29 June 1990

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**I

REPORT

drawn up on behalf of the Committee on Legal Affairs and Citizens Rights

on the proposal from the Commission to the Council for a directive on the legal protection of computer programs (COM(88) 816 final – Doc. C 3-56/89)

Rapporteur: Mrs M. SALEMA

- PART A: Draft legislative resolution

Opinions
By letter of 3 April 1989, the President of the Council of the European Communities consulted the European Parliament, pursuant to Article 100a of the EEC Treaty, on the proposal from the Commission to the Council for a directive on the legal protection of computer programs (Doc. C 3-56/89 - COM(88) 816-SYN 183).

At the sitting of 27 July 1989, the President of the European Parliament referred this proposal to the Committee on Legal Affairs and Citizens' Rights as the committee responsible and to the Committee on Economic and Monetary Affairs and Industrial Policy and the Committee on Energy, Research and Technology for their opinions.

At its meeting of 20 September 1989, the Committee on Legal Affairs and Citizens' Rights appointed Mrs SALEMA rapporteur.


At the last meeting, the committee adopted the draft report together with the draft legislative resolution by 18 votes to 8, with 2 abstentions.

The following took part in the vote: Stauffenberg, Chairman; Vayssade and Rothley, Vice-Chairmen; Salema, rapporteur; Anastassopoulos, Bandres Molet, Blak, Bontemp, Bru Puron, Coimbra Martins (for Marinho), Cooney, Garcia Amigo, Inglewood, Janssen van Raay, Medina Ortega, Merz, Marques Mendes, Oddy, Patterson, Pinxten (for Malangre), Price, Rogalla, Schmid, A. Simpson, Valent, van Outrive and Zavvos.

The opinions of the Committee on Economic and Monetary Affairs and Industrial Policy and the Committee on Energy, Research and Technology are attached.

The draft report was tabled on 29 June 1990. The explanatory statement will be published separately.

The deadline for tabling amendments to this report will appear on the draft agenda for the part-session at which it is to be considered.
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The Committee on Legal Affairs and Citizens’ Rights hereby submits to the European Parliament the following amendments to the Commission proposal, together with a draft legislative resolution:

Proposal for a Council directive on the legal protection of computer programs.

Text proposed by the Commission

Amendments presented by the Committee on Legal Affairs and Citizens’ Rights

Article 1

Amendment No. 1

Replace the first two paragraphs with the following:

 Member States shall protect computer programs, including their preparatory design material, as literary works within the meaning of the Berne Convention for the Protection of Literary and Artistic Works.

Amendment No. 2

New paragraph 2a

2a. For the purposes of this Directive a computer program shall be defined as any sequence of instructions intended to be used, directly or indirectly, in a data-processing system in order to carry out a function or obtain a specific result, independently of its form of expression.

The preparatory design material, technical documentation and users’ manuals associated with a computer program shall enjoy the same protection as the program itself.
3. Protection in accordance with this Directive shall apply to the expression in any form of a computer program but shall not extend to the ideas, principles, logic, algorithms or programming languages underlying the program. Where the specification of interfaces constitutes ideas and principles which underlie the program, those ideas and principles are not copyrightable subject matter.

4. (a) A computer program shall not be protected unless it satisfies the same conditions as regards its originality as applied to other literary works.

(b) Programs generated by means of a computer shall be protected in so far as they satisfy the conditions laid down in point (a).

Article 2

1. Subject to the following paragraphs, the author of a computer program is the natural person or group of natural persons who has created the program.

2. In respect of computer programs created by a group of natural persons, the exclusive rights shall be exercised in common unless otherwise provided by contract.

This definition of a computer program shall also extend to programs generated by the use of another program.

Amendment No. 3

3. Protection in accordance with this Directive shall apply to the expression in any form of a computer program. Ideas and principles which underlie any aspect of a program, including its interfaces, shall not be protected by copyright under this Directive.

Amendment No. 4

4. A computer program shall be protected if it is original in the sense that it is the result of the author's own creative intellectual effort. No other criteria shall be applied to determine its eligibility for protection.

Amendment No. 5

2. In respect of computer programs created by a group of natural persons, the rights conferred by the protection accorded by Article 1 shall be exercised in common unless otherwise provided by contract.
3. Where a computer program is created under a contract the natural or legal person who commissioned the program shall be entitled to exercise all rights in respect of the program, unless otherwise provided by contract.

4. Where a computer program is created in the course of employment, the employer shall be entitled to exercise all rights in respect of the program, unless otherwise provided by contract.

5. In respect of programs which are generated by the use of a computer program, the natural or legal person who causes the generation of subsequent programs shall be entitled to exercise all rights in respect of the programs, unless otherwise provided by contract.

