Intellectual Property Office

BL O/599/21

12 August 2021

PATENTS ACT 1977

APPLICANT	Sony Interactive Entertainment Inc.
ISSUE	Whether patent application number GB 1702682.4 complies with section 1(2)
HEARING OFFICER	Mr B Micklewright

DECISION

Background

1 Patent application number GB 1702682.4, was filed on 20 February 2017 in the name of Sony Interactive Entertainment Inc. The application was published as GB2559792 A on 22 August 2018.

2 This decision addresses whether the invention claimed in patent application number GB 1702682.4is excluded from patentability under section 1(2)(c) of the Patents Act 1977 ("the Act") as a program for a computer as such. The examiner and the applicant disagreed on this question and the matter was referred to a hearing officer for a decision on the papers.

The Invention

3 The invention relates to launching a game application. Modern video games can be very complex, and provide the user with many options for play, selected via menus presented by a graphical user interface. Such options may include the ability to choose single player or multiplayer modes, and/or to play the original game or downloadable content. On subsequent loads of the game, the menu structure may change so that 'Continue' (as opposed to 'Start') is shown. Furthermore, tutorials may now be demoted within a menu list or added to a sub-list (potentially after the user has reached a key point within the game, or after an elapsed period of play, after which their competency with the game can be assumed). The menu can then be seen as an unnecessary or undesirable step in playing the game, particularly

when the user knows how they want to use the game (for example if they just want to continue their adventure, or play a particular on-line multiplayer game).

4 The present invention aims to provide a better playing experience by speeding up the launch of the game into a playable game state, so that, for example, the player can start the game from where they left off in their previous session.

5 The game application launcher provides a game launch application (GLA) object to an operating system or a helper application (which is used to curate, organise or service the game and hence is not part of the game itself). The GLA object provides data specifying a plurality of modes of operation of the game application. These modes of operation are presented to the user in a user interface and the user selects an option. On receipt of the user's selection, the initial menu of the game application that would normally be presented to the user is bypassed and the game launches directly into the relevant playable game state.

6 The claims as amended on 16 March 2021 comprise 13 claims. Claims 1, 11 and 12 relate to a method, a computer program, and a game application launch system respectively. The claims all include similar features and it is sufficient for the purposes of this decision to consider claim 1, which reads:

> 1. A method of launching a game application, comprising the steps of:
> providing a game application launch object to an operating system or helper application;
> providing data specifying a plurality of modes of operation for the game application in association with the game application launch object;
> providing a user interface in which at least a subset of the plurality of modes of operation are presented to a user when that user performs a predetermined interaction with the game application launch object;
> receiving a user selection indicating a selected mode of operation; and
> launching the game application into a playable game state that is dependent upon the selected mode of operation, in which the game application comprises one or more common components that are common to two or more of the modes of operation, and in which the method comprises the steps of:
> detecting whether the user interacts with the game application launch object; and if so;
> commencing loading the one or more common components of the game application before the user has selected to launch the game.

The Law

7 Section 1(2) of the Act states:

> 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-
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> (a) a discovery, scientific theory or mathematical method;
> (b) a literary, a 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 program for 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.

8 The provisions of Section 1(2) were considered by the Court of Appeal in *Aerotel*[1] when a four-step test was laid down to decide whether a claimed invention is excluded from patent protection:

(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.

9 It was stated by Jacob LJ in *Aerotel* that the test is a re-formulation of and is consistent with the previous "technical effect approach with rider" test established in previous UK case law. Kitchen LJ noted in *HTC v Apple*[2] that the *Aerotel* test is followed in order to address whether the invention makes a technical contribution to the art, with the rider that novel or inventive purely excluded matter does not count as a "technical contribution".

10 Lewison J in *AT&T/CVON*[3] set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. Lewison LJ reformulated the signposts in *HTC v Apple* in light of the decision in *Gemstar*[4]. 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.

Arguments and analysis

11 I will consider each of the *Aerotel* steps in turn in my analysis.

(1) Properly construe the claim

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[1] *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371
[2] *HTC Europe Co Ltd v Apple Inc* [2013] EWCA Civ 451
[3] *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)
[4] *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

12 The method of claim 1 relates to *launching* the game rather than *loading* the game. It would therefore cover embodiments where the entire game is loaded prior to the user interface being provided to the user, although in that case the user interface would operate like any other start menu. For the purposes of this decision I will therefore construe the claim as providing a user interface to the user before all the game elements are loaded. This seems to be the intended meaning based on the description and also on the feature of loading common components before the user has selected to launch the game.

