

4 July 2008

PATENTS ACT 1977

APPLICANT Nomura International plc.

ISSUE Whether patent application
 GB 0402109.3 complies with section 1(2)

HEARING OFFICER S. Brown

DECISION

Introduction

- 1 This decision concerns the issue of whether the invention claimed in UK patent application GB 0402109.3 relates to non-excluded subject matter as required by section 1(2) of the Act. The application is entitled “Financial data analysis tool”. It was filed on 30th January 2004 and was published as GB 2 410 575 A.
- 2 During the examination process, the examiner reported that the invention defined in the claims is excluded as a program for a computer, as a method for doing business, and as the presentation of information. Despite a number of rounds of amendment and re-examination, the Applicants and the examiner were not able to resolve this issue and a hearing was held on 6th May 2008. The Applicants were represented by Mr. John Brunner of Messrs Carpmaels & Ransford. Also in attendance were Dr. Mark Shawcross, acting as my assistant, and the examiner, Mr. Kalim Yasseen.

The Application

- 3 The claims I was asked to consider at the hearing were filed on 27th March 2007. There are 23 claims in total comprising 2 independent claims (claims 1 and 17) which relate respectively to a system and method of analyzing and displaying financial data. Claims 1 & 17 are identical in scope and so can be dealt with together. Claim 1 reads:

*A system for analysing financial data, comprising:
a server processing unit storing financial data;
a client processing unit connected to the server processing unit;*

a display screen connected to the client processing unit;
and manipulation means,

wherein the client processing unit is adapted to generate a user interface on the display screen including a graphical representation of first financial data received from the server processing unit, the graphical representation comprising a plurality of first icons, each first icon representing a category of the first financial data and operable to be activated by the manipulation means, the arrangement of each first icon in the graphical representation corresponding to first financial data associated with the category represented by the each first icon, and

wherein the client processing unit is configured, to transmit, on activation of an icon, a request identifying a category of the first financial data to the server processing unit;

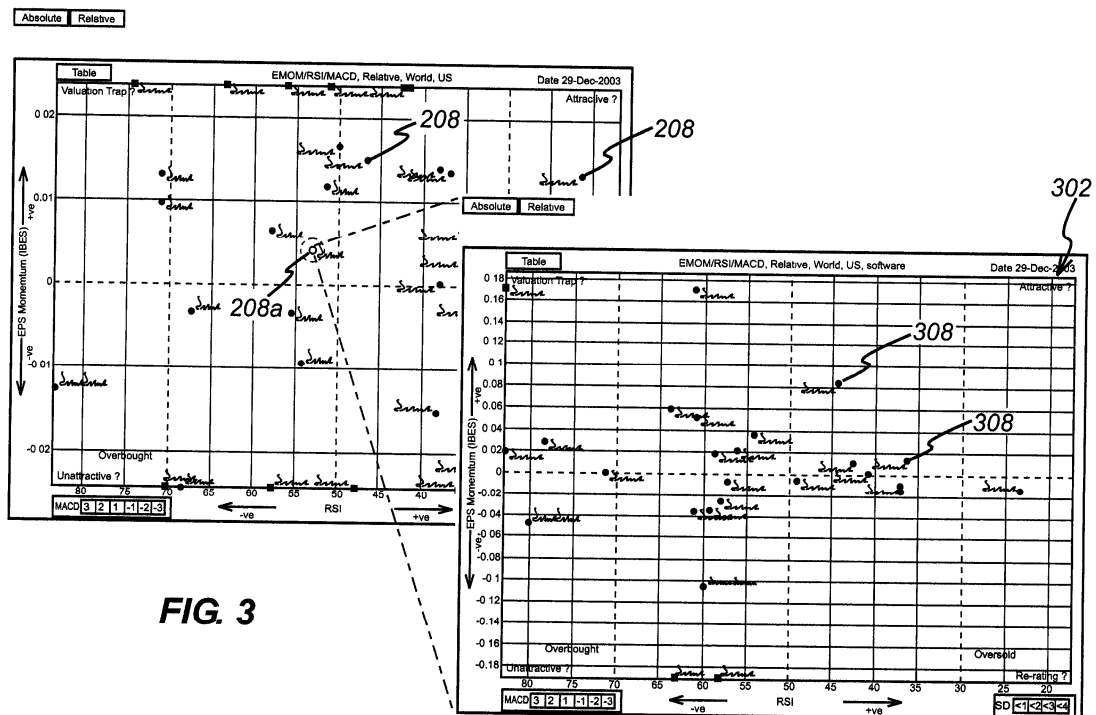
wherein the server processing unit is configured to receive the request and, on receipt of the request, obtain second financial data corresponding to the category;

wherein the server processing unit is further configured to generate graphical data representative of the second financial data and transmit the graphical data to the client processing unit;

wherein the client processing unit is further configured to receive the graphical data and modify the graphical representation to display the second financial data,

wherein the second financial data is represented by a plurality of second icons plotted in the graphical representation on activation of a first icon, each second icon corresponding to a sub-category of financial data in the category corresponding to the activated first icon.

4 Figure 3 of the application gives a good overview of the technology:



The law and its interpretation

5 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.

6 It is not disputed that the assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7 ("*Aerotel*"). In this case the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of patentability, namely:

- 1) Properly construe the claim
- 2) Identify the actual (or alleged) contribution
- 3) Ask whether it falls solely within the excluded matter
- 4) Check whether the contribution is actually technical in nature.

7 The operation of the test is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraphs 46-47 explain that the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered the point.

Application of the Aerotel test

Properly construe the claim

8 I do not think that any problems arise over the construction of the claims. What they define is a system for analysing financial data using a graphical interface

which has a first set of icons each representing a category of financial data. You can select one of these icons, for example using a mouse, and this causes a second set of data icons, each representing sub-sets of the chosen category, to be displayed. It is important to note that the icons are not just arranged in the traditional way, for example in a list or menu, their arrangement is dependent upon the data they represent. Turning to the description and figures, it can be seen that the icons may be, for example, points in a graph. Thus their position in the graphical interface is part of the data being presented and selecting them allows a user to 'drill down' into the data.

- 9 I believe that is the purposive construction of the claims and what the skilled man would understand the applicant meant their language to convey. There are additional details of the client and server processing units behind the graphical interface and how they interact in response to its use however those aspects will be addressed in my discussion of the next step.
- 10 Mr. Brunner stressed that while the claims all refer to analysing *financial* data the system and method would work equally well with any kind of data. The word 'financial' was in the claims only because that happens to be the business of the applicant. I do not dispute this reasoning but equally I do not see that it gains the applicants anything. Neither financial data, nor data in general, is intrinsically technical, or non-excluded, in nature. Whether the data is financial or general is not a factor in any of the reasoning below. However, I also note that all of the claims are limited to financial data.
- 11 While the claims refer to a system or method for *analysing* financial data I note that nowhere do they describe how any data is in fact analysed. Rather they detail how the data is displayed and accessed. The actual analysis would appear to occur solely in the mind of the user and outside the scope of the claims.

Identify the contribution

- 12 Mr. Brunner referred me to *Symbian Ltd v Comptroller General of Patents* [2008] EWHC 518(pat) ('Symbian') wherein Patten J states (at paragraph 53):

But the assessment of the contribution made by the computer program used to carry the invention into effect does seem to me to involve some reference to and consideration of the problems which the invention solves albeit by the interposition and use of the interface. This would include improvements in reliability consequent upon the modifications to the operating system. To use the words of Jacob LJ it has to encompass the problem said to be solved; how the invention works; and what its advantages are: see Aerotel at paragraph 43.

- 13 For completeness, paragraph 43 of Aerotel says:

The second step – identify the contribution - is said to be more problematical. How do you assess the contribution? Mr. Birss submits the test is workable – it is an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best

sums up the exercise. The formulation involves looking at substance not form – which is surely what the legislator intended.

