



PATENTS ACT 1977

APPLICANT	QCIC Ltd
ISSUE	Whether patent application GB1903870.2 complies with sections 1(2) & 76(2) of the Patents Act 1977
HEARING OFFICER	Ben Buchanan

DECISION

Background

- 1 This decision relates to the issue of whether the application, GB1903870.2, meets the requirements of sections 1(2) and 76(2) of the Patents Act 1977 (“the Act”).
- 2 The application derives from a PCT application published as WO2018/069712 which was filed on 12 October 2017 claiming priority dating to 12 October 2016. This entered the GB national phase on 21 March 2019 with amended claims. Three examination reports were issued but no further amendments to the claims were filed. The Examiner and the Applicant have been unable to reach agreement in regards to the patentability of the claimed invention. Consequently, a hearing was held on 5 October 2020. David Harris represented the Applicant. Also present were Jason Scott (my hearing assistant) and the Examiner Matthew Philpott. The claims filed 21 March 2019 are those under consideration and the issues to be decided are added matter and excluded subject matter as set out in the Examiner’s pre-hearing letter dated 10 August 2020.

Subject matter

- 3 The claimed invention relates to a method of identifying and programming devices to be installed in an environment such as a building and a system for doing the same.
- 4 Two independent claims exist. The first (claim 1) defines a method of programming devices based on stored configuration and programming data and the second (claim 22) is a system which implements said method. The claims in question read:

Claim 1:

“A computer implemented method of identifying and programming one or more devices to be installed in an environment, the one or more devices being programmable by an installation system, the method comprising the steps of:

receiving an image file representative of the environment in which the devices are to be installed, said image file comprising one or more indicia representative of a category of device to be installed in the environment, said indicia comprising one or more icons with a category specific shape or look and data representative of the requirements of the category of device;

parsing the image file to identify the category of device, requirements and location of the device represented by each of the one or more indicia;

receiving a user defined data set, said user defined data set defining one or more installable devices belonging to one or more categories of installable devices, including properties, configuration data and programming data associated with the one or more installable devices;

for some or all of the one or more indicia present on the image file, querying the category of device, requirements and location indicated by the indicia against the user defined data set to identify an installable device and properties, configuration data and programming data associated with the identified installable device from the user defined data set that complies with the category of device, requirements and location indicated by the indicia, ;

writing the properties, programming data and configuration data associated with the identified installable device to a configuration data file in a format readable by the installation system; and

programming the installation system with the configuration data and programming data associated with the identified installable device in the configuration data file.”

Claim 22:

“A system configured to identify and program one or more devices in an environment, the one or more devices being programmable by an installation system, the system comprising a process configured to perform the steps of:

receiving an image file representative of the environment in which the devices are to be installed, said image file comprising one or more indicia representative of a category of device to be installed in the environment, said indicia comprising one or more icons with a category specific shape or look and data representative of the requirements of the category of device;

parsing the image file to identify the category of device, requirements and location of the device represented by each of the one or more indicia;

receiving a user defined data set, said user defined data set defining one or more installable devices belonging to one or more categories of installable devices, including properties, configuration data and programming data associated with the one or more installable devices;

for some or all of the one or more indicia present on the image file, querying the category of device, requirements and location indicated by the indicia against

the user defined data set to identify an installable device and properties, configuration data and programming data associated with the identified installable device from the user defined data set that complies with the category of device, requirements and location indicated by the indicia;

writing the properties, programming data and configuration data associated with the identified installable device to a configuration data file in a format readable by the installation system, and

programming the installation system with the configuration data and programming data associated with the identified installable device in the configuration data file.”

- 5 The system of claim 22 is defined in terms of performing the method previously defined in claim 1. Both claims will therefore stand or fall on similar reasoning; the following analysis applies to both the method and system claims equally.

The law

- 6 The relevant law is defined in sections 1(2)(c), and 76(2) of the Act and can be viewed online at the IPO's website:

The Act: <https://www.gov.uk/guidance/the-patent-act-1977>

- 7 The Manual of Patent Practice 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's website: <https://www.gov.uk/guidance/manual-of-patent-practice-mopp>

- 8 In particular, sections 1.35-1.39.3 are helpful, which relate to computer programs, and sections 76.04-76.09 which deal with whether an amendment adds matter.

- 9 There is no dispute concerning the relevant law and its application to the facts of this case. It is agreed that the approach to assessing excluded matter should follow that set out in *Aerotel*¹ and *Macrossan*² (the *Aerotel/Macrossan* test):

- 10 The test comprises four steps, which are as follows:

- (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.

