

## PATENTS ACT 1977

APPLICANT eSpeed, Inc

ISSUE Whether patent application number GB  
0325503.1 complies with section 1(2)

HEARING OFFICER R C Kennell

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## DECISION

### Introduction

- 1 This application was filed on 31 October 2003, claiming a priority of 31 October 2002 from an earlier US application. It was published under serial no. GB 2395036 A on 12 May 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. A hearing was arranged, but the applicant wrote on 6 December 2006 to say that it no longer wished to be heard and wanted the matter decided on the basis of the papers on file. My decision accordingly follows, and the delay in issuing it is regretted.

### The invention

- 3 Traders in financial instruments such as United States Treasuries may be interested in those other than the most recent, or “benchmark”, issue because they may trade at slightly lower prices and higher yields. To access such “non-benchmark” issues electronically, traders have generally preferred to rely on a combination of a mouse and a standard keyboard because they feel this is easier and safer than using a keyboard alone. However this is slower and less efficient because it does not enable a non-benchmark issue to be accessed easily from the related benchmark issue. The aim of the invention is to enable a trader to execute trades on benchmark and non-benchmark issues quickly, accurately and efficiently without having to use a pointing device such as a mouse.
- 4 The claims as amended comprise independent claims 1 and 8 to, respectively, a system and method for allowing traders to switch between multiple issues in trading quadrants. Claim 8 reads:

“A method for allowing a trader to switch between multiple issues in a trading quadrant, the method comprising:  
directing a display device to display a plurality of trading quadrants with each trading quadrant including a benchmark issue and at least one non-benchmark issue that is related to the benchmark issue;  
directing the display device to display trading information in each of the plurality of trading quadrants related to one of the issues in the trading quadrant;  
receiving an instruction to select one of the non-benchmark issues, said instruction being received in response to actuation of a key on a customized keyboard, the key being assigned to the selected non-benchmark issue; and  
directing the display device to display trading information related to the non-benchmark issue in the trading quadrant associated with the non-benchmark issue.”,

and claim 1 is to a system comprising a display device, a customised keyboard comprising keys assigned to benchmark issues and keys assigned to non-benchmark issues, and a processor configured to carry out the above method steps.

### The law and its interpretation

5 Section 1(2) reads (emphasis added):

“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.**”

6 On 27 October 2006, the Court of Appeal delivered its judgment in the matters of *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan’s Application* [2006] EWCA Civ 1371 (hereinafter “*Aerotel/Macrossan*”). In this case 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.

7 In a notice published on 2 November 2006<sup>1</sup>, the Office stated that this test would be applied by examiners with immediate effect. It did not expect that this would fundamentally change the boundary between what was and was not patentable in the UK, except possibly for the odd borderline case. Although the approach differed from that currently adopted by the European Patent Office in *Hitachi* (T 0258/03), it was expected that the result would be the same in nearly every case.

### Argument and analysis

- 8 Prior to the judgment in *Aerotel/Macrossan*, there had been a substantial correspondence between the examiner and the applicant as to whether the invention was patentable. Much of that was necessarily based on whether the invention had a technical effect, in accordance with the case law which then governed the section 1(2) exclusions. On 10 November 2006 the examiner formulated his objection on the basis of the four-step *Aerotel/Macrossan* test for the first time, maintaining that the invention was excluded as a method for doing business and as a computer program. The applicant's reply of 6 December 2006 merely denied this without providing any reasoning to rebut the examiner's arguments.
- 9 I will need to consider whether the applicant's earlier arguments are still relevant in the light of the changes wrought by *Aerotel/Macrossan*. Paragraphs 41 and 45 - 47 of the judgment make it clear that the new test is a re-formulation of the approach in *Merrill Lynch* and *Fujitsu*<sup>2</sup>, and that a contribution consisting solely of excluded matter cannot count as a technical contribution. As paragraph 46 explains, the fourth *Aerotel/Macrossan* step of checking whether the contribution was technical, although necessary if *Merrill Lynch* was to be followed, might not need to be carried out because the third step - asking whether the contribution is solely of excluded matter - should have covered the point. I think it clearly follows that, whatever earlier case law might have said about the importance of a technical contribution, this is now no more than a subsidiary factor to be considered only where the invention passes the first three *Aerotel/Macrossan* steps. This view has since been supported by the Patents Court in *Oneida Indian Nation's Application* [2007] EWHC 0954 (Pat).
- 10 Also, I do not think that I need to strain every sinew to align myself with the decisions of the EPO Boards of Appeal under Article 52 of the EPC. Of course, by virtue of section 130(7) of the Act, section 1(2) is so framed as to have, as nearly as practicable, the same effects as the corresponding provisions of the European Patent Convention. However, EPO Board decisions do not bind me, and their persuasive effect must now be limited in view of the contradictions in the Boards' decisions highlighted by the Court of Appeal in *Aerotel/Macrossan* (see paragraph 29) and its express refusal to follow EPO practice.

