Hakemli Makale

COMPARISON OF THE LAW OF COPYRIGHT APPLIED TO COMPUTER PROGRAMS IN THE EUROPEAN UNION AND IN TURKEY

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ABSTRACT:

Since computer programs have been used in almost every field of our lives, the importance of computer technology has steadily increased so that it is required to be protected in a rigid and secure manner. Therefore, legal protection of computer programs has become a crucial part of many international instruments and also several countries as Turkey have provided legislation protecting author's rights in terms of computer programs. In Turkish law, computer programs are protected by the Turkish Copyright Act (TCA) as literary works in parallel with Council Directive 91/250/EEC on the Legal Protection of Computer Programs (Directive). TCA was adopted to establish a common set of standards for software protection in line with EU law. These arrangements are important, particularly, in terms of the scope of the protection, exceptions of the protection, decompilation and duration limits.

Keywords: Computer Programs, Copyright, Intellectual Property Rights, Council Directive.

ÖZET:

Bilgisayar programlarının neredeyse hayatımızın her alanında kullanılması nedeniyle bilgisayar teknolojisinin önemi giderek artmakta olup, bu durum bilgisayar programlarının kesin ve güvenli bir şekilde korunmasını gerektirmektedir. Bu nedenle, bilgisayar teknolojisinin korunması uluslararası düzenlemelerin önemli bir parçası olmuştur ve ayrıca Türkiye gibi birçok ülke bilgisayar programları açısından telif haklarının korunmasına ilişkin düzenlemeler yapmıştır. Türk hukukunda bilgisayar programları, Bilgisayar Programlarının Yasal Korunmasına ilişkin 91/250/EEC sayılı Konsey Tüzüğü ile uyumlu Türk Fikir ve Sanat Eserleri Kanunu (TCA) çerçevesinde düzenlenmiştir. TCA, AB hukuku ile uyumlu yazılım korunmasına yönelik ortak standartlar oluşturmak amacıyla kabul edilmiştir. Bu düzenlemeler özellikle; korumanın kapsamı, korumanın istisnaları, derleme ve süre sınırları açısından önem arz etmektedir.

Anahtar Kelimeler: Bilgisayar Programları, Telif Hakkı, Fikri Mülkiyet Hakları, Konsey Direktifi.

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INTRODUCTION

Nowadays, computer programs have been used in almost every field of our lives such as education, industry, commerce and health, thus the importance of computer technology has steadily increased. Since computer programs have to be protected in a rigid and secure manner due to their widespread usage, inevitably legal protection of computer programs has become a crucial part of many international instruments. Therefore, several countries have provided legislation protecting author's rights in terms of computer programs.

Copyright protection of computer programs is accepted as the most suitable form of protection, since it can be obtained easily and it does not have a flexible structure. In Turkish law, computer programs are protected by the Turkish Copyright Act (TCA) as literary works in parallel with Council Directive 91/250/EEC of 14 May 1991 on the Legal Protection of Computer Programs (Directive)[1].

In this essay, I will attempt to explain the definition and legal protection of computer programs, and I will then consider the basic implementation of this in Turkey. Finally, I will endeavor to analyze the Directive and TCA with a comparative method, particularly, in terms of the scope of the protection, exceptions of the protection, decompilation and duration limits.

I. AN OWERVIEW ON COMPUTER PROGRAMS

Concerning the use of a computer, it is first necessary to define the term 'computer program' undertaking tasks such as the reception, storage and retrieval of information. Another term, 'computer software' has a wider meaning which includes the program plus the supporting materials concerning the understanding or application of the program.[2] These notions are important to differentiate, since the installation of a computer is achieved through computer programs and computer software. Although they are used synonymously in the literature concerned, they do not have same definition. The term 'Computer software' enjoys a broader interpretation which contains not only computer programs but also preliminary design materials, databases and computer files.[3]

According to the Directive[4], making any definition concerning computer programs must be avoided, since a definition could become out of date and the

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1 Council Directive 91/250/EEC was formally replaced by Directive 2009/24/EC on May 25, 2009. (Europa, Summaries of EU Legislation, http://europa.eu/legislation_summaries/other/l26027_en.htm, Accessed 26 October 2014)

