



PATENTS ACT 1977

APPLICANT Fisher-Rosemount Systems, Inc

ISSUE Whether patent application GB 2210837.7 is excluded under section 1(2) of the Patents Act 1977

HEARING OFFICER Peter Mason

DECISION

- 1 This decision concerns application GB 2210837.7 (the Application). The Application is entitled “Help system for a portable industrial device” and the decision concerns whether the invention, as defined in the claims, is excluded from patentability under Section 1(2)(c) of the Patents Act 1977.
- 2 The Application is divided from GB 1710265.8 (the Parent), published as GB 2552421 A 24th January 2018 and granted 2nd November 2022, having the same title as the Application. The applicant and examiner reached an early impasse, and an offer of a hearing was accepted with the applicant’s correspondence dated 23rd September 2022.
- 3 The applicant has provided skeleton arguments, for which I am grateful, as well as an amended claim set and description. The hearing took place 16th November 2022 where the applicant was represented by Mr Russell Sessford of Forresters and was accompanied by Tom Heath.

Preliminary matters

- 4 The only substantive matter before me is whether the invention is excluded from patentability under Section 1(2)(c). At this time the search is up to date for both s.2(2) and s.2(3) art and therefore, if I find that the claimed invention is not excluded under Section 1(2)(c), I will return the application to the examiner to begin preparations for grant.
- 5 The extended compliance period is 26th December 2022.

The invention

- 6 The invention relates to a portable device used for communicating with a field device (i.e. sensors, valves, transmitters, positioners, etc.) of an industrial plant. It is

common that such devices operate over distinct communication protocols which typically require a plant technician to carry several portable handheld devices in order to interact with each field device arranged within the industrial plant.

- 7 The Application provides a solution wherein a single portable device may be used to communicate with distinct field devices in order to perform a particular functional tasks. This cross-device functionality is achieved by providing a number of swappable functional modules which are specific to each field device; the functional module is releasably connected, or plugged in, to the portable device. Therefore a single portable device is required, albeit with distinct swappable functional modules, rather than a plurality of separate portable devices.
- 8 The claims had not been amended prior to the offer of, and acceptance, of a hearing. However, during the hearing, the applicant requested that the hearing proceed in regard to the claims filed with the skeleton arguments dated 8th November 2022. I have considered the claims as originally filed, and those provided with the skeleton arguments and, whilst these claims may marginally differ in precise wording, they amount to the same thing. Claims 1 reads;

1. An industrial portable device, comprising: a functional module configured to operatively couple to and interact with a field device of an industrial plant, wherein the functional module is configured to releasably and operatively mount or plug-in to the industrial portable device, such that the functional module is swappable with another functional module; a processor configured to control the functional module; an electronic display driven by the processor and configured to display information relative to the functional module to a user; a control application implemented by the processor and configured to control the functionality of the functional module; and a help application implemented by the processor and configured to display content to the user on the display about how to use the functional module, wherein the control application is configured to provide information regarding the identity of the field device to the help application, and wherein the displaying of the content by the help application is caused by the information provided to the help application from the control application, the content is based on the information provided to the help application from the control application, and the content includes one or more instructions for using the functional module to take a defined step to alter a configuration or other control parameter used by the field device, or wherein the content includes one or more instructions to remove or replace the field device.

It may additionally be helpful to consider the main claim of the granted Parent, which is replicated below. I have emphasised where the claims of the Application diverge from those of the granted Parent.

1. An industrial portable device, comprising: a functional module configured to operatively couple to and interact with a field device of an industrial plant, wherein the functional module is configured to releasably and operatively mount or plug-in to the industrial portable device, such that the functional module is swappable with another functional module; a processor configured to control the functional module; an electronic display driven by the computer control system and configured to display information relative to the functional

module to a user; a control application implemented by the processor and configured to control the functionality of the functional module; and a help application implemented by the processor and configured to display content to the user on the display about how to use the functional module, wherein the control application is configured to provide information regarding the operation of the field device to the help application, and wherein the displaying of the content by the help application is caused by the information provided to the help application from the control application, the content is based on the information provided to the help application from the control application, and the content includes one or more instructions for using the functional module to take a defined step to alter a configuration or other control parameter used by the field device, or wherein the content includes one or more instructions to remove or replace the field device.

The law

- 9 The examiner raised an objection under Section 1(2) of the Act that the invention is not patentable because it relates to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown with added emphasis below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of

(a)

(b)

(c) a scheme, rule, or method for performing a mental act, playing a game or doing business, or a program for a computer;

(d)

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.

- 10 The assessment of patentability under Section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*¹, as further interpreted by the Court of Appeal in *Symbian*². In *Aerotel*, the court reviewed the case law on the interpretation of Section 1(2) and set out a four-step test to decide whether a claimed invention is patentable:

(1) Properly construe the claim;

(2) identify the actual contribution;

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

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7

² *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1

(4) check whether the actual or alleged contribution is actually technical in nature.

- 11 The Court of Appeal in *Symbian* made it clear the four-step test in *Aerotel* was not intended to be a new departure in domestic law; it was confirmed that the test is consistent with the previous requirement set out in case law that the invention must provide a “*technical contribution*”. Paragraph 46 of *Aerotel* states that applying the fourth step of the test may not be necessary because the third step should have covered the question of whether the contribution is technical in nature. It was further confirmed in *Symbian* that the question of whether the invention makes a technical contribution can take place at step 3 or step 4.
- 12 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*³ which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*, Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. The revised 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 make the computer a better computer in the sense of running more efficiently and effectively as a computer; and*
 - v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*
- 13 The relevance of the legislation and legal precedent has gone uncontested throughout the proceedings.

Applying the *Aerotel* test

Step 1 - Properly construe the claim

- 14 The examiner has not raised any issue with how the claim ought to be construed. Furthermore, the applicants’ skeleton arguments acknowledge that there does not appear to be any difficulty in construing the claim.
- 15 I have not been able to identify any particular ambiguity in the plain language used in the claim and as there is no contention over how the claim ought to be construed I see no reason to labour this point.

³ *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat), paragraph 8.

Step 2 – Identify the actual or alleged contribution

- 16 In paragraphs 43 and 44 of *Aerotel*, Jacob LJ outlined some factors to consider when identifying the contribution made by the claims:

*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.*

- 17 Paragraph 43 of *Aerotel* suggests that the contribution can be assessed from the point of view of the problem to be solved, how the invention works and what the advantages are, stating “*What has the inventor really added to human knowledge perhaps sums up the exercise*”. Knowledge of the prior art plays a role in assessing the contribution, and as Lewison J noted⁴, the examiner should have some notion of the state of the art. This does not necessarily mean however that the contribution is defined by what is new and inventive in the claim. That said, proper consideration of the prior art has been shown to assist in establishing the contribution with regard to what is deemed common general knowledge or conventional.

- 18 The examiner identifies the contribution as being;

A portable device with a swappable functional module that can connect to a field device and a help application that is configured to: provide an identity of the field device to the help application and display, based on the received identity, an instruction on how to remove the field device or use the field device.

The examiner goes on to contend that the invention “...overcomes the problem of handheld maintenance tools and field devices in a process plant being over specialised and requiring remote printed or online manuals to operate, due in part to the complexity of process control systems which can contain large amounts of different field devices.”

- 19 The applicant, in their skeleton arguments and during the hearing, relied on the premise that the nearest prior art found with respect to the Parent, namely WO 2012/016004, could not be used as a basis for a novelty or inventive step attack against the physical, or hardware, features of the parent. These hardware features are additionally recited in the Application. In particular, the applicant asserts that the contribution ought to include; a swappable physical functional module, and either a help application which displays information about how to use a functional module based on the connected field device, or a help application which displays instructions to remove or replace the connected field device.

⁴ AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat), paragraph 8.

- 20 On the face of it, based on the statements of the actual contribution from both the examiner and the applicant, there appears to be some agreement that the contribution goes beyond a computer programme to additionally include a portable device having a swappable functional module. However, the examiner goes on to state that the identified contribution relates solely to a computer programme before considering the AT&T signpost . Therefore, despite their assessment it seems that the examiner does not intend the hardware to form part of the contribution.
- 21 It is well established that the provisions of section 1(2) cannot be circumvented by simply running a computer programme or some otherwise excluded computer implemented invention on conventional computing hardware. Therefore before I continue with the four-step test I must first establish whether or not the hardware, and more specifically the 'portable device with a swappable functional module that can connect to a field device', forms part of the contribution. If the hardware is merely a conventional computer then the contribution relates to a computer implemented invention and therefore it would be appropriate for me to consider the AT&T signposts. Otherwise the hardware inevitably forms part of the contribution and, clearly, the invention would not fall solely within the excluded subject matter.
- 22 The examiner has not cited any prior art indicating that the hardware recited in the claim is conventional or otherwise known or obvious. Furthermore, when considering the claims of both the Parent and the Application I note that they only diverge with respect to the content of the field device information provided to the help application from the control application. The claimed hardware in each of the Parent and the Application are identical therefore in the absence of any prior art cited against the Application it is appropriate to consider the prior art pertinent to the Parent.
- 23 WO 2012/016004 A1 was initially cited against the Parent but successfully negated in light of additional hardware features being commuted into the main claim; these additional hardware features are present in the Application. It is clear to me, as it is the hardware component of the claim that was used to teach away from the prior art, that it is this hardware component that is novel and non-obvious. In light of this I am able to conclude that the hardware is neither common general knowledge nor conventional. Notwithstanding the examiners consideration of WO 2012/016004 A1, in the absence of any indication to the contrary, I am unable to conclude that the hardware present in the claim is conventional. It follows that the hardware must form part of the contribution.

Steps 3 Ask whether it falls solely within the excluded matter

- 24 I am in agreement with the examiner, in their formal statement, and the applicant; the contribution includes the relevant hardware on which any computer programme is ran. Therefore the contribution does not fall solely within the excluded matter. It is not necessary for me to consider the fourth step.

Conclusion

I find that the invention in GB 2210837.7 is not excluded by section 1(2). As there are no issues outstanding I will return the application to the examiner to begin preparations for grant.

Appeal

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

Peter Mason

Deputy Director, acting for the Comptroller