COMPUTER SOFTWARE AND THE NORTH AMERICAN FREE TRADE AGREEMENT: WILL MEXICAN LAW REPRESENT A TRADE BARRIER?[1]

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SUMMARY: I. *Introduction*. II. *Computer software protection under mexican intellectual property law and free trade trends: Part I: Copyright. Part II: Patents. Part III: Trade secrets.* III. *Conclusions.*

I. INTRODUCTION

§ 1.1 *Mexico, Modernity and Free Trade*

Nowadays there is probably no country in the world not trying to modernize through protection of intellectual property rights. Structures, systems and forms can be diverse and vary however, depending on the level of development achieved by in particular by each country.

Since 1983 Mexico has conducted a structural change of former industrial protectionist policies, by slowly opening its borders to international trade, technology and investment. Internal modernization rules and policies have been introduced[3] and as a result, international competitiveness and economic development have been more perceptible.

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[2] The author wishes to express his gratitude to Richard E. Neff, Esq., for his assistance in reviewing this exercise and to William O. Hennessey, Esq., for the help in collecting material relating to U.S. Computer Software Law.

[3] The National Program of Industrial and Foreign Trade Modernization (*Programa Nacional de Modernización Industrial y del Comercio Exterior*), has set premises as to industrial and trade development looking forward to the internationalization and privatization of the economy; achievement of development through the fostering of technology transfer and intellectual property; economic deregulation; internal market solidification and promotion of exportations. Jaime SERRA PUCHE, *Las Relaciones Comerciales de México con el Mundo*, Conference given on april 18, 1990 and published by Secretaría de Comercio y Fomento Industrial, p. 10.

This dynamic process of development has been also observed by the increase of finished products exportations.[4]

The economic perspective of the world is also changing. This is mostly perceived, on the one hand, by regionalism projects in Europe and Pacific Rim and on the other hand, by the collapse of communism, followed by the need of former socialist countries to start new forms of development based on free market principles. These historic changes and trends have led Mexico to find partners and alliances in the international community. The problem has been where to look; to the south Mexico shares historic and cultural identity with practically every Latin American State, however, there is not a large trade existing among these countries.[5]

There are thus very strong reasons why Mexico has looked north instead. Geographically speaking Canada, United States of America (U.S.A.) and Mexico, total a population of 356 million inhabitants and an internal gross income of 6 million U.S.cy. Likewise, commerce between Mexico and its neighbors to the north has increased significantly. The U.S.A. represents Mexico's principal partner, whereas Mexico constitutes U.S.A.'s third partner, only after Canada and Japan.[6] With respect to Canada, a stronger and more important commercial relationship has been developing lately. One reason has been that both countries complement as to diversity of climes and natural resources. Also, an active trade of manufactured goods can be added

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[4] Non-petroleum products exportations increased from five thousand U.S.cy. in 1982, up to seventeen thousand million in 1990. Taken from *Organización de los Trabajos Preparatorios del Tratado de Libre Comercio con Norteamérica*, Secretaría de Comercio y Fomento Industrial, 1992, p. 5.

[5] Trade with Latin American countries represents only 4% of Mexican foreign trade, although in 1980 the Latinamerican Integration Association (ALADI) was created, with the purpose of establishing an area of economic advantages, including regional tariff preference measures. However, this has rather resulted in highly elevated levels of protectionism. Taken from *Las Relaciones Comerciales de México con el Mundo*, Secretaría de Comercio y Fomento Industrial, 1992, p. 21.

[6] During the last part of the XIX Century, a 70% of Mexican exportations were sent to the USA and 50% of Mexican importations used to come from said country. More recently, more than 70% of the total exportations sent to the USA correspond to manufactured products, as compared with a 32% prevailing eight years ago. Taken from *Organización de los Trabajos Preparatorios. . .", opus cit.*, pp. 5-6. As to trade agreements, during the eighties, many bilateral agreements were negotiated in order to eliminate obstacles in some concrete areas, however, tariff and non-tariff impositions still exist between the two countries.

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as well.[7] Lastly, the free agreement between Canada and U.S.A. of january 1988, has positively fostered commercial flux and investments by reducing tariff barriers, by eliminating non-tariff barriers and by implementing mechanisms for the solving of disputes.

§ 1.2 *Trade and Intellectual Property Around the World*

Because one of its principal aims is the free movement of goods, free trade would never develop properly if intellectual property rights are not protected. Article XX(d) of the General Agreement on Tariffs and Trade (GATT) [8] and article 36 of the Treaty of Rome,[9] have been fundamental for the balancing of the interests of traders and intellectual property owners.[10] Both GATT and the Treaty of Rome, as international multilateral conventions regulating trade, seek a system in which unfair trade practices and anti-counterfeiting measuresare effectively enforced.

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[7] In 1987 Mexico was already Canada's 9th purveyor and represented its 15th market. On the other hand, Canada was considered number 5 among Mexican commercial partners. Petroleum was Mexico's most demanded item during the seventies and first years of the eighties. This changed later and in 1987, exportation of manufactured and agricultural products came up to diversify the existing trade. Pursuant trade agreements between Canada and Mexico, before 1990 they had suscribed some general agreements on trade and industrial and energetic cooperation. In 1989 they signed an agreement related to trade and investment, fostering cooperation and understanding in some areas like textile, agriculture and livestock, fishing, automobile, mining, forestal, investment, technology transfer, assembly plants, tariffs and general preference systems. *Ibid.*, pp. 6-11.

[8] "Contracting Parties to the original Agreement decided to place intellectual property rights on the list of subjects that article XX(d) excepted from the GATT's overall legal regime." J. H. REICHMAN, *Intellectual Property In International Trade: Opportunities and Risks of a GATT Connection*, Vanderbilt Journal of Transnational Law, volume 22, 1989, number 4, p. 756.

[9] Establishes some exceptions to the free movement of goods principle, including the protection of industrial and commercial property.

[10] Despite the important contribution of article XX(d) to the GATT, there has been a longstanding battle between developed and developing countries as to protection of intellectual property rights. Whilst in developed countries there is a position to worldwide implementing effective rules combating the non-authorized use or exploitation of intellectual property rights, there is a tendency in developing countries to free ride on intellectual goods originating in industrialized countries. The foregoing has arisen out from the lacunae existing in the Great International Conventions to providing a proper enforcement system. J. H. REICHMAN, *ibid.* at p. 756 and 757.

Thus, at the GATT's Uruguay Round trade discussions, numerous submissions were brought to the parties attention, "outlining trade problems encountered in connection with new works of authorship, including books, periodicals, audio and video works, television programing and computer software".[11] The industrialized countries spearheaded the move to include intellectual property rights on the Round's agenda. Moreover, they proposed the drafting of an anti-counterfeiting code that would establish "a comprehensive package of minimal standards of protection for copyrights, patents, trademarks, trade dress, mask works and trade secrets".[12] The code should be in harmony with traditional conventions on industrial property[13] and copyright.[14]

Industrialized countries have mantained that under a trade agreement like the GATT, a particular member country that offers weak, inadequate and ineffective protection of intellectual property has to be considered "a significant and growing non-tariff barrier to trade in goods and services".[15] On the other hand, developing countries, lead by the block known as the "Group of 10",[16] have opposed the code "and argue in favor of leaving these questions entirely to the World

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[11] Susan WAGNER, *Gatt Tackles Intellectual Property Issues*, Rights Copyright and Related Rights in the Service of Creativity, Published by the International Publishers Association and the International Group of Scientific, Technical and Medical Publishers, Autum 1987, volume I, No. 3, p. 6.

[12] Susan WAGNER, *ibid.*, p. 6.

[13] Principally the Paris Convention for the Protection of Industrial Property, signed march 20, 1883. The Convention was revised at Brussels, december 14, 1900; Washington, june 2, 1911; The Hague, november 6, 1925; London, june 2, 1934; Lisbon, october 31, 1958 and Stockholm, july 14, 1967.

[14] Principally the Berne Convention for the Protection of Literary and Artistic Property, signed september 9, 1886 and supplemented by the Additional Act and Declaration signed at Paris, may 4, 1986. The Convention was revised at Berlin, november 13, 1908; Rome, june 2, 1928; Brussels, june 26, 1948; Stockholm, july 14, 1967 and Paris, july, 1971.

[15] Susan WAGNER, *ibid.*, p. 6. "The investment required for the creation, development and marketing of hightechnology products is enormous. And the ability to attract the capital necessary to support such creativity depends increasingly on the availability of a global market in which the creator can market his products. The exclusive rights provided by intellectual property laws enable the owner of such property to penetrate markets and establish a foothold for the sale and distribution of new products and services. Lack of adequate protection deprives investors of the export markets needed to recoup their costs."

[16] Brazil, India, Nicaragua, Argentina, Cuba, Egypt, Nigeria, Peru, Tanzania and Yugoslavia.

Intellectual Property Organization (WIPO), which administers copyright and industrial property Conventions".[17] In summary, developing countries are satisfied with the idea that the minimum standards in WIPO's conventions could continue to be internationally applied, due to the fact that such standards are low and will remain so in the future. Thus, they will continue to oppose the industrialized countries attempt to use GATT as a vehicle increasing minimum standards of protection and establishing new specific rules on enforcement and dispute settlement.