¹ *Aerotel Ltd v Telco Holdings Ltd & Ors* Rev 1 [2007] RPC 7

² *Macrossan's Patent Application* [2006] EWHC 705 (Ch)

- 11 Guidance on what might provide technical character is to be found in signposts summarised in the *AT&T*³ and *HTC*⁴ judgments. 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.

Argument and analysis

Added matter

- 12 Of the two issues to be decided, I think it useful to deal with the added subject matter first in case it has a material bearing on the excluded matter issue. Although the Examiner set out his objection in the pre-hearing report of 10 August 2020, I asked him to restate it during the hearing. The relevant portion of the independent claims read, as originally filed:

...a user defined data set, said user defined data set defining one or more behaviours, or properties, associated with one or more categories of devices...

and was amended thus:

...a user defined data set, said user defined data set defining one or more installable devices belonging to one or more categories of installable devices, including properties, configuration data and programming data associated with one or more categories of devices...

- 13 In the view of the Examiner, the “user defined data set” in the as-filed application does not support interpretation as defining the installable devices nor the specified associated properties and data as it is not synonymous with the “pre-populated dataset” in the description.
- 14 During the hearing, Mr Harris pointed towards paragraph [17] of the description which discusses the user defined data sets in terms of data defining properties of the installable devices. From this he asserted that it is inherent that the user defined data sets are related to the installable devices mentioned and the skilled person would

³ *AT&T Knowledge Ventures/Cvon Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁴ *HTC v Apple* [2013] EWCA Civ 451

realise that the data sets must define the installable devices as part of defining the stated parameters associated with them. He further referred to paragraphs [45] onwards and [123] onwards. While acknowledging that the terminology wasn't the same, Mr Harris contended that the skilled person would understand the terms to support those used in the amended claim.

- 15 The task for me is to compare the specification as amended with the specification as filed and decide whether I have learned anything new about the disclosure.
- 16 In doing so I agree with Mr Harris. The skilled person, after reading the original specification and considering how it would be enacted in practice, would indeed learn nothing new from the amended claims because they would readily appreciate that the user defined data was associated with the indicia which themselves were representative of the installable devices. The associated configuration data and programming data is referenced in the description (particularly in paragraphs [15]-[17]) and would support no other interpretation. The disclosure is therefore not extended and there is no added matter.
- 17 As a final word, I asked Mr Harris if he thought the issue of the amended wording in question impinged on the subject of excluded matter. He considered that it did not. Mr Harris commented that he would be happy to return to the original wording, should this make a difference. This concurred with my view that the nature of the user defined data sets does not add matter and is therefore not relevant to the consideration of excluded matter.
- 18 I find that the application complies with section 76(2) of the Act.

Excluded matter

- 19 The starting point for my analysis is that the invention is implemented by means of a computer program. This is not in dispute, and so in order to be patentable, the claimed invention must provide a technical contribution.
- 20 As noted earlier, this assessment must follow the reasoning espoused in the *Aerotel* and *Macrossan* judgments.

(1) Construe the claims

- 21 There appears to have been little argument over how to construe the claims. The Examiner believes the claims to be clear and Mr Harris has not suggested otherwise. I mostly agree, but I think it is worth making one point explicit. I asked Mr Harris if the devices are intended to cover both devices for physical access (such as doors) and also devices for network access (as referred in the description). He confirmed that was the intention and I agree that the term should be construed broadly to cover all such devices.

(2) Identify the actual contribution

- 22 The Examiner has assessed the contribution to be: "the automatic identification and programming of devices that are installed within an environment, which is a process which would otherwise be required to be performed manually." In support of his

argument the Examiner referred to hearing decision BL O/277/09⁵ which concerned generating a script for process control and was found to be excluded. The contribution there was found to be “a script generated automatically in response to inputs on a graphical interface, in order to carry out the same safety function as would previously have been carried out had the script been generated manually”; the Examiner drew a strong analogy with his assessment of the contribution in the present case.

