Intellectual Property Office

BL O/424/17

11 September 2017

PATENTS ACT 1977

APPLICANT	ABB Technology AG
ISSUE	Whether patent application GB1519439.2 complies with section 1(2)
HEARING OFFICER	Joanne Pullen

DECISION

Introduction

1 Patent application GB1519439.2 was filed on 3 November 2015 and claims an earliest priority date of 3 November 2014.

2 The examiner, Mr Max Emery, issued an abbreviated examination report along with a report under section 17(5)(b) setting out his view that the claimed invention relates to a computer program and is therefore excluded from patentability. The applicant was unable to convince the examiner otherwise, and in response to another examination report the applicant accepted the examiner's offer of a hearing.

3 The matter came before me on 11 July 2017. The applicant was represented at the hearing, via telephone, by Mr Thomas Prock of Marks & Clerk LLP. Also present were the examiner, my assistant Mr Stephen Jennings, and an observer Mr Andrew Isgrove.

The application

4 The context for this application is managing and configuring field devices in an automation installation. The functions and the data of these field devices is provided in information packets. A user at a client device can integrate and configure the field devices into a system. The problem addressed by the application is that the information packets are processed at a server device and so there is intensive interaction between the client and server which can result in a bottleneck in client/server communications.

5 The claims have not been amended. There are two independent claims which relate to a device and a method respectively. There are some differences in wording between the two claims but Mr Prock confirmed at the hearing that he was happy to consider the first independent claim, and that the second would stand or fall with the first. Claim 1 reads as follows:

A device for managing and configuring field devices in an automation installation with a configuration tool that is designed to physically identify a field device in the automation installation, to logically incorporate it into the automation installation and to configure it in the automation installation, wherein the configuration tool to this end resorts to a prescribed field-device-type-specific information package (10) that describes the functions and data of the field device at least in part and wherein the configuration tool consists of at least one server (1) and at least one client (2), wherein the server (1) is designed to integrate received configuration data (22) with the field-device-type-specific information package (10) into a field-device-specific information package (21) and to validate and process the field-device-specific information package (21) by means of a piece of validation logic, and wherein the client (2) has a user interface (23) for taking the configuration data (22), wherein

the client (2) is equipped with an instance of the field-device-type-specific information package (10),

the client (2) is configured to integrate the taken configuration data (22) into a field-device-specific information package (21),

the client (2) is configured to validate the field-device-specific information package (21) and

the server (1) is configured to take validated field-device-specific information packages (21).

The law

6 Section 1(2) says that certain things are not inventions for the purposes of the Act, as follows (emphasis added):

> *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) a discovery, scientific theory or mathematical method;*
>
> *(b) a literary, 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 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*

7 The test to be applied when determining whether an invention related to excluded matter is that laid down by the Court of Appeal in its judgement in *Aerotel/Macrossan*[1] as further interpreted in the light of the judgement in *Symbian*[2].

8 The *Aerotel/Macrossan* test comprises four steps:

[1] Aerotel Ltd v Telco Holdings Ltd Macrossan's Patent Application [2006] E W C A C iv 1371
[2] Symbian Ltd's Application [2008] EWCA Civ 1066, [2009] RPC 1

(1) Properly construe the claim
(2) Identify the actual contribution
(3) Ask whether it falls solely within the excluded matter
(4) Check whether the actual or alleged contribution is actually technical in nature.

9 In its judgment in *Symbian* the Court made clear that the *Aerotel/Macrossan* test is not intended to provide a departure from the previous requirement set out in case law, namely that the invention must provide a "technical contribution" if it is not to fall within excluded matter. Thus in deciding whether the invention is excluded as a program for a computer as such I must ask whether it makes a technical contribution.