§ 1.3 *Mexico Looking Forward to NAFTA*

Mexico is conscious that in order to reach the status of developed country much has to be done, specially in the field of intellectual property rights protection and enforcement. Steps have been already taken in this regard and in 1991 a new statute regulating patents and trademarks was implemented[18] and amendments to the copyright law were introduced.[19] As to international trade protection, Mexico fully supports GATT's principles, including application of article XX(d) of said treaty.

Accordingly, Mexico expects that NAFTA will be compatible with GATT[20] and in the field of intellectual property, Mexico also seeks adequate protection for Mexican inventors and authors, and the free flows of new foreign technologies and capitals into the country.[21] In fact, the intellectual property talks have been stalled over the so-called "Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeiting Goods (TRIPS)",[22] which

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[17] Susan WAGNER, *ibid.*, p. 6.

[18] Law for the Promotion and Protection of Intellectual Property, published at the Federal Gazette of June 27, 1991.

[19] Decree of Amendments and Additions of the Federal Law of Copyright, published in the Federal gazette of july 17, 1991.

[20] *Organización de los Trabajos Preparatorios...*, opus cit., p. 12.

[21] NAFTA negotiations working groups were divided into six major areas, intellectual property being the fifth. Jaime SERRA PUCHE, *Bases de la Negociación del Tratado de Libre Comercio entre México, Canadá y Estados Unidos*, Conference given on april 18, 1990 and published by the Secretaria de Comercio y Fomento Industrial, p. 14.

[22] International Chamber of Commerce, *Commission on Intellectual and Industrial Property Agreement on Trips*, Policy and Program Department 1992-01-09 DC, document No. 450/702. Specifically, article 10 establishes that computer programs will

has now been backed by Mexico. Therefore and as explained above, in order to be compatible with the foregoing general principles, the Mexican system of intellectual property protection must offer an adequate level of protection to nationals and foreigners. Let us now analyze if indeed it does.

II. COMPUTER SOFTWARE PROTECTION UNDER MEXICAN INTELLECTUAL PROPERTY LAW AND FREE TRADE TRENDS

PART I: COPYRIGHT

§ 1.1 *The Basic Framework*

[A] A Brief Historical Introduction

The Mexican Copyright Law has evolved from the civil law system adopted by that country as a consequence of the 16th Century Spanish Conquest. After the Mexican war of Independence ended in 1821, a series of constitutions followed which recognized among other basic rights the need to properly protect authors and inventors with respect to their creations.[23] The Constitution of 1917,[24] which is still in effect in Mexico, viewed patents and copyrights as permitted monopolies, or in other words, as exclusive rights or "privileges",[25]

be protected as literary works under Berne Convention and compilations will be protected as well. Article 11 establishes a rental right. Article 12 a term of protection of at least fifty years from the publication and if unpublished, counted as of the making of the work.

[23] Article 50 section I of the 1824 Constitution recognized exclusive rights for authors with respect to their works and nothing was said about inventors; on the other hand the Constitutional Laws of 1836 and 1857, referred only to inventor's rights and those of authors were intended to be extensively interpreted. This is explained by Arsenio FARELL CUBILLAS, *El Sistema Mexicano de Derechos de Autor*, Editor Ignacio Vado, México, 1966, p. 13.

[24] Promulgated on february 5, 1917.

[25] Although really exclusive rights recognized by the Constitution upon authors and inventors, the framers of this Fundamental Law decided to use the old expression "privileges", valid at the times when European Crowns controlled press activity and granted special authorizations for the reproduction of works. Furthermore, and in opposition of the "privileges" theory, there is a part of the Mexican doctrine following Gustav Radbruch ideas about "social rights". They extensively

limited in time, conferred upon authors and artists with respect to the reproduction of their works and to persons inventing or improving upon inventions for the exclusive use of their inventions.[26] Accordingly, as a result of the free market economic principles set by the 1917 Constitution, monopolies, trusts and cartels became practices against the Constitution itself, except among others, for those "privileges" constituting the exclusive rights of authors and inventors.[27]

Since Mexico became independent, various copyright laws have been enacted. A specific law was implemented in 1846,[28] but then, the civil codes of 1870,[29] 1884[30] and 1928,[31] undertook the regulation of copyright. A more complete and systematic approach for the regulation of copyrights was introduced with the Federal Copyright Law

transport Radbruch's philosophy from labor and agrarian law to copyright, by stating that this latter branch of law is devoted to equilibrating the rights of authors and publishers, whose negotiating capacities are economically unequal. See Arsenio FARELL CUBILLAS, *id.* at p. 68.

[26] Article 28 of the 1917 Constitution. Although not mentioned in this Constitutional provision, the exclusive rights of authors and inventors are limited by their respective laws depending on the characteristics of the rights therein. Thus, copyrights limitations are found in the principles of originality idea/expression and fair use, among others and patent limitations in the principles of novelty, inventive activity (equivalent to non-obviousness in the US) and industrial application.

[27] Ignacio BURGOA, *Las Garantías Individuales*, Editorial Porrúa, 18th edition, México, 1984, p. 409. This Mexican Constitutional professor explains that the exception to what he calls "free concurrence" recognized by Constitution with regard to authors and inventors exclusive rights, represents an imposition to third parties to fully respect the rights of inventors and authors. The justification of article 28 "privileges" relies much on the aims of copyright and patent law themselves, that is it, achieving progress of culture and technology through the protection of works and inventions. See FARELL CUBILLAS, *opus cit.*, at 55.

[28] Apparently published on december 3, 1846. It contained 18 provisions and recognized literary property rights related to the publication of a work, duration of life plus thirty years and conferred equal rights to Mexicans and foreigners. Falsification was elevated to a crime consisting of the publication, copying and performance of works without the author's authorization.

[29] This code was influenced by the Spanish and French codes. It equated copyright as a property identical to that of tangible goods and considered it perpetual, with exception to dramatic works. Rafael ROJINA VILLEGAS, *Derecho Civil, Bienes, Derechos Reales, Posesión*, p. 289.

[30] This code followed the one of 1870 respecting copyrights, adding it with some penalty provisions for the copying and performanse of works.

[31] Published on august 31, 1928 and effective up to date. As different from previous civil codes, this did not relate copyright to property; it was rather a distinct right, with special characteristics and the rights were temporal privileges to use and exploit works.

of 1947,[32] followed by the Federal Copyright Laws of 1956[33] and 1963, this latter law still in effect.[34]

[B] Principles of Mexican Copyright Law

[B.1] The Author

Mexican Copyright Law is definitively oriented toward author's rights.[35] The flesh and blood person called the "author"[36] —or "authors" in case of collective works—[37] is the main object of protection. In keeping with this, Mexico like most other countries with legal system derived from Roman Law, strongly encourages protection of the author's personality, a situation which is reflected in the concrete

[32] Published on december 30, 1947 as a result of the joining of Mexico to the Interamerican Convention of Washington D. C. This Law grants protection to patrimonial and moral rights and with a social point of view provides regulation of reproduction and publishing agreements and collecting societies.

[33] Published on december 29, 1956 and follows closely the law of 1947. It only redistributes former law's chapters and harmonizes it with the Universal Copyright Convention principles, previously subscribed by Mexico.

[34] Decree of amendments to the 1956 Law of november 4, 1963 and published on december 31, 1963.

[35] Differences between author's rights and copyright systems will be discussed *supra* at p. 18.

[36] Mexican Copyright Law does not provide a definition of "author"; however the expression is exclusively referred to the natural person that creates a work. Although not a Mexican, Isidro Satanowsky provides a criterion that is valid in Mexico, stating that an author is that person that directly realizes activities oriented to create a unitary, complete and independent work of authorship, revealing his personality, artistic talent and creativity. Isidro SATANOWSKY, *Derecho Intelectual*, volume I, Tipográfica Editora Argentina, Buenos Aires, 1954, p. 265. As to ownership, the individual autor of a work is owner of the copyright on what he or she creates, unless there is a work made for hire relationship. In this respect, article 59 of the Copyright Law establishes that everyone who produces a work with special and remunerated participation or collaboration of one or more persons shall enjoy ab-initio the couyright therein. The meaning of remuneration is broad and comprises salaries, participations, payments for the rendering of services other than employment, among others and there are no Court decisions that have limited this criterion.

[37] Articles 12 and 13 of the Copyright Law regulate collective works and works under collaboration.

application of basic copyright principles such as originality,[38] the expression/idea dichotomy[39] and fair use.[40]

[B.2] The Work of Authorship

A work is the personal intellectual creation or expression of human sensibility, talent and ingenuity. A creation meeting the above criteria, that is it, an individual creation, complete, unitary and representing or meaning something,[41] will be granted full protection under Mexican Copyright Law. Likewise, Mexican Copyright Law requires that the work be embodied in a tangible medium of expression. It is indeed the act of creation and fixation of the author's creation in a material and durable form that leads to copyright protection.[42] However, it will be always the intangible element —human creation—, that it will be protected and not the medium or "corpus mechanicum" in which is embodied.[43]

[B.3] The Rights

Mexican Copyright Law states that there are two fundamental type of rights, which are moral and patrimonial rights. Moral rights are the purest manifestation of the author's personality in copyright. They cannot be transferred, sold or assigned, because they are inherent to and integral to the author, who holds them permanently

[38] Originality principle will be discussed *supra* at p. 19.

