

19 November 2007

PATENTS ACT 1977

APPLICANT United Parcel Services of America Inc

ISSUE Whether patent application number GB
0518581.4 complies with section 1

HEARING OFFICER A Bartlett

DECISION

Introduction

- 1 This decision is on the issue of whether the above application relates to excluded subject matter. The application is entitled "Import of contact data from personal information manager software into application" and was originally filed under the PCT as application PCT/US2004/001027. It was published as WO2004/079502 and upon entry into the national phase in the UK, reprinted as GB2416231.
- 2 In his first examination report, the UK examiner reported that the application was excluded as a program for a computer and was not inventive. The inventive step objection was overcome via amendment but the Applicants and the Examiner have not been able to resolve the excluded matter issue and a hearing to help me decide that issue was held on 23 October 2007 where the Applicants were represented by Mr Russell Barton of the attorneys Withers and Rogers.
- 3 In advance of the hearing Mr Barton submitted a skeleton argument for which I am very grateful.

The application

- 4 In broad terms the application relates to a system for populating the fields of a web form with a reduced number of keystrokes by mapping data (such as name and address data) held in a user's contact list contained in Personal Information Management (PIM) software to the appropriate fields of the form. As last amended (on 8 August 2007) the application includes 14 claims in total, of which claims 1,6 and 14 are independent. They read:

1. An apparatus characterised by:

a computing device (22) executing interface software (104) to map contact data (122) from personal information manager (PIM) software (114) to automatically populate a web page (116) of a web application (110) with the mapped contact data (124), the apparatus being adapted to permit a user of the web application (110) using the computing device (22) to enter one or more alphanumeric characters into a field of the web page (116) of the web application (110), the apparatus including a display device, the computing device being adapted to search the contact data (122) of the PIM software (114) to display on the display device a plurality of sets of contact data (122) matching the one or more alphanumeric characters entered by the user, the computing device (22) being adapted to permit a user to select displayed contact data for mapping to the one or more fields of the web page (116), the computing device (22) transmitting the web page (116) populated with the contact data (122) via a public communications network (100) to a server (32) executing the web application (110).

6. A system using a public communications network (100), the system characterised by:

a web server (32) having a web application (110) with at least one web page (116), and a set-up file (102) with mapping software (106) and interface software (104); and

a computing device (22, 29) connected to communicate with the web server (32) via the public communications network (100), and having personal information manager (PIM) software (114) storing contact data (122),

the web server (32) being adapted to transmit the set-up file (102) to the computing device (22, 29) via the public communications network (100),

the computing device (22, 29) being adapted to receive the set-up file (102) from the web server (32) and to execute the mapping software (106) to map a plurality of fields of contact data (122) from the PIM software (114) to a corresponding plurality of fields of a web page

(116) of the web application (110) to generate mapping data (118), and the computing device (22,29) being adapted to execute the interface software (104) to enable a user of the computing device (22,29) to enter one or more alphanumeric characters into a field of the web page (116) of the web application (110), the computing device (22,29) being adapted to execute the interface software (104) to search contact data (122) of the PIM software (114) to display a plurality of sets of contact data (122) matching the one or more alphanumeric characters entered by the user, the computing device (22,29) being further adapted to execute the interface software (104) to enable the user to select a displayed set of contact data (122), the computing device (22,29) being adapted to map the selected set of contact data (122) to at least one field of the web page (116) of the web application (110) based on the mapping data (118), to automatically populate the field of the web page (116) with corresponding contact data (122), and the computing device (22,29) being adapted to transmit the web page (116) with populated contact data to the web server (32) via the public communication network (100) for processing by the web application (110) executed by the web server (32).

