SYSTEM AND METHOD FOR PROVIDING AN OPERATOR INTERFACE FOR DISPLAYING MARKET DATA, TRADER OPTIONS, AND TRADER INPUT

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ABSTRACT

A system for providing an operator interface for displaying market data, trader options, and trader input includes a memory and a processor. The memory stores market data for a trading product, where the market data includes an inside market price for the trading product. The processor initiates display of a market data section of a tile, where the market data section comprises the market data. The processor initiates display of a trader input section of the tile, where the trader input section comprises options. The processor receives a selection of a bid-offer pair for the trading product from the options, and updates the trader input section to indicate the selected bid-offer pair.

[Diagram of system and methods]
FIG. 2

FIG. 3
START

210 RECEIVE MARKET DATA

214 INITIATE DISPLAY OF MARKET DATA

218 INITIATE DISPLAY OF OPTIONS

222 RECEIVE SELECTION OF OPTIONS

226 INITIATE DISPLAY OF BOXES AROUND SELECTIONS

230 RECEIVE REQUEST FOR TRADE

234 INITIATE TRADE

END

FIG. 4
SYSTEM AND METHOD FOR PROVIDING AN OPERATOR INTERFACE FOR DISPLAYING MARKET DATA, TRADER OPTIONS, AND TRADER INPUT

TECHNICAL FIELD

[0001] This invention relates generally to the field of operator interface processing and more specifically to a system and method for providing an operator interface for displaying market data, trader options, and trader input.

BACKGROUND

[0002] In recent years, electronic trading systems have gained widespread acceptance for trading a wide variety of items, such as goods, services, financial instruments, and commodities. For example, electronic trading systems may be used to trade stocks, fixed income securities, currencies, futures contracts, oil, and gold.

[0003] Electronic trading systems may have a number of client systems connected to a trading platform. A client system may include input devices, such as keyboards or mouse devices, that may be used to communicate with the trading system. In some instances, keyboards may be specifically designed for use with a trading system.

SUMMARY OF THE DISCLOSURE

[0004] In accordance with the present invention, disadvantages and problems associated with previous techniques for displaying market data, trader options, and trader input may be reduced or eliminated.

[0005] According to one embodiment of the present invention, a system for displaying market data, trader options, and trader input includes a memory and a processor. The memory stores market data for a trading product, where the market data includes an inside market price for the trading product. The processor initiates display of a market data section of a tile, where the market data section comprises the market data. The processor initiates display of a trader input section of the tile, where the trader input section comprises options. The processor receives a selection of a bid-offer pair for the trading product from the options, and updates the trader input section to indicate the selected bid-offer pair.

[0006] Certain embodiments of the invention may provide one or more technical advantages. A technical advantage of one embodiment may be that a display has tiles that display information about trading products to a trader. A tile displays market data for a particular trading product. The market data may include a bid quantity, an inside market price, and an offer quantity. The tile also displays options from which the trader may select to designate desired conditions for initiating a trade for the trading product. The options may include quantities of and bid-offer pairs for the trading product. The trader may use knobs of a game controller device to make selections. One knob may be used to select a quantity, and another knob may be used to select a bid-offer pair. Thus, the trader may use the tile and the game controller device to easily select a quantity and a bid-offer pair for the trading product.

[0007] Another technical advantage of one embodiment may be that buttons of the game controller device may be used to initiate specific types of trades. One button may be used to initiate a bid and/or buy at the quantity and bid-offer pair selected by the trader. Another button may be used to initiate an offer and/or sell at the quantity and bid-offer pair selected by the trader. Yet another button may be used to initiate a bid at the inside market price. And, yet another button may be used to initiate a sell at the inside market price. Thus, a trader can readily initiate different types of trades using the buttons of the game controller device.

[0008] Certain embodiments of the invention may include one, some, or all of the above technical advantages. One or more other technical advantages may be readily apparent to one skilled in the art from the figures, descriptions, and claims included herein.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] For a more complete understanding of the present invention and its features and advantages, reference is now made to the following description, taken in conjunction with the accompanying drawings, in which:

[0010] FIG. 1 illustrates one embodiment of an electronic trading system;

[0011] FIG. 2 illustrates an example of a display that includes a tile for use in the system of FIG. 1;

[0012] FIG. 3 illustrates an example of a game controller device for use in the system of FIG. 1; and

[0013] FIG. 4 illustrates one embodiment of a method for displaying one or more tiles.

