COMPUTERS & LAW

Autodesk v Dyason - The Full Federal Court Decision

• *Brendan Welsh*
  Solicitor, Baker &
  McKenzie

The Full Federal Court of Lockhart, Sheppard and Beaumont JJ has unanimously upheld an appeal from the first instance decision of Northrop J in Autodesk Inc & Anor and Martin Peter Dyason & Ors. The Court found that whilst copyright subsisted in the combination of computer software and computer hardware in this case, it did not extend to protect the functional aspects of that system.

Facts

Autodesk Inc ("Autodesk") developed a sophisticated computer program known as AutoCAD, which assists in the drafting of architectural and engineering designs. AutoCAD is a mass marketed "shrink-wrap" product suitable for personal computers. In comparison with other shrink-wrap products AutoCAD is expensive and retails in Australia for about $5,000. Autodesk sought to limit use of AutoCAD to one computer at any one time with the combination of a sub-program within AutoCAD known as "Widget C" and a device known as the "AutoCAD lock". In substance, if the AutoCAD lock was not attached to the computer AutoCAD would not run.

The appellant, Kelly, obtained a copy of the AutoCAD program and the AutoCAD lock. With the use of various monitoring devices he discovered how

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the AutoCAD lock functioned and then developed a device known as the "Autokey hardware lock". This device was an infallible substitute for the AutoCAD lock and with the aid of the 1st and 2nd appellants, Mr & Mrs Dyason, he manufactured and marketed the Autokey lock at a retail price of $499.

The technology of the two locks is difficult to understand. It is perhaps sufficient to note that:

(i)   both locks perform the same function but their internal workings are fundamentally different;

(ii)   the AutoCAD lock did not contain a computer program which executed in the conventional sense; and

(iii)   Kelly developed the Autokey lock without reference to the internal workings of the AutoCAD lock.

Autodesk obtained interlocutory injunctive relief restraining the appellants from infringing its copyright in the computer program embodied in the AutoCAD lock. At final hearing, Northrop J found that:

(i)   the AutoCAD and Autokey Locks both contain computer programs as defined by the 1984 amendments to the Australian Copyright Act.

(ii)   the Autokey Lock infringed the computer program in the AutoCAD lock by reproducing the function of that program in a material form.

The Full Federal Court heard an appeal from the findings of Northrop J and also a cross-appeal by the respondents against the dismissal of their claim that because purchasers were not licensed to run AutoCAD without the AutoCAD lock the appellants, within the meaning of section 36(1) of the Act, authorised the unlicensed doing of an Act comprised in the Respondents' copyright when they ran AutoCAD with the Autokey lock.

(i)   Per Lockhart, Sheppard and Beaumont JJ: The AutoCAD Lock, in isolation, does not constitute a computer program as defined by the 1984 amendments to the Australian Copyright Act ("the Act");

(ii) Per Lockhart and Sheppard JJ (Beaumont J not deciding): the combination of the AutoCAD Lock and Widget C does constitute a computer program ("the version of the Program");

(vi) Per Lockhart, Sheppard and Beaumont JJ: Those purchasers of AutoCAD who returned the registration card became bound by a contractual licence including the terms set out in the shrink-wrap licence documentation;

(vii) Per Lockhart and Sheppard JJ (Beaumont J disagreeing): the contractual licence referred to in (vi) contained an implied term not to run AutoCAD without the AutoCAD lock;

(viii) Per Sheppard J (Lockhart and Beaumont JJ not deciding): The loading of AutoCAD into a computer's random access memory when it is running does not constitute a reproduction or adaption of the whole or a substantial part of AutoCAD;

(ix) Per Lockhart and Sheppard JJ: The appellants did not authorise infringement of copyright in AutoCAD when used with the Autokey lock as the doing of each act comprised in the respondent's copyright by running AutoCAD was licensed by Autodesk;

(x)   Per Beaumont J: The appellants did not authorise infringement of the respondent's copyright in AutoCAD when used with the Autokey lock as there was no requirement that AutoCAD only be used with the AutoCAD lock.

Comment

The result in this case has not been received with the enthusiasm one may have expected given that it upheld an appeal from a very controversial decision. Is it because there are still many uncertainties about the 1984 Amendments to the Copyright Act ("the 1984 Amendments") unresolved by this case? For example, in what circumstances will computer hardware fall within the definition of "computer program"; how similar must two works be before one is a reproduction or adaptation of the other; and are there special rules for computer programs when it comes to the question of reproduction? Perhaps these uncertainties will be resolved by the High Court as it is understood the respondents have sought leave to appeal this decision.