14. A system using a public communications network (100), the system characterised by:

a web server (32) having a web application (110) with at least one web page (116), and a set-up file (102) with mapping software (106) and interface software (104);

a personal computing device having personal information manager (PIM) software (114) storing contact data (122), and

a computing device (22, 29) connected to communicate with the web server (32) via the public communications network (100) connected to communicate with the personal computing device, and

the web server (32) being adapted to transmit the set-up file (102) to the computing device (22,29) via the public communications network (100),

the computing device (22, 29) being adapted to receive the set-up file (102) from the web server (32) and to execute the mapping

software (106) to map a plurality of fields of contact data (122) from the PIM software (114) to a corresponding plurality of fields of a web page (116) of the web application (110) to generate mapping data (118), and the computing device (22, 29) being adapted to execute the interface software (104) to enable a user of the computing device (22, 29) to enter one or more alphanumeric characters into a field of the web page (116) of the web application (110), the computing device (22, 29) being adapted to execute the interface software (104) and to connect to the personal computing device (114) to search contact data (122) of the PIM software (114) on the personal computing device to display a plurality of sets of contact data (122) from the personal computing device, matching the one or more alphanumeric characters entered by the user, the computing device (22, 29) being further adapted to execute the interface software (104) to enable the user to select a displayed set of contact data (122), the computing device (22, 29) being adapted to map the selected set of contact data (122) to at least one field of the web page (116) of the web application (110) based on the mapping data (118), to automatically populate the field of the web page (116) with corresponding contact data (122) and the computing device (22, 29) being adapted to transmit the web...(sic)

The Law

- 5 Section 1 of the Act sets out the requirements that an invention must fulfil for it to be patentable including, in section 1(2), a list of things for which patent protection is not available. 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)
- (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.

6 The test for deciding whether an invention is excluded was set out by the Court of Appeal in its judgment in *Aerotel/Macrossan*¹. That test comprises four 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.

7 Paragraph 46 of the judgment explains that the fourth step of checking whether the contribution is technical may not be necessary because the third step should have covered that.

Applying the *Aerotel/Macrossan* test

8 Construing the claims of the present case does not in my view present any particular difficulties. Claim 1 is directed to the computer that a user interacts with when entering data into a web page. Claim 6 on the other hand is directed to the overall system including that computer, the web server that generates the web page and the communication network between the two. Claim 14 is again to the overall system but includes the additional limitation that the contact data (ie the PIM software) is stored on and accessed from a separate personal computing device (such as a PDA) which is connected to the computing device of the other claims.

9 The only point on construction raised at the hearing concerned the location of the PIM software in claim 1. Two alternative locations are mentioned in the specification – on a separate personal computer as per claim 14 and on the main computing device. Mr Barton said he thought claims 1 and 6 were limited to the PIM software residing on the main computing device. I agree that claim 6 is so limited. However, whilst it does not require the presence of a personal computing device, in my opinion claim 1 imposes no limitation on the location of the PIM software. However, I certainly agree that claim 1 covers the option of the PIM software residing on the main computing device in contrast to claim 14. Nothing in this decision turns on this point however and I only mention it to confirm that I agree with Mr Barton that an additional argument that he ran in relation to claim 14 was not relevant to claims 1 and 6. I will come back to that point later when I consider claim 14.

10 First however, I shall consider the arguments put forward by Mr Barton as relevant to claims 1 and 6. Applying step 2 of the *Aerotel/Macrossan* test requires me to identify the actual contribution made by the invention. Mr Barton argued that in doing that I should not take too narrow a view of the contribution.

¹ *Aerotel Ltd vs Telco Holdings Ltd & Macrossan's Patent Application* [2007] RPC 7

In particular he said that the Court of Appeal had decided that Falconer J (as he then was) had been wrong to conclude in *Merrill Lynch*² when that case was before the High Court that an invention is excluded if the inventive step is provided solely by excluded matter. Thus Mr Barton said identifying the contribution was not just a matter of identifying what was novel and inventive in the claim. He said that the correct approach was as set out by the Court of Appeal in its judgment in *Merrill Lynch*³(with which the Court of Appeal judgment in *Aerotel/Macrossan* is necessarily consistent). In that judgment Fox LJ considered the contribution that a computer program must make for it to be patentable and concluded at page 569 line 8:

“There must, I think, be some technical advance on the prior art in the form of a new result”.

