

## Project Overview

Client is in need of a Programmer/Developer to create a stable MT4 EA for Forex Trading with the following requirements:

- A. **Hedge Trading or Hedging with OCO (order cancels other)** – Hedging is simultaneously entering buy and sell orders above and below current market price: <https://www.investopedia.com/ask/answers/forex/forex-hedge-and-currency-hedging-strategy.asp>. OCO would allow the sell orders to cancel if the buy orders are executed and vice versa.
- B. **Grid Trading** - Grid Trading is entering multiple buy stop orders and buy limit orders at the same time for a long position, or sell stop orders and sell limit orders at the same time for a short position. Both group of orders usually contain a market execution order, but the Grid needs to be configurable. See examples of various grid configurations at #16: <https://www.investopedia.com/terms/g/grid-trading.asp>.
- C. **Basket Trading** - Basket Trading is simultaneously entering one or more orders on multiple currency pairs: <https://www.investopedia.com/terms/b/baskettrade.asp>. The Basket Trade needs to execute single market execution orders, Hedge orders, or grid orders as described above.

## Configurable options

### General Configuration Options for All Trading Methods

1. Preventing trade from executing if spread is greater than a specific number of pips.
2. Setting lot size.
3. Setting target Profit amount in pips (must consider broker's spread). When reached, all open or pending orders should close.
4. Setting risk amount in pips (must consider broker's spread). If reached, all open or pending orders should close.
5. Setting # of retries for a failed order execution. Since the broker rejects orders sometimes, this input attempts to execute the order(s) "X" number of times until successful or it fails.
6. The ability to close/cancel orders even if the currency pair chart is not open/active. From Client's experience, if a currency pair is not open/active on the MT4 screen, auto-trading features will not work. For example, if a trade is executed with auto-trading features to close a trade and the currency pair chart is closed, the trade will not automatically close until the currency pair chart is opened again. (Optional, but highly desired)
7. If possible, all orders should not be affected if the currency pair chart is closed. (Optional, but highly desired)
8. If possible, pending orders and stop losses should be hidden from broker by saving and displaying on desktop, but only triggering the order when price reaches the "hidden" order(s) entry price. (Optional, but desired)
9. Saving all configurable options for each trading method in separate files.
10. Implement any and all other options to create a user-friendly and stable EA for the Hedge, Grid, and Basket Trading methods.

### Hedging Trading Configuration Options

11. Same configurable options under General Configuration Options above.

12. Enabling OCO - Cancel orders in opposite direction of price movement.
13. The ability to place multiple buy stop orders and sell stop orders “X” pips between each order.
14. The ability to set the number of pips between current market price, and the first buy and sell stop orders.

### Grid Trading Configuration Options

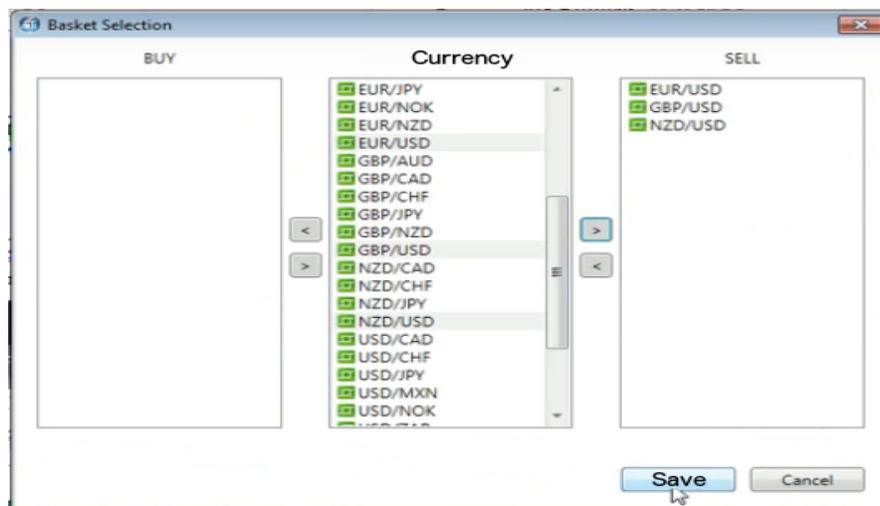
15. Same configurable options under General Configuration Options above.
16. Custom configuring the Grid. The typical grid Client uses is “X” number of buy stop and buy limit orders with a market execution order for long positions, and “Y” number of sell stops and sell limit orders with a market execution order for short positions. However, Client desires to be able to customize the grid. For example, having only buy stops, only sell stops, only buy stops with a market execution order, or only sell stops with a market execution order. See possible examples of various grid configurations: [https://www.youtube.com/watch?time\\_continue=2&v=-Jplnk3n7xo](https://www.youtube.com/watch?time_continue=2&v=-Jplnk3n7xo).
17. Setting the number of trades or size of the Grid.
18. Setting the distance in pips between each order in the Grid.

