IN THE COURT OF APPEAL OF NEW ZEALAND

CA 165/02

BETWEEN	PACIFIC SOFTWARE TECHNOLOGY LIMITED First Appellant
AND	MICHAEL STEELE Second Appellant
AND	PERRY GROUP LIMITED First Respondent
AND	UNITED GAMING LIMITED Second Respondent

Hearing: 17 February 2003

Coram: Glazebrook J
              Hammond J
              Gendall J

Appearances: C L Elliott & A J Parkinson for Appellants
              I Finch & D L Marriott for Respondents

Judgment: 15 May 2003

JUDGMENT OF THE COURT DELIVERED BY HAMMOND J

Introduction

[1]   By a judgment delivered on 2 August 2002, Williams J held that the respondents, Perry Group Limited ("Perry Group") and United Gaming Limited ("UGL"), are the owners of copyright in the source code of a computer program commissioned by them from the appellant, Pacific Software Technology Limited ("Pacific Software"). The Judge ordered that Pacific Software deliver that source code to Perry Group.

[2]   Pacific Software now appeals to this court against both the substantive determination; and the consequential relief which was ordered by the Judge.

Background

[3]   Perry Group is a holding company with its headquarters in Hamilton. It has operated as a family business for over half of a century. It has several subsidiaries, engaged primarily in quarrying, waste disposal, and light engineering. In more recent years the group has extended its operations to the domestic gaming industry, and a casino. In 1999 Perry Group took over UGL.

[4]   Pacific Software is a software development company, also based in Hamilton. Mr Michael Steele is a software developer employed by Pacific Software.

[5]   The New Zealand gaming machine market is serviced primarily by two competitors, International Game Technology ("IGT") and Aristocrat.   These enterprises service something over 87% of the gaming machines in New Zealand.

[6]   UGL is one of IGT's dealers. It has a dealership in the upper North Island. UGL sells to and services approximately 25% of the total New Zealand gaming machine market.

[7]   To carry out this enterprise, UGL needed a centralised database which would collate information about these gaming machines and output that information in useful formats. Not only was such a database necessary in a business sense; it was also necessary to meet certain audit concerns on the part of the Department of Internal Affairs relating to the readings on these machines.

[8]   From about mid-1999, Pacific Software had worked on several projects for Perry Group and its subsidiaries.   Several of those projects had involved Pacific Software being commissioned to create databases to suit the specific needs of the particular Perry Group subsidiary. None of those commissions were reduced to written contractual arrangements.   And in all of those projects the relevant intellectual property (the source code) was delivered by Pacific Software to

Perry Group and subsequently treated as the property of the particular subsidiary within the Perry Group.

[9]   Perry Group was aware, from at least the time of a due diligence audit on its acquisition of UGL, that UGL had an outmoded type of database called Q&A. It formed the view that a significantly improved database was necessary for both business and regulatory purposes.

[10]   It was in this context that a decision was made by the Perry Group that it would move to Microsoft based or Microsoft compatible programs, such as Microsoft Access, SQL or Oracle for a database for UGL. In essence, a decision was made to start afresh from a computer programming point of view.

[11]   The Perry Group approached Pacific Software with respect to such an exercise. It is common ground that the Perry Group in fact commissioned Pacific Software to develop a VB/Access database for UGL's use in connection with its gaming machine business.

[12]   There was a factual issue at trial as to whether that commission came into being on or about 23 March 2000 or somewhat later, on 22 June 2000. That factual issue was resolved in favour of the Perry Group's argument for a 23 March date by the trial Judge. That finding forms a distinct head of appeal.

[13]   It is common ground that Pacific Software in fact evolved a VB/Access database for the Perry Group. The core of that database was up and running as of August 2000. Attention continued to be paid to teething problems and enhancements thereafter.

[14]   In October of 2000, the Perry Group began discussions with Pacific Software about the possibility of establishing a joint venture between them which would have seen the creation of a new company, Gaming Information Limited. The VB/Access database would then have been transferred to an SQL database, which might also have been of commercial interest to the gaming industry at large.

[15] There were thereafter meetings between the Perry Group and Pacific Software over this broad possibility, which reached the point of a draft heads of agreement. But this joint venture ultimately proved abortive – no agreement was finally reached. An SQL database was subsequently developed solely for the Perry Group.

[16] In August of 2001, the Perry Group called up the VB/Access source code from Pacific Software. Pacific Software declined to deliver that code, and has maintained that refusal ever since. It was that refusal which has led directly to the matters we have now to consider.