[39] FARELL CUBILLAS, *op. cit.*, at p. 76. He quotes many different authors to indirectly conclude that it is acceptable under Mexican Copyright Law that due to the characteristic of works, it is not the idea underlying the work what copyright protects, but it is rather the expression that the author exteriorizes from his or her inner world.

[40] Article 18 of the Copyright Law, provides some very specific limitations to copyright protection, such as industrial application to ideas in a work, non-lucrative employment of reproduction or performances of works in actual events, publication of art and architectural works which are publicly displayed, translation or reproduction of fragments of works or "crestomaties", reproduction of a published work as a manuscript, typed document, photograph, photocopy, drawing, painting or microfilm, as long it is done for the exclusive use of who reproduces it. In 1991 a limitation was added dealing with back up copies of computer software. As can be perceived, this very specific limitation system differs significantly from the equity system followed by § 107 and further provisions of the US Copyright Act.

[41] SATANOWSKY, *op. cit.*, at p. 153.

[42] Article 7 of the Copyright Law.

[43] FARELL CUBILLAS, *op. cit.*, at p. 81.

and perpetually, during and after his or her life. Also, it is not possible for the author to renounce his or her moral rights; they cannot be pledged and they never prescribe.[44] According to Mexican Copyright doctrine, it moral rights constitute the dividing line between intellectual property right and actual property (res).[45] There are various categories of moral rights, of which Mexican law has indirectly recognized some,[46] but expressly only the paternity right[47] and the integrity right.[48]

On the other hand, patrimonial rights can be transferred, licensed or in any other way disposed of by the author, or by the assignee or copyright owner in case of a work for hire relationship, and its duration is temporary.[49] Just as in the U.S. and other jurisdictions, patrimonial rights contemplated by Mexican law can be divided into the five well known categories of reproduction, distribution,[50] control of derivate works,[51] public performance and display.

[B.4] Formalities

Finally, Mexican Copyright Law subscribes to the principle of absence of formalities as to registration and use of copyright notice of

[44] Article 3 of the Copyright Law in connection with article 2 (I) and (II) of the same statute.

[45] FARELL CUBILLAS, *id.* at p. 119. Moral rights are not *ius in re aliena.*

[46] Right to create, right to continue and complete the own work, right to modify and destroy the now work, right to remain the work unpublished, right to publish the work under the author name, under pseudonym or anonymity, right to select interpreters for the work's performance and right to with draw the work from commerce. See Carlos MOUCHET and Isidro RADAELLI, *Los Derechos del Escritor y del Artista,* Ediciones Cultura Hispánica, Madrid, 1953.

[47] Article 2 (I) of the Copyright Law.

[48] Article 2 (II) of the Copyright Law.

[49] Article 4 of the Copyright Law as supported by article 23 of the same statute, which establishes the general term of protection of patrimonial rights of life of the author plus fifty years after his or her death.

[50] Distribution right according to Mexican Law of copyright is a broad concept encompassing rental rights, although not expressly. Exhaustion of rights operates only nationally after the first property disposal or transmission of a copy of the copyrighted good is made and there is no provision allowing the parallel importing of a corresponding foreign distributed genuine good.

[51] Article 9 of the Copyright Law states that derivative works such as arrangements, abridgements, amplifications, translations, adaptations, compilations and transformations of works, shall be protected as to its original aspects, but shall only be allowed to be published if they are authorized by the copyright owner of the underlying original work. If the works or features taken to produce the derivative

the Interamerican Conventions and the Berne Convention for the Protection of Literary and Artistic Works (Berne Convention). Accordingly, Berne Convention standards[52] were introduced article 8 of the 1963 Copyright Law, which states that there is no need to register a work in order to protect it. As mentioned before, protection of a work arises out of of the very act of creation, and registration only recognizes or confirms such previously constituted rights. Notwithstanding the foregoing, registration represents prima facie evidence of copyright ownership.[53] Thus, in case of a dispute over rights, the burden of proof would be borne by the contesting party.

By application of the Berne Convention, the principle of absence of formalities extends to foreign authors who are nationals of Union countries,[54] or if not nationals of Union Countries, their works have been published[55] in one Country of the Union, or then have permanent residence in one of them.[56] Similarly, the Interamerican Convention confers protection to member State authors and foreigners domiciled in member States, without registration, deposit or formalities.[57] Therefore, in the case of enforcement, a Mexican court would most likely recognize application of the principle of absence of formalities to all foreign works whose authors are nationals of Berne Convention or Interamerican Convention countries, but not to nationals of countries with which Mexico has only Universal Copyright Convention relationships or no reciprocity relationships at all.[58]

work pertain to public domain, it will be protected as to its original portions, but will not mean extension of the protection to its underlying aspects.

[52] See national treatment principle of article 5(1) of the Paris Act Of the Berne Convention and absence of formalities of article 5(2).

[53] Mexican Law provides an easy, quick and cheap registration system based on originality standards, with no time limitation for registration. Articles 119 and 122 of the Copyright Law.

[54] Article 3(1) (a) of the Berne Convention (Paris Act).

[55] Article 3(1) (b) of the Berne Convention (Paris Act).

[56] Article 3(2) of the Berne Convention (Paris Act).

[57] Article IX of the Interamerican Convention. Article X encourages the use of notices, but it is not mandatory.

[58] Article 28 of the Copyright law states that works of foreign auhtors whose countries do not have copyright international relationships or works published for the first time in a country with no relationships with Mexico, copyright therein will be protected for a seven years period reckoned from the date of first publication of the work, as long there is reciprocity with the concerned country. After this period has passed and if the work has not been registered with the Mexican Copyright Office, any person shall be entitled to publish it with previous authorization granted by the Public Education Secretariat.

The principle of absence of formalities also covers the copyright notice requirements.[59] However, Mexican Copyright Law states that if proper notice is not displayed in a visible place, the publisher will be liable for the sanctions prescribed by the Law,[60] but this will not result in loss of copyright.[61] Regarding recordation of agreements, the Law provides that those entered into by authors modifying, transmitting, encumbering or extinguishing patrimonial copyrights, shall produce effects after they are recorded with the Copyright Office.[62] It should be understood that only agreements representing transfer, modification or extinction of copyrights have to be recorded; work-for-hire agreements do not fall within any of the cited categories. Also, recordation is not mandatory for agreements entered into by two publishers or other corporations with no participation of the authors. Otherwise, there are no restrictions imposed by the law to scrutinize and approve recordation of agreements; the intention of the contracting parties governs copyright relationships between authors and publishers.[63]

§ 1.2 Copyright Protection for Computer Programs in Mexico

[A] History of "Acuerdo"[64] Number 114 of the Public Education Secretariat

On October 8, 1984 the so-called "Acuerdo 114 of the Public Education Secretariat" was published in the Official Gazette of the Fed-

[59] Mexican Copyright Law establishes in its article 27 that "[p]ublished works protected by this Law shall bear the expression "Derechos Reservados" (Rights Reserved), or its abbreviation "D.R."; followed by the symbol "©" and the full name and address of the copyright owner and an indicatiion of the year of publication..."

[60] There is no specific sanction applicable to a published work lacking of copyright notice. However, in conforming with article 143 of the Copyright Law, fines dealing from $130,000 to $ 6'500,000 Mexican Pesos (approximately from $500 to $2,100 U.S.D.) are imposed in case of infractions of Mexican Copyright Law and Regulations thereunder that are not criminal in character.

[61] Article 27 of the Copyright Law.

[62] Article 114 of the Copyright Law.

[63] Regarding government approvals, former Technology Transfer Law (LTT) of january 11, 1982 stated that among others, it was required to record agreements transferring or licensing copyrights regarding industrial exploitation and computer programs [article 2(I and (m)]. The LTT was abolished with the implementation of the new Law for the Promotion and Protection of Industrial Property.

[64] "Acuerdo" could be best translated into English as a resolution or decree of

eration. This resolution, although not binding as a statute of Congress, manifested the first intention of the Mexican Government to recognize protection of computer programs. It is not clear why the government chose to regulate software through an administrative resolution and not through enactment of a statute. There is also no legislative history indicating why the Mexican government decided to protect computer programs through copyright law and not through patent law. We believe that Mexico just followed what the World Intellectual Property Organization[65] and other countries[66] had done at that time.

a government body, in this case the Public Education Secretariat, which pertains to the executive branch. It is not a Statute; rather, it demonstrates a formal ruling of this official body with regard to a matter in its jurisdiction.

[65] Model Provisions on the Protection of computer software, 1978 Copyright 6, WIPO Publication No. 814.