10 The Courts have also provided additional guidance as to what constitutes a "technical contribution" in the form of the "AT&T signposts" which in their latest form[3] read as follows:

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 a program makes a 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

Construing the claims

11 There is no disagreement between the examiner and applicant on this point. Mr Prock made just one clarification, namely that the 'device' of claim 1 comprises a client and a server and that he considered this combination to be a single computing device. He mentioned this because it would be relevant to his later comments about the AT&T signposts. I accept this clarification.

Identify the actual or alleged contribution

12 Mr Prock set out his assessment of the contribution with reference to the problem to be solved. The problem the inventors have recognised in the client/server system of the type described in the claims is that there is bottlenecking, i.e. a delay in the delivery of messages. The reason for such bottlenecking is that there are just too many messages that go forth and back; there is too much traffic for the server to cope with in the timeframe that it is required to. Mr Prock explained that the invention avoids the bottleneck by cutting down the number of messages

[3] As modified by the Court of Appeal in HTC Europe Co. Ltd. V Apple Inc. [2013] RPC 30

transmitted. This is made possible by choosing a different location for the processing. Mr Prock characterised this as being smarter about where things are done, or to put it another way choosing a different distribution of the processing. This is entirely consistent with the examiner's assessment of the contribution. He says that the contribution lies in the client applying validation logic to configuration data instead of the server. I have no problem in agreeing with this, though I think the statement of the contribution requires a little more context.

13 With Mr Prock's and the examiner's assessment of the contribution in mind and taking proper account of the claims, I consider the contribution to be "a client/server system for configuring field devices in an automation installation in which the client integrates received configuration data with a field-device-type-specific information package to form a field-device-specific information package and then validates the field-device-specific information package".

Ask whether it falls solely within the excluded matter/is the contribution technical in nature

14 There is no disagreement between the examiner and the applicant that the invention is delivered in software and therefore has the potential of falling foul of the computer program exclusion of section 1(2)(c), so the question that must be addressed is whether there is a technical contribution.

15 To persuade me that there is a technical contribution Mr Prock referred me to the fourth AT&T signpost. He argued that being clever about selecting the location for the data processing means that less messages need to be sent which results in the client/server operating more efficiently such that it can now cope with the task in hand. In other words the computer (i.e. the client and server combination) is quicker as a direct consequence of the invention. I do not doubt that there is a reduction in the quantity of network traffic and a consequent reduction in the amount of processing that the server is required to do and that this is as a direct result of the way in which the computer is programmed, however I do not consider that there is any increase in efficiency or effectiveness of the computer per se. The program may make more efficient use of the available resources but the computer on which the program runs remains unchanged. All that has changed is the number and format of messages transmitted and the location of the processing; the invention has not addressed the technical constraints of the computer itself.

16 Mr Prock also argued that the fifth signpost supported his view that there is a technical contribution. Lack of adequate bandwidth, he argued, is clearly a technical problem. That may be so, but the examiner has argued that simply asking the server to do less processing is circumventing the problem rather than solving it. Mr Prock thinks that this is fundamentally wrong, arguing that the invention solves the problem and therefore does not circumvent anything. However just because a problem is overcome it does not necessarily follow that the problem is solved in the sense of the fifth signpost. I regard selecting the processing location and thus sending less messages to be avoiding the underlying problem of inadequate bandwidth rather than tackling it.

17 I asked Mr Prock at the hearing whether he felt that any of the other AT&T signposts were relevant. Mr Prock intimated that there is no technical effect on a process

carried on outside the computer, that the claimed technical effect does not operate at the level of the architecture of the computer and that the computer does not operate in a new way.

18 Having considered all the evidence made available to me, and all the arguments put to me at the hearing, I do not consider the invention, as claimed, provides the necessary technical contribution and fall squarely in the exclusions of section 1(2).

Conclusion

19 I find that the invention as currently claimed is excluded under section 1(2) of the Act as it relates to a computer program.

20 Having reviewed the specification I do not consider that any saving amendment is possible. I therefore refuse the application under section 18(3).

Appeal

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

J Pullen

Deputy Director, acting for the Comptroller