DETAILED DESCRIPTION OF THE DRAWINGS

[0014] Embodiments of the present invention and its advantages are best understood by referring to FIGS. 1 through 4 of the drawings, like numerals being used for like and corresponding parts of the various drawings.

[0015] FIG. 1 illustrates one embodiment of an electronic trading system 10 operable to facilitate trading for traders 24. System 10 includes a client system 12, a trading platform 14, and a network 16, coupled as shown. Client system 12 includes interface devices 28 (such as a game controller device 36 and a display device 32) and a client platform 34. Client platform 34 includes a processor 46 and a memory 48.

[0016] In one example, client system 12 generates a display 11 that has tiles 13 that display information describing trading products. A tile 13 displays market data 15 for a trading product. Market data 15 is received in near real-time from a market data center and provides near real-time information for tile 13. Market data 15 may include a bid quantity, an inside market price, and an offer quantity.

[0017] Tile 13 also displays options 19 from which trader 24 may select to designate desired conditions for initiating a trade. The options may include quantities and bid-offer pairs for the trading product. Trader 24 uses knobs of game controller device 36 to make selections. One knob may be used to select a quantity, and another knob may be used to select a bid-offer pair.

[0018] Trader 24 may monitor market data 15, and may decide to initiate a trade in response to market data 15. Trader 24 uses buttons of game controller device 36 to initiate specific types of trades. One button may be used to initiate a bid and/or buy at the quantity and bid-offer pair selected by trader 24. Another button may be used to initiate an offer and/or sell at the quantity and bid-offer pair selected by trader 24. Yet another button may be used to initiate a sell at the inside market price. And, yet another button may be used to initiate a sell at the inside market price. Although this description is explained with respect to knobs and buttons of game controller device 36 to perform particular actions, these actions may
be performed using any suitable number and combination of knobs, buttons, or other portions of device 36.

Accordingly, trader 24 may readily read the bid quantity, the inside market price, and the offer quantity for a trading product from tile 13. In addition, trader 24 may use tile 13 and game controller device 36 to easily select a quantity and a bid-offer pair for the trading product. Furthermore, trader 24 may use specific knobs and/or buttons of game controller device 36 to initiate specific types of trades.

According to one embodiment, traders 24 may represent users of trading system 10 capable of placing and/or responding to trading orders 17. A trader 24 may represent a principal, an agent acting on behalf of a principal, an individual, a legal entity (such as a corporation), or any machine or mechanism that is capable of placing and/or responding to trading orders 17.

A trading order 17 may represent an order to buy or sell a particular amount of a particular trading product. A trading product may refer to any suitable product or combination of products that forms the basis of a given trading order 17. Examples of trading products may include any type of goods, services, financial instruments, commodities, equities, stocks, fixed income securities, interest rate derivatives, currencies, futures contracts, debentures, options, securities, derivative trading instruments, or any other suitable product or combination of products.

A client system 12 may represent any suitable end-user element that may be used to access one or more elements of trading system 10, such as trading platform 14. Examples of an end-user element include a computer, a workstation, a telephone, an Internet browser, an electronic notebook, a personal digital assistant (PDA), a pager, or any other suitable device (wireless or otherwise) capable of receiving, processing, storing, and/or communicating information with other components of system 10.

Client system 12 may include interface devices 28 and a client platform 34. An interface device 28 may represent any suitable device operable to communicate signals to and/or from client platform 34 via a wired and/or a wireless link. Examples of interface devices 28 may include input devices, output devices, and/or input/output devices.

Examples of input devices include a game controller device 36, a keyboard, a mouse, a microphone, and/or another end-user element. Game controller device 36 represents any suitable input device that communicates with client platform 34. Examples of game controller devices 36 include video game controllers such as a joystick or a gamepad. An example of an output device includes a display device 32 that displays output information in a display 11. Examples of display devices 32 include a computer display, a CRT monitor, or a television.

Client platform 34 includes a processor 46 and a memory 48 coupled as shown. Processor 46 comprises any suitable combination of hardware and/or software to perform the functions described herein, including processing data associated with trading system 10, which may involve executing coded instructions associated with interface application 50.

Memory 48 comprises any suitable combination of volatile and/or non-volatile memory that stores and/or facilitates retrieval of information. Memory 48 may store interface application 50. Interface application 50 comprises an application that allows interface devices 28 to receive and/or transmit information. For example, interface application 50 may include a graphical user interface (GUI) application that generates display 11 on display device 32. In the example, interface application 50 may change display 11 in response to commands from interface devices 28 and/or trading platform 14. In the example, interface application 50 may also send messages to interface devices 28 and/or trading platform 14 in response to commands from interface devices 28 and/or trading platform 14.

