



PATENTS ACT 1977

APPLICANT Lenovo (Beijing) Limited

ISSUE Whether GB2205292.2 complies with Section 1(2) of
The Patents Act 1977

HEARING OFFICER Dr Andrew Rose

DECISION

Introduction

- 1 Patent application GB 2205292.2, entitled “Information processing method and apparatus, electronic device, and storage medium”, was published as GB 2611134A on 29 March 2023. It has a filing date of 11 April 2022 and claims a priority date of 22 September 2021 from Chinese patent application CN 202111108031.5.
- 2 Despite several rounds of correspondence, the applicant was not able to persuade the examiner that the application is allowable under Sections 1(2)(c) and 1(2)(d) of The Patents Act 1977 (“the Act”). The examiner therefore issued a letter to the applicant suggesting they request a hearing. The letter warned that if the applicant responded instead with further amendments, the case could be passed to a hearing officer to make a decision based on the papers on file. The applicant responded with further amendments which did not satisfy the examiner’s concerns. The application has accordingly come before me for a decision on the papers.
- 3 The specification (including the amended claims), the objections raised by the examiner, and the applicant’s arguments and observations prior to the hearing can all be viewed at the One IPO Search online file inspection service: [GB2611134 – Search for intellectual property – GOV.UK](https://www.search-for-intellectual-property.service.gov.uk/GB2611134)¹.

The invention

- 4 The application relates to a multitasking management interface (MMI) which is displayed on the screen of an electronic device. The MMI comprises multiple identification cards, each representing a different application program. There are two different types of identification cards: active identification cards (which are associated with active application programs) and shortcut application cards (which are associated with application programs which are not currently running). An

¹ <https://www.search-for-intellectual-property.service.gov.uk/GB2611134>

application identification card may optionally show page content from when the associated application last displayed in the foreground. The MMI is overlaid on currently displayed content. Figure 7B (reproduced below) provides an example of an MMI, comprising three application identification cards and three shortcut identification cards, superimposed on an existing video screen.

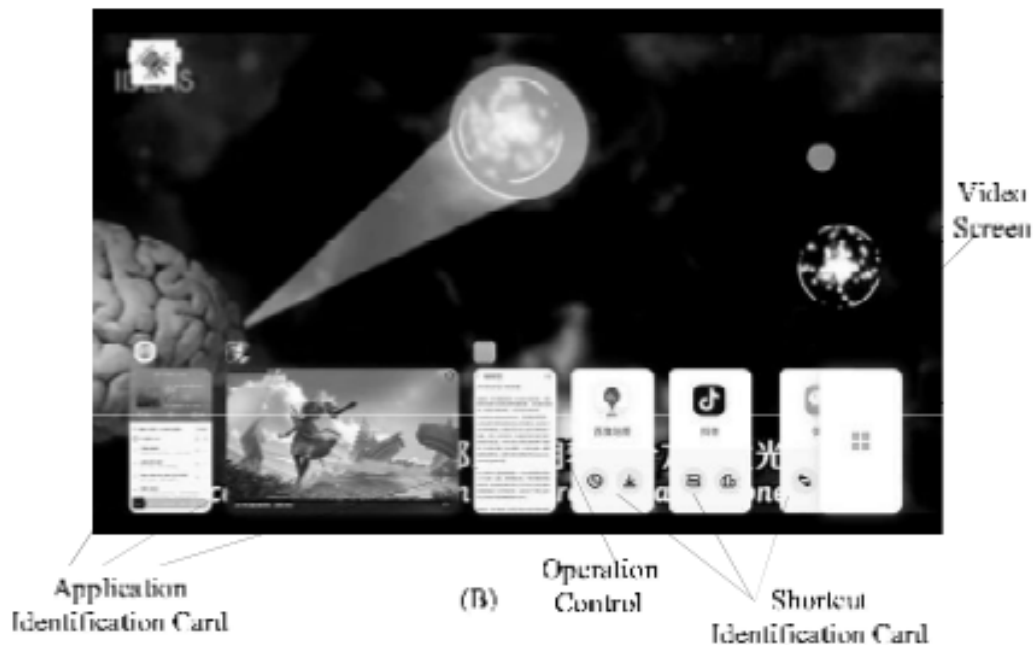


FIG. 7

- 5 The shortcut identification cards, and optionally also the application identification cards, each include an operation button. An identification card's operation button can be used to generate a control instruction for the identification card's associated application program. The control instruction could, for example, include changing the running state of an application program² or opening a search page of the application program³.