[17] In essence, Pacific Software's position is that it had, independently, been working on the development of a gaming machine database prior to the commission from Perry Group (whenever it arose); and that it had libraries and sub-routines which, in the simplest terms, "went into" the computer program it developed for the Perry Group. Pacific Software maintains that perhaps as much as 85% of the software in the program was developed independently, prior to the commission. Pacific Software's position in this litigation is therefore to protect what it sees to be the "ownership" of its own alleged prior intellectual property in what it maintains are pre-existing libraries which had attracted copyright in their own right.

[18] The Perry Group's position is that this was commissioned software and that by virtue of s21 of the Copyright Act 1994 it is the first owner of the copyright in the entire program (there being no agreement excepting any parts of that program). It is therefore entitled to have delivered to it (at least) the source code for that program.

What this appeal is not about

[19] This appeal, although it is said to be of distinct practical importance to the software programming industry in New Zealand, has two distinct limitations upon it. It is necessary to be clear on these limitations from the outset.

(a) The limitations on the trial

[20]   In this proceeding the Perry Group sought relief in relation to copyright in both the VB/Access program, and the SQL program. After the joint venture was aborted, as we have noted, development work on the SQL database had been continued for the Perry Group by Pacific Software. The Perry Group sought to have determined its entitlement in both computer programs, and consequential relief with respect to both.

[21]   Counsel then took the view that a determination on the entitlement to the source code in the VB/Access program would also be dispositive of the dispute in relation to the SQL program. It was therefore agreed that not only should there be a split of liability and quantum in this trial; but also on the liability issues to be determined. And further, within the consideration of the respective entitlements to the source code within the VB/Access dispute, the trial (so far as it has proceeded) was effectively limited to consideration of the "in principle" issues of what those entitlements were. To put this another way, there was not considered closely at trial the issue of how much of the VB/Access software had come from Pacific Software's prior independent endeavours (if any), and how much of the program as presented to the Perry Group was "new".

[22]   In the result, this Court is in the position of being required to consider this appeal as an appeal in a part-heard liability trial which is still not "complete" as to liability, although this is not to suggest that an appeal could not be advanced on the issues finally determined by the trial Judge up to this point.

(b) The limitations on the aspect of the computer project in issue

[23]   Not only was the trial, so far as it has presently run, formally limited in the way we have just indicated; it follows that the dispute which is before us is about only one (albeit from the plaintiff's point of view the most important) aspect of the commissioned development.

[24]   This is a convenient place to note, in short form, such technological background as we think is necessary to the disposition of this appeal, and that aspect of the computer programming which is relevant to the appeal.

[25]   Digital computers rest on five functional elements: (i) input; (ii) storage of that input by a memory system; (iii) a control unit which receives data from memory and gives instructions for the necessary arithmetic; (iv) an arithmetic which carries out the control commands; (v) an output capacity.

[26]   A computer program is simply a set of instructions to the computer. Most programs accept and process user-supplied data. The fundamental processes utilised by a programmer are algorithms (simply, mechanical computational procedures) which lie at the heart of the program. These algorithms must be developed by the human creativity of the programmer. The program cannot therefore contain any algorithms not already considered by humans. The advantage of the computer is simply that it can execute these algorithms faster and more accurately than any human could.

[27]   The creation of a computer program generally takes place in a number of steps (sometimes called a "waterfall" effect), proceeding from the general to the specific. The first step (that at the top of the waterfall) is to identify the problem that the computer programmer is trying to solve. In this instance, it would be to understand the kind of records and record manipulations necessary for the proper administration of the gaming industry. Hence the programmer necessarily needs to know a lot more about that business. The programmer then begins to outline a solution, often in the form of a flow chart, which will break the solution down into a series of smaller units called "subroutines" or "modules". Each of these modules deals with an element of the larger problem. The "efficiency" of a program depends very much on the arrangements of these modules and subroutines. Two programs might produce the same result, but one might be vastly more efficient because of different internal arrangements of modules and subroutines. As the program structure is further refined, the programmer has to make decisions about what data is needed, where along the program's operation the data should be introduced, how that data is to be entered, and how it is to be combined with other data. This is

accomplished by means of data files. This in turn is much affected by the details of the program's subroutines and modules. Different arrangements of subroutines and modules may require data in different forms. A programmer can solve the data organisation problems he or she faces in a variety of ways. Necessarily, each solution has distinct characteristics that differentiate the program from other solutions, and make it more or less desirable.

[28]   Once the detailed design is completed, the coding begins. Each of the steps identified in the design has to be turned into a language that the computer can understand. This "translation" itself requires two steps. First, the programmer writes a "source code", in a high level language. Once the program is written into this source code it is then translated into "object code". The latter is simply a binary code which is a concatenation of "zero's" and "one's". In every computer program, this object code is the final instruction to the computer in the sense that it is the object code, not the source code, that directs the computer to perform functions.