- 11 In Mr Barton’s view the Applicants’ invention provides a new result – easier input of data via a keyboard. In light of the above passage quoted from *Merrill Lynch* he said that result should be taken into account when identifying the contribution made by the invention.
- 12 At paragraphs 40-48 of the *Aerotel/Macrossan* judgment, the Court explained the operation of the test I must apply. In relation to step 2 it said (at paragraph 43) that the second step – identifying the contribution - involves looking at the substance of the invention claimed, rather than the form of claim employed and can be summed up as a matter of determining what it is that the inventor has really added to human knowledge. However in the same paragraph the court did not appear to disagree with the submission of Mr Birss (Comptroller’s Counsel) that identifying the contribution probably involves the problem to be solved, how the invention works and what its advantages are. This in my view supports Mr Barton’s argument that the end result can form part of the contribution.
- 13 At the hearing I asked Mr Barton to identify what he thought the actual contribution was. He suggested the contribution was “a computing device that takes entry of one or more alphanumeric characters entered by a user and searches the contact data of PIM software for contact data matching those characters and enters them into fields of a web page”. I think the contribution is slightly different. Whilst the claims are drafted in terms of computing hardware (which is reflected in Mr Barton’s formulation of the contribution), in the *Aerotel/Macrossan* judgment the Court re-iterated the principle that is the substance and not the form of the claims that is significant. It is clear that the hardware employed in claims 1 and 6 is entirely conventional. Thus the contribution must reside in what that hardware is programmed to do. Reflecting the potential relevance of the end result, I think the contribution made by the invention of claims 1 and 6 is a way of populating a web form via a reduced number of keystrokes by finding and displaying entries in a contact database that match alphanumeric data entered by the user, allowing the user to select the required contact from those matches and populating the relevant fields of the web form with the selected contact details.

² Merrill Lynch Inc.’s application [1988] RPC 1

³ Merrill Lynch Inc.’s application [1989] RPC 19

- 14 Having identified the actual contribution of the invention defined in claims 1 and 6, what I must now do is decide whether that falls solely in excluded matter.
- 15 Mr Barton argued that it does not. He said (and I agree) that just because a program is used to implement an invention does not mean it is excluded. He said that the contribution made is a contribution to the entry of data on a keyboard. That, he said, was a physical process and was not one of the excluded categories. Thus he said the contribution did not fall solely in excluded matter.
- 16 To support his argument he drew an analogy with a claim for a novel and inventive keyboard providing improved entry of data. He said that such a keyboard would not be excluded and that a software implemented invention providing the same benefits should not be excluded either.
- 17 I do not think that analogy helps Mr Barton's case. Whilst I agree that a claim to a keyboard would (if novel and inventive) be patentable, it would be patentable because it was a new and inventive piece of hardware. The computer program exclusion is of no relevance in those circumstances. However present claims 1 and 6 do not define novel hardware – the contribution is in what that hardware is programmed to do. That clearly brings the computer program exclusion into play.
- 18 As for the entry of data being a physical process, again I do not think that of relevance here. In the *Aerotel/Macrossan* judgment the Court made it perfectly clear that it did not consider the exclusions to be limited to abstract processes when Jacob LJ said at paragraph 68:
- “there is no overarching principle that the exclusions are limited to abstract matters.”
- 19 Thus the fact that the entry of data is a physical process does not mean the exclusions are avoided.
- 20 I am also not persuaded by Mr Barton's argument that the invention is not excluded because the entry of data via a keyboard is not (and was not intended to be) one of the categories of subject matter specified as excluded in section 1(2). As I said at the hearing, section 1(2) is a non-exhaustive list of categories of subject matter that are excluded. That the entry of data via a keyboard is not explicitly mentioned does not matter. Whilst I have indicated that I think the end result can form part of the contribution made by an invention, I do not think this is a case where the end result makes the contribution a patentable one. A program providing a keyboard shortcut would make a similar contribution but I have no doubt that would be excluded as a program for a computer. As I see it, the contribution made by the invention of claims 1 and 6 resides in the program for manipulating data stored in the contacts database and using it to populate a web form. To my mind that is a contribution falling solely in excluded matter as a program for a computer. Thus the invention defined in those claims is excluded as relating to a program for a computer as such. Whilst I agree that an invention that reduces the amount of labour involved in entering data would be eminently useful, that is not the test for deciding whether it is patentable.

