



14 December 2010

**PATENTS ACT 1977**

APPLICANT                      TRANE INTERNATIONAL INC.

ISSUE                              Whether patent application number  
GB 0805153.4 complies with section  
1(2)

HEARING OFFICER              Mrs S E Chalmers

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**DECISION**

**Introduction**

- 1 Patent application GB 0805153.4 entitled “Building Automation System Facilitating User Customization” was filed on 19 March 2008. It is derived from the corresponding PCT application published as WO 2007/024623 on 1 March 2007 claiming priority from 10 earlier US applications. The application was republished as GB 2445686 on 16 July 2008.
- 2 The examiner has maintained that the invention claimed is excluded from patentability under section 1(2)(d) of the Patents Act 1977 as it relates to the presentation of information. The matter has come to me for a decision on the papers.

**The application**

- 3 The application is concerned with a graphical user interface (GUI) to access information about the condition of a building automation system (BAS). Building automation systems are typically used to manage the physical environment of a building for example to manage and control heating, lighting and security. The invention provides a summary page which includes information on the status of alarms which can be customized by the user to present the alarms limited to those areas that show the greatest variation between the observed condition and the specified setpoint ie by order of severity.

**The claims**

- 4 I have made my decision on the basis of the amended claims filed on 15 July

2010. There is a single independent claim as follows:

1. A graphical user interface (GUI) apparatus for a building automation system (BAS) machine comprising:

a processor communicatively coupled to the BAS machine;

a GUI display device communicatively coupled to the processor;

means for presenting a user customizable home page configured to provide data and navigation tools and selectively displayed as a GUI via the GUI display device, including a summary page representing a building comprising at least a portion of the BAS machine, the summary page including:

at least one navigable link to another portion of the GUI;

a static building information portion of the GUI, displayed via the GUI display device, configured to provide building specific information to a user; and

a dynamic building information portion of the GUI, displayed via the GUI display device, separate from the static building information portion, including:

means for presenting an alarm list comprising static information and dynamic information related to the presence or absence of an individual alarm or multiple alarms in the building, wherein the alarm list can be configured by the user to present the multiple alarms by order of severity or arrival time; and

means for presenting a space list comprising static information and dynamic information about a plurality of spaces related to the building, wherein the space list static information comprises at least a space setpoint and the space list dynamic information comprises at least an observed condition related to the setpoint,

wherein the plurality of spaces related to the building selectively displayed in the space list comprise a subset of all of the space, the subset comprising no more than a fixed quantity of the spaces and including the spaces having a variance between the setpoint and the observed condition that is greater than a variance between the setpoint and the observed condition for the spaces excluded from the subset.

## The Law

5 The examiner raised an objection under section 1(2)(d) that the invention is not patentable because it relates to the presentation of information as such. The relevant parts of section 1(2) read as follows:

*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) .....

(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*

- 6 The assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in its judgment in *Aerotel*<sup>1</sup>. In this case the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of patentability, 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 contribution is actually technical in nature.
- 7 The operation of the test is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.
- 8 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian Ltd's Application*<sup>2</sup>. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel*, the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*<sup>3</sup> which rested on whether the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case. But the *Symbian* judgment does make it clear, that in deciding whether an invention is excluded, one must ask does it make a technical contribution? It does not matter whether it is asked at step 3 or step 4. If it does, then the invention is not excluded.

### **Application of the Aerotel test**

#### Step 1: Properly construe the claims

- 9 I do not think this presents any real problems. The claims have been amended to meet clarity objections raised by the examiner and their meaning is clear.

#### Step 2: Identify the actual contribution

- 10 Paragraph 43 of *Aerotel* explains the contribution is to be determined by asking what it is – as a matter of substance not form – that the invention has really added to the stock of human knowledge having regard to the problem to be solved, how the invention works and what its advantages are.
- 11 In the applicant's view, the contribution is a BAS that can provide a list of the

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<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371

<sup>2</sup> *Symbian Ltd's Application* [2008] EWCA Civ 1066

<sup>3</sup> *Merrill Lynch's Application* [1989] R.P.C. 561

most important alarms which can be used to further control the BAS. The examiner considers the contribution to the art is that the alarm log can selectively display a sub-list of alarms that have a greater variance than non-displayed alarms.

- 12 Building automation systems that can display alarm conditions are well known in the art. For example, the information in the applicant's own Tracer Summit system<sup>4</sup> discloses a BAS similar to that of the present application that contains an alarm log that displays alarmed conditions. Specifically, this document states under heading "Alarm processing and event log" at page 9:

*"The event log displays critical data about the alarm: which building it is from.... Critical alarms can be set up with messages and graphics that can aid in troubleshooting problems. A series of easy-to-use filters can be used to show only desired events: for example, only alarms from certain buildings or alarms received at a certain time can be displayed in the event log"*

- 13 So what is the contribution to the stock of human knowledge? It is clearly not the hardware or enabling the user to customize or filter the information displayed since these are both known. In my view, the contribution lies in the selective display of alarm information to provide a sub-list of alarms that have a greater variance than non-displayed alarms.

Step 3: Ask whether the contribution relates solely to excluded matter

- 14 In the applicant's view, the contribution is an improved BAS that can provide a list of the most important alarms ie one that outputs information that can be used to further control the BAS. For example, setpoints can be edited (page 16 lines 11-15). The relative conditions can therefore vary even if the actual value of the observed condition does not change and that this is used to provide dynamic information as to the most important alarms at any time. He submits that this provides a technical contribution over the Tracer Summit system.
- 15 There is no doubt in my mind that the invention as currently claimed is all to do with the presentation of information about the status (or "variance") of a sub-set of alarms as customized by the user. The contribution therefore clearly resides in the presentation of information. However, this does not mean that it should be immediately excluded. What matters is whether or not there is a technical contribution.
- 16 In paragraphs 56-59 of *Gemstar*<sup>5</sup>, Mann J made it clear that the rearrangement of information is nothing more than a presentation of information. To be patentable there must be some technical effect beyond the information being presented. The court also made it clear that if the contribution is defined only in terms of the information to be presented then that is a presentation of information. The presence of a display does not change this. In particular, it was made clear that providing a better (or new) user interface is not a relevant technical effect – a

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<sup>4</sup> [http://www.trane.com/Commercial/Uploads/Pdf/1033/basprc001en\\_0803.pdf](http://www.trane.com/Commercial/Uploads/Pdf/1033/basprc001en_0803.pdf) (cited in the examination report dated 12 March 2010)

<sup>5</sup> *Gemstar – TV Guide International Inc v Virgin Media Limited* [2010] RPC 10

different display is not enough (paragraph 59).

- 17 Contrary to the applicant's arguments, I do not think the fact that the display outputs information that can be used to adjust the settings that control the BAS provides the required technical contribution to save the invention from exclusion. It is true that the alarm display would allow the user to focus on those alarms that are likely to require the most immediate attention eg by altering the setpoints or by taking other troubleshooting action. That surely is the point of the display. In my view, the prioritising of an alarm list is effectively the rearrangement of information and therefore must be considered as the presentation of information.

Step 4: Check whether the contribution is technical in nature

- 18 Having considered this under the third *Aerotel* step, I do not need to go on to the fourth step. For my reasons explained above, I do not consider the contribution to be technical in nature.

**Conclusion**

- 19 I find that the invention is excluded under section 1(2)(d) because it relates to the presentation of information as such. I have carefully reviewed the specification but do not think that any saving amendment is possible. I therefore refuse the application under section 18(3).

**Appeal**

- 20 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