1.   The Appeal

1.1   Does the AutoCAD Lock constitute a Computer Program?

According to Section 10 of the Copyright Act ("the Act"):

"'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 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 respondents argued, in three separate ways, that the AutoCAD lock contained a computer program, namely:

(i)   the AutoCAD lock, in isolation, contained a computer program;

"the result in this case has not been received with the enthusiasm one may have expected"

(ii) Widget C was itself a computer program and a substantial part of that program was reproduced in the AutoCAD lock; and

(iii) the combination of Widget C and the AutoCAD lock constitutes a computer program.

Did the AutoCAD lock, in isolation, contain a computer program?

Northrop J, at first instance, held that the AutoCAD lock, in isolation, did contain a computer program as defined. With reference to the elements of the definition, he found that the lock was "a device having digital information processing capabilities", that it was designed "to perform a particular function", that the circuitry of the lock constituted "an expression in any language code or notation" and, significantly, that the response generated by the AutoCAD lock "constituted a set of instructions" by telling AutoCAD whether to stop or proceed.

All three Judges could not agree with Northrop J's finding that the AutoCAD lock contained a "set of instructions". Their view was that the AutoCAD lock merely "responded" to instructions sent to it by Widget C. Moreover, Widget C was the program that made the critical decision whether to stop or proceed. Accordingly, the AutoCAD lock, in isolation, did not contain a computer program as defined.

It is submitted, however, that the AutoCAD lock, in isolation, does contain "a set of instructions". It is fundamental to computer science that, in theory, hardware and software are totally interchangeable. It would be possible (though totally impractical) to convert any computer program into digital logic instructions and express that conversion in the form of an electrical circuit. In fact, many of the instructions expressed as hardware in earlier computers are expressed as system software in modern computers. One may conceptualise the instructions in an electrical circuit by imagining the flow of electrical impulses throughout the circuit being directed by the decisions made at the circuit's logic gates.

Assuming that the AutoCAD lock, in isolation, contains a set of instructions, does the AutoCAD lock contain a computer program as defined? The appellants at first instance, argued that the wording of the definition of computer program required that the "expression of a set of instructions" be separate and distinct from the "device having information processing capabilities". The instructions must be the "cause" of a separate device performing a particular function.

This issue is of considerable significance if you accept that every digital electronic device contains a set of instructions. If it were held that the instructions within such a device were the cause of its own function then every digital electronic device would fall within the definition of computer program.

Did the AutoCAD lock contain a program that was a substantial part of Widget C?

All three Judges found that the AutoCAD lock did not contain a program that was a substantial reproduction of Widget C because all of the algorithms performing the analysis of whether AutoCAD should stop or proceed were contained within Widget C.

Did the combination of Widget C and the AutoCAD lock, when viewed together, constitute a computer program?

Sheppard & Lockhart JJ (Beaumont J not deciding) held that the combination of Widget C and the AutoCAD lock constitute a computer program:

"the correct way in which the matter should be approached is ... to look at

"all three Judges could not agree with Northrop J's finding that the AutoCAD lock contained a set of instructions"

the Widget C program and the device in the [AutoCAD] lock as an integrated system .... If it is, there can be no doubt that the two viewed in combination do constitute a computer program within the meaning of the Act".

Sheppard & Lockhart JJ do not appear to reason through this finding which, arguably, is as significant as Northrop J's finding that the AutoCAD lock, in isolation, contained a computer program. For instance, should the central processing unit ("CPU") of some microcomputers be viewed in combination with the microcode designed to instruct it and if so would this "integrated system" constitute a computer program? (A US District Court in NEC Corporation & Anor v Intel Corporation (14 IPR 1), held that copyright subsisted in the microcode designed to instruct the CPU known as an "8088").

1.2 Is the Autokey lock a reproduction in a material form of the Program?

At first instance Northrop J, having decided that the AutoCAD lock, in isolation, contained a computer program, held that the Autokey lock was a reproduction in a material form of the AutoCAD lock.

Northrop J started with the proposition stated by Gibbs CJ in the Apple Computer case that the notion of reproduction involves two elements - that the infringing work was produced by use of copyright work (clearly, on the facts, this element was satisfied) and that the infringing work sufficiently resembled the copyright work.

