



## PATENTS ACT 1977

APPLICANT	Apple Inc.
ISSUE	Whether patent application GB 1413475.3 complies with sections 1(2)(b), 1(2)(c) and 1(2)(d)
HEARING OFFICER	Dr C L Davies

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### DECISION

#### Introduction

- 1 Patent application GB1413475.3 ("the Application") entitled "Fanning user interface controls for a media editing application" was filed in the UK on 30 July 2014, having originated as a WO application 2013/133895 A1 filed on 31 December 2012, with an earliest declared priority date of 6 March 2012. It was published as GB 2513763 A on 5 November 2014.
- 2 Following a number of rounds of correspondence between the Examiner and the Applicant's Attorney, and amendment of the claims, the Examiner remains of the view that the claimed invention is excluded from patentability under section 1(2) of the Patents Act 1977 (The Act).
- 3 With the position unresolved the Applicant has asked for a decision based on the papers filed during processing of the application to date.

#### The invention

- 4 The invention relates to image editing software and in particular to aspects of a graphical user interface (GUI). A range of software user interface (UI) tools are displayed on a screen in an animated 'fan-open' arrangement which allows a user to readily select one tool from the range and manipulate its controls.

#### Claims to be considered

- 5 My decision is based on the definitive claim-set filed 17<sup>th</sup> August 2020. There are 17 claims, with three independent claims 1, 10 and 13 which read as follows:

Claim 1:

A method of presenting a plurality of user interface (UI) controls for editing images, the method comprising:

upon receiving a selection of an image to edit, displaying the image in a display area for displaying edits to the image;  
at a first location, receiving input to activate a UI tool comprising the plurality of UI tools; and  
in response to the input, displaying, at a second location, a fanning animation that rotationally spreads the plurality of UI controls about an axial point from an overlapping fan-closed layout to a fan-open layout to reveal the plurality of UI controls, wherein at least one UI control comprises a sliding region and a slider for moving along the sliding region.

Claim 10:

A non-transitory machine readable medium storing an application which when executed by at least one processing unit edits images, the application comprising a graphical user interface (GUI), the GUI comprising:  
a display area for displaying an image;  
a user interface (UI) tool comprising a plurality of selectable user interface (UI) controls for modifying the image; and  
a selectable UI item for activating the UI tool, wherein a selection of the UI item causes the GUI to display a fanning animation that rotationally spreads the plurality of UI controls about an axial point from an overlapping fan-closed layout to a fan-open layout to reveal the plurality of UI controls, wherein at least one UI control comprises a sliding region and a slider for moving along the sliding region.

Claim 13:

A non-transitory machine readable medium storing a program which when executed by at least one processing unit provides a graphical user interface (GUI) for editing an image, the program comprising sets of instructions for:  
receiving input to display a plurality of user interface (UI) controls for editing the image;  
determining whether the GUI is in a particular viewing orientation;  
upon determining that the GUI is in the particular viewing orientation, displaying a fanning out animation that rotationally spreads the plurality of UI controls about an axial point from an overlapping fan-closed layout to a fan-open layout to reveal the plurality of UI controls at a first location in the GUI; and  
upon determining that the GUI is not in the particular viewing orientation, displaying the fanning-out animation that rotationally spreads the plurality of UI controls about an axial point from an overlapping fan-closed layout to a fan-open layout at a second different location in the GUI in order to optimize space in the GUI, wherein at least one UI control comprises a sliding region and a slider for moving along the sliding region.

- 6 Claims 1 & 10 are clearly very similar in scope. Claim 13 includes further limitations relating to the orientation of a screen, but otherwise covers a similar scope to the

other claims. My detailed analysis will focus on claim 1 as representative of the claims, and the additional features of claim 13 will be addressed subsequently.

### Issues to be decided

- 7 The issue for me to decide is patentability i.e. whether the invention falls into one of the categories set out in section 1(2)(b), 1(2)(c) and/or 1(2)(d) of The Act as an aesthetic creation, a program for a computer and/or a presentation of information as such. These are the outstanding objections summarised by the Examiner in their pre-hearing/examination report dated 18<sup>th</sup> December 2020.
- 8 I note the Attorney has made representations in their most recent letter dated 24<sup>th</sup> November 2020 in support of inventive step over the prior art. However, this does not appear as a main outstanding objection raised by the Examiner in their pre-hearing report. If I find in favour of the Applicant, I shall remit the application back to the Examiner to complete processing including consideration of inventive step.

