



BL O/043/07

8 February 2007

## PATENTS ACT 1977

APPLICANT eSPEED Inc

ISSUE Whether patent application number GB  
0328894.1 complies with section 1

HEARING OFFICER A Bartlett

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## DECISION

### Introduction

- 1 This decision relates to the issue of whether patent application GB0328894.1 relates to excluded subject matter. The application derives from a PCT application made in the name of eSPEED Inc which was published as WO 02/093325. On entering the national phase it was republished as GB2394094.
- 2 Progress of the application has been somewhat tortuous leading ultimately to a hearing before me on 6 March 2006 where Mr William Neobard of the Patent and Trade Mark Attorneys Kilburn & Strode appeared on behalf of the Applicants.
- 3 Whilst I do not need to go into the various rounds of examination and amendment in great detail for the purposes of this decision, some background is necessary to explain how we got to where we are now.
- 4 The application is entitled "Systems and methods for providing a trading interface with advanced features". The specification as originally filed disclosed various improvements to trading interfaces to make it easier for users of those systems to input data more efficiently when conducting transactions like trading stocks, currency and bonds or even household goods. Indeed, the independent claims as originally filed were variously drafted as methods and systems "for editing an order in an electronic trading system", "for allowing a user to configure a keyboard setting of a plurality of keyboard settings for an electronic trading system" and "for determining the desire of a user to transact".
- 5 In the first examination report the examiner reported that the claims lacked unity of invention and defined inventions which were excluded as a program for a computer and a method of doing business. In line with convention the remainder of his report focused on the first invention claimed which he reported to lack inventive step in light of a piece of prior art cited by the

international search authority.

6 Numerous rounds of correspondence ensued in which the examiner continued to report that the invention was excluded as a program for a computer and lacked novelty and or inventive step, the Applicants having amended the independent claims such that they relate to a user interface for which no specific purpose is specified. As the end of the section 20 period approached the correspondence rounds became increasingly compressed and messy with further and additional searches identifying new prior art very late on in the proceedings.

7 The upshot of all this was that shortly before the hearing the Applicants filed a new set of claims for me to consider. Those claims, filed on 3 March 2006, comprise 10 claims in total of which 3 are independent. The independent claims read:

1. A user-interactive interface for allowing data input to a first application at a first work station, the first user workstation operable to communicate with a network wherein a second application at a network workstation other than the first user workstation has a state, the interface comprising:

a plurality of user-selectable buttons displayed on a display, each said user-selectable button having a function associated therewith and an identification, wherein each said user-selectable button is arranged to communicate with the first application;

a function change means responsive to a change of state of said second application, said function change means operable to cause at least one of the user-selectable buttons to change both function and identification.

3. A user-interactive computer interface for allowing data input to a local application capable of assuming plural different states, the interface having a display in use displaying a plurality of user-selectable buttons, wherein said user-selectable buttons are arranged to communicate with the application and wherein at least some of the user-selectable buttons display an identification of function of the associated button, the interface having means responsive to state change of a remote application to cause at least one of the user-selectable buttons to change function and identification.

7. A user-interactive computer interface for allowing data input to a local application capable of assuming plural different states, the interface having a keyboard and display, the interface having means for allowing a user to customize the assignment of keys to desired functions and to save the user's assignment, and means responsive to state change of a remote application to cause at least one key to change function.

8 At the hearing Mr Neobard's submissions as to the patentability of the invention were made in respect of the approach adopted by Peter Prescott QC sitting as deputy judge in his judgment in *CFPH*<sup>1</sup>. However, in its decision in

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<sup>1</sup> CFPH LLC's application [2005] EWHC 1589 Pat.

*Aerotel/Macrossan*<sup>2</sup> the Court of Appeal approved a different approach for assessing excluded matter which the Patent Office announced it would follow with immediate effect in its practice notice dated 2<sup>nd</sup> November 2006<sup>3</sup>. The Applicants were invited to make submissions on the application of the *Aerotel* test to their application but declined to do so.

- 9 Thus what I must now do is decide whether the claims filed on 3 March 2006 define a patentable invention using the test proposed by the Court of Appeal in *Aerotel*.

### **The Law**

- 10 Section 1 of the Patents Act 1977 sets out the requirements that an invention must fulfil for it to be patentable. Section 1(2) identifies a list of things for which patent protection is not available and the relevant parts of this section read:

“1(2) 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) ....

(b) ....

(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;

(d) ....