2 Flint, M.F., *A User's Guide to Copyright*, (London: Butterworth & Co Ltd., 1979), p. 197

3 Çölkesen, R., Bilgisayar Program Tasarımına Yeni Başlayanlar İçin Programlama Sanatı, İstanbul 2004, p. 15; Ateş M., *Fikrî Hukukta Eser*, (Ankara: Turhan Kitabevi, 2007), p. 151

4 Christie A. and Gare S., *Blackstone's Statutes on Intellectual Property*, (9th ed., New York: Oxford University Press, 2008) p. 219

meaning become restricted over time.[5] According to the Explanatory Memorandum of the Proposed Directive, determining a definition regarding the notion of 'program' is intentionally avoided, since a definition may become obsolete quickly.[6] According to the Directive, computer programs are accepted as literary works, but the protection of copyrights covers only the expression of a computer program, not the ideas and principles of it.[7]

In the Turkish system, "computer program" is defined in Article 1/B of the Turkish Copyright Act No. 5846 (TCA). There is no independent act arranged for computer programs separately, TCA, however, was amended on 7 June 1995 in order to adopt the provisions of Computer Programs Directive[8].

The protection of computer programs is provided by two different areas of intellectual property law: patent law and copyright law.[9] Additionally, there are other forms of protection such as the contract law, the law of breach of confidence and design law.[10] However, copyright law is the basic protection for computer programs, while other forms have indirect and exceptional protections.

In Turkish law, computer implemented inventions are protected in Article 5 to 10 of Turkish Patent Act in line with international standards. In view of unfair competition, computer programs are protected within the general provisions of the Turkish Commercial Act, in particular, in Article 55. Moreover, Turkish Contract Law has provided protection for computer programs in case of controversy.

As to international protection, the Berne Convention does not include an explicit definition of computer programs covered by copyright protection, but its language is sufficient to be interpreted for copyright protection of computer programs.[11] This Convention came into force in Turkey by Act. No. 4117 on 07

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5 Derclaye E., "Software Copyright Protection: Can Europe Learn from American Case Law?", Part I, EIPR, Issue I, 2000, p. 10

6 Czarnota B. and Hart R. J., *Legal Protection of Comuputer Programs in Europe-A Guide to the EC Directive*, (London: Butterworths, 1991), p. 153

7 Davis, J., *Intellectual Property Law*, (3rd. ed., New York: Oxford University Press, 2008), p. 70

8 Several Articles of TCA were also amended on 21 February 2001.

9 Hart T., Fazzani L. and Clark S., *Intellectual Property Law*, (4th ed., New York: Palgrave Macmillan, 2006), p. 18; An application made only for protection of a computer program is covered by copyright law. However, if this computer program has a technical specification, it should be assessed as an invention and as a result of this it may be protected by patent law. Namely, a computerized invention may be protected by patent law whereas just computer programs are only protected by copyright law.

10 Bainbridge D., *Software Copyright Law*, (London: Pitman Publishing, 1992), p. 12-26.

11 Cornish, W.R., *"Computer Program Copyright and the Berne Convention"* in A Handbook of European Software Law, (Part I), M. Lehmann and C. F. Tapper (eds.), (Oxford: Clarendon Press, 1993), p. 184.

July 1995 and immediately after this progress, in 1995, TCA was amended in line with the Convention.

II. A GENERAL VIEW TO THE IMPLEMENTATION IN TURKEY

Generally, the implementation and legislation regarding copyright protection of computer programs in Turkey are in line with EU copyright law and its acquis, since Turkish Copyright Law was amended on 7 June 1995 in order to align with the Directive.

The term 'computer program' is defined in article 1/B of Turkish Copyright Law No. 5846 as a "set of instructions designed so as to enable a computer system to perform a task and function, and the preparatory design material leading to the development and composition of this set of instructions". Preparatory design materials can be protected only if a computer program can result from it at a later stage.

While determining the eligibility for copyright protection of a computer program, the only criteria is whether or not it has the "characteristic of its author". Similar to other works, the author of a computer program can be only natural persons. The author is the owner of the exclusive moral and economic rights as soon as the program is developed. Unless otherwise provided by contract or understood from the nature of the commission, where a computer program is created by an employee in the execution of his/her duties, the employer or appointer is entitled to exercise the rights to the program. This rule is also applicable to bodies of legal persons. As all rights are subject to some limitations determined by laws and other rules, the exclusive rights of the authors of computer programs are also subject to limitations.