### The law

- 9 The Examiner has raised an objection under section 1(2) of The Act that the invention is not patentable because it relates inter-alia to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown in bold below:

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;***

*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.*

- 10 The assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*<sup>1</sup>, as further interpreted by the Court of Appeal in *Symbian*<sup>2</sup>.
- 11 In *Aerotel*, the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of what is often called "excluded matter", as follows:

*Step one: properly construe the claim*

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<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371, [2007] RPC 7

<sup>2</sup> *Symbian Ltd's Application* [2008] EWCA Civ 1066, [2009] RPC 1

*Step two: identify the actual contribution (although at the application stage this might have to be the alleged contribution)*

*Step three: ask whether it falls solely within the excluded matter*

*Step four: check whether the actual or alleged contribution is actually technical in nature.*

- 12 Subsequently, the Court of Appeal in *Symbian* made clear that the *Aerotel* test is not intended to provide a departure from the previous requirement set out in case law, namely that the invention must provide a "technical contribution" if it is not to fall within excluded matter. The *Aerotel* test has subsequently been endorsed by the Court of Appeal in its decisions in both *HTC*<sup>3</sup> and *Lantana*<sup>4</sup>.
- 13 Lewison J (as he then was) in *AT&T/CVON*<sup>5</sup> set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC* the signposts were reformulated slightly in light of the decision in *Gemstar*<sup>6</sup>. 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.*
- 14 It should be clear that the signposts are merely guidelines; although they provide a useful aid in assessing the technical character of a claimed invention, they were not intended to provide a definitive test (as Lewison LJ's obiter remarks in paragraph 149 of *HTC* make clear). Several judgments have emphasised this point - John Baldwin QC (sitting as a Deputy Judge) in *Really Virtual* noted that the signposts, although useful, are no more than signposts and that there will be some cases in which they are more helpful than in others. Kitchin LJ made similar remarks in paragraph 51 of *HTC* that their usefulness does not mean they will be determinative in every case.

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<sup>3</sup> *HTC Europe Co Ltd v Apple Inc* [2013] RPC 30

<sup>4</sup> *Lantana v Comptroller-General of Patents, Designs and Trade Marks* [2014] EWCA Civ 1463

<sup>5</sup> *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

<sup>6</sup> *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

## Argument and analysis

- 15 Taking the application and all the correspondence on file into account, I now must determine whether the claimed invention relates solely to excluded subject matter under section 1(2), as set out in paragraph 7 above.

### Step 1: Properly construe the claim:

- 16 I note from the correspondence that Claim 1 does not appear to offer any particular difficulty in construction. In the pre-hearing/examination report, the Examiner has noted that the first and second locations are assumed to be different from each other and on a display, but in reality I do not think that these details are particularly important in deciding whether the claim is excluded. The Attorney's communications have not explicitly addressed the question of construing the claims, and so I am content that this step is not in dispute. I've therefore construed claim 1 as follows:

- 17 Claim 1 defines:

A method of presenting a plurality of user interface controls suitable for image editing comprising displaying an image on a screen, receiving a user input to activate a UI (user interface) tool which includes a plurality of controls with at least one slider, and displaying the UI tool in a fan configuration.

### Step 2: Identify the actual or alleged contribution:

- 18 Guidance on how to identify the contribution is provided in paragraph 43 of *Aerotel*, which describes this as:

*"...an exercise in judgement 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"*

- 19 It is clear that the arrangement of hardware used to implement the invention is immaterial to the working of the invention. The hardware is all conventional hardware. Given this point, the contribution must therefore be viewed as being embodied purely in a computer program. Whilst the method of the invention undoubtedly uses a computer program for its implementation, the mere fact that the invention is affected in software does not mean that it should be necessarily excluded as a program for a computer as such. What matters is whether or not the program provides a technical contribution.
- 20 In the pre-hearing report, the Examiner has offered a detailed analysis of the contribution, listing many features of the claim which are not new in paragraph 11, and also discounting the slider in paragraph 16. This is instructive, but somewhat imprecise in my view, and not in the spirit of the holistic approach put forward in *Aerotel*.
- 21 The Examiner also considers the general problem addressed to be one of finding editing tools within an existing piece of editing software in paragraph 18. At

paragraph 19 he observes that the invention works as a program running on a computer. At paragraph 20 he considers the advantages of the invention over the prior art and concludes that they are not technical since "... (the editing tools previously exist, only the manner of their presentation has changed)."

