

17 September 2012

PATENTS ACT 1977

APPLICANT Mitac International Corporation

ISSUE Whether patent application number
 GB 0917061.4
 complies with section 1(2)

HEARING OFFICER Mr A Bartlett

DECISION**Introduction**

- 1) Patent Application GB 0917061.4 was filed on 29 September 2009 and published as GB2473879 on 30 March 2011. Despite several rounds of correspondence between the applicants and the examiner, the applicants have been unable to persuade the examiner that the claims relate to a patentable invention within the meaning of section 1(2) of the Act. In due course the examiner offered the applicants a chance to be heard before a Hearing Officer. This was initially accepted although on 11 July 2012 the applicants instead asked for a decision to be issued on the papers.
- 2) The only outstanding issue before me is whether the application complies with Section 1(2) of the Act, in particular whether the application is excluded as relating to the presentation of information and a program for a computer. In coming to my decision I have taken into account the submission made by the applicants in their attorney's letter of 13 March 2012.

The Application

- 3) Navigation devices are now commonly employed as in-car navigation systems. A common feature of these devices is to locate the vehicle using a GPS system and then provide navigation instructions to the driver often in the form of a map on the device. As indicated in the specification, these devices often include the feature of displaying the location of potential points of interest around a specific location on the map. Displaying these points on the map display of a device is not a problem when they are far apart as would be the case in rural areas. However, the application explains that this is more problematic when the locations are closer together, as would be the case for example in an urban area. As expressed in the applicants' own words: "*It is difficult to clearly show multiple points of interest that are in very close proximity to each other on the display of a personal navigation device*".

- 4) As a consequence the invention provides a number of a ways of arranging the icons representing the points of interest around a point on a map selected by touching the screen. In short this is achieved by creating a line or polygon around a center point and locating the icons in a spaced arrangement on this line or shape.
- 5) The application as last amended with the attorney's letter of 13 March 2012 includes a single independent claim which reads as follows:

1. A method of identifying and displaying points of interest in a personal navigation device, the method comprising:

displaying a map on a display of the personal navigation device;

receiving a touch input at a touched position on the display;

displaying points of interest located near the touched position on the map, wherein the points of interest are arranged to be represented by icons, each icon being connected to its corresponding location on the map with a line extending away from the touched position; and

arranging the icons in the vicinity of the touched position such that the icons are separate from each other, the spread out icons being arranged in a pattern in the vicinity of the touched position, wherein the length of the line connecting each icon to its corresponding location on the map is not directly proportional to a distance from the corresponding point of interest to the touched position;

the method further comprising detecting removal of the touch input, measuring a predetermined period of time, and displaying icons only for the predetermined period of time after the touch input is no longer received,

wherein the pattern that the icons are displayed in is selected to be one of:

a circle in which a location of the touched position on the map is at a location other than the center of the circle, the icons being positioned on a circumference of the circle,

a spiral line, each of the icons being positioned on the spiral line,

a polygon in which a location of the touched position on the map is not located within the polygon, the icons being positioned on a perimeter of the polygon,

a plurality of concentric polygons, each of the icons being positioned on a perimeter of one of the plurality of concentric polygons,

a straight line, each of the icons being positioned on the straight line,

a plurality of straight lines, each of the icons being positioned on one of the

plurality of straight lines, or

an ellipse in which a location of the touched position on the map is not located within the ellipse, the icons being positioned on a circumference of the ellipse.

The Law

6) The relevant parts of Section 1(2) read (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.**

7) The test to be applied when determining whether an invention relates to excluded matter is that laid down 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.*

8) Operation of this test is explained in paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is that the inventor has really added to human knowledge and involves looking at the substance of the invention claimed, rather than the form of the claim. Paragraph 46 explains that the fourth step of checking whether the contribution is technical may not be necessary because the third step – asking whether the contribution is solely of excluded matter- should have covered that point already

9) In its subsequent judgment in *Symbian*², the Court made clear that the *Aerotel* test is not intended to provide a departure from the requirement set out in the previous case law that the invention must provide a “technical contribution” if it is not to fall within excluded matter.

10) From that I take it that I should apply the *Aerotel* test but that in doing so I must ask the question “is the contribution technical?”.