Significantly, proceedings in the Apple Computer case were instituted before the 1984 Amendments which introduced a new definition for "material form":

"'material form', in relation to a work or an adaptation of a work, includes any form (whether visible or not) of storage from which the work or adaptation ... can be reproduced".

Northrop J implies that the High Court's objective similarity test was no longer appropriate given the reference to an "invisible" material form and found that regard must be had to the function of the computer program in determining resemblance. Accordingly, he held that the Autokey lock is a reproduction in a material form of AutoCAD lock because they both performed exactly the same function.

Northrop J's emphasis on function in determining resemblance comes from the reference to function in the definition of computer program. He notes that the 1984 Amendments are intended to protect object code, which is invisible, and, by implication, functional aspects of the computer program are the only elements that can be ascertained if expression of the work is invisible.

Lockhart and Sheppard JJ could not agree with the emphasis Northrop J placed on function in determining the resemblance of two works. Whilst they acknowledged the reference to function in the definition of computer program was important, in terms of qualifying the "set of instructions", they were of the view that, in accordance with the general approach of copyright law, the governing word in the definition is "expression" and no inference could be drawn that function was the criterion for determining resemblance in reproduction. They went on to find that:

"once it is recognised, as I think it must from the reasons of the majority in the Apple Computer Case, that there must be a sufficient degree of objective similarity between the copyright work and the infringing work, which in this case involves a comparison between the AutoCAD program and the Autokey program, the conclusion that the latter is a reproduction

"no inference could be drawn that function was the criterion for determining resemblance in reproduction"

of the former cannot be sustained. The combination of Widget C and the program in the Autokey [lock] are different. The algorithms (that is the procedures of solving the particular problem in a finite number of steps) employed by each and the implementation of each is different". (per Lockhart J, at page 15).

1.3 Is the Autokey lock an adaptation of the Program?

According to Section 10 of the Act:

"'Adaptation' means .... in relation to a literary work being a computer program - a version of the work (whether or not in the language, code or notation in which the work was originally expressed) not being a reproduction of the work".

The Court found that there was nothing in the Act suggesting that the word "version" should not be given its ordinary dictionary meaning, that is "a special form or variant of something". For the same reasons that the court found that the Autokey lock was not a reproduction of the Program, it was also not an adaptation of the Program.

Notwithstanding the Full Federal Court's finding, it does not follow that a Court will not protect the "look and feel" of a computer program. In this particular case, there was no similarity in the expression of the AutoCAD lock and the Program. Arguably, one computer program is a version of another computer program if it substantially replicates the user interface, features and command sequence of the other and the two programs expressed similar underlying design features such as algorithms, program command organisation, decision making and data flow. Generally speaking, the more complicated a program's user interface, features and command sequence the more likely any program duplicating these features will necessarily contain expressions of similar underlying design features. This would be borne out by an examination of the source code for each of the two programs.

2. The Cross Appeal

When sold, each AutoCAD package contained one AutoCAD lock, a reference sheet containing instructions on how to use the AutoCAD lock, a document headed "software licence" which, purportedly, contained the terms of a licence agreement between Autodesk and the purchaser including conditions that the purchaser may store AutoCAD in any single computer but that only one copy of the software could be used at any one time. In addition, there was a registration card that could be signed and returned to Autodesk Australia Pty Ltd thereby making the purchaser eligible for future upgrades as well as entitling the purchaser to receive quarterly issues of a newsletter for AutoCAD users and a user template.

The respondents argued that by returning the registration card a purchaser became bound by a licence containing the terms set out in the software licence and that the licence also contained an implied term that the purchaser would not run AutoCAD without the AutoCAD lock. Furthermore, the respondents argued that by running AutoCAD an unlicensed reproduction of AutoCAD is necessarily created in the computer's random access memory if AutoCAD is run without the AutoCAD lock. Therefore, the respondents argued that the appellants authorised an infringement of the respondent's copyright, within the meaning of section 36(1) of the Act by selling the Autokey lock to purchasers of AutoCAD.

This argument required the Full Federal Court to consider two questions:

(i)   when AutoCAD is run, does there come into existence a reproduction or adaptation of AutoCAD in the computer's random access

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memory; and

(ii)   if so, was the doing of this act within the copyright licensed by Autodesk if AutoCAD is run without the AutoCAD lock.

2.1   When AutoCAD is run, does there come into existence a Reproduction or Adaptation of AutoCAD in the Computer's, Random Access Memory?

