not too distant future, then they fall outside the control of the rightholder under copyright law. But if they involve a reproduction, be it only a temporary one, they fall under the scope of the exclusive right.'[72]

Consequently, it will have to be discussed in future what is meant by 'reproduction.'

1.4.2. Distribution right

As to the distribution of software, the copyright owner has the exclusive right to offer the program to the public and put it on the market (§ 17(1)).

The distribution right is, however, limited by the exhaustion doctrine embodied in § 17(2) of the Copyright Act. This doctrine states that the distribution right has been exhausted when the work has been put on the market and sold with the copyright owner's consent.

1.4.2.1. Resale

For a long time, it has been unclear whether this doctrine may be applied to software licenses.[73] This uncertainty focused on the question of whether or not

72. Verstrynge, *Protecting Intellectual Property Rights within the New European Framework – Computer Software*, Paper presented at the World Computer Law Congress 1991, April 18–20, Westin Bonaventura, Los Angeles, p. 8.
73. In the view of some lawyers, the rights of the software producer are not exhausted so that he can prevent the re-sale, importation or hire of his software; *cf.* **Moritz**, 'Überlassung von Standardsoftware,' *Computer und Recht* 1989, pp. 1084 *et seq.* **This view has been rejected by** lawyers as shallow and contradictory to § 17 of the **German Copyright Act**; *see* Hoeren,

a software 'license' may be regarded as 'sale' according to § 17(2). This question has been discussed controversially for a long time. In the meantime, the Federal Supreme Court has, in three cases,[74] decided that bespoke and standard software is regularly marketed in the form of sale contracts even if the contract has been designated as 'license.'

The Nürnberg Court of Appeal[75] is the first court which has applied this classification to the exhaustion doctrine. The judges stated that this doctrine has to be applied to software contracts so that the licensor of an operating system cannot restrict the resale of his software. Any contractual restriction on the resale of purchased software is hence invalid and unenforceable in Germany.

This legal concept has been adapted by the EC Directive and the German Ministry of Justice. The EC Directive expressly provides that the first sale of a copy of a program within the Community shall exhaust the distribution right of the author (Article 4 under c.); the same regulation is part of the Bill (§ 69c(3)). These provisions imply that software may be marketed by closing contracts on sale; therefore, it is not possible to regard every software contract as a simple 'license.'

It should be noted that the German Bill only refers to the exhaustion of the distribution right within the Community. The Ministry of Justice has stated that this right will in future exhaust with the first sale in an EFTA country.[76] The Bill will be changed to this effect during the next months if necessary.

1.4.2.2. Software rental

Several courts, including the Federal Supreme court and the Federal Constitutional Court, held that the exhaustion doctrine also applies to the re-rental of works.[77] Therefore, the copyright owner may not use copyright to control and regulate the subsequent rental of the work.

Softwareüberlassung als Sachkauf, Munich 1989, pp. 58 *et seq.*; Schneider, *Softwarenutzungsverträge im Spannungsfeld von Urheber- und Kartellrecht*, Munich 1989, pp. 128 *et seq.*; Bartsch, 'Weitergabeverbote in AGB-Verträgen zur Überlassung von Standardsoftware,' *Computer und Recht* 1987, pp. 8 *et seq.*

74. Judgment of 18 October 1989 (VIII ZR 325/88), *Computer und Recht* 1990, p. 24 = *Juristenzeitung* 1990, p. 236; Judgment of 4 November 1987 (VIII ZR 314/86), *BGHZ* 102, p. 135 = *Juristenzeitung* 1988, p. 460 (with a comment of Junker); Judgment of 2 May 1985 (1 ZB 87/84), *GRUR* 1985, p. 1055.
75. Oberlandesgericht Nürnberg, Judgment of 20 June 1989 (3 U 1342/88), *NJW* 1989, p. 2634 = *Computer und Recht* 1990, p. 118.
76. *Explanatory memorandum*, p. 27 referring to Number 5 of Appendix XVII of the Treaty on the European Economic Area of 2 May 1992.
77. Bundesverfassungsgericht, 3 October 1989, *Computer und Recht* 1990, p. 535; Bundesgerichtshof, 6 March 1986 (1 ZR 208/839, *Computer und Recht* 1986, p. 449 = *GRUR*, p. 736. *Cf.* Oberlandesgericht Frankfurt, 5 July 1990 (6 U 60/89), *Computer und Recht* 1991, p. 92; Oberlandesgericht Hamm, 12 May 1981 (4 U 15/81), *NJW* 1982, p. 655. *See* Hoeren, *Softwareüberlassung als Sachkauf*, Munich 1989, pp. 69–83 with further references.

