



06 December 2010

**PATENTS ACT 1977**

APPLICANT                   Hewlett-Packard Development  
  Company, L.P.

ISSUE                         Whether patent application number  
  GB0515362.2 complies with section  
  1(2)

Mrs S E Chalmers

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**DECISION**

**Introduction**

- 1 Patent application GB0515362.2 entitled “Document creation system and related methods” was filed on 27 July 2005 and claims priority from a GB patent application 0420791 dated 18 September 2004. The UK application was published as GB 2418281 on 22 March 2006.
- 2 Despite amendment of the claims during substantive examination, the applicant has been unable to persuade the examiner that the invention is patentable as required by section 1(2)(c) of the Act. The matter has come to me for a decision on the papers. Prior to writing my decision, I allowed the applicant the opportunity to file further arguments which he has done and I confirm that I have taken these into account.

**The invention**

- 3 The application relates to a method of creating a printed document whose content may be tailored to a selected group of customers. The application notes that “in order that a targeted communication is well received it must be laid out correctly (page 1 lines 18-19). For example, customers tend to be put off if there is a lot of empty space and it is desirable to avoid or reducing the need for continuation pages (page 2 lines 1-9). However, it is time-consuming to manually select and layout the content, and check each document has the desired presentation (page 1 lines 21-26).
- 4 The applicant has therefore devised a computerised method for creating and laying out a document. The first step is to decide what items – such as text, graphics or photographs – are to be inserted into the document for the target group of customers. This is done by accessing the customer database to determine the relevant items which are then inserted into a document template to

create suggested layouts. The final layout is selected according to certain defined criteria and the document is then printed out.

### **The claims**

- 5 The claims I have considered are as they stand at 5 July 2010. There are 25 claims in total comprising 6 independent claims which relate respectively to a method (claim 1), a system (claim 15), a computer readable medium comprising software instructions (claims 20, 21 and 23) and a computer program (claim 22). All are for creating a printed document having a displayable area on which information is placed. Claim 1 is typical and reads:

*A method implemented by processing circuitry of creating a document having a displayable area on which information is placed, the method comprising:*

- a. providing a plurality of content-items which contain information that it is possible to display on the displayable area;*
- b. dividing the displayable area into a set of sub-areas each capable of receiving one or more of the content items;*
- c. generating at least one set of proposed arrangements in which the content-items have been arranged within the set of sub-areas;*
- d. selecting at least one of the proposed arrangements, according to predetermined criteria, as the layout of the content-items within the sub-areas of the displayable area to create the document; and*
- e. causing a printing means to print the created document.*

### **The law**

- 6 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) 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.*

### **The relevant case law**

- 7 As a Hearing Officer at the IPO, I am bound to follow the decisions of the UK courts. The applicant has argued that, in this case, the reasoning in *Symbian*<sup>1</sup> for

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<sup>1</sup> Symbian Limited's Application [2008]EWCA Civ 1066

not following the EPO case law regarding excluded matter no longer applies given the statement of the law by the Enlarged Board of Appeal in G3/08<sup>2</sup>. He urges me to follow the practice adopted by the European Patent Office (EPO) on excluded matter since he argues it is now “settled law”.

8 In *Symbian*, the Court of Appeal considered the role of precedent and the question of whether the UK should follow the EPO practice. The relevant paragraphs are:

*33. As we have mentioned, there are three previous decisions of this court on the effect of section 1(2)(c) of the 1977 Act, and, as we have implied, there are a number of decisions of the Board on art 52(2)(c) of the EPC. In principle, the Court of Appeal is bound by one of its previous decisions unless that previous decision is inconsistent with a subsequent decision of the House of Lords (in which case, the previous decision cannot be followed), is inconsistent with an earlier Court of Appeal decision (in which case the court may choose which previous decision to follow), or can be shown to have been arrived at per incuriam (i.e. without reference to a relevant statutory provision or other authority) – see *Young v Bristol Aeroplane Co Ltd* [1944] KB 718.*

