

**PATENTS ACT 1977**

APPLICANT                      Accenture Global Services Limited

ISSUE                              Whether patent application  
GB1100108.8 complies with Section 1(2)

HEARING OFFICER              Phil Thorpe

---

**DECISION**

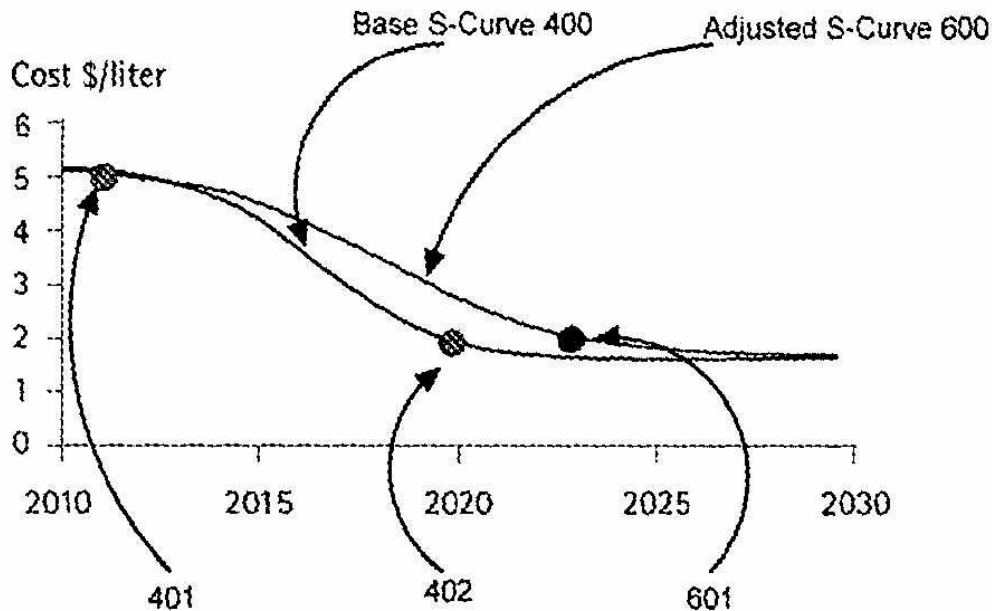
**Introduction**

1. This decision concerns whether the invention set out in patent application GB1100108.8 relates to excluded matter. The examiner has maintained throughout the examination of this application that the claimed invention is excluded from patentability under section 1(2) of the Patents Act 1977 as a program for a computer, a mathematical method and a business method. The applicant has not been able to overcome these objections, despite amendments to the application.
2. The matter therefore came before me for a decision on the papers.

**The Patent**

3. GB1100108.8 was filed on 5<sup>th</sup> January 2011 with an earliest claim to priority of 19<sup>th</sup> January 2010. The application was subsequently published as GB2477021 A on the 20<sup>th</sup> July 2011.
4. The application relates to a method and computer program for predicting the cost of emerging technologies. It is essentially a tool to assist in determining whether to invest in a particular technology. The invention is probably best explained using one of the embodiments set out in the patent. In this example the technology is biofuels. The invention seeks to predict in this example the manufacturing costs for biofuel over time. In the diagram below the starting point in 2010 shows a cost per litre of just over 5 dollars. A second cost point in 2020 is also shown. This can for example be based on predictions in academic or industry studies. Applying a standard type S curve to these two points provides an indication of the long term or mature cost of the biofuel. The invention also provides an adjustment mechanism that allows the impact

of certain weighted cost reduction drivers to be shown. In relation to the biofuel example, these drivers could for example relate to the impact of improved GM technology or better harvesting mechanics. The impact of these drivers is represented in the form of an adjusted curve.



5. The claims on which this decision is based are those filed on 19<sup>th</sup> January 2012. Claims 1 reads as follows:

Claim 1

A system for forecasting a future cost estimate for a technology, comprising:

a cost receipt unit configured to

receive a first cost point and a second cost point identifying a starting cost at a first time period and a midpoint cost at a second time period, and

calculate a third cost point to express the first cost point and the second cost point in a range;

a base curve unit configured to determine a base S-curve from the first cost point, the second cost point and the third cost point;

a weighting unit configured to receive weightings of cost-reduction drivers;

a base curve adjustment unit configured to adjust the base S-curve based on the weightings of the cost-reduction drivers to create an

adjusted S-curve; and

a graphical user interface for inputting the first and second cost points and the weightings of cost reduction drivers, and outputting the base S curve and the adjusted S curve.

6. There are also independent claims to the method (claim 8) for forecasting a future cost estimate for a technology set out in claim 1 and to a computer readable storage device (claim 15) containing a computer program to implement the method of claim 1.

## The Law

7. The examiner has raised an objection under section 1(2) of the Patents Act 1977 that the invention is not patentable because it relates inter-alia to one or more categories of excluded matter. The relevant provisions of this section of the Act are shown in bold below:

**1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of –**

(a) a discovery, scientific theory or **mathematical method**;

(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 provisions shall prevent anything from being treated as an invention for the purposes of the Act only to the extent that a patent or application for a patent relates to that thing as such.*

8. As explained in the notice published by the UK Intellectual Property Office on 8 December 2008<sup>1</sup>, the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*<sup>2</sup>.
9. The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian Ltd's Application*<sup>3</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

<sup>1</sup> <http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm>

<sup>2</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007]

<sup>3</sup> *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1

by its previous decisions, particularly *Merrill Lynch*<sup>4</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.