[66] See Eugen ULMER and Gert KOLLE, Copyright Protection of Computer Programs, IIC, Vol. 14, No. 2/1983. In Germany, the German Association for Industrial Property and Copyright Law submitted an opinion of the WIPO Model Provisions to the Federal Ministry of Justice, which was accepted by this latter in late 1981. There are also landmark resolutions on the matter made by the Kassel, Mannheim, Mosbach and Munich District Courts. In the United Kingdom, a special Committee to Consider the Law of Copyrights and Designs was set up, which prepared the Whitford Report that was presented to Parliament in 1977. It was widely accepted and applied in the study presented by the British Government in 1981, the "Green Paper", which was the basis for a revision to the 1956 Copyright Act. In France, there was an important decision of the Paris Court of Appeals of november 2, 1982 (1982 PIBD III. p. 260). In Japan, there was a decision of the Tokyo District Court of december 6, 1982 (Taito v. I.N.G. Enterprise) and another of the Osaka District Court of december 18, 1979, reported in 3 EIPR 131 D 61 (1981). In the Netherlands, decisions of the Arrondissements Rechbank te's Hertogenbosh of january 30, 1981 and may 14, 1982 could be found. In the U.S., "as early as 1964, the Copyright Office registered the first computer program in the book category under the rule of doubt, and continued this practice as long as the programs were deposited in humanly readable from". Marshall A. LEAFFER, Understanding Copyright Law, Matthew Bender, U.S., 1989 and 1990 reprint, p. 64. Copyrightability of computer programs was favored by the legislative history of the 1976 Copyright Act. However the National Commission of New Technological Uses of Copyrighted Works (CONTU) appointed by U.S. Congress to study the issue concluded some amendments to the Act and as a result a definition was included in §101 and some limitations in §117. Some landmark cases in the U.S. were found in Apple Computer, Inc. v. Franklin Computer Corp., 714 F.2d 1240 (3d Cir. 1983), cert. dismissed, 464 U.S. 1033 (1984); Williams Elec., Inc. v. Artic Int'l, Inc. 685 F.2d 870 (3d cir. 1982); Stern Elec., Inc. v. Kaufman, 669 F.2d 852, 855-56 (2d Cir. 1982) and others. Finally, in Canada "Copyright is currently the principal source of protection for computers programas... Computer programs are now defined as literary works by virtue of legislation recently enacted to revise the Copyright Act (Bill C-60)". Max WOOD, Computer Related Intel-

"Acuerdo" 114 contains a provision stating that computer programs were deemed to be works of authorship under the terms of the Federal Copyright Law. Copyright protection and registration[67] thus became avialable in order to avoid infringement by unauthorized third parties violations of these types of works, having unique characteristics. These particular characteristics resulted from the contents of the program itself as well as the tangible medium in which they are embodied. Registration was thus accepted for computer programs under a rationale akin the rule of doubt (applicants' good faith would be presumed without affecting third parties' rights).

[B] Federal Copyright Law of 1963

The "Acuerdo" was considered for a long time as the guiding principle of computer program copyright protection; however, the Copyright Law of 1963 was deemed applicable as providing the general framework of protection of these types of works. This curious situation endured for approximately 7 years. As a result, the Copyright Office started granting registrations for operating systems and applications programs presented either in source code or object code. Registration required the filing of the 10 first and last 10 pages of said object code, source code or both.[68] A brief description of the computer program and a listing of its directory were required as well.[69] Finally, the applicant was entitled to file samples of the program in any known tangible form of expression. If these media were different from printed paper, the applicant was required to file the first 10 and last 10 pages in question, which were returned to him or her with corresponding annotations.[70]

[C] Amendments of 1991

With the passage of time the 1963 Law needed to be reformed as it was increasingly unable to cope efficiently with the complexity of

lectual Property: What Protection is Available? Scott & Aylen Intellectual Property Quarterly, volume 8, number 2, Spring 1992. Leading Canadian cases can be represented by IBM Corp. v. Ordinateur Spirales (1984).

[67] Acuerdo 114 (article 1).
[68] Acuerdo 114 (article 2).
[69] Acuerdo 114 (article 3).
[70] Acuerdo 114 (article 4).

legal problems in the software industry. Of the issues that emerged from the use and commercialization of software, growingpiracy bears first mention. There was practically no understanding in Mexico of the rights that computer program authors and publishers had with respect to their works of autorship. Likewise, it was difficult to know the obligations of the public relating to the reproduction of the programs. "Acuerdo 114" had fallen behind actual needs and trends. Accordingly, on october 30, 1985, the "Asociación Nacional de la Industria para Programas de Computadoras", a national organization better known as "ANIPCO", published a document proposing a series of amendments,[71] which some years later became the foundation of the 1991 Copyright Law amendments.

The ANIPCO memorandum, among other matters, suggested the recognition of computer programs as a new category, independent of the more traditional types of works. It also raised the possibility of restricting reproduction to a single back up copy of an original program, and duration of the protection to life plus thirty years, granted not to the author but to the publisher.[72] Computer software differs from other classes of works in that it manifest problems with respect to moral rights, inasmuch as development of programs is frequently undertaken by groups of 20 or 30 programmers or even more. This situation creates a conflict due to the fact that it is difficult to determine the participation of each programmer, one may not even known about another programmers' contributions. ANIPCO therefore proposed that moral rights with respect to computer software could be waived. Furthermore, ANIPCO suggested that a system should be implemented that restricts access to software registration records filed at the Copyright Office without the express consent of the copyright owner. Finally, ANIPCO's recommendation included an increase in penal and economic sanctions for the non authorized reproduction of programs, including manuals and non literal elements.

As mentioned, ANIPCO's voice was heard by Mexico's Congress and most of its proposals were incorporated into the Copyright Law.

[71] Legislación sobre derechos de autor. Editorial Porrúa, México, 1980.
[72] As explained above, the life plus fifty years provision is applicable to author's rights natural person and it is not clear with respect to collective persons' rights. This term of life plus fifty was finally applied to computer software as well.

The 1991 Amendment[73] intended to significantly improve copyright protection for computer programs in Mexico, and regulations to the Law should be promulgated soon. Anticipating the North American Free Trade Agreement (NAFTA), and with the goal of raising the standards of protection to a level that compares favorably with that of other countries, more effective and meaningful enforcement procedures were implemented. However, the Amendments met with both national and foreign criticism, before[74] and after[75] their enactment.

As mentioned before, articles 7(j) 18(f), 132(II) and 135(III), were modified or argumented. In the first place computer programs were expressly considered to be a separate category of works of authorship.[76] Although not intended by the drafters of the amendments; the idea of establishing some degree of differentiation between this type of works and others of more traditional characters is proper in a country in which author's rights system prevails.[77] Article 7 of the Copyright Law grants equal protection, without distinction, to all of the listed categories of works. Likewise, as with any other type

[73] Published at the Oficial Gazette of the Federation of july 17, 1991, becoming effective 30 days after its publication.

[74] On april 11, 1991, a source of which we do not have the name, produced a document entitled *Comments on Provisions Relating to the Protection of Computer Software in the Copyright Law Amendment Submitted to the Mexican Congress on june, 1990.* We believe that it was drafted by some American computer software organization involved in some manner in the NAFTA negotiations. In the document it can be appreciated disagreement with the Amendment's draft presented to Congress, with regard to the failure to protect computer programs as literary works; failure to protect data bases explicitly; failure to exclude computer programs from the application of Berne Convention compulsory license provisions (Appendix, Arts. II and III), and Mexican Copyright Law (articles 62 through 71); they also note unclearness of deposit provisions, at it can not be easily concluded whether the "Acuerdo 114" will still apply respecting the deposit of portions of codes of the programs to be registered, imprecisions as to the extent of the application of the distribution right, importation right, rental right and parallel imports and insufficiency as to the criminal sanctons and civil remedies probided by the law.

[75] José Luis CABALLERO LEAL, *Regulación Jurídica de los Programas de Ordenador a la Luz del Tratado de Libre Comercio,* Conference presented at the seminar entitled *Aspectos del Derecho Intelectual en su Relación con el Tratado de Libre Comercio México-Estados Unidos de América-Canadá.* Organized by the Federal Prosecutor's Office, the Escuela Libre de Derecho and the Mexican Copyright Institute.

[76] Article 7(j) of the Copyright Law.

[77] See *supra* at p. 18 and 19, our comments on the originality principle.

of literary or artistic works, its nonliteral elements[78] are protected in the same manner as the outlines, sketches, plots, plans and drafts of others works, without having to expressly mention it in the Law. However, as a result of the pressure that the NAFTA's U.S. negotiating team has put on the Mexican Government to classify computer programs as literary works, new changes to the Law surely will come up in the future.

The back-up copy provision of article 18(f) of the Copyright Law[79] was inspired by Article 117 of the U.S. Copyright Act.[80] Nonetheless, such provision is unclear as to whether whether for "back-up" copy means the one loaded onto the hard disk of a computer, or whether the original floppy disk would become the back up copy once it is loaded onto a hard disk.[81] As to adaptation of programs, anyone may to produce derivative works and use them for personal purposes; however, in accordance with the Copyright Law the publication or public use of the adaptation requires the prior authorization of the copyright owner.[82]

Article 132(III) incorporates ANIPCO's proposal by establishing an exception to third parties access to records filed with the Copyright Office relating to computer programs. This was made the primary purpose of protecting trade secrets embodied in the programs. In fact, the prefatory statement or legislative history of Article 132(III) states that it should be borne in mind that configuration of software "constitutes the essence thereof"[83] and public information on the subject should be restricted. Otherwise access to this type of work by the public would be tantamount to disclosing its creative features.[84]

[78] Such as the SSO, screen displays and user interface, see *supra* at p. 15.

[79] Article 18 of the copyright Law: "Copyright protection does not extend to the following cases: ... f) The back up copy made for the exclusive use of whom acquires an authorized copy of the computer program."