- 23 Mr Harris summed up the contribution thus: the system receives an image file which already contains indicia relating to access points. The computer then parses the image file, identifies how to program identified devices and programs them. He stressed that the contribution should recognise that the image file has predefined indicia unlike those of the prior art which have to have manual intervention to apply the indicia to the image file and the computer (as opposed to an operator) is then able to analyse the pre-defined indicia and effect programming in response to that analysis.
- 24 I acknowledge Mr Harris’s point regarding the nature of the image file as significant to the contribution. Indeed, Mr Harris pointed specifically to the importance of the image file being preloaded with the indicia which provides an advantage of the present invention, by saving the user from having to onerously add the relevant information with potential for user-introduced errors. Furthermore, since the drawing is preloaded with the indicia it is possible for the drawing to serve a dual-purpose both for builders to format the physical environment and also for the method and system of the invention to subsequently program the installed devices. While this could be one advantage arising from it, I do not consider a dual-purpose drawing is an essential feature of the contribution itself. Nevertheless, I do recognise that the preloaded indicia and automatic parsing thereof are part of the contribution.
- 25 In Mr Harris’s view, the contribution should be distinguished from the analogy with BL O/277/09. In that case the suggested script was only generated after user input. In the present case the computer parses the image file, accesses information from the user defined data set and produces programming instructions without the need for human interaction. That such an advantage forms part of the contribution underpins one strand of Mr Harris’s argument that the invention is technical.
- 26 However, I do not agree that the contribution extends to the actual programming step. Mr Harris did seek to persuade me that this operation was more accurate because manual methods could lead to human error. It seems to me the same risk arises but is displaced to the creation of the user defined data set and the previous provision of the indicia in the image, both of which require human interaction. The installed devices are not programmed in a new way and the devices themselves are conventional. Hence, I do not consider them or their programming to be part of the contribution. I should add that because it is a decision of the Comptroller, I am not bound by BL O/277/09, but this reasoning is consistent with it.
- 27 I therefore identify the contribution to be: *Receiving an image file which contains predefined indicia identifying devices to be installed at access points in an environment, at a computer; parsing the image file to identify device characteristics;*

⁵ Fisher Rosemount Systems’ Application BL O/277/09

querying a user defined data set to identify information relating to the characteristics to obtain configuration and programming information for the device(s) and preparing instructions for an installation system to program the device(s).

28 This extends a little beyond the Examiner's contention that this is mere automation of the previous practice. I also note that the contribution is the same irrespective of the amended form of claim filed on entry to the national phase.

(3) & (4) Whether it falls solely within the excluded subject matter, and check whether the actual or alleged contribution is technical in nature

29 The Examiner believes this to lie solely within subject matter excluded as a program for a computer. During the hearing, Mr Harris relied on the proposition that the contribution as a whole is technical in character and therefore is not a computer program as such.

30 In the Examiner's view, the contribution is automation of previous practice and therefore not technical despite admitting that the devices which are intended to be programmed do indeed have a technical nature.

31 Again, Mr Harris disagreed. His argument was that he considers technical character to derive from either of two different parts of the contribution, and either (or both) of these arguments being valid would take the invention outside the computer program exclusion.

32 Firstly, Mr Harris argued that the devices to be programmed are technical in nature, and the contribution includes having an effect on them. Referencing *AT&T* signpost (i) would therefore suggest that the effect is technical. Since I have found that the devices to be programmed do not form part of the contribution, then they do not lend this technicality to the contribution. The devices are configured and programmed merely as a consequence of the contribution rather than being part of the contribution *per se*. In other words, they do not benefit from the contribution, nor confer benefit upon it. The contribution is to the provision of programming instructions. The devices are subsequently programmed and operate as normal. This does not provide the required technical character to the invention.

33 Secondly, Mr Harris relied on the contribution providing a predefined image file comprising the indicia. He argued that parsing this to extract the information in itself provides a technical character to the invention. I queried whether he was directly arguing that image processing, which is generally understood to be a technical process, forms part of the invention. In response, Mr Harris provided the subtlety that he was not asserting the invention to be image processing *per se*, but there was a step akin to image processing and as such it was also technical. The fact that it removed a step of human interaction was claimed as supporting evidence for this.

34 I would draw an important distinction. For image processing to be technical, there must be a resulting technical change in the image itself or an improvement in how the image is processed. Here the interaction with the image is merely parsing for information, in a conventional manner. There is no claim that the parsing itself is improved; the claimed improvement comes in what happens next.

- 35 Mr Harris noted that by automating the process it was less prone to errors and was faster, although in asserting this improvement he stated that he wasn't trying to argue for a better computer by reference to signposts (ii)-(iv) of *AT&T*. Signposts (ii)-(iv) indeed are not met; the process does not change the architectural operation of the computer nor make it operate in a new way, faster or more accurate as a computer. As noted above, any improved accuracy is not considered relevant as the scope for human error is merely displaced. Likewise the increased speed, which only accrues as an expected automation of any process.
- 36 With that in mind, I do not accept either of Mr Harris's lines of reasoning. The contribution falls solely into the excluded field of a program for a computer. The *AT&T* signposts contraindicate any technical effect and the contribution is not technical in nature.
- 37 Having carefully considered the arguments before me I find that the claimed invention relates to a program for a computer as such. The application therefore fails to meet the requirements of section 1(2) of the Act.

Conclusion

- 38 This application is refused under section 18 of the Act.

Appeal

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

Ben Buchanan

Deputy Director, acting for the Comptroller