



PATENTS ACT 1977

APPLICANT Hewlett-Packard Development Company, L.P.

ISSUE Whether patent application number

GB0902255.9 complies with section 1(2)

HEARING OFFICER J E Porter

DECISION

Introduction

- Patent application GB 0902255.9 entitled "Method for selecting an image for insertion into a document" results from the entry into the UK national phase of international application PCT/US2007/017106, in the name of Hewlett-Packard Development Company, L.P.
- The international application was filed on 31 July 2007, with a claim to a priority date of 31 July 2006. It was published as WO 2008/016601 A2 on 7 February 2008, and was reprinted as GB 2 453 307 A after entering the UK national phase.
- Following amendment of the claims and correspondence between the examiner and the applicant's patent attorneys, the examiner remains of the view that the claimed invention is excluded from patentability under section 1(2). With the position unresolved, the applicant requested that the matter be referred to a hearing officer.
- The matter therefore came before me at a hearing on 21 September 2011. The applicant was represented by patent attorneys Mr Richard Pratt and Mr Matt Lawman of EIP Partnership LLP. Also present was Dr Hazel Craven, who was assisting me, and Mr Richard Baines, the examiner.

The invention

- The invention lies in the field of image analysis and selection, and in particular concerns a way to select an appropriate image for a particular document by analysing colour properties.
- For each of a number of potential images, a number of properties are analysed including colour values and sizes and centroids of a number of regions of each image. Similar properties are analysed in respect of the document into which an image is to be inserted, and then a measure of "colour harmony" is determined. The images are then ranked according to the determined "harmony measure",

thus enabling an appropriate image to be selected and inserted into the document.

7 The latest claims set, which was filed on 8 June 2011, comprises three independent claims. Claim 1 relates to a method of image selection and reads as follows:

A computer implemented method of selecting from a plurality of images an image to be inserted in a document and inserting the image in the document, the method comprising:

for each image

determining the color values, sizes and centroids of regions i of the document,

determining the color values, sizes and centroids of regions j of images, and

calculating for each image harmony measures [in respect of a given color harmony], between the regions of the image and the regions of the document, dependent on the determined color values, region sizes and centroids;

producing a list of the images ranked according to the harmony measures;

selecting an image from the list for insertion in the document; and

inserting the selected image in the document.

- At the hearing, the attorneys suggested an alternative version of claim 1 which included the wording shown in square brackets above. This has not been filed formally as an amendment to the claim. However, I agreed at the hearing that my decision would consider claim 1 as it stands and, if necessary, also the proposed alternative.
- 9 Claim 2 to 5 are dependent claims. In particular, claim 2 contains mathematical formulae setting out how the harmony measure for each region is calculated. Claim 6 is an independent claim which relates to a computer readable medium storing a computer program which, when run, implements the method as claimed. Claim 7 is an independent claim directed to a computer programmed to carry out the method as set out in claims 1 to 5.

The law

Section 1(2) declares that certain things are not inventions for the purposes of the Act, 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) 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.

The examiner and the applicant agree that the assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*¹. In this judgment, the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of what is often called "excluded matter", as follows:

Step one: properly construe the claim

Step two: identify the actual contribution (although at the application stage this might have to be the alleged contribution)

Step three: ask whether it falls solely within the excluded matter

Step four: check whether the actual or alleged contribution is actually technical in nature.

- Subsequently, the Court of Appeal in *Symbian*² made clear that the *Aerotel* test is not intended to provide a departure from the previous requirement set out in case-law, namely that the invention must provide a "technical contribution" if it is not to fall within excluded matter.
- The applicant's attorneys made various submissions in writing and at the hearing concerning how the *Aerotel* test should be applied to the invention in question, and they also made reference to some other case-law. However, at the time of the hearing neither the Office nor the applicant's attorneys had the benefit of the Patents Court decision in *Halliburton*³, which was handed down on 5 October 2011. I consider the impact of this judgment below.

Arguments and analysis

- The examiner maintained that the claims define an invention which consists of a mental act. Furthermore, insofar as claim 2 is concerned, his view was that it amounted to a mathematical method being used to perform a mental act. His position is set out most recently in his pre-hearing report of 20 June 2011.
- The applicant disagreed, with detailed arguments set out in their attorney's responses of 13 January 2011 and 8 June 2011, and with further arguments set out by the attorneys at the hearing.
- However, as noted above, these positions were reached prior to the judgment in *Halliburton*. That judgment concerned an appeal from two decisions of the comptroller to refuse a number of Halliburton's patent applications on the grounds that the inventions were no more than a scheme, rule or method for performing a

³ Halliburton Energy Services Inc's Applications [2011] EWHC 2508 (Pat), unreported

¹ Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application [2006] EWCA Civ 1371, [2007] RPC 7

² Symbian Ltd's Application [2008] EWCA Civ 1066, [2009] RPC 1

mental act, and were also no more than a computer program.

The particular technology is not relevant to the present case, but in the judgment HHJ Birss QC considered the scope of the mental act exclusion and concluded that the exclusion should be construed narrowly. As he said in the judgment at paragraphs 43 and 63 respectively:

On the narrow construction a claim to a calculation carried out on a computer could never be caught by the mental act exclusion because the claim does not encompass carrying out the calculation mentally. The fact that calculations in general are the kinds of thing which are capable of being performed as mental acts is irrelevant.

In my judgment the correct scope of the mental act exclusion is a narrow one. Its purpose is to make sure that patent claims cannot be performed by purely mental means and that is all.

- 18 The Office then issued a short Practice Notice on 17 October 2011 stating that "claims which specify that the invention is implemented using a computer will not be considered to be excluded from patentabilty as a mental act".
- Since the independent claims of the present application are directed to a computer-implemented method of selecting an image to be inserted in a document, I can see no basis in light of *Halliburton* for sustaining an objection that they define a scheme, rule or method for performing a mental act.
- Furthermore, as I have found that claim 1 is not excluded as a mental act, it follows that the examiner's objection that dependant claim 2 is a mathematical method used to perform a mental act must also fall away.
- 21 It follows that I do not need to consider the proposed amendment to claim 1 put forward at the hearing.
- In *Halliburton*, HHJ Birss QC made clear that construing the mental act exclusion narrowly did not necessarily mean that a computer-implemented method was immune from the exclusion in relation to computer programs. The examiner may need to consider this point further in the present case.

Conclusion

- I conclude that the claimed invention is not excluded from patentability under section 1(2)(c) insofar as it does not relate solely to a scheme, rule or method for performing a mental act.
- 24 The application is remitted to the examiner.

Dr J E PORTER

Deputy Director acting for the Comptroller