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6 September 2006

# PATENTS ACT 1977

APPLICANT

EBS Dealing Resources International Limited

ISSUE Whether patent application numbers GB 0317232.7 and GB0220666.2 relate to patentable inventions

HEARING OFFICER

A Bartlett

# DECISION

### Background

- 1 This decision concerns whether patent applications GB0317232.7 ('232 hereafter) and GB 0220666.2 ('666 hereafter) in the name of EBS Dealing Resources International Limited are excluded from receiving patent protection under section 1(2) of the Act.
- 2 Both applications are derived from PCT applications and upon entry into the national phase were published as GB2387698 and GB2377295 respectively. The examiners dealing with the cases have consistently reported that the inventions defined in the two applications are excluded as methods for doing business, programs for computers and/or methods of performing mental acts.
- 3 Having been unable to resolve those issues the matter came before me at a hearing on 29 September when the Applicants were represented by Mr Patrick Lloyd and Mr Ian Loveless of the Patent Attorneys Reddie & Grose, assisted by Mr Rhyan Probert. The examiners Mr Kalim Yasseen and Mr Matthew Cope also attended to assist me.
- I should add at this point that dealing with these applications at a single hearing and by issuing a single decision reflects the similarity of subject matter between the two applications and the fact that many of the issues covered are common to both. I stress however that the each application has been decided on its individual merits.
- 5 For the sake of convenience in this decision I have attributed all arguments put forward on behalf of the Applicants to Mr Lloyd although I acknowledge that Mr Loveless also contributed extensively at the hearing.

6 In structuring this decision I shall first deal with issues common to both applications before moving on to the details of the individual applications.

## The Law

7 In the final examination reports issued on the two applications, the examiners reported that the inventions are excluded from patentability under section 1(2)(c) of the Act. 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."

8 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 that have been issued under this Article in deciding whether the invention is patentable although I am not bound to follow them.

### Interpretation

9 How these provisions of the Act should be interpreted was considered in detail by Deputy Judge Peter Prescott QC in his judgment in *CFPH*<sup>1</sup>. In that judgment he considered the reasoning behind the various exclusions and their effect. In addition he considered the difference in approach adopted to decide patentability in the UK and the European Patent Office and, having found there to be shortcomings in both, proposed an alternative test. In doing that the Deputy Judge was seeking to avoid the problem inherent in the old "technical contribution" test that there is no (and is never likely to be any) accepted definition of "technical". Whilst in his opinion that did not cause a problem for the majority of patent applications he considered it problematic on the borderline of patentability. He therefore proposed an alternative two stage test for assessing such cases which can be summarized as

i) Identify what is the advance in the art that is said to be new and not obvious (and susceptible of industrial application).

ii) Determine whether it is both new and not obvious (and susceptible of

<sup>1</sup> CFPH LLC's Application [2006] RPC 5

industrial application) under the description "an invention" in the sense of Article 52 of the European Patent Convention (EPC) — broadly corresponding to section 1 of the Patents Act 1977.

10 Whilst subsequent judgments<sup>2,3,4,5</sup> have expressed the test in slightly different terms, I am content that the test adopted in all these cases is fundamentally the same as the one the Deputy Judge applied in *CFPH*. Furthermore at the hearing Mr Lloyd accepted that that was the test I should adopt in deciding whether the invention was excluded or not although in doing that he was at pains to stress that in doing that I must look at the invention defined in the claims as a whole rather than categorise the individual elements as either excluded or not excluded. I shall come back to that point but for the time being I confirm that in carrying out the assessment it is necessary for me to properly construe the claim as per Pumfrey J's formulation of the test from *RIM*. where he said at paragraph 86:

"It is now settled, at least at this level, that the right approach to the exclusions can be stated as follows. Taking the claims correctly construed, what does the claimed invention contribute to the art outside excluded subject matter?"

- 11 Doing that will reflect the long established principle of patent law that in assessing whether the invention is patentable it is the substance of the invention that is important rather than the form of wording used in the claims.
- 12 One other thing that those other judgments have made clear is that the *CFPH* type test is not inconsistent with the "technical contribution" approach first introduced by the EPO Board of Appeal in *Vicom*<sup>6</sup> and endorsed by the Court of Appeal in *Merrill Lynch*<sup>7</sup> and *Fujitsu*<sup>8</sup>. Thus in applying the *CFPH* test to the present case I will also consider whether the invention makes a "technical contribution". If I can identify a contribution probably lies outside the excluded area and that the invention is patentable.

