

PATENTS ACT 1977

APPLICANT Acres Gaming Incorporated

ISSUE Whether patent application number GB
0311200.0 complies with sections 1(1)
and 1(2)

HEARING OFFICER R C Kennell

DECISION

Introduction

- 1 This application was filed on 15 May 2003, claiming a priority date of 17 July 2002 from an earlier US application. It was published under serial no. GB 2390917 A on 21 January 2004.
- 2 Despite amendment of the claims during substantive examination, the applicant has been unable to persuade the examiner that this is a patentable invention within the meaning of section 1(2) of the Act, or, if it is, that it involves an inventive step as required by section 1(1)(b). These matters therefore came before me at a hearing on 18 May 2007. The applicant was represented by Mr Thomas Moody-Stuart, instructed by patent attorneys J A Kemp & Co, and the examiner, Mr Paul Marshall, assisted by videolink. (Mr Moody-Stuart's skeleton argument identified the applicant as IGT on the basis of a change of ownership, but no application yet appears to have been made to register this change.)
- 3 Although the examiner had raised objection under section 18(5) that the invention overlapped with that of a divisional application, Mr Moody-Stuart confirmed at the hearing that the applicant was not proceeding with the divisional. I do not therefore propose to consider this matter any further.

The invention

- 4 It is known for casinos to issue identification cards to players of gaming machines so that the player can earn points for loyalty bonuses and the casino can track the player's playing habits. The invention allows the player to use other cards, such as a driver's licence or a credit card, in order to select a pre-existing account or establish a new account with the casino. In their latest amended form,

the independent claims read:

“1. An apparatus for selecting an account for a player, comprising:
a card reader, designed to electronically read encrypted information off a preexisting card issued by an entity other than a casino;
a database of accounts, each identified by respective non-decrypted information;
a network; and
a microprocessor programmed to use encrypted information read off a pre-existing card and without decrypting the information in order to identify and access an account from the database, over the network, identified by the non-decrypted information.

12. An apparatus for opening an account for a player, comprising:
a card reader, designed to electronically read encrypted information off a preexisting card;
a database of accounts, each identified by respective non-decrypted information;
a network; and
a microprocessor programmed to use encrypted information read off a pre-existing card and without decrypting the information to identify if the player has an account identified by the non-decrypted data and to open an account for the player in the database over the network if no existing account is identified by the non-decrypted information.

20. A method for selecting an account for a player, from a database of accounts, each identified by respective non-decrypted information, the method comprising:
electronically reading encrypted information off a preexisting card issued by an entity other than a casino; and
using the encrypted information, without decrypting it, in order to identify at least one account from the database of accounts, identified by the non-decrypted information.

29. A method for establishing an account for a player, the method comprising:
defining information for the account;
electronically reading non-decrypted information off a preexisting card for the player; and
assigning the encrypted information to the account in a database of accounts such that the non-decrypted information can be used, without decrypting it, in order to identify the account.”;

and there are also claims (35 and 36) to computer programs comprising program code means which, when executed on a computer system, instruct the system to perform the above methods.

- 5 As the specification explains, information about the cardholder is encoded in the card's magnetic stripe according to a pre-defined format. The bit sequence on the code will typically be unique, or almost unique, even across different coding schemes. The computer can therefore use the encrypted information to identify a player's account without decrypting, or even knowing how to decrypt the information (although it will not be possible to automatically input further information for a new account unless the information read from the card is decrypted). As Mr Moody-Stuart explained, the encrypted information was being

used as simply as an identifier rather than because of the actual information content.

- 6 The arguments before me at the hearing were based on the invention as claimed in the independent claims, and my decision will be based on those arguments. However, as I observed at the hearing, claims 10 and 17 still require the microprocessor to be programmed to decode the information read from the card reader despite being nominally dependent on claims 1 and 12 respectively. I comment further on these claims below.

The law and its interpretation

- 7 In order for a patent to be granted, amongst other things section 1(1)(b) requires an invention to involve an inventive step and section 1(1)(d) requires it not to be excluded under section 1(2). Section 1(2) reads:

“It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of –

- (a) a discovery, scientific theory or mathematical method;
- (b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;
- (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;
- (d) the presentation of information;

but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.”

- 8 It was common ground that the assessment of patentability under section 1(2) had now to be made in accordance with the judgment of the Court of Appeal in *Aerotel/Macrossan*¹ handed down on 27 October 2006. In its judgment the court reviewed the case law on the interpretation of section 1(2) and approved a new four-step test for the assessment of patentability, namely:

- 1) Properly construe the claim
- 2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution)
- 3) Ask whether it falls solely within the excluded matter
- 4) Check whether the actual or alleged contribution is actually technical in nature.

