PATENTS ACT 1977

APPLICANT	Fisher-Rosemount Systems, Inc
ISSUE	Whether patent application numbers GB 0308687.3 and GB 0602277.6 comply with section 1(2)
HEARING OFFICER	Mrs S E Chalmers

DECISION

Introduction

1   Patent application number GB 0308687.3 was filed on 15 April 2003 claiming a priority date of 15 April 2002 from an US application. It was published as GB 2388221A on 5 November 2003. Despite amendment of the claims to meet novelty and lack of unity objections, the applicant has been unable to convince the examiner that the invention is patentable under section 1(2). Divisional application GB 0602277.6 was filed on 6 February 2006 following amendment of the claims of the parent application to overcome the plurality objection. The examiner also considers that the invention claimed is not patentable under section 1(2). The applicant accepted an offer of a hearing on both applications to resolve the matter.

2   The correspondence between the examiner and the applicant's agents during prosecution of the application, and the submission at the hearing, was based on the law as it then stood in the light of case law. Shortly after the cases were referred to me, the Court of Appeal delivered its judgment in the matters of *Aerotel Ltd v Telco Holdings Ltd* and *Macrossan's Application*[1] (hereinafter "*Aerotel/Macrossan*") in which it reviewed the case law on the interpretation of section 1(2) and proposed a new four step test for the assessment of patentability. In a notice[2] published on 2 November 2006, the Patent Office stated that this test would be applied by examiners with immediate effect. It did not expect that this would fundamentally change the boundary between what was and was not patentable in the UK, except possibly for the odd borderline case.

3   In the light of this, I asked the examiner to re-examine the cases and report his view of the applications in the light of the new test to the applicant; and to invite

---

[1] [2006] EWCA Civ 1371
[2] http://www.patent.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-subjectmatter.htm

further submissions. The examiner accordingly re-assessed the patentability objection on both cases in accordance with the new test, but maintained it, giving his reasons in letters dated 10 November 2006. The matter came before me at a hearing on 25 January 2007 where Dr Alex Lockey of the patent agents Forrester Ketley &Co appeared for the applicant. The examiner Mr Jake Collins also attended.

The law and its interpretation

4   The relevant parts of section 1(2) state:

> *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 –*
>
> *…*
>
> *(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.*

5   These provisions are designated in section 130(7) as being so framed as to have, as nearly as practicable, the same effect as the corresponding provisions of the European Patent Convention (EPC), i.e. Article 52.

6   As I explained earlier, the starting point for determining whether an invention falls within the exclusions of section 1(2) is now the judgment of the Court of Appeal in *Aerotel/Macrossan.* The Court of Appeal approved a new four step test for the assessment of patentability under section 1(2), namely:

> (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.

7   As stated at paragraphs 45 – 47 of the judgment, reconciling the new test with the earlier judgments of the Court of Appeal in *Merrill Lynch*[3] and *Fujitsu*[4], the fourth step of checking whether the contribution is technical may not be necessary because the third step – asking whether the contribution is solely of excluded matter – should have covered the point. The presence or otherwise of a technical effect is a subsidiary factor, to be considered only where the invention passes the first three *Aerotel/Macrossan* steps.

---

[3] [1989] RPC 561
[4] [1997] RPC 608

The applications

8   The applications broadly relate to methods of communicating process control information in a web services-based environment in which process control information is communicated between two web services via an information server including a router to convey messages containing the information between the two services. In GB 0308687.3, the invention is characterized in that configuration information is sent from a graphical user interface to the information server. A user is therefore able to create a personal profile which is stored in the information server and used by the information server to route selected process control information for viewing at the interface. In GB 0602277.6, the invention is characterized in that process control information from one web service is periodically requested by a scheduler in the information server for use by the second web service.

GB 0308687.9

9   GB 0308687.9 comprises 11 claims. The sole independent claim 1 reads:

A method of communicating process control information, comprising:

sending a message containing the process control information from a first web service associated with a process control system to an information server;

using a router within the information server to process the message to determine a destination for the process control information contained therein;

sending the process control information to a second web service associated with the destination and a data consuming application, and

sending configuration information associated with one of the first and the second web services from a graphical user interface to the information server.

Auxilliary request

10   At the hearing, should claim 1 not be allowable, Dr Lockey proposed to further limit the claim by adding the features of claims 8 and 9. Claim 8 relates to storing a portion of the configuration information within a database of the information server and retrieving the portion of the configuration information from the database to configure one of a scheduler and the router within the information server and claim 9 relates to further including using the configuration information to configure the one of the first and second web services.

