

1977: Examining for Patentability” indicating its intention to apply the ruling in the *CFPH* judgment in its assessments of excluded matter. On 26 August 2005 the examiner issued a letter assessing the question of patentability in relation to that judgment and finding that, in his view, the invention was excluded under the *CFPH* approach because the contribution related solely to the presentation of information. The attorney replied acknowledging the letter and filing a proposed new claim 1, to be considered as an auxiliary form of claim at the hearing.

- 5 Between September 2005 and September 2006 there were a number of exchanges and the applicant explained on each occasion that it was considering, for business reasons, whether or not to continue prosecution of the application. The Rule 34 period ended on 20 January 2006. The applicant did not seek to extend the Rule 34 period, so any subsequent hearing could establish only whether the application complied with the requirements for the grant of a patent in the form in which it stood on 20 January 2006. The Office eventually contacted the attorney in September 2006 indicating that the applicant must now make its decision on withdrawal, so that status of the application could be finalised. The attorney wrote on 28 September indicating that the applicant did not wish to withdraw the application and would like the excluded matter issue to be decided on the papers.
- 6 At this point, the Court of Appeal was due to issue its judgment in the joint cases of *Aerotel Ltd v Telco Holdings Ltd (and others)* and *Macrossan’s Application* [2006] EWCA Civ 1371 (“*Aerotel and Macrossan*”). That judgment issued on 27 October 2006, and the Patent Office subsequently issued a new practice notice “*Patents Act 1977; patentable subject matter*”, dated 2 November 2006, stating that the Office intended to follow the guidance provided by the judgment in assessing patent applications. Following this notice, an examiner wrote to the applicant in the present case on 22 November 2006 explaining the new guidance and indicating that in accordance with it, he still considered the present invention to be excluded from patentability since the contribution relates to the presentation of information. The attorney responded with observations in a letter of 15 January 2007.
- 7 The issue has now come before me to be decided on the papers.

The Invention

- 8 Claim 1 was amended during prosecution, and now reads:

1. *A method of constructing a civil engineering structure, and in particular for controlling the assembly of a structure during a construction project, comprising three software sub-systems; a first sub-system that receives data relating to an individual task of a construction project; a second sub-system, for project scheduling, that allows a planner to view and modify the timing and inter-relation of key events and a third sub-system that converts data from the first and/or second sub-systems into a visual 2-D or 3-D graphical representation of the*

structure and further superimposes a grid that defines a plurality of cells wherein each cell or collection of cells defines a work location for the construction project, allocated as an event in time.

- 9 The claim is oddly worded since it initially specifies a “method” but then goes on to list physical elements comprising the three software sub-systems, albeit their operations are to some degree specified. For the purposes of the present investigation, I will take the claim to relate to the method comprising the use of the system specified.
- 10 Appendant claims 2 to 12 cover further limitations including details of the input data relating to tasks, refinements to the graphical representation, and linking the system to remote users. Claim 13 is an omnibus claim. Claim 14 is independent and is equivalent in scope to claim 1 except that it specifies certain types of data relating to tasks, at least one of which must be input into the first sub-system.
- 11 The specification explains that computer based project management systems are widely used. However, they are not generally able to take account of whether different types of work can or cannot take place in the same location at the same time. The present invention uses the software sub-systems defined in the claims to allow this sort of scheduling, enabling a greater degree of parallel working. As the specification says, it answers the need for “planned and sequenced implementation of a plurality of tasks with maximized productivity, made available by the reduction of wasted time periods.”
- 12 The first sub-system allows contractors to input details of the tasks they have to perform, including duration, sub-tasks, the space needed to perform the work and whether that space is needed exclusively or can be shared with other trades. Jobs are placed in a queue for sequencing by the person planning the project, which is done using the second sub-system. Individual jobs or blocks of jobs can be sequenced in relation to one-another and in accordance with priorities set by contractors. The third sub-system provides a 2-D or 3-D representation of the structure, which is made transparent so that all parts of it can be seen. It can be manipulated for example by rotation, by generating a cross section or by providing a view from within the structure. A grid of cells defining separate workspaces is superimposed so that users can see what jobs take place in each location. The representation is time related, to show the progression of work during the lifetime of the project. The whole system is a software tool which is used by project planners to manipulate data relating to the individual tasks making up the project, and thereby plan the sequence of jobs and monitor their progress.

The Law

- 13 The provisions in the Act relating to excluded matter are in section 1(2) which reads as follows:

(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) 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.

- 14 As explained in the Practice Notice of 2 November 2006, the Court of Appeal, in their judgment in the *Aerotel and Macrossan* case, introduced a four part test for the assessment of exclusion from patentability. The steps are as follows:
- a) Properly construe the claim
 - b) Identify the actual contribution (or, per paragraph 44 of the judgment, the alleged contribution will do at the application stage)
 - c) Ask whether it falls solely within the excluded subject matter
 - d) Check whether the actual or alleged contribution is actually technical in nature.
- 15 As explained in paragraph 46 of the judgment, the fourth step may not be necessary because the third step may already have covered the point. This part of the test is in effect a longstop, to be invoked where the invention passes the first three steps.
- 16 Section 130(7) of the Patents Act states that section 1(2) is so framed as to have, as nearly as practicable, the same effect as the corresponding provisions of the European Patent Convention. As a result, relevant decisions of the Boards of Appeal of the European Patent Office should generally be given due consideration, though they are not binding. However, since recent Board of Appeal decisions were fully considered by the Court of Appeal in *Aerotel and Macrossan*, it is currently appropriate to rely solely on that judgment.

The present case

- 17 The first *Aerotel and Macrossan* step is to construe the claims. I take the invention to be simply as set out in claim 1 with the interpretation noted in paragraph 9 above.
- 18 The second step is to identify the contribution which the invention makes to the art. In the present case, the examiner cited a number of prior art patents which disclosed some of the features of the present invention. The applicant amended claims 1 and 14 to include the limitation that the third sub-system provides a 2-D or 3-D graphical representation of the structure being constructed and superimposes a grid that defines a plurality of cells in which a cell or a collection of cells defines a work location in the construction project, allocated as an event in time.
- 19 Reviewing the prior art and the exchanges between the agent and the examiner it appears that this feature represents the advance over the prior art. To spell it out, the contribution appears to be that in the context of a construction project management software system, a graphical representation of the structure has a grid superimposed on it that defines a plurality of cells, in which a cell or a collection of cells defines a work location in the construction project allocated as an event in time.
- 20 The third step is to determine whether this contribution falls within the subject matter excluded by section 1(2). I preface this with the observation that much of the applicant's argument during prosecution preceded the changes in approach brought about by *CFPH* and then *Aerotel and Macrossan*. The points made are nevertheless pertinent to this step of the test; and I will assess them accordingly.
- 21 In the official letter of 26 August 2005 following the *CFPH* judgment, and that of 22 November 2006 following the *Aerotel and Macrossan* judgment, the examiners maintained that the contribution was solely in the visual representation of construction tasks and was therefore excluded by the presentation of information exclusion in section 1(2)(d).
- 22 The applicant in replying to the latter official letter directed my attention to its letter of 9 June 2005. This argues on the basis of the invention as a whole rather than just the contribution, but following that argument for the moment, it maintains that by assigning work locations to cells in the display, a more efficient sequence of operations is defined in the construction project. It says that the invention in fact amounts to a new process for constructing a building, and should therefore be patentable in the same way as a new process for making a chemical is patentable. I don't agree there is a parallel here. The present invention does not specify a new process for construction as such but is a method or system for scheduling work.
- 23 The contribution itself does not even amount to a new way of scheduling tasks; that idea has been shown to be known. It is rather a particular way of representing certain information which is used in planning the construction project. The compilation of data relating to tasks, their locations and durations

etc is conventional and has been used in prior work scheduling. The idea of representing the structure as a 2-D or 3-D model is also known from the prior art. The prior systems also make use of that information to schedule work. The contribution in the present invention is to provide a new way of incorporating such information into the 2-D or 3-D graphical representation of the structure. The information is conventional and the context in which it is used is known; what is new is the way information is put together and presented by the software for use by the operator of the system. I consider that this lies squarely within the subject matter excluded as relating to the presentation of information in section 1(2)(d).

- 24 Other arguments in the applicant's letters of 28 February 2005 and 9 June 2005 relate to the examiner's previous objections on the grounds that the invention relates to a computer program, business method or mental act. I agree with the examiners in their more recent official letter that the appropriate ground of inquiry is now on presentation of information, which I have already considered. Consequently it is not necessary to consider these other points.
- 25 I do not need to go on and consider the fourth step of the *Aerotel and Macrossan* test since I have already found the invention unpatentable in step three.

Conclusion

- 26 As a result, I find that all of the claims, 1 to 14, relate to excluded subject matter. I consequently refuse this application because it does not comply with section 1(2)(d) of the Patents Act.

Appeal

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

P MARCHANT

Deputy Director acting for the Comptroller