

PATENTS ACT 1977

IN THE MATTER OF GB Patent
Application No 9912296.2 in the
name of Fujitsu Limited.

DECISION

Introduction

- 1 Patent Application No GB 9912296.2, entitled "Ordering system", was filed on 26 May 1999 and published on 22 March 2000 as GB 2341704.
- 2 A search report under Section 17 was issued on 13 January 2000 identifying some prior art and indicating that the claims did not relate to a single inventive concept. Four further search reports were issued on 13 June 2000.
- 3 An examination report under Section 18(3) was issued on 19 July 2002 in which the examiner reported that the application was excluded from patentability under Section 1(2)(c) because the claims related to a method of doing business and a program for a computer. In addition, the examiner also raised a lack of unity objection and novelty and inventive step objections on the basis of documents that were cited on the search reports, and a new citation that the examiner had found when updating the search.
- 4 The applicants responded to the first examination report with amendments to the claims and observations which dealt with the lack of unity, novelty and inventive step objections. However in a subsequent report the examiner maintained his objection that the application was excluded as a method of doing business and a program for a computer and in addition reported that the application was further excluded as a mental act.
- 5 The applicants requested a hearing on the issue of patentability which they subsequently withdrew, requesting instead a decision to be made based on the papers on file.

The application

- 6 In broad terms, the application relates to an automated ordering system that ensures that goods are ordered from suppliers in sufficient quantities and in time to be able to satisfy customer orders. The main embodiment described, and to which the claims in their amended form have been limited, relates to an ordering system for a cafeteria or restaurant.
- 7 The system includes a cafeteria server which contains a menu file, an ingredient file, an order receiving file, an ingredient ordering file and a serving file. The dishes available from the cafeteria are stored in the menu file and the names of ingredients and quantities which are needed for every dish on the menu are stored in the ingredient file.

When a customer selects a dish from the menu using a computer terminal, his order is communicated to the cafeteria server and an order receiving file is updated. The total quantity of each ingredient required to meet all the orders that have been placed is stored in the ingredient ordering file which also includes information to identify the supplier of each ingredient. The serving file contains information concerning the quantities of the menu items and associated ingredients that have to be cooked by a certain time, and is updated in response to the received customer orders and with reference to the other files.

8 A deadline for placing orders is established to allow sufficient time for ingredients to arrive from suppliers and for the ordered meals to be prepared in the kitchen. When that deadline is passed, all the ingredients needed to satisfy ordered meals are automatically ordered from the suppliers using the data stored in the ingredient ordering file. Orders are declined if they are placed after the deadline has passed.

9 The claims in their latest form (as filed on 20 January 2003) include independent claims 1 & 11, dependent claims 2-10 and omnibus claim 12.

10 The independent claims read as follows:

1. An ordering system comprising a cafeteria server, the cafeteria server being connectable to terminals operated by users of the cafeteria via a transmission line, and connectable to terminals provided at suppliers via a transmission line, the cafeteria server comprising:

a menu file for storing information concerning the menu provided by the cafeteria;

an ingredient file for storing names of ingredients and quantities which become necessary for every item on the menu stored in the menu file;

receiving means for receiving orders concerning items on the menu from the terminals operated by users of the cafeteria;

a reception file for storing information concerning the items on the menu ordered by the users;

a calculating unit for totalling the quantity which will become necessary for every ingredient based on orders placed by the users;

an ingredient ordering file for storing the quantity of ingredients which will become necessary, and for storing terminal identification information of the suppliers of the ingredients;

a serving file for storing information concerning the items of the menu which have to be cooked during a certain period, the quantities thereof, and the ingredients required for cooking the items of the menu therein; and

an ordering unit for ordering ingredients from the suppliers, the ordering unit comprising:

a section for setting a deadline for accepting orders from users;

a section for determining whether or not the deadline has passed when receiving an order;

a section for accepting or declining an order in dependence on whether or not the deadline is determined to have passed; and

a section for transmitting order information to a supplier terminal over the transmission line based on the information in the ingredient totalling file once the

deadline has passed.

