Intellectual Property Office

BL O/0192/24

06 March 2024

PATENTS ACT 1977

APPLICANT	Motorola Mobility LLC
ISSUE	Whether patent application GB2107500.7 complies with section 1(2) of the Patents Act 1977
HEARING OFFICER	Phil Thorpe

DECISION

Introduction

1 Patent application GB2107500.7 has a filing date of 26th May 2021 and a priority date of 22nd June 2020. The application was published as GB 2599763 A on 13th April 2022.

2 Search of the application was performed by the European Patent Office (EPO) under the terms of a working agreement on search co-operation between the European Patent Organisation and the Intellectual Property Office (IPO). Items V and VIII of the Written Opinion provided by the EPO were adopted as a first examination report issued on 3rd February 2022. Item V raised lack of novelty or inventive step and item VIII related to other observations on the application. No objection to exclusion from patentability under section 1(2) of the Act was raised at this stage.

3 Following the receipt on 16th August 2022 of amended claims, a further examination report was issued by the IPO examiner on 3rd October 2022. The examiner stated their opinion that the invention is excluded from patentability under section 1(2) of the Act as relating to a computer program and/or the presentation of information.

4 Further amended claims were received on 18th January 2023. The examiner maintained their objection to exclusion from patentability in their examination report of 13th March 2023. The applicant's letter in response, received on 30th June 2023, expressed their reasons for disagreeing with the objection.

5 A further examination report, accompanied by a letter inviting the applicant to request to be heard by a Hearing Officer, was issued on 3rd August 2023. A letter was received in response from the applicant on 17th November 2023, which included further statements of why they believe that their invention is not excluded from patentability and a request for a Hearing Officer to issue a decision based on the papers on file.

6 I should confirm that this decision relates solely to the question of whether the claims as they currently stand are excluded from patentability.

The Invention

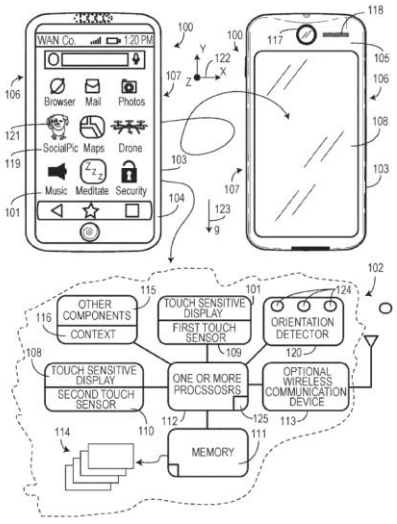
7 The invention relates to portable electronic devices having first and second display screens located on opposing major surfaces. The aim of the invention is to allow more intuitive use of the features of such devices.

8 More specifically, the application concerns methods of causing cessation of the presentation of content on a first display screen positioned on a first major surface of the portable electronic device and the commencement of another presentation of the content on a second display screen positioned on a second major surface of the device. Disclosed methods for causing the transition between content being displayed on the first screen and being displayed on the second screen include rotation of the device or actuation of a user actuation target by touch input.

9 Figure 1 (reproduced below) shows a portable electronic device in the form of a smartphone having first and second touch sensitive displays (101, 108) on first and second major surfaces (104, 105), which can also be referred to as the front and back of the device. Content, including user actuation targets (121), can be presented on either display.

10 Also shown in figure 1 is a block diagram schematic of the device that includes the representation of one or more processors (112) for presenting content on the first touch sensitive display (101) and the second touch sensitive display (108). The device may also comprise an orientation detector (120) and other components (115), which may include an audio input device or a proximity sensor.

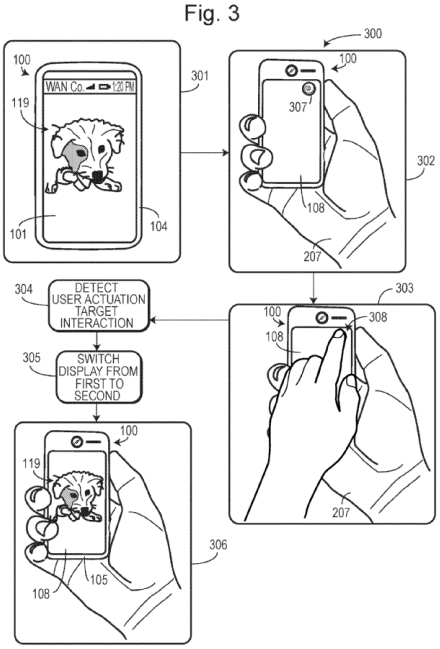
Fig. 1



11 An embodiment of the invention is shown in figure 3 (reproduced below). At steps 301 and 302, the one or more processors are simultaneously presenting content (119) on the first touch sensitive display and a user actuation target (307) on the second touch sensitive display. At step 303, a user actuates the actuation target by delivering touch input (308), in this instance comprising a single tap on the actuation

