

22 August 2008

## PATENTS ACT 1977

APPLICANT                      Heidleberger Druckmaschinen AG

ISSUE                              Whether patent application number GB  
0424974.4 complies with section 1

HEARING OFFICER                      J J Elbro

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## DECISION

- 1      This decision concerns whether patent application GB 0424974.4 titled "Method of generating a PDF of a single sheet and a data processing device for the same" relates to excluded subject matter.
- 2      This application was filed on 11 November 2004, claiming priority from DE 102004005821 with an earliest date of 6 February 2004. A first examination report was issued on 28 September 2006, raising, *inter alia*, an objection that the claims were to a computer program and a method for performing a mental act and therefore excluded under Section 1(2)(c) of the Patents Act 1977 ("the Act").
- 3      In response to this examination report, the applicant filed a set of amendments to the claims and a re-filled description. A further examination report was issued on 13 November 2007 in response to these amendments. In this report, the examiner offered the applicant a hearing on the issue of excluded matter and deferred consideration of other issues until this had been resolved.
- 4      The applicant responded on 12 March 2008 asking for suggested amendments to claim 1 to be considered, but that if the examiner found the claim unacceptable then the applicant requested a hearing.
- 5      The examiner wrote to the applicant on 7 May 2008 stating that the suggested amendments did not overcome his objections and that a hearing would be arranged. The applicant was informed on 13 May 2008 that the arrangements for a hearing had been completed and that the hearing was scheduled for 24 June 2008.
- 6      The day before the hearing was due to be held, the applicant asked for a decision to be taken instead on the papers.

## The invention

- 7 The alleged invention relates to generating a Portable Document Format (PDF) file. A PDF file is a type of electronic document which enables users to exchange and view the electronic documents in a manner independent of the environment that the document was created and viewed in. The format is defined under ISO 32000-1:2008.
- 8 A Form XObject is a method of describing an object, such as text, images or vectors, within a PDF file. These objects are completely self-contained descriptions of the information needed to replicate the text, images or vectors described on a screen or printed sheet, and will display the same result each time they are produced. They are, essentially, datafile fragments.
- 9 In the present application, a PDF file is generated from a number of Form XObjects, each of which represents an individual page, which are then positioned onto a single sheet. For example, this could be used to correctly sequence a series of individual pages so that when the PDF files are printed out the pages can be folded into a booklet.
- 10 The application has five claims comprising one independent claim (claim 1) and four dependent claims. The current claim 1 on file reads as follows:

*A method of generating PDF of a single sheet comprising the steps of:*

- *providing a plurality of Form XObjects corresponding to a respective plurality of individual pages; and*
- *generating the PDF from the plurality of Form XObjects.*

- 11 The applicant has also suggested a possible amendment to claim 1 to overcome the examiner's objection. The suggested amendment (with changes shown by strikethrough and underline) is as follows:

*A method of creating a print ~~generating PDF of a single sheet~~ comprising the steps of:*

- *providing a plurality of Form XObjects corresponding to a respective plurality of individual pages; ~~and~~*
- *generating a ~~the~~ PDF from the plurality of Form XObjects; and*
- *creating a print by imaging a printing plate with the generated PDF.*

## The Law

- 12 The examiner has reported in the final examination report that the invention is excluded from patentability under section 1(2)(c) of the Act as relating to a program for a computer. The relevant parts of this section read:

*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 purpose of this Act only to the extent that a patent or application for a patent relates to that thing as such.*

13 My approach to interpreting section 1(2) will be governed by the judgment of the Court of Appeal in *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application* [2006] EWCA Civ 1371 ("*Aerotel*") and the Practice Notice that was issued thereafter (2 November 2006). In that judgment, a four step test was advocated which can be summarised as:

*(1) properly construe the claim*

*(2) identify the actual 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.*

14 As stated at paragraphs 45 – 47 of the judgment, reconciling the new test with the earlier judgments of the Court of Appeal in *Merrill Lynch* [1989] RPC 561 and *Fujitsu* [1997] RPC 608, the fourth step of checking whether the contribution is technical may not be necessary because the third step – asking whether the contribution is solely of excluded matter – should have covered the point.