In the illustrated embodiment, interface application 50 includes a mapping module 80. Mapping module 80 maps signals received from interface devices 28 and/or trading platform 14 with commands of trading system 10. In one example, a signal may be sent by trader 24 moving a joystick, pressing a button, and/or performing any other manipulation of an interface device 28. In the example, a command may comprise a system command and/or a trading command. A system command may be used to alter display 11, for example, to move a cursor. A trading command may be communicated to or from trading platform 14 to, for example, initiate and/or process a trade.

Signal relationships may be used to associate a signal with a command. As an example, a manipulation (such as moving a joystick) may be associated with one command (such as moving a cursor). As another example, multiple manipulations (such as moving a joystick and pressing a button) may be associated with one command (such as sending a trading order request). As another example, a manipulation (such as pressing a button) may be associated with multiple commands (such as sending a trading order request and updating a display).

Trading platform 14 may represent a trading architecture that facilitates the processing of trading orders 17. Trading platform 14 may be configured at a management center or a headquarters office for any person, business, or entity that seeks to manage the trading of orders. Trading platform 14 may include any suitable combination of logic, personnel, devices, or entities that may be utilized to perform the operations of an administrative body or a supervising entity that manages or administers a trading environment.

A network 16 may represent a communication platform operable to exchange information. A communication network may comprise at least a portion of a plain old telephone system (POTS), a public switched telephone network (PSTN), a public or private data network, a local area network (LAN), a metropolitan area network (MAN), a wide area network (WAN), a local, regional, or global communication or computer network such as the Internet, a wireline or wireless network, an enterprise intranet, another suitable communication link, or any combination of the preceding.

Modifications, additions, or omissions may be made to trading system 10 without departing from the scope of the invention. The components of trading system 10 may be integrated or separated according to particular needs. Moreover, the operations of trading system 10 may be performed by more, fewer, or other modules.

Fig. 2 illustrates an example of a display 11 that includes one or more tiles 13. According to one embodiment, a tile 13 may include a market data section 114 and a trader input section 118. Market data section 114 may display real-time market data 15. Market data 15 may be received in real-time or near real-time and may include current and/or historical market information such as trade volumes, trading
conditions, trading volumes, numbers of outstanding trading orders 17, bid/offer prices, market prices, yield spreads, trends, and so forth.

[0033] According to the illustrated embodiment, market data section 114 includes an inside market price 122, a bid quantity 124, and an offer quantity 126 for a trading product. Bid quantity 124 is the quantity of the best bid for the trading product. Offer quantity 126 is the quantity of the best offer for the trading product. The inside market price represents the best price of the best bid and the offer price of the best offer.

[0034] Trader input section 118 displays trader input that is input by a user such as trader 24. Examples of trader input include a quantity of the trading product and an input bid-offer pair for the trading product. A trader bid-offer pair comprises a bid price and an offer price designated by a trader 24.

[0035] According to the illustrated embodiment, trader input section 118 includes options 140 and selection boxes 144. Options 140 include numbers that may be selected by trader 24, and selection boxes 144 are used to indicate the selected numbers. According to the illustrated embodiment, trader input section 118 includes bid-offer pairs options 140a and quantity options 140b. A bid-offer pair selection box 144a may indicate a bid-offer pair selected by trader 24, and a quantity selection box 144b may indicate a quantity selected by trader 24.

[0036] According to one embodiment, trader 24 may use game controller device 36 to move selection box 144 to options 140 that trader 24 would like to select. Trader 24 may move selection box 144 to the right or left of options 140 until an appropriate number is selected. A first selection box 144a may be moved to select a bid-offer pair, while a second selection box 144b may be moved to select a quantity. Although options 140a and 140b are illustrated in a horizontal arrangement, any suitable orientation of options 140a and 140b may be used.

[0037] Accordingly, trader 24 may readily read the bid quantity, the inside market price, and the offer quantity for a trading product from tile 13. In addition, trader 24 may use tile 13 and game controller device 36 to easily select a quantity and a bid-offer pair for the trading product.

[0038] Modifications, additions, or omissions may be made to display 11 without departing from the scope of the invention. Display 11 may include more, less, or other data. Additionally, the data may be arranged in any suitable manner without departing from the scope of the invention.

[0039] FIG. 3 illustrates an example of a game controller device 36. Game controller device 36 may include one or more knobs 154 and one or more buttons 158. In one embodiment, a trader 24 may manipulate knobs 154 and buttons 158 to initiate specific commands. Examples of manipulations may include depressing, lifting, translating, and/or rotating knobs 154 and/or buttons 158.

[0040] A knob 154 may be used to select an option 140 and may include any suitable device part, for example, a button, a joystick, or other type of part operable to move selection box 144 to an option 140. Any suitable number of knobs 154 may be used to select numbers. According to one embodiment, a particular knob 154 may be designated to select numbers from specific options 140. In the illustrated example, knob 154a may be used to select from options 140a, and knob 154b may be used to select from options 140b. According to another embodiment, one knob 154 may be used to select among multiple sets of options 140. As an example, a joystick may be used in a first direction, for example, in an up-down direction to select a particular set of options 140. The joystick may then be moved in a second direction, for example, a left-right direction, in order to select particular numbers of the particular options 140.

[0041] A button 158 may be used to send a request that initiates a trade. A trade may refer to a procedure for placing and/or responding to a trading order 17. Examples of trades include a bid, buy, offer, sell, buy at market price, or sell at market price procedure. A bid procedure places a bid for a trading product; a buy procedure places a buy order to buy a trading product; an offer procedure places an offer for a trading product; a sell procedure places a sell order to sell a trading product; a buy at market price procedure places a buy order to buy a trading product at the market price; and a sell at market price procedure places a sell order to sell a trading product at the market price.

[0042] Any suitable number of buttons 158 may be used to initiate any suitable trades. According to the illustrated embodiment, button 158a may be used to initiate a bid and/or buy procedure; button 158b may be used to initiate an offer and/or sell procedure; button 158c may be used to initiate a buy at market price procedure; and button 158e may be used to initiate a sell at market price procedure.

[0043] Accordingly, trader 24 may use knobs 154 of game controller device 36 to easily select a quantity and a bid-offer pair for a trading product. Furthermore, trader 24 may use specific buttons 158 of game controller device 36 to initiate different types of trades.

[0044] Modifications, additions, or omissions may be made to game controller device 36 without departing from the scope of the invention. The components of game controller device 36 may be integrated or separated according to particular needs. Moreover, the operations of game controller device 36 may be performed by more, fewer, or other knobs 154 and/or buttons 158.

[0045] FIG. 4 illustrates one embodiment of a method for displaying one or more tiles 13. The method begins at step 210, where interface application 50 receives market data 15 from trading platform 14. Market data 15 may include, for example, inside market price 122, bid quantity 124, and offer quantity 126 for a trading product. Interface application 50 initiates display of market data 15 in market data section 114 of tile 13 at step 214.

[0046] Interface application 50 initiates display of options 140 in trader input section 118 at step 218. Options 140 may include bid-offer pair options 140a and quantity options 140b. Interface application 50 receives trader 24’s selection of options 140 at step 222. Trader 24 may use knobs 154 of game controller device 36 to make the selections. For example, trader 24 may select bid-offer pair 11/11+ and quantity 5.

[0047] Updating of trader input section 118 is initiated at step 226 to display the selections. Trader input section 118 may be updated by maneuvering selection boxes 144 around the selected options 140. For example, selection box 144a may be placed at 11/11+ and selection box 144b may be placed at 5.

[0048] A request for a trade is received at step 230. Trader 24 may use buttons 158 of game controller device 36 to make the request. The trade is initiated at step 234. The trade may be initiated by forwarding the request to trading platform 14. After initiating the trade, the method terminates.
Modifications, additions, or omissions may be made to the method without departing from the scope of the invention. The method may include more, fewer, or other steps. Additionally, steps may be performed in any suitable order without departing from the scope of the invention.

While this disclosure has been described in terms of certain embodiments and generally associated methods, alterations and permutations of the embodiments and methods will be apparent to those skilled in the art. Accordingly, the above description of example embodiments does not constrain this disclosure. Other changes, substitutions, and alterations are also possible without departing from the spirit and scope of this disclosure, as defined by the following claims.

What is claimed is:

1. A system for providing an operator interface for displaying market data, trader options, and trader input, the system comprising:
   a memory operable to:
   store market data for a trading product, the market data comprising an inside market price for the trading product; and
   a processor in communication with the memory and operable to:
   initiate display of a market data section of a tile of one or more tiles, the market data section comprising the market data;
   initiate display of a trader input section of the tile, the trader input section comprising a plurality of options;
   receive a selection of a bid-offer pair for the trading product from the plurality options; and
   update the trader input section to indicate the selected bid-offer pair.