Amendment No. 6

4. Where a computer program is created by an employee in the execution of his duties or following the instructions given by his employer, the employer shall be entitled to exercise all economic rights in the program so created, unless there are contractual arrangements to the contrary.

Amendment No. 7

Delete paragraph 5.

Article 3 unchanged
Subject to the provisions of Article 5 the exclusive rights referred to in Article 1 shall include the right to do or to authorize:

(a) the reproduction of a computer program by any means and in any form, in part or in whole. In so far as they necessitate a reproduction of the program in part or in whole, loading, viewing, running, transmission or storage of the computer program shall be considered restricted acts;

(b) the adaptation of a computer program;

(c) the distribution of a computer program by means of sale, licensing, lease, rental and the importation for these purposes. The right to control the distribution of a program shall be exhausted in respect of its sale and its importation following the first marketing of the program by the right-holder or with his consent.

Amendment No. 8

Subject to the provisions of Article 5, the protection accorded by Article 1 shall include the right to do or to authorize:

(a) the reproduction of a computer program in whole or in part, by any means, in any form, and for whatever purpose. Where such operations as loading, viewing, running, transmission or storage of the computer program necessitate a permanent or temporary reproduction of the program, such acts of reproduction shall be subject to authorization by the right-holder;

(b) the translation, adaptation, arrangement and any other modification of a program and the reproduction of the results thereof;

(c) Unchanged
Article 5

Exceptions to the restricted acts

1. Where a computer program has been sold or made available to the public other than by a written licence agreement signed by both parties, the acts enumerated in Article 4(a) and (b) shall not require the authorization of the right-holder, in so far as they are necessary for the use of the program. Reproduction and adaptation of the program other than for the purposes of its use shall require the authorization of the right-holder.

2. Where a computer program has been sold or made available to the public by means other than a written licence agreement signed by both parties, the exclusive right of the right-holder to authorize rental shall not be exercised to prevent use of the program by the public in non-profit making public libraries.

Amendment No. 9

1. In the absence of any contractual provisions to the contrary, the acts enumerated in Article 4(a) and (b) shall not require the authorization of the right-holder in so far as they are necessary for the use of the program for the purposes for which it was intended or for its preservation in relation to such use.

2. Where a copy of a computer program has been made available to the public in a legal manner, and in the absence of contractual provisions to the contrary, the right to authorize rental shall not be exercised to prevent normal use of the program in non-profit making public libraries.

Amendment No. 10

(New paragraph 3)

Notwithstanding the provisions of Article 4(a), the legitimate owner of a copy of a program may, without having to request the authorization from the right-holder, observe, study or test the working program in order to determine its underlying ideas, principles and other characteristics where these are not protected by copyright, in the course of loading, viewing, running, transmission or storage in the execution of his contractual duties.
Amendment No. 11

Article 5a (new)

Notwithstanding any contractual arrangements to the contrary, the rights enumerated in Article 4(a) and (b) shall not be exercised by the author to prevent any act necessary to ensure the maintenance of the program and the creation or operation of interoperable programs. This option may only be exercised by the licensee on his own behalf and only where the following conditions are fulfilled:

(a) the information necessary to achieve interoperability shall not have been published or made available previously;

(b) the retrieval of information shall be confined to the parts of the original program which are necessary for the achievement of this aim;

(c) the information retrieved may not be communicated to third parties except in so far as this is necessary for the operation of the second program;

(d) the information retrieved may not be used to create or market a substantially similar program.

Article 6 unchanged

Article 7

Term of protection

Amendment No. 12

Protection shall be granted for 50 years from the date of creation. Protection shall be granted for 50 years from 1 January of the year following publication of the program, or, where a program has not been published, its creation.
Article 8

Amendment No. 13

1. The provisions of this Directive shall be without prejudice to any legal provisions concerning patent rights, trade marks, unfair competition, trade secrets or the law of contract in so far as such provisions do not conflict with the principles laid down in the present Directive.

2. The provisions of this Directive are applicable also in respect of works created prior to [date in Article 9].

Article 9

Final provisions

Amendment No. 14

1. Member States shall bring into force the laws, regulations or administrative provisions needed in order to comply with this Directive by [date].

2. Member States shall ensure that they communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.

2. The provisions of this Directive are applicable also to programs created prior to 1 January 1993.

2. Member States shall ensure that they communicate to the Commission the texts of the provisions of national law which they adopt in the field covered by this Directive.
3. A Consultative Committee shall be set up by the Commission, to consist of representatives of the Member States and of representative associations of authors and producers of computer programs with the objectives of:

(a) providing the Commission with information on research and on problems arising from the implementation of this Directive;

(b) drawing up proposals with a view to possible changes in the rules which may be required for more effective realization of the Community's objectives.