13 The "*game application launch object*" is defined in the description to be in effect a shortcut specifying the game executable location in association with a graphical object, such as an icon, a selectable tile, or the like, displayable to the user. Associated with the game application launch object is data specifying a plurality of modes of operation for the game application which are presented to the user and from which the user can indicate a selected mode of operation.

14 The term "*playable game state*" is not explicitly defined in the description. I take it to be a state where the user can immediately begin playing the game without first having to navigate any initial menus or other initial content of the game application.

(2) Identify the actual contribution

15 Identifying the contribution in the second step of this test is critical and I refer to the following paragraph in *Aerotel* for guidance:

> *"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. The formulation involves looking at substance not form – which is surely what the legislator intended."*

16 The examiner identifies the contribution as:

> *"A method/system for launching a videogame, involving presenting a user selection indicating a plurality of game modes, and launching the videogame into a playable game state that is dependent upon the selected game mode; the method/system resulting in a quicker and more efficient launch of the videogame by reducing the amount of processing time required by only launching a user-specified game mode."*

17 In their letter of 19 May 2020, the applicant's attorney states:

> *"The technical contribution of the presently claimed invention is the provision of improved processing efficiency for launching an application by a processing device. The presently claimed invention achieves this by providing a game application launch object having associated data, where the associated data specifies a plurality of modes of operation for the game application. By interacting with the game application launch object a user can select a mode of operation for the game application using the associated data, and as such the game application can be launched into a playable game state that is dependent upon the selected mode of operation. It will be appreciated that the presently claimed invention advantageously allows a user to select a mode of operation for a game application prior to the launch of the game application. In this way, processing efficiency is improved because the game*

application can be launched directly into a playable game state specified by the user and the processing device is not required to load one or more menus as part of launching the game application. The technical contribution of the present arrangement therefore lies in the provision of more efficient processing for launching an application by a processing device."

18 The applicant's attorney adds the following comments in their letter of 1 December 2020:

> *"The present invention solves a technical problem of "*how to reduce an amount of processing to be performed by providing a user-specified playable game state for a game application*" (note that this problem can be solved by the present invention for any game application). Alternatively, a technical problem solved by the present invention may be formulated as "*how to reduce an amount of time from a user firstly interacting with a game application launch object to the user being provided with a user-specified playable game state*.*
>
> *Regarding the statement in section 13 of the Examination Report, the present invention solves the problem of long load times required to provide a user with a user-specified playable game state by associating data with a game application launch object which specifies a plurality of modes of operation for the game application such that a user can select one of the modes of operation prior to the game application being launched and therefore game assets specific to the selected mode of operation can be identified prior to launching the game application to allow the game application to be launched directly into a playable game state."*

19 In their letter of 20 May 2021 the applicant addresses the amendments made to the claim. In particular they state that the technical problems are also solved by the feature of commencing loading of one or more common components that are common to two or more of the modes of operation before the user has selected to launch the game. This, they argue, clearly contributes to solving the technical problems in question and is consequently of technical character.

20 The description also discloses other principles by which game components could be pre-loaded before the user selects a mode of operation. These include loading components relating to the currently highlighted selection in the user interface, loading components based on the most recent state of play of the game by the user, and loading components relevant to the mode of operation most commonly selected by the user. I note however that claim 1 is not limited to any such features.

21 The application is framed in terms of the problem of long load times for games. On page 1 it is stated: "*However, as a consequence it can now take a long time to load a game, and the user can experience frustration in the time between deciding to play the game, and actually beginning to play*." In addition to the embodiments where game components are pre-loaded, as mentioned above, the application also refers to the need to load a start menu that allows the user to choose how they want to play the claim. According to the description these menus often use the in-game engine which presumably take some time to load, although the problem is not coined as being restricted to such menus. On page 2 lines 20-22 the application states:

> *"Nevertheless, frequently the above menu can be seen as an unnecessary or undesirable step in playing the game, particularly when the user knows how they*

want to use the game (for example if they just want to continue their adventure, or play a particular on-line multiplayer game)."