Argument and analysis

Whether the invention is excluded

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7

Construction of the claims

- 9 Applying the four-step *Aerotel/Macrossan* test, the first step – the construction of the claims – was not in dispute. For my own part, I have some doubt as to what limitation if any is intended to be imposed on the type of account that is to be selected or established by the wording “for a player” in each of the above claims and by the references in claims 1 and 20 to cards issued by “an entity other than a casino”. However, in practice I do not think this is going to bear on the application of the second and third steps of the test – determining the contribution of the invention and whether it lies solely within excluded matter - which is where the dispute really lies.

The contribution of the invention

- 10 As paragraph 43 of *Aerotel/Macrossan* explains, the contribution of the invention is at bottom a matter of what, as a matter of substance not form, the inventor has really added to human knowledge, having regard to the problem to be solved, how the invention works and what its advantages are. On this Mr Moody-Stuart and the examiner took different views.
- 11 The examiner thought that since it was known in the art to use a pre-existing card to identify a user’s account in a database, then the contribution was essentially the use of non-decrypted information in order to identify the account in a database. He thought there was no particular significance in the source of the information, and that it was just another means of using a string of information such as name and date of birth or a randomly generated account number to connect an entity to a computer record, as was general practice in database systems.
- 12 As I understood it, the examiner relied on a specification (US 5811772, Lucero, hereinafter “’772”), previously cited in the proceedings to show lack of novelty and inventive step, to show that it was known to use a pre-existing card to identify a user’s account and that this could not therefore form part of the contribution. ‘772 describes a system and method for allowing a player to use and validate a general purpose charge card, rather than a house card, in order to obtain credit for use in casino gaming machines. According to Figure 5, a conventional magnetic card reader reads selected information from the card and transmits it over a data link for validation. Upon validation the player is prompted to enter a requested credit amount, optionally after validation of an identification such as a PIN. In Figure 8, the card can be used to maintain or open a gaming account by keying in information such as the card number or swiping the card through a reader. The information is then processed to determine whether the card has been used before to establish a gaming account. It was not disputed that the system of ‘772 would require the information on the card to be decrypted in order to be used.
- 13 However, Mr Moody-Stuart contended that the contribution also included taking the information from the pre-existing card without decrypting it, based on the recognition that the information in its encrypted form served as a unique or almost unique identification of the player. This he said was something distinct

from using some feature of the individual which was not encrypted at all (as in the examples quoted by the examiner) or data from a pre-existing card which had to be decrypted.

- 14 Although I would accept the examiner's contention that there is nothing unusual in a user providing a string of identifying information in order to access a computer record, I do not think it necessarily follows that the contribution of the invention lies solely in the use of non-decrypted information to identify an account, without reference to the source of the information. In my view the invention does indeed rely on a recognition that encrypted information on a pre-existing card can be used without needing to decrypt it. I do not think the mere use of non-decrypted information irrespective of its source is the whole of the contribution: it seems to me that in relation to '772 the contribution is more properly regarded as a different way of using the information on a card.
- 15 I therefore accept Mr Moody-Stuart's assessment of the contribution. His arguments were advanced in relation to claim 1, but I think they apply also in relation to the other independent claims 12, 20 and 29. Bearing in mind that claims 12 and 29 are concerned with opening a account rather than selecting an already existing account, I consider the contribution of claims 1, 12, 20 and 29, irrespective of the form of the claims, to be the use of encrypted information on a pre-existing card, without decrypting it, for the purpose of either identifying an existing account or confirming whether or not an account already exists. Correspondingly, I consider the contribution of claims 35 and 36 to be a program which is capable of execution to enable a computer to read encrypted information on a card without decrypting it, for the same purpose.

Whether the contribution relates solely to excluded matter

- 16 I must now consider, in accordance with the third *Aerotel/Macrossan* step, whether this contribution relates solely to excluded matter. The examiner has maintained objection that the invention is excluded under section 1(2)(c) as a scheme, rule or method for doing business and as a program for a computer.
- 17 Mr Moody-Stuart accepted that the computer program exclusion would not be avoided simply by claiming the invention as a system carrying the program, and that a significant part of the present invention was the operation of a program. However, he argued that that invention was not merely a program since it involved scanning a card and using the information for the above-stated purpose. In line with his view that the source of the information did not matter, the examiner thought that the invention was essentially about accessing information in a database using an identifier supplied by an individual, which was a software process.
- 18 If I had accepted the examiner's assessment of the contribution, then I think that the contribution would indeed not extend beyond a program for a computer. Also I do not think that the fact that a card is being scanned is necessarily enough to avoid the objection. Each case must depend on its particular facts, but in this case, what tips the balance in my view is that, as I have found above, the contribution does extend to the source of the encrypted information and a

recognition that it can be used without decryption for identification of an account or confirmation whether one exists. I do not therefore think that the contribution of claims 1, 12, 20 and 29 relates solely to a computer program. However, I do not think there can be any doubt, and Mr Moody-Stuart accepted, that the contribution of claims 35 and 36 goes no further than a computer program.