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan’s Application* [2006] EWCA Civ 1371

² *Symbian Ltd v Comptroller General of Patents* [2008] EWCA Civ 1066 (08 October 2008)

Arguments and Analysis

11) The first step required under the *Aerotel* test is to construe the claim. In this case that does not appear to cause any particular difficulties – though I note that whilst it purports to define “a method of identifying and displaying points of interest in a personal navigation device” the claim makes no subsequent mention of the “identification” process and is solely concerned with the way that the points of interest are displayed when a user touches the device’s display.

12) The second step is to identify the contribution made by the invention. The application as filed clearly teaches that the alleged contribution resides in the way that the icons representing points of interest are arranged spatially on the display to make them easier to read. For example under the heading “Summary of the Invention” on page 3 it is stated (at line 16) that:

“It is therefore one of the primary objectives of the claimed invention to provide a method for displaying points of interest on a personal navigation device in order to clearly display multiple points of interest that are located nearby a touched position”

and at line 35

“It is an advantage that the present invention provides a clear way to display multiple points of interest even when the points of interest are located in very close proximity to each other. Icons representing the points of interest will automatically spread out so that the points of interest located near the touched position can easily be seen.”

13) That the originally identified contribution relates to the spatial arrangement of these icons is reflected in claim 1 as originally filed. However various amendments have been made to the claim. In addition to the claim presently on file now being more specific as regards the particular spatial arrangement of the icons, the claim now also includes the feature that the point of interest icons are only displayed for a predetermined time after the touch input is removed. In their attorney’s letter of 13 March it is this feature that the applicants argue provides the contribution rather than the spatial arrangement.

14) So what is the actual contribution? The *Aerotel* judgment reiterated the long standing principle that in assessing whether an invention is excluded or not it is the substance of the invention rather than the form of claim that is important. Thus the fact that claim 1 is drafted as a method claim is not central to the assessment of what the inventor has added to human knowledge – it could still be excluded as a computer program and/or the presentation of information.

15) Satellite navigation devices incorporating touch screen displays and which provide point of interest information following user input were clearly well known at the filing date of the application. There is nothing in the specification to suggest that any of the hardware features are anything other than conventional. This includes the way the location of the device is detected, the display screen construction and the way user interactions with the screen are detected. It is also clear to me that touch screen interfaces where a piece of information is only displayed for a limited period of time after the touch input ends were well known at the filing date, albeit not in a personal (satellite) navigation device. From this it is clear to me that the contribution the invention makes is in the particular functionality that the navigation device is

programmed to provide, and more specifically in the spatial and temporal characteristics of the displayed information.

- 16) Step 3 requires me to determine whether that contribution falls solely in excluded matter; in the present case whether it is excluded as a program for a computer and/or the presentation of information. In answering that question I will need to assess whether the contribution is technical.
- 17) There is a vast quantity of case law on the issue of what does and does not constitute a technical contribution. That case law teaches that the technical contribution might result from a variety of sources including the problem to be solved and how the solution is provided. In his decision in *AT&T*³ Lewison J. (as he then was) distilled these considerations into a set of signposts to be used in assessing whether an invention makes a technical contribution. The signposts are:
- i) *whether the claimed technical effect has a technical effect on a process which is carried on outside the computer;*
 - ii) *whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run;*
 - iii) *whether the claimed technical effect results in the computer being made to operate in a new way;*
 - iv) *whether there is an increase in the speed or reliability of the computer;*
 - v) *whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*
- 18) That they are signposts and not all applicable in every situation was though highlighted by Deputy Judge Baldwin QC in his judgment in *Really Virtual*⁴ which I take as indicating that the context from which each of the signposts derives should be borne in mind in applying them.
- 19) Looking to the first signpost, all effects of performing the invention are fully contained within the navigation device and as such there is no technical effect on a process carried out external to the device (in the way that there is where a program controls an engine management system for example). That merely changing information displayed on a screen is not an external technical effect is clear from the decision in *Gemstar*⁵. Thus the first signpost does not indicate any technical contribution – there is no external technical effect.
- 20) As for the second signpost, the invention clearly does not operate at the level of the architecture of the device. The contribution is clearly at the application level and is entirely dependent on the data being processed, in this case point of interest

³ *AT&T and CVON* [2009] EWHC 343 (Pat)

⁴ *Really Virtual Company Limited's application* 2012 EWHC 1086 (Ch)

⁵ *Gemstar v Virgin* [2010] RPC 10

information. Thus the second signpost does not indicate the presence of a technical contribution.