[29]   Particularly in highly intuitive programs, there may also be non-literal elements of the program which are of great importance to the user of that program.

[30]   For a fuller description of this process see Laddie, Prescott & Victoria, *The Modern Law of Copyright & Designs* (2ed) 20.5 et seq, and for a judicial "primer" see the appendix to *Cantor Fitzgerald International v Tradition (UK) Ltd* [2000] RPC 95 (Pumfrey J)).

[31]   In addition to the programming just described, routinely there will be instruction manuals of one kind or another to accompany the program.

[32]   The two largest sources of time, energy and expense in evolving computer programs lie at the outset, in developing the structure and logic of the program. After the coding is complete, the debugging, documentation and maintenance of the computer program also routinely absorb large amounts of time.

(c) What the Trial Judge dealt with

[33]   The only element of this whole process which was in issue before Williams J at the part heard trial, and is in issue on the appeal, is the question of the ownership of the source code to the VB/Access program.

[34]   Pacific Software's position is that a significant proportion of the VB/Access source code was lifted, simpliciter, from its own independent development, prior to the commission. Whether this is in fact so, could only be determined by a careful expert investigation. This is perfectly feasible. It is for instance routine in computer infringement cases, where it is alleged there has been "copying", to trace the evolution of a program. "Copying" in computer programs is usually detected by redundancies and idiosyncrasies in coding. For, computer code typically evolves both during initial development, and subsequently, through the testing and upgrades to the program. In the simplest terms, there is usually residual and redundant code left within the program. Indeed some developers deliberately introduce "sleepers" and "smoking guns" to show up in what the copyist has done. True and permanent deletion of computer code is very difficult. So called "deleted" files are merely re-indexed, rather than being truly deleted. Hence, they can be retrieved. To put this shortly, careful analysis of code can normally reveal the evolution of the relevant code, as to where it came from.

[35]   Williams J held in his 2 August 2002 judgment as follows:

> .… this Court's view is that …. what United Gaming and Perry Group contracted for was the development and delivery to it of software which would give it a usable database appropriate for its individual requirements *and if that involved the transfer to United Gaming or Perry Group of Pacific Software's library code as part of the achievement of that object,* then that was a matter which was intrinsically part of the commission. Further, despite the fact the joint venture negotiations were plainly intended to cover ownership of all the intellectual property in the VB/Access database, the Court's view is that no basis has been made out for some division of ownership. Perry Group and United Gaming commissioned the development and the sale to them of the whole of a usable database appropriate to their requirements and the fact that it contained copies of part of Pacific Software's library code is irrelevant to that issue. On acceptance of the database on 22 June 2000 and payment of Pacific Software's accounts

for its development, Perry Group or United Gaming became the entire owner of the VB/Access database. *No division of ownership was contemplated by the parties in their later negotiations and none would now be appropriate. Similar comments apply to the object code.*

In the end, having carefully reflected on the evidence and such documents as there are, this Court forms the view that Perry Group and United Gaming are correct in their assertion that the VB/Access database was commissioned by one or the other on or before 23 March 2000 and that, having paid for it, *they are the sole owner of the whole of the software and all the intellectual property incorporated in it*. (Emphasis added)

[36] It is clearly that all-encompassing holding which attracted the concern of Pacific Software, and apparently the software industry generally. On the face of that holding, absent an express agreement, any prior copyright interests in independently created routines would be "subsumed" in the "new" program so commissioned.

[37] This appeal was lodged, and an application was then made for a stay of execution. In delivering judgment on the stay application on 27 August 2002, Williams J said this:

In support of the application, Pacific Software filed an affidavit by Mr Michael Steele expressing concern over the effect of the substantive judgment in declaring that Perry Group/United Gaming became the owners of all the intellectual property rights in the software including the library code developed by Pacific Software but forming part of the VB/Access database given the commonality of the use of Pacific Software's library code in software developed for other customers. He said that if Pacific Software were required to deliver the source code to Perry Group/United Gaming before the appeal is heard, the latter would obtain access to codes that might ultimately be determined to belong to Pacific Software. However, those concerns appear to be based on a misreading of the judgment. *It intended to make it clear that what Perry Group/United Gaming had commissioned from Pacific Software and paid for was the VB/Access database in workable form including the source code and library code necessarily incorporated in the software to the extent only that such required to make the database usable in accordance with the plaintiffs' requirements* (see para [142] p 46). That notwithstanding, Pacific Software's position needs to be preserved against the possibility that its appeal would be successful. (Emphasis added)

[38] The solicitors for the Perry Group then caused an Order on the substantive judgment (as far as it went), to be sealed on 9 September 2002. The Order is in these terms:

THIS COURT ORDERS:

1.   THAT the Plaintiffs are the owners of copyright in the source code of the VB Access Database.

2.   THE First Defendant and its servants or agents shall immediately deliver up to the Plaintiffs all copies of the source code of the VB Access Database which remain in their possession, power or control.

