

A screen (10) has a first screen element (11) provided on it that has a plurality of second screen elements (12) in a first orientation (31) and a plurality of third screen elements (13) which are each subordinate to a second screen element (12), in a second orientation (32) wherein precisely one second screen element (12) and at least one third screen element (13), which are logically connected to one another, are arranged along the second screen orientation (32)

The Law

9 Section 1(2) of the Patents Act 1977 reads:

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.

10 In order to decide whether an invention relates to subject matter excluded by Section 1(2), the Court of Appeal has said that the issue must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*¹ set out the following four-step approach to help decide the issue:

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

11 The operation of the approach 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.

¹ *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application* [2006] EWCA Civ 1371

- 12 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*² which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*³, Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. The signposts are:
- 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 the program make the computer a better computer in the sense of running more efficiently and effectively as a computer; and
 - v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.
- 13 With regard to the presentation of information the most appropriate guidance is found in the decision of the Patents Court in *Gemstar*⁴.

Analysis

- 14 I believe that the claim is adequately clear. While it is possible to discuss exactly what is meant by “physically identify a field device in the automation installation, to logically incorporate it into the automation installation”, Mr Prock stated that these features, indeed the entire first part of the claim before the “wherein”, was fairly standard in the technical field of the invention. I will thus not expend any effort in construing these terms.
- 15 As might be expected, the key part of the invention is what follows the “wherein”, namely the configuration tool and how it organises the elements on its screen. Put simply, this is a tool running on a device that allows the user to configure field devices via a graphic user interface.
- 16 At the hearing, I asked Mr Prock to confirm what was meant by the first, second and third screen elements. He stated that these relate to a menu, functions and windows for functions, respectively. When visible on the screen they allow the user to make various choices while configuring a field device.

² *AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents* [2009] EWHC 343

³ *HTC v Apple* [2013] EWCA Civ 451

⁴ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

- 17 The second step of the *Aerotel*¹ test is to identify the contribution made by the invention. In the examiner's reports, he suggested that the contribution was:

“to overcome problems of the nonuniform display of configuration functions in a configuration tool, by utilising a screen having a first screen element that has a plurality of second screen elements associated with filed device configuration functions in a first orientation, and a plurality of third screen elements, which are each subordinate to a second screen element and representative of the widows open for the configuration functions, in a second orientation, wherein precisely one second screen element and at least one third screen element, which are logically connected to one another, are arranged in a second orientation, thereby providing a clear display between the second and third screen elements to reduce the likelihood of a user making an error based on the displayed information.”

- 18 Mr Prock did not entirely disagree with this view, but he did want to emphasise the operation of the tool as being the 'real' contribution. In particular, he made clear that the tool did not operate in a vacuum and that it was essential to consider the resultant effect on the system as a whole, which would be a better system as a result of the improved configuration tool. From his comments, he sees the contribution to be an improved configuration tool which reduces user error by using the claimed screen arrangement which leads to a better automation installation. In his words it will result in “a system likely to work better in a technical sense”.
- 19 I am not convinced that the contribution can be stretched quite this far. While the claimed graphic interface *may* result in a user making less errors, it also may not. One can imagine a particularly competent user who makes no errors when using prior art configuration tools. For such a user there will be no difference on the system as a whole when using the claimed invention. Equally, a particularly slapdash user might make many errors irrespective of the tool they use. For that user too the claimed invention will not result in a better system. In my view, the potential that a different interface *might* result in a user making different choices which, in turn, *might* result in the system operating differently is not a sufficiently strong causal link to include the automation installation itself in the contribution.
- 20 I am drawn back to the teaching of paragraph 43 of the *Aerotel*¹ judgement, namely what has the invention really added to human knowledge? As far as I can see, the device, on which the configuration tool is running, is a standard device. The tool is used in a known way to configure known field devices in a standard automation installation. What has been added to human knowledge is the claimed arrangement of visual elements on the screen of the configuration tool. Put another way, it is the 'better' visualisation of the options offered by the tool when configuring a field device. I can see nothing more than this. This view is reinforced when I look at the dependent claims. These are entirely concerned with more details of the screen elements. I thus identify the contribution to be: “A screen display layout for a field device configuration tool with the claimed arrangement of screen elements.”
- 21 The third step of the *Aerotel*¹ test is to ask whether the contribution falls entirely within one, or more, excluded fields. At the hearing Mr Prock agreed that the configuration tool is realised as software running on the configuration device. The

key feature of this tool is the arrangement of screen elements in a screen which clearly involves the display of information to some degree.

- 22 Turning first to the software question, Mr Prock addressed me on two of the AT&T signposts as modified in *HTC v Apple*³. On the first signpost, he argued that the contribution does have a technical effect on a process outside of the computer as it effects the field device being configured and thereby the automation installation as a whole. On the second signpost, he argued that the contribution allows any field device to be configured and so it does not depend on the data being processed.
- 23 I will deal with these points in reverse order. Firstly, I do not believe that the contribution operates at the level of the architecture of the configuration device. The configuration tool is clearly a, possibly the only, application running on the configuration device. From the description, its primary purpose is to load, display and, one presumes, edit, an EDD file. What the contribution does is allow 'better' visualisation of this data by laying out screen elements in the specified manner. Thus, the contribution is dependent on the data being processed. It only works with configuration files and is not operating at the level of computer architecture. It thus does not meet the 2nd AT&T signpost.
- 24 Turning to the 1st signpost, while the displayed configuration file is presumably used by the field device at some point in the future, there is no direct control exercised on the field device by the configuration tool itself. Even if there were, the current invention only exercises the same control as prior art configuration devices. The contribution, as I have identified it, is merely the better visualisation of the options offered by the configuration file. This of itself does not interact with anything outside of the configuration device. The contribution thus fails the 1st signpost too.
- 25 Mr Prock made no arguments regarding AT&T signposts 3, 4 or 5 and I see no need to either. I can see nothing in these remaining signposts that might help the applicant's case. In conclusion, I decide that the contribution falls entirely within the program for a computer exclusion, albeit a very specialised program running on specialised hardware for a single purpose.
- 26 Turning to the presentation of information question, Mr Prock again argued that the claimed screen layout leads to a better overall system. He further made the point that the information within the screen elements is not defined by their layout or arrangement.
- 27 Unfortunately, I am not sure that this helps in deciding this issue. In *Gemstar*⁴, a better interface was not considered to be a relevant technical effect – the rearrangement of information on a TV screen was decided to be nothing more than the presentation of information, as such. The current case appears to be on all fours with *Gemstar*⁴, with a user being presented with a better organised window layout. The information is the same as it was in the prior art systems, it has just been presented in a different way. I thus decide that the contribution is also excluded under Section 1(2)(d) as the presentation of information.
- 28 The final step of the *Aerotel*¹ test is to check whether the contribution is technical in nature. Since I have decided that it does not have a technical effect beyond that of a

program running on a computer and the presentation of information, it also fails this step of the test. I thus decide that the contribution is excluded under section 1(2).

- 29 Finally, for completeness, I note the decision issued in ABB Technology AG (BL 0/425/17). This decision concerned two applications both claiming the arrangement of input windows on the display of a configuration tool. In this decision the hearing Officer, J Pullen, concluded that the inventions were excluded as programs for a computer and the presentation of information.

Decision

- 30 I have decided that the invention defined in the independent claim falls solely within matter excluded under Section 1(2) as a program for a computer and the presentation of information as such. Having reviewed the application, I do not consider that any saving amendment is possible. I therefore refuse this application under section 18(3).

Appeal

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

Stephen Brown

Deputy Director, acting for the Comptroller