These decisions will be overruled with the enactment of the amended Copyright Act. According to § 69c(3), the right of distribution of the program to the public now also includes the exclusive right to rent the program and to control further rental.[78] The rental right is thus regarded as a form of distribution; the author is entitled to prohibit unauthorized rental of the program. However, this legislatory change will in fact not affect the German software industry because the rental of used software has not become important in Germany (in contrast to the rental of CDs and video cassettes).

The term 'rental' has not been defined in the Bill itself. The Ministry of Justice points at the Directive's recital which defines 'rental' as 'the making available for use, for a limited period of time and for profit-making purposes.' Rental does not include public lending which is subject to another EC Directive.[79]

1.4.3. Adaptation of software

§ 23 of the German Copyright Act provides that software may be adapted or changed without the permission of the copyright owner. However, the rightholder has the exclusive right to exploit or publish the adapted program.

This difficult distinction leads to some uncertainty in reverse engineering, e.g. to the reconstruction of the source code with the aid of the object code. Very controversial discussions have been held in Germany as to whether this procedure, without the permission of the copyrightholder, is legal under the German Copyright Act.[80]

This controversy will be ended automatically by the implementation of the EC Directive. § 69c(2) of the Bill confirms the EC authorities' idea that the author of a computer program has the exclusive right to translate, adapt or alter his work in any form.

1.4.4. Consequences with regard to antitrust law

The provisions of the Bill on the exclusive rights of the copyright holder will have another important effect on antitrust law. Up to the present, it has been held that most contracts on the sale of standard software are void according to

78. *See* Frank Gotzen, 'Distribution and Exhaustion in the EC proposal for a Council Directive on the Legal Protection of Computer Programs,' (1990) 8 *EIPR*, p. 299. In his detailed study, Gotzen refers to the difficult and strange wording of the Directive of the exhaustion doctrine.
79. The EC Commission additionally drafted a '*Council Directive on rental right, lending right and on certain rights related to copyright*'; the first draft was published on 24 January 1991 – COM (90) 586 final – SYN 319.
80. *Cf.* Hoeren, *Softwareüberlassung als Sachkauf*, Munich 1989, pp. 95–100; Kindermann, 'Reverse Engineering von Computerprogrammen,' *Computer und Recht* 1990, pp. 638 *et seq.*; Haberstumpf, 'Die Zulässigkeit des Reverse Engineering,' *Computer und Recht* 1991, pp. 129 *et seq.*

§ 34 of the Antitrust Act ('*Gesetz gegen Wettbewerbsbeschränkungen*'). § 34 states that contracts with commercial customers which contain restrictions on the use of a product should be written and signed by both parties, otherwise these agreements are void. As most software contracts contain such restrictions, they have been held to be invalid (especially in the case of shrink-wrap licenses).[81]

However, the courts have held that § 34 does not apply if there is a restriction even without contract.[82] As a consequence, it is possible to agree upon some restrictions on the use without any signed contract if these restrictions are themselves part of the copyright regime.[83]

The Act will allow restrictions on the distribution (except the resale), the adaptation and the reproduction of copyrightable software. To the same extent, the copyright holder is allowed to restrict the use of his product without any signed contract.

1.5. Exceptions to the Restricted Acts

Both the Copyright Act and the Bill contain some restrictions on the exclusive rights of the copyright owner.

1.5.1. Necessary use

According to § 31(5) of the present Copyright Act, the licensee may use his right in accordance with the purpose of the license in the absence of detailed contractual provisions.

This principle is also part of the EC Directive. According to Article 5(1) of the Directive, the user of a computer program may, for example, freely reproduce, translate and alter the program in so far as this is necessary for the lawful use of the program 'in accordance with its intended purpose,' including for the correction of errors. This regulation has also been integrated in the German Bill (§ 69d(1)).