GB 0602277.6

11   GB 0602277.6 comprises claims to a system (claims 1-10) and method (claims 11-13). Claim 1 reads:

A system for communicating process control information comprising:

a first web service associated with a process control system;

a second web service associated with a data consuming application; and

> an information server communicatively coupled to the first and second web services via a network, wherein the information server is adapted receive a message containing the process control information from the first web service and to send the process control information via the network to the second web service to be used by the data consuming application, and wherein the information server includes a router that is adapted to convey messages between the first and second web services, a scheduler that is adapted to periodically request information from the first web service for use by the second web service and a database accessible to the router and scheduler and including configuration information associated with the first and the second web services.

12   Claim 11 reads:

> A method of communicating process control information, comprising:
>
> sending a request for the process control information to a first web service associated with a process control system in response to a scheduler within the information server;
>
> selecting only the process control information from process control information available to the first web service based on the request for the process control information;
>
> sending the process control information to an information server; and
>
> sending the process control information from the information server to a second web service associated with a data consuming application.

Auxiliary request

13   In the event that claim 1 was not allowable, Dr Lockey proposed adding the further restriction to storing a portion of the configuration information within a database of the information server and retrieving the portion of the configuration information from the database to configure one of a scheduler and the router within the information server as claimed in claim 8 of the parent application.

Arguments and analysis

GB 0308687.9

14   Applying the *Aerotel/Macrossan* test, the examiner and agent agree on the construction of the claims and the contribution made by the invention, namely the configuration step. Where the examiner and agent part company, unsurprisingly, is whether the contribution falls wholly within the computer program exclusion.

15   Addressing step (3), Dr Lockey took me through recent Office decisions which had been decided or reviewed under the *Aerotel/Macrossan* judgment. In his view, the common theme in the rejections was that the software was essentially just doing something such as data processing that was effectively internal to the computer. He highlighted the *Sony*[5] decision, in which a claim to a data communications network including a data structure was allowed although a claim to the data structure *per se* was rejected as a computer program. He stated it was held there was a technical effect in that it allowed band-width efficient distribution of images. Dr Lockey also argued that the invention of this application was at least analogous with *Aerotel/Macrossan* in the way that it went beyond a computer program that fell solely within the exclusion. Specifically, he said that

---

[5] BL O/010/07

the overall network construct was held to be allowable even though (he said) the contribution effectively involved an entity somewhere on the network monitoring the call payment status of a telephone that could be regarded as a computer program.

16   Turning to the present case, Dr Lockey agreed that if the invention were simply a claim to a user interface where the user could say what data he or she looked at, then that would not be patentable as it was a passive program that filtered incoming data and displayed it. However, Dr Lockey considered the key point about this invention was that the user interface was used for sending configuration information out to a central routing part of the network, which then used that configuration information to control how the other entities in the network operate. That control step controlled how data moved over the network to reduce (for example) the amount of data sent.   As a result, the invention solved the problem of data aggregation by configuring the services that were attached to this part of the process control network to control what information was sent, how it was sent and routing it to the user's screen as required. In other words, the invention was a new way of sending and controlling how data was sent over a network. On that basis, Dr Lockey considered that at the very least the invention went beyond a computer program as such, because of the network control effect emerging from the invention.   As to step (4), he thought the invention was essentially inherently technical in that the invention was concerned with processing a network control apparatus.

17   I questioned Dr Lockey on his submission on step (3): surely controlling information flows in response to configuring the web service was computer programming under another name? Dr Lockey agreed that while the invention was implemented in software, it went beyond a computer processing data because you were controlling how devices across the network interacted and how they communicated. He argued that this case was analogous to the *Sony* decision in which a claim to the combination of the computer architecture as applied across a network was allowed, because there was a "technical effect" from the ability to distribute the images more effectively across the network. Dr Lockey also reminded me of the *Aerotel/Macrossan* decision which warns of the potential trap in saying "Well, the claim involves the use of a computer program so it must be excluded."

18   In the present case it seems to me that if the contribution made by the invention, considered as a matter of substance rather than the form of claim (see paragraph 43 of *Aerotel/Macrossan*), consists solely of a program for a computer, then the invention will be excluded under section 1(2) and will not be saved by reference to a possible technical effect. I should not now give the applicant benefit of any doubt as to whether the invention arguably covers patentable subject-matter, as paragraph 5 of the judgment makes clear. Nevertheless, it bears emphasising that the exclusion of section 1(2) applies only where the invention relates to excluded matter <u>as such</u>. I must therefore be satisfied that the contribution lies solely in a computer program before finding against the applicant.