10. Subject to the clarification provided by *Symbian*, it is therefore still appropriate for me to proceed on the basis of the four-step approach explained at paragraphs 40-48 of *Aerotel* namely:

- 1) Properly construe the claim.
- 2) Identify the actual contribution.
- 3) Ask whether it falls solely within the excluded matter, which (see paragraph 45) is merely an expression of the “as such” qualification of section 1(2).
- 4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.

11. The applicant in its various submissions has not challenged this approach although it has in these submissions focussed primarily on the question of whether the invention provides a technical contribution.

#### **Step 1 - Properly construe the claim**

12. I do not believe that the claims present any difficulties as to how they should be construed. I would note that the system of claim 1 and the method of claim 8 are clearly intended to be implemented by a computer.

#### **Step 2 - Identify the actual contribution**

13. The examiner suggests that the alleged contribution relates to a way of forecasting a future cost for a technology by determining a base S curve and an adjusted S curve using first and second cost points and weighted cost reduction drivers. The term “alleged” is used because the examiner has yet to complete his examination of the prior art. The applicant does not appear to have challenged this formulation of the contribution and consequently I am content to proceed on the basis that this does fairly represent what the invention appears to have added to the stock of human knowledge.

#### **Steps 3 & 4 - Does the contribution fall solely within excluded matter and is it actually technical in nature**

14. It is not disputed that the invention is implemented on a computer however that in itself does not mean that it is excluded as a computer program. If the invention provides a technical contribution then it is not excluded.

---

<sup>4</sup> Merrill Lynch's Application [1989] RPC 561

15. The applicant argues that the technical contribution provided by the invention is a more efficient automated tool for generating cost projections for technologies. It argues that the arrangement of the curves is based on technical considerations. It also argues that the invention reduces computer processing time for analysing and reporting on the data entered into the system. This it argues contrasts with prior art systems that typically required complex “brute-force” algorithms and complex modelling which would take significantly longer to process.
16. The applicant argues that the invention here therefore provides a system and method which are “technically superior” to those provided by the prior art. It seeks to draw a comparison with the invention in *Protecting Kids the World Over (PKTWO) Ltd's Patent Application*<sup>5</sup> which Floyd J. found also to be “technically superior” and hence patentable.
17. The first point to note is that as Floyd J. explicitly recognises in PKTWO cases relating to excluded matter are highly fact sensitive. In PKTWO it was the improved monitoring which was considered to have the necessary technical contribution.
18. There is no such monitoring in the invention at issue here. I also do not see any similar technical result here. The applicant refers to the curves being based on technical considerations. I am not entirely sure what these technical considerations are. In the example referred to above the cost reduction drivers can include information relating to for example how efficiently the crop can be harvested. I accept that this sort of information is technical in nature. However just because some technical data may be fed into the method of the invention does not mean that the invention necessarily provides a technical contribution. The invention here is not about improving the harvesting efficiency of a crop but about a new method of forecasting future costs of a technology.
19. That method may be a better system than the prior art by virtue of how it users weighted cost reduction drivers (that may be based on technical data) but it is still a business method implemented by a computer. That such business methods are not patentable can be seen from for example paragraph 35 of *Halliburton* which is reproduced by Floyd J in *PKTWO*. This paragraph reads:

“35. The business method cases can be tricky to analyse by just asking whether the invention has a technical effect or makes a technical contribution. The reason is that computers are self evidently technical in nature. Thus when a business method is implemented on a computer, the patentee has a rich vein of arguments to deploy in seeking to contend that his invention gives rise to a technical effect or makes a technical contribution. For example the computer is said to be a faster, more efficient computerized book keeper than before and surely, says the patentee, that is a technical effect or technical

---

<sup>5</sup> *Protecting Kids the World Over (PKTWO) Ltd's Patent Application* [2011] EWHC 2720 (Pat)

advance. And so it is, in a way, but the law has resolutely sought to hold the line at excluding such things from patents. That means that some apparently technical effects do not always count. So a computer programmed to be a better computer is patentable (Symbian ) but as Fox L.J. pointed out in relation to the business method exclusion in Merrill Lynch , the fact that the method of doing business may be an improvement on previous methods is immaterial because the business method exclusion is generic.”

20. In addition to being excluded as a method of doing business and a computer program I am also of the opinion that the invention here is excluded as a mathematical method. This is because the mathematical method at the heart of the invention does not operate on a technical process nor does it operate on a physical entity nor is it used to control a technical process. Rather it is merely used to generate a future cost estimate for a particular technology.

### **Conclusion**

21. I conclude that the invention as claimed is excluded under section 1(2) because it relates to a computer program, a method of doing business and a mathematical method as such.

22. I have carefully read the specification and can find no saving amendment.

23. I therefore refuse the application under Section 18(3). I note that the examiner has deferred examination of other aspects of the application pending resolution of the patentability issue. In the event that this decision is reversed on appeal, the application will need to be referred back to the examiner for those other aspects to be addressed.

### **Appeal**

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

**PTHORPE**

Deputy Director, acting for the Comptroller