In Turkish Law, while the transfer of the economic rights or of the authority to use those rights is possible, moral rights cannot be transferred to others. Nevertheless, the transfer of the authority to use the moral rights is legally possible.

Apart from the exceptional limitations dictated by laws, the exclusive rights of the author of a computer program can be infringed by others. Some civil and criminal sanctions and remedies are provided by Turkish Copyright Law in case of infringement of an author's rights.

In view of the notions used, although the term 'computer program' is used in Article 1 of the Directive, it is also mentioned that this term includes the preparatory design material of computer programs. It can be assumed that this term is used not only for 'computer programs' but also 'computer software', although the provision does not provide any exact definition. As to TCA, an effort has been made to determine the term 'computer program'. Even if this

Act does not include any certain definition covering 'computer software' as with the Directive, it is considered that, in practice, trying to make an absolute definition may restrict the implementation and cause conflicts.

In accordance with Article 2(3) of the Directive, an employer may only exercise economic rights. However, other rights provided by domestic law of Member States can be used by the author of the program.[12] According to Article 18(2) of the TCA, if an employee creates a computer program throughout his employment, the rights to the author's program shall be exercised by the employer unless there is any agreement to the contrary.

Article 2 of the Directive does not entitle the Member States to recognize legal entities as copyright owners, if those States do not have any legislation accepting legal entities as copyright owners in their domestic law. Namely, the discretion to indicate the situation of legal entities has been given to the Member States by the Directive. With Turkish Copyright Law, the right of being the copyright owner is not recognized for legal entities, but the exercising of those rights by them is permitted.

According to the Directive and the 93/98 Directive, there is no limitation which restricts the duration of moral rights, but the discretion to determine this duration has been given to Member States.[13] In Turkish Law, there is no limitation for using of moral rights in terms of duration. Also, those rights can be exercised even if the economic rights have been transferred to another person.

III. ASSESMENT OF COMPUTER PROGRAMS DIRECTIVE (1991) WITH TURKISH COPYRIGHT ACT

A. In General

The Directive, which had to be implemented by 1 January 1993, is the first serious attempt by the EU to legislate on copyright protection of computer programs. It defines whether a copyright, a patent or a sui generis right should protect computer programs. Due to the fear of possible different approaches to this by Member States, it endeavored to determine a unified implementation of copyright protection for computer programs.[14]

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[12] Erel, Şafak N., "Fikrî Hukukta Bilgisayar Programlarının Korunması", Prof. Dr. İlhan Öztırak'a Armağan, AÜSBFD, C. 49, S. 1-2, January- June 1994, p. 146.

[13] Ateş, M., Fikir ve Sanat Eserleri Üzerindeki Hakların Kapsamı ve Sınırlandırılması, Ankara 2003, p. 258.

[14] Bently L. and Sherman B., *Intellectual Property Law*, (2nd ed., New York: Oxford University Press, 2004), p. 46.

The Directive has high importance for the EU's industrial development, since it ensures effective and reliable legal protection of computer programs in the Member States through the harmonization of basic issues such as, who enjoys what rights, for how long and under what conditions.[15]

Thanks to the adoption of the Directive in 1995, all provisions of the TCA are generally in line with the Directive.

B. The Scope of Protection

1. Subject Matter pf Protection

To begin with, the application of classical copyright to computer programs and the extent to which they are subject to protection should be clarified. In accordance with Article 1 of the Directive, computer programs should be safeguarded as literary works within the meaning of the Berne Convention. As mentioned before, there is no exact definition of 'computer programs' in the Directive, but it applies to computer programs irrespective of the form in which they are expressed.

According to Article 1(2), logic, algorithms and programming languages are not excluded from copyright protection per se, but only to the extent to which they comprise ideas and principles.[16] Computer programs are considered as 'literary and artistic works' in some aspects such as in the supporting material and program description.

According to the definition in Article 1/B of TCA, a computer program is a set of instructions designed to provide a computer system to perform a task and a function. Also, "preparatory design material" arranged under this Article, since they provide development and composition of this set of instructions, and so preparatory design materials can be protected only if a computer program can result from it at a later stage. Program flow, source code and object code are copyrightable. Copyright protects expression rather than ideas which underlie any element of a computer program. Algorithms and user interfaces are not copyrightable as an element of a computer program.