The claims

- 6 The current claims were filed on 13 January 2025. They consist of independent method claim 1, dependent method claims 2-4, independent apparatus claim 5, and dependent apparatus claims 6-8. Claim 5 will stand or fall with claim 1. Claim 1 reads as follows:

1. An information processing method, performed by an electronic device, comprising:

² See paragraphs 34 and 106 of the description.

³ See paragraph 78 of the description and Figure 5.

obtaining a trigger operation by a user;

responding to the trigger operation and calling a multitasking management interface; and

displaying the multitasking management interface, wherein the multitasking management interface comprises an identification card obtained based on a target strategy, wherein the identification card is obtained based on the target strategy by:

obtaining at least one shortcut identification card and at least one application identification card for operation by the user, wherein a current state of an application program corresponding to each of the at least one shortcut identification card is not running, and an application program corresponding to the at least one application identification card is an application program that has been activated; and

each shortcut identification card includes at least one operation button, and an operation button of the at least one operation button generates a control instruction for the application program corresponding to the shortcut identification card including the operation button to respond;

wherein the displaying of the multitasking management interface comprises one of the following:

in response to determining the electronic device is in the landscape state based on the change information of the display screen of the electronic device, superimposingly displaying the multitasking management interface on a currently displayed content; or

in response to determining the electronic device is in the unfolded state based on an angle, superimposingly displaying the multitasking management interface on a currently displayed content; the angle is between each two parts angle of a foldable screen collected by a sensor of the electronic device; or

in response to determining the electronic device is in the unfolded state based on a movement information of the telescopic mechanism, superimposingly displaying the multitasking management interface on a currently displayed content; the movement information of a telescopic mechanism configured to change a state of a rollable screen.

The law

- 7 Section 1(2) of the Act defines certain categories of subject-matter which are not considered to be inventions. These categories are often referred to as 'excluded subject-matter'. The relevant provisions of this section of the Act are shown below:

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...

(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.

- 8 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian*⁴. *Symbian* arose under the computer program exclusion, but 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 approach previously followed by the Court of Appeal in *Aerotel/Macrossan*⁵. 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*⁶ 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.
- 9 Subject to the clarification provided by *Symbian*, it is therefore appropriate to proceed on the basis of the four-step approach. In *Emotional Perception*⁷, the Court of Appeal expressed (at [31]) that the four steps of the *Aerotel* test are:
- (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.
- 10 Lewison J (as he then was) in *AT&T/CVON*⁸ set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC v Apple*⁹ the signposts were reformulated slightly in light of the decision in *Gemstar*¹⁰. The revised signposts are:

⁴ *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1.

⁵ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

⁶ *Merrill Lynch's Application* [1989] RPC 561.

⁷ *Comptroller-General of Patents, Designs and Trade Marks v Emotional Perception AI Ltd* [2024] EWCA Civ 825.

⁸ *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat).

⁹ *HTC Europe Co Ltd v Apple Inc* [2013] RPC 30

¹⁰ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

- 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.

11 The Manual of Patent Practice (MoPP) explains the IPO's practice under the Act and makes helpful references to relevant case law. The Manual can be viewed online at the IPO website: [Manual of Patent Practice - Guidance - GOV.UK](https://www.gov.uk/guidance/manual-of-patent-practice-mopp)¹¹. There is no dispute concerning the relevant law and its application to the facts of this case.

Application of the *Aerotel* test

Step (1): construe the claim

12 Lines 6 to 8 of claim 1 (as reproduced above), require an identification card of the MMI to be "obtained based on a target strategy". However, it is not immediately clear to me what limitation is intended by the reference to "target strategy", over and above that provided at lines 9-13 of the claim. According to paragraph 55 of the description, in one embodiment "*the target strategy is a shortcut identification card determined based on a shortcut list*". Previous claim 1, as filed on 21 October 2024 referred to the "target strategy" as "*a shortcut identification card determined based on a shortcut list and an application identification card determined based on a calling record of the application program*"¹², which appears to have been based on paragraph 88 of the description. These specifics appear to provide details of how the target strategy is embodied rather than a definition of a target strategy. In light of what the target strategy is doing, I am construing this term broadly to be any strategy for how the shortcut identification cards and application identification cards are obtained based on the application programs on the device.

13 The final half of claim 1 refers to three different alternatives. However, in each case, if a specified screen condition is met then the MMI is superimposed on currently displayed content. Claim 1 is silent in respect of how the MMI should be displayed if the screen conditions are not met but paragraph 77 discloses that if the screen is in a portrait or non-expanded state (such that the screen conditions specified in claim 1 are not met) then the MMI is displayed on a "specific interface" rather than being superimposed on currently displayed content. When construing the scope of the claims, I do not consider it to be implicit that the MMI should be displayed on a

¹¹ <https://www.gov.uk/guidance/manual-of-patent-practice-mopp>.