#### The applications

13 Both applications concern systems whereby traders can buy and sell commodities such as shares, currency and the like to other traders via a network of computer terminals. Each terminal has a user interface allowing the trader to take part in a series of ongoing transactions displayed in a deal stack by inputting text. That text is parsed to extract significant information and it is the particular way that this parsing is carried out that is at the heart of the inventions – the parsing being dependent upon the status that a particular

<sup>2</sup> Halliburton Energy Services Inc v Smith International (North Sea) Ltd and others [2006] RPC 25

<sup>3</sup> Shopalotto.com Ltd's Application [2006] RPC 7

<sup>4</sup> Crawford's Application [2006] RPC 11

<sup>5</sup> Research in Motion vs Inpro Licensing SARL [2006] EWHC 70 (Pat)

<sup>6</sup> Vicom/Computer related invention T208/04

<sup>7</sup> Merrill Lynch's Application [1989] RPC 561

<sup>8</sup> Fujitsu Limited's Application [1997] RPC 608

deal has reached.

- 14 For example once the system has detected that a request for a quote has been received ('does anyone want to trade Swiss Francs for US dollars?'), any text subsequently entered is parsed with a view to identifying data relevant to the next stage of the deal ('Yes, I'd like to sell 10 million Swiss Francs'). Once that is identified the parsing regime changes to look for terms relevant to the next stage ('I'll buy those at 1.23 Swiss Francs per dollar')
- 15 At the hearing I was asked to consider a main and an auxiliary claim set for each of the applications. I have summarized the independent claims for each of those sets for convenience below. They include claims of various categories but for the purpose of this decision I only consider it necessary to include the independent system claims for each. Those claims are reproduced in Annex A. For clarity however I think it appropriate that I should explain some of the jargon used in those claims. First, "conversational dealing" does not refer to verbal communication, rather it refers to free text input by the trader via the user interface. Second the text entered is parsed to extract significant information which is put into a standard format in the "deal string". That information is then displayed in a deal stack showing all the deals a particular trader is currently involved in.

### GB0317232.7

- 16 The main request on this application includes independent claims to the system, terminals for use in that system, a method of trading using the system and a storage medium carrying a program for performing the steps of the invention whereby once the deal related information is detected by the status dependent parser a message including the deal status and deal related information is generated, some of those claims specifying that the message is returned to the trader's user interface (to allow him/her to confirm an intention to proceed).
- 17 The claims of the auxiliary request for this application are as above except that they include the additional limitation that once the parsed message has been generated, no record of the deal related information is retained in the parser.

### GB0220666.2

- 18 The main request for this application includes independent claims to the dealing system and trader terminals for use in that system whereby when a change in status of a deal is detected, the deal stack is notified and generates a deal string reflecting the new status.
- 19 The claims of the auxiliary request are as per the main request but with the additional feature that the trader terminals also facilitate the input of non-conversational deal related information into the deal stack eg via menus
- 20 In deciding whether the respective inventions relate to patentable subject matter I shall focus on the first claim in each of these four groupings ie the systems claims. If I find the system claim in any grouping to be excluded I

think it follows naturally that the remaining independent claims in that grouping are also excluded.

### Argument

- 21 At the hearing Mr Lloyd readily accepted that the process of trading instruments was a business process and that the invention was implemented via computer software. However he stressed that did not mean that the inventions defined in the claims were methods of doing business or programs for a computer as such. He said that the Applicants had not invented a new business method. On the contrary the business method was not new. What the Applicants had done, he said, was to develop a new tool which made it easier for traders to conduct their business.
- 22 In similar vein, Mr Lloyd also argued that the invention was not a mental act as such. He said it was not just automating what would previously have been done manually in a dealing room the mental acts involved in the trading process are still going on. He said that what the invention provides is something in the middle, between the two parties, that analyses what is going on and extracts from that what the system needs to do.
- 23 Mr Lloyd acknowledged that in his judgment in *Fujitsu*, Aldous LJ had made it clear that the fact that a computer program provided a new tool that reduced the labour or burden associated with doing something manually did not necessarily mean that the program escaped the computer program exclusion. Mr Lloyd said that the way that the Applicants' systems worked provided a technical contribution or effect that did make it patentable. It did not then matter that it was implemented as a program for a computer, it being widely accepted that computer programs which make a technical contribution or effect are patentable.
- 24 This argument I think comes back to Mr Lloyd's point on the need to properly construe the claim in deciding if an invention is patentable. In my view the process of parsing is an intellectual one and thus could be considered to be a method of performing a mental act. The overall process of trading instruments is a business process, which is again potentially excluded. And since it is computer implemented invention it is also potentially caught by the computer program exclusion. However, Mr Lloyd seems to be saying that as an amalgamation of all those things it does not relate to any one of them as such and thus the exclusions are avoided. I do not think that is a sustainable argument. Most of the business method or mental act cases considered by the courts in recent times have been computer implemented inventions and thus more than one of the exclusions applied to them. Indeed the CFPH applications themselves were concerned with computer implemented business methods. This kind of "hybrid" invention does not really lend itself to the process of pigeon-holing the invention into one or other of the excluded categories. The key point that comes out from the precedent case law is that to be patentable an invention must make an advance outside the excluded subject matter areas.
- 25 What I must do is identify the advance made in each of the claim sets and