- 14 So the key question is “what has been added to human knowledge?” Now, graphical interfaces containing icons that can be activated to display further information are well known. Likewise, the client/server architecture of the claims is well known. Thus neither of these aspects contributes anything to the stock of human knowledge. Rather, the contribution must lie in the integration of the icons into the graphical display of data such that their position in it is part of the data and that, as described above, selecting them allows a user to ‘drill down’ into the graphical data. Indeed this is what Mr. Brunner argued that the contribution was and I agree with him. In short, the contribution is a better interface for accessing and displaying data.

Ask whether it falls solely within the excluded matter

- 15 The examiner previously argued that the claims were to no more than a program for a computer, a method for doing business, and the presentation of information. I will consider each of them in that order:

Program for a computer

- 16 From both the claims and the description the skilled man would appreciate that the technology in question is enacted in software on a computer. Thus the key question is “is it just a program for a computer as such?”
- 17 Mr. Brunner pointed out that it would be possible to implement the claimed system and method in electronic hardware. For example, the display could be an arrangement of LEDs and push button switches. The LEDs could have varying colours that correspond to different categories of data and pushing one of the buttons could cause the whole display to change. Mr. Brunner argued that such an implementation would clearly not be excluded by section 1(2) and that implementing in software was merely a function of how modern technology is done. I do not disagree with these points but I note that the application does not disclose anything other than software.
- 18 Mr. Brunner then turned to the Aerotel Court of Appeal judgment itself, where in paragraph 53 Jacob LJ states:

The important point to note is that the system as a whole is new. And it is new in itself, not merely because it is to be used for the business of selling phone calls. So, moving on to step two, the contribution is a new system. It is true that it could be implemented using conventional computers, but the key to it is a new physical combination of hardware. It seems to us clear that there is here more than just a method of doing business as such. That answers the third step. Finally the system is clearly technical in nature. We see no Art.52(2) objection to the claim.

- 19 Mr. Brunner argued that since the interface in question could be implemented in hardware it should be allowed following Aerotel. I am not convinced by this

reasoning. I believe that it is only proper that I should address the application as it actually is in preference to how it hypothetically might have been if drawn up on some other technological basis. The fact remains that the contribution identified above *is* implemented in software, and only software is disclosed. There is no new arrangement of hardware as claimed in Aerotel.

- 20 Moving on to *Shopalotto.com Ltd., Re Patent Application GB0017772.5 [2005] EWHC 2416(Pat)* ('Shopalotto'), Mr. Brunner brought a passage in paragraph 9 to my attention:

There has been a tendency, especially in the earlier decisions of the Technical Boards of Appeal, to consider that the exclusions have in common a lack of 'technical effect'. While this may be true of many members of the list, it is not necessarily the case. A programmed computer provides an obvious example. Suppose a program written for a computer that enables an existing computer to process data in a new way and so produce a beneficial effect, such as increased speed, or more rapid display of information, or a new type of display of information. It is difficult to say that these are not technical effects, and, indeed, that the programmed computer, itself a machine that ex hypothesi has never existed before, is itself a technical article and so in principle the subject of patent protection. The real question is whether this is a relevant technical effect, or, more crudely, whether there is enough technical effect: is there a technical effect over and above that to be expected from the mere loading of a program into a computer? From this sort of consideration there has developed an approach that I consider to be well established on the authorities, which is to take the claimed programmed computer, and ask what it contributes to the art over and above the fact that it covers a programmed computer. If there is a contribution outside the list of excluded matter, then the invention is patentable, but if the only contribution to the art lies in excluded subject matter, it is not patentable.

- 21 Obviously I am bound to agree with Pumfrey J that if there is a contribution outside the list of excluded matter then the invention is patentable. Mr. Brunner was of the opinion that the 'drill down' graphical display technology, identified above as the contribution, was clearly outside the excluded fields by virtue of its interactivity and the fact that it could be implemented in hardware.
- 22 Again, I am not convinced by this reasoning. Firstly, it would drive 'a coach and horses' through the 'program for a computer' exclusion since any piece of software *could* be implemented in hardware if the constraints of practicality and cost are ignored. Secondly, the claims clearly encompass a software implementation and the skilled man would appreciate that a computer program was the only practical way to implement them.
- 23 Lastly, I am drawn to the question posed by Pumfrey J in the middle of the above paragraph from *Shopalotto*: "is there a technical effect over and above that to be expected from the mere loading of a program into a computer?" I am forced to conclude that there is not. The 'drill down' graphical display technology is arguably a better interface for accessing and displaying data. However, interactive interfaces in general are to be expected from suitably programmed computers. Further, the contribution in this case does not solve any technical

shortcoming in the computer itself.