¹² The term "*calling record*" is further explained at paragraph 95.

specific interface, or even in any non-superimposed way when in a portrait or non-expanded screen state. I will revisit this detail when describing the contribution below.

- 14 Claim 1 is otherwise clear and requires no further construction.

Step (2): identifying the actual (or alleged) contribution

- 15 In their pre-hearing report of 24 June 2025, the examiner identifies the contribution to be:

A method of displaying identification cards on a superimposed (overlying a currently running application) multitasking management interface wherein the identification cards are either shortcut identification cards or application identification cards and wherein shortcut cards relate to non-running applications and application identification cards relate to activated applications and the identification cards are chosen based on a target strategy.

- 16 The most recent attorney's letter, dated 13 January 2025, does not explicitly identify the contribution but does argue that the latter half of claim 1 (from "wherein the displaying of the multitasking management interface comprises one of the following:" onwards) provides technical features which solve the technical problem of how to determine whether the electronic device is in a landscape or an unfolded state. So it seems that, contrary to the examiner's view, the attorney considers this latter half of the claim to form part of the contribution.

- 17 The problem being solved appears to be providing a good user interaction experience when switching between different tasks on an electronic device¹³. The invention works by displaying an MMI based on multiple cards representing relevant applications (which may or may not be open). The cards include an operation button to activate a control function of the corresponding application. The MMI is displayed in some way and this display method changes to superimpose the MMI over currently displayed content when the device is in a landscape, unfolded or extended screen configuration. Note here that, for the purpose of determining the contribution, I consider the changing of the MMI from some other mode of presentation to being superimposed to be a key feature of how the invention works in practice. This is despite claim 1 being silent on the MMI presentation when in a portrait, folded or unextended configuration such that I did not construe this change to be implicit in the scope of claim 1. What has been added to the state of human knowledge is determining how to display the MMI based on the determined orientation, or the folded/unfolded or extended/unextended status, of the screen. I therefore consider the contribution to be:

Displaying, on the screen of an electronic device, a multitasking management interface (MMI) comprising a plurality of identification cards, each representing a respective application, at least one of the identification cards is a so-called application identification card representing an application that has been activated, and at least one other of the identification cards is a so-called shortcut identification card representing an application that is not running,

¹³ See paragraph 3 of the description.

each of the one or more shortcut identification cards including an operation button which activates a control instruction for its respective application; wherein if the screen is in a landscape orientation, or (in the case of a foldable or rollable screen) the screen is in an unfolded/unrolled configuration, then the MMI is displayed superimposed over the currently displayed content, and otherwise the MMI is displayed in some non-superimposed configuration.

- 18 It is worth noting that I do not consider the contribution to include a method of determining the screen orientation or unfolded/unrolled status. Prior to the priority date of the application, it was well-known for electronic devices such as mobile phones and tablet computers to alter how data is displayed to the user, depending on the orientation of the screen or/and whether the screen is in an unrolled/unfolded state or a non-expanded state. Furthermore, there is no disclosure in the specification of a new method of determining whether a screen is in a landscape orientation, or equivalently an unfolded/unrolled state. As such, the claimed invention appears to rely on entirely conventional methods of determining the screen orientation or unfolded/unrolled status.

Step (3): ask whether it falls solely within the excluded subject matter

Program for a computer

- 19 Claim 1 clearly relates to a program for a computer. However, what I need to decide is whether the contribution is a computer program as such. I will apply the *AT&T/CVON* signposts to help me decide this matter.
- 20 In relation to the first signpost, I agree with the examiner that the method of displaying a MMI comprising identification cards occurs entirely within the electronic device. There is no technical effect on a process outside of a computer. The first signpost is not met.
- 21 Turning now to the second signpost, the contribution essentially relates to a new user interface displayed on an electronic device. It does not affect the operating system or architecture of a computer in a way which affects how application programs are run. The MMI can itself be viewed as an application, albeit one which interacts with other applications. Signpost (ii) does not apply.
- 22 The third signpost requires a technical effect which results in a computer operating in a new way. This signpost requires careful consideration. Although the attorney has not referred to office decision *Motorola Mobility LLC* BL O/0192/24¹⁴, it seems to me that the office decision could potentially be of some relevance to the matter at hand. BL O/0192/24 concerned an electronic device with two different touch sensitive display screens. A user input on one of the touch sensitive display screens resulted in content being switched to that screen from the other screen. In paragraph 34 of the decision, the hearing officer commented that signpost (iii) should be viewed in the context of Lewison J's observation in *AT&T/CVON* that there must be a "new way of operating the computer in a technical sense" which "points towards some generally applicable method of operating a computer rather than a way of handling particular types of information." The hearing officer in BL O/0192/24 concluded that,

¹⁴ [Patent Decision BL O/0192/24](https://www.ipo.gov.uk/pro-types/pro-patent/pro-p-os/o019224.pdf), <https://www.ipo.gov.uk/pro-types/pro-patent/pro-p-os/o019224.pdf>

as the invention related to the mechanism by which displays are switched rather than to being limited to a particular type of information displayed, this pointed towards the contribution meeting signpost (iii).