19   I have carefully considered Dr Lockey's submissions based on *Aerotel/Macrossan* and *Sony* which, if I have understood him correctly, were cited by way of analogy to show that claims to a communications network had been allowed even though

the network included an entity that was or could be regarded as a computer program. I note that the patentability of the *Aerotel* claims in *AerotelMacrossan* was decided solely under the "business method" exclusion and observe that Office decisions are not binding on me. In any event, neither seems to be particularly persuasive. As I observed at the hearing, I must make my decision based on the facts of this case.

20   Despite Dr Lockey's valiant attempts to persuade me otherwise, it seems to me configuring a graphical user interface to specify what process information is to be sent to a user is nothing more than a computer programming operation. I do not find his arguments on the basis of a network control effect convincing given that a computer program is necessarily a predetermined set of instructions which can be executed on a computer to control its operation. The fact that the configuration step happens in the context of a communications network and may result in a faster and more efficient flow of information between web services, does not to my mind make the configuration step any less a computer program as such. Claim 1 therefore fails step (3) of the test. I have also considered the auxiliary request and the proposed restrictions also seem to me to amount to nothing more than a computer program. Consequently, the auxiliary request also fails step (3).

GB 0602277.6

21   Dr Lockey confirmed that he agreed with the examiner on the construction of the claims. He also agreed that the contribution was "the communication of process control information between two web services via an information server, in which the process control information is periodically requested by a scheduler in the information server" but added the proviso that it also included the feature of the configuration information associated with the first and second web services which was held at the information server. The invention claimed therefore differed from the parent application in that it omitted the feature of the graphical user interface sending configuration information to configure the first and second web services. However, it included features directed towards the operation of the information server so that it included a router which routed messages between the first and second web services, a scheduler which was controllable to request information from a first web service, and a database which held configuration information associated with the first and second web services. Whilst these features form part of the system claimed in claim 1, I note that that the method of claim 11 makes no mention of configuring a web service.

22   Dr Lockey explained the invention was set in the context of wanting to minimize, or at least control, the amount of data that was sent over the Internet connected process control network. He identified that the problem that particularly arose was that, by asking the controller devices not to just transmit all the data, it could be that information that is required by one web service, was not transmitted. This was overcome by using configuration information stored at the information server which, amongst other things, set off a scheduler to request the data from a first web service to be transmitted to the second web service. Again, this overcame the problem of making information available but without having an excess amount of data transmitted over the network, and also provided the possibility for configuring the service, the first and second web services that were discussed in connection with the parent application.

23   Dr Lockey believed this went beyond a pure computer program <u>as such</u> in that you had this network control result. The central information server was not only acting as a router (which was essentially known) but it had the configuration information associated with both web services, and it was configured to have this scheduled as route information required by the second service from the first. So again, he argued, you had a higher contribution beyond a computer program that happens to process data. Dr Lockey agreed with me that a scheduler, in the sense of looking up information, writing up information and holding instructions to perform certain functions was computer programming. In his view, the extra feature that took the invention outside the exclusion was that you had the element of how data was sent over the network to overcome the problems set out in the description. As with the parent application, Dr Lockey cited *Aerotel /Macrossan* and *Sony* by way of analogy to show that claims to a communications network had been allowed even though the network included an entity that was or could be regarded as a computer program.

24   Despite Dr Lockey's efforts to persuade me otherwise, and looking at the substance of the claims, it seems to me that providing a scheduler within an information server to request and send the required process control information amounts solely to a computer program. The fact that this happens in the context of a communications network and may result in a faster and more efficient flow of information between web services, does not to my mind make the scheduling step any less a computer program as such. As with the parent application, I do not find his arguments on the basis of a network control effect convincing given that a computer program is necessarily a predetermined set of instructions which can be executed on a computer to control its operation. Claims 1 and 11 therefore fail step (3) of the test.   I have also considered the auxiliary request and the proposed restrictions also seem to me to amount to nothing more than a computer program. Consequently, the auxiliary request also fails step (3).

Decision

25   I therefore find that claims 1 – 11 of the parent application GB 0308687.9 and claims 1 – 13 of the divisional application GB 0602277.6 relate to a computer program as such and are therefore excluded from patentability under section 1(2).   I also find the auxiliary requests to amend claim 1 of GB 0308687.9 and claim 1 of GB 0602277.6 relate to a computer program as such and are therefore unpatentable.   I therefore refuse the applications.

Appeal

26   Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

Mrs S E CHALMERS
Deputy Director acting for the Comptroller