The Examiner concludes by assessing the contribution as follows:

*"...[t]he contribution ... lies in the manner of presenting user interface controls in an image editing application."*

- 22 Reviewing the papers, I cannot see an explicit statement from the Applicant as to what they perceive the contribution to be.
- 23 Stepping back, the Examiner's assessment of the contribution to me seems to be overly broad and lacking the precision required to assess whether the invention is excluded. From my consideration of the application and claims therefore I consider the contribution to be:

*A graphical tool in the graphical user interface (GUI) of an image editing software package in which a number of sub-tools ('UI controls' in the claims), at least one of which comprises a slider, are displayed in an overlapping relationship and animated to open into a fanned-out arrangement allowing a user to identify and select a preferred tool from the selection of sub-tools.*

### **Claim 13**

- 24 In addition to the features of the other independent claims 1 and 10, claim 13 also requires that the device re-sites the fanned controls to a second screen location if/when the screen is re-orientated. This clearly requires a technical step insofar as the screen orientation must be detected and the image re-sized for the new screen orientation. Screen re-orientation and image re-sizing are well known and as such do not form part of the contribution. I therefore consider there to be nothing in this additional feature which alters the nature of the contribution which I have found above, and which applies equally to claim 13, the analysis also applying equally to claim 13.

### **Step 3: Does the contribution fall solely within excluded matter?**

- 25 What I must now decide is whether the contribution identified above relates solely to a program for a computer, the presentation of information, aesthetic creation as such.

### **Computer Program and the Presentation of Information**

- 26 The Examiner's argument for this is quite brief. At Paragraph 22 of the pre-hearing report he states that "*[t]he contribution is not technical in nature beyond being a program*" and that "*[t]he advantages of the contribution are not technical in effect*" In summary, that the contribution is no more than a clear way to present a graphical tool and is incorporated in a computer as software, hence falling solely within the presentation of information and computer program exclusions.

### **Computer program:**

27 The Attorney argues that there is a technical contribution and draws parallels with the invention in *HTC*. In particular, since *HTC* claimed a 'slide-to-unlock' interaction and this was found to have technical character, the Attorney argues that the presence of sliders in particular in the current claims likewise confers technical character on the invention. In support of this, the Attorney quotes from the *HTC* judgement at paragraph 241:

*"...I think there was a contribution here which went beyond a computer program as such or the mere presentation of information. There is a sense in which the invention provides a technical effect outside the computer, namely an improved switch. Moreover this is a real world effect which is not limited to the presentation of information."*

28 However, I note that in the judgement this comment was made in the context of a reported exchange under cross examination (my emphasis added below):

*"Q. Would it be fair to say that the specific embodiment of [the application in suit] provides a more intuitive user interface than was provided by Neonode?"*

*A. Yes, that is fair.*

*Q. It is a better way of providing an unlock mechanism **to avoid the consequences of accidental touches** than is provided by Neonode?"*

*A. Yes, that is correct."*

29 What I infer from this is that the improvement and real-world effect referred to in paragraph 241 lay not in the provision of the slide action of the switch *per se* but rather in the consequence of that: providing a safety or interlock mechanism which avoided accidental unlock of the screen.

30 In contrast, the slide-controls specified in the current application perform a function of allowing simple variation of a quantity within a finite range, and do not add any specific technical contribution beyond what is conventional in a virtual slide control on a screen.

31 The Attorney has suggested in their most recent letter that *"...both the slide-to-unlock interface and the presently claimed UI are actuated by a user to unlock further controls..."* and also that the Examiner's logic implies that *"...any invention that results in a change in the displayed output of an electronic device would automatically fall under the exemption relating to the presentation of information."*

32 I am not persuaded that the sliding UI 'unlocks' further controls in the same sense as *HTC*. In the context of the current application, 'unlock', it seems to me, serves as a synonym for 'open' or 'access' while in *HTC* it signifies the disarming of an interlock. The latter forms a technical function in preventing accidental operation of the touch screen device, while the former, in my view, is merely an ergonomically convenient way of operating a proportional control function. It follows that I do not find the Attorney's arguments in this respect persuasive. The differences I have highlighted mean that the slide-control defined in the claims does not add anything to human knowledge as part of the contribution as I have assessed it above.

33 The Attorney has also questioned the Examiner's use of *Gemstar*. I accept the assertion that the subject matter of this differs from the current application and conclude that only limited guidance can be gleaned from it. I also accept that *HTC*, being later, is more relevant, and I therefore do not propose to consider *Gemstar* any further.