22 This coins the problems more in terms of inconvenience for the user rather than long load times, although the two problems are of course related. There are therefore advantages in terms of convenience for the user (presumably in terms of having to select fewer options and interact with complex menus). It seems to me that they too should be included in the contribution.

23 I note the attorney's arguments that the present invention relates to how to reduce an amount of processing and/or time by providing a user-specified playable game state. It is not immediately apparent to me that, with the exception the pre-loading of common components, this problem is necessarily solved across the scope of the claim. But given my construction of the claim as providing a user interface to the user before all the game elements are loaded, and particularly given that the claim now includes this feature of loading common components before the user has selected to launch the game, I am prepared to accept that the invention has the advantages suggested by the applicant, namely reduced processing and/or reduced time for the game application to be presented to the user in a playable state.

24 I therefore identify the contribution as:

> A method for launching a game application comprising presenting a user selection indicating a plurality of modes of operation, and launching the game application into a playable game state that is dependent upon the selected game mode, the method also including, upon detecting that the user interacts with the game application launch object, commencing loading of one or more common components (common to two or more modes of operation) of the game application before the user has selected to launch the game, the method reducing the amount of processing time and/or time for the game application to be presented to the user in a playable state, and providing a better experience for the user.

Steps (3) and (4): Ask whether the contribution falls solely within the excluded subject matter; check it is actually technical in nature.

25 The Court of Appeal in *Symbian*[5] ruled that the question of whether the invention makes a technical contribution must be addressed when considering the computer program exclusion, although it does not matter whether that takes place at step 3 or step 4.

26 For computer-implemented inventions the *AT&T/Cvon* signposts provide helpful pointers in determining whether such inventions make a technical contribution. The attorney's responses to the examination reports emphasise that the fifth signpost is most pertinent to the present invention and assessment of technical contribution. I will however briefly consider all the signposts in turn for completeness. It is helpful to note the attorney's statement that the *"technical effect of being more efficient*

[5] *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1

launching of a game application by a processing device is achieved by the present invention for any game application".

Signpost i) Whether the claimed technical effect has a technical effect on a process which is carried on outside the computer.

27 This first signpost is based around the *Vicom* decision[6] from which paragraph [37] is a helpful guide in assessing the technical contribution outside of the computer:

> *"37. The right starting point is the decision of the Board in VICOM SYSTEMS INC/Computer-related invention T0208/84, [1987] O.J. E.P.O. 14, [1987] 2 E.P.O.R. 74. At [12], the Board said that:*
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> > *"a claim directed to a technical process which process is carried out under the control of a program (… in hardware or in software) cannot be regarded as relating to a computer program as such …, as it is the application of the program for determining the sequence of steps in the process for which in effect protection is sought."*

28 The contribution identified relates to launching a game application into a playable state based on a user selection and commencing loading of one or more common components of the game application before the user has selected to launch the game. These relate entirely to the way a game application is loaded and launched within the computer. There is no effect on a process outside the computer, nor control of a technical process outside of the computer.

Signpost 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.

29 Although, as the applicant's attorney points out, the invention can be applied to any game application, there is no suggestion that the technical effect operates at the architecture level. Rather the technical effect operates at the application level. The game application launch object is dependent on information being processed, that is the game application with which it is associated. The application launch object, which can present a plurality of modes for the user to select from, specifically relates to the game application. Thus, the second signpost is not satisfied.

Signpost iii) Whether the claimed technical effect results in the computer being made to operate in a new way;

and

Signpost iv) Whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer.

30 The attorney states that the technical contribution is a *"…provision of improved processing efficiency for launching an application by a processing device…",* and further states that the, *"…present invention provides a method and system that advantageously reduces an amount of processing and an amount of time for*

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[6] VICOM SYSTEMS INC/Computer-related invention T0208/84, [1987] O.J. E.P.O. 14, [1987] 2 E.P.O.R. 74.

performing the task of providing a user-specified playable game state for a game application…"

31 The contribution may be a faster, more efficient way to launch a game application into a playable state, based on a user's selection, but this is achieved by the way the application launch object launches the game application. The computer itself does not operate faster or more efficiently. Although the contribution could result in a game application being presented to a user in a playable state more quickly and/or with less processing required, these are not general improvements to the way the computer works but rather relate to the way the specific game application launches.

