



BL O/052/05

9 March 2005

PATENTS ACT 1977

APPLICANT Chicago Mercantile Exchange Inc

ISSUE Whether patent application number GB0312325.4 is
excluded from being patentable under section 1(2)(c)

HEARING OFFICER P Thorpe

DECISION

Introduction

- 1 International patent application number PCT/US2001/045715 entitled, "Network and method for trading derivatives" was filed on 30 October 2001 in the name of Liquidity direct Technology Inc claiming priority from a United States application with an earliest date of 30 October 2000. The international application was published as WO02/037390 on 10 May 2002.
- 2 As International Searching Authority, the European Patent Office declined to establish an international search report since the claims related to subject matter for which no search is required according to Rule 39 PCT.
- 3 The application entered the national phase in the UK as GB0312325.4 and was published as GB 2386725 on 24 September 2003.
- 4 The application was assigned to Chicago Mercantile Exchange Inc. on 20 May 2004.

The Application

- 5 The application concerns a method of electronically trading derivatives. In particular the method includes providing a network managing station which acts as a facilitator for market makers and subscribers to make a trade at an exchange. The method of this invention is intended to be implemented through the use of computers linked by a network. The various functions of the invention are controlled by software running on the computers.
- 6 The claims before me are those incorporating amendments filed on 13 September 2004 and comprise 10 claims of which 2 are independent. The main claim, claim 1 reads:

1. A computer network system for trading derivative products comprising:

- (a) a network managing station;
- (b) one or more market maker stations;
- (c) one or more subscriber stations ;
- (d) one or more exchanges, wherein

each subscriber station and each market maker station is in communication with the network managing station,

the market makers stations are in communication with the exchange for sending binding quotes for products and the subscriber stations are in communication with the exchange for sending orders to the exchange;

each market maker station has hardware and software to provide indicative quotes for subscribers and binding quotes to be sent to the exchange and each market maker station provides a list of products for which it will quote to the network managing station;

the subscriber station is configured to allow a user to select a product for which an indicative quote is to be requested, and to request an indicative quote by querying the network managing station for the address of one or more market maker stations that are listed as quoting for the product;

the market maker stations are configured to receive a request for an indicative quote from a subscriber station and to respond to the request by providing an indicative quote to the subscriber station;

the subscriber stations are capable of responding to an indicative quote from a market maker station by sending a request for a binding quote to the exchange, thereby alerting all market maker station and all subscriber stations to the request for a binding quote.

- 7 There are also claims to the network managing station per se of claim 1 and also to computer software which when run on a server configures it to operate as the claimed network managing station.

Objections raised by the examiner

- 8 A first report under section 18(3) was issued on 12 March 2004 and included an objection that the application was excluded from patentability under section 1(2)(c) as a method for doing business, a mental act and/or a computer program. The applicant's agent responded in a letter dated 13 September 2004 with an amended set of claims that sought to emphasise the technical contribution provided by the invention.
- 9 A second report under section 18(3) was issued on 24 May 2004 maintaining the

patentability objection and noting that further correspondence was unlikely to resolve the issue of patentability and that the applicant might wish the case to be heard by a senior officer. The agents duly requested a hearing.

- 10 The matter subsequently came before me at a hearing on 26 January 2005 at which the applicant was represented by Mr. Matthew Dixon. Mr. Jake Collins and Mr. Michael Prescott attended for the Patent Office.

The Law

- 11 The examiner has maintained that the application is excluded from patentability under Sections 1(2)(c) of the Act, as relating to a method for doing business, a mental act and/or a program for a computer 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 purposes 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 (EPC), to which they correspond. I must therefore also have regard to the decisions of the Boards of Appeal of the European Patent Office (EPO) that have been issued under this Article in deciding whether the present invention is patentable.

