BL O/280/06

3rd October 2006

PATENTS ACT 1977

APPLICANT TMG International Pty Limited

ISSUE Whether patent application number GB0426654.0 complies with section 1(2)(c)

HEARING OFFICER John Rowlatt

DECISION

Introduction

1 Patent application GB 0426654.0 was filed on 20 May 2003 in the name of TMG International Holdings Pty Limited. The application is entitled "Scheduling method and system for rail networks"; it is in the national phase under section 89 of a PCT application published as WO 03/097425, which has an international filing date of 20 May 2002.

2 In his first substantive examination report, on 28 April 2005, the examiner objected that he considered that the invention related to a method for performing a mental act and that it might also not be new or that it might be obvious.

3 The applicant disagreed that the invention was not patentable and amended to include a step in the method which, they contended, introduced technical matter which resulted in a patentable claim.

4 At this point in the examination process the Patent Office adopted a new approach for assessing whether an invention relates to unpatentable subject matter. It reflects the approach adopted by Peter Prescott QC, sitting as a Deputy Judge, in his judgment in *CFPH*[1], and is explained in the Practice Notice[2] issued on 29 July 2005. The examiner applied the relevant test for his next examination report and considered that the advance remained a method for performing a mental act but was also a program for a computer as such.

5 No agreement could be reached on patentability, indeed the examiner raised

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[1] CFPH LLC's Application [2005] EWHC 1589 Pat

[2] "Patent Office Practice Notice: Patent Act 1977: Examining for patentability" – see http://www.patent.gov.uk/patent/p-decisionmaking/p-law/p-law-notice/p-law-notice-exampatentability.htm

the possibility that the invention might also be considered as a method for doing business, and the matter therefore came before me at a hearing on 14 August 2006, where Mr. David Harris, assisted by Dr. Andrew Tranter (both of Barker Brettell), appeared for the applicant. The examiner, Nigel Hanley, also attended.

The application

6 The application relates to a method of moving a set of trains. The claims have been amended during prosecution and the main claim, as of 01 June 2006, reads:

> *"A method of moving a given set of trains from their respective origins to their respective destinations, said method comprising the steps of:*
> - *(i) form a schedulable set of trains consisting of all trains not at their destination that have at least one unoccupied link;*
> - *(ii) from this schedulable set select the train with the earliest start time from its current location, wherein this selected train is travelling from station S_i to station S_j;*
> - *(iii) form a contender set of trains consisting of all trains that have as their next move a dispatch from station S_i to S_j and vice-versa;*
> - *(iv) from this contender set select the train with the earliest arrival time at its successor station (either station S_i or S_j);*
> - *(v) for the selected train invoke a deadlock avoidance procedure wherein if this procedure accepts a train then go on to step (iv), or if the train is rejected then remove it from the schedulable set, and if the schedulable set is not empty then return to step (ii) otherwise go to step (vi);*
> - *(vi) moving the selected train over its chosen link to its successor station; and*
> - *(vii) return to step (i) until all trains are at their destination or the schedulable set is empty."*

7 The method evaluates where trains are, where their destination is, where free track is and which train(s) should be dealt with first, based on a consideration of departure and arrival times. A schedule is derived which is a list of movements which, when followed, would result in trains reaching their destinations. Step (vi) was introduced in an attempt to overcome the objection that the invention was not patentable.

8 The schedules created by the method are described as giving a significant improvement in the efficiency of moving a set of trains. Although not mentioned in claim 1, the invention is carried out using a computer program; the only other claim is an omnibus claim linked to the description, which therefore, in principle, embraces the computer program. Claim 1 includes within its scope that the method is performed manually.

