



**PATENTS ACT 1977**

APPLICANT                      JDA Software Group, Inc.

ISSUE                          Whether patent application GB0920190.6 complies  
   with Section 1(2)

HEARING OFFICER                      Phil Thorpe

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**DECISION**

1     This decision concerns whether the invention set out in patent application GB0920190.6 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 and a method of doing business. The applicant has not been able to overcome the objections, despite amendments to the application.

2     The matter therefore came before me to make a decision on the papers.

**The Patent Application**

3     GB1103237.2 was filed on 18<sup>th</sup> November 2009 with an earliest claim to priority of 19<sup>th</sup> November 2008. The application was subsequently published as GB 2465476 A on the 26<sup>th</sup> May 2010.

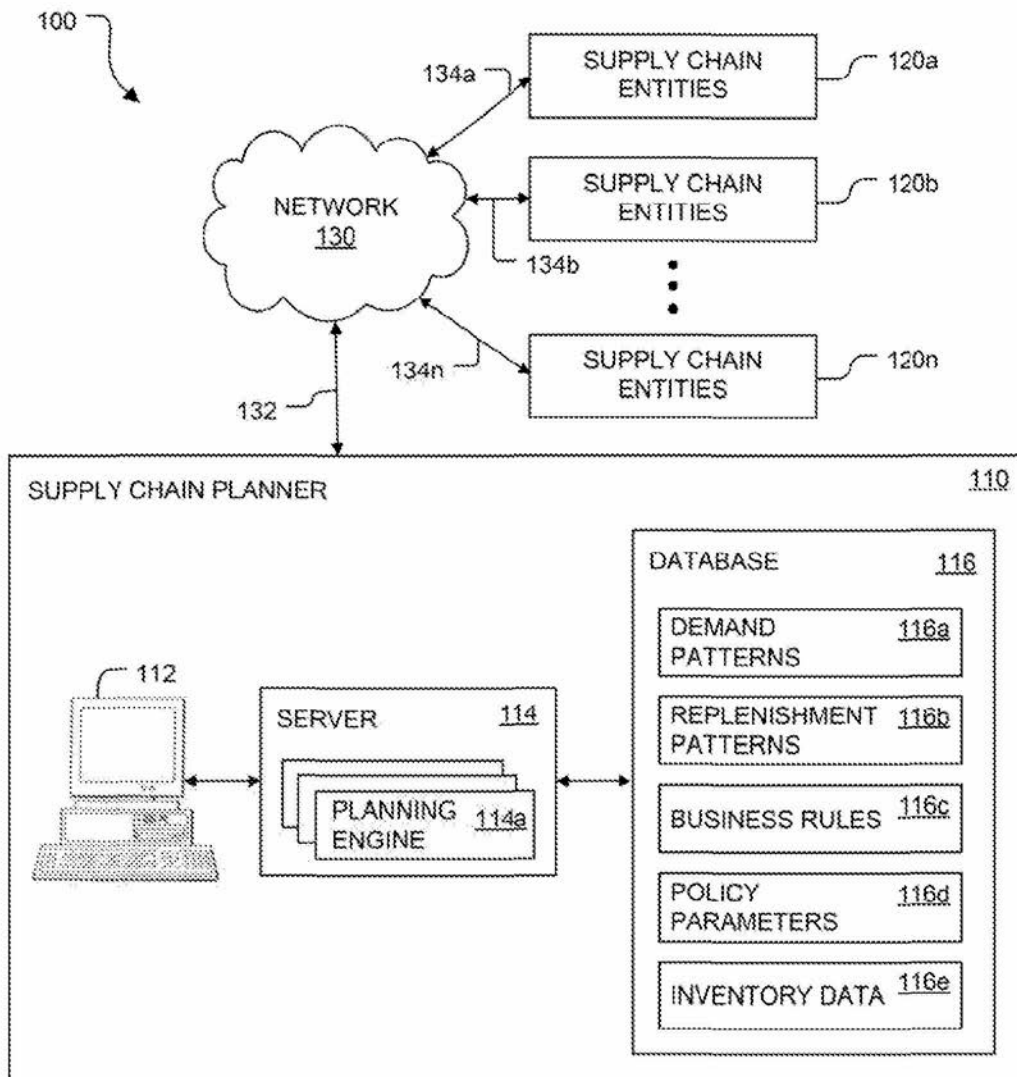
4     The application relates to a method of managing inventory. According to the description there is a general problem of managing stock to ensure that stock levels do not get too high or too low.

5     The invention, which is computer based, uses data describing demand patterns (both actual and those which were forecasted, or historical forecasted demand), replenishment patterns of the supply chain network and data describing the supply chain network. This data is used to optimise inventory policy parameters for each of one or more items which define a policy as to how the inventory of each item is to be maintained.

6     More specifically and with reference to figure 1 of the application reproduced below, the invention includes a server coupled with a database and configured to access data describing inventory policy parameters of a supply chain network. Also accessed is data describing one or more demand patterns and one or more replenishment patterns of the supply chain network, and the data describing the

supply chain network comprising a plurality of entities, each entity configured to supply one or more items to satisfy a demand. The server is further configured to optimize the inventory policy parameters for each of the one or more items according to the one or more demand patterns and the one or more replenishment patterns and store the optimized inventory policy parameters in the database for each of the one or more items.

- 7 The application also discloses a method for root cause analysis and early warning of inventory problems.



