Intellectual Property Office

BL O/370/19

02 July 2019

PATENTS ACT 1977

APPLICANT	Eurotherm Ltd
ISSUE	Whether Patent application GB1518601.8 complies with Section 1(2)
HEARING OFFICER	Mrs S E Chalmers

DECISION

1 Patent application number GB 1518601.8 was filed on 20 October 2015 claiming a priority date of 30 October 2014 from an earlier UK application. It was published as GB 2541037 on 8 February 2017.

2 The combined search and examination report, dated 13 April 2016, reported under Section 17(5)(b) that search would serve no useful purpose and that the claimed invention was excluded from patentability as a business method and computer program as such. Several rounds of amendment and re-examination followed with the examiner maintaining that the invention was excluded throughout. A hearing was offered in the examination report of 11 September 2018 highlighting that if the agent responded but did not request a hearing then the application may, nonetheless, be passed for a decision on the papers on file. The agent responded on 8 February 2019 with further amendments and arguments, but these didn't convince the examiner and the case was passed to me for a hearing on the papers. A letter, setting out the issue upon which the hearing was to be held, was sent further on 10 April 2019 and response received on 15 May 2019. I confirm in reaching my decision that I have considered all the correspondence on file.

3 It is noted that the question as to whether the application relates to excluded matter is the only issue that has been examined to date and the only matter to be decided. Consequently, if I find in favour of the applicant I will need to remit the application back to the examiner for further consideration.

The Invention

4 The application is entitled "Equipment calibration" and relates to a method and apparatus for the calibration of equipment (such as instrument(s) that provide a visual display and/or sense pressure or temperature sensors), particularly the substantially paperless provision of calibration certificates. Conventional methods of providing calibration certificates employ a service engineer to periodically visit an installation, conduct calibration checks and later provide paper calibration

certificates. The service engineer compares the collected data with pre-established data relating to appropriate measurement and tolerances for the inspected instrumentation. If the checks identify an error or fault, then the service engineer must alert the operator of the equipment to the need for remedial action and re-inspection; there is said to be a risk of human error resulting in a failure to provide such an alert and the process is slow.

5 To solve this problem the application proposes a calibration system including a portable field operable communication device, such as a tablet, PDA or laptop computer, and a remote information management device which communicate wirelessly. A data store is provided, preferably on the management device as an SQL-server database, which includes data such as the identity of instruments to be calibrated, the frequency with which each instrument is to be calibrated and/or tolerance limits for compliant instrument readings. The management device transmits calibration requests to the portable device and generates calibration certificates or error reports after receipt of input data from the portable device.

6 The system also includes software to verify the integrity of inputted data and, if the integrity of said inputted data has not been verified, may provide an alert message and require the re-entry of data. A pre-calibrated measuring device is also provided for exposure, in use, to conditions the same as the conditions, such as temperature or pressure, to which the instrument is exposed. The system requires sequential input to the portable device of information from the instrument and from the pre-calibrated measuring device.

The claims

7 The current claim set includes two independent claims numbered 1 and 16 relating to apparatus and method respectively. In the absence of any arguments to the contrary, I shall assume these claims stand or fall together. Claim 1 reads:

> *1. Apparatus operable as a calibration system for calibration of instrumentation and provision of calibration certificates, said system comprising: -*
>
> *a portable field operable communication device and a remote information management device in wireless communication with the portable field operable communication device;*
>
> *wherein at least one of said management device and portable communication device comprises a data store comprising at least one of the identity of each instrument to be calibrated, the frequency with which each instrument is to be calibrated and tolerance limits for compliant instrument readings;*
>
> *said management device being operable to transmit calibration requests to the portable device;*
>
> *said portable device comprising a display and an input, said display being operable to display information from the management device and to display the identity of an instrument to be calibrated,*
>
> *said input of the portable device being operable for input of data from an instrument the subject of calibration;*

said management device further being operable to facilitate generation of a calibration certificate or error report subsequent to receipt of input data from the portable device;

wherein the apparatus comprises software which employs an algorithm to verify the integrity of inputted data, and wherein the apparatus is adapted to require the re-entry of data is required in the event that the integrity of said inputted data has not been verified, the apparatus further comprising a pre-calibrated measuring device for exposure, in use, to conditions the same as the conditions to which the instrument the subject of calibration is exposed, and the calibration system being adapted to require sequential inputting to the portable device of information from the instrument the subject of calibration and information from the pre-calibrated measuring device.