4. The Commission shall take on all the necessary initiatives in order to ensure the realization, at national and Community level, of the objectives set out in this Directive.

5. The Commission shall forward to Parliament and to the Council, on a biennial basis, a report on the implementation of this Directive at national and Community level.
A

LEGISLATIVE RESOLUTION

embodying the opinion of the European Parliament on the proposal from the
Commission to the Council for a directive on the legal protection of computer
programs

The European Parliament,

- having regard to the proposal from the Commission to the Council
  (COM(89) 816 final - SYN 183)1,

- having been consulted by the Council pursuant to Article 100a of the EEC
  Treaty (Doc. C 3-56/89),

- having regard to the report of the Committee on Legal Affairs and Citizens' 
  Rights on the legal protection of computer programs and the opinions of the
  Committee on Economic and Monetary Affairs and Industrial Policy and the
  Committee on Energy, Research and Technology (Doc. A 3-173/90),

- having regard to the Commission position on the amendments adopted by
  Parliament,

1. Approves the Commission proposal subject to Parliament's amendments and in
   accordance with the vote thereon;

2. Calls on the Commission to amend its proposal accordingly, pursuant to
   Article 149(3) of the EEC Treaty;

3. Asks to be consulted again should the Council intend to make substantial
   modifications to the Commission proposal;

4. Calls on the Council to incorporate Parliament's amendments in the common
   position that it adopts in accordance with Article 149(2)(a) of the EEC
   Treaty;

5. Instructs its President to forward this opinion to the Council and
   Commission.

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1 OJ No. C

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ANNEX I

OPINION

(Rule 120 of the Rules of Procedure)

of the Committee on Economic and Monetary Affairs and Industrial Policy

Draftsman: Mr K. Pinxten

The Committee on Economic and Monetary Affairs and Industrial Policy appointed Mr Pinxten draftsman on 20 September 1989.

It considered the draft opinion at its meetings of 28 September 1989, 29 November to 1 December 1989, 18-20 December 1989, 22-23 January 1990, 30 January to 1 February 1990, 20-22 February 1990 and 19-21 March 1990 and at the latter meeting adopted unanimously the opinion's conclusions, together with the amendments contained therein.

The following took part in the vote: Beumer, Chairman; Desmond and de Montesquiou, Vice-Chairmen; Pinxten, draftsman; Barton, Bernard-Reymond, Cassidy, Caudron, Cox, Falconer (for Crawley), Fitzgerald (for Ruiz Mateos), Herman, McCartin (for Hoppenstedt), Mattina, Megret, Merz, Metten, Patterson, Porto (for Visentini), Read, Roth (for Ernst de la Graete), Siso Cruellas, Smith, A. (for Seal), van der Waal (for Lataillade) and von Wogau.
1. There can be no doubt as to the importance of computer software for the EC economy. The Commission's Green Paper on copyright estimated the Western European market for system software at US $ 9.5 billion in 1985. Our main suppliers of software, however, are American in origin; in 1985 American companies accounted for between 65% and 85% of the Western European market for system software, and about 55% of the market for application software. US imports of software, by contrast, are minimal. As a result of the 'computerization' of our society this sector is still expanding, and the demand for software within the EC is greater than that in the US at the moment. The development of the Community software industry is therefore of great importance for the economy of the European Community, and particularly for its industrial and technological future. To this end it is essential to create an appropriate legal framework within which the sector can develop. In this respect European producers of software have hitherto been at a disadvantage as regards competition with countries with a long-standing computer industry (particularly the US), which have had appropriate legal measures for the protection of their software industry for some considerable time now. After all, the authors of computer programs are very vulnerable without legal protection for their creations, given the lack of technical anti-copying devices. In view of the considerable investments and the creativity and research to which computer programs owe their existence, the lack of proper legal protection against unlawful copying severely hinders and discourages the marketing of such programs. Accordingly a number of Member States have taken statutory measures for the legal protection of computer programs, while others are in the process of developing similar initiatives.

2. The purpose of the directive in question is to establish the necessary legal protection for computer programs throughout the Community. Naturally the Committee on Economic and Monetary Affairs and Industrial Policy gives its fullest support to this aim. The present opinion will examine the extent to which the proposal for a directive provides for the necessary legal protection for the software industry in the Community, while maintaining enough flexibility to promote innovation through competition.