**FIG. 1**

- 8 The claims on which this decision is based are those filed on 1<sup>st</sup> July 2013. Claim 1 reads as follows:

A system arranged to manage inventory and further arranged to provide an early warning of inventory problems, the system comprising:

a database configured to store:

data describing inventory policy parameters of a supply chain network defining a policy as to how an inventory of one or more items should be maintained;

data describing one or more demand patterns wherein the one or more demand patterns comprise data representing historical forecasted demand and actual demand for the one or more items and one or more replenishment patterns of the supply chain network for the replenishment of inventory wherein the one or more replenishment patterns comprise data representing the size and frequency of replenishments for the one or more items; and

data describing the supply chain network comprising a plurality of entities, each entity configured to supply one or more items to satisfy a demand; and

a server coupled with the database and configured to:

access the data describing the inventory policy parameters;

access the data describing the one or more demand patterns and the data describing the one or more replenishment patterns;

access the data describing the supply chain network;

optimize the inventory policy parameters for each of the one or more items according to the one or more demand patterns and the one or more replenishment patterns; and

store the optimized inventory policy parameters in the database for each of the one or more items.

- 9 There are also independent claims (5 and 9) directed to a computer-implemented method and computer-readable medium embodied with software for implementing the method of claim 1. Neither the Applicant nor the Examiner have suggested these claims relate to separate inventions thus if Claim 1 is deemed to relate to excluded matter then it follows that claims 5 and 9 will also be excluded.

### **The Law**

- 10 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) 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 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.

- 11 As explained in the notice published by the UK Intellectual Property Office on 8<sup>th</sup> 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>.
- 12 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 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.
- 13 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.
- 14 The applicant has followed this approach in its various submissions.

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<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

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

### **Step 1 – Properly Construe the Claim**

- 15 This step poses no difficulty as the claim is sufficiently clear.

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

- 16 The applicant argues that the actual contribution is an improved inventory management system. I do not consider the contribution to be this broad. Whilst the invention does provide for a better management system I consider that this is the result of the invention and not the actual contribution provided.
- 17 In determining the contribution I need, as the applicant points out, to look at substance and not form and to assess what the inventor has added to human knowledge. This approach was confirmed in *Apple v. HTC*<sup>5</sup> which the applicant has referred me to. I consider that the substance of the invention, as discussed throughout the description and reflected in the claims, is that of automated rule or policy optimisation which results in continuous and finely tuned management policies for individual items. Stock is ordered, manufactured and distributed or disposed of in the conventional way and thus this cannot be said to form the actual contribution of the invention. Thus I agree with the Examiner that the contribution of the invention provides a method of managing inventory by assessing demand and replenishment patterns in order to optimise the policy parameters controlling stock of inventory items.

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

- 18 The applicant appears to suggest that a method having a real-world effect cannot be a method of doing business. Whilst determining whether a real world effect is achieved may be a useful pointer in the case of determining whether an invention relates to a computer program as such, as discussed in for example *AT&T*<sup>6</sup>, this step is not so helpful when considering business methods. An automated method of acquiring the documents necessary to incorporate a company has a real world effect but this did not save a patent application for this being excluded as a method of doing business<sup>7</sup>. Most if not all business methods have some real-world effect. That is the purpose of doing business. In this case the method relates to the activity of managing inventory. The applicant argues that poorly managed inventory, when that inventory for example relates to perishable goods could result in more waste and that this is a real world effect. I agree but this is not an argument that helps the applicant. This is because the invention has not improved the process by making a technical contribution – it has not for example modified the goods or the way there are processed in a technical way. Rather it has developed a new scheme for managing the business of inventory management based on a series of rules, analysis techniques, patterns and data. This does not provide a technical contribution and as such the invention is a method of doing business as such and is excluded under section 1(2).

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<sup>5</sup> *Apple Inc v. HTC Corp* [2013] EWCA Civ 451

<sup>6</sup> *AT&T Knowledge Ventures/Cvon Ltd* [2009] EWHC 343 (Pat)

<sup>7</sup> *Macrossan's application in Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007]

- 19 It is not disputed that the invention is implemented on a computer. However that in itself does not necessarily mean that it is excluded as a computer program. If the invention provides a technical contribution then it is not excluded.
- 20 I do not believe that the invention provides for a better computer, as asserted in the applicant's letter of 1<sup>st</sup> July 2013. Whilst the program may be an improvement over previous stock management programs this does not operate at the level of the computer to provide a new way of operating the computer itself. The invention concerns itself entirely with the handling of the specific data relating to the supply and demand of specific stock items and thus the actual contribution does not provide for a better computer per se.
- 21 Reference is made to Paragraph 58 of the *Apple* decision in support of the argument that the computer runs faster and thus provides for an improved device. This paragraph explicitly refers to the device being a better device as such, "not because it now runs different application programs but because it is, as a device, easier for programmers to use." This is not the case with the present invention. The present application relates to a program which does not have any effect on other programs run on the same computer. It does not change the way in which programmers would subsequently write code for the computer nor does it provide for any inherent speed or reliability increase of the computer itself. Any improvement is merely at the level of the specific program.
- 22 The applicant also notes that the EPO appears to be willing to grant applications for inventions in similar fields to this case apparently in the process holding that the management of stock and inventory is technical. It points specifically to EP0883849. Whilst the UK Courts have consistently noted the desirability of the UK and EPO reaching the same conclusion as to whether a particular invention is patentable, it has also reaffirmed that the approach set out in this decision is the correct approach to take when assessing whether an invention is excluded from protection. The Courts have also recognised that occasionally the different approaches adapted by the EPO and in the UK may lead to different outcomes. EP0883849 however does not relate to the particular invention that is in issue here and hence it does not really help the applicant as each case needs to be considered on its own merits.

### **Conclusion**

- 23 I conclude that the invention as claimed is excluded under section 1(2) because it relates to a method of doing business and a computer program as such.
- 24 I have carefully read the specification and can find no saving amendment. I therefore refuse the application under Section 18(3).

### **Appeal**

- 25 Any appeal must be lodged within 28 days

### **Phil Thorpe**

Deputy Director, acting for the Comptroller