However, the Ministry of Justice has remarked on an important problem caused by the Directive. Article 5(1) allows other contractual provisions to be made in order to restrict the rights of the user as mentioned above. This possi-

81. *See* Bundesgerichtshof 7 May 1986 – VIII ZR 238/85, *Computer und Recht* 1986, p. 632. For further references *cf.* Jörg Schneider, *Softwarenutzungsverträge im Spannungsfeld von Urheber- und Kartellrecht*, Munich 1989, pp. 194 *et seq.*; Hoeren, *Softwareüberlassung als Sachkauf*, Munich 1989, pp. 103 *et seq.*
82. *See* Bundesgerichtshof 18 May 1992 – KZR 15/81, *BGHZ* 84, p. 125 at p. 127, *GRUR* 1982, p. 632 at pp. 634 *et seq.*; Bundesgerichthof 7 May 1986 – VIII ZR 238/85, *Computer und Recht* 1986, p. 632 at pp. 834 *et seq.*
83. *See* Moritz/Tybusseck, *Computersoftware. Rechtsschutz und Vertragsgestaltung*, 2nd ed. Munich 1992, pp. 174 *et seq.*

bility contradicts the recital which states that *'the acts of loading and running for the use of a copy of a program which has been lawfully obtained and the act of correction of its errors, may not be prohibited by contract.'* Consequently, contractual limitations are possible under Article 5(1) although they are forbidden according to the recital.[84]

It has been held that the recital is not binding so that Article 5(1) prevails. This, for instance, is also Jean-François Verstrynge's view (EC Commission), and he has recently stated that Article 5(1) constitutes *'a presumption in the user's favour (. . .) in cases where there is no valid license agreement regulating a given activity.'*[85]

The German authorities have, however, taken another view. They held that the actions of the user mentioned in § 69d(1) cannot be forbidden by contract; only the manner of conducting these actions can be specified by agreement. This distinction will, however, lead to uncertainty; this is the reason why the Ministry of Justice calls for the courts to determine the mandatory substance of § 69d(1).

A first attempt at solving this problem has been made by Smith[86] who has suggested interpreting the EC regulation as follows:

> '1. The users shall always have the right to load and run, and to correct errors necessary for use in accordance with the intended purpose; such rights will be implied if they are not expressly granted and cannot be excluded by contract.
> 2. The user shall have the rights of displaying, transmission and storage necessary for use in accordance with the intended purpose to the extent that the contract does not grant these rights, but they may explicitly be excluded by contract.
> 3. The intended purpose of the program must be determined objectively, having regard to the interests of both parties.'[87]

1.5.2. Back-up copies

In the absence of specific contractual provisions, the reproduction right does not refer to back-up copies nor to any other reproduction necessary for the use of the program (§ 31(5)).

84. In my view, the problem of Article 5(1) may be solved by using another manner of interpretation. Perhaps, Article 5(1) of the Directive shall oblige the copyright owner to develop 'specific contractual provisions' for software maintenance and error correction. In the absence of these maintenance agreements, the user shall be entitled to do the error correction himself. As a consequence, Article 5(1) does not allow to restrict or even forbid error correction and all other necessary acts by contract.
85. Verstrynge, *op.cit.* (note 72), p. 9.
86. Smith, 'EC Software Protection Directive – an attempt to **understand Article 5(1),**' *Computer Law and Security Report* 7 (1990/91), pp. 149 *et seq.*
87. Smith, *op.cit.*, p. 150.

Consequently, the user is allowed to make back-up copies and to load software onto a hard disk.[88] A contractual prohibition of these acts has been regarded as invalid according to the Unfair Contract Terms Act.[89]

In this respect the German law will not change under the Directive. Consequently, § 69d(2) which grants the mandatory right to produce a back-up copy only repeats the existing law.

The Ministry of Justice has also pointed out another ambiguity of the EC Directive.[90] In Article 5(2), the Directive grants a right of the legitimate user to make a back-up copy; in § 7(1)(c), it prohibits the commercial use of copying utilities. These utilities may be used to produce a legal back-up copy *and* an illegal copy. The Ministry does not hint at any solution to the problem, but in my view, the Directive itself is very strict and clear. Back-up copies may be produced by the legitimate user even without permission of the copyright owner – but only by means of copying utilities.

1.5.3. Analysis

According to Article 5(3) of the EC Directive and § 69d(3) of the Bill, the lawful user of a program is entitled, without the authorization of the copyright owner to

> 'observe, study or test the functioning of a program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program which he is entitled to do.'

Additionally, Article 9(1) of the Directive and § 69g(2) of the German Bill state that any contractual restriction on this right shall be null and void. The free analysis of a program must not be mixed up with decompilation. The new provisions only allow to observe, study or test the program as object code; it does not permit the reproduction and translation of the object code into a source code which is part of any decompilation.

However, this regulation is superfluous. Article 1(2) of the EC Directive and § 69a(2) already provide that ideas and principles underlying a program are not protected by copyright law (*see above*); consequently the lawful user of a program has always been allowed to observe the functioning of his copy in order to determine the underlying principles. Thus, this part of the German Bill only repeats an obvious rule of traditional copyright law.