2. The system of claim 1, wherein the market data further comprises a bid quantity and an offer quantity for the trading product.

3. The system of claim 1, the processor further operable to:
   receive a selection of a quantity of the trading product from the plurality options; and
   update the trader input section to indicate the selected quantity.

4. The system of claim 1, the processor further operable to initiate a trade in response to receiving a request from a game controller device.

5. The system of claim 1, further comprising a game controller comprising:
   one or more knobs, a knob operable to select an option from the plurality of options.

6. The system of claim 1, further comprising a game controller comprising a plurality of buttons, a button operable to initiate at least one of the following:
   a bid;
   a buy;
   an offer;
   a sale;
   a buy at market price; and
   a sale at market price.

7. Software embodied in a computer-readable storage medium and operable when executed by a processor to:
   initiate display of a market data section of a tile of one or more tiles, the market data section comprising market data for a trading product, the market data comprising an inside market price for the trading product;
   initiate display of a trader input section of the tile, the trader input section comprising a plurality of options;
   receive a selection of a bid-offer pair for the trading product from the plurality options; and
   update the trader input section to indicate the selected bid-offer pair.

8. The software of claim 7, wherein the market data further comprises a bid quantity and an offer quantity for the trading product.

9. The software of claim 7, further operable to:
   receive a selection of a quantity of the trading product from the plurality options; and
   update the trader input section to indicate the selected quantity.

10. The software of claim 7, further operable to initiate a trade in response to receiving a request from a game controller device.

11. The software of claim 7, further operable to receive a signal from a game controller comprising:
    one or more knobs, a knob operable to select an option from the plurality of options.

12. The software of claim 7, further operable to receive a signal from a game controller comprising a plurality of buttons, a button operable to initiate at least one of the following:
    a bid;
    a buy;
    an offer;
    a sale;
    a buy at market price; and
    a sale at market price.

13. A method, comprising:
   initiating display of a market data section of a tile of one or more tiles, the market data section comprising market data for a trading product, the market data comprising an inside market price for the trading product;
   initiating display of a trader input section of the tile, the trader input section comprising a plurality of options;
   receiving a selection of a bid-offer pair for the trading product from the plurality options; and
   updating the trader input section to indicate the selected bid-offer pair.

14. The method of claim 13, wherein the market data further comprises a bid quantity and an offer quantity for the trading product.

15. The method of claim 13, further comprising:
   receiving a selection of a quantity of the trading product from the plurality options; and
   updating the trader input section to indicate the selected quantity.

16. The method of claim 13, further comprising initiating a trade in response to receiving a request from a game controller device.

17. The method of claim 13, further comprising receiving a signal from a game controller comprising:
    one or more knobs, a knob operable to select an option from the plurality of options.

18. The method of claim 13, further comprising receiving a signal from a game controller comprising a plurality of buttons, a button operable to initiate at least one of the following:
    a bid;
    a buy;
    an offer;
    a sale;
    a buy at market price; and
    a sale at market price.
19. A system, comprising:
means for initiating display of a market data section of a tile of one or more tiles, the market data section comprising market data for a trading product, the market data comprising an inside market price for the trading product;
means for initiating display of a trader input section of the tile, the trader input section comprising a plurality of options;
means for receiving a selection of a bid-offer pair for the trading product from the plurality options; and
means for updating the trader input section to indicate the selected bid-offer pair.
20. A system, comprising:
a memory operable to:
store market data for a trading product, the market data comprising an inside market price for the trading product, the market data further comprising a bid quantity and an offer quantity for the trading product; and
a processor in communication with the memory and operable to:
initiate display of a market data section of a tile of one or more tiles, the market data section comprising the market data;
initiate display of a trader input section of the tile, the trader input section comprising a plurality of options;
receive a selection of a bid-offer pair for the trading product from the plurality options; and
update the trader input section to indicate the selected bid-offer pair;
receive a selection of a quantity of the trading product from the plurality options;
update the trader input section to indicate the selected quantity; and
initiate a trade in response to receiving a request from a game controller device, the game controller comprising:
one or more knobs, a knob operable to select an option from the plurality of options; and
a plurality of buttons, a button operable to initiate at least one of the following:
a bid;
a buy;
an offer;
a sale;
a buy at market price; and
a sale at market price.
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