3.   THE parties shall within fourteen days of the date of these orders file memoranda with a view to costs in this proceeding to date being fixed.

4.   LEAVE is reserved for either party to apply to the Court for such further directions and/or orders as may be necessary.

[39]   The judgment, as sealed, may therefore be for orders in narrower terms than (successively) the substantive judgment, and (to the extent that it was permissible to vary or "explain" it on the stay judgment – which is itself problematic) the stay judgment.

[40]   Whether the judgment as sealed was approved by the trial Judge is not apparent to us. But the orders as sealed are in terms of the claims actually made in the amended statement of claim. And this can also be said: the judgment as sealed was presented for sealing by the (successful) plaintiffs. There is no cross-appeal.

[41]   Hence, to the extent that, in the course of argument Mr Finch suggested that this Court might indicate that Perry Group should also have the copyright in the object code, that line of argument is outside the proper ambit of the appeal. And to the extent that Mr Elliott was concerned that the substantive judgment "did not understand the technology", and "went far too far" that is also outside the proper ambit of the appeal.

[42]   The sealed judgment of the High Court – which neither party sought to have recalled for irregularity, or on any other ground – goes solely to the source code, and the order that Pacific Software deliver up that code to Perry Group. It is also apparent that, on the judgment as sealed, no determination was made as to how far, if at all, Pacific Software has "pre-existing" copyright which still subsists in some elements of that code. But that is curable because the case is effectively part-heard

on liability in the High Court, and that issue can, if necessary, still be determined in that Court.

The commissioning issues

(a) Introduction

[43]   It is again necessary to clear some matters to one side to appreciate the precise issues for determination under this head of the appeal.

[44]   It is now incontrovertible that source code can be the subject of copyright. That was thought to be the position even prior to the enactment of the Copyright Act 1994, the argument being that a computer program is a "literary work" and therefore protectable under that head. The Industrial Property Advisory Committee ("IPAC"), recommended in 1986 that such a solution be specifically adopted in the (prospective) Act "as a confirmation of existing rights" (see, IPAC, *Legal Protection in New Zealand for Computer Programs* (1986), (recommendation 14.2)). Parliament adopted that recommendation. Section 2 of the 1994 Act specifically includes "a computer program" within the definition of a (protectable) "literary work". What is meant by a "computer program" was not defined. Technology might change, and a prescriptive definition was therefore inappropriate.

[45]   It is not necessary for us to prescribe a meaning for the phrase "computer program" on this appeal, and it would be inappropriate to do so in a divisional court unless there was such a strict necessity. We do note however, that the term is potentially very broad. For instance the World Intellectual Property Office (WIPO) Model Provisions (s1) suggests the following definition: "a set of instructions which, when incorporated in a machine-readable medium, is capable of causing a machine having information processing abilities to indicate, perform, or achieve a particular function". (And see generally, Cash "The last place in the world: copyright protection for computer software in New Zealand" (1997) 27 VUWLR 391; and Frankel and McLay, *Intellectual Property in New Zealand* (2002) chapter 11).

[46]   In any event, in this instance, it was common ground between counsel that the source code created for Perry Group was the subject of copyright. The principal "ownership" issue was whether prior copyright in any incorporated elements still subsisted in Pacific Software.

[47]   What the Judge may have done – it turns on a fair reading of his judgments – was to change ground. Initially he may have thought "all" literally means "all the intellectual property". But in his stay judgment he appears to have been of the view that the Perry Group got copyright in the new program, plus what might be termed "the right to use" any pre-existing elements which were the subject of prior copyright in Pacific Software. In short: ownership of copyright in the new program, plus a licence to use the protected prior elements. As will be seen hereafter, this Court considers that Perry Group has at least those rights, and that is sufficient to dispose of this appeal.

[48]   The Judge's seeming ambivalence is not necessarily to be criticised. For there are problems in the subject area of commissioned works, to which we now turn.

[49]   In the law of copyright, who "first owns" a copyright has occasionally given rise to difficulties. The general rule under all the Commonwealth copyright statutes has always been that "the author" is the first owner of the copyright in the work which is created. But a particular difficulty related to commissioned works, which are usually made subject to a statutory solution.

[50]   In New Zealand, s21 of the Copyright Act 1994 now provides as follows (emphasis added):

> (1) Subject to the provisions of this section, the person who is the author of a work is the first owner of any copyright in the work [and "author" has the extended meaning in s.5 of the Act].
>
> (2) Where an employee makes, in the course of his or her employment, a literary, dramatic, musical, or artistic work, that person's employer is the first owner of any copyright in the work.
>
> (3) Where—

(a) A person *commissions*, and *pays or agrees to pay* for, the taking of a photograph or the making of a *computer program*, painting, drawing, diagram, map, chart, plan, engraving, model, sculpture, film, or sound recording; and

(b) *The work is made in pursuance of that commission,—*

that person is the first owner of any copyright in the work.

(4) Subsections (2) and (3) of this section apply *subject to any agreement to the contrary*.

(5) Subsections (1) to (4) of this section apply subject to sections 26 and 28 of this Act.

[51]   It is possible (indeed this may well be the "usual" case) that all copyright elements in the newly commissioned work will vest in the commissioning party. That observation must rest on the scope of the commission, as found. But there can be problems where (as here) there is a suggestion that prior copyright work has been incorporated into a newly created work, which itself then attracts copyright (in the same way as there may be copyright in individual poems, which are then taken into an anthology which itself attracts copyright).

[52]   Whether a work is "commissioned"; what the scope of that commission is; and the date on which the commission arises are all necessarily questions of fact in each case.

[53]   Patently, the better practice is to have a written agreement, and software developers and purchasers would be well advised to see that sound industry contracting procedures are put in place. Be that as it may, inevitably there will be cases, such as the present, in which the exigencies of the moment, or a lack of "best practice" will see parties fail to attend to the obvious.

[54]   Where there is no specific agreement, the law is now well settled, although it can be difficult to apply.

[55]   First, to "commission" simply means to "order" or "request".

[56]   Second, this commissioning must be antecedent to the work. It must have been arrived at before the work is made.

[57]   Third, s21 requires, in terms, a commission and an agreement to pay. Whilst an antecedent commissioning does not necessarily imply an obligation to pay, usually it will do so. And the very existence of a payment obligation can lend force to the notion of the commission itself. An agreement to pay can be express or implied. In *Alwinco Products Ltd v Crystal Glass Industries Ltd* [1985] 1 NZLR 716, this Court thought it sufficient that it be established that the work is to be paid for. For the purposes of a commission there need not necessarily be agreement as to the precise amount to be paid. And the authors of Laddie, Prescott & Vittoria, *The Modern Law of Copyright & Design*, Vol 1 (2ed) para 11.50 cite with approval *PS Johnson & Associates Ltd v Bucko Enterprises Ltd* [1975] 1 NZLR 311 for the proposition that there can be an implied commissioning arrangement "where it can only be assumed that [the work] would ultimately be paid for". That said, matters can be left so vague that the supposed commission becomes unenforceable. (For a reported instance of this kind, see *Leah v Two Worlds Publishing Co Ltd* [1951] Ch 393).

[58]   Fourth, this payment is a quid pro quo for the copyright: that is, the making of the copyright work, not the physical embodiment of the work itself.

[59]   Fifth, the copyright in the commissioned work belongs to the commissioning party so soon as part of it is done. That is, the commission applies to incomplete as well as complete works.

[60]   Sixth, it will be apparent from the foregoing that although it is an agreement of a kind, a commission is closer to a term of art which is employed in the copyright area for the resolution of first ownership issues. To put this another way, the notion of a commission is sui generis to copyright law. It involves the court finding an arrangement of the requisite character between the parties, and what the terms of it are. The very existence of the commission may be inferred.

[61]   In this instance, there was ample evidence to support the Judge's finding that there was, on or before 23 March 2000, a commissioning of a computer program (to support a "usable database appropriate to [Perry Group's] requirements"). That

database was accepted for actual use on 22 June 2000, and Pacific Software's accounts were met.

[62]   The Judge found:

> Having carefully considered the evidence and re-read it on several occasions, this Court takes the view that although Mr Burkhart almost certainly did not use formal words of commissioning to Mr Michael Steele on or before 23 March, by the time the party returned to Hamilton that evening Mr Michael Steele and, through him, Pacific Software, would have understood they had been commissioned to prepare a new database and software for United Gaming to meet its requirements as conveyed to Mr Michael Steele by Mr Burkhart and, to a lesser extent, by Mr Moore and United Gaming staff. Time for completion may not have been agreed but Mr Michael Steele would have been left with a clear impression by both Messrs Moore and Burkhart that completion was required as quickly as possible. No specific fee or cost had been agreed but all previous projects undertaken by Pacific Software on Mr Burkhart's commissioning had been on an hourly rate and there was no reason for the parties to change that arrangement on this occasion, an occasion which seemed no doubt little different from other commissioned projects. In any event, Mr Burkhart made it clear that if the database was unacceptable to Mr Moore and United Gaming in a way such that they accepted responsibility for Pacific Software's costs, he had sufficient authority to commit Perry Group to meeting Pacific Software's accounts.