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<sup>1</sup> <http://www.patent.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm>

<sup>2</sup> *Merrill Lynch's Application* [1989] RPC 561; *Fujitsu Ltd's Application* [1997] RPC 608

### The first and second steps

- 11 I can now turn to the application of the *Aerotel/Macrossan* test to the case in hand. I agree with the examiner that the first step – the construction of the claims – causes no difficulty.
- 12 For the second step, it is necessary to identify the contribution made by the invention. Paragraph 43 of *Aerotel/Macrossan* explains that this is to be determined by asking what it is - as a matter of substance not form - what the invention has really added to human knowledge having regard to the problem to be solved, how the invention works and what its advantages are. I think it follows (i) that this is not necessarily the same as identifying the inventive step, and (ii) that whether the invention is claimed as apparatus, system or method is not necessarily determinative of the matter.
- 13 On this basis I consider the contribution to be the provision of means which allow a trader to select a non-benchmark issue in a trading quadrant containing a benchmark issue and at least one associated non-benchmark issue by means of a key assigned to the particular issue in the quadrant on a customized keyboard, and to display trading information related to the selected issue, whereby the trader can switch between multiple issues in a quadrant more rapidly and efficiently than by the use of a standard keyboard and mouse.

### The third step

- 14 The real dispute lies here – does the contribution relate solely to excluded matter, in this case a computer program or a business method? The essence of the applicant's argument (see its patent attorneys' letters dated 27 March and 30 August 2006) is that the invention provides a logical arrangement of quadrants each containing a benchmark issue and its associated non-benchmark issues and that this enables a trader to navigate easily and quickly to desired non-benchmark issues by means of the customized keyboard once a benchmark issue is located - something not achievable with a standard keyboard and mouse arrangement. The applicant considers the customized keyboard to be a solution to the technical problem of navigating between different trading quadrants, this solution lying in the technical field of man-machine interfacing rather than in computer programming or business methodology.

### *Computer program*

- 15 In line with that view, the applicant does not think the invention resides in a computer program as such, because it involves "specially configured technical means including a novel keyboard" and can be implemented in hardware as well as software (see paragraph [0026] of the specification). However, on the basis of *Aerotel/Macrossan* the examiner maintains that the contribution is excluded as a computer program because it is a program "up and running" which determines the effect what effect the key presses have; the association of keys to specified functions is dictated by computer programming and not by new hardware features on the keyboard. Accordingly the examiner does not consider there to be a new arrangement of hardware such as justified the allowance of the *Aerotel* appeal in *Aerotel/Macrossan*.

- 16 I agree with the examiner. It seems to me that what the inventor has devised in this case is in substance a computer program in the sense of a set of procedures and instructions which enable a computer system to be operated by means of a keyboard to display trading information in a particular way. This may require the keyboard to be customized in a particular manner but I think that is a consequence of the programming unlike the special exchange in the *Aerotel* appeal. I think the examiner's argument that the key functions are dictated by the programming of the keys rather than by new hardware is correct, and this would seem to be borne out by the reference at paragraph [0013] to the keys being pre-programmed.
- 17 Whilst I am mindful that, as paragraph 22 of *Aerotel/Macrossan* makes clear, an invention is not to be excluded simply because it uses a computer program, I cannot see how the contribution of the invention could be implemented other than as a computer program in the sense mentioned in the preceding paragraph. The reference at paragraph [0026] to possible implementation in hardware is nothing more than a mere mention and it is not apparent how this might be achieved.
- 18 In my view, therefore, the contribution lies solely in a program for a computer.

#### *Business method*

- 19 The applicant argues that the invention does not relate to a business method as such, because it is related to the fast and efficient input of data and is merely "an interface to a business system in which business processes can be carried out". On the other hand, the examiner maintains that the contribution is excluded as a method for doing business because the invention is solely for use in a trading system in order to improve the efficiency of trading.
- 20 In *Aerotel/Macrossan* at paragraphs 67 - 71, the Court of Appeal held that there was no reason to limit the business method exclusion to abstract matters or to completed transactions, and that the fact that an invention provided a new tool did not necessarily dispose of the objection. (The applicant does not specifically use the word "tool" in describing his invention, but I think that is the substance of his argument.)
- 21 I accept that the contribution of the invention as I have defined it above stops short of actually completing the trading once the information about the selected issue is displayed. However I do not think that is decisive of the matter in the light of the Court of Appeal's comments concerning completed transactions, and I note that the contribution of the invention takes the trader all the way except for hitting a buy or sell key to complete the trading of the selected issue. In my view, the contribution of the invention is in substance a method for electronic trading and therefore lies solely in a method for doing business.

#### Fourth step

- 22 Having found the contribution to lie solely in excluded areas, I do not need to go on and consider whether it is technical in nature. However I am not persuaded by the applicant's view that the invention lies in a technical field of man-machine interfacing because it produces a new trading interface. I accept that the

invention requires the operator to use a customized keyboard in place of a standard keyboard and mouse so in order to obtain the trading information in a more advantageous manner, but as I have stated above this is a merely consequence of a new way of programming a computer. I do not think it constitutes a new technical effect in its own right.

### **Conclusion**

- 23 In the light of my findings above I conclude that the invention is excluded under section 1(2) because it relates as such to a computer program and to a business method. Having read the specification I do not think that any saving amendment is possible. I therefore refuse the application under section 18(3).

### **Appeal**

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

**R C KENNELL**

Deputy Director acting for the Comptroller