3. In theory there are a number of different ways of protecting computer programs: patent protection, contracts, legal protection tailored specifically to computer programs, and protection by copyright. If the software industry in the Community is to be given the legal security which it needs, then protection measures must be made as uniform as possible throughout the Community. Discrepancies in the legislation of the various Member States could lead to distortion of competition and thus have an adverse effect on the operation of the internal market. However, the choice of an appropriate form of legal protection should also take into account the need for protection outside the Community. After all, a form of legal protection confined to the EC, with no legal force beyond the borders of the Community, would be limited in its field of application and ineffective, given that it could be circumvented outside the EC. It is therefore important to bear in mind the need to guarantee a certain degree of reciprocity. In view of this, copyright protection would seem to be the best solution. Copyright protection is laid down in the Berne Convention; which has now been ratified by 89 countries, a recent accession being that of the US. This Convention provides for the protection of the works of authors who are nationals of one of the states party to the Convention, who are normally resident there or who first published their work there. Such a choice would guarantee maximum international protection, while avoiding potential trade policy problems.
4. The decision to opt for copyright protection as laid down in the Berne Convention will, however, involve a number of problems. A number of terms relating to copyright are inadequately defined and may give rise to differences of interpretation and hence to discrepancies in the administration of justice and the enforcement of the Convention in the various Member States. Efforts should therefore be made to define the technical terms and measures as precisely as possible in the directive, in order to ensure that the law is administered as uniformly as possible. It is important to limit the scope for variations in interpretation as far as possible, although it is inevitable, given the decision to opt for copyright protection, and the powers of the national courts, that the courts of the various Member States will to some extent put their stamp on the mode of enforcement in each country.

5. Article 1(2) of the proposal for a directive confers copyright protection on computer programs as literary works. This means that—as stated in paragraph 3 of the same Article—protection is accorded to the expression, but not to the ideas and principles. Paragraph 3 lists other exclusions: logic, algorithms, programming languages and interface specifications, inasmuch as these represent ideas and principles. These do not, in fact, add anything to the general exclusion of 'ideas and concepts'. However, reactions already received to the proposal for a directive indicate that these terms are susceptible of different interpretations, so that their inclusion may result in discrepancies in the administration of justice. It is for this reason that one of the amendments proposed deletes these additional exclusions.

6. A big advantage of applying copyright protection to computer programs as literary works is that it enables a balance to be maintained between, on the one hand, necessary protection against unlawful reproduction through protection of the means of expression and, on the other, innovation which is a product of competition, as no protection is conferred upon ideas and principles. However, the precise definition of the terms 'expression' and 'ideas and principles' is also open to different legal interpretations.

7. Refusal to make available the information regarding the interfaces and access protocols needed in order to produce a compatible system and to guarantee interoperability is not generally in the interest of hardware and software producers. This accounts for the prevailing policy of openness and the companies' willingness to introduce certain sections of their programs into the public domain, in order to achieve greater compatibility between the various systems. A genuine internal market will not exist until the best possible provision has been made to ensure the compatibility of hardware and software. With this aim in mind, every effort should be made to advance progress towards standardization under the auspices of the International Organization for Standardization (ISO), to whose activities the producers make a voluntary contribution. In the light of efforts to achieve compatibility and interoperability then, the introduction of more thorough protection specifically for interfaces and access protocols is quite out of the question. However, those interfaces and access protocols which consist of computer programs must enjoy the protection for which provision is made in the present directive. As no specific protection for interfaces is included in the directive, the general rule on the protection of computer programs being applicable to those consisting partly of such a program, there is no reason to refer specifically to interfaces in the directive. It is therefore proposed that the specific reference in question be deleted.
Those producers who enjoy a position of power in the fields of software and hardware alike have a particular interest in keeping information about interfaces secret. However, if they were to abuse the protection accorded to them under the copyright, the regulations on fair competition would come into play and an investigation would need to be held to ascertain whether they were abusing their dominant position.

8. Paragraph 4 of Article 1 stipulates that protection be made conditional upon the criterion of originality as it applies to literary works. The interpretation in law of the concept of 'originality ... (as it applies to) ... other literary works' varies considerably at international level and between the various Member States. In this connection the Commission observes in its explanatory memorandum that 'the only criterion which should be applied to determine the eligibility for protection is that of originality, that is, that the work has not been copied. No other aesthetic or qualitative test should be applied.' Although we can agree with this interpretation, the interpretation of the term in law is far more restrictive in certain cases (such as the Inkasso case). It therefore seems advisable to incorporate a more precise definition of the term 'originality' in the directive, in order to avoid differences of interpretation under the law.

9. The inclusion in paragraph 4(b) of Article 1 of specific provisions for programs generated by computers does not add anything of substance. Since the result would be the same without this specific provision, it is proposed that it be deleted.