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

### **Interpretation**

- 11 In addition to providing what the Court of Appeal described as a structured and more helpful way of applying the statutory test for assessing patentability, the *Aerotel* judgment also addressed a number of other points relevant to the interpretation of this section of the Act in the present case.
- 12 First, the Court made it clear that deciding whether an invention was excluded was a question of law and thus there was no benefit of the doubt to be enjoyed by the Applicant in applying these provisions.
- 13 Second the Court made it clear that the excluded categories are not exceptions to what is patentable, rather S1(2) sets out positive categories of things which are not to be regarded as inventions. Accordingly the general UK and European principle of statutory interpretation that exceptions should be construed narrowly does not apply to them.

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2 *Aerotel Ltd vs Telco Holdings Ltd (and others) and Macrossan's application* [2006] EWCA Civ 1371

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

## Support

- 14 Before going on to apply the *Aerotel* test, I shall first assess whether there is support in the application as filed for the claims as amended on 3 March 2006.
- 15 Claim 1 defines an interface whereby the function and identification of a user selectable button on the display of a first workstation changes in response to a change of state of the application being run on a second workstation. Buttons having this change of function characteristic are termed “smart” buttons in the specification. However the description of this functionality is limited to one relatively short paragraph of the description (para 52). That section of the description concerns a trading interface illustrated in figure 7 whereby a trader’s screen includes buttons through which he can enter the market by placing a bid or offer. According to the description however, the bid or offer button can change into a “join” button which allows a user to join an existing bid or offer.
- 16 According to Mr Neobard, the key phrase which lends support to the requirement that the function of a button at one workstation changes according to what is done at another is “when the market is made” in the passage:

‘ “Join” buttons may be the same as “Bid” or “Offer” buttons, however **when a market is made** button 706 may change its name to “Join” as this is now the appropriate action when multiple bids or offers are on display screen 700’ (my emphasis).
- 17 Mr Neobard explained that the expression “when a market is made” does not mean simply that the market place has been established eg by an offer or a bid being placed. Instead he said it meant that a commitment to trade had been made ie a bid being hit or an offer being taken. Consequently by selecting “Join” a user is saying “I’ll have some of that as well”. That seems an eminently sensible explanation of the “Join” function and being dependent as it seems to be on the actions being taken by a user at another workstation I agree it provides support for the requirement in claim 1 that the change of function and display of the button is dependent upon what happens at a second workstation.
- 18 This point is significant because this particular feature was introduced into claim 1 to clarify the distinction between the invention of claim 1 and a piece of prior art cited by the examiner which I shall refer to as “iTunes”. That document was a discussion of the iTunes RTM music download system whereby the function and label on an onscreen button toggles between “play” and “pause” according to the current state of the system. The iTunes document had been cited as a novelty citation against the version of claim 1 previously on file.
- 19 Thus in my view the feature in claim 1 that the function and identification of a button on a first workstation changes in response to the state of an application on a second workstation is supported by the original disclosure and that providing this functionality distinguishes present claim 1 over the iTunes disclosure.

- 20 Likewise, I consider the similar limitation in claim 3 where the function changes in response to a “state change of a remote application” to be supported and to distinguish that claim over the iTunes disclosure.
- 21 As discussed at the hearing, however, claim 7 raises an additional issue as regards support. Claim 7 does not explicitly require the function buttons to be presented on the display of the workstation. Thus it is arguable that it also seeks protection for an interface where keys on the keyboard have this “smart” functionality. However, as already stated, the only section of the description which provides any support for the “smart” key functionality is paragraph 52. That paragraph (and the associated figure 7) is expressly concerned with an interface where the “smart” buttons are on the workstation display. Nowhere does the specification as filed suggest that the keys of the keyboard might provide this functionality. Thus I am not convinced that claim 7 is supported by the original disclosure and may add matter contrary to section 76.
- 22 I shall however proceed on the basis that claim 7 is supported when considering excluded matter and return to the issue of support later if I need to.

**Excluded matter.**

- 23 In considering whether the invention is patentable I shall begin by focusing on claim 1 as presently on file. The test for assessing whether an invention is excluded as approved by the Court in *Aerotel* comprises the following steps:
- (1) properly construe the claim
  - (2) identify the actual contribution;
  - (3) ask whether it falls solely within the excluded subject matter;
  - (4) check whether the actual or alleged contribution is actually technical in nature.
- 24 I do not think that construing claim 1 causes any particular problem in the present instance beyond what I have said above – it is to an interface having the specific functionality defined therein. I have already said what I think it means and I do not consider it necessary to repeat that here.
- 25 The second step of the test is to identify the actual contribution made by the invention. In making that identification the Court stressed that it is the substance and not the form of the claims that is important. It is clear from pages 19 and 20 of the description that the workstations, trading server, network and communication links employed are all entirely standard. Mr Neobard also accepted this at the hearing. Thus the contribution cannot reside in any of the hardware or its arrangement. The contribution must reside in the functions that equipment performs.

- 26 The description does not provide much in the way of help in identifying the contribution made by the invention as currently claimed, predominantly because the claims as amended bear little resemblance to those originally filed. At the hearing Mr Neobard suggested that the contribution made by the invention was that by providing the specific smart button functionality, the invention resulted in an interface that was faster and easier for a user to input data into. This was in line with the benefits identified in the introductory section of the description although not now limited to the field of trading systems. In particular Mr Neobard said that the change of function with state functionality allowed the user to interact with a single area of the interface when following a conventional path through a series of steps without moving his or her hand or finger around the screen. This he said led to an increase in speed of data input which he said was of particular importance in trading system interfaces because of the speed at which markets change.
- 27 This he said was in direct contrast to the system disclosed in the iTunes document (the closest prior art cited before the latest amendments were filed) where he said speed of input of data was of no concern to the user. Indeed he even questioned whether the iTunes interface allowed data input in the sense used in the present application and in so doing raised a question mark over the relevance of the iTunes document.
- 28 In my opinion, neither of those lines of argument is relevant to helping identify the actual contribution made by the invention presently claimed. The present claims are not limited to an interface for use in a trading system and thus the fact that a trading system interface might have to provide unique speed does not help distinguish a claim to an interface of unspecified use over one from another field. Furthermore the documented iTunes system allows the user to select music by artist, album or song title and to input search criteria. That is clearly inputting data as required in present claim 1.
- 29 In my opinion, the actual contribution made by the invention defined in present claim 1 is the provision of an interface where a change of function and identification of a button on the display of a first workstation is dependent upon a change of state of a second application.
- 30 Step 3 of the *Aerotel* test is to determine whether the contribution resides solely within the excluded subject matter. At the hearing Mr Neobard submitted that whilst the invention would in all likelihood be implemented in software, the claims were not so limited and thus the invention was not excluded as a program for a computer. He said that the application does not restrict the invention to software and the invention is not “clever” because of software but because of the functionality that it affords.”
- 31 I think that argument is flawed in a number of respects. First, if a claim encompasses excluded matter within its scope then it is a bad claim. Thus an invention which could be implemented via software or some other means is excluded if the contribution of the software implementation falls solely within excluded matter.
- 32 Furthermore, there is no hint anywhere in the specification that the invention

could be put into effect other than via a computer program. Thus in my view, anyone reading claim 1 would interpret it as being implemented via a computer program.

- 33 Given that the hardware is conventional, in my view the contribution made by the invention of claim 1 is in the way that the interface is programmed to present information and functionality to the user. I fail to see how that contribution could be said to be anything other than a program for a computer and thus to be excluded.
- 34 Having concluded at step 3 that the contribution resides solely in excluded matter, I do not consider it necessary to apply step 4.
- 35 Consequently I find the invention defined in claim 1 as filed on 3 March 06 to be excluded under section 1(2)(c).
- 36 Save that it specifies that the change of function is responsive to a change of state of a remote (rather than a second) application, I consider the contribution made by the invention defined in claim 3 to be the same as that of claim 1. Thus I find claim 3 to be excluded for the same reasons.
- 37 Claim 7 provides a computer interface whereby the user can customize the assignment of keys to particular functions and save that assignment and wherein the function of at least one key is responsive to a state change of a remote application. Irrespective of whether the smart buttons are on the display or on the keyboard, again I consider the contribution made by this invention to reside solely in the functionality that the interface is programmed to provide and that that contribution must be a computer program. Thus I also consider claim 7 to be excluded.
- 38 I have carefully considered all the dependent claims and the rest of the specification and have not been able to identify anything that could form the basis of a patentable invention.

### **Other issues**

- 39 The latest claims were filed too late in the day to allow them to be searched before the hearing on this case. Thus I have not been able to come to a conclusive view as to whether they are novel and inventive. That however is of no consequence in view of my finding that any contribution resides solely in excluded matter.
- 40 Finally I need to come back to the issue of support for claim 7 which I referred to in paragraph 21 above. Having found that the contribution made by claim 7 is excluded irrespective of whether the smart buttons are on screen or on the keyboard and that there is no possible amendment that could result in a patentable claim, I do not need to decide whether claim 7 as presently on file is supported.

## **Decision**

- 41 I have found that the contribution made by the invention defined in independent claims 1,3 and 7 resides solely in a computer program and hence that they are excluded. I am unable to identify anything in any of the dependent claims or the rest of the specification which could form the basis of a patentable invention. I therefore refuse the application as relating to excluded subject matter under section 1(2)(c) as a program for a computer as such.

## **Appeal**

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

**A BARTLETT**

Deputy Director acting for the Comptroller