

7 August 2008

## PATENTS ACT 1977

APPLICANT                      Telefonaktiebolaget L M Ericsson

ISSUE                              Whether patent application number  
GB0524528.7 complies with section  
1(2)

HEARING OFFICER                      P R Slater

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## DECISION

### Introduction

- 1 Patent application GB0524528.7 entitled “Method and system for generation of real-time guiding information” was filed on 12 May 2003 and is derived from the corresponding PCT application PCT/SE2003/000768 filed by Telefonaktiebolaget L M Ericsson which was published on 18 November 2004 as WO2004/099721. The application was then republished on 3 May 2006 as GB2419668.
- 2 Since the first examination report was issued on 19 September 2006, there have been a number of additional rounds of correspondence throughout which the examiner has maintained an objection that the invention was excluded from patentability under section 1(2) of the Act. Additional objections were also raised on the grounds that the claims lacked clarity, novelty and inventive step. The position as it currently stands is laid out in the examiner’s letter dated 25 October 2007.
- 3 Having been unable to resolve the issue through either amendment or argument, the matter came before me to decide at a hearing on 5 December 2007 at which the applicant was represented by Mr Mark Kenrick of Marks & Clerk, assisted by Dr Robert Lind. The examiner Mr Michael Walker was also present.
- 4 The hearing focused on the issue of excluded matter and for the purpose of my decision, the outstanding novelty and inventive step objections have been put to one side in view of the potentially fatal objection that the application does not relate to a patentable invention.

- 5 Shortly after the hearing, the Patents Court handed down its judgements in the case of *Symbian*<sup>1</sup> and *IGT/Acres Gaming*<sup>2</sup>. I therefore gave the Applicants an additional opportunity to make further submissions in respect of both these judgments but they declined to do so.

### **The application**

- 6 The application relates to vehicle navigation systems, more commonly known as Satellite navigation systems, which use signals from the Global Positioning System (GPS) to locate the vehicle and present maps and instructions to the driver via dashboard mounted displays, text and audio messages. In particular, the invention relates to the generation and display of information and messages, in an appropriate format and via an appropriate medium, for guiding the driver to their desired destination.
- 7 The system as described is able to compile information from a variety of sources including information from one or more sensors associated with the vehicle, for example, a speed sensor or a fuel level sensor, information regarding the proposed destination, road conditions and weather etc. together with any personal preferences set by the user. This information is then used to generate a message specification which controls the display of information to the driver including the selection of appropriate maps, text and voice prompts. The idea being to present the driver with relevant information in the most appropriate format and media available given a particular set of conditions. For example, should the speed sensor indicate that the vehicle is being driven at high speed, the information presented via the map may be reduced to avoid distracting the driver. Furthermore, the system is able to prioritise messages so that those with a higher priority are either overlaid onto existing media e.g. maps, or interrupt any existing text or voice messages. For example, if it is desired to output a voice message having a low priority when there is already a voice message being broadcast, the new message may be converted into a text message.
- 8 The most recent set of claims were filed on 16 July 2007. There are two independent claims which relate to a navigation system (claim 1) and a corresponding method for controlling a navigation system (claim 11). Claims 1 and 11 share the same inventive concept, and for the purpose of this decision I need only recite one of them. Claim 1 reads as follows:

*“1. A navigation system for producing information for a user in a vehicle, the system comprising:*

*means for receiving and compiling information from a plurality of information sources, including local and remote sources, and including at least one sensor associated with the vehicle;*

*means for presenting information through a plurality of media;*

*means for processing the compiled information from a plurality of said*

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<sup>1</sup> *Symbian Limited* [2008] EWHC 518(Pat)

<sup>2</sup> *IGT/Acres Gaming* [2008] EWHC 568 (Ch)

*information sources to generate a message format specification that specifies a format for presentation of information related to at least one information object, wherein said specification includes information for retrieval of specified information associated with said at least one information object from local or remote information sources;*

*means for determining a preferred medium for presentation of information related to said at least one information object in a first format according to said specification, and for determining an alternative medium for presentation in a second format;*

*means for selecting one of said preferred medium and said alternative medium for presentation of said at least one information object;*

*means for forming presentation information according to said specification in one of said first format and said second format corresponding to said selected medium, wherein said means for forming presentation information includes means for retrieving said specified information associated with said at least one information object from said local or remote information sources, and*

*means for output of said presentation information on said selected medium.”*

## **The Law and its interpretation**

- 9 The examiner in his last letter dated 25 October 2007 has reported that the application is excluded from patentability under section 1(2) of the Act, as relating to a program for a computer and the presentation of information as such. The relevant parts of section 1(2) 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) 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;*

- 10 As regards the interpretation of section 1(2), my approach will be governed by the judgment of the Court of Appeal in *Aerotel/Macrossan*<sup>3</sup> (hereinafter “*Aerotel*”) and the Practice Notice issued by the Patent Office on 2 November 2006<sup>4</sup>. In *Aerotel* 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:

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<sup>3</sup> *Aerotel Ltd vs Telco Holdings Ltd & Macrossan's Patent Application* [2007] RPC 7

<sup>4</sup> *Patents Act 1977: Patentable subject matter* [2007] RPC 8

- 1) Properly construe the claim
  - 2) Identify the actual contribution
  - 3) Ask whether it falls solely within the excluded matter
  - 4) Check whether the actual contribution is technical in nature.
- 11 However, the fourth step of checking whether the contribution is technical in nature may not be necessary because the third step – asking whether the contribution is solely of excluded matter – should have covered that point (see paragraphs 45 – 47 of the judgment).
- 12 Finally, I note that 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, the reliance that I can place on decisions of the Boards of Appeal of the European Patent Office under the corresponding Article 52 of the EPC must now be limited in view of the contradictions in these noted by the Court of Appeal in *Aerotel* and its express refusal to follow EPO practice.
- 13 At the hearing, Mr Kenrick emphasised the need to look at the invention as a whole and not to distinguish between features which confer novelty and inventive step and those that do not, as to do so would be to adopt the so called “contribution approach” originally suggested by Falconer J in *Merrill Lynch*<sup>5</sup>. This approach, he said, had been disapproved on a number of occasions in the Court of Appeal in *Merrill Lynch*<sup>6</sup>, *Gale*<sup>7</sup>, *Fujitsu*<sup>8</sup> and indeed in *Aerotel*.

### **Arguments and analysis**

- 14 The first step in the *Aerotel* test requires me to construe the claims, or as the court put it, “to decide what the monopoly is before going on [to] the question of whether it is excluded”. This step poses no real problems as there is no dispute regarding the construction of the claims. Claim 1 relates to a navigation system for producing guiding information for a user in a vehicle including means for receiving and compiling information from a plurality of local and remote sources, including at least one sensor associated with the vehicle, means for generating a message format, and means for selecting and presenting information to the user via a preferred medium. Claim 11 relates to a corresponding method for controlling a navigation system with much the same features.
- 15 For the second step, it is necessary to identify the contribution made by the invention. Paragraph 43 of *Aerotel* explains that this is to be determined by asking what it is - as a matter of substance not form - that 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.

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<sup>5</sup> Merrill Lynch’s Application [1988] RPC 1

<sup>6</sup> Merrill Lynch’s Application [1989] RPC 561

<sup>7</sup> Gale’s Application [1991] RPC 305

<sup>8</sup> Fujitsu’s Application [1997] RPC 608

- 16 The examiner in his letter of 25 October 2007, paragraph 7, states that “...*the actual contribution lies in compiling information, processing information and outputting information to a selected medium all within the context of a navigation system to provide guiding information to a user of a vehicle, wherein the information is presented on the most appropriate medium (for example, see the application description at page 12, lines 25 to 28) to the user of the vehicle. That is to say, essentially, the actual contribution resides in a computer program run on a navigation system for prioritising information presented to a user in a vehicle.*”
- 17 Mr Kenrick when addressing the second step argues that the contribution lies in “...*an improved navigation system in which information is compiled from a plurality of sources including local and remote sources, and a sensor associated with the vehicle. The compiled information is processed to generate a message format specification including information for retrieval of specified associated information and having means for presenting information according to the specification which forms presentation information by retrieving the specified additional information. So it is basically an improved navigation system having the particular arrangement of compiling the information particularly to create the specification and then processing that so as to allow that information to be output.*”
- 18 In my opinion, Mr Kenrick is not too far off in his interpretation of the contribution. As I see it, the contribution lies in an improved navigation system for producing guiding information for a user in a vehicle including means for receiving and compiling information from a plurality of local and remote sources, including at least one sensor associated with the vehicle, means for generating a message format, and means for selecting and presenting information to the user via a preferred medium, the system having those advantages listed on page 7 of the specification.
- 19 Moving on to the third *Aerotel* step, I must now decide whether the contribution relates solely to excluded matter.
- 20 The examiner when applying the third step of the test, states that “*The contribution of the invention and of the claims may be useful to the user but the contribution does not lie in a non-excluded field. The contribution lies in the software which is operated within the known hardware elements of the claims, and lies within the prioritised information presented to the user of the vehicle. That is to say, the contribution lies in a computer program and the prioritised guiding information presented to the user which information is specified as a result of the running of the computer program. The relevant subsections of the Act are Section 1(2)(c) and 1(2)(d), which, respectively, exclude a program for a computer and the presentation of information, as such.*”
- 21 The Applicants in their letter dated 16 July 2007 argue that “...*a navigation system comprising means for compiling information from a plurality of information sources and including at least one sensor associated with a vehicle, and an output means cannot be regarded solely as a computer program as such. On the contrary, what has been provided is an improved navigation system which is in itself susceptible of patent protection. For example, it is generally accepted that*