Interpretation

- 13 The final clause of S1(2) states that inventions are only excluded if they relate to the excluded categories “as such”. The Courts have decided that an invention does not relate to excluded matter “as such” if it makes a technical contribution. For example in *Fujitsu Limited Application* [1997] RPC 608, Aldous LJ said at page 614: “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 make a technical contribution are. Thus the concept that what is needed to make an excluded thing patentable is a technical contribution is not surprising. That was the basis for the decision of the Board in *Vicom*. It has been accepted by this Court and the EPO and has been applied since 1987. It is a concept at the heart of patent law”.

- 14 The Office applies this “technical contribution” test to all the exclusions. This was made clear in the practice notice issued on 24 April 2002 entitled “Patents Act 1977: interpreting section 1(2)” It has been applied in various recent decisions of the comptroller’s hearing officers. These can be found on the Patent Office website at <http://www.patent.gov.uk/patent/legal/decisions/index.htm>. For the purpose of this decision I consider it necessary only to restate the principles I have applied, not their origin.
- 15 First, it is the substance of the claim rather than its particular form that is important. Second, whether an invention makes a technical contribution is an issue to be decided on the facts of the individual case. Third it is desirable that there should be consistency between the Patent Office’s and EPO’s interpretation of the exclusions in the Patents Act and EPC. Finally any doubt over the patentability of the invention should be resolved in favour of the applicants.
- 16 In deciding whether the present invention is excluded from patentability I shall consider two specific questions:
- Does the invention relate to a business method and or computer program?
- If yes does the invention make a technical contribution?
- 17 At the hearing Mr Dixon accepted that this was the correct approach to follow.

Argument

- 18 Neither during the processing of the application nor at the hearing was it argued that the invention did not relate to potentially excluded matter. Rather the emphasis was directed solely to convincing first the examiner and then me at the hearing that the invention was saved from being excluded because it made a technical contribution. However for completeness I should say something about the exclusions. The invention is concerned with the trading of derivatives and as such it clearly relates to a business activity. Therefore I consider it to be potentially caught by the method of doing business exclusion. That the amended claims also specifically include claims directed to computer software leaves me in no doubt that the invention is potentially also caught by the computer program exclusion.
- 19 The question of what constitutes a technical contribution has been the subject of a good deal of argument before the Comptroller, the UK Courts and the Boards of Appeal of the EPO. On more than one occasion Judges in this country have commented on the difficulty of deciding where the boundary is in respect of technical contribution. Nevertheless the case law suggests that a technical contribution might result inter alia from:
- the problem underlying, and solved by, the claimed invention;
 - the means, that is the technical features, constituting the solution of the underlying problem;
 - the effects achieved in the solution of the underlying problem and/or
 - the need for technical considerations to arrive at the computer implemented invention as claimed.

- 20 At the hearing Mr Dixon addressed me at some length on the issue of technical contribution and in doing so produced two diagrams on a flipchart to more clearly illustrate the nature of the technical contribution. These I found to be most useful. I will therefore attempt to do justice to Mr Dixon's artistry by briefly describing the diagrams.
- 21 The first diagram reflected a floor based trading system still apparently common in for example the US where market makers (vendors) and subscribers mingle and trade with one another on the floor of an exchange.
- 22 The second diagram illustrated an electronic trading system as apparently exists now in Europe where a number of market makers and subscribers are each connected to a central exchange. Mr Dixon explained that typically in an electronic trading system market makers would provide binding quotes to the exchange via the network. Subscribers would then send orders taking up a particular quote to the exchange thereby completing the trade.
- 23 According to Mr Dixon the type of arrangement shown in the second diagram has the disadvantage that neither party really has the ability to gauge the market before completing the trade. In other words a market maker cannot easily ask a subscriber would he buy if he offered product X at price Y. Similarly a subscriber cannot easily ask a market maker what price he would sell were they to be interested in buying. The application refers to this as the ability to request and supply indicative quotes.
- 24 Mr Dixon explained that the challenge facing the inventor was how do you provide indicative quoting in a network based system. He suggested that one option would be to mark up quotes as either binding or indicative and then these quotes would be sent through the exchange by a particular market maker to all the subscribers. But this according to Mr Dixon creates a large amount of data traffic going through the exchange since each indicative quote will be sent to each market maker and subscriber. Any response to the indicative quote would also be copied to all those connected to the central exchange. He went on to explain that the invention "overcomes" this problem through the use of a network managing station to allow particular market makers and subscribers who are interested in indicative quotes for a specific product to be identified.
- 25 More specifically, with a system according to the invention market makers would log on to the network managing station and provide it with an indication of the products on which they are prepared to quote. This creates a searchable database of market makers prepared to quote for particular products. The subscribers would then be able to query the network managing station to find out which market maker or makers are prepared to provide quotes for the products that they are interested in. Having obtained the relevant addresses, the subscriber is able to contact the market maker or makers direct to get an indicative quote. Mr Dixon referred to this latter aspect as a peer to peer contact arrangement ie the parties communicate directly with one another rather than communicating through the exchange. If the indicative quote is acceptable then a binding quote can be made and the trade completed in the exchange.
- 26 Therefore according to Mr Dixon the technical contribution is two fold. Firstly it is the ability to not overload the exchange with data traffic when you are obtaining indicative quotes by