decide if that is patentable. To do that I think it is convenient to analyze the inventions relative to the nearest prior art identified by the examiners.

- 26 Whilst different patent documents have been cited by the examiners as the nearest prior art, those documents are all related and effectively contain the same disclosure, namely GB2224141 and US 5003473. Mr Lloyd added a third related patent document to those, GB2226217. These are all attributable to one of the Applicants' competitors, Reuters, and, Mr Lloyd advised me, relate to the technology employed in the Reuters Dealing 2001 Product widely used in current trading systems.
- 27 I have hinted earlier that the specific way that the parsing is carried out is at the heart of the present inventions. There was complete agreement between Mr Lloyd and myself on this. In particular, we agreed that the advance at the core of all the claims was that the parsing carried out in the Applicants' system was dependent upon the stage that a particular deal had reached. For example, if an offer to sell had been detected then subsequent conversations were parsed with a view to detecting data indicating an intention to buy. This was in contrast to the prior art (Reuters) system where the parsing was dependent upon the type of deal being made, but not its stage.
- 28 Having identified that core advance, I now need to decide whether that is an advance in a non-excluded area as per the second stage of the CFPH test. If I find that it is then it follows that all the claims are patentable. If it is not I will go on to consider the specific features of the various claim sets to see if any of those make the required advance in a non-excluded field.
- As Mr Lloyd explained, the reason for carrying out deal stage dependent parsing is to minimize the amount of data that needs to be analyzed. The advantages of reducing the amount of data processing required are self evident and in Mr Lloyd's view by doing this the Applicants had changed the way the computer processes information rather than changing the business process. He said that this was a technical consideration and made a technical contribution by increasing the processing efficiency – a line of conversation is parsed and the way the next line is parsed depends upon the status related information found in the previous line.
- 30 Mr Lloyd said that in common with a number of other inventions which had been granted patent protection, the present inventions concerned the interplay between what the system adds technically and how that relates to the business process that the system will be implementing. That he said was a patentable advance – the reduction in the amount of data to be processed had nothing to do with the business process at all. Furthermore they said that the reduction was achieved by detecting the stage of the deal, something that traders did not normally try to do.
- 31 I am not persuaded by this line of argument. The saving in data processing efficiency compared to that required in the Reuters system is, it seems to me, inextricably linked to the business process that is being carried out – making the parsing operation dependent upon the deal stage rather than the type of deal. Of itself that is not fatal to the Applicants' case. When considering this

point at the hearing, Mr Lloyd argued that *CFPH* specifically teaches against ignoring the business context when assessing an invention. As I pointed out at the hearing, the context within which the Deputy Judge warned against doing that was when assessing whether an invention was obvious, not when assessing whether it was excluded. That said, I certainly agree that it is somewhat irrelevant that an invention is made for commercial reasons when deciding if it is patentable – after all a large proportion of inventions are made so that the inventor can make or save money. Again I come back to the fundamental point that to be patentable, an invention must make an advance in a non-excluded field.

- In my opinion, parsing the analysis of data to extract specific information is 32 an intellectual process. What the Applicants have done is to improve existing trading systems by realizing the benefits to be had by parsing the raw data according to a different set of rules than has been done previously. In my view it is exactly analogous to skim reading a passage looking for certain words or phrases and on finding them continuing the process looking out for different words or phrases. Irrespective of whether that is done using a computer, following the reasoning of Wang<sup>9</sup> and Fujitsu that remains a mental act and of itself the parsing method does not provide a patentable advance. The situation may well have been different if the parser operated in a way that was different at a functional level. However we do not have that here – the parser has simply been programmed to respond according to a different set of rules. The advance in doing that it seems to me falls squarely within the excluded subject matter area as a method of performing a mental act and, as a computer implemented invention, a program for a computer.
- 33 Furthermore, I do not consider that the invention can be said to make an advance in a non-excluded field by its field of use. That an excluded item can be rendered patentable if suitably tied to a technical application is clear from the judgment in *Fujitsu* where Aldous LJ said at page 614 line 40:

"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 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*<sup>10</sup>. It has been accepted by this court and by the E.P.O. and has been applied since 1987. It is a concept at the heart of patent law."