2. The Requirement of Protection: Originality

In Article 1(3), it is stated that a computer program has to be an 'original' intellectual creation of its author in order to be protected.

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[15] Dreier T., The Council Directive of 14 May 1991 on the Legal Protection of Computer Programs, (1991), 9, EIPR, p. 319.

[16] Ibid, p. 320

It is crucial to bring into line the different standards in terms of 'originality', since a common market for the software industry is so difficult to establish due to the varied approaches of the Member States. The test of originality under the Directive requires the program to be 'the author's own intellectual creation'. It is not important that the program is simple or complex for the requirement of protection, if 'originality' is provided.[17]

The importance given to originality as a requirement for the protection of computer programs under copyright law has been reduced owing to the acceptance of lower standards. The fundamental criterion of originality under the Directive is very simple; it is essential that the program must not have been copied. In view of originality, Turkish law is also in line with the Directive.

3. Authorship in Computer Programs

According to Article 2(1) of the Directive, it does not entitle the Member States to issue copyright law which does not recognize legal entities as being copyright owners or which does not contain the concept of collective works.[18] In Turkish law, since the copyright owner must be a natural person in Article 1(B) of TCA, it is explicitly implied that legal entities are not recognized as being copyright owners.

Another issue has to be clarified, which is who owns the copyright of a program created by an employee. According to German Copyright Law (Article 69b), it is stated that when an employee creates a computer program during his employment or through obeying the instructions of his employer, the use of all economic rights of the program belongs to the employer, unless there is an agreement to the contrary.[19] In accordance with the Directive, once a computer program is created by an employee during his employment, it is necessary to allocate the copyright to the employer.[20] It is expressed in Article 2(3) as;

"[w]here 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."

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[17] Cornish and Llewelyn, *Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights*, (5th ed., London: Sweet & Maxwell, 2003), p. 765

[18] Maijboom, A. P., "The EC Directive on Software Copyright Protection" in *Copyright Software Protection in the EC*, Herald D. J. Jongen and Alfred P. Meijboom (eds.), (the Netherlands: Kluwer, 1993), p. 9

[19] Dietz, A., International Copyright Law and Practice, "Germany", Paul Edward Geller and Melville B. Nimmer (eds.), Publication 399, Release 18, LexisNexis, September 2006, p. GER-55.

[20] Supra, fn. 12, p. 46

As can be seen, although the Directive does not include the definition of 'employee' and 'employer', it gives the employer the first ownership of the exclusive rights such as copying, modifying and adapting the computer program. Employer's rights, however, are limited to these economic rights. Other rights, for instance, moral rights are granted to the employee, even though the Directive does not specifically mention the moral rights which are still covered by national arrangements.

An employer may only exercises economic rights. However, other rights provided by the domestic law of Member States can be used by the author of the program.[21]

In Turkish law there is no special arrangement concerning the owner of a computer program created by employee, thus the general provisions of TCA are applied to these kinds of disagreements. As to Article 18(2) of the TCA, if an employee creates a computer program in the course of his employment, the rights of author's program shall be exercised by the employer unless there is any agreement to the contrary. It means that the economic rights are to be exercised by the employer unless otherwise arranged by their contract.

On the other hand, before the amendment to the TCA, it was not clear whether the employer might able to exercise only economic rights or both. By the amendment provided in Act No. 4630, it is clarified that the employer may exercise only economic rights, whereas the employee has moral rights to the program.[22]

4. Exclusive Rights

Article 4 of the Directive provides the exclusive rights to authorize reproduction, adaptation and distribution for the rightholder of a computer program. Articles 5 and 6 are exceptions to the copyright protection.