88. *See* Mayer-Marly, *Softwareüberlassungsverträge*, Munich 1991, pp. 251 *et seq.*
89. Rombach, *Computer und Recht* 1990, p. 101 at p. 103; Jochen Schneider, *Praxis des EDV-Rechts*, Cologne 1989, p. 531. This opinion has, however, been rejected by Bauer, *Computer und Recht* 1985, p. 5 at p. 8; Mayer-Marly, *Softwareüberlassungsverträge*, *op.cit.*, pp. 261 *et seq.*
90. *Explanatory memorandum*, p. 31.

1.5.4. Decompilation and reverse engineering

It is not necessary to deal with the regulation of the German Act on decompilation in detail. The Ministry of Justice declared that it has implemented the complex regulation in Article 6 of the EC Directive on a (almost) word-for-word basis.[91]

As a consequence, § 69 only allows to decompile the object code of a program in order to achieve interoperability, not for the purpose of maintenance. This restricted attitude towards decompilation will abolish the idea of free reverse engineering which has been part of German copyright tradition (*see above*). In addition, it will lead to the end of third party maintenance. The only solution to this difficult problem will be the establishment of maintenance rights by contract.[92]

Decompilation is held to be lawful if

1. it is performed by a lawful user (or their nominees),
2. another source of information is not readily available,
3. only the relevant parts are decompiled,
4. the information obtained is necessary and will only be used to achieve interoperability of independently created programs,
5. the information will not be given to third parties (except when it is necessary to achieve interoperability) and
6. the information is not used for the development, production or marketing of software substantially similar in its expression to the decompiled program or for any other act which infringes copyright.[93]

According to § 69e(3), the provisions of this paragraph may not be interpreted in such a manner as to allow its application '*to be used in a manner which unreasonably prejudices the right holders legitimate interests or conflicts with a normal exploitation of the computer program.*' This regulation taken from Article 9(2) of the RBC is simply superfluous and must be the reason why Denmark, the United Kingdom and the Netherlands have not implemented this part of the Directive in their national legislation. Using such vague terms as 'legitimate interests' or 'normal exploitation' will, in addition, lead to much legal uncertainty and to controversial discussions. It is aimed to harmonize the provisions on decompilation with the RBC; at the WIPO meeting of experts in November 1991 (mentioned above), some delegations, however, expressed the

91. *Explanatory memorandum*, p. 34.
92. *See* J.M.A. Berkvens and G.O.M. Alkemade, 'Software protection; Life After the Directive,' (1991) 12 *EIPR*, pp. 476 *et seq.*
93. For the interpretation of these regulations *see* Thomas C. Vinje, 'The development of Interoperable Products Under the EC Directive,' *The Computer Lawyer* 8 (1991), Nr. 11, pp. 13 *et seq.*; Manfred Kindermann, 'Urheberrechtliche Voraussetzungen und Grenzen des Reverse Engineering und Schutz von Schnittstellen,' *Wirtschaftsinformatik* 34 (1992), pp. 175 *et seq.*

view that the EC Directive itself was incompatible with Article 9(2) of the RBC.[94]

The Ministry of Justice has used the Act to comment on the procedural aspects of software protection and copyright infringement.[95] If someone sues against an infringer, he may prove the existence of an illegal copy with the aid of an independent expert. In this case, both parties have to give a copy of their source code to the expert; at least, they have to consent to a decompilation of the programs. If one of them rejects, the court will use this rejection in favour of the other party.

1.6. Special Measures of Protection

Article 7 of the Directive requires the Member States to make statutory provisions for special remedies against software piracy. The measures of protection are primarily directed against the act of knowingly (or with having reason to know) putting into circulation an infringing copy of a computer program and being in the deliberate possession of an infringing copy for commercial purposes.

These regulations of the EC Directive have always been part of the German Copyright Act.[96] Under the present Copyright Act, the infringer of copyright has to remove all infringing copies and to abstain from future infringements and he has to pay remuneration to the copyright owner (§§ 97 and 101). Furthermore, the copyright holder may claim that all illegal copies possessed by the infringer are to be destroyed (§ 98).[97]

The only problem caused by the EC Directive is the unlawful possession of infringing copies. The mere possession of a copy produced unlawfully by another person has been regarded as lawful under German law. This situation will change after the implementation of the EC Directive. According to § 69f(1) of the Act, the copyright holder has a right of destruction and removal against any possessor of an infringing copy, even if the possessor has not made a copyright infringement. Different from the EC Directive, this right will be accorded to the copyright owner independent of any commercial use of the infringing copy.