- 24 I thus conclude that the contribution falls wholly within the 'program for a computer' exclusion. As such it only consists of excluded subject matter and therefore fails the third Aerotel step. For the sake of completeness however I will go on to consider the other two categories of excluded matter brought up by the examiner.

Method for doing business

- 25 Mr. Brunner argued that while a user might, as a result of using the system, conduct a business transaction, the contribution was the 'drill down' graphical display technology identified above. While this technology was intended as a tool to facilitate business that did not make the interface itself a method for doing business. I agree with this analysis. As explained above, I consider that the contribution is an interface for accessing and displaying data. The fact that the data is financial data is not relevant since the step of analysing it lies outside the scope of the claims. I therefore conclude that the contribution is not a method for doing business as such.

Presentation of information

- 26 There are few precedents dealing with this exclusion, the most relevant would appear to be *Townsend's Application* [2004] EWHC 482 (Pat) ("*Townsend*"). In this case Laddie J, as he was then, concluded that an advent calendar with additional words on some of the doors was excluded by section 1(2)(d) as it merely provided information and (to quote from paragraph 11 of the judgement):

...giving instructions or conveying information per se is not patentable.

- 27 Mr. Brunner argued that the current case is more than the mere conveying of information because it includes user interaction with the icons. While it does include the presentation of information it also includes the activation of icons and responses thereto. That is its distinction over *Townsend*.
- 28 I am not completely convinced by this reasoning. While the contribution does include activating icons this interactivity is only with displayed information in order to display further information. Thus the contribution is, at least in a large part, the presentation of information. Whether it is merely that *as such* I do not have to decide as I have already decided that it is wholly excluded as a program for a computer as such. I will now turn to the last Aerotel step.

Check whether the contribution is actually technical in nature

- 29 Paragraph 46 of *Aerotel* explains that the fourth step may not be necessary because the third step should have covered the point. Paragraph 47 then goes on to add that a contribution which consists solely of excluded matter will not count as a technical contribution. Following this reasoning the contribution in this case is clearly not technical since it is wholly excluded.

30 However, in paragraph 42 of the *Symbian* judgment, Patten J stated that:

I stress this point particularly in relation to steps 3 and 4. The question whether the claim falls solely within the excluded subject matter (in this case a computer program) cannot be answered in isolation from the issue of whether it embodies a relevant technical contribution in the Merrill Lynch sense. The separation of this issue between steps 3 and 4 is not a problem provided that one recognises that they are as a matter of law alternatives. Where the only potential category of excluded material is a computer program then a claim based on such a program will be excluded unless it is in the relevant sense technical in nature. In paragraphs 46 and 47 Jacob LJ makes it clear that the Art. 52 (3) test is part of the step 3 question but that of course is inseparable from the issue of technical contribution in step 4 which only becomes an unnecessary inquiry if the question is included as part of step 3.

31 While these two approaches are somewhat difficult to reconcile, in the present case they do not result in different conclusions. As explained above, the contribution is a better interface for accessing and displaying data but there is no technical effect over and above that to be expected from a suitably programmed computer. Unlike Patten J's conclusion in *Symbian*, this case does not solve any technical shortcoming in the computer itself. Thus the contribution is not technical in nature.

Decision

32 I have found that the contribution made by the invention defined by claims 1 and 17 falls solely in subject matter excluded under section 1(2).

33 I have read the specification carefully and I can see nothing in any of the dependant claims or elsewhere in the specification that could be reasonably expected to form the basis of a valid claim. I therefore refuse the application under section 18(3).

Appeal

34 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days of the date of this decision.

S. Brown
Deputy Director acting for the Comptroller