*34. However, in *Actavis UK Ltd v Merck & Co Inc* [2008] EWCA Civ 444, Jacob LJ, giving the judgment of the court, held that this court was also free to depart (but not bound to depart) from one of its previous decisions on a point in the field of patent law if satisfied that the Board have formed a settled view on that point, which differs from that arrived at in that previous decision. At [48], Jacob LJ made it clear that the right to depart from a previous decision only arose if the “jurisprudence of the EPO” on the point at issue was “settled”, and that, even where that was the case, this court was “not bound to do so”: for instance in “the unlikely event” that it thought the jurisprudence was plainly unsatisfactory.*

*35. This analysis is reinforced by two observations in the House of Lords, namely *Merrell Dow v Norton* [1996] RPC 76 at 82, and, very recently, *Conor v Angiotech* [2008] UKHL 49, [3] where Lord Hoffmann emphasised the desirability of the English courts adopting the same principles as that of the Board when assessing obviousness.*

*36. Given that there are decisions of this court and of the Board which relate to the ambit of the computer program exclusion in art 52, the right basis for assessing that ambit in this court should be as follows. If the judgments in the Court of Appeal cases give tolerably clear guidance which would resolve the issue on this appeal, then we should follow that guidance, unless it is inconsistent with clear guidance from the Board, in which case we should follow the latter guidance unless satisfied that it is wrong.*

9 The applicant has argued that, in the case of *Symbian*, the Court has said that I may follow the EPO practice if it is deemed to be settled law. I do not accept this argument. Paragraph 34 of *Symbian* states that ‘*this Court*’, that is the Court of Appeal, *may* depart from, although it is not bound to depart from, its previous decisions if it is satisfied that the Board have formed a settled view on an issue. If I could be certain that the Court of Appeal would follow the EPO’s approach, it might be difficult for me to continue to follow the precedent set in *Symbian*. However, the Court of Appeal clearly did not consider the law at the EPO to be settled at the time of *Symbian*. Further, even if the Court did now consider the law settled it is not certain that it would adopt the EPO approach, as it is not bound to depart from its earlier precedent.

10 The decision that the Court of Appeal may choose to depart from its own previous decisions does not allow me, as a Hearing Officer within the IPO, to

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<sup>2</sup> Opinion of the Enlarged Board of Appeal G 03/08

choose to depart from the Court's previous decisions even if, and I do not decide this issue here, I consider the law to be settled within the EPO. I therefore do not accept the applicant's submission that I may re-interpret UK case law: this is a matter for the Court.

- 11 It is not disputed that the assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in its judgment in *Aerotel/Macrossan*<sup>3</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.
- 12 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.
- 13 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian Ltd's Application*<sup>4</sup>. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel/Macrossan*, 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/Macrossan* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*<sup>5</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

- 14 There are no difficulties of construction: the claims are clear and there has been no dispute regarding their meaning. The claims relate to the creation of a document, where suggestions are made for the arrangement of content items within a display, so that a selection may be made based on predetermined

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<sup>3</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371

<sup>4</sup> *Symbian Ltd's Application* [2008] EWCA Civ 1066

<sup>5</sup> *Merrill Lynch's Application* [1989] R.P.C. 561

criteria, and a printer prints the created document.

Step 2: Identify the actual contribution

- 15 So what *in substance* has been added to the stock of human knowledge? There is no suggestion by either the examiner or the applicant that the contribution is, or should be, different for each of the respective independent claims set out above. The claims therefore stand or fall together.
- 16 The applicants submit that there are at least two contributions made by embodiments of the invention, which are (a) a new manufacturing/printing process for producing documents having efficiently laid-out content and (b) the document so manufactured having efficiently laid-out content.
- 17 I disagree with the applicant that the contribution lies in a manufacturing or printing process or the printed document itself. From the application, it is clear that the document is generated using a conventional computer and printed using a conventional printer. In addition, there is no interaction between the hardware and the software for it to be said there is a contribution made by the system as a whole. It seems to me that the contribution is a computer program which provides a better and faster way of laying out a document according to a predetermined set of criteria so that, for example, it can be tailored to a target audience. While the printed document may present the content in a more attractive or relevant way to the end user, in my view, this contribution is the presentation of information.