using direct communication between the interested subscribers and market makers rather than routing such communication through the exchange. Secondly it is to do that by maintaining a database of only those who are prepared to quote for particular products.

- 27 Mr Dixon has identified two sources of technical contribution. I will consider firstly the role of the network managing station. The idea of creating a database to match those interested in receiving indicative quotes with those prepared to offer them clearly has the potential to reduce the amount of data being communicated in the system. This is certainly true when compared with a system where all requests for indicative quotes and any responses thereto are communicated to all parties connected to the network. A reduction in the data communicated in a system is almost invariably desirable and if achieved by technical means may well provide a technical solution to a technical problem.
- 28 Mr Dixon argued that the network managing station provides such a technical solution. I must respectfully disagree. In the present case it seems to me that the reduction in data transmitted results from the decision to require market makers to register their areas of interest first and then to use this to match them up with interested subscribers that results in the reduction in data. That though is a change in the underlying business method rather than a technical solution. The actual hardware to do this, although technical in character, is entirely conventional. There is therefore no technical solution to any possible underlying technical problem; rather any technical problem is avoided or circumvented by modifying the business method. Consequently I do not believe that the provision of the database in the network managing station provides the necessary technical contribution. My reasoning on this point seems entirely consistent with previous decisions from both this Office and the EPO¹
- 29 The second area where Mr Dixon felt there was a technical contribution was in the use of direct communication between the interested subscribers and market makers (as opposed to routing such communication through the exchange) in order not to overload the exchange. There are clearly cases where managing the flow of data through a communication channel can be considered as a technical solution to a technical problem. Mr Dixon argues that communicating data relating to both indicative and binding quotes through the server of the exchange may overload that server. That may well be the case.
- 30 However as Mr Dixon explained at the hearing and as the application itself brings out, indicative trading is already a feature of existing exchanges whether they are floor or network based. The application for example highlights the price discovery that takes place manually in an informal "cash" phone market in existing network based exchanges. As I understand it market makers and subscribers communicate with each other by phone possibly through a broker with a view to testing the market. Trades are then completed through the network based exchange. Mr Dixon also explained that indicative quoting takes place informally by traders talking to each other in floor based exchanges.
- 31 Therefore what the invention in this case does is effectively to computerize what was previously done by word of mouth either on the floor of the exchange or via the telephone. It has been consistently held, not least in *Fujitsu*, that the mere computerization of something

¹ See for example BL/O/364/04

previously done manually is in itself not sufficient for an invention to be said to make a technical contribution. Something else is needed. I have indicated in paragraph 19 above some of the things that might provide this something else. However as hard as Mr Dixon tried to persuade me I cannot see anything in the way that the various parties are electronically connected to one another that suggest a technical contribution has been made.

Conclusion

- 32 I have found that the invention fails to provide any technical contribution and that it is therefore excluded from patentability as a method of doing business and a computer program under Section 1(2)(c) of the Act. Having been unable to identify anything contained in the application that might support a patentable claim, I therefore refuse the application under Section 18(3).

Appeal

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

P THORPE