- 21) Signposts 3 & 4 can be answered together. The navigation device is clearly a standard device and does not operate in a new way except in so far as any computer running a new program operates in a new way. Put another way, when running the program the navigation device has new functionality but does not operate in a new way. Furthermore the navigation device does not work more reliably or more efficiently as a result of the invention. As such, signposts 3 & 4 do not point towards a technical contribution.
- 22) The fifth signpost is often it seems to me the most difficult to apply as it is often a point of conjecture whether an invention solves or circumvents a problem. In the present instance I do think the invention provides a solution to the problem of how to display information more clearly to the user of the navigation device but I still do not think that points to it being patentable. The solution is not in my view a technical solution in the way that say an invention that improved the screen resolution or more accurately detected the touch point would be. Rather the contribution resides solely in the way information is presented which is itself excluded.
- 23) Thus it seems to me that the *AT&T* signposts do not indicate any technical contribution made by the present invention.
- 24) For their part, in arguing that the contribution is technical, the applicants have most recently focussed on the temporal variation of what is displayed. They point to the detection and measurement features associated with that aspect of the claim and argue that these are technical features and that the invention must be patentable. I do not agree. The detection of the removal of the touch input is not itself new and is no more technical than the user interaction with the interface in *Gemstar*. Similarly the emphasis on the time measurement is I think misplaced; the device is programmed to display the icons for a set period of time after the touch input is removed and the time measurement is nothing more than the running of a clock.
- 25) In my view the contribution made by the present invention is a computer program for presenting information and one which makes no technical contribution. I therefore consider the contribution to fall solely within excluded matter as a computer program and the presentation of information *as such*. That finding is I think entirely consistent with the *Gemstar* judgment where Mann J concluded that an interface characterised by displaying certain information in a different way was not patentable irrespective of whether it was a better interface. In particular at paragraph 50 of that judgment he said:

“The technical effect relied upon by Gemstar is a better interface, or a different interface if “better” is not relevant. That is an abstract concept. It does not describe some physical activity or effect. There is a different display on the screen, but that is not enough, in my view. That is still part of a computer program and is not an external effect (Mr Birss did not rely on any internal effect). Many computers running a program are likely to have a display output, and if that were enough to be a technical effect then every program in such a computer would be likely to fall outside the exclusion, which is unlikely to have been the intention of the draftsman of the Act. A different display to that shown before does not seem

to me to go far enough to amount to a technical effect which makes a difference. The fact that what the user perceives and interacts with is "better" does not make an advance technical at all. Nor does characterising it as an interface give it a technical effect that it would not otherwise have had."

- 26) The application in hand is in effect a "better interface" in so far as it allows icons relating to points of interest to be presented to a user in a different way. In my opinion however this provides no technical effect since it is just a different way of presenting information. Following the reasoning in *Gemstar* it is clear that an invention has to provide more than just a "different display on the screen" for the computer program and presentation of information exclusions to be avoided. That the different presentation of information in the present instance encompasses both the pattern of icons displayed on the screen and that they disappear a few seconds after the touch input is removed is in my mind of no consequence. The contribution remains a program for presenting information and one that provides no technical effect.
- 27) Step 4 of the *Aerotel* test is to check whether the contribution is technical in nature. I have effectively answered this question in step 3 but for the avoidance of doubt, whilst a personal (eg satellite) navigation device is undoubtedly a technical device, the contribution made by the present invention is not in my view technical in nature.

Conclusion

- 28) I have found that the invention defined in claim 1 is excluded under Section 1(2) because it relates to the presentation of information and/or a computer program as such. I have carefully reviewed the specification but I have not been able to identify anything that could form the basis of a valid claim. I therefore refuse the application under Section 18(3).

Appeal

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

Mr A Bartlett

Deputy Director acting for the Comptroller