[63]   These holdings turned to a real degree on an appreciation of what the witnesses before him had said, both in their briefs, and under cross-examination.

[64]   Moreover, both the prior context, and the way the parties behaved after 23 March during the commission, strongly support the view the Judge formed of the commission.

[65]   First, the way this project fell for advancement was entirely consistent with the other transactions the parties had entered into and which had transferred (without objection) the particular source code to the Perry Group. Mr Elliott sought to make something of the fact that the source codes were not asked for or handed over before March 2000 (when the dispute arose). We consider this to be of no significance – they were handed over without expressed limitation.

[66]   Second, it is significant that Mr Steele got down to the solid development work on 24 March. This was the very day after a meeting on 23 March at which he

was told by Perry Group management it "wanted to start this project". Mr Steel specifically acknowledged that it was the following day that he started "developing the Access code" (admittedly "using Pacific Software library code").

[67] Third, as the Judge noted, the appellant's own time sheets supported the Perry Group's account of the way matters had been authorised, and the work carried out.

[68] Fourthly, the Judge accepted that during the joint venture discussions, Mr Steele acknowledged that this program was that of the Perry Group.

[69] Mr Elliott strongly argued was that there was no, or no sufficient agreement to pay, at the outset (ie, in this case, in mid March 2000). This, with respect, was both a make-weight point, and over-refined, given the requirements for a commission to which we have already referred.

[70] Mr Elliott was particularly critical of the observation by the Judge that Mr Burkhart had "made it clear" that Pacific Software would be paid in any event. He said that was not distinctly supported by the evidence. There is, in fairness, some force in that submission. But what is quite plain is that Mr Burkhart's "expectation" as the Judge put it, was factually entirely correct, and that of both parties. What Mr Burkhart said was:

> The commissioning of the database would have occurred during the fortnight starting the 13th March 2000. During that fortnight I attended a UGL strategy meeting on the Wednesday 15th March. It is clear to me from my diary notes and other records that I needed to initiate the start of this database as quickly as possible. As with all projects the commissioning was verbal and given that it was not the only project underway at the time, likely to have occurred during a conversation involving other subjects. However, it would have been a clear instruction along the lines of "let's get going" or "I want to start this project". I cannot recall the exact date that I said this but I estimate it would have been on or around the 23rd March 2000, and this is borne out by the Defendant's own timesheet recordings. No discussions were held about invoicing and payment. My expectation was that Michael Steele would submit an invoice for his time and PGL would make payment on the invoice once I had signed it off to be true and correct, as with every previous project. That is exactly what happened. PGL has paid in full, all invoices submitted by PSTL for all work relating to the UGL database.

[71]   In the result, the Judge found for this account by Mr Burkhart of how the commission had been arrived at, the date of the commission, and what the requirements of it were.

[72]   There is no warrant for this Court to disturb factual findings of the character reached by the Judge on appeal, where there was a factual basis for them, and where those findings turned in substantial part on the Judges assessment of the witnesses.

The Ownership Issues

[73]   There was wide ranging argument before us as to what it was that Perry Group actually acquired in the way of intellectual property under this commission.

[74]   In the view we take of the matter, there can be no question that, both in terms of the commission, and by virtue of s21 of the Act, Perry Group are the first owners of the copyright in the source code, as written. To that extent, the declaration sought in paragraph (a) of the amended statement of claim was appropriate. The Order as sealed is loosely drafted (point 1 of the sealed order should have been framed as a declaration). But the appeal against that head of relief must be, and is, dismissed.

[75]   However, because it was of such significance to the parties, and of practical importance, we add these observations.

[76]   The Judge may well have conveyed that what was involved was a "transfer" of "ownership" (the copyright), even of such library code as could be demonstrated to have formerly reposed in Pacific Software.

[77]   He then clarified that to some extent in the stay judgment, by appearing to suggest that what the Perry Group got was an ability (so far as was necessary), to use the library code (if any) which is within the program as supplied.

[78]   In the result, ultimately it does not here matter which of these lines of reasoning is to be preferred, because either way the Perry Group itself has (at least) the right to utilise the program for the purposes for which it was developed. But which line of argument is to be preferred would be of distinct moment should the Perry Group have it in mind to on-sell, or licence the program to third parties. For that reason we think it appropriate to indicate that we are of the view that what is really a "licence" argument is clearly to be preferred, for several reasons.

[79]   We start with this point. As the party who commissioned the source code which was developed for it, the Perry Group is the first owner of the copyright in that program. It has all the statutory rights of a copyright owner in that program. The program is an item of personal property. It would pass to any successors to the Perry Group; the Perry Group could assign that program; and the Perry Group has the rights of an owner to adapt that program.

[80]   The second point is that the exercise of those "usual" rights on the part of the Perry Group does not displace the underlying ownership of Pacific Software in the library code (to the extent that may, ultimately, be established at trial).

[81]   It has to be kept firmly in mind that what is in issue is two copyrights, not one. It would, in our view, be wrong to say that there is, in effect, a transfer of the library code copyright (if any) to the Perry Group. If Parliament had intended such a draconian result, it would surely have said so. And under the statute copyright is transferred by way of assignment in a manner which is precisely regulated by the statute itself. An assignment in writing "signed by or on behalf of the assignor" is required (see s113 and s114 Copyright Act 1994). That requirement is not met in this case.

[82]   The parties in this case did not turn their minds to the question of the "rights" each would have in the library code copyright, if it exists. They did not even discuss the very existence of the library code. And the problem of one computer copyright which is embedded in another computer copyright on a commission was not directly addressed by Parliament in this statute.

[83] This latter point is of distinct practical importance. Software developers, as this case illustrates, are obviously storing routines developed for prior projects in what amount to virtual libraries, and then re-using them by cobbling them into new programs. The philosophy of "write once, use many times" is efficient in economic terms, and indeed has historic parallels in such things as lawyers' use of written precedents for commercial, conveyancing and court forms.

[84] To give full weight to the position of the commissioning party (a purpose which Parliament did recognise) and to give the commission business efficacy, it is both necessary and appropriate to imply a non-revocable (ie not a "bare") licence for the Perry Group to utilise the library code (if any) which is embedded in the source code; and further a term that such licence also enures for the benefit of any successor or assignor of the Perry Group. That licence would then be enforceable by that third party under s4 of the Contracts (Privity) Act 1982.

[85] We add, for completeness, that the existence of this licence is also a form of "authorisation" which would be a defence to any claim of infringement (see the definition of "authorisation" in s2 of the Act).

[86] To approach this difficult problem in this manner in our view recognises the appropriate ownership rights, and the ability to use them, in the commissioning party; whilst on the other hand preserving the prior ownership rights in the library code in the developer.

[87] We emphasise two things. First, this reasoning does not diminish the importance of sound industry agreements. On the contrary, developers would be very well advised to protect themselves by agreement, since otherwise the onus will, in practice, be on them to demonstrate the existence and extent of alleged prior rights and the limits of any implied licence. Second, it does not follow that the reasoning in this case will necessarily follow in every case: whether or not there is an implied licence (and the terms of it) will necessarily depend on the facts of the given case.

[88] Finally it may be that, ultimately, Pacific Software has in fact little to stand on in the way of prior copyright. It has not yet been demonstrated that it has that

copyright which it asserts in the library code and what the extent of it is. But we cannot appropriately resolve this point in this Court. It is a matter of further evidence. Ideally this point should be capable of commercial resolution by the parties.

[89]   One final issue, which is somewhat hybrid in character in that it overlaps both the commissioning and ownership issues, can most conveniently be dealt with at this point.

[90]   In para 46 we noted that the "principal" ownership issue is that relating to the source code. Although it was not included in the four main points relied upon by Mr Elliott at the outset of his submissions, he did argue that Perry Group was the first owner of the copyright in (at most) the object code only, and not of the copyright in the source code; he maintained the source code always remained with Pacific Software (and that was whether or not there was pre-existing copyright material).

[91]   This is itself essentially a factual argument, as to the scope of the commission. The suggestion is that the subject of the commission was a workable database only and not the underlying source code so that what was "commissioned" was the object code only – or merely a usable version of the database.

[92]   This argument founders at the outset, on the facts. In the absence of express or necessarily implied agreement to the contrary (and given the date the commission occurred) the commission must have been for the making of all the relevant computer software elements required to support the "usable database" (including it might be said, the object code, if that can be the subject of copyright). However Williams J was not asked to determine copyright in the object code, and it is also not before us, whether directly, or by cross-appeal. The essential point is that clearly the source code was commissioned for the Perry Group.