11. A computer program which, when loaded into a computer system, causes the computer system to become an ordering system as claimed in any one of the preceding claims.

The law

11 The examiner has maintained that the application is excluded from patentability under Section 1(2)(c) of the Act, as relating to a method for doing business, a program for a computer and a mental act as such. 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.”

12 These provisions are designated in Section 130(7) as being so framed as to have, as nearly as practicable, the same effect as Article 52 of the European Patent Convention, to which they correspond. I must therefore also have regard to the decisions of the European Boards of Appeal that have been issued under this Article.

Interpretation

13 In deciding whether the present application is patentable, I must follow the approach set out in the Patent Office Practice Notice issued on 24 April 2002 entitled “Patents Act 1977: interpreting Section 1(2)”, which is that even if an invention relates to an excluded field, it will not be refused as being unpatentable *if it provides a technical contribution*. In other words, if it makes a technical contribution it does not relate to the excluded item “*as such*”.

14 This interpretation follows the decision of the Court of Appeal on another application made by the present Application. In *Fujitsu Limited’s Application* [1997] RPC 608, in which Aldous LJ said at page 614:

“However, it is and always has been a principle of patent law that mere discoveries or ideas are not patentable, but those discoveries and ideas which have a technical aspect or technical contribution are. Thus the concept that what is needed to make an excluded thing patentable is a technical contribution is not surprising. This was the basis for the decision of the Board in *Vicom*. It has been accepted by this court and by the EPO and has been applied since 1987. It is a concept at the heart of patent law.”

- 15 The questions I must therefore decide are:
- a. Does the invention relate to a method of doing business, a program for a computer and/or a mental act? If the answer to that question is “yes”
 - b. Does the invention make a technical contribution such that it cannot be said to amount to the excluded item *as such*?
- 16 If the answer to the second question is “no” the invention is not patentable.

Argument

The excluded categories

- 17 In arguing that the invention is patentable, the applicants have focussed on demonstrating that the invention makes a technical contribution. In other words, they have sought to demonstrate that the invention does not fall into one of the excluded areas *as such*. They have not attempted to argue that the invention does not fall into one of the excluded areas *per se*. Of course if the invention makes a technical contribution, which of the exclusions it might otherwise be caught by is a non-issue. However, I feel I need to address the specific exclusions before moving on to consider technical contribution.

Method of doing business

- 18 As outlined above, the application relates to a system for automatically ordering ingredients from suppliers to permit a cafeteria to provide food to order. That the independent claims are drafted as an ordering system comprising various pieces of hardware and as a computer program is an irrelevance when considering the exclusions from patentability. The UK courts have made it perfectly clear that it is the substance of the claim that is important rather than its specific form. For example, in *Merrill Lynch's Application* [1989] RPC 561, Fox LJ said at page 569:

“It cannot be permissible to patent an item excluded by section 1(2) under the guise of an article which contains that item - that is to say, in the case of a computer program, the patenting of a conventional computer containing that program. Something further is necessary.”

- 19 Thus merely claiming the invention as a system or a program has no bearing in UK law on whether the invention is caught by the business method exclusion. The provision of food to order is to my mind clearly a business process and the invention falls within the general ambit of the “business method” exclusion.

Method for Performing a Mental Act

- 20 The specification discusses the shortcomings of conventional cafeteria systems which rely on the judgement of the chef or manager to assess likely demand and to order the predicted quantity of required ingredients. The solution proposed by the invention is to automate that process. At first sight it might appear perfectly reasonable to conclude that using a computer to carry out a method necessarily means that the “mental act”

exclusion is avoided. This point has, however, been considered on numerous occasions by the UK courts. For example, in *Wang Laboratory Inc's Application* [1991] RPC 463, Aldous J said at pages 472 and 473:

“The fact that the scheme, rule or method is part of a computer program and is therefore converted into steps which are suitable for a person operating the computer does not matter. ... The method remains a method of performing a mental act, whether a computer is used or not. ... The method may well be different when a computer is used, but to my mind it still remains a method of performing a mental act, whether or not the computer adopts steps that would not ordinarily be used by the human mind.”