### Basket Trading Configuration Options

19. Same configurable options under General Configuration Options above.
20. Here is an example of a Basket Trading software, but it is not for MT4: [https://www.youtube.com/watch?time\\_continue=4&v=AF-0u5Rv3WE](https://www.youtube.com/watch?time_continue=4&v=AF-0u5Rv3WE).
21. The ability to select multiple currency pairs and execute the “basket” of currencies simultaneously.
22. The ability to independently choose the direction of each currency pair. In other words, there could be a mixture of both buy and sell orders in the basket.
23. Setting Grid Trading and/or Hedge Trading features for the Basket.

### General Layout & Functionality

24. The EA can be applied to each chart. If there is an easier way other than applying the EA directly to each chart, Client would entertain any suggestions.
25. Client would prefer 1 EA. However, if Developer must create multiple EAs, Client could work with that option as long as all requirements are met.
26. Client desires a GUI or dialog box similar to the one below (not exact, general idea):



- The GUI or dialog box should allow the selection of one or several currency pairs for the various types of trading methods: Hedge, Grid, or Basket.
- The GUI or dialog box should contain checkbox options for each trading method: Hedge, Grid, or Basket. Checkboxes are not shown.
- When Hedge is checked, Grid is disabled and Basket is enabled. Checkboxes are not shown. (Optional, but desired)
- When Grid is checked, Hedge is disabled and Basket is enabled. Checkboxes are not shown. (Optional, but desired)
- When Basket is checked, Hedge and Basket are enabled until one is enabled (checked), then the other becomes disabled. Checkboxes are not shown. (Optional, but desired)
- A search feature under “Currency” should be included to allow the currency pair list to be filtered according to what is typed in the search field. This feature will make it easier to select a currency pair. (Optional, but desired)
- All other Configurable Options should be included on the GUI or dialog box. Developer should arrange options in very user-friendly and logical order. Please be prepared to make adjustments to the layout.

27. Client would need some kind of information pane possibly in upper right-hand corner of the chart. Client would like the name of the saved configuration file or a common name, if any, to appear in or on top of the pane. The pane needs to toggle between full-sized and minimized in order to view the currency chart behind it. A clickable link should open the GUI or dialog box shown above. The sample picture is from the Grid Trading EA called Flexi Grid, which illustrates a similar information pane containing the minimum required info.



28. When setting up any of the trading methods, actual execution of the trade is done via a button on the chart:

- a. For a Basket Trade, the selection of currencies should link those currency pairs together so that clicking any one of the buttons on any currency pair chart would execute the trade for the basket of currency pairs. The button(s) for this trading method appears below.



- b. For a Hedge Trade, the button for this trading method appears below. It is similar to the Basket Trade button.



If Basket was selected in creating a Hedge Trade, buttons would say, Execute Basket Hedge, Close Basket Hedge, and Close Hedge (Buttons not shown). Execute Basket Hedge would create hedge orders on the basket of currency pairs. Close Basket Hedge would close hedge orders on the basket of currency pairs. Close Hedge would close the hedge orders on that single currency pair.

- c. For a Grid Trade, the buttons for this trading method appears below. Buy Grid would execute a long position grid. Sell Grid would execute a short position grid. Close Grid would close all orders.



If Basket was selected in creating the Grid Trade, the buttons would say, Execute Basket Grid, Close Basket Grid, and Close Grid (Buttons not shown). Execute Basket Grid would create grid orders for the basket of currency pairs. Close Basket Grid would close grid orders for the basket of currency pairs. Close Grid would close grid orders for that single currency pair.

29. Multiple trading methods can be executed and run simultaneously. For example, Client would like to execute, say, multiple groups of basket trades, multiple Hedge Trades, multiple Grid Trades, and/or any acceptable combination trades, all simultaneously, as long as the currency pairs are different. In other words, there's no need to execute a Hedge Trade on an existing Grid Trade or vice versa, or a Hedge Trade on an existing basket of Grid Trades or a Grid Trade on an existing basket of Hedge Trades. If that's confusing, ask for clarification. Unfortunately, I won't know how to say it any different.

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30. Client requires source code and exclusive use of work product.