[80] 17 U.S.C.A. §117. Limitations on Exclusive rights: Computer Programs.

[81] José Luis CABALLERO LEAL also questions weather for back up copy we should understand the momentary reproduction of the program in a RAM type memory, *op. cit.* at p. 11.

[82] Article 120 of the Copyright Law.

[83] Taken from Secretaría de Educación Pública, *Revista Mexicana de Derecho de Autor,* year II, Num. 7, july-september, 1991, p. 31.

[84] The *Comments on Provisions Relating to the Protection of Computer Software...*", *ibid.,* at page 23, approves this provision; however it suggests that in regulations to the Law allow the deposit of "identifying material" in lieu of entire or partial copies, and that any copies deposited may be redacted for trade secrets. On the other hand, José Luis CABALLERO LEAL highlights the legal technical incon-

Finally, as to enforcement of rights, intellectual property infringement and counterfeiting, both of locally manufactured and imported products, have been grave problems in Mexico in recent years. Therefore, the existence of adequate and effective means by which intellectual property owners can enforce their rights is an important free trade agreement issue that confronts Mexico. Consecuently, in addition to a strong copyright law protecting computer programs, effective civil and criminal remedies are needed as well, such as border controls and stringent anticounterfeiting measures. The Copyright Law contains a chapter prescribing remedies and sanctions. Both, criminal and civil damages actions are contemplated.[85] Also, in addition to the application of the Federal Codes of Civil and Criminal Procedure, this chapter of the Copyright Law authorizes civil judges and criminal prosecutors to seize illegal copies.[86]

The 1991 Amendments to the Copyright Law introduced a criminal penalty of up to six years in prison and significant fines for the un authorized reproduction of computer programs done for the purpose of gain. This "for purpose of gain" feature has been a bone of contention. However, "gain" or its Spanish translation "lucro", refers not only to the profit directly obtained from the sale or exploitation of a certain good, but also to the indirect benefit or advantage, which would not necessarily require pecunary gain.[87][88] This newly introduced criminal remedy has been recently tested by the Business Soft-

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sistencies arising out of treating computer software deposits as private as opposed to other types of works, which deposit remains public; but the legislative history of the Amendment indicates that Congress agreed to establish the exemption "because it stimulates and fortifies the creative activity in this subject" (Rev. Med. Der. Autor, *ibid.*, at p. 32).

[85] Chapter VIII (articles 135 through 156).

[86] However, Mexican litigation and Court system does not provide with injuctive relieve measures.

[87] Article 75 Copyright Act and legislative history stating that this provision is applicable in the event that a person uses non-authorized reproductions of computer programs for his benefit or for others.

[88] Whereas the manufacturer most of the times obtains direct "lucro" from the reproduction and distribution or sale of the infringing programs, the dealer normally loads programs onto the hard disks of the computer that it sells as an incentive and the end user buys one or a few original copies of a program and then loads it onto the hard disks of sometimes hundred of computers having in its premises or even onto servers that uses in networks.

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ware Alliance (BSA)[89] and much success is expected in the near future.

[D] Software Collecting Society

On february 27, 1992 the Copyright Office registered a Collecting (or Authors') Society, which among other purposes set by the law, it intends considered to jointly collect its members' royalties deriving form the use of software.[90] The creation of the Society has surprised more than one commentator, however. The problem is twofold. First, collecting societies in Mexico are entitled to collect royalties arising from the public performance of works of authorship without the express authorization of the author.[91] Moreover, according to the Copyright Law, collecting societies are not authorized to collect royalties arising from the reproduction and distribution (publication) of copies of the program, if no express power of representation is granted by the author.[92] Second, rights to collect royalties derived from publication of software (or mechanical rights, using the terminology employed in the music industry), are only vested in the author or his authorized representative. Furthermore, as most computer programs are produced under work-for-hire relationships, employers and contracting parties that purchase software development services rather than "authors" are frequently the rightful owners of such collection rights.[93]

[E] Non-Literal Elements

From the above, there is no doubt that literal codes of computer programs are protected in Mexico as forming part of the final product ready for use by a machine. Partial or total copying of these features leads to copyright infringement. On the other hand, there

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[89] BSA members in Mexico include Aldus Corp., Autodesk Inc., Lotus Developmet Corp., Microsoft Corp., Novel Inc. and Word Perfect Corp.

[90] It was registered under number 68, pages 47 and 48 of the Author's Societies book.

[91] Articles 72 and 98(II), second and third paragraphs. However, as the reader surely will know, public performance of computer software, if possible at all, could only be found in the displays of some types of screens, like videogames.

[92] Article 98(I) of the Copyright Law.

[93] See comments relating to workfor-hire and Article 59 of the Copyright Law at infra p. 7, footnote 36.

must be a dividing line between such protected expression and the unprotected idea or overall purpose of the program. But would the non-literal aspects of the program be protected in accordance with Mexican Law? These uncharted waters lying between idea and expression, constituting the program's "structure, sequence and organization" (SSO), have not been addressed either by the Copyright Law or by the Courts.[94] "Look and feel" and user interface issues also have not been explored.

Notwithstanding this situation, the Copyright Law of Mexico should protect non-literal features of programs on a case-by-case basis if they form part of the program's expression and not the idea.[95] Although not all transitions between the several stages of program development are fixed, identified or even utilized in the final product (ie: flow charts), "[f]rom a copyright law point of view software development in all its phases can be regarded as a process of work completion which eventually aims at the production of an operational computer program".[96] As mentioned, the Mexican Copyright Law grants protection to sketches, outlines, plots, rough drafts, etc., to all categories of works and the SSO and displays of computer programs are no exception.[97] However, it remains to be seen whether a Mexican court, especially of criminal jurisdiction, would enforce such rights in an action grounded in the unauthorized copying of programs. It is not clear whether this language is wide enough to apply not only to direct reproduction of the program, but also to infringement of non-literal features.

[94] Also, it is not completely clear whether program similarities could be identified in levels above the literal code such as "the algorithms that are implemented by the code and, at progressively higher levels, the definition and interrelationship of subroutines, modules and larger functional units". Ronald S. LAURIE, Comment: Use of a *Levels of Abstraction: Analysis for Computer Programs*. A.I.P.L.A. Q.J., Vol. 17:232, p. 232. See also leading cases in the U.S. like *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 230 U.S.P.Q. 481 [1986], *Computer Associates International Inc. v. Altai, Inc.*, No. 89 CV 0811, slip op. E.D.N.Y. Aug. 12, 1991) and others.

[95] Ulmer and Kolle refer to the first stage of the program's development as to the writing of a previous specification of the basic concept of the program, then the program's description in a natural language, and lastly to the subsequent conversión into a data flow chart. The second step would be the encoding of the flow chart into the source code and finally the operational object code. See ULMER and KOLLE, *op. cit.*, at p. 173.

[96] *Ibid.* at p. 173.

[97] *Infra* p. 13.

[F] Databases

It is also unclear whether databases are protected by copyright, because the Mexican Copyright Law extends protection to artistic and literary expressions which are the result of sensibility and talent rather than products of "sweat of the brow".[98] There is also no specific provision in the Law that refers to database protection. Nevertheless, in Mexico as in the U.S.[99] facts and collections thereof are not the subject matter of protection, but compilations are protectible if there is originality as to selection, arrangement and coordination of such facts.[100] Under the above standards, a simple list of names in alphabetical order would probably not be protected. On the other hand, if the compilation meets certain treshold of originality, it will be protected regardless of whether it is embodied in electronic or non-electronic media.

§ 1.3 *Free Trade and Computer Software: Two Systems Vis-a-Vis*

[A] Evolution of Author's Right and Copyright Systems

Copyright law evolved differently in England from Continental Europe. However, there are common roots to both Anglo-American and Continental European (and Latin American) copyright systems

[98] We believe Mexican courts would follow *Feist Publications, Inc. v. Rural Telephone Service Co., Inc.*, 499 U.S.—, 113 L.Ed. 2d 358, 11 S.Ct. 1282, 18 U.S.P.Q. 2d 1275 [1991] Copyright L. Dec. (CCH) ¶26,702 (1991), in which the U.S. Supreme Court rejected the so-called "sweat of the brow" or "industrious collection" doctrine and held that only unique selections, arrangements and selections of data and facts are protected under copyright law. See Morton David GOLDBERG, *Copyright for Computer Programs and Data Bases*, in American Intellectual Property Law Association, Continuing Legal Education on the Law of Computer Related Technology, january 1992, volume I, p. N-4.

[99] See GOLDBERG, *id.* at N-5, reviewing *Feist*. There he says that "[a]nalyzing the definition of 'compilation' in §101 of the Copyright Act, the Court said that it conveyed the 'message through its tripartite structure' that "collections of facts are not copyrightable per ser"... 'The statute identifies three distinct elements and requires each to be met for a work to qualify as copyrightable compilation: (1) the collection and assembly of preexisting material, facts or data; (2) the selection, coordination, or arrangement of those materials; and (3) the creation, by virtue of the particular selection, coordination, or arrangement, of an 'original' work of authorship'."