- 21 Thus, just because a computer is involved is not sufficient for the “mental act” exclusion to be avoided. In this instance, even though the claims define a system for ordering food and ingredients, I conclude that this process is replicating a mental process and that the invention falls within the general ambit of the “mental act” exclusion.

Program for a computer

- 22 As I have stated above, the form of the claim is of no importance in determining whether the substance of an invention is such that it falls into one of the excluded categories. Claim 1 is drafted in terms of a system comprising various pieces of hardware and at first glance does not look like a program for a computer. However, in the absence of any indication to the contrary in the specification I conclude that the hardware employed is entirely conventional. I am in no doubt that the most convenient means for implementing the invention is via a piece of computer software and in reaching that conclusion I am reassured that claim 11 is drafted as computer program. I conclude that irrespective of the form of wording employed, claim 1 (as well as claim 11) falls within the ambit of the “computer programs” exclusion.

Technical Contribution

- 23 I have found that the invention falls within the general area of the “business method”, “mental act” and “computer program” exclusions. That is not the end of the matter however. It is now incumbent upon me to decide whether the invention amounts to those things *as such* by applying the technical contribution test. What constitutes a ‘technical contribution’ has been the subject of a good deal of argument before both the UK Courts and the Boards of Appeal of the EPO. They have concluded that the technical contribution can manifest itself in a number of ways and the agent has identified a range of sources which he says provides one. I will of course address each of those lines of argument in turn. However before doing that I shall consider the problems which the specification identifies as needing to be solved and the affects achieved in doing that to determine whether they provide the required technical contribution.

- 24 It is generally the case that the problems an invention seeks to overcome are set out in the body of the patent specification. The present application is no exception. In the introduction to the description the problem with what I shall call “traditional” cafeteria is identified as being the difficulty in predicting demand, and hence of ordering sufficient (but not excess) raw ingredients to meet future demand. Traditionally, the application says, chefs and restaurant managers have relied upon their experience to predict levels of demand. The consequences of over or under estimating that demand are self evident.
- 25 Whilst there are clear advantages to be had in providing a system in which waste or dissatisfied customers are avoided, I do not consider that problem to be a technical one. It is a problem of stock control for a cafeteria which I consider to be a business or administrative problem. Solving it does not in itself provide the required technical contribution.
- 26 The final section of the description is devoted to outlining the effect achieved by the invention. These can I think be summarised as resulting in a cafeteria system that is more customer friendly, more efficient and less burdensome for the operator.
- 27 Whilst these outcomes may all be highly desirable, I do not consider any of them to be sufficient for the invention to be said to make a technical contribution through the effect achieved. This issue was also considered by the Court of Appeal in relation to the *Fujitsu* application I referred to earlier. In his decision on that application, Aldous LJ said at page 618:
- “Mr Birss is right that a computer set up according to the teaching in the patent application provides a new tool... which avoids labour and error. But those are just the sort of advantages that are obtained by the use of a computer program. Thus the fact that the patent application provides a new tool does not solve the question of whether the application consists of a program for a computer as such or whether it is a program for a computer with a technical contribution.”
- 28 Amendments made to the claims have overcome the novelty and inventive step objections raised by the examiner and I am satisfied that the invention provides Aldous LJ’s “new tool”. However, as outlined above, the Court of Appeal has given clear guidance that a new tool which merely reduces labour and mitigates error does not necessarily make a technical contribution. I have not been able to identify any technical contribution arising from the effects achieved by the present invention.
- 29 In addition to the problems to be solved and the effects achieved which are explicitly identified in the specification, the applicants have identified a number of other aspects which they allege provide a technical contribution.
- 30 First, the applicants have argued that the solution to the problem has a technical character. In particular, they have stated that “The section for determining whether or not the deadline has passed is a technical feature, because it needs to compare two separate pieces of information (the time of the order and the deadline) to produce a result; the section for accepting or declining an order is a technical feature because it acts on that result to produce a further result, namely the acceptance or declination of

the order; and the section for transmitting order information to a supplier terminal is a technical feature because it transmits information via a transmission line”.