- 21 Having found the contribution of claims 1 and 6 to fall solely in excluded matter, I do not need to consider step 4 of the test.
- 22 I now need to address an additional line of argument raised by Mr Barton in relation to claim 14. As well as providing the contribution he had argued in relation to claims 1 and 6, Mr Barton sought to argue claim 14 made an additional non-excluded contribution. As I have said earlier, claim 14 defines a system where the PIM software is held on a personal computing device connected to the main computing device which is itself connected to the web server. In an argument clearly mirroring the “special exchange” argument in *Aerotel*, Mr Barton argued that claim 14 provided a new arrangement of hardware and thus was patentable. When pressed however he admitted that he was not suggesting that no one had linked two computing devices and a server together previously. As I said at the hearing, that would have been hopelessly anticipated. Instead he sought to qualify the new hardware argument. He did not accept that the only way the hardware could be viewed as being novel was by virtue of what it was doing. Instead he sought to explain that it was new hardware by virtue of the way the data paths are connected and configured. In doing so I think Mr Barton was trying to distinguish the present invention (where the content of the personal computing device is used by the web server) from the situation where you simultaneously had a computing device connected to a personal computing device and a web server but the data on the personal computing device was not used by the web server. Thus in arguing that the invention comprised a new arrangement of hardware, Mr Barton considered the functionality of the connections to be relevant.
- 23 I do not agree. At the hearing we discussed the point that no search had been carried out for a computing device connected to both a personal computing device and a web server such that the web server uses the information on the personal device. However, I do not think that matters here. The invention of claim 14 does not provide a new arrangement of hardware in the sense of *Aerotel* – the individual elements are conventional and are connected together in a conventional way. Any contribution comes from what that hardware is programmed to do.
- 24 In my view, the personal computing device of claim 14 is merely acting as an external data source for the main computing device. Furthermore, the provision of external memory devices was extremely commonplace at the priority date of the invention. In my view, the contribution made by the invention of claim 14 is exactly the same as that identified above for claims 1 and 6. It makes no difference whether the PIM software is stored on the computing device or on a separate source external to that device. Thus in my view the contribution provided by claim 14 is not a new arrangement of hardware, rather it is a program for a computer and thus falls solely in excluded matter. Therefore the invention of claim 14 is also excluded as a program for a computer as such.
- 25 As with claims 1 and 6, I do not need to apply step 4 of the test to claim 14

Decision

- 26 I have found that the contribution made by the invention defined in independent

claims 1,6 and 14 falls solely in excluded matter. At the hearing I asked Mr Barton if he thought there was anything in any of the dependent claims that could form the basis of a patentable claim if I found the independent claims to be excluded. He did not think there was. I agree. Furthermore I can see nothing in the remainder of the specification that could form the basis of a valid claim. I therefore refuse the application under section 18(3) since it relates to a program for a computer as such, contrary to section 1(2)(c) of the Act.

Appeal

- 27 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.
- 28 I note that the section 20 period for this application as extended under rule 110(3) has now expired. Should the Applicants wish to retain the possibility of amending the specification to reflect the findings of an appeal decision they will need to request a further extension under rule 110(4) on or before 28 December 2007. In that regard I note that claim 14 as presently on file appears to be incomplete.

A BARTLETT

Deputy Director acting for the Comptroller