[100] Article 9 of the Copyright Law; see infra at footnote 51.

in the censorship of the press during the 15th Century and the monopolic privileges granted by sovereigns, the church and universities.[101] Later, while in France the Crown began to control the press, in England the Stationers Company gained control as the Crown invested it with extraordinary powers to print, search and seize, when the writings were not "licensed" by official censors.[102] As a result of the increase in piracy throughout Europe due to the monopolistic press, a struggle arose and the right to control publication reverted to the author in France and remained with the Stationers Company in England. This evolution led these two countries to take different curses with regard to copyright protection of authors and their works.[103]

The fundamentals of the French approach are highlighted by the emphasis given to moral rights (theory of personality), whereas in England and later in the United States, the focus has been on the control afforded by copyright over initial disclosure of works (common law theory of privacy).[104]

[B] Two Different Systems, Two Confrontations

[B.1] First Confrontation: The Formation of the International Network of Treaties

Internationalization of copyright was first realized when works produced within one country began to reach other countries. This was due in part to piracy triggered as a consequence of the monopolistic practices of the Crown and publishing companies seeking to control the press. International agreements were resorted to resolve trade conflicts in Europe and the Americas. During the 19th Century many such agreements were reached. Later, these agreements were superseded by multilateral treaties, of which the Berne Convention is considered the most important. Its fundamentals were national treatment and absence of formalities under a system of minimum rights to be

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101 "The advent of the book trade prompted national jurisdictions to respond with new laws and entitlements". Reproduction and dissemination of information technologies have since then improved "with proliferating challenges to the Law". Eward GELLER, *International Copyright: An Introduction*, Matthew Bender, p. 15.
102 *Ibid.*, p. 17.
103 *Ibid.*, p. 20.
104 *Ibid.*, p. 23.

complied with and fostered among the subscribing parties.[105] Moral rights were also strongly encouraged by Berne, which resulted in rejection by certain of the "copyright system" countries. In fact, the United States did not join the Berne Convention until 1988.[106] Almost 60 years after the formation of the so-called Berne Union, a new international treaty was enacted with the purpose "to tie non-Berne countries such as the United States at the time, to other countries both inside and outside the Berne Union, but not to tie Berne countries to each other".[107]

[B.2] Second Confrontation: EC Directive on Software Law

Professor Geller has stated that the only real differences between copyright and author's rights systems are the term of duration of rights, the definition of author and the style in which legislators fashion rights.[108] However, this opinion is not shared by other authors, especially some of countries whose legal systems derive from Roman Law. The EC Directive on Software Protection, also known as the "Green Paper",[109] is a good example of a confrontation between the two legal approaches to protecting authors. The Directive represents an attempt to harmonize copyright laws in the European Community. Nonetheless, as fundamental principles like originality were given an "anglosaxon" interpretation, a conflict resulted.[110]

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105 See *infra* at p. 8.
106 Berne Convention Implementation Act of 1988. Pub. L. No. 100-568 (1988).
107 The Universal Copyright Convention "was drawn up in Geneva in 1952, came up into effect starting in 1955, and has since then attracted about the same number of adhering countries as Berne has over the last century". GELLER, *op. cit.* at p. 64. Berne preempts the U.C.C., which therefore remains inoperative between Berne countries who adhere it.
108 *Ibid.* at p. 28.
109 Directive 91/250 of may 14, 1990. It derived from the *Green Paper on Copyright and the Challenge of Technology*, Doc. Com. (88) 172.
110 See Antonio DELGADO PORRAS, *La Directiva de las CEE sobre la Protección de los Programas de Ordenador*, Conference presented at the Seminar entitled "Aspectos del Derecho Intelectual en su Relación con el Tratado de Libre Comercio México-Estados Unidos de América-Canadá", Organized by the Procuraduría General de la República, Escuela Libre de Derecho and Instituto Mexicano del Derecho de Autor on march 17-26, 1992. See also Antonio DELGADO PORRAS, *Del Optimismo a la Perplejidad Reflexiones de un Jurista sobre la Protección de los Programas de Cómputo por el Derecho de Autor*, VI Congreso Internacional sobre la Protección de los Derechos Intelectuales (del autor, el artista y el productor), Organized

Originality is a very sensitive issue, differently conceived by the copyright and the author's rights systems. Whereas the copyright system presupposes "independent creation" and "modest quantum of creativiti" under the theory that the work owes its origin to the author —who can either be a natural or a collective person—, the author's rights system highlights a "personal creation" standard, as an arbitrary manifestation of the personality of the author —always a flesh and blood person— or what it is known as the "imprint of the author's persona".

The Green Paper adopted copyright protection for computer programs, because this approach has shown the capacity to adapt to new technologies, it does not limit independent creation as as does patent law, and it protects the expression of ideas but not the ideas themselves, which leads to a balanced solution between inadequate and excess protection.[111]

The Roman countries of the EEC have had difficulty dealing with such ideas. For certain countries find it virtually impossible to fit the "independent creation" standard within an author's rights system. If a work is considered the expression of the author's personality it is simply unthinkable that the same works could be repeated. In essence, computer programs are ruled by functionality, inasmuch as they are oriented to accomplishing a utilitarian result (ie: developing a word processing program, a spreadsheet, etc.). On the other hand, the traditional "work" has no particular utilitarian objective, as authors' expressions are arbitrary and unique in nature.

In addition, under the Latin-Germanic approach, computer programs differ from other works in that non-literal elements of computer program are so linked to the program itself that they are only protected if they are essential to the program's creation. In other words, non-literal elements are only protected if they finally lead to the creation of the program. With other types of works, underlying elements are protected independently of the work itself.[112]

Germany and France have unsuccessfully tried adapting the anglosaxon view of originality into their own systems. In Germany, the

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by SEP, WIPO and FEMESAC, in Mexico City, february 25 to 27, 1991, and Edition sponsored by CISAC, pp. 269-278.

[111] *Ibid.*, p. 7.

[112] *Ibid.*, p.4.

Federal Supreme Tribunal at *Inkassoprogramm v. Entscheidung*[113] used the criterion of "Durchschnittgestalter", probably equivalent to the Anglosaxon standard of individual functionality, finally leading to a "statistic originality", or objective novelty of patent law.[114] Likewise, in the "Pachot" case the French Court of Cassation[115] applied the "individual effort" criterion, but an individual effort can be made by any person without necessarily producing a work of authorship. The point of citing these two cases is that non of the aforementioned ideas were applicable in Germany and France, who had a hard time trying to fit them into their national systems, in which an original work is necessarily linked to the persona of its author.[116] As a result, EC Continental European countries have finally decided to follow originality based on "personality rights" for all literary and artistic works of authorship and to apply originality standards based on "independent creation" and "modest-quantum of creativity" to computer programs.[117]

The above explained situation has showed the different directions taken by the countries subscribing the Roman Law standpoint and the countries following the anglosaxon view. The NAFTA will surely bring up a third confrontation, now transporting the issue to North America. The question here is which of the countries involved will have to modify its copyright system. For many reasons everything seems to indicate that Mexico will be the one having to finally adapt anglosaxon formulas into its own very well grounded system, at least respecting to competer software protection. This expectation has yet started manifesting as the 1991 Amendments have granted a different treatment to computer programs with respect to the rest of the copyrightable works. Thus, as long as software remains protected by copyright it will be constantly conflicting to fit within this sub-

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[113] May 9, 1985.

[114] *Directiva...*, *ibid.*, p. 13.

[115] Plenary Assembly, march 7, 1986.

[116] However in Germany, Ulmer and Kolle sustain in contrast that alhtough an engineering activity, programming, encoding, selecting data, arranging it and generally speaking, developing programs, gives ample room for a personal creation and design as to form and substance of a program. "Programs made by different programmers to solve the same problems and using the same programming language may all serve their purpose. They will nevertheless differ substantially from each other as to form, contents, and quality." ULMER and KOLLE, *op. cit.*, at 179.

[117] DELGADO, *Directiva...*, *op. cit.*, at p. 14.

ject's framework and Mexican Copyright Law principles will be suffering the same consequences also experimented by the Laws of many other Roman Law system countries.

PART II: PATENTS

§ 2.1 The Basic Framework

[A] A Brief Historical Introduction

The first statute regulating patents in Mexico was implemented on may 7 1832.[118] Since then, further legislative acts were enacted on june 7, 1890,[119] august 25, 1903,[120] july 27, 1928,[121] december 31, 1942,[122] february 10, 1976 [123] and the recent Law for the Promotion and Protection of Industrial Property of june 27, 1991 (LPPIP).

[B] Principles of Mexican Patent Law

Mexican Patent Law recognizes as patentable inventions that are novel, the result of an inventive activity and susceptible of industrial application.[124] Every human creation that allows matter or energy existing in nature to be transformed, for exploitation by man, through the immediate satisfaction of a specific need, is considered as an invention. Processes or products for industrial applications are included among inventions.[125]

Novelty under Mexican Law is narrowly interpreted as something different from that which preceded it.[126] It means anything not found in the state of the art, not known to others prior the date that the patent application is filed. The concept of novelty is absolute inasmuch

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[118] César SEPÚLVEDA, "El Sistema Mexicano de Propiedad Industrial" ,Editorial Porrúa, S. A., Second Edition, Mexico, D. F., 1981 at p. 1.

[119] Ley de Patentes de Privilegio, influenced from the French Law of 1844.