Article 4(a) grants the rightholder the exclusive right to authorize "permanent or temporary reproduction of a computer program by any means and in any form, in part or in whole". Since copying of the software is naturally necessary to achieve its purpose and to apply its function, the controlling of computer programs' reproduction is inevitable. Also, it is difficult to provide sufficient in-built protection owing to its more complicated and technical structure. Therefore, a criterion specifically to cover protection is compulsory to order to avoid a clear breach of copyright in terms of software. Furthermore, according to Article 4(a), the acts of loading, displaying, running, transmission

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[21] Supra, fn. 10, p. 146

[22] Kılıçoğlu, A., Fikir ve Sanat Eserleri Kanununda Yapılan Değişiklikler, ABD, Yıl: 52, Sayı: 4, 1995/4, p. 13-27

or storage of a computer program are subject to the rightholder's authorization, insofar as they all require a reproduction.

Even though the Directive does not define the term 'reproduction', it could be determined by the national law of the Member States. Also, there is no provision for the rightholder to perform publicly or authorize the public performance of the software, which could be seen as a subject which has to be addressed.

Another exclusive right is the "adaptation" set out in Article 4(b). Generally, adaptation of a literary work implies transformation of a given text such as a novel into another literary work such as a play. The Directive has broadly formulated the adaptation right covering the translation, arrangement and any other alteration of a computer program. In regarding computer programs as literary works, different operating systems and general applications may involve programs to be expressed in different ways or to incorporate altered pieces of code for use in a different environment.[23]

Any form of distribution to the public can be provided through sale or the consent of the rightholder under the control of the author concerned. If the author and the producer of the product are same, that control appears directly. Also, it is controlled directly if the author assigns his rights to a publisher or producer of programs. When the product is put on the market with the consent of author, his right is deemed to be exhausted. The "first sale" right means that when a copy of a program is sold for the first time in the Community by the copyright holder or with his consent, it is not transferred except under licence or for a limited period.[24]

According to the 'exhaustion of rights' principle, when a product has been sold with the consent of the rightholder, he should no longer have control over subsequent sale. Moreover, when computer programs are put on the market in one of the Member States, their importation into other Member States may not be prohibited by the rightholder, since his right to control subsequent importation will have expired.

In Turkish law, the right of reproduction of a computer program is granted to the rightholder of the computer program in accordance with Article 22 of the TCA. It can be used by the owner or a person authorized by the owner. The

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[23] Tapper, C., "The European Software Directive: The Perspective from the United Kingdom" in *A Handbook of European Software Law*, M. Lehmann and C. F. Tapper (eds.), (Oxford: Clarendon Press, 1993), p. 153

[24] Lehmann, M., "The European Directive on the Protection of Computer Programs" in *a Handbook of European Software Law*, M. Lehmann and C. F. Tapper (eds.), (Oxford: Clarendon Press, 1993), p. 171

definition of adaptation of a program is made in Article 1/B (c) of the TCA and also in Article 6; several examples are given without restricting the definition of adaptation.

In accordance with the TCA, as an initial condition for adaptation and distribution, the program has to be reproduced. Therefore, if the original of the computer program is disclosed and submitted to the public, this does not mean the kind of 'distribution' that is stated in copyright law, since it has to be reproduced before being submitted. It implies that the distribution right is a wider right which covers reproduction of programs as well.[25]

According to the TCA, once rights of adaptation and distribution are transferred to another person, it generally means that the reproduction rights are passed with those rights. The distribution right can be exercised through the physical copies of the program. For instance; the submission of a program via the Internet without the consent of the rightholder does not breach the distribution right.[26]

C. Exceptions to the Protection

According to Article 5(1) of the Directive, if it is necessary for the use of computer program with regard to its intended purposes, and in the absence of specific contractual provisions, the lawful acquirer of a program is entitled to copy, display, run, transmit, or adapt it etc. Under these conditions, such acts do not amount to restricted acts and do not require authorization where the lawful acquirer performs them.

The second exception in Article 5 is that "a person having a right to use the computer program may not be prevented by a contract" to back up a copy. This arrangement does not seem very explanatory. For instance; if the original copy acquired is not used since it was copied onto a hard disk, it seems that the user does not have the right to back it up.[27]

The third exception in Article 5 declares that the person having a right to use a copy of the software can "observe, study or test the functioning of the program" to establish the underlying principles and ideas. Since this provision is assumed to accord the user a full right to analyse the program, it contrasts with Article 6 addressing program analysis and circumscribes the decompilation right across a variety of restrictions. Thanks to this provision, the Directive

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[25] Supra, fn. 10, p. 148

[26] Ateş, M., Fikir ve Sanat Eserleri Üzerindeki Hakların Kapsamı ve Sınırlandırılması, Ankara 2003, p. 172-173

[27] Huet, J. and Gingsburg J. C., Computer Programs in Europe: A Comparative Analysis of the 1991 EC Software Directive, 30/2 Colom. J. of Trans. Law, pp. 327-373, 1992, p. 352

illustrates the importance of standardization and interoperability of computer programs, especially in the area of interfaces.