15 The applicant has also raised the *Symbian* [2008] EWHC 518 (Pat) judgment ("*Symbian*"), in particular paragraph 42. In that judgment, Patten J stated that:

*42. I stress this point particularly in relation to steps 3 and 4. The question whether the claim falls solely within the excluded subject matter (in this case a computer program) cannot be answered in isolation from the issue of whether it embodies a relevant technical contribution in the Merrill Lynch sense. The separation of this issue between steps 3 and 4 is not a problem provided that one recognises that they are as a matter of law alternatives. Where the only potential category of excluded material is a computer program then a claim based on such a program will be excluded unless it is in the relevant sense technical in nature. In paragraphs 46 and 47 Jacob LJ makes it clear that the Art. 52 (3) test is part of the step 3 question but that of course is inseparable from the issue of technical contribution in step 4 which only becomes an unnecessary inquiry if the question is included as part of step 3.*

### **The Applicant's Arguments**

16 In the correspondence on file, the applicant has not directly addressed the examiner's arguments under the *Aerotel* test. Instead the applicant has argued that following *Symbian* the application is '*technical*', arguing that steps 3 and 4 of the *Aerotel* test are essentially one and the same.

## Analysis

### Step 1: Construction of Claim 1 and Amended Claim 1

17 The claims are straightforward and present no challenges to construction.

### Step 2: Identification of the Contribution

18 The examiner argues that the contribution of claim 1 is a method of generating a single sheet PDF file containing more than one Form XObject, where each of the Form XObjects relates to an individual page. The applicant has not directly addressed this question.

19 Considering each of the parts of the current claim 1 in turn:

20 Step 1 is "*providing a plurality of Form XObjects corresponding to a respective plurality of individual pages*". As noted above at paragraph 8 a Form XObject is a file fragment which describes a text, image or vector object within a PDF. In this case, the Form XObject is being used to describe an object representing an individual page.

21 Step 2 is "*generating the PDF from the plurality of Form XObjects*". It is clear from the discussion at paragraphs 7 and 8 that this is the customary method of generating PDFs.

22 Hence the difference from the acknowledged prior art is the use of a number of Form XObjects each representing individual pages to generate a PDF file representing a single page. I therefore agree with the examiner that the contribution is the generation of a single sheet PDF file containing more than one Form XObject, where each of the Form XObjects relates to an individual page.

23 The suggested amendment of claim 1 is to add a step of "*creating a print by imaging a printing plate with the generated PDF*". However, it is clear from the application that

- there is no improvement suggested to the method of printing the document and the printing technique used is identical to the printing technique used in any document design program.
- The actual document printed is the same on the printed page as the prior art, it being only the electronic PDF file which is different.

24 Thus, the printing step appears conventional and there is no contribution to human knowledge in the printing area, nor the production of a new physical document. Therefore I find that the contribution made by the proposed amended claim is precisely the same as that made by the unamended claim.

### Step 3: Does the contribution fall solely within the excluded matter?

25 The contribution found above is the automatic generation of one electronic file from (particular) electronic file fragments. There is nothing beyond straightforward processing of data and the contribution thus falls solely within the

computer program exclusion. As such, the invention is excluded from patentability by Section 1(2)(c) of the Act.

Check that the contribution is actually technical

- 26 Paragraph 46 of *Aerotel* explains that the fourth step may not be necessary because the third step should have covered that point. However, the applicant has in the correspondence raised the *Symbian* case and argued that the invention is “technical” and thus not excluded.
- 27 As noted above the contribution made by the invention appears to be purely data processing and there is no further technical effect over and above that to be expected from any program running on a suitably programmed computer. I therefore do not think that this undermines my conclusion from the third step above.

Other Claims

- 28 The dependent claims, claims 2-5, all claim further features of the method and I see nothing in any of them which would take the invention outside the scope of the exclusions.
- 29 Furthermore, after carefully reading the description, I can see no possible amendment that would result in a patentable invention.

**Conclusion and next steps**

- 30 I find that the invention as claimed in this application and as claimed in the proposed amended claim is excluded from patentability under section 1(2) of the Act as a computer program. I can see no possibility of amendment to overcome this objection and therefore refuse the application in accordance with section 18(3) of the Act.

**Appeal**

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

**J J ELBRO**

Deputy Director acting for the Comptroller