### **The 'AT&T signposts'**

34 The *AT&T/CVON* signposts are a helpful aid when considering whether a computer program makes a technical contribution. I note from the correspondence that these have not formed a core argument for either the Examiner or the Applicant during the processing of the current application but have been considered briefly. For completeness, I will also consider them briefly here.

35 Signpost (i) is effectively dealt with by the discussion above regarding whether the slider can be considered an external switch. No other external functions are suggested in the application or correspondence. In my view, this signpost does not apply.

36 Signpost (ii) does not apply since the invention is embodied as software designed to provide a graphical user interface, and therefore does not operate at an architectural level of the computer.

37 Signpost (iii) does not apply since the display is controlled in a conventional manner; any difference from the prior art being only in what is displayed and how it is presented.

38 Signpost (iv) deserves some further consideration. The Applicant in their letter dated 16th April 2020 suggests that the overall effect of the invention is to improve the efficiency of operation of the man-machine interface, in particular by "...*optimising use of display space whilst maintaining the full range of image editing functionality...*" However, it seems to me that this is no more than an administrative convenience. While it may improve the UI's usability and provide organisational and ergonomic advantages, in my view these do not amount to the computer running more efficiently – at best, it is the user not the computer whose efficiency is arguably improved. This signpost therefore does not apply.

39 Signpost (v) does not apply. Like the Examiner, I have been unable to identify a technical problem to be solved in the current application. The problem identified is one of operator convenience, which is non-technical in nature.

40 Considering the contribution as defined above and in light of the AT&T signposts, I conclude that the invention is a method of providing graphical representations of tools on a screen in a convenient manner for the user. There is no technical advance inherent in this and I agree with the Examiner that the advantages accruing are no more than improvements in the convenience and ease of use for the user, which are therefore not technical in nature. No technical problem is solved. Since the invention is embodied as software and results in the convenient display of information to a user, I conclude that it is excluded as a program for a computer, as such.

### **The Presentation of Information:**

- 41 At paragraph 29 of his pre-hearing report, the Examiner has referred to *Autonomy*<sup>7</sup> and in particular to paragraph 45 of that judgement where it is stated:

*“Choosing where and how to display information is, in my judgment, still the presentation of information. It is part of the decision how to present the information.”*

- 42 The judgement goes on to say:

*“Claim 2 explicitly requires the icon to be embedded in an unobtrusive place. I cannot see that this makes any difference. It is still choosing where to display the information. That is also the presentation of information.”*

- 43 The Examiner asserts that on this basis the choice of where to display the control elements in the current invention is not technical. I agree with this assessment. It follows that in addition to being excluded as a program for a computer the invention is also excluded as a presentation of information, as such.

### **Aesthetic Creation:**

- 44 Since I have found the invention to be excluded as a computer program and the presentation of information, I do not need to consider aesthetic creation.

### **Step 4: check whether the actual or alleged contribution is actually technical in nature**

- 45 The fourth step of the test is to check whether the contribution is technical in nature. In paragraph 46 of *Aerotel* it is stated that applying this fourth step may not be necessary because the third step should have covered the question. This is because a contribution which consists solely of excluded matter will not count as being a "technical contribution" and will not, as the fourth step puts it, be "technical in nature". Similarly, a contribution which consists of more than excluded matter will be a "technical contribution" and so will be "technical in nature".
- 46 The 4<sup>th</sup> step has been covered in discussion of the 3<sup>rd</sup> step above.

### **Summary**

- 47 Having carefully considered the correspondence on file and the application, I am of the view that the problem addressed by the claimed invention is not technical in nature. In my view the invention as defined by the claims is embodied in software; that is to say, it is a program running on a computer. Further, the invention is characterised by the presentation of a range of 'UI controls' to a user in a convenient manner on the screen of the computer. Thus, the invention is both a program for a computer and a presentation of information.

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<sup>7</sup> *Really Virtual Co Ltd v UK Intellectual Property Office* [2012] EWHC 1086 (Ch)

- 48 The contribution falls solely within the matter excluded under section 1(2) as a program for a computer and the presentation of information.
- 49 Since I have found the invention to be excluded as a computer program and the presentation of information, I do not need to consider aesthetic creation.

### **Decision**

- 50 I have found that the invention defined in the independent claims 1, 10 and 13 to be excluded from patentability since it relates to a computer program as such and a presentation of information as such. I therefore refuse the application under section 18(3) for failing to comply with section 1(2).

### **Appeal**

- 51 Any appeal must be lodged within 28 days after the date of this decision.

C.L. Davies

- 52 Deputy Director, acting for the Comptroller