94. WIPO, BCP/CE/I/4, No. 87, 14. For this difficult problem *see* Burkill, 'Reverse Compilation of Computer Programs and its Permissibility under the Berne Convention,' *Computer Law & Practice*, March-April 1990, p. 114.
95. *Explanatory memorandum*, pp. 36 *et seq.* For a detailed criticism of these suggestions *see* Ullmann, *op.cit.* (note 33), *Computer und Recht* 1992, p. 641 at pp. 643–646.
96. *Cf. Explanatory memorandum*, p. 22.
97. The Act also contains criminal sanctions. Copyright infringements may be punished with imprisonment of up to three years or a fine (§ 106(1)). These sanctions have not been changed with the EC Directive because the EC authorities have no competence for the harmonization of criminal law.

In addition, the Member States have to provide appropriate remedies against a person who markets or owns for commercial purposes software aimed at illegal copying of software. These copy protection devices had already been forbidden by courts in many European states in recent years.[98] Consequently, the French Government has decided to disregard Article 7(1)(c) in its implementation draft. However, the German Ministry of Justice has held that these devices must also be forbidden in the future Copyright Amendment Act (§ 69f(2)).

1.7. Term of Protection

By analogy with the RBC, Article 8(1) of the Directive provides a term of protection of fifty years after the death of the author (or in the case of several copyright owners, after the death of the last surviving author). According to Article 8(2), Member States which already have a longer term of protection are allowed to maintain this regulation until further harmonization.

The German Ministry of Justice has chosen to apply the traditional term of protection for copyrightable works to software so that computer programs will be protected under copyright for up to seventy years after the death of the author.

The period of protection granted by the EC Directive and the German Act is far too long. Once a computer program has been introduced for the first time onto the EC market, it soon loses its exploitability. Few programs continue to find buyers after a period of four or five years.

Many authors claim that this problem is of little importance. However, it has to be taken into consideration that according to the Directive the author of a program may use his copyright as a monopoly to block technical progress within the EC for a very long period. Therefore, why the legislative authorities have not found a better solution to this problem remains a mystery.

The Bill has yet forgotten to deal with an important subject contained in the Directive, being the protection period for anonymous and pseudonymous computer programs. Article 8(1) of the Directive states that these programs shall be protected for a period of fifty years from the time that they have been first lawfully made available to the public. The German Ministry of Justice has remained silent on this issue. It seems to think that anonymous or pseudonymous software is very rare and therefore needs no specific regulation in the Copyright Act. However, public domain software is often distributed under a

98. *See* the German court decision of the OLG Stuttgart, 10 February 1989 (2 U 290/88), *Computer und Recht* 1989, p. 685 = *NJW* 1989, p. 2632.

For Austria *see* the decision of the Supreme Court of Justice 25 October 1988 (4 Ob 94/88), *GRUR Int.* 1989, p. 850 = *EDV & Recht* 1989, p. 4.

For France *see* the '*La commande electronique*' case of the Paris Court of Appeal 20 October 1988, *JCP ed. G.* 1989, II, p. 2188. *See* the comment of Bellefonds, 'The Copying of Software and Software for Copying: Case Law in France,' *EIPR* 1989, p. 338

pseudonym or even without any reference to an author. This kind of low-cost software has become more and more important during recent years; in my view, the PD market will expand explosively after implementation of the EC Directive.

1.8. Other Legal Provisions

Pursuant to Article 9(1) of the Directive and § 69g(1) of the Act, other provisions (outside the Copyright Act) remain applicable separate to the Directive. Therefore, the new Copyright Act will be without any prejudice to

— patent law,
— trademark law,
— unfair competition rules,
— the protection of trade secrets,
— the protection of semiconductor chip products or
— contractual arrangements (with the exception of Article 5(1), (2) and (3) and Article 6).