- 19 The examiner argued that the invention was also excluded as a business method because it overcame a business administration problem, namely the organization of a customer verification system and the identification of individuals whose details were stored in a database without the need for a system-specific card to be issued to every individual, relying instead on a pre-existing card. Mr Moody-Stuart however thought that, if I accepted his view of the contribution made by the invention, then the contribution was a tool for use in business rather than a method for doing business as such. He thought this was highlighted by the fact that the aspects of the contribution relating specifically to a method for doing business – the identification of an individual without issuing an identity card to them as a “book keeping shortcut” – were known, but the technical aspects of the system which provided this benefit were not.
- 20 I do not accept this argument. In *Aerotel/Macrossan*, the Court of Appeal disapproved the decision of Mann J at first instance and held that the business methods exclusion was not limited to abstract matters or to completed business transactions. The Court also held that the exception was not avoided just because something could be described as a “tool” for use in business. I accept that it will not always be easy to decide where the borderline should be drawn. However in my view the contribution that I have identified above – the use of encrypted information on a pre-existing card, without decrypting it, for the purpose of either identifying an existing account or confirming whether or not an account already exists – is, as a whole, sufficiently part of the administration of the business to be excluded as a method for doing business irrespective of whether the invention is claimed as a method or as apparatus.
- 21 I therefore consider that the contribution of claims 1, 12, 20 and 29 relates solely to a system or method for doing business and the contribution of claims 35 and 36 relates solely to a program for a computer. Having read the specification I do not think that any limitation of the claims to the features of subsidiary claims or indeed to any other feature disclosed in the specification would take the contribution outside the excluded area.
- 22 The contribution does not therefore pass the third *Aerotel/Macrossan* step. Accordingly, it is unnecessary for me to go on to the fourth step and consider whether the contribution is technical in nature. It follows that the invention is excluded from patentability under section 1(2).

Whether the invention involves an inventive step

- 23 In view of my findings on patentability, it is not strictly necessary for me to go on to consider the separate issue of whether the invention involves an inventive step. However, inventive step was in issue at the hearing, and I think that it will be helpful to consider the arguments that were before me.

- 24 At the hearing the examiner explained that he was not maintaining objection on the basis of any of the prior art cited in the proceedings. As I understood it, his argument hinged on the point discussed above in relation to the assessment of the contribution, namely that was nothing unusual in a user providing a string of identifying information in order to access a computer record. Believing the inventive step to be closely allied to the contribution that he had identified, Mr Moody-Stuart thought that it was inventive to recognize that there was a string of data on a pre-existing card which could be used as a unique or near-unique identifier (in the same way as biometric data) without needing to decrypt it to find out the meaning of it. This in his view made it different from examples such as the use of name and date of birth or a randomly generated account number which were quoted by the examiner in his report of 20 December 2006.
- 25 The examiner maintained however that whether or not the information on the card was decrypted was a red herring. At the hearing he drew an analogy with the use of an e-mail address as an identifier in a database which could then be linked with preferences for the sending of e-mail newsletters on particular topics. This he also saw as a means for pointing to someone in a database, without it being necessary for the system to understand what the address actually meant. However, Mr Moody-Stuart thought that the difference was that an e-mail address did actually provide something which by definition identified the account holder.
- 26 Although the examiner has drawn a close parallel between the invention and known systems for identifying account holders in databases which might have occurred to the man skilled in the art of computing, I do not think that he has gone sufficiently close enough to establish (following the *Windsurfing* test for inventive step²) that the difference between the known systems and the alleged invention would have been obvious at the priority date to the skilled man without any knowledge of the alleged invention. In my view the invention does indeed rest on a recognition that there is information in a pre-existing card which can be used as an identifier without decryption, which would not have occurred to the skilled man without inventive effort. In the absence of any prior art nearer than '772 discussed above (which requires decryption of the information on the card) to back up the examiner's allegation, I propose to give the applicant the benefit of any doubt in the matter.

Other matters

- 27 I have mentioned claims 10 and 17 which include an additional step of decoding (i.e. decrypting) the information on the card. Mr Moody-Stuart accepted at the hearing that clarification might be necessary if the application proceeded. For the avoidance of doubt, I consider these claims to be excluded under section 1(2) for the same reasons as explained above for the other apparatus claims. I do not think they can in any case remain if the whole point of the invention is not to decrypt the information, but that point is academic in the light of my finding on patentability.

² See *Windsurfing International Inc v Tabur Marine (Great Britain) Ltd* [1985] RPC 59

Conclusion

- 28 I conclude that although the claimed invention involves an inventive step, it relates to a computer program and to a system or method for doing business, as such, and is therefore excluded from patentability under section 1(2). As I have mentioned I do not consider that any saving amendment is possible. I therefore refuse the application under section 18(3).

Appeal

- 29 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

R C KENNEL

Deputy Director acting for the Comptroller