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

- 18 So, does the contribution fall solely within the excluded subject matter? The applicant submits that the present application can be distinguished from *Fujitsu's Application*<sup>6</sup>. In *Fujitsu*, the Court of Appeal considered claims to a method of processing two images of crystal structures to produce a third image representing a synthetic crystal structure, and held this to be unpatentable on the basis that it was no more than a computer program and a mental act as such. Of more pertinence to this application is claim 9, which related to

*A method of manufacturing a structure which is a crystalline combination of two crystal structures, the method comprising an investigation of the effects of combining the two crystal structures using a method according to any one of the preceding claims.*

- 19 Aldous LJ said of this claim at page 618:

*“Mr Birss sought to rely upon the form of the claims. He submitted that claim 10, directed as it was to a computer apparatus having a number of features and claim 9 directed to a method of manufacturing a structure could not be said to relate to an invention consisting of a computer program as such.*

*That submission cannot be right having regard to the judgment of Nicholls LJ in Gale. In that case, I held at first instance that the ROM claimed was*

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<sup>6</sup> Fujitsu's Application [1997] RPC 608

*not excluded as it was an article which had been altered during manufacture so as to perform the function of the method or program defined by the claim. The Court of Appeal decided that that was not correct and that the court should look at the claims as a matter of substance. It was both convenient and right to strip away, as a confusing irrelevance, the fact that the claim was for "hardware".*

*There is only one invention. The fact that it is claimed as a method, a way of manufacture or an apparatus having appropriate features is irrelevant. Further there is no dispute as to what the invention is. In summary it uses a computer program so that an operator can select an atom, a lattice vector and a crystal face in each of two crystal structures displayed. The computer, upon instruction and using the program, then converts data representing the physical layouts of the two crystal structures into data representing the physical layout of the structure that is obtained by combining the original two structures in such a way that the selected atoms, the selected lattice vectors and the selected faces are superposed. The resulting data are then displayed to give a picture of the resulting combined structure. Clearly the whole operation revolves around the computer program and the question for decision is whether there is a technical contribution so that it cannot be said that the invention consists of a computer program as such."*

- 20 In *Halliburton*, Mr. Justice Pumfrey considered claims to a method of design of a drill bit, and decided, in the light of precedents which included *Fujitsu*, that such claims did not define a patentable invention. However, he then went on to consider the decision of the EPO on *IBM/Method for physical VLSI-chip design*<sup>7</sup>, where claims to "materially producing a chip" which had been designed in accordance with the (unpatentable) design of the invention were held to be allowable, and concluded at paragraphs 216 to 218:

*I have great sympathy with this approach. An untethered method claim may well cover activities which have nothing to do with industrial activity, but, if the claim is tied down to the industrial activity it becomes a valuable invention and restricted to its proper sphere. What cannot be plausibly suggested is that the method is not freighted with the technical effect that is needed for patentability: but the scope of the claim should be restricted to its technical field.*

*In the present case, claims 1 and 3 are directed purely to the intellectual content of a design process, and the criteria according to which decisions on the way to a design are made. They are not limited in terms to a computer program, although no doubt are so limited as a matter of reality. So I think that these claims are bad because they are too broad, but an amendment of the type described in T 0453/91 should dispose of the problem.*

*It might be supposed that such amendment does not affect the position "as a matter of substance," but I think that this is quite wrong. The objection, in*

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<sup>7</sup> T 0453/91

*my view, is to width of claim alone when the method has potential industrial utility, that is, a potential technical effect. The objection in this case are [sic] to the form of the claim, not to the substance of the invention.*