The law

9 The examiner has argued that the claimed invention relates to subject matter excluded from patentability under section 1 of the Act, in particular to a scheme, rule or method for performing a mental act and also a program for a computer under section 1(2)(c). The relevant parts of the section read:

> 1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say -
> (a) the invention is new;
> (b) it involves an inventive step;
> (c) …..
> (d) the grant of a patent for it is not excluded by subsections (2) and (3) below;
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> and references in this Act to a patentable invention shall be construed accordingly.
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> 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 performing a mental act, playing a game or 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 the act only to the extent that that a patent or application for a patent relates to that thing as such.

10 As near as is practicable, these provisions have the same effect as Article 52 of the European Patent Convention (EPC) to which they correspond by virtue of being so designated in Section 130(7). I must therefore also have regard to Boards of Appeal decisions from the European Patent Office (EPO) under this article.

Interpretation

11 In his judgment in the *CFPH* case, Peter Prescott QC provided a new two-part test for determining unpatentable subject matter:

> (1) Identify what is the advance in the art which is said to be new and not obvious (and susceptible of industrial application)
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> (2) Determine whether it is both new and not obvious (and susceptible of industrial application) under the description of “an invention” in the sense of Article 52 of the European Patent Convention (EPC) – broadly corresponding to section 1 of the Patents Act 1977.

12 In coming to this test, Mr. Prescott had considered differences in practice between the EPO and the UK Patent Office and came to the conclusion that their respective approaches would usually come to the same results on the

same set of facts. He suggests[3] that it would be possible to determine whether this was an advance under the description of an invention by asking "Is this a new and non-obvious advance in technology?" Often, of course, there is difficulty in determining what is meant by technology and any doubt should be resolved by recourse to Article 52 of the EPC. Judgments issued by the High Court subsequent to *CFPH* (*Halliburton*[4], *Shopalotto*[5], *Crawford*[6] and *RIM v Inpro*[7]) have all pointed to a similar technical advance requirement to pass the patentability test.

13 During the examination process the examiner referred to an Office decision in *Fujitsu*[8], *Wang*[9], the Court of Appeal's judgment in *Fujitsu*[10], *Crawford, Halliburton, Macrossan*[11] and *RIM.* At the hearing, no further case law was referred to.

The arguments

14 Mr. Harris wanted to emphasize that an increase in efficiency is a technical effect. That may be so, but the test should be whether that technical effect is a technical advance under the meaning of an invention according to Article 52.

15 He put it to me that the main claim was directed to a method of moving a given set of trains, rather than a method of creating a schedule, and includes the step that the trains are actually moved. He argued that the advance of the current application, following the principles established according to *CFPH*, is a set of trains moved in a particularly efficient manner, which is due to the schedule generated by the method. However, he also accepted that without the step of moving the trains, it was dubious that the method of just generating a schedule would be allowable.

16 Mr. Harris wanted to distinguish *Fujitsu*[8] from the current application. As I understand it, his view was that in that case, which dealt with generating schedules for airline crew, the invention was for generating a schedule better, that is quicker, by ignoring certain rota combinations. In contrast, he suggested that the current application was about generating a better schedule. That may be so, but the method of current claim 1 is still the production of a schedule whether 'better' or not.

17 He further argued that there could be no step in *Fujitsu*[8] equivalent to the moving of the trains, hence its exclusion from patentability as being a business method; that is, he considered that the operation of machinery as something

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[3] CFPH, paragraph 97.
[4] Halliburton Energy Services, Inc. v Smith International [2005] EWHC 1623 (Pat).
[5] Shopalotto.com Ltd.'s Application [2005] EWHC 2416 (Pat).
[6] Cecil Lloyd Crawford's Application [2005] EWHC 2417 (Pat).
[7] Research in Motion UK Limited v Inpro Licensing SARL [2006] EWHC 70 (Pat).
[8] Fujitsu Limited's Application BL O/125/04.
[9] Wang Laboratories Inc.'s Application [1991] RPC 463.
[10] Fujitsu Limited's Application [1997] EWCA Civ 1174 [1997] RPC 608.
[11] N. W. Macrossan's Application [2006] EWHC 705 (Ch).

technical – like moving a train – is not excluded in the same manner. In my opinion the analogy falls down as the current method does not provide for any technical operation of the train, it merely provides a schedule by which trains can be moved.