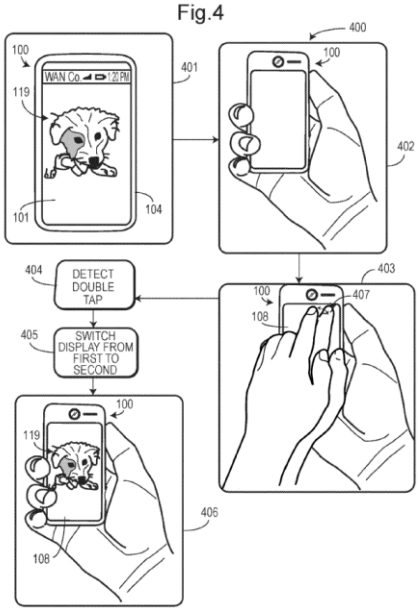
target. In another embodiment, the required touch input comprises a double tap. As shown at step 306, the one or more processors respond by ceasing the presentation of the content on the first display and commencing another presentation of the content on the second display.

Fig. 3



12 A further embodiment of the invention is shown in figure 4 (reproduced below). This embodiment differs from that of figure 3 in that, whilst content is being presented on the first display, the one or more processors deactivate the second display but leave its touch sensor activated. In order to cease presentation of content on the first display and commence presentation on the second display, a user delivers user input comprising touch input on a surface of the second display. The touch input may comprise a single tap or a double tap and may be delivered anywhere along the surface of the second display.

Fig.4



13 Other embodiments using alternative inputs for triggering the one or more processors to transition the presentation of content from the first to the second display are described. Alternative inputs include a predefined device reorientation, a voice command, a gesture input near the second display or moving the electronic device.

14 The latest claim set includes two independent claims. Claim 1 reads as follows:

> *An electronic device, comprising:*
> *a first touch sensitive display positioned on a first major surface of the electronic device;*
> *a second touch sensitive display positioned on a second major surface of the electronic device; and*
> *one or more processors operable with the first touch sensitive display and the second touch sensitive display, the one or more processors being configured to cause a presentation of content on the first touch sensitive display and a presentation of a user actuation target on the second touch sensitive display; wherein the one or more processors are further configured to detect, from the second touch sensitive display, actuation of the user actuation target and, in response to the actuation of the user actuation target, to cease the presentation of the content on the first touch sensitive display and to commence another presentation of the content on the second touch sensitive display.*

15 Claim 6 reads as follows:

> *An electronic device, comprising:*
> *a first touch sensitive display positioned on a first major surface of the electronic device;*
> *one or more processors configured to cause a presentation of content on the first touch sensitive display; and*
> *a second touch sensitive display positioned on a second major surface of the electronic device and receiving user input;*

wherein the one or more processors are configured to respond to the second touch sensitive display receiving a user input while the one or more processors are causing the presentation of the content on the first touch sensitive display, by ceasing the presentation of the content on the first touch sensitive display and commencing another presentation of the content on the second touch sensitive display.

16 I am satisfied that the two independent claims, at least as far as whether they relate to excluded matter, stand or fall together.

The Law

17 The examiner has raised an objection under section 1(2) of the Patents Act 1977 that the invention is not patentable because it relates to a category of excluded matter. The relevant provisions of this section of the Act are shown with added emphasis below:

> *1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of…*
>
> ***(c) …or a program for a computer;***
>
> ***(d) the presentation of information;***
>
> *but the foregoing provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.*

18 As explained in the notice published by the IPO on the 8th December 2008[1], the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*[2].

19 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian*[3]. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel* the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*[4] which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case.

20 Subject to the clarification provided by *Symbian*, it is therefore appropriate to proceed on the basis of the four-step approach explained at paragraphs 40–48 of *Aerotel* namely:

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[1] http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm
[2] *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7
[3] *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1
[4] *Merrill Lynch's Appn. [1989] RPC 561*

(1) Properly construe the claim.
(2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).
(3) Ask whether it falls solely within the excluded matter.
(4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.

Applying the Aerotel test

Step 1 – Properly construe the claim

21 The applicant and examiner appear to be in agreement that there are no difficulties in construing the claims.

22 Both claims 1 and 6 are directed to an electronic device comprising first and second touch sensitive displays on first and second major surfaces of the device and one or more processors configured to cause a presentation of content on the first display. The one or more processors are configured to cease the presentation of content on the first display and to commence another presentation of the content on the second display in response to the second display receiving a user input. Claim 1 specifically requires that the user input is the actuation of a user actuation target displayed on the second display, which to my mind is clear.

23 To construe claim 6, the types of input covered by the term "user input" requires some further consideration. Claim 6 states that the second display receives the user input, which I consider refers to inputs that directly interact with the second display, rather than with the device in general. A touch input consisting of either a single or double tap delivered anywhere on the surface of the second display clearly meets this requirement.