A parallel approach has been followed by the Article 38/1 of TCA and this provision of the Directive has been totally adopted by Turkish Law.

D. Decompilation

Decompilation, mentioned in Article 6, means an act which is the retranslating of a program's object code into source code. In computer programs, the code form in general, bars access to those ideas and principles underlying a program which may not already be determined by studying just the performance of a program.

Generally, rightholder's consent is a requirement, since the act of decompilation constitutes a reproduction or a translation. This broad exclusive right, however, may prevent any unfair misappropriation of the commercially valuable ideas and principles underlying a computer program, thus it strengthens the protection of the program. Moreover, information on the interfaces of an existing program is necessary for the development of programs which may connect to this existing program.[28] Therefore, the Directive in its Article 6, accepts a decompilation exception to the exclusive right of reproduction of the author. The Directive should contain an express provision allowing reverse engineering. This was a necessity not only because of the requirement for such a provision but also in some cases, because courts of the Member States were already interpreting some legislation to permit reverse engineering such as 'fair dealing' in the UK and another form of this concept is called 'fair use' in the USA.[29] As states have already interpreted their legislation to permit reverse engineering under different wording, an express provision may assist for an uniform concept.

Article 6 has been translated into Turkish almost in same format through Article 38/V of TCA. However, it seems that a flexible arrangement may be used for the definition, since Article 6 is including '...indispensable to obtain the information necessary…' term which is so strict. The indispensability may change case to case, thus it has to be assessed in terms of circumstances of the case. It does not provide a flexible discretion area for the judge in practice and it causes waste of time and effort in terms of commercial benefits. Therefore, as to the Copyright, Design and Patent Act 1988 of the UK, Article 38/V of TCA has to be amended and reformulated with using a flexible word such as 'necessary' instead of 'indispensable'.

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[28] Supra, fn. 13, p. 323

[29] Supra, fn. 5, p. 75-76

E. Term of Protection

According to the Directive, the duration of protection has been indicated the life of the author plus 50 years after his death in Article 8(1). However, some Member States whose duration of protection is longer than 50 years are allowed to apply this longer term (Article 8(2)). This dispute has lost its importance owing to the special conditions of computer programs, since their life, most likely, shorter than 50 years after their creation.[30]

On the other hand, different implementation of Member States in terms of duration in the area of intellectual property led the EU to harmonize those legislations in a common directive. Therefore, Council Directive 93/98, which repealed Article 8 of the Directive regarding computer program, was adopted. It provides that the term of protection shall be the life of the author plus 70 years after his death (Article 1(1)).[31]

In Turkish law, the duration of protection has been provided in Article 26 and 27 of TCA. It is stated that the protection shall be continued during the life of the author plus 70 years after his death. As clearly seen, the provision with regard to duration is in line with the Directive as well.

V. CONCLUSION

Since it was an inevitable problem to overcome in order to eliminate the trade barriers between the Member States and achieve a common single market, common standards for manufacturers, who wish to market a given product in all Member States, had to be provided. Computer software is one of the major products in the Community. As a result of this, unified and strong intellectual property protection of computer programs has become one of the most important duties on the legislative bodies of the Community, which is why the Directive 1991 has been adopted.

As a candidate country, Turkey has initiated accession negotiations with the European Union and gone through its existing legislation in order to come into line with the EU acquis. The TCA was amended on 7 June 1995 to adopt the provisions of the Directive concerned. These amendments were adopted to establish a common set of standards for software protection in line with EU law, as it is increasingly important product in the economy. Since the implementation of the legislation is as crucial as its preparation, Turkey has significantly endeavored to develop its proceedings to cover computer programs as well.

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[30] Ibid, p. 319

[31] Council Directive 93/98 of October 1993 on harmonizing the Term of Protection of Copyright and Certain related Rights

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