18 Mr. Harris referred me to *Halliburton*, issued on the same day as CFPH; his argument was that the method of designing a drill bit in that case was excluded as a mental act, but that the inclusion of a step of actually producing the drill bit would be patentable, Pumfrey J. suggesting an amendment of the type described in *IBM*[12]. However, that is not a matter of including a simple statement of the existence of a step, as has been introduced in the current application. In *IBM*, the main claim was to a detailed computer chip construction; the method claim which included the design phase was appended to that main claim. That is, the method step of producing the chip specifically included the full detailed construction of that chip. No such technical detail can be ascribed to the method step of the current invention, which is simply that the trains are moved.

19 Mr. Harris also referred me to a prior application by the current applicant, granted GB2405016, and used it to try to persuade me that similar consideration should apply here, although he admitted that there were significant differences in that the invention in that case was to a method of actually driving a train in a particular way. He was attempting to draw similarities in that respect to argue that the movement of the trains in the current application was a concrete thing which should be patentable.

20 However, in that other case there is a direct causal link between the claimed method and the driving of the train; specific driving advice is generated and delivered to the driver for action and is performed continuously to adjust for operational disturbances. In the current case there is no such link. A schedule is created, nothing more, by which a set of trains may be moved, but the schedule merely *informs* how trains should or could be moved. The step introduced into the main claim that a set of trains is moved on the basis of the schedule has no direct relationship with the movement itself.

21 It is well-established law that, in patentability cases, it is the underlying substance of the invention, not the particular form in which it is claimed, which provides the focus. It is very clear to me that the invention here is the production of a schedule. It was also accepted at the hearing that the point of any schedule is to move trains based upon it. Consequently, I do not accept that the step that the trains are moved according to the schedule gives a technical advance. First, there is no advance at all in moving trains based on a schedule and secondly, the invention still resides in the schedule.

22 Mr. Harris raised a point discussed in *Macrossan*, that the benefit of doubt should be in favour of the applicant and that the onus is on the Office to show that an invention is excluded. Prior to Macrossan, Laddie J in the Patent's Court judgment in *Fujitsu*[13] held that the onus lies on the person contesting

[12] IBM T0453/91, EPO Board of Appeal.
[13] Fujitsu Limited's Application [1996] RPC 511.

patentability to prove that the alleged invention did not fall foul of the statutory exclusions, and the benefit of the doubt should be given to the applicant. However, it was made clear by Mann J in *Macrossan* that there must be substantial doubt for this onus not to be fulfilled; he did not consider that it means that if there is any doubt then an application should succeed. In the present case, I find there is no such doubt.

23 As I have said before, the test is whether any advance involves a technical effect. Moreover, although there might be a technical *character* to a method which is implemented on and by a computer, the courts have made it clear on numerous occasions that that in itself does not make an invention patentable. Indeed, it was accepted by Mr. Harris that the entire process could be done by humans, it would just be slower.

24 None of the arguments presented to me have persuaded me that the invention is anything other than a method of generating a schedule; it is to the generation of a list of desired train movements and nothing more. As such, I am clear that the invention is a mental act. Further, in so far as claim 1 includes within its scope that the schedule may be generated by a computer I find that the invention is also a mental act embodied as a computer program.

25 It is not necessary for me to consider whether or not the invention relates to a method for doing business; the point was not argued by the examiner and it was not argued before me.

Conclusion

26 I have found that the invention relates to both a method for performing a mental act and a program for a computer as such. It is therefore not new and non-obvious (and susceptible of industrial application) under the description of "an invention" in the sense of Article 52 and is not patentable. I have been unable to find anything which could form the basis of a patentable invention in the amended application. I therefore refuse the application under section 18(3) as failing to meet the patentability requirements of Section 1.

Appeal

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

John Rowlatt
Deputy Director acting for the Comptroller