*an improved method for controlling a washing machine would represent patentable subject matter, representing an improved way of operating a real world device, namely a washing machine. The same is true here, what the invention provides is an improvement relating to the way in which a navigation system is controlled. Improvements relating to real world systems such as navigation systems cannot properly be said to relate to nothing more than excluded subject matter.”*

- 22 The examiner disagrees with this analogy in his letter of 25 October 2007 arguing that “The computer program does not control the navigation system in the way that, say, a computer program may control a washing machine since, in the case of the navigation system, it is merely information which is ultimately outputted to a display screen or speaker. A real world entity is not being controlled to optimise how it is being used; for example, the vehicle itself is not being controlled, here. In the example provided by your agent on page 2 of his letter of the 17 July 2007, it is the wash cycle that the clothes are being washed on that is being controlled and this is the distinction.”
- 23 At the hearing, Mr Kenrick emphasised that whilst certain aspects of the invention could no doubt be implemented in software, it does not immediately mean that the invention relates solely to a computer program. He argues that the invention relates to a method of processing “real world data to provide a better navigation system” and not to the mere abstract manipulation of data and as such the invention should be patentable. In support of his arguments, he referred me to the judgment in *Halliburton*<sup>9</sup>, where Mr Justice Pumfrey considered that claims to a method of designing a drill were not patentable, but went on to suggest that claims to the actual step of manufacturing the drill bit in accordance with the design were patentable, in much the same way that the manufacturing of a VLSI chip was considered acceptable by the EPO in *IBM/Method for physical VLSI-chip design*<sup>10</sup>. On that basis, Mr Kenrick argues that regardless of whether or not the individual data processing steps at a level of abstraction are patentable, when you use those to realise an improved navigation system, that provides a non-excluded contribution and therefore makes the invention patentable.
- 24 In summary, Mr Kenrick argues that the control of a navigation system, which receives real world data, for example, vehicle speed from a sensor associated with the vehicle, and processes that data to provide an improved navigation system cannot be regarded as merely a computer program as such and that the contribution does not therefore lie in excluded subject matter.
- 25 Having considered all of the arguments presented to me, I would have to say that to some extent I agree with Mr Kenrick. In my opinion, it is the presence of the sensor which I think is important and which saves the invention from exclusion as a computer program. I have no doubt in my mind that a navigation system including, for example, a vehicle speed sensor, the output of which is used to control the display of information to the driver should be patentable. However, the wording of the claims needs to be amended to make it clear that the sensor itself forms part of the system and that the information received from the sensor is

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<sup>9</sup> *Halliburton Energy Services Inc v Smith International (North Sea) Ltd* [2006] RPC2

<sup>10</sup> T 0453/91

fundamental in controlling the display of information to the driver. In this respect, the wording of claim 11 should also be amended and its scope limited to “a method of controlling a navigation system”. Mr Kenrick indicated during the hearing that he was prepared to make such an amendment.

- 26 With regards to the presentation of information exclusion, Mr Kenrick referred me to the judgments in *Crawford’s Application*<sup>11</sup> and *Townshend’s Application*<sup>12</sup> arguing that it was clear that the exclusion only applies to the specific content and the nature of the information to be presented, and not to the way in which it is processed, and that the contribution was all to do with processing information and controlling its display and as such did not relate to excluded subject matter.
- 27 Again, I would have to agree with Mr Kenrick’s assessment, the contribution is all to do with the processing of data from a variety of sources including a sensor and controlling a display in response thereto, to retrieve the relevant information and to select the appropriate medium via which to display that information to the user, it does not relate to the specific content, format or the nature of the information to be presented and cannot be considered to be excluded as the mere presentation of information as such.
- 28 Having found that the contribution does not relate solely to excluded subject matter, I must go on to the fourth step and satisfy myself that the contribution is technical in nature. I have no doubt that a navigation system which receives data from one or more sensors and uses that data to control a display is technical in nature and therefore passes step 4 of the test.

### **Conclusion**

- 29 I have found that, subject to some clarification in the wording of the claims as stipulated in paragraph 25 above, the invention is not excluded. I therefore remit the case to the examiner to continue the substantive examination, and to address the outstanding novelty and inventive step objections.
- 30 The applicant has had a number of discretionary extensions to extend the compliance period prescribed by Rule 30 of the Patent Rules 2007 to 12 July 2008 and will need to request a further discretionary extension by 12 September 2008 if the application is to proceed.

### **Appeal**

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

**P R SLATER**

Deputy Director acting for the Comptroller

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<sup>11</sup> Cecil Lloyd Crawford’s Application [2005]EWHC 2417 (Pat)

<sup>12</sup> Townshend’s Application [2004]EWHC 482 (Pat)