Sheppard J (Lockhart and Beaumont JJ not deciding) found that:

"I have serious misgivings whether it is appropriate to say that the transfer of the program to the random access memory itself constitutes either a reproduction or an adaptation." (page 21)

The reasoning behind Sheppard J's finding is not clear. He seems to rely on an "essential incidents" argument, that is, because it is necessary, in order to run AutoCAD, to transfer AutoCAD into a computer's RAM there is no act of reproduction or adaptation. In support of his finding he argues that if one buys a book, an essential incident to enjoying that book is the ability to turn the pages.

It is submitted that the transfer of AutoCAD into RAM does constitute an adaptation, if not a reproduction, of AutoCAD. The only difference between a version of AutoCAD in RAM and a version on a computer's hard disk is that one is expressed in a form of an electronic storage device and the other a magnetic storage device. In all other material respects the programs are the same. In fact it would be possible to reproduce substantially identical printouts of the AutoCAD object code from the copy of AutoCAD stored on the hard disk and the copy stored in RAM. Comments in Beaumont J's judgment (at page 41) support this submission:

"Both a hard disk, or a floppy disk, and the RAM, are forms of storage in which the AutoCAD program can be stored, and from which it can be reproduced. This satisfies the definition of "material form" in the statutory definition of computer program".

2.2   Were Purchasers of AutoCAD licensed to run AutoCAD without the AutoCAD lock?

Notwithstanding Sheppard J's finding referred to in 2.1 above it becomes important to address this issue given the possibility that the High Court may have the opportunity to upset that aspect of the Full Federal Court's decision.

At first instance, Northrop J was prepared to take an expansive approach to shrinkwrap licensing, recognising that the terms of the licence could be established by reference to documents inside the Autodesk package. He also recognised that the terms of a licence may be implied independently of any express agreement in circumstances where the implied terms are necessary to give business efficacy to the transaction.

On the facts before him Northrop J held that a licensed user of AutoCAD is not required to use it with the AutoCAD lock attached. In reaching this conclusion, Northrop J noted some aspects of the software warning in the AutoCAD package were "ironic". The copyright notice was enclosed within the outside covering. The software licence was contained within a sealed package. The notice referred to "the copyright owner named below", but no copyright owner was named in the document (although there was a direction on the "Licence Registration Form" to send it to "Autodesk Australia"). The software licence enclosed with the product made absolutely no reference at all to the AutoCAD lock, probably

"the transfer of AutoCAD into RAM does constitute an adaptation, if not a reproduction, of AutoCAD"

because the language of the licence was developed for the US market. Finally Northrop J noted that AutoCAD does not require the use of the Hardware Lock in its home market, and that early versions sold in Australia did not need the lock in order to run.

Beaumont J followed the reasoning of Northrop J on this issue and found that, assuming the running of AutoCAD did result in a reproduction of AutoCAD in RAM, infringement would not take place because there was no implied term that AutoCAD could only be run with the AutoCAD lock attached. Accordingly, there was no authorisation issue to consider.

However, Lockhart and Sheppard JJ were prepared to imply a term into the licence that AutoCAD could only be run with the AutoCAD lock attached. This finding was of no practical significance because Sheppard J (Lockhart J not deciding) found there was no reproduction of AutoCAD in RAM when AutoCAD is run.

The findings on the cross-appeal raise several separate issues to that of the appeal, for example, the enforceability of shrinkwrap licensing (which is not discussed in any length) and what terms are implied into any licence when shrinkwrap products are sold. These findings are of considerable practical significance for the computer software industry.

Conclusion

This case is significant because it is the first to examine the scope and, perhaps unintended consequences of the 1984 amendments to the Copyright Act. The Full Federal Court's finding that copyright may subsist in computer hardware (in combination with computer software) suggests that the 1984 Amendments have a far reaching effect. However, the practical significance of this finding may be limited by the Court's further finding that similarity in "expression", as opposed to "function", is the test for reproduction and adaptation.

In addition, the Court's findings and observations on the cross appeal constitute a fair warning in relation to the employment of shrink-wrap licensing or licence registration techniques in Australia. It appears that the terms set out in such licences will be recognised by the Courts, but it is important to ensure that they reflect the position that the copyright owner wishes to assert in relation to the local market.

Remember . . .

Conference on -
Trade Marks and Distribution Contracts for Computer Products

Speakers:	Katrina Henty and Marianne Kopnieg Mallesons Stephen Jaques
Date:	7 November 1990
Time:	5.30pm to 6.30pm
Location:	Level 2, Law Society, Sydney