10. Article 4 contains provisions governing restricted acts. The second sentence of paragraph (a) of Article 4, 'in so far as they necessitate a reproduction of the program in part or in whole, loading, viewing, running, transmission or storage of the computer program shall be considered restricted acts', adds nothing to the general rule and should therefore be deleted. Opinions on restricted acts vary widely. Certain parties are very much in favour of authorizing reverse engineering under certain circumstances. If this is made legal, however, legal protection for computer programs will virtually cease to exist.

11. Article 5 deals with exceptions to the restricted acts described in Article 4. The aim of this article is to enable users to use their computer programs in the normal ways. As the only article in the directive whose purpose is to protect users, it ought to ensure that all users who have acquired a computer program in a legal manner can carry out all the operations associated with the normal use of a computer program without having to obtain authorization. Such operations include making a back-up copy and adapting a program to some degree to the user's particular needs. The draft directive draws a distinction between computer programs issued on licence and those which the user has acquired in some other legal manner, such as purchase of a copy of a program with or without a written contract, lease, hire, etc. It is only for users who have not concluded a written licence agreement in respect of the computer program which they have acquired that the directive guarantees the right to carry out all the operations necessarily associated with the normal use of a computer program, without the need to obtain authorization for such use. The users of computer programs which are subject to a written licence agreement are not protected in any way by the directive, nor are they guaranteed the right to use their computer programs in the normal ways. The Commission itself acknowledges in its explanatory memorandum that: '... in some areas, the balance of power between producers and users of computer
programs may not permit the latter to negotiate equitable contract conditions, due to the market strength of some software suppliers. To protect users against the dominant position of some suppliers of software, the directive should therefore incorporate provisions guaranteeing the right to normal use of computer programs supplied on the basis of licence agreements and prohibiting the incorporation into licence agreements of clauses under which acts associated with the normal use of a computer program are made subject to authorization from the right-holder.

12. The right to use computer programs in public libraries must not be restricted to programs acquired other than by a written licence agreement; it should be extended to all computer programs acquired in a legal manner.

In the light of these considerations the rapporteur proposes that Article 5 be amended.

13. Article 6, which relates to secondary infringements, states, *inter alia*, that a person who knows or has reason to believe that he is in possession of an infringing copy of a program is guilty of infringement. However, if such a person was genuinely unaware of this at the time he acquired the program and did not learn that the program was an infringing copy until it was in his possession, he cannot be said to be guilty of infringement and cannot be punished for that offence. An amendment to rectify this situation is accordingly proposed.

14. Article 7 proposes that protection be accorded for a period of fifty years: this is the period of copyright protection laid down for literary works in the Berne Convention. It may be argued that a shorter period of protection might be more appropriate for computer programs. However, the period of protection laid down in the Berne Convention must, of necessity, be respected. A change in the length of the period of protection laid down in this Convention may be considered in the near future, and it would therefore be preferable to refer to the period of protection laid down in the Convention rather than to stipulate an absolute period of time. The Commission's proposal that the period of protection should start on the date of creation of the computer program should likewise be taken up. In the case of computer programs it would be inappropriate for the period of protection to start on the date of the author's death, and this would unnecessarily prolong the period of protection.

CONCLUSIONS

15. In view of the above considerations the Committee on Economic and Monetary Affairs and Industrial Policy requests the Committee on Legal Affairs and Citizens' Rights, as the committee responsible, to make the following amendments to its report:
ARTICLE 1(3)

3. Protection in accordance with this directive shall apply to the expression in any form of a computer program but shall not extend to the ideas, principles, logic, algorithms or programming languages underlying the program. Where the specification of interfaces constitutes ideas and principles which underlie the program, those ideas and principles are not copyrightable subject matter.

Amendment No. 1

3. Protection in accordance with this directive shall apply to the expression in any form of a computer program but shall not extend to the ideas and principles. (Delete rest of paragraph).

ARTICLE 1(4)

4(b) Programs generated by means of a computer shall be protected in so far as they satisfy the conditions laid down in 4(a) above.

Amendment No. 2

Delete 4(b)

ARTICLE 4(a)

(a) the reproduction of a computer program by any means and in any form, in part or in whole. In so far as they necessitate a reproduction of the program in part or in whole, loading, viewing, running, transmission or storage of the computer program shall be considered restricted acts;

Amendment No. 3

(a) the reproduction of a computer program by any means and in any form, in part or in whole. (Delete rest of paragraph).
ARTICLE 5(1)

1. Where a computer program has been sold or made available to the public other than by a written licence agreement signed by both parties, the acts enumerated in Article 4(a) and (b) shall not require the authorization of the right-holder, in so far as they are necessary for the use of the program. Reproduction and adaptation of the program other than for the purpose of its use shall require the authorization of the right-holder.

Amendment No. 4

1. Where a computer program has been made available to the public in a legal manner, the acts enumerated in Article 4(a) and (b) shall not require the authorization of the right-holder, in so far as they are necessary for the use or scientific analysis or testing of the program. (Delete second sentence).

ARTICLE 5(2)

2. Where a computer program has been sold or made available to the public by means other than a written licence agreement signed by both parties, the exclusive right of the right-holder to authorize rental shall not be exercised to prevent use of the program by the public in non-profit making public libraries.

Amendment No. 5

2. Where a computer program has been made available to the public in a legal manner, the right-holder may not prevent the normal use of the program by the public in public libraries.

Amendment No. 6

Article 5(3): add the following new paragraph:

3. A licence agreement or other written agreement must not contain any clauses which conflict with the provisions laid down in paragraphs 1 and 2.
ARTICLE 6(1)

1. It shall be an infringement of the author's exclusive rights in the computer program to import, possess or deal with an infringing copy of the program, knowing or having reason to believe it to be an infringing copy of the work.

Amendment No. 7

1. It shall be an infringement of the author's exclusive rights in the computer program to import, acquire or deal with an infringing copy of the program, knowing or having reason to believe it to be an infringing copy of the work.

ARTICLE 7

Protection shall be granted for fifty years from the date of creation.

Amendment No. 8

The period of protection shall be that for which provision is made in the Berne Convention, from the date of creation.
ANNEX II

OPINION

(Rule 120 of the Rules of Procedure)

of the Committee on Energy, Research and Technology

Draftsman: Mr A. TURNER

At its meeting of 30 August 1989, the Committee on Energy, Research and Technology appointed Mr TURNER draftsman of the opinion.

The committee considered the draft opinion at its meetings of 26 October and 8 November 1989.

It adopted the conclusions contained therein on 8 November 1989 by 6 votes to 3, with 7 abstentions.

The following took part in the vote: Sälzer, Vice-Chairman and acting Chairman; Lannoyle and Adam, Vice-Chairmen; Turner, rapporteur (for Seligman); Anger, Bettini, Breyer, Gasoliba I Böhm, Görlach (for Lagorio), Linkohr, Pierros, Pompidou, Porrazzini, Quisthoudt-Rowohl, Regge, Rovsing, Schlee, Verwaerde and West.
INTRODUCTION

1. The proposal for a Directive submitted to the European Parliament aims to strengthen and make uniform throughout the Member States of the European Community legal protection for computer programmes.

The proposal in its present form will not help to create a legal environment capable of eliminating any disparities with regard to the free movement of computer programmes within the Community and will certainly not create conditions favourable to the establishment of a strong European industry in this field.

2. A remarkable feature of the present proposed Draft Directive is that copyright protection would be given to a computer programme as a 'literary work' (which is in fact exactly what it is when first created) but that this 'work' is something which the public can neither read, appreciate or understand. This is a remarkable departure from principle. The basic rule of copyright is that copyright protection is only given to the actual literary 'form of expression' which an author of a work, for instance a novel, has created but that the ideas (for instance, the plot underlying the 'work') are not. Thus for instance a literary work describing a new solution to some problem (which might for instance be a political, social, economic or technical problem) is only protected in so far as the actual 'literary form of expression' is concerned, while the ideas and solutions or principles which the author is putting forward are not protected.

3. For this reason the Draft Directive under Article 1.3 quite correctly excludes protection from the ideas, principles, logic algorithms or programming languages underlying a software programme. However, in the case of computer software programmes the public cannot find out what these ideas, principles, logic, algorithms or programming languages underlying the programme are except 'by decompiling' the 'object code' (that is the machine code comprising an apparently meaningless, immensely long series of zeros and ones) by means of a decompiler which is capable of analyzing the 'object code' and investigating and interrogating it in order to discover the 'source code' which lies behind the 'object code'. The originator of the programme will have written his novel programme in source code and it will have been translated into object code. A member of the public who is attempting to study the programme will decompile or translate the object code into a source code which he will be able to study to see what the ideas, principles and logic of the original source code are. The source code into which the member of the public translates the object code will not be identical to the original source code which the originator wrote, but it will be very similar. The process is rather like translating an original novel from French into English and then re-translating the English back into French. The English version and the second French version will infringe the copyright of the first version but the last will not be identical to the first.

4. The critical fact to recognize is that because of the terms of Article 4, all the above steps undertaken by a person who has bought a copy of the original programme (in object code) from the originator will be infringement, and each of the above acts will be forbidden acts. This would be a novel development in copyright law, because it would be
analogous to saying that copyright protection of a book prevented the purchaser of a book from reading it. It would have, of course, a serious restrictive effect on innovation and competition within the EC because protection given to programmes would be such that others entering or developing in the same field would be in the dark as to the state of the art. In the case of patent protection a protective monopoly is given preventing use of an invention but the invention itself is published so that competitors and the public in general gain knowledge of it. It would seem proper, if possible, to obtain a similar balance between the rights of industrial property on the one hand and the public on the other in the field of copyright relating to computers as exists in other industrial fields.

5. If this balance were achieved so that the public knew the subject of the copyrighted programme, the fact that the public had this knowledge would not mean that they were entitled to obtain economic benefit by copying the programme, because the whole purpose of the protection is to give commercial protection to copyrighted programmes against copying. Protection of the form of expression of a programme should not require that the public should be kept from seeing what the subject matter protected is and be prevented from appreciating the principles, ideas, logic and algorithms underlying it (which are not protected) so long as they do not copy the subject matter when designing their own programmes. As the draft now stands, under Article 4 the operating of a computer programme so as to show it on the screen or to print out the programme would be an infringement, as would be the operation of the computer in such a way as to use the programme to direct the actions of the computer such as by loading the programme, viewing, running, transmitting or storing it. As will be seen, the present proposal would not only keep knowledge of the protected form of expression of the programme from the public, but would prevent them knowing its unprotected features, i.e. the underlying principles, ideas, logic and algorithms.

6. If the Directive provided that the public could 'read' the programme by decompiling it without committing infringement it could be difficult for a member of the public who had read and studied it to claim if he subsequently wrote a similar programme, that he had not in fact copied it. In order to prove that he had not copied he would have to show that his programme was substantially different in its 'form of expression' from the original, although, of course, he would be entitled to use the ideas, principles, logic, algorithms or programming languages underlying the original programme as these are not protected by copyright. There have been methods developed in industry making it quite clear that copying of the 'form of expression' has not taken place, such as the so-called 'clean room' procedure whereby a company divides its operations which are directed towards studying a competitor's programmes, from its creative operations in making its own programmes. The ideas, principles, logic, algorithms or programming languages discovered by studying a competitor's programme can be freely used in the creative operations of the company, but the latter employees will have these passed on to them by the employees who have decompiled the original programme without any information as to the form of expression used by the originators. In this way the chain of information is broken proving that copying of the form of expression has not taken place. From a technical and economic point of view it is essential that computer programmes should not be kept secret for the public in Europe, more especially as in American law decompiling has not been prevented by
Statute or by the Courts, and in a number of cases the fact that
decompilation has taken place has not given rise to any legal objection.
Decompilation for the purposes of research and study is also permitted, and
in Japan a right of private study is recognised. In both cases, of course,
it is a condition of the law that no copies of a programme are reproduced
for commercial use or sale and no commercial use may be made of the
programme to help in the design of the form of expression of another
programme. Nor, of course, can a copy made for the purposes of
decompilation be reproduced for any purpose other than research or study.
Thus, for instance, it could not be published free as this would be highly
damaging to the copyright owner. As a consequence the Directive should
provide for fair use of the subject matter of the copyright for the
purposes only of study and research.

If in Europe decompilation were not permitted, US and Japanese industrial
competitors could decompile European companies' programmes in their own
country, but European companies could not decompile US or Japanese (or
other European) programmes in Europe. This would quite obviously have a
very serious effect on European competitiveness, and a European law which set
up such a situation could only be regarded with very considerable concern
and surprise.

Explanatory Note on the Nature of Interfaces

I. Programme interfaces are programmes or parts of programmes which enable one
computer to operate with another or with some other facility or with a
piece of exterior software, or to enable two pieces of independent software
to operate together. Thus interfaces may be the connection between a
piece of hardware and a piece of software, or between two pieces of
hardware connected by a piece of software, or between two pieces of
software. Programmes whether they are 'interface' programmes or not should
be and are protected by copyright. When a user of a computer or software
wishes to connect a piece of his own hardware or software to another piece
of hardware or software he will need to know sufficient details of the
interface programmes involved to be able to make the connection. It is
normal for suppliers of software to provide a written 'specification' of
the interfaces so that the customer can do this. Indeed IBM gave an
undertaking to the Commission (1984) to provide such information to
companies in the EC in the celebrated action. Such specifications are
written literary works and as such are protected by copyright just like any
written literary work. Needless to say, any ideas, principles, logic or
algorithms underlying such specifications are not protected by copyright
any more than they would be for any other literary work.

II written specifications of interfaces are not provided by the seller of a
piece of hardware or software, or if the written specification provided is
insufficient, it will be necessary for the purchaser or a person wishing to
design an independent piece of soft- or hard-ware to interact with the
programme to study the software of the interface. To do this he will need
to decompile the original programme, and to be entitled to do so as
explained, in relation to software programmes in general, in paragraph 6
and following, above. There should be no distinction in this respect
between interface programmes and other software programmes.
The proposals suggested above, therefore, and the amendments proposed below for dealing with the problems of paragraph 6 will equally deal with the problems of interface programmes.

Furthermore, the provision of an interface programme to mesh in with the interface of an existing piece of hard- or software will not normally infringe the copyright in the first interface programme, because it will be the "mate" of the first - in the same way that the male plug of a domestic electric appliance is not the "same design" as the female plug in the wall, the one meshing in with the other but being of different shape. Thus copyright in interface programmes will not prevent those wishing to design interfaces to them from doing so, so long as there is no bar on decompiling to enable the first programme to be understood.

Relationship to Community law on competition

It has been said that elements of Community competition law should not be included in this Directive and that the Directive should be confined to copyright law per se. This is correct. However, it is a misleading and elementary error of Community law to suggest (as has indeed been done) that the setting out of the exclusive rights in Article 4 to reproduce by "loading, viewing (or more correctly 'displaying'), running, transmission and storage of the complete programme" or "adaptation" of it do not in any way limit the power of the competition Directorate of the Commission in carrying out its responsibilities in the field of competition law. If such exclusive rights are to be given by Article 4, it is within the monopoly of the copyright owner to grant or withhold simpliciter any one or more of those rights. Against such a limited licence, granting some but withholding other of these rights by the copyright owner to the purchaser, the competition Directorate would have no jurisdiction to act because it is not possible for the Directorate to allege that the simple withholding of a portion of a monopoly right is contrary to the EEC competition law. Thus if the copyright owner gave the right to the purchaser only of the "loading, viewing (more properly 'displaying'), running, transmission or storage" for the purpose of operating his computer (thus excluding the right to do so for the purpose of reading, studying or researching a programme or the ideas, principles, algorithms, logic or programming languages underlying them) the Commission would be powerless to object. Competition law cannot therefore protect the public right to see and study a programme and the ideas, principles, algorithms, logic or programming languages lying behind it unless specific conditions are inserted in this Directive along the lines proposed below.

Specific reference to ideas, principles, logic, algorithms, and programming languages underlying a programme

It has been suggested that a specific reference to the ideas, principles, logic, algorithms, and programming languages underlying a programme is unnecessary because it is inherent in part of copyright law. It would be unwise not to make this specific reference because such a specific reference is made by a Statute in Japan specifically with regard to computer programmes and this was done to accord with the effect of US case law. If in Europe we did not include specific reference in the context of computer programmes to these exclusions, it would be possible to argue that
European law gave greater protection against the study and research into the uncopyrighted characteristics of a computer programme than is accorded in the US or in Japan which would of course have the same deleterious effect on European competitors vis-à-vis the US and Japan on exactly the same lines as set out above with regard to the question of decompilation and interfaces.

Necessary amendments to meet the above issues include

Article 1, paragraph 1, add at the end.
"The exclusive rights shall not include the right to prevent any act done exclusively and necessarily for the study and research of the expression in any form of a computer programme, or any act necessary to study or research the ideas, principles, logic, algorithms, or programming language underlying a programme.

Article 4(a), delete.
"Viewing".

Add, after "reproduction", the words "other than temporary copying, moving and storage operations which leave no trace once the operation has terminated."

Article 5, add new paragraph 3.
"The reproduction of a computer programme by any means and in any form, and the adaptation of a computer programme, shall be permitted for the purposes of study and research of the form of expression of the programme and of the ideas, principles, logic, algorithms, and programming languages underlying the programme, provided that no use is made of such reproduction which conflicts with a normal exploitation of the work by the author or unreasonably prejudices the interests of the author."

Article 6(2), add at end.
"... except for the sole purpose of studying or researching the expression of the programme or the ideas, principles, logic, algorithms or programming language underlying it."

Alternatively, in accordance with the Berne Convention we could replace all amendments to Articles 1, 5 and 6 by

5 (new)
Subject to contractual arrangements to the contrary, the rights enumerated in Articles 4a and 2 above shall not be exercised to prevent any act done exclusively and for no other purpose than for the study and research of the expression in any form of a computer program or any act necessary solely for the study and research of the ideas and principles underlying a program. If the results of such studies and research are used in a way which prejudices the rightholders legitimate economic interests, such analyses will still be deemed to be an infringement."

Note the Berne Convention refers to "private study and research". The word "private" could be retained so long as it is made clear expressly that this does not preclude study and research by companies so long as this does not conflict with the normal exploitation of the work by the author or unnecessarily prejudice the interests of the author.