34 This was confirmed recently by Pumfrey J in his judgment in *Halliburton* when he said at paragraphs 216 and 217 that :

An untethered method claim may well cover activities which have nothing to do with any industrial activity, but, if the claim is tied down to the industrial activity, it becomes a valuable invention restricted to its proper

<sup>9</sup> Wang Laboratories Inc's Application [1991] RPC 463

<sup>10</sup> In Vicom the Board decided that a mathematical method was not of itself patentable but that a method of enhancing an image using that method was.

sphere."

- 35 In that case, which concerned the modeling of drill bits for use in the oil industry, Pumfrey J made it clear that an otherwise unpatentable invention could form the basis of a patentable invention if it was properly constrained to a technical field, in that instance the manufacture of drill bits.
- 36 However, in the present case the field of use of the invention is not a technical field it is itself an excluded area, namely a trading system.
- 37 Thus I conclude that the unifying concept underlying all four of the claim sets (a trading system whereby information is parsed depending upon the stage a deal has reached) relates to excluded matter in that it does not make an advance in a non-excluded field. As I said earlier however, that is not the end of the matter and I now need to consider the specifics of the individual claim sets.

### The specific claim sets

- 38 The independent claims in the main request on '232.7 include the core concept identified above along with the additional detail that the parsed message contains the deal status and the deal related information. Furthermore independent claims 1 and 16 (the system and terminal claims) specify that this parsed message is returned to the user interface. From the description it appears that this is done to allow the trader to confirm the content of the parsed message before it is disclosed to other traders. The provision of such a confirmation step is, it seems to me, merely a matter of standard programming to provide a function that is desirable in the trading system, namely to allow verification of the accuracy of data to be transmitted. I can certainly see no advance in a non-excluded field made by the system providing such a function. I consider claims 1 and 16 of the main request to be excluded.
- 39 As for the auxiliary request, Mr Lloyd explained that the purpose of this amendment was to clarify the way in which the system worked with a view to further distinguishing the present invention from the Reuters system. In particular he said that in the Reuters system all the processing took place in the parser where as in the present invention, once parsed, the relevant information was transmitted elsewhere with no record being stored in the parser. Additionally it is clear from the description in '232 that by not having to have any storage capability, the parser can be very simple.
- 40 Whilst I agree that specifying that no deal related information is stored in the parser of the present invention does highlight a difference compared to the Reuters system, I am not persuaded that it is a patentable advance. The benefits of central rather than local storage of data are notorious and I can see no particular benefit in employing such in a conversational dealing system. It is merely a matter of routine programming to implement that functionality and based on all the information available to me I cannot see how that provides an advance in a non-excluded field.

- 41 Thus I conclude that claim 1 and 16 in the auxiliary request for '232.7 also relate to excluded matter and are not patentable.
- 42 I am aware that thus far I have focused on the claims to the system and the trader terminal for use in that system and have not said much about the claims to the method of trading using that system or to the computer readable medium carrying instructions for implementing the system. In fact I do not think they warrant much discussion having found the system and terminal claims to be unpatentable. It is clear from *Merrill Lynch* that an excluded program does not become patentable merely by claiming it as an item containing that program. Thus the claims to the medium carrying the program in the main and auxiliary requests are also fall under the computer program exclusion.
- 43 Similarly it would be ludicrous to conclude that the system was rendered patentable by claiming it as a method of trading instruments using that system when methods of trading fall within the business method exclusion. Thus I also find the independent "method of trading instruments" and "computer readable medium" claims to be unpatentable.
- 44 I have carefully considered the dependent claims and the entire specification but have been unable to find anything that could form the basis of a patentable claim.
- 45 Turning now to '666.2, the independent claims of the main request contain the core concept identified above along with the additional detail that the trader's user interface includes a deal stack allowing the trader to participate in multiple deals whereby when the stack is notified of a change in deal status, it generates a deal string appropriate to the new deal status.
- 46 As explained earlier, the deal string contains the key information relating to a particular deal in standardized format. This it seems to me is precisely the same information as was previously contained in the formal deal tickets used to document deals in manual systems and generated electronically in the Reuters system. Indeed the information in the deal string is ultimately used to generate just such a formal deal ticket in the present invention. I found above that the core concept of deal status dependent parsing does not provide the required non-excluded advance. The only other possible advance that the system defined in the main request can provide seems therefore to be that the trader terminal can be used to participate in multiple deals. However, it is clear that the Reuters system allows multiple deals to be underway at any given time. For example US 5003473 clearly discloses at column 6 lines 7-48 that multiple conversations (up to 24) can be underway at any time in a system using deal type specific parsing. Whilst it is not clear that the details of those conversations and deals are simultaneously displayed, doing so would not in my view provide an advance in a non-excluded field rather it would be a matter of routine programming to display that information.
- 47 Thus I conclude that the independent claims of the main request on '666.2 relate to excluded subject matter as such and are unpatentable.

- 48 The independent claims of the auxiliary request for '666.2 contain the additional feature that the system also allows the input of non-conversational deal related information. Thus as well as inputting data as free text via a keyboard, the system in the auxiliary request allows data to be input using keyboard driven menus or mouse driven buttons on the deal stack.
- 49 Mr Lloyd stressed the additional flexibility that such a system provided which he said was directly attributable to the fact that the once parsed, any additional processing of the conversational data was carried out in the deal stack. As I understand Mr Lloyd's argument that is in direct contrast to the Reuters system where according to Mr Lloyd, all the processing is done in one place. According to Mr Lloyd the upshot of this is that the Reuters system does not allow deal related information to be input via conversational and nonconversational means.
- 50 In furthering his argument on this point, Mr Lloyd drew my attention to a number of granted patents which he said demonstrated that more user friendly Graphical user interfaces were accepted as patentable subject matter. He also proposed that the EPO board of Appeal decision in *Sohei*<sup>11</sup> lent further weight to the Applicants case that the auxiliary request was patentable. The significance to be given to previously granted patents has been considered on numerous occasions by the Comptroller's Hearing Officers who have consistently concluded that what has been granted previously is of no consequence in deciding the fate of subsequent applications; each application must be considered on its individual facts. That this is so was most recently stated by Pumfrey J in his judgment in *RIM* when he stated at paragraph 184:

"The test (as to whether an invention is excluded) is a case-by-case test, and little or no benefit is to be gained by drawing analogies with other cases decided on different facts in relation to different inventions."

- 51 Thus the fact that granted patents exist which relate to GUIs has no bearing on whether the present invention is patentable. Nor does the fact that some such patents have been granted lend any weight to Mr Lloyd's proposition that there is doubt to be exercised in the Applicant's favour on this point: previously granted patents do not affect my consideration of the applications in suit.
- 52 Furthermore, I do not agree that *Sohei* helps the Applicants' position either. On the facts of that case the Board of Appeal decided that a system whereby a common transfer slip could be used to enter data for processing in plural management systems provided a technical contribution thus making the invention patentable. However, the facts of the present case are very different with the invention of the auxiliary request allowing data to be input in different ways for processing by a single data processor. The issue I must decide is whether that is patentable.
- 53 I am not persuaded that the provision of means to allow conversational and non-conversational data to be input into the trading system is such that the system defined in the independent claims of the auxiliary request provides an

<sup>11</sup> Sohei/General Purpose Management System T 0769/92

advance in a non-excluded field. At the hearing Mr Lloyd argued that the Reuters system as embodied in US 5003473 did not disclose this and moreover was not compatible with permitting it to occur because in Reuters the processing was all carried out in the parser. Whilst US5003473 is mostly concerned with the input of conversational data to the trading system, it also envisages the use of other means, in addition to the conversational input means, to facilitate trading. This includes the use of the mouse input method disclosed in another Reuters patent, US5034916 whereby preformatted trading messages are highlighted and sent to their intended recipients using ubiquitous point and click techniques. Indeed that other patent discloses the use of the mouse input method alongside the keyboard method of inputting conversational deal related information.

- 54 Thus the provision of conversational and non-conversational input means in such a system is not only possible, but is actually employed in the Reuters system. In my view the inclusion of this aspect in the independent claims of the auxiliary request does not materially alter the finding I made on the independent claims of the main request, namely the invention defined therein is not new and not obvious (and susceptible of industrial application) under the description "an invention" in the sense of Article 52 of the European Patent Convention (EPC). I therefore find those claims to also be unpatentable as relating to excluded subject matter as such.
- 55 I have carefully considered the dependent claims and the entire specification but can see nothing that could form the basis of a patentable invention.
- 56 I should stress that I have not found the inventions to be excluded as a method of doing business. I have indicated above that the core concept underlying both applications is the deal status dependent parsing regime and that this is inextricably linked to the business process underway. However, Mr Lloyd argued that the invention was not a new business process rather it was a new tool for use in a business process.
- 57 Mann J addressed the breadth of the business method exclusion in his judgment in *Macrossan*<sup>12</sup>. At paragraph 30 of that judgment he concluded that the business method exclusion "is aimed more at the underlying abstraction of business method" rather than a tool or activity which might be used in a business activity. In light of that judgment I accept that the present invention is more akin to a tool for use in a business activity rather than a business method as such and thus I do not consider it to fall within that particular exclusion as interpreted by Mann J.

#### Decision

58 I have been unable to identify any advance that is new and not obvious (and susceptible of industrial application) under the description "an invention" in the sense of Article 52 of the European Patent Convention (EPC) in either the main or auxiliary requests on either GB0317232.7 or GB0220666.2. Furthermore I have not been able to identify any such advance in either

<sup>12</sup> Macrossan's Application [2006] EWHC 705 (Ch)

specification that could form the basis of a patentable claim. I therefore refuse both applications under section 18(3).

### Appeal

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

# A BARTLETT

Deputy Director acting for the Comptroller

#### Annex A – The independent system claims

#### GB0317232.7 Main Request

1. A conversational dealing system for trading instruments between counterparties, comprising:

a plurality of trader terminals each having a user interface for inputting and displaying to a trader conversational messages including deal related information, the trader terminals communicating with each other via a communications network, the trader terminals each further comprising a parser for parsing said inputted conversational messages,

said parser comprising:

means for analyzing the conversational messages to detect a status of a deal, 10 the deal having a plurality of possible statuses;

means for analyzing the conversational messages to detect deal related information relevant to the detected status of the deal; and

means for returning a parsed message comprising the deal status and the deal related information to the user interface.

#### GB0317232.7 Auxiliary request

1. A conversational dealing system for trading instruments between counterparties, comprising:

a plurality of trader terminals each having a user interface for inputting and displaying to a trader conversational messages including deal related information, the trader terminals communicating with each other via a communications network, the trader terminals each further comprising a parser for parsing said inputted conversational messages,

said parser comprising:

means for analyzing the conversational messages to detect a status of a deal, the deal having a plurality of possible statuses;

means for analysing the conversational messages to detect deal related information relevant to the detected status of the deal; and

means for returning a parsed message comprising the deal status and the deal related information to the user interface, wherein the parser retains no

record of the deal related information in the parsed message.

#### 0220666.2 Main request

1. A conversational dealing system for trading instruments between counterparties, comprising a plurality of trader terminals each having a user interface for inputting and displaying to the trader deal related information, the trader terminals communicating with each other via a communications network, wherein the trader terminals user interfaces further comprise:

> a deal stack holding a plurality of deals in which the trader is participating, the deal stack including the status of each deal and a deal description; and

means for entering conversational deal related information; and the trader terminals further comprise:

a parser for parsing the conversational deal related information to detect a change in or an intention to change deal status; and for notifying the deal stack of the change in deal status; wherein the parser is deal status dependent, whereby the parser parses conversation input by the trader to detect in the conversation a predetermined content related to the deal status; and

whereby on receipt of a changed deal status notification, the deal stack generates a deal string appropriate to the new deal status.

#### 0220666.2 Auxiliary request

1. A conversational dealing system for trading instruments between counterparties, comprising a plurality of trader terminals each having a user interface for inputting and displaying to the trader deal related information, the trader terminals communicating with each other via a communications network, wherein the trader terminals user interfaces further comprise:

a deal stack holding a plurality of deals in which the trader is participating, the deal stack including the status of each deal and a deal description;

means for entering conversational deal related information; and means for entering non-conventional (sic)deal related information into the deal stack; and the trader terminals further comprise: a parser for parsing the conversational deal related information to detect a change in or an intention to change deal status; and for notifying the deal stack of the change in deal status; wherein the parser is deal status dependent, whereby the parser parses conversation input by the trader to detect in the conversation a predetermined content related to the deal status; and whereby on receipt of a changed deal status notification, the deal

stack generates a deal string appropriate to the new deal status.