

TRADING TECHNOLO

OCO Trader Ltd User Manual

Version 1.3.2

Trading Technologies International, Inc.



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OCO Trader Ltd. Overview

OCO Trader Ltd. is an X_TRADER® Add-On application that submits and manages One-Cancels-Other (OCO) orders. OCO Trader Ltd. reacts to an order that was filled in the market that was submitted outside of the application, by submitting two orders, one at a specified number of ticks better than the fill price, and a second Stop Order at a specified number of ticks below the last fill price. Various styles of stop orders can be submitted such as, trailing stops, stop limit orders, and stop market orders.

The user interface enables the trader to react to filled orders by sending a covering limit order, a limit order and a stop order, or just a stop order. This flexibility gives the trader a powerful tool for their specific trading style and needs. OCO Trader Ltd. allows traders to set up a trading style or strategy on a per contract basis, by dragging and dropping the contracts to monitor. The interface enables the trader to specify the customer for which the OCO order is being submitted on a contract basis. Figure 1 below illustrates the OCO Trader Ltd. main window.

Installation

1. Verify that both X_TRADER and the X_TRADER API are installed.
2. Double-click on the installation file (i.e. OCO_Trader_Ltd_Install.exe). This opens the OCO Trader Ltd. installation wizard.
3. Click the Next button through all of the screens of the installation wizard, making sure to accept the license agreement. Change the default User Information and Destination Folder if desired.
4. The application will be installed. The last screen will display a message that OCO Trader Ltd. was successfully installed.
5. Click the Finish button. An OCO Trader Ltd. shortcut icon will be added to the Desktop. The computer does not need to be rebooted

Product Features

OCO Trader Ltd. Basics

6. When the application launches, it initializes itself with X_TRADER by downloading all of the fills and a label appears in the center of the application that states “Drag & Drop an Instrument from X_Trader”. The last active workspace will be restored. If there was not an existing workspace to restore, the application will not take any action until contracts are dropped into the application from X_TRADER’s Market Explorer window. The OCO Trader Ltd. application supports any Exchange traded contract.
7. A contract is the combination of a Gateway, a Product, and the Expiration of the Future contract. Ex. CME-A ES Sep06.
8. Numerous different contracts can be dropped from X_TRADER’s Market Explorer window to the OCO Trader Ltd. application. Newly dropped contracts will be added as a row item to the end of the list, duplicate contracts will be ignored.
9. If a contract is dropped from X_TRADER's market grid to the OCO Trader Ltd. application, all current positions will be ignored. Once the contract is turned “On”, the rules associated with this contract will be applied.
10. Closing the OCO Trader Ltd. application will delete any resting orders submitted by OCO Trader Ltd. Clearing the workspace by selecting File -> clear will also delete any resting OCO Trader Ltd. orders.

OCO Trader Ltd. – Menu Options

11. Within the *File* menu there are the following menu items:
 - *New* Opens a new, empty OCO Trader Ltd. workspace.
 - *Open* Opens an existing OCO Trader Ltd. workspace.
 - *Save* Saves the workspace. The default name is OCO Trader Ltd.ows.
 - *Save As...* Opens the Save As window to specify the name and location to save the workspace.
 - *Clear* Removes all rows from the Main Window and deletes all OCO Limit and Stop Orders that were entered into the market by OCO Trader.

- *<Workspaces>* A list of up to the last five workspaces. Selecting one will open the workspace.
- *Exit* Deletes all OCO Limit and Stop orders that were entered into the market by OCO Trader Ltd. and exits the OCO Trader Ltd. application.

12. Within the *Preferences* menu there are the following menu items:

- *Multiple Levels...* Opens the Multiple Level setup window for adding, removing and modifying the multiple level templates.
- *React to Own Orders* *Profit Orders* – If selected, OCO Trader Ltd. will react to a fill that was received on a Limit Order placed by OCO Trader Ltd.
Stop Orders - If selected, OCO Trader Ltd. will react to a fill that was received on a Stop Order placed by OCO Trader Ltd.
NOTE: In a fast market, having one or both of these preferences checked, could result in a large number of fills. These fills could occur at multiple levels and on both sides of the market.
- *Order Handling Mode* *Inside Market Mode* – If selected, OCO Trader Ltd. will react to the inside markets for triggering stops and updating trailing stops.
Last Traded Price – If selected, OCO Trader Ltd. will react to the Last Traded Price.
- *Default Settings* Opens the Default Settings setup window to specify default values for new contracts added to OCO Trader Ltd.
- *Color Settings* Opens the Select Colors window which enables users to customize the look and feel of OCO Trader Ltd.

13. Within the *Help* menu there are the following menu items:

- *Contents* Displays the OCO Trader Ltd. ReadMe Document.
- *About OCO Trader Ltd.* OCO Trader Ltd. version information.

14. Within the menu there are the following buttons:

- *Activate All* Activates all of the rows within the main window.
- *Deactivate All* Deactivates all of the rows within the main window.

OCO Trader Ltd. – Main Window

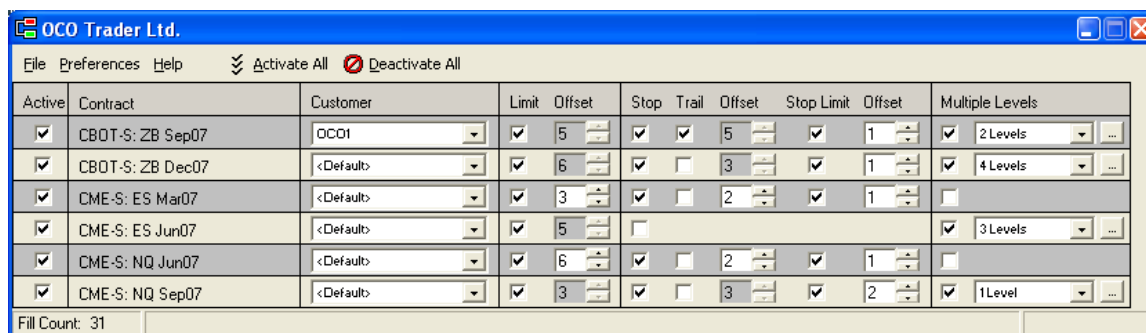


Figure 1 – OCO Trader Ltd. Main Window.

15. The OCO Trader Ltd. window will resize to display up to 10 different contracts, after that a scroll bar will appear and will list all contracts that the user will be allowed to access using the OCO Trader Ltd. application.
16. OCO Trader Ltd. is launched every day by the user, when the user double-clicks on the desktop icon after they start X_TRADER®.
17. The user can run numerous instances of OCO Trader Ltd. on the user's computer, but for convenience sake, the application will allow access to unlimited contracts. *Note: Caution should be taken not to duplicate contracts on multiple instances of the application. This will cause each instance to submit an OCO order and thus multiply the number of OCO orders based on a single fill from within X_TRADER®.*
18. If an order in X_TRADER® is partially filled, the OCO Trader Ltd. application will create a new order for the partially filled quantity. If another fill occurs, then another separate opposite order is submitted for the partially filled amount at the filled price altered by the Offset value. A fill received from a buy order will generate a sell order. Similarly, a sell fill will take the filled price and create a Buy order.
19. OCO Trader Ltd. provides a customer profile dropdown that enables the user to select which customer profile will be submitting the order for each individual contract. *Note: