

## THE LEGAL PROTECTION OF COMPUTER SOFTWARE - RECENT DEVELOPMENTS IN AUSTRALIA

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### *1. INTRODUCTION*

This paper is adapted from an address delivered by the writer at Perth, Western Australia, in August 1984 in connection with Information Technology Month<sup>1</sup>. It is hoped that the reader will forgive any discontinuity flowing from the fact that the original paper was developed for delivery with the assistance of overhead slides.

The paper covers the experience of Australia during 1984 in the reform of its copyright law to clarify the protection accorded to computer programs. In this process there were two main strands, which were inter-linked: judicial consideration of the issue in litigation brought by Apple Computer<sup>2</sup>, and the development of amendments to the Copyright Act 1968.

The chronological sequence of developments is first described. This is followed by a description of the software protection issues debated in Australia during 1984 in the period leading up to the amendments. Then as a preliminary to consideration of the legal details, an abbreviated description of the major principles of Australian copyright law is given. In the main part of the paper the judicial

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<sup>1</sup> "Recent Developments in the Legal Protection of Computer Software", P. Crisp, Paper delivered at Parmelia Hilton Hotel, Perth, Western Australia, 22 August 1984.

<sup>2</sup> Editor's note: This paper was received prior to the decision of the High Court of Australia in *Computer Edge Ltd v. Apple Computer Inc.*]

and legislative aspects are dealt with in turn, and then related. A detailed commentary on the current law is provided. Finally there is a short discussion of issues for future consideration.

## 2. CHRONOLOGY OF RECENT EVENTS

For a number of years officers of the Attorney-General's Department and of the Patents Office, which is attached to the Department of Science and Technology, have participated in discussions at an international level regarding the legal protection of computer software. These discussions have been conducted under the auspices of the World Intellectual Property Organization, or WIPO whose interest in the field extends back as far as the early 1970's. There have also been discussions, convened by WIPO and other international agencies, concerning other intellectual property protection issues arising from the use of computers, e.g. the protection to be accorded to works stored in or created by or with the aid of computers.

In connection with its involvement in those meetings the Attorney-General's Department consulted from time to time with industry representatives and other interested parties concerning software protection. It would be fair to say that in this period there was no great sense of urgency for the question to be dealt with by the legislature. Copyright experts were, on balance, inclined to the view that the existing Australian Copyright Act covered computer programs. Certainly, persons in the computer industry generally carried on business on the assumption that protection existed.

All this changed in December 1983, and from that point events moved very rapidly indeed. A quick chronology of events is as follows:

7 December 1983 - The Federal Court at first instance (Mr Justice Beaumont) rules in *Apple Computers v. Computer Edge* that certain computer software was not covered under the Copyright Act 1968<sup>1</sup>. (An appeal was later lodged).

21 December 1983 - The Attorney-General, Senator Gareth Evans, Q.C., and two of his Ministerial colleagues announced urgent Government consideration of the protection issue. In particular it was stated that the government would promptly undertake such short term legislative action as was necessary to ensure that software was adequately protected. That action could take the form of an amendment to the Copyright Act. Interested parties would be consulted.

4-5 January 1984 - The Attorney-General's Department wrote to many interested industry and user groups seeking urgently views on the manner in which the Copyright Act might be amended in the short term. The Department was criticized simultaneously by education groups which were then in recess and felt that this deprived of an opportunity to present a considered position, and by industry groups some of which considered that the Department should already have secured amending legislation, albeit during the recess of Parliament!

6 February 1984 - The Attorney-General announced a National Symposium on the Legal Protection of Computer Software. (The Symposium was to be directed mainly to the long term protection issues; however it was stated that the Government would consider the views expressed in formulating its own views on the form of any short term legislative action necessary to ensure that software was protected).

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<sup>1</sup> (1984) 50 ALR 581.

6 March 1984 - The Department produced an Issue Paper for the consideration of delegates at the National Symposium.<sup>4</sup>

15-16 March 1984 - In opening the Symposium, the Attorney-General indicated (against the background that a decision was expected shortly) that it was unlikely that legislative action would be taken before the result in the Full Federal Court appeal in the *Apple* case was known.<sup>5</sup>

2-6 April 1984 - The World Intellectual Property Organization (WIPO) convened in Canberra a Meeting of Experts on certain technical questions related to the Legal Protection of Computer Software. In opening that meeting the Attorney-General reiterated his view on the timing of any Australian domestic legislation.<sup>6</sup> On 5 April, in conjunction with the above meeting a public seminar was conducted in Canberra at which experts from U.S.A., Japan, U.K, West Germany and Australia outlined the position in their respective countries.<sup>7</sup>

15 May 1984 - The Attorney-General and two Ministerial colleagues announced, with the end of the current sittings imminent, that legislation would be introduced into Parliament for passage before the winter recess. At about this time the Bill was set down for introduction on 29 May 1984.

29 May 1984 - The Full Federal Court delivered its appeal judgment in the *Apple* case, overturning the decision of the judge in the lower court<sup>8</sup>. The Attorney-General announced in Parliament that urgent consideration was being given to the terms of the judgment to determine whether it was, in fact, necessary to proceed with the planned legislation.

4 June 1984 - The Attorney-General introduced the *Copyright Amendment Bill* 1984 into Parliament. In his speech he referred to aspects in which the Bill went beyond what had been achieved by the Federal Court decision. In addition, he noted, there had now been a further appeal to the High Court. It was envisaged that the Bill would be a short-term measure, and that there would be an investigation into the long-term issues of software protection<sup>9</sup>.

7 June 1984 - The *Copyright Amendment Bill* 1984 passed all stages in Parliament without amendment. The enactment<sup>10</sup> commenced operation immediately upon Royal Assent on 15 June 1984.

12-14 March 1985 - The further appeal by Computer Edge Ltd in the *Apple* case was heard by five judges of the High Court. A decision has been reserved.

25 February-1 March 1985 - WIPO and UNESCO conducted a joint Meeting of Experts on the Legal Protection of Computer Software, in Geneva. At this

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<sup>4</sup> "Legal Protection of Computer Software - Issues Paper", Attorney-General's Dept, 6 March 1984.

<sup>5</sup> See "Report: National Symposium on Legal Protection of Computer software - Canberra, 15-16 March 1984" available from the Attorney-General's Department.

<sup>6</sup> See "Report Adopted by the Working Group on Technical Questions Relating to the Legal Protection of Computer Software - Canberra, April 2 to 6, 1984", WIPO No. LPCS/WGTQ/I/3.

<sup>7</sup> Reported in Copyright WIPO No 4 (April) 1985 133.

<sup>8</sup> *Apple Computer v. Computer Edge* (1984) 52 A.L.R. 225

<sup>9</sup> Senate Hansard - 4 June 1984 pp 2418-2428.

<sup>10</sup> Copyright Amendment Act 1984, No. 43/1984.

meeting it became even clearer that the majority of software producing countries regarded copyright as a satisfactory mode of protection at least for the time being<sup>11</sup>.

### 3. SOFTWARE PROTECTION ISSUES

The following short list of issues is adapted from the abovementioned Departmental Issues Paper presented for the consideration of delegates at the National Symposium in the period leading up to the amendments -

- the rationale (i.e. justification) for protection, and if none whether other means of encouraging the development, production and availability of software are appropriate;
- definition(s) of the *subject-matter(s)* to be protected;
- the point at which the subject-matter may be considered to be in a *material form* for the purposes of the protection system chosen (may be relevant to subject-matter, domicile, identification of form, commencement of protection, ownership and infringement);
- the *scope* of protection: in particular, the extent to which, if at all, independent creations based on the same concepts should be protected;
- the *formalities*, if any, which should be required as a pre-condition for protection;
- the requirements of *domicil* which should be a pre-condition for protection;
- the point of *commencement* of protection;
- the *duration* of protection;
- the *nature* of protection, i.e. extent of monopoly - acts which the proprietor has the exclusive right to do;
- the rules and presumptions determining first *ownership* of the exclusive rights conferred;
- principles relating to voluntary *assignment* and *licensing* of the rights;
- whether the *protection system* should be attached to any existing legislative framework (e.g. copyright, patents) or involve the building of a new model. (It is to be noted that this issue is largely determined when answers are given to the preceding questions);
- the *concessions* which should be granted to users and others in the public interest. In particular, to which persons (e.g. educational users, library users, handicapped users, software re-developers, courts) should concessions apply? And in what ways (e.g. record keeping, remuneration, arbitration) should the concessions be qualified?;
- the basis upon which *reciprocity* should be given to subject-matter originating from persons whose domicile is not within Australia.

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<sup>11</sup> See "Report of the Group of Experts on the Copyright Aspects of the Protection of Computer Software - Geneva, February 25 to March 1, 1985". UNESCO/WIPO/GE/CCS/3.

#### 4. SOME BASIC PRINCIPLES OF AUSTRALIAN COPYRIGHT LAW

For readers unfamiliar with Australian copyright law, the list below, setting out its main features, may be useful before proceeding to the discussion of the Apple litigation and the 1984 amendments. Copyright law in other countries is similar in most respects but there are different ways of classifying works and acts of copyright. Formalities (registration) assume some importance in the United States.

- Copyright protection subsists, without formalities, from the time of “making” of the relevant subject-matter (Cf. Patents). “Making” (or “fixation”) means reduction to a “material form”.

- The subject-matter must be original in the sense of “not-copied” (Cf. Patents).

- Categories of subject-matter which attract copyright protection include literary works, artistic works, films, broadcasts and so on. (Henceforth I use the term “work” to denote any copyright subject-matter).

- For each type of work the copyright consists of the exclusive right to do any of a set of acts (called “acts comprised within the copyright”) such as: reproduce in a “material form”; publish; perform in public; transmit to cable subscribers; and adapt.

- An “adaptation” attracts copyright similar to that of the original work.

- Copyright does not confer a monopoly on ideas (or an algorithm). Instead it protects the (skills and labour expended in the) expression of those ideas in a particular material form. Independent development of similar works is permitted. This is merely a corollary of the above proposition that a work is “original” so long as it is not copied (Cf. Patents).

- Copyright in different subject-matters subsists independently. Thus, where a work (e.g. a musical work) is incorporated into another (e.g. a film), a “layering” of copyrights occurs. Recording a television broadcast may be an infringement of half a dozen separate copyrights vested in different owners.

- The author of a work is generally the owner of copyright in it, but if the work is made in the course of employment, the employer may be the proprietor.

- Copyright is property. Accordingly, it can be assigned or licensed, and will pass to the owner’s heirs. But it is “intellectual property” and must be distinguished from ownership of the physical medium (e.g. paper) in which the copyright work may be embodied.

- Usually, copyright lasts until the expiration of 50 years after the author’s death.

#### 5. SUMMARY OF APPLE DECISION

The main points emerging from the Federal Court’s decision in *Apple Computers v. Computer Edge* are set out below. The Court’s decision was handed down on 29 May 1984. (The reader is reminded that a further appeal to the High Court has yet to be decided.)

- All three judges held that source code was proper subject matter for copyright protection.

- By a majority of 2:1 (Fox and Lockhart JJ., Sheppard J. dissenting) the court also held that programs in object code were a "translation", hence an "adaptation" of the source code from which they were derived.

- The same majority held that storage of the code in a ROM chip was "reproduction in a material form" for copyright purposes and consequently an infringement of the copyright.

- It seems that this last finding is relevant also to "material form" in the context of "making", so that in principle a computer program or other work would be protected even if it was keyed directly into a computer, although on the facts of this case the copyright arose when the source code was first written down on paper.

## 6. SUMMARY OF RECENT AMENDMENTS

The main features of the Copyright Amendment Act 1984 are set out below -

- copyright protection for computer programs by inclusion in the category of literary works;

- computer programs to be protected whether originally created in "source" or "machine" code;

- programs derived by translation from one language to another to be expressly treated as "adaptations";

- embodiment in machine-readable form to be treated as "material form" for purposes of Act;

- inclusion of a presumption that a "backup" copy of a program may be made without infringing copyright;

- strengthening of the offence provisions of the Copyright Act relating to advertising and supply of infringing copies of computer programs;

- protection conferred on existing computer programs, but past acts not to be infringements by virtue only of amendments.

## 7. COMPARISON BETWEEN APPLE DECISION AND AMENDMENTS

On 7 June 1984, in speaking to the amendments, the then Attorney-General tabled a document setting out the provisions in the Bill by reference to corresponding conclusions of the full Federal Court<sup>12</sup>. The table, slightly adapted, is reproduced below.

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<sup>12</sup> Senate Hansard - 7 June 1984 pp 2738, 2741.

**COMPARISON OF  
FEDERAL COURT DECISION IN APPLE COMPUTER  
v COMPUTER EDGE  
AND COPYRIGHT AMENDMENT ACT 1984**

(Adapted from document tabled by Attorney-General  
in Senate, 7 June 1984)

<u>Provision in Act</u>	<u>How issue dealt with in Apple appeal</u>
S.3(b) - "computer program" defined.	No definitive treatment of concept of computer program, though much explanation.
S.3(f) - definition of "literary work" amended -  - to remove requirement for <i>visible</i> form in respect of tables and compilations;	Not addressed. Apparent existing requirement for fixation in writing in case of compilations may be important to databases built up from contributions of many authors.
- to include computer programs, whether originally created in source code or machine code;	All 3 judges held that source code was proper matter for protection as an original literary work. Two judges did not think it necessary to decide whether machine code might of itself be protected as an original literary work, whilst the third found that machine code was not so protected. (But see 'adaptation' below).
- to include a "compilation" (in the copyright sense: a gathering together of materials from different sources) of computer programs.	Not addressed. There may accordingly be doubt as to whether a computer program which is an arrangement of existing subroutines, in itself qualifies for protection
S.3(a) - "adaptation", in relation to a computer program, defined to include "versions" of the same (e.g. translation between computer source and machine language) where these cannot be treated as mere reproductions.	By a majority of 2:1 the Court held that machine code produced by translation from source code (in short: object code) was an adaptation of source code.

S.3(c) and (e) - "infringing copy" re-defined -	
- to remove anomaly that article imported with permission might technically be an infringing copy.	Not addressed.
- to ensure that copies of <i>adaptations</i> are covered.	Not addressed.
S.3(g) - "material form" defined. The concept has relevance both to the "making" of fixation of original <i>works</i> , and to the making of <i>reproductions of works</i> .	The majority judges regarded embodiment of the Apple object programs in Wombat ROM's as embodiment in a material form. The reasoning used would appear to apply equally to "material form" in the context of fixation.
S.4 - Presumption created that making of back-up copy permitted. (And its use in the event of destruction of the original).	Not a matter considered by Court.
S.5 - Transmission of program, by telephone or other means deemed to be "supply" for purposes of existing s 132.	Not considered by Court. Such result not likely to be achieved judicially.
S.6 - New offence of <i>advertising</i> supply created, and transmission deemed to be "supply"	Not a matter for Court.
S.7 - Transitional provisions to confer copyright protection on existing programs, but make clear acts done prior to amendments not <i>thereby</i> to be infringements.	Copyright already applies to computer programs, hence now clear that past acts were infringements and copies created are infringing copies.

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## 8. DETAILS OF AMENDMENTS

In the discussion following, each provision in the amending legislation, the *Copyright Amendment Act 1984*, is taken up in turn and examined in detail. Some parts of this discussion draw heavily upon the *Explanatory Memorandum* issued at the time of consideration of the Bill of Parliament<sup>13</sup>.

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<sup>13</sup> "Copyright Amendment Bill 1984 - Explanatory Memorandum" AGPS Cat. No. 84 4559 8.



### S.3(b) - "Computer program"

In developing proposals for the amending legislation some doubts were entertained as to whether it was desirable to attempt a definition at all. Submissions to the Department had been evenly divided on the point. A factor in favour of having a definition was the work done by WIPO, and in particular the progress achieved at the WIPO meeting held in Canberra in April 1984. At that meeting discussion commenced with a consideration of a definition contained in the "Model Provisions for Protection of Computer Software" published by WIPO in 1978. The definition reads as follows -

A set of instructions capable, when incorporated in a machine-readable medium, of causing a machine having information-processing capabilities to *indicate, perform or achieve a particular function, task or result.*

Some difficulties were seen in the definition, as noted below.

- "capable ... of causing" was thought inadequate. It is commonly the case that a program contains errors which have the effect that it fails to function correctly in certain circumstances, or at all. It should not for that reason be excluded. "Intended to cause" is preferable. Further, the definition fails to acknowledge that the instructions may need to be translated before they can be used to control the computer.

- "indicate, perform or achieve": seems unnecessary. The word "perform" would appear to be of such generality that neither of the others needs to be given as additional alternatives.

- "function, task or result": "Function" appears sufficiently broad (at least in English) to cover the necessary area without supplement

These considerations, amongst others, caused experts at the WIPO meeting to formulate a number of alternative definitions. They are set out below in rough order of perceived merit -

(1) an expression, *in any form and on any medium*, of a set of directions (with or without related information) intended to cause a machine having information processing capabilities to perform a particular function.

(2) an expression in any language or notation on any medium intended to cause a *computer* to perform a task.

(3) an expression of a set of instructions or statements fixed in any form or medium intended to cause a computer directly or indirectly to indicate, perform or achieve a particular function, task or result.

(4) an expression of a set of *inter-related* instructions intended to cause an *information processing device* to perform a particular function.

(5) a well-formed set of instructions capable of directing automatic information-handling machines to perform some function, *in some specific way*. Program code is any representation of a computer program, expressed in any programming language, implementable through automatic or manual translations of its set of instructions.

(6) a *structured* set of instructions and/or expressions, which can be described in a written form, using one or several equivalent programming or description languages; which can be transformed to such a form that it can be stored in a computer-readable medium in order to run a computer or an information-processing system.

Set out below are criticisms of various elements in these definitions-

- “in any form”: vague, inasmuch as it might be taken to refer, at least in part, to the medium of fixation as well as the form of expression in a language, code or notation.
- “on any medium”: intended to cope with the circumstance that a computer program may be embodied in different physical objects, (e.g. tape, disk, chip) and using different physical properties of those objects (e.g. magnetic, visible). In the structure of the Australian Copyright Act, the requirement that copyright subject matters be fixed in some material form is dealt with elsewhere (s.22), and there does not therefore seem to be a requirement for its inclusion at the definition level in respect of each protected subject-matter.
- “computer”: if the word was employed a supplementary definition would be necessary to attach to it a meaning perhaps artificially broader than that usually accepted (in order, for example, to include a micro-processor in a dishwashing machine).
- “indirectly”: arguably does not make it sufficiently explicit that what is meant is transformation of medium and/or code level (e.g. source to object).
- “inter-related”/“well formed”/“structured”: the words seem unnecessary. There would not appear to be any adverse practical consequence of protecting a computer program consisting of a random (and useless) set of instructions. Such a result would be consistent with existing copyright law which clearly imposes no standard of merit or meaningfulness as a pre-condition to the conferment of protection. In any event something of a requirement for coherence is conveyed by use of the word “set”, and the requirement appearing elsewhere that the instructions be (at least) intended to cause the device to perform a particular function.
- “information-processing device” (and equivalent phrases): That form of words might have the unwanted effect of excluding a device such as a piece of telephone switching equipment which happens to contain a micro-processor but which also contains more conventional electronic and mechanical parts. A judge might well prefer to view such a device as a whole, and may conclude that, looked at in this fashion, it could not be characterized as an “information processing device” because its main, or overall, function was to establish voice channel connections.
- “in some specific way”: Unnecessary. The manner of performance is easily conceptualized as an element of the “function” performed.

Bearing in mind these points, the definition eventually settled on for inclusion in the Copyright Amendment Act 1984 was as follows -

- “Computer program” means an expression, in any language, code or notation, of a set of instructions (whether with or without related information) intended, either directly or after either or both of the following:
- (a) conversion to another language, code or notation;
  - (b) reproduction in a different material form, to cause a device having digital information processing capabilities to perform a particular function.

The following aspects are worthy of comment -

- The phrase "*expression ... of a set of instructions*" is intended to make clear that it is not an abstract idea, algorithm or mathematical principle which is protected but rather a particular realization of expression of that abstraction, in the form of actual computer language statements or code. The word "set" indicates that the instructions are related to one another rather than being a mere collection.

- The phrase "*in any language, code or notation*" is intended to cover not only high level (generally human intelligible) but also low level (generally only machine intelligible) and intermediate level means of expression. Also interpreted code. Thus it would cover a set of statements in a source computer language such as FORTRAN, a BASIC program intended to be interpreted at run time, assembly language code and machine code itself.

- The phrase "*whether with or without related information*" is intended to make clear that the program may include material other than instructions for the computer (such as information for programmers or users of the program, or data to be used in connection with the execution of the program).

- The phrase "*intended ... to cause*" is used in preference to words such as "capable ... of causing" to cover the situation where the program, as written, may not operate for technical reasons such as the presence of a programming error.

- The words "*either directly ... material form*" are intended to make it clear that a program need not necessarily be capable of execution in its existing form but may need first to be converted into a suitable machine readable form (e.g. keying a handwritten program onto magnetic disk), translated into another language (e.g., compilation of a FORTRAN program), or interpreted line by line when the program is executed.

- The phrase "*to cause a device ... to perform a particular function*" is intended to make clear that the device is one the performance of which is ultimately controlled by the abovementioned "expression ... of a set of instructions".

- The phrase "*having digital information processing capabilities*" is intended to make clear that the device is not a device which merely processes information by analogue methods (e.g. a radio) but does include devices which, though considered as a whole might not be information processors, nevertheless have some such capability. Examples would be computerized telephone switching equipment and computerized ignition systems.

### *S.3(f) - "Literary Work"*

This replaces the previous definition that "literary work" included a written table or compilation. That definition is understood as meaning that tables or compilations which have a "literary form", being expressed in writing, were covered as literary works whereas other possible compilations (for example, of musical or artistic works) were not covered by the definition.

However, because the earlier definition of "writing" referred to a mode of representing or reproducing words, figures or symbols in a visible form, the definition would not cover tables or compilations which, though of literary form in the sense that they were expressed in words, figures or symbols, were not in a visible form because, for example, they were stored on magnetic tape or in a computer.

By removing the requirement that tables or compilations be in a visible form it is made clear that a computerized data bank, for example, may be treated as a compilation being a literary work. It is also important because data is often stored in a computer as a table. These changes are consistent with the definition of material form (see below).

However, the main object of the changed definition is to make it clear that computer programs and compilations (i.e. collections or arrangements) of computer programs are also to be protected as literary works.

Protection is given to the form in which the program is originally created, whether that be source code, or machine code (e.g. where coding is done directly in machine code, or where a program generator is used to create machine code without any clearly identifiable source code step.)

Protection for code derived (e.g. by compilation, decompilation, assembly, disassembly) from the original code may be given by means of treating the derived code as an "adaptation" (see below).

### *S.3(a) - "Adaptation"*

The existing definition of adaptation is amended by including a provision that an adaptation of a computer program means a version of the work, whether or not in the same language, code or notation as that in which the work was originally expressed, other than a reproduction of the work. Without particular provision, there would be doubt as to whether the compiled code derived from a source computer program was to be treated as a copy (or reproduction), or an adaptation, or neither.

Copyright in literary works includes exclusive rights to reproduce or adapt such works. However, the previous definition of adaptation in relation to literary works only included translation, conversion between dramatic and non-dramatic forms, and conversion to a pictorial form. Of these, only translation was likely to be relevant to adaptation of programs but there were legal doubts as to whether this referred only to translations between human languages.

It was thought necessary to deal in some fashion with the case of translation between the various so-called "high level programming languages" in which the programs may be written by humans (often called "source code") and languages, codes or notations which actually control computer operations (often called "machine code" or "object code"). This is a matter of some commercial importance as mass-produced software is generally marketed in object code form. It is also possible for a program to be converted from object code (back) into source code, or between different languages of the same or similar level.

In some circumstances these processes will result largely in a substantial reproduction of the original program. In other cases, however, such as compilation followed by de-compilation, the differences may be so substantial that one cannot speak of a reproduction although the final product is clearly derived from the original. The new definition is intended to ensure that in those latter cases the derived work is treated as an "adaptation".

One way or another, protection is intended therefore to apply to conversions between any pair of programming languages, including "high level" and "lower level" assembly and machine codes. The two aspects of this protection are (i) that the copyright owner of the original code has the sole right to make the conversion, and (ii) that the converted code will attract protection in itself.

### *S.3(c)-(e) - "Infringing copy"*

The concept of "infringing copy" is important in a number of contexts in regard to the enforcement of copyright.

Amendments to the definition were inserted to remove possible technical anomalies.

### *S.3(g) - "Material form"*

Among other things "material form" is important as the trigger for the commencement of copyright protection in the Australian Act.

"Material form", in relation to a work or adaptation, now includes ... "any form (whether visible or not) of storage from which the work or adaptation, or a substantial part of the work or adaptation, can be reproduced."

The new definition makes it clear that material form includes such methods of fixation as storage or reproduction on magnetic tape, read-only or random access computer memory, magnetic or laser disks, bubble memories and other forms of storage which will doubtless be developed.

The change is of considerable relevance, not only as regards computer programs, but also as regards the protection of databases and other works stored in computers. There is now no doubt that these are protected under the Australian law.

### *S.4 - Back-up copy of computer program*

This inserts into the Principal Act a new s.43A which creates, in effect, a presumption that the owner of a legitimate copy of a computer program can make a back-up copy to be used in the event that the original copy is lost, destroyed or rendered unusable.

The owner of copyright in the program can, however, negative this presumption by explicit direction to the owner of the copy (given not later than the time the copy is acquired). A clearly legible direction printed on the copy or on a package in which it is supplied shall be taken to be such an express direction.

### *S.5 - Offences*

S.5 inserts a new sub-section (5A) into the main offence provision, s. 132 of the Act, to provide that a person is deemed to distribute an infringing copy of a program when he transmits that program and an infringing copy is made by reception and recording of the transmission.

This provision thus extends the existing prohibition on commercial distribution of "pirate" copies of programs to cover the situation where the program is supplied to the purchaser not as a physical copy but by way of a transmission which he can record.

### *S.6 Advertisement for supply of infringing copies of computer programs*

This introduces a new s.133A which proscribes advertisements for the supply of infringing copies of computer programs. It applies to advertising by any means (magazines, radio, etc) and applies both to the person responsible for placing the advertisement and to the person publishing the advertisement.

It will be necessary to prove that the advertiser or publisher knew or had reasonable grounds for knowing that the copy, when supplied, would be an infringing copy.

The penalty would be \$1500 for a first offence and \$1500 or imprisonment for six months for a second or subsequent offence.

Consistently with the proposed amendment to s. 132, it also covers advertising supply of infringing copies by way of transmission of computer programs.

Prosecutions may be brought either in the Federal Court or in any other court of competent jurisdiction. (The effect of the Acts Interpretation Act is to confer the necessary jurisdiction on the Federal Court.)

#### *S.7 - Application and transitional*

Sub-section 7(1) provides that the amendment made by the Bill will extend to works and other subject-matter made before the commencement of the Act. Copyright protection will be thus conferred on existing computer programs.

However, sub-section 7(2) provides protection in respect of existing copies if the courts ultimately hold that there is not copyright in computer programs. The legislation conferring copyright on existing programs will not operate retrospectively to cause past actions to have been infringements or cause existing copies to become infringing copies.

#### *9. REFORM IN THE LONGER TERM*

At the time of passage of the 1984 amendments the then Attorney-General envisaged that the amendments would be a short term measure only, and that there would be a thorough "consideration of policy for the longer term through an appropriate form of enquiry".

In the circumstances prevailing at the time of writing it is not clear what priority, if any, will be attached to the holding of this enquiry. It is significant that the government has made a firm commitment to expenditure restraint. In addition a continuing trend internationally to favour a copyright style of protection was in evidence at the WIPO/UNESCO meeting earlier this year<sup>14</sup>, and has been reinforced by other recent events. Particularly significant is the fact that Japan has at last chosen to apply conventional copyright principles. In addition, a Canadian superior court found last year that computer programs fall within its Copyright Act; the Federal Republic of Germany and France have just included computer programs within their copyright statutes; and a private member's Bill in the U.K. proposing inclusion of computer programs in the Copyright Act 1956 received Royal Assent on 16 July 1985.

Both major forms of intellectual property (copyright and patents) are international in their effects because of the operation of reciprocal protection. Currently Australia's laws are in relative harmony with those of its major trading partners. It is arguable that Australia ought not to make fundamental changes without parallel developments in international consensus as to the best form of protection. To do so might adversely affect both export opportunities for Australia and the ease with which it can gain access to foreign technology.

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<sup>14</sup> See Report of Meeting, cited in note 10 above.

It therefore seems likely that discussion of any movement away from full copyright protection will need to await developments at an international level. Of all matters to be resolved, possibly the most crucial is the applicability of the Berne Convention and the Universal Copyright Convention (UCC) to computer programs. This poses a dilemma. A finding that the Conventions do not apply would leave the international community without any established framework for software protection and open the way for piecemeal domestic legislation applying rules of simple reciprocity, or depending upon bilateral treaties, for international protection, as opposed to national treatment. A finding that the Conventions do apply would bind states to implement a protection regime in which some features, e.g. duration, may be inappropriate to computer programs.

Any discussion of reform within Australia seems likely for the time being to be directed towards fine tuning of the existing copyright provisions. It appears that the 1984 amendments are, on the whole, operating satisfactorily. Amongst concerns which remain are some which involve structural implications for the Copyright Act. Computer software shades off in one direction into hardware, in another direction into non-program works. There is a need therefore to consider software protection in the light of semiconductor chip protection; also in the light of the protection of copyright subject-matters other than computer programs. Finally, because computers have the capacity to gather together large volumes of information, to rearrange it and present it into quite different forms, some subtle questions will be raised as to the integrity of the classification of copyright subject-matter under the Australian Act.