Step 2 – Identify the actual contribution

24 Jacob LJ addressed this step in *Aerotel/Macrossan* where he noted:

> "*43. 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."*

25 Jacob LJ goes on to say that in the end:

> *"the test must be what contribution has actually been made, not what the inventor says he has made".*

26 The examiner considers in their assessment of the contribution that the hardware is not what has been "added to the stock of human knowledge", stating that it is a "conventional arrangement of a touch screen device with dual screens". They note that such hardware is disclosed in the cited documents EP 3770722 A1, US 2015/0024728 A1 and WO 2015/122488 A1. Document US 2015/0024728 A1 relates to a mobile terminal comprising a transparent display unit and, to my mind, is less useful in determining the contribution than the other two documents. Documents EP 3770722 A1 and WO 2015/122488 A1 both disclose a device, such as a mobile

phone, having first and second display screens on opposing sides of the device. When using the device of document EP 3770722 A1, the user can switch between the first or the second screen being the main screen. The device of document WO 2015/122488 A1 allows the user to switch content between the two displays. I therefore agree that the contribution does not lie in the fact that the electronic device comprises first and second touch screens. In my view, it also does not lie in the ability to display particular content on a selected one of the displays.

27 The examiner considers that the contribution *"relates to a method of interaction of the user with such a dual display device, where an actuation target or further content is displayed on a different display to the first content"*. The applicant states in their letter of 30th June 2023 that a clear technical contribution is provided, as *"the claimed device is an improved device which tends to provide a functionally efficient approach to transitioning of content between two displays; thus, enhancing the user's experience of using the claimed device"*.

28 It is my view that the contribution lies both in the user being able to cease the presentation of content on the first display and to commence another presentation of the content on the second display, and in the means by which this is performed, specifically the use of touch input on the second display delivered either anywhere along the surface of the second display or to a user actuation target.

Steps 3 and 4 – Ask whether it falls solely within the excluded matter and check whether the actual or alleged contribution is actually technical

29 I will consider steps 3 and 4 together.

30 Lewison J. (as he then was) set out in *AT&T/CVON*[5] five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC*[6] the signposts were reformulated. 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 the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer.
>
> v. Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

31 It is important to stress that these signposts are just that. They are not barriers or hurdles that need to be individually or collectively overcome by the applicant. They are rather a non-exhaustive list of some of the factors that can indicate in some

[5] *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat); [2009] FSR 19*
[6] *HTC v Apple [2013] EWCA Civ 451*

cases whether a particular contribution may be technical. The applicant in their latest latter relies specifically on signposts iii) and v). In their letter of 18th January 2023, they also referred to signpost i) so I will also consider that.

32 In respect of signpost i), the applicant argues that *"the display of a content on the first display and a display of a user actuation target on the second display are each clear technical effects that occur outside of the computer system."* I am not persuaded. Many computers running a program have a display output and controlling what is displayed on that display is generally not considered to provide an external effect of the type envisaged by the first signpost. Indeed, if it was then almost every computer program would likely fall outside the exclusion which clearly was not the intent of the Act. That the invention here refers to two displays does not change this.

33 The applicant considers signpost iii) to be relevant, stating in their letter of 30th June 2023, that actuation of the user actuation target *"is a new and functionally efficient way of causing the device to reconfigure its output"*. Further in their latest letter they note that:

> *"the presently claimed solution enables the user to operate the computer by transitioning content between the first and second touch-sensitive displays using the "user actuation target". The use of such a user actuation target by the claimed device to control a first touch sensitive display and a second touch sensitive display, results in the device operating in a new way. In other words, a technical effect of the claimed device is a more functionally efficient way of operating the device. This technical effect is more than an "improvement in programming" or "a claim to the instructions as such" because the user actually does operate the device in a new way i.e., using the "user actuation target" to transition content between the first and second touch-sensitive displays."*

34 I am satisfied that the computer or electronic device to be more precise does operate in a new way. What matters however for signpost iii) is whether, quoting Lewison J. in AT&T/CVON, it is a *"new way of operating the computer in a technical sense".* Lewison J goes on to note that; "*This too, of course, leaves the phrase "in a technical sense" undefined, but it points towards some generally applicable method of operating a computer rather than a way of handling particular types of information."*

35 Here what the invention is doing is not limited to the particular type of information displayed but rather to the mechanism by which the displays are switched. This is I believe operating the device in a new way in a technical sense. Hence signpost iii) points to the contribution being technical and more than a program for a computer as such.

36 For completeness I will also consider signpost v). The applicant contends that the *"technical operation of a device having two touch sensitive displays and the problem of improving user interaction with such a device is clearly a technical problem."* It follows they argue that since the invention solves this technical problem then signpost v) is met.

37 Whilst touch screens themselves are conventional as are devices with two distinct touch displays, I am satisfied that the mechanism by which the user can switch the content being displayed between such touch displays does indeed relate to the solution of a technical problem. As such signpost v) further points to the contribution being technical and more than a program for a computer as such.

38 An objection has also been raised that the invention is excluded as it relates to the presentation of information. Whilst clearly the contribution relates in part to display and managing the information displayed on those displays, it also relates to how a user interacts with the device to change which display is used. This is in my view much more than the presentation of information as such.

39 Given my conclusions on the relevance of signposts iii) and v) and that the presentation of information exclusion is not engaged, I do not need to step back and look at the invention as a whole to see if it provides a technical contribution.

Conclusion

40 I have found that the invention as set out in each of claims 1 and 6 is not excluded as a program for a computer or as the presentation of information as such. I therefore remit the case back to the examiner to complete their examination.

PHIL THORPE

Deputy Director, acting for the Comptroller