This provision will lead to difficult problems in Germany. § 17(1), (2) of the German Unfair Trade Act (*'Gesetz gegen unlauteren Wettbewerb'*) prohibits any kind of decompilation as being an unlawful disclosure of trade secrets.[99] Therefore, it has to be discussed in the future whether and how the EC Directive has overruled § 17 of the Unfair Trade Act. Some authors have held that decompilation does not lead to the disclosure of trade secrets.[100] This opinion cannot be supported due to the fact that decompiled code being a kind of readable source code refers to trade secrets of the copyright owner (for instance the structure of the program). The problem may be solved, in my view, by regarding lawful decompilation as lawful disclosure of trade secrets within the meaning of the Unfair Trade Act.[101]

PART 2. IMPLEMENTATION OF THE EC DIRECTIVE

2.1. The EC Directive

According to Article 10 of the EC Directive, the Member States have to implement the Directive before 1 January 1993 (Article 10). However, the provisions

99. For further details *see* Wiebe, *Der wettbewerbsrechtliche Schutz von Computerprogrammen*, Diss. Hannover 1991 (to be published in 1993).

100. *Cf.* Dieter Schulte, *op.cit.* (note 17), *Computer und Recht* 1992, p. 648 at pp. 655–657.

101. For this approach *cf.* Andreas Wiebe, *Know-How-Schutz von Computersoftware*, Munich 1993, pp. 267–270.

of the Directive apply to programs created before 1 January 1993 '*without prejudice to any acts concluded and rights acquired before that date.*'

This retroactivity causes several problems. In particular, it must be considered what is meant with 'acts concluded.' Some authors hold that this term refers to piracy acts committed. In this case, it would be possible to offend software piracy which has been committed before implementation of the Directive. This interpretation would, however, be contradictory to the German constitutional law which prohibits the retroactive punishment of criminal acts. A better way of interpretation may be derived by means of the German text of the Directive. In this, 'acts concluded' is translated with '*getroffene Vereinbarungen*' (agreements entered into). This translation implies that the Directive does not apply to software contracts entered into before 1 January 1993.

2.2. The German Act

The Ministry of Justice has had its greatest problem with the retroactivity article in the EC Directive. Its first proposal contained no regulation on this topic. In the same way as the French Government, the Ministry declared that the Act might be enforced without any provision regulation. In its opinion, a legitimate confidence of software users of a certain standard of software protection cannot be recognised because there has been no such standard due to the dubious jurisdiction of the Federal Supreme Court.

The Ministry upheld these considerations in the Act. However, the Act contains a new regulation which directly contradicts these considerations. According to § 137d, the new provisions on software protection do apply to software which has been created before 24 June 1993. In addition, § 69(2) shall be applied to contracts which have been closed before this date.

§ 137d has to be read in the following way:

— The Act applies to an infringing act committed after the enactment even if the software in question has been created before the enactment.
— The Act does extend to any infringement committed before the enactment. Consequently, the mere possession of a software copy made without permission from the copyright owner before the enactment will become illegal in future. It is not allowed to prosecute these actions as criminal offenses retroactively.
— Any restriction on the rights of a legitimate software user to make back-up copies and to analyze the program is null and void even if this restriction is part of a contract entered into prior to the date of enactment.

The Ministry has forgotten some rights of computer users which originated under traditional copyright law and consequently need to be protected by provisional regulations:

— The software user has a right to modify and alter his copy without permission of the copyright owner.

— The software user has the right to rent or lease sold software even without the permission of the copyright owner.

The last argument has been integrated in the new Act at the very end of the legislative procedure. According to §137d(1), the copyright holder may not restrict the re-rental or lease of computer programs which were acquired before 1 January 1993 for the purpose of rental.

2.3. Final Remarks

I hope to have demonstrated that Germany will have to amend its copyright system in many important topics.[102] The main changes will be

— the reduced standard of originality required for copyrightable software;
— the right of the author to restrict the re-rental of software;
— the right of the author to adapt his program;
— the new provisions on reverse engineering.

These changes will lead to a new kind of copyright system which is almost incompatible with the traditional way of protecting creative works. They will especially result in a convergence between patent and copyright law which would have been held irreal and disastrous in former days,

> 'Due to the application of copyright law to products of information technology, criteria previously unknown to the world of copyright (. . .) are creeping into the copyright system. On the other side of the spectrum we see patent law gradually dropping its requirement "technicality" in order to open the doors for patent protection of information products and services.'[103]

Centuries of copyright tradition have been swept aside by the EC authorities; the future will show whether and how the national law will cope with this new European thinking.

102.This is also the result of a Clifford Chance study; *see* Clifford Chance (eds.), *The European Software Directive*, London 1991, pp. 23 *et seq.*

103.P. Bernt Hugenholtz, *Convergence and Divergence in Intellectual Property Law: The Case of Copyright in Computer Programs*, Paper presented at the Conference 'Information towards the 21st century,' Amsterdam June 1991, pp. 2 *et seq.*