The law

8 The section of the Act concerning inventions excluded from patentability is Section 1(2), which reads:

> *"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)...*
> *(b)...*
> *(c) a scheme, rule or method for … doing business or a program for a computer;*
> *(d)...*
> *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."*

9 The Court of Appeal has said that the issue of whether an invention relates to subject matter excluded by Section 1(2) must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*[1] set out the following four-step approach to help decide the issue:

> *1) Properly construe the claim;*
> *2) Identify the actual (or alleged) 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.*

10 The operation of the approach is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is an exercise in judgment involving the problem said to be solved, how the invention works and what its advantages are; essentially, what it is the inventor has really added to human

[1] Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application [2006] EWCA Civ 1371

knowledge, looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.

11 In Symbian[2] the Court of Appeal reaffirmed the Aerotel approach while considering a question of "technical contribution" as it related to computer programs emphasising the need to look at the practical reality of what the program achieved, and to ask whether there was something more than just a "better program".

12 The case law on computer implemented inventions was 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[4], Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. 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 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 reports on file also refer to *Halliburton Energy Services*[5]*, Lantana*[6] and the Hearing Officer's decision in *United Parcel Service of America Inc*[7].

Application of the Aerotel approach

Step 1: Properly construe the claim

14 In their report of 11 September 2018 and letter of 11 April 2019 the examiner raises concerns that elements of amended claim 1 are unclear and may add matter. The agent's responses have not addressed or commented on these concerns. I have not considered whether those elements of claim 1 are unclear or add matter as they do not bear on the issue for my decision; if I find in favour of the applicant and remit the case to the examiner, further consideration of these points will be required.

15 Claim 1 relates to:

> *A calibration system comprising a pre-calibrated measuring device, a portable device and a remote information management device in wireless*

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[2] Symbian Ltd's Application [2009] RPC 1
[3] AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents [2009] EWHC 343
[4] HTC v Apple [2013] EWCA Civ 451
[5] Halliburton Energy Services [2011] EWHC 2508
[6] Lantana Ltd [2014] EWCA Civ 1463
[7] BL O/340/07

communication with the portable device wherein at least one of the portable device and remote information management device includes a data store comprising data for use as part of a calibration process; the management device is configured to transmit calibration requests to the portable device and generate a calibration certificate or error report following receipt of input data from the portable device; the portable device displays information from the management device and the identity of an instrument to be calibrated to facilitate input of data from an instrument the subject of calibration; the system is configured to verify the integrity of inputted data, require the re-entry of data if the integrity of the inputted data is not verified, and require sequential inputting of information from the instrument the subject of calibration and information from the pre-calibrated measuring device.

Step 2: Identify the actual (or alleged) contribution

16 As no search has been performed the analysis of step 2 concerns the alleged contribution. The examiner regards the hardware arrangement as being conventional and comprises standard computing devices and instruments communicating via standard means. They note that it is standard practice in calibration to provide a standard or benchmark instrument, pre-calibrated to NIST standards, with which to calibrate the instrument to be tested. They cite the background art section of US 5918191, cited against the equivalent application EP 3016038, as exemplary evidence of this and consider that the provision of a pre-calibrated measuring device is, in and of itself, not something that has been "added to human knowledge"

17 The examiner concludes that the alleged contribution is a means of providing a calibration certificate or error report wherein a calibration task is sent to a portable device by a management device, the instrument is identified and data is input into the portable device, a pre-calibrated measurement device being exposed to the same conditions as the instrument and data being sequentially input into the portable device, the integrity of the data from the instrument being verified and then being re-entered if necessary and, on verification, used to provide the certificate or error report. Thus, they say, the contribution provides for an improved calibration certification process whereby laborious and error prone manual forms and checking are replaced by an automated system so that certificates can be issued quicker.

