SUMMARY

[0011] ~~To address these and other objectives, t~~The example embodiments comprise system and methods for dynamically changing an order quantity in an electronic trading environment. There are many instances, when an automated or semi-automated trading tool, hereinafter referred to as an automated trading tool, is watching or leaning on available quantities and prices in another leg. In other words, the automated trading tool may use this "leaned on" quantity, associated with one or more price levels, when implementing its trading strategy. Dynamically changing an order quantity allows for order quantity to be automatically increased or decreased to reflect the "leaned on" quantity. A dynamic change in quantity can increase the likelihood that the order is filled at the desired order price and that the order queue position is maintained.

[0011a] According to a first aspect of the present invention, there is provided a method including: receiving via a computing device a definition for a trading strategy including a first tradeable object and a second tradeable object; receiving via the computing device an increase parameter; receiving via the computing device a desired price and a desired quantity to buy or sell the trading strategy; automatically placing via the computing device, upon receiving the desired price and the desired quantity, a first trade order for the first tradeable object having an order quantity, wherein the first trade order leans on a quantity in the second tradeable object based on the definition for the trading strategy, the desired price, the desired quantity, and market data for the second tradeable object; detecting via the computing device an increase in the leaned on quantity in the second tradeable object; and sending via the computing device a command to increase the order quantity of the first trade order for the first tradeable object based on the increase in the leaned on quantity in the second tradeable object according to the trading strategy when the increase conforms to the increase parameter.

[0011b] According to a second aspect of the present invention, there is provided a method including: sending by a computing device a first command to enter a first trade order for a first tradeable object, wherein the first trade order includes an order quantity, wherein the order quantity is based on a definition for a trading strategy, a desired strategy quantity, and market data for a second tradeable object, wherein the trading strategy includes the first tradeable object and the second tradeable object; detecting by the computing device an increase in quantity available for the second tradeable object; determining by the computing device a new quantity based on the definition for the trading strategy and the increase in quantity available for the second tradeable object; and sending by the computing device a second command to increase the order quantity of the first trade order to the new quantity when the increase in quantity available for the second tradeable object conforms to an increase parameter.

[0011c] According to a third aspect of the present invention, there is provided a computer readable medium having stored therein instructions executable by a processor, wherein the instructions are executable to: receive a definition for a trading strategy including a first tradeable object and a second tradeable object; receive an increase parameter; receive a desired price and a desired quantity to buy or sell the trading strategy; automatically place, upon receiving the desired price and the desired quantity, a first trade order for the first tradeable object having an order quantity, wherein the first trade order leans on a quantity in the second tradeable object based on the definition for the trading strategy, the desired price, the desired quantity, and market data for the second tradeable object; detect an increase in the leaned on quantity in the second tradeable object; and send a command to increase the order quantity of the first trade order for the first tradeable object based on the increase in the leaned on quantity in the second tradeable object according to the trading strategy when the increase conforms to the increase parameter.

[0011d] According to a fourth aspect of the present invention, there is provided a computer readable medium having stored therein instructions executable by a processor, wherein the instructions are executable to:send a first command to enter a first trade order for a first tradeable object, wherein the first trade order includes an order quantity, wherein the order quantity is based on a definition for a trading strategy, a desired strategy quantity, and market data for a second tradeable object, wherein the trading strategy includes the first tradeable object and the second tradeable object; detect an increase in quantity available for the second tradeable object; determine a new quantity based on the definition for the trading strategy and the increase in quantity available for the second tradeable object; and send a second command to increase the order quantity of the first trade order to the new quantity when the increase in quantity available for the second tradeable object conforms to an increase parameter.

[0011e] According to a fifth aspect of the present application, there is provided a system including: a client device, wherein the client device is adapted to receive a definition for a trading strategy including a first tradeable object and a second tradeable object, wherein the client device is adapted to receive an increase parameter, wherein the client device is adapted to receive a desired price and a desired quantity to buy or sell the trading strategy, wherein the client device is adapted to automatically place, upon receiving the desired price and the desired quantity, a first trade order for the first tradeable object having an order quantity, wherein the first trade order leans on a quantity in the second tradeable object based on the definition for the trading strategy, the desired price, the desired quantity, and market data for the second tradeable object, wherein the client device is adapted to detect an increase in the leaned on quantity in the second tradeable object, and wherein the client device is adapted to send a command to increase the order quantity of the first trade order for the first tradeable object based on the increase in the leaned on quantity in the second tradeable object according to the trading strategy when the increase conforms to the increase parameter.

[0011f] According to a sixth aspect of the present invention, there is provided a system including: a client device, wherein the client device is adapted to send a first command to enter a first trade order for a first tradeable object, wherein the first trade order includes an order quantity, wherein the order quantity is based on a definition for a trading strategy, a desired strategy quantity, and market data for a second tradeable object, wherein the trading strategy includes the first tradeable object and the second tradeable object, wherein the client device is adapted to detect an increase in quantity available for the second tradeable object, wherein the client device is adapted to determine a new quantity based on the definition for the trading strategy and the increase in quantity available for the second tradeable object, and wherein the client device is adapted to send a second command to increase the order quantity of the first trade order to the new quantity when the increase in quantity available for the second tradeable object conforms to an increase parameter.

[0012] Aspects of the system and methods are based on a concept that it may be more profitable for a trader to maintain order queue position and possibly get a portion of their desired order quantity filled, rather than lose their order queue position and/or take the chance of not getting any of their order quantity filled. For example, a trader enters a buy spread order at a price of "-1" for a quantity of "1000." Based on the conventional function of an automated trading tool such as AutoSpreader™, a buy order for a quantity of "1000" will be placed in leg A at a price of "99" based on the best bid price in leg B which is currently at a price of "100" with a quantity of "820". However, the leaned on quantity of "820" at the price of "100" in leg B is insufficient for the desired quantity of "1000" to be filled. To avoid becoming "legged up", a conventional function of the automated trading tool would re-price the order in leg A to a price level at which the full quantity of "1000" could be satisfied, thereby giving up the valuable queue position and perhaps sacrificing a price.

[0013] However, based on the example embodiments described herein which preferably maintain the original queue position, instead of re-pricing the order to a price level where a quantity of "1000" may be available, the desired order quantity of "1000" is dynamically changed such that a portion of the quantity may be filled at the desired price without a change in queue position. Specifically, because a quantity of "820" is available at the price of "100" in leg B, the quantity of the order in leg A is dynamically changed to "820." This dynamic change in quantity results in the