[120] Ley de Patentes de Invención.

[121] Leyes de Patentes de Invención y de Marcas y de Avisos y Nombres Comerciales, which captures principles from latest revisions of the Paris Convention.

[122] Ley de la Propiedad Industrial, which incorporates the London revision of the Paris Convention.

[123] Ley de Invenciones y Marcas.

[124] Article 15 of the LPPIP.

[125] Article 16 of the LPPIP.

[126] SEPÚLVEDA, op. cit., at p.

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as there is no limitation in applying the principle; the invention will not be deemed novel if it has become public through oral or written description, by exploitation or by any other means of dissemination or information, whether domestic or foreign.[127] Furthermore, the Law defines inventive activity as a creative process, the results of which are not apparent from the state of the art to a person with technical knowledge in that field.[128] The foregoing definition is somewhat equivalent to the non-obviousness principle in the U.S. Patent Act.[129]

The third requirement of patentability turnes on the industrial application of the invention. The Law defines it as the possibility that any product or process will be made or used, as the case may be, in industry, including agriculture, ranching, fishing, mining, so-called transformation industries, construction and all types of services.[130]

[C] Computer Software Not Classified as Inventions

Among the basic provisions that delineate patent law in Mexico's LPPIP, is one providing a list of items not deemed as inventions, in which theoretical or scientific principles [131] and computer software [132] are included.[133] The non-patentability of theoretical or scientific principles, is a clear and justifiable possition and includes algorithms in the abstract. On the other hand, algorithms should be protectible if claimed for a specific purpose or directed to a specific application. The Freeman-Walter-Abele test [134] is compatible with the aforementioned provision of Mexican Patent Law.[135]

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[127] Article 12(II) LPPIP. However, "an invention will still be considered as novel even if it has been disclosed for non-commercial purposes, provided that within twelve months prior to the filing date of the patent application, or in such case, of the recognized priority, the inventor or his assignee had disclosed the invention through any communication medium or had exhibited at a domestic or international exhibition. When the respective application is filed, documentary evidence shall be included, under the conditions to be established in the Regulations of this Law", article 18 of the LPPIP.

[128] Article 12(III) LPPIP.

[129] 35 U.S.C.A. §103.

[130] Article 12(IV) LPPIP.

[131] Article(19(I) LPPIP.

[132] Article 19(IV) LPPIP.

[133] Former Law on Inventions and Trademarks stated the same provision.

[134] In re Freeman, 197 USPQ 464 (CCPA, 1978); In re Walter, 205 USPQ 761 (CCPA, 1980); In re Abele, 214 USPQ 682 (CCPA, 1982).

[135] See Michael R. FLEMMING, Patentability of Claims Involving Mathematical

But it is not clear why the Mexican Federal Congress expressly excluded computer software an invention. This situation not only appears to be incorrect, but it contradicts the conclusions that have been reached about the patentability of algorithms when directed to specific purposes. Computer software is a complex technology or "legal hybrid",[136] whith specific features that are in part copyrightable and in part patentable.[137] "However, for these hybrids, it is likely that patents would only protect a small portion of the innovation, and that 'powerful reproduction rights and long term of protection [of

Algorithms and Computer Programs An Examiners Perspective, American Intellectual Property Law Association, The Law of Computer Related Technology, volume I, january 22-25, 1992. "Computer programs implemented on a computer are not per se non-statutory subject matter under 35 USC 101. However, mathematical algorithms per se are non-statutory subject matter as determined by the courts. However, if the invention is directed to a machine or process which is statutory but uses a mathematical algorithm, then the invention is not automatically non-statutory. The *Freeman* test as modified by *Walter* and *Abele* determines if such an invention is statutory. The first step is to determine if a mathematical algorithm is directly or indirectly recited. The mathematical algorithm may be recited in the claims as a formula, in prose or broadly claimed but further defined in the specification. The second step is to determine whether the mathematical algorithm is applied in any manner to physical elements or process steps. The Examiner should view the claim without the mathematical algorithm to determine whether what remains is otherwise statutory..." Likewise in Canada patent, copyright and/or trade secret protection may be available for computer programs "[d]epending on [its] nature, originality and inventiveness" Max WOOD, *Computer Related Intellectual Property: What Protection is Available?* Scott & Aylen Intellectual Property Quarterly, volume 8, number 2, Spring 1992, "Although the Canadian Patent Office has taken the position that computer programs per se are not patentable, the fact that a process is executed by a computer does not in itself negate patentability and many Canadian patents have issued for inventions which are essentially computer programs". *Ibid.*, at p. 4. "Whilst there is no substitute for experience in assessing the patentability of a software related invention, the following criteria may generally be applied: a) if the invention is directly or indirectly nothing more than a mathematical algorithm, it is not patentable; and b) even though the invention includes one or more algorithms, it may be patentable if it defines or refines relationships in a process which is in itself patentable subject matter", *ibid.*, at p. 4.

[136] J. H. REICHMAN, *Computer Programs as Applied Scientific Know-How: Implications of Copyright Protection for Commercialized University Research*, Vanderbilt Law Review, vol. 42, No. 3, abril 1989, p. 655. However this statement about "hibrid" is not well developed.

[137] See David A. EINHORN, *Copyright and Patent Protection for Computer Software: Are They Mutually Exclusive?*, Idea The Journal of Law and Technology, Franklin Pierce Law Center, volume 30, number 3, pp. 265-278.

copyright] implemented cultural policies that are largely irrelevant to the needs of a competitive market'."[138]

Accordingly, it is unfortunate that the existence of such a provision under the LPPIP could not only bar protection for programs embodied in computer related technology, but the functional aspects of the program and the algorithm specifically applied as well. The inventive portions of computer programs should represent patentable subject matter, as long as they comply with novelty, inventiveness and industrial application standards.

[D] Circuit Layouts

Mexico has not yet implemented any special or sui generis legislation regulating circuit layouts as have others countries.[139] It is unlikely that copyright protection would be avialable for circuit layouts as the structure of the layers, although they may reflect some originality and contain patterns that probably manifest some creativity as photographs, are too functional as to qualify for this type of protection. Mexican Copyright Law and practice disfavors the protection objects which are primarily functional (although they may have some artistic mertit). Furthermore, not every chip topography is produced as a photographic mask and therefore, copyright protection would only extend to those chips produced as photographs.

The only protection that remains available for semiconductor chip products, including its layers, is patent law. This does not mean that patent protection represents the best protection possible. Under patent law, the novelty, non-obviousness and industrial application standards would be applicable. The definition of invention in the patent law is broad enough to encompass circuit layouts embodied in semiconductor chips. But the risks that this type of protection would fail is high however, because while patent protection offers a more complete protection to inventions in general than it would a sui generis mask

[138] *Ibid.*, quoted by U.S. Congress, Office of Technology Assessment, Congressional Board of the 102d Congress, *Finding a Balance: Computer Software, Intellectual Property and the Challenge of Technological Change*, OTA-TCT-527 (Washington, DC: U. S. Government Printing Office, may 1992).

[139] See U.S. Semiconductor Chip Protection Act of 1984; Act of november 8, 1984, Pub. I. No. 98-620, 98 Stat. 3347; 17 U.S.C. §§ 900 *et seq.* and Canadian Legislation on the subject that will become effective before october 1, 1992.

work like legislation or even copyright legislation, it could also prevent development of creativeness in this industry. Also, as in most countries in the world, patent prosecution is more costly and time consuming than copyrights.

PART III: TRADE SECRETS

§ 3.1 *Trade Secrets and Mexican Industrial Property Law*

Trade Secrets were for long time protected and sanctioned by the Criminal Code[140] and were considered of state jurisdiction until recently, when the LPPIP was implemented and new rules were introduced in this field. Accordingly, the LPPIP created a whole new title[141] in which, first of all, it employed the term "industrial secret" to refer to what in the U.S. is known as "trade secret". Notwithstanding such term is narrow, it has a much broader legal meaning than mere secrets relating to manufacturing techniques and industrial processess, and comprises "trade" or "commercial" secrets as well. Both, industrial and commercial secrets are recognized by the LPPIP to cover valuable information that is protected due to its confidential character.

In line with the above, the LPPIP considers as a trade secret information having industrial application, kept confidentially by an individual or corporate entity, which represents a competitive or economic advantage over third parties in the course of economical activities and with respect to which sufficient means or procedures to preserve confidentiality and restricted access have been adopted.[142] Also, the LPPIP has established some limitations as to the subject matter of protection, by stating that the confidential information of a trade secret must also refer to the nature, characteristics or purposes of the products; production methods or processes; and to the means or manner of distribution or trade of products or the rendering of ser-

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140 Articles 210 and 211 of the Criminal Code for the Federal District when applied to local matters and in all the Mexican Republic when applied to federal matters. However, these two provisions relate to prohibition of non-authorized disclosure of confidential information obtained as a result of employment, title or professional activity.
141 Title Third, Sole Chapter of the LPPIP.
142 Article 82 of the LPPIP.

vices. Since the LPPIP was implemented it has been discussed whether the words "productions methods or processes" are wide enough to include not only production activities but repair and maintenance activities as well.[143]

Furthermore, the LPPIP established additional limitations requiring that the above referred "confidential information" has to be embodied in documents, electronic or magnetic media, optical disks, microfilms, films or any other tangible instruments.[144]

The information subject to confidentiality needs to meet particular standards: First, it has to be undisclosed matter known to an individual or corporate entity, whose attitude is oriented towards keeping such information private. Also, the LPPIP does not require absolute secrecy; in this respect, the definition of the LPPIP provides that the holder of the trade secret needs to adopt sufficient means or procedures to preserve its confidentiality and restrict third parties' access to the information. Likewise, information in the public domain, which is obvious to a person with technical knowledge in the field, or which has to be disclosed by virtue of the law or by a Court order, shall be not considered as a trade secret. In this respect, the information submitted to any governmental authority by a person possessing the same as a trade secret will not be deemed to fall into the public domain or be disclosed by virtue of the law, when it is submitted for the purposes of obtaining licenses, permits, authorizations, registrations or similar items.

LPPIP's trade secret protection is aimed at ensuring that:

a) That the trade secret is not misappropriated by any person in a confidentiality relationship;

b) That the trade secret is not misappropriated by any person outside a confidentiality relationship, and

c) That those to whom the trade secret is disclosed do not divulge the information or use it without consent of the holder.

The holder of a trade secret is entitled to use undisclosed material by himself or herself or to disclose it to third parties and confidentiality shall remain protected no matter if such disclosure is made as

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143 Horacio RANGEL-ORTIZ, *Industrial Secrets*, Conference given at the Seminar organized on july 17, 1991 by the AMPPI, Mexican Chapter of the AIPPI, in connection with the implementation of the LPPIP.
144 Article 83 of the LPPIP.

a result of an agreement[145] or a labor or professional relationship.[146] Agreements under which technical knowledge, technical assistance or supply of basic detailed engineering is transmitted, may contain confidentiality clauses to protect the trade secrets they may encompass, but shall set forth the aspects they comprise as confidential.

Finally, the LPPIP has established that trade secret theft will be pursued through criminal actions. Accordingly, criminal sanctions are available in case of non-authorized disclosure[147] misappropriation[148] and unauthorized use[149] of the confidential information contained therein.[150] Notwithstanding this situation, trade secrets are not protected when appropriated by proper means such as reverse engineering or by independently creating, discovering or inventing them.

§ 3.2 Trade Secret Protection Applied to Computer Software

Nothing has been said with regard to the applicability of trade secret law to unauthorized use, appropiation, disclosure and decompiling of information contained in a program. In this respect commentators have sustained that "Computer software possesses characteristics which make it a unique form of intellectual property. It is extremely portable and is easily misused or misappropriated. Expensive programs, requiring valuable time and expertise, can be copied for a small fraction of the development costs".[151]

Computer programs are processes for processing information automatically by a machine and are thus compatible with industrial pro-

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[145] Article 84 of the LPPIP.

[146] Articles 85 and 86 of the LPPIP.

[147] Article 223(XIII) of the LPPIP.

[148] Article 223(XIV) of the LPPIP.

[149] Article 223 (XV) of the LPPIP.

[150] The penalty in each case is of two to six years of prison and fine up from one hundred to ten thousand days of general minimum wage in the Federal District (around $4.00 US cy per day). Under the foregoing premises and from the above cited provisions a duty to maintain secrecy derived from the LPPIP itself is obtained. This means that the trade secret holder and the party to whom the secret is disclosed actually have signed an agreement or not. Signing of confidentiality agreements is highly recommended though.

[151] Melvin F. JAGER, Trade Secrets: The Steady Protection for Computer Technology, The Law of Computer related Technology, American Intellectual Property Law Association, volume I, january 22-25, 1992, at p. P-1.

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cesses that have been employing trade secrets status for years.[152] The structure of programs is comprised of a series of levels and stages until they reach a machine readable form.[153] Copyright law protects all those steps and according to Mexican Trade Secret Law, it should extensively cover all those undisclosed features of the program of which secrecy measures have been taken by its holder and protect them against unauthorized use and disclosure and misappropriation, in terms of the LPPIP. As mentioned, these three types of improper conducts have been found in confidentially relationships, such as employer-employee;[154] however the LPPIP does not apply to discovery by innocent means and reverse engineering.[155]

An issue has existed when the program is distributed to the public, where its design could be easily discovered by third parties with no link to the secret holder. Programs are typically distributed in machine language form in Mexico as well as in the U.S. "Machine language programs do not have to be assembled or compiled by the user; they are ready to be loaded into the computer and executed. In addition, distribution in machine language form has the side effect that it is difficult for others to look at the program code and understand how the program works. This can help to keep secret those elements which give programs a competitive advantage."[156] Users of programs are sometimes able to understand the design and structure of a program by "decompiling" it.[157] In order to achieve this result, they need to translate the program in object code or machine language program into a source code or high level language and, according to copyright principles, translation of works presupposes the production of a derivative work. In Mexico everyone is free to create derivative works,

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[152] Freed, Protecting Computer Software, 16 Les Nouvelles 89, 93-94 (june 1981), cited by Jager, ibid. at p. P.2.

[13] See infra at p. 16.

[154] See articles 84, 85 and 86 of the LPPIP and sanctions of article 223(XIII) and (XV).

[155] Article 223(XIV) of the LPPIP. This conduct presupposes improper means for obtaining a trade secret by misappropriating it. However as stated above, in Mexico reverse engineering through decompilation and independent discovery or creation should be considered proper means to obtain information which is supposed to be confidential.

[156] Finding a Balance... op. cit., at p. 7.

[157] "Disassembly is the process of translating a machine language program into an assembly language program; decompilation is the process of translating a machine language program into a high-level program", ibid., at p. 7.

but such type of works can not be used or exploited without consent of the original work's copyright owner. Therefore, the program's user is allowed to decompile the program but will be only entitled to use or reproduce the idea and public domain aspects circumscribing such program [158] and if the expression is copied, it would represent a copyright infringement.

§ 3.3 Shrink Wrap Licenses

Producers have taken additional steps and measures against decompilation of their programs by licensing them to customers under an obligation of confidence or non-disclosure. This is made mostly through a legal mechanism called "shrink-wrap license", which in Mexico is a kind of adhesion contract, with many particularities. As its name indicates, the license is wrapped or packaged but anyway visible on the exterior of the bag or box serving as container. The user will accept the license's terms and conditions if he or she opens the wrapper. The principal clauses of the agreement relate to limitations on behalf of the user to decompile, disassemble and copy the program. In Mexico enforceability of shrink wrap licenses could represent an issue in the future and not precisely with regard to copying limitations as they are supported by the Law itself. The problem is rather oriented to decompilation and disassembly of the program, considering that a contract limitation of that kind could lead to illegality problems, due to the fact that nobody can be deprived from creating a work of authorship from an original underlying one. In addition, there are other issues of which a software producer has to take care of, as Mexican Civil Law requires that an adhesion contract is represented in a written form and is properly accepted by the contracting parties (this principally through the signing of the corresponding agreement).[159]

Lastly, despite what mentioned above, Mexican and foreign software producers are recommended to establish non-disclosure measures

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[158] We believe Mexican Law would be compatible with *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141 (1989), in favoring buyers to examine a distributed product and use the unpatentable or non-copyrightable portions thereof.

[159] Courts would probably decide similarly as to *Vault Corp.* v. *Quaid Software Limited*, 847 F.2d 255, 7 USPQ 2d, 1281 [1988].

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through confidentiality agreements, restriction the copying, decompiling, dissassembling, non-authorized use and disclosure and misapropriation of the licensed program.

III. Conclusions

Mexico has been facing changing times for almost one decade and new international trade, investment and intellectual property policies have been introduced, which has brought renovation and a higher level of economical development. An environment of openness has surrounded free trade agreement negotiations with its neighbors to the north. Copyright and Industrial Property Laws have improved significantly in recent times, but there is still much to do to reach a higher standard of protection and rights' enforceability as in other developed countries. In the field of computer software law, Mexico will have to be prepared and deal with new complex issues, which have been testing other countries intellectual property laws. Accordingly, as to copyright, courts and governmental authorities will have to bear in mind that protection offered by the law extends to nonliteral portions of computer programs and data bases and that criminal provisions should consider plagiarism as a form of reproduction. Also, they are encouraged to apply to computer software the same type and level of protection that copyright law grants to the rest of works of authorship, as long as software remains protected by this branch of intellectual property law. Copyright law fundamentals will be constantly challenged, tested and interpreted, as it has happened lately in Europe, and much probably they will need significant arrangements in order to permit computer software sharing characteristics with other type of creations, very different in nature. Software is exclusively exploited through publishing and private use and there is thus no reason why a Software Collecting Society should exist, if these organizations are entitled by the Law to collect royalties deriving from the public performance of works. The LPPIP will require amendment so that the restriction imposed not to consider software as patentable is eliminated. This situation should allow in the future that algorithms as applied to a particular function and software related inventions are duly protected, without ilegality risks. Sui generis protection for circuit layouts is definitively needed as well. Finally, as to trade secrets,

authorities should also keep in mind that they extend to those features of computer software that the publisher decides to maintain under secrecy and that accordingly, confidentiality agreements, including "shrink wrap" licenses are enforceable as well as trade secret protection against any attempt by third parties to obtain them by improper means.