[93]   Mr Elliott's argument is also conceptually confused. A database is generally thought of as being any collection or assortment of information held in the memory of a computer. That concept is not dealt with in the statute, and how far something

called a "database" can be the subject of copyright was again not addressed before us. On one argument, the ownership of the database might run with the ownership of the material on which it is recorded. But that would be to beg the question whether copyright subsists in a "database" as such at all. The issue whether the statute intended a "database" to be treated as being synonymous with a computer "programme" is a vexed one (although presumably the text of a database could be a literary work) and this Court should not pronounce on it unless it is necessary to do so; and only after full argument.

[94]   At the end of the day, this line of argument is not well founded. It seeks to say that what Perry Group got was something less than the source code, which necessarily would have to be the object code, or something vaguely described as a "usable database". What the Judge found made commercial sense, and was in accord with the evidence – what Perry Group were commissioning was the software needed to set up this usable database.

[95]   We do not accept the argument that (somehow) the practice of software developers dictated the argument contended for. Such an argument based on a "practice" would have to meet the well-established (and stiff) test of general acceptance in the industry as a whole – not just the understanding of software developers. And in this instance other software had been handed over to the Perry Group on prior occasions.

Remedy

[96]   Mr Elliott ran the unattractive argument that even if the Perry Group has copyright in the source code, an order could not be made that Pacific Software actually deliver it to the respondent.

[97]   Mr Elliott's argument was that, although copyright is undoubtedly "property" under the statute (see s14(i)), it is a "pure chose in action", and is "therefore …. incapable of being physically possessed and therefore incapable of being converted or detained".

[98]   Mr Finch relied upon what amounts to an extended definition of conversion (in, inter alia, the copyright arena) by this court in *Wham-o MFG Co v Lincoln Industries Ltd* [1984] 1 NZLR 641, 678 which is in these terms:

> An act, or complex series of acts, of wilful interference, without lawful justification, with any chattel in a manner inconsistent with the right of another, whereby that other is deprived of the use and possession of it. Two elements are combined in such inference: (1) a dealing with the chattel in a manner inconsistent with the right of the person entitled to it; and (2) an intention in so doing to deny that person's right or to assert a right which is in fact inconsistent with such right." (p 678)

[99]   For an illustration of this "denial of the rights" reasoning, Mr Finch also referred to *Unisys Canada Inc v Imperial Optical Co* (1998) 43 CCLT (2d) 286, applying that argument. There the Ontario Court of Justice (Hoilett J) accepted the view of Fridman, *Torts*, Vol 1 (1989) p 95 that "knowledge in some permanent form … for example … on a disc used for computers …. would seem to have the character of a chattel, and should be capable of being converted". An appeal to the Ontario Court of Appeal in that case was dismissed, by consent, without costs ((2000) 49 CCLT (2d) 237). The authors of Todd, et al, *The Law of Torts in New Zealand* (3ed) 565 take the same line as Fridman.

[100]   The relationship of copyright and conversion has attracted a fair measure of juristic debate over the years, for two reasons. The first is because of the abstract debate over whether copyright is "property". The second is because of the powerful effect of a conversion remedy in damages.

[101]   As to the juristic nature of copyright, the "great debate", which "has been conducted, largely over the unconcerned heads of copyright owners" (Phillips, *Introduction to Intellectual Property Law* (1986) para 10.3), is futile. The Act is conclusive. Copyright is a sui generis form of 'personal property'. It is a bundle of rights conferred by law. It is given the status of property, on the terms laid down in the statute. Denial of those rights can, on the facts of a given case, amount to conversion.

[102]   As to the remedies point, in New Zealand the Copyright Act 1962 Act enabled a plaintiff to claim conversion damages. The rationale was that, by

infringing, a defendant had converted the plaintiffs' property. But one consequence of such reasoning was that the whole product belonged to the plaintiff, and there would be no deductions for a defendant's costs of production. This gave a plaintiff a windfall (for say, the raw materials). (See generally, Brown and Grant, *The Law of Intellectual Property in New Zealand* (1989) paras 4.140 to 4.143). Conversion damages are no longer available under the 1994 Act. Nevertheless, the Act still provides that all the remedies that are available for "property" are available to the copyright owner (s120 (2)). There can also be an order for delivery up under s122 in a case of infringement (which in the case of a computer program includes "storage" of the program – "copying" has the extended meaning given to it by s2).

[103]   In the result, this head of the appeal in our view is without foundation.

Conclusion

[104]   The appeals against Orders 1 and 2 as sealed, are dismissed.

[105]   The proceeding is remitted to the High Court for such further directions as to the further advancement of the proceeding in that court, as that court considers appropriate.

[106]   The respondents will have costs of $5,000 in this court, together with their reasonable disbursements. Those disbursements will include the travel and accommodation expenses of both counsel for the respondents.

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