- 23 In the present invention, how the MMI is displayed depends on the screen status. However, the MMI is a particular type of information. The contribution here relates to the display of an MMI only and there is no element of deliberate user control of general screen content as was the case in BL O/0192/24. I do not regard the current invention as relating to a generally applicable method of displaying information in the same way as the invention of BL O/0192/24 was.
- 24 Furthermore, the invention of the present application provides a new user interface (the MMI) which permits information on active applications and shortcuts for inactive applications to be displayed together on the same screen. This provides a new way of presenting a particular type of information; it does not make the computer operate in a new way. In my view, signpost (iii) does not indicate a technical contribution.
- 25 Regarding signpost (iv), although a user could well consider the user interface of the invention to provide a more efficient interface, in terms of usability, the improvement lies only in how information is presented to the user. There is nothing in the application to suggest the new interface permits the electronic device itself to operate more efficiently and effectively as a computer, as required by the fourth signpost.
- 26 The fifth signpost asks whether a problem has been overcome or simply circumvented. The problem addressed by the invention is how to present to a user information on applications currently running in the background, shortcuts to non-running applications and content from an application currently running in the foreground. The problem addressed by the invention, then, is not a technical problem, but one of presentation of information. The fifth signpost therefore does not apply.
- 27 The signposts do not indicate to me that the contribution is technical. I acknowledge that the signposts are not prescriptive, but I cannot see any other basis for a technical contribution. Claims 1 and 5 relate to a computer program as such.

Presentation of information

- 28 The examiner has also objected that the contribution is nothing more than the presentation of information as such. The examiner referred to *Gemstar*, where it was found that there must be some technical effect beyond the information being presented for the presentation of information exclusion to not apply. In that case, a new user interface was not considered to be a relevant technical effect. The examiner states that the same conclusion should apply here. As should be clear from the above analysis, I have been unable to identify a technical effect beyond the information being presented. Therefore, the contribution is also excluded as the presentation of information as such.

Step (4): if the third step has not covered it, check whether the actual or alleged contribution is actually technical

- 29 As discussed above, when considering step 2 of the *Aerotel* test, I do not accept the attorney's most recent submission that the invention solves the technical problem of how to determine whether the electronic device is in a landscape or unfolded/unrolled state. The most recent attorney's letter also argues that displaying the MMI on currently displayed contents provides an improved user interaction experience. That may well be the case; but it provides an improved method of presenting information rather than an improvement in a technical sense. An earlier communication from the attorney argued that the invention provides the advantage of being able to input a control instruction using an operation button in an application program's identification card, without having to enter the application program. This was said to provide a physical effect which is technical. Clearly though, the operation button does not provide a technical effect outside of a computer. Nor does it operate at the architectural level of the computer or cause the computer to operate in new way or to run more efficiently. The operation button provides an improvement to the software running on the computer or electronic device but does not provide the necessary technical effect.
- 30 Office decision *PAG Financial International LLC*, BL O/1161/23¹⁵ concerned a "dial pad" for an electronic device which displayed an array of icons representing different functionalities of application programs. The dial pad was dynamically adjustable, with icons being selected based on a predication of which functionalities the user was likely to use next. The hearing officer decided that the claimed invention was excluded under Section 1(2)(c) as a program for a computer. The analysis in BL O/1161/23 is consistent with my own reasoning in this decision.

Conclusion

- 31 I have decided that the invention defined in claims 1 and 5 falls solely within matter excluded under section 1(2) as a program for a computer and the presentation of information as such. Having reviewed the application, I do not consider that any saving amendment is possible. I therefore refuse this application under Section 18(3).

Appeal

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

DR ANDREW ROSE

Patent Examination Group Head

¹⁵ [Patent Decision BL O/1161/23](https://www.ipo.gov.uk/pro-types/pro-patent/pro-p-os/o116123.pdf), <https://www.ipo.gov.uk/pro-types/pro-patent/pro-p-os/o116123.pdf>.