- 31 Similarly, the applicants have stated that the provision of five separate files to store the information relating to menus, ingredients, customer orders, ingredient orders and servings is technical since it requires partitioning of the physical memory of the system. Furthermore, the invention also requires updating of the information stored in those files when specific triggers are activated. The applicants contend that the file organisation in the cafeteria server, and the way in which the files are updated, is inherently ‘technical’.
- 32 I agree that the organisation and operation of the claimed computer system can be described as ‘technical’. But this is not the same as saying that there is a ‘technical contribution’. In the absence of any indication in the specification to the contrary, I conclude that the hardware employed to implement the invention is entirely conventional and in itself cannot make the required technical contribution. Furthermore, I can find nothing to suggest that the memory partitioning and updating of the data contained therein makes a technical contribution, rather I consider the definitions of the different files and the interrelationships between them to follow on naturally from the automation process.
- 33 As the feature which was absent from any of the prior art cited by the examiner, it is perhaps not surprising that the applicants have placed great significance on the deadline setting step of claim 1. Indeed, the applicants have tried valiantly to build up the importance of this step in the process. In particular, they have argued that a technical contribution lies in the reduction in processing and storage requirements that result from the use of a deadline in the ordering system. They say that if no deadline was set, customer orders may have to be stored unnecessarily, or new supplies may have to be ordered. I agree that such efficiency savings will indeed be made by the incorporation of the deadline into the automated system.
- 34 However, to my mind, the applicants’ assessment of the state of the art in catering provision does not provide the complete picture. In my experience, it is accepted practice in many restaurants to ask customers to place an order for food in advance of arriving at the restaurant. This is particularly so at busy times of the year, for example for Christmas lunches. This serves a number of purposes: it allows the restaurant to ensure sufficient ingredients are available to satisfy customer demand and speeds up the process of providing meals to large numbers of customers. When asking for orders to be placed in advance in this way, restaurants inevitably impose a deadline eg “Orders must be placed at least 24 hours in advance” to ensure ingredients arrive in time to permit their preparation. This is precisely what the present invention seeks to replicate, albeit via an automated system. It is my considered opinion that what the invention does is automate what was previously done manually. Any efficiency savings follow on naturally and directly from this automation.
- 35 As I have alluded to above, the case law teaches us that simply using a computer to automate what was previously done manually is not enough for an invention to be said to make a technical contribution. There is nothing in the specification to suggest that anything other than conventional hardware, programmed in a conventional way, is used

in realizing the invention. Consequently, I must conclude that the claimed invention fails to provide the necessary technical contribution.

Decision

- 36 I have found that the invention as claimed in this application is no more than the application of known technology to a business administration problem, and that it fails to provide any technical contribution. I therefore find that it is excluded from patentability as a method for doing business and a program for a computer as such. Insofar as the invention is considered to involve the automation of what was previously done manually, I also find it to be excluded from patentability as a method for performing a mental act as such. Although consideration has been focussed on the independent claims, I can find nothing in the other dependent claims, or indeed the rest of the specification, that would provide support for any patentable claim. Accordingly I refuse the application under Section 18(3) on the grounds that the invention is excluded by Section 1(2)(c).

Appeal

Any appeal against this decision must be filed within 28 days.

Dated this 23rd day of October 2003.

A BARTLETT

Deputy Director acting for the Comptroller

THE PATENT OFFICE