18 The most recent correspondence from the agent suggests that the paragraph detailing the examiners view of the contribution "does not refer to the pre-calibrated measurement device providing data, or the manner in which any such data may be employed". It clearly does. No other arguments or an alternative view of the alleged contribution is provided by the agent. As such I will proceed based on the examiner's proposed alleged contribution.

Steps 3 and 4: Ask whether it the contribution falls solely within the excluded subject matter and whether it is technical

19 The examiner argues that the alleged contribution is no more than business method and computer program as such. They consider the contribution to relate to the use of conventional apparatus to complete an administrative task and conclude that a conventional process is carried out, namely measuring using an instrument to be tested and a pre-calibrated instrument, and the data is entered into a form to

generate an error report or calibration certificate. They say that the automation of this process requires nothing technical beyond standard computing equipment.

20 The agent asserts that the amended claims concern a new arrangement of hardware without elaborating on that assertion. I do not find this assertion persuasive; the portable device claimed is “a tablet, PDA or laptop computer” in embodiments, the data store is preferably an “SQL-server database” on the remote information management device, and there is no disclosure to suggest that the “pre-calibrated measurement device” is anything but conventional. I therefore consider the arrangement of claim 1 to be an entirely conventional arrangement for the task at hand, not least in view of the documents cited against the applicant’s equivalent application.

21 On the face of it, the invention is nothing more than a business process and not technical in nature. There is nothing in the description to suggest there any technical hurdles to overcome nor any evidence that the calibration process is itself improved. The only disclosure relates to the administrative steps taken to record the data and output the results. Whilst this may result in improved accuracy and a quicker process since it avoids human error and time-consuming form-filling, these are improvements to an administrative task which is inherent in automating such processes.

22 As discussed in *Lantana*, such automation is typical of a computer program. Similarly, as noted in *United Parcel Service of America* at paragraph 20, “whilst an invention that reduces the amount of labour involved in entering data would be eminently useful, that is not the test for deciding whether it is patentable.”

23 In *Halliburton Energy Services Inc*, Judge Birss made clear that computer systems which implement a new or better method of doing business are not patentable. As stated in paragraph 35 of the business method exclusion is generic and, if implemented with a computer program, any improvement over previous programs is immaterial.

24 As the configuration would be implemented by computer programs as a matter of practical reality, I have considered the *AT&T* signposts and whether the contribution is also a computer program as such for completeness. The examiner set out their considerations of the *AT&T* signposts in the letter of 10 April 2019 concluding that the contribution is also a computer program as such. The agent has provided no argument to dispute this.

25 I agree with the examiner’s reasoning. There is no technical effect on a process carried out outside the computer as the invention does not provide an improvement in the calibration process itself. The invention relates specifically to the handling of calibration data to provide calibration certificates so does not operate at the level of architecture of the computer. The method uses standard computers operating in a standard way and there is no suggestion that the program makes the computer a better computer in the sense of running more efficiently. Finally, the automation of manual tasks is an administrative problem and I am unable to identify any technical effect beyond the usual benefits that the use of a computer for such data-handling tasks usually provides.

26 In conclusion I find that the invention defined by claim 1 is excluded by Section 1(2) of the Act as a method for doing business and program for a computer as such. The same conclusion applies to claim 16. I have considered the whole specification including the dependent claims and cannot identify any features which would alter this conclusion.

Decision

27 I have found that the alleged contribution made by the invention defined by the claims falls solely in matter excluded from patentability by virtue of Section 1(2) of the Act as a method for doing business and program for a computer as such. I therefore refuse this application under Section 18(3).

Appeal

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

MRS S E CHALMERS

Deputy Director, acting for the Comptroller