- 21 Whilst these remarks are strictly *obiter*, and the issue of the patentability of such “manufacturing” claims was not actually tested, their import is clear.
- 22 As can be seen from the above, on the one hand, *Fujitsu* states that merely tagging on a manufacturing step to an unpatentable claim does not save it. On the other hand, *Halliburton* says that it can. Fortunately, I believe it is possible to reconcile these two decisions. The courts have consistently reminded us that decisions of this type must be taken on a case-by-case basis, taking into account all the facts of the case in question. Different cases have different facts, and different facts led to different conclusions.
- 23 The applicant argues the contribution goes beyond excluded matter as such because something tangible ie a printed document, is created. He argues that the claim to the manufacturing process is not an “untethered claim ....that has nothing to do with any industrial activity” but a claim that is grounded in industrial reality, that is, the creation of printed matter having efficiently laid-out content. He submits that because something is created (ie the document) the manufacturing process of claim 1 cannot fall within excluded matter at all, let alone “solely” with excluded matter. In respect of the system of claim 15, he draws a parallel with an old-fashioned printing press and says one skilled in the art understands that embodiments of the invention can be implemented in hardware, but for reasons of commercial efficacy, software embodiments are preferred.
- 24 Furthermore, the applicant notes that embodiments of the invention are described in terms of “processing circuitry” as can be seen from, for example, page 2, line 30 and page 27, lines 18-19 and line 24. He submits that the fact that embodiments could be implemented in hardware precludes a finding that the invention falls “solely” within excluded matter. Even if one construed the “processing circuitry” to be a conventional computer, he argues there is no reason, beyond an economic reason, that prevents the invention being embodied in the form of hardware. Again, the fact that it could be embodied in hardware prevents the invention from relating “solely” to excluded matter.
- 25 In considering the nature of this contribution, I am mindful of paragraph 22 of *Aerotel/Macrossan*, which reminds me that just because a computer is used in an invention, it does not necessarily mean that the invention is excluded from patentability. The Court of Appeal in *Symbian* gave useful guidance at paragraphs 52-58 as to when a program might make a technical contribution sufficient to avoid the exclusion. It particularly emphasised (see paragraph 56) the need to look at the practical reality of what the program achieved and to ask whether there was something more than just a “better program”. At paragraph 58 the Court stated that a technical innovation, whether within or outside the computer, would normally suffice to ensure patentability.
- 26 On this occasion however, I am clear that the contribution made by the invention does not have a relevant technical effect. The contribution provides a new tool

which allows the fast and efficient layout of information in a printed document; however, these are just the sort of advantages obtained by the use of a computer program. Indeed, the driving force behind the invention (as acknowledged at page 1 lines 21-26 of the application as filed) appears to be the desire to speed up the operations involved in selecting and laying out the content and check each document has the desired presentation. Furthermore, I do not believe that the present invention provides a technical contribution of the type found in *Symbian*. In particular, a computer with the program of the present application does not provide, as a matter of practical reality, a “faster and more reliable computer”. The program speeds up the layout of the desired document – but this is just a computer programmed to do this (i.e. a better computer program), it does not provide a better or faster computer.

- 27 Whilst the printed document may be presented in some useful way, the paper remains paper printed with printed ink on it whatever decisions are made about how to lay out the content. I consider this is materially different from the idea of a drill bit as in *Halliburton*, or some other device which can then be used for a technical purpose with a real practical effect – even if both might be argued to have utility, by virtue of being tethered.
- 28 The contribution thus consists solely of excluded subject matter and is no more than a combination of a program for a computer and the presentation of information. It therefore fails the third *Aerotel* step.
- 29 The examiner was also of the opinion that the contribution fell within the mental act exclusion, but having found in relation to the other exclusions as I have above, I do not need to decide whether the invention is excluded as a mental act as such.

#### Step 4: Check whether the contribution is technical in nature

- 30 I do not think it is necessary for me to consider this any further since I have dealt with this point in the third step. For my reasons explained above, I do not consider the contribution to be technical in nature.

#### **Conclusion**

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

#### **Appeal**

- 32 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