Signpost v) Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

32 The final signpost looks at the problem being solved by the invention and establishes whether the problem has been solved or circumvented. I see the problem to be addressed as being *"Reducing the time or processing required to launch a game application into a playable game state.* This appears to be consistent with the attorney who sets out the problem as *"How to reduce an amount of processing performed for providing a user-specified playable game state for a game application"* or, alternatively phrased, *"How to reduce an amount of time from a user firstly interacting with a game application launch object to the user being provided with a user-specified playable game state."*

33 The attorney suggests that the identified problem is solved rather than being circumvented using conventional techniques. It is solved by *"…associating data with a game application launch object, where the data specifies a plurality of modes of operation for the game application...".* This further differs from conventional techniques in that, *"…the data that is to be processed by the processing device when launching the game application is different to compared the data that would typically be processed…in the same way every time to provide a start menu from which a user can make a selection…".* This argument is based on a statement in paragraph 1.38.5 the Manual of Patent Practice[7] which makes reference to a comment in the Court of Appeal decision in *Lantana*[8] where Kitchen LJ said "*[o]verall, the invention avoids the problem...but it does so by using a conventional technique [... i]n other words it does not solve those problems but circumvents them."*

34 The examiner referred to *Apple Inc's Application*[9], an earlier Office decision, where the hearing officer considered that the problem of bandwidth limitations in transmitting data across a network was circumvented rather than solved by reducing the amount of data transmitted, there being no change to the way the data was transmitted, merely the volume. The applicant argues that the facts of that case are different, and it relates to a different technical field. Thus, the common general knowledge is therefore different and what is considered conventional in one technical field is clearly not the same for another technical field. They also submit that the problem in *Apple* is not analogous to the problem in the present case and the

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[7] The Manual of Patent Practice is available at https://www.gov.uk/guidance/manual-of-patent-practice-mopp

[8] *Lantana v Comptroller-General of Patents* [2014] EWCA Civ 1463

[9] *Apple Inc's Application* (BL O/244/13)

conclusion reached in *Apple* does not mean that solution in the present case must also be considered a circumvention of the identified problem.

35 I agree with the applicant in that I must be careful in drawing too many analogies between previous cases and the application in question. Each case must be considered on its own facts, as the courts have made clear. I do however note that, in *Apple*, the hearing officer said that tackling the problem of insufficient capacity or bandwidth by sending less data is not the same as increasing the capacity or bandwidth of the network.

36 It is clear from the disclosure that standard hardware is used. The present invention uses a conventional computer system operating new software. In the present case, the amount of processing and/or the amount of time to launch the game application to a playable state is not solved by any technical improvements to the computer. The computer continues to load programs in the same way in terms of how the operating system and the interactions between processors, memory, and the like take place. In that sense the loading of the game application is conventional. Instead the problem is solved by adding in a user interface and asking a user to select a mode of operation, following which the game is launched into a playable game state. This potentially makes it possible to not require the loading of certain menu elements in the game application itself, and also allows common components to be loaded before the user makes their selection. This is not a technical solution but rather the technical problem has been circumvented by providing options to a user in the game application launcher. Thus, the problem has been circumvented rather than solved in any technical sense, in providing a user interface before certain common components are loaded so that they may be loaded in the background whilst the user makes a selection. As I have identified in the contribution, the problem to be solved also includes providing a better experience to the user which also is not solved in any technical sense but rather by providing the user with selectable game mode options at an earlier stage in the process of launching the game to a playable state. Therefore, the fifth signpost does not indicate that the program provides a technical contribution.

37 Having considered all the signposts, none of them point to the contribution as making a technical contribution. Taking a step back and looking at the contribution as a whole, I find that it relates wholly to improvements in software, namely in the way the game application launch object launches the game to a playable state based on a selection from a user, the loading of common components being commenced before the user makes their selection. This is not a technical contribution but falls entirely in the excluded field of a program for a computer as such.

Conclusion

38 In conclusion, I have found that the claimed invention lies solely in the excluded field of a program for a computer as such and therefore the application does not comply with the requirements of sections 1(1)(d) and 1(2) of the Act. I therefore refuse the application under Section 18(3).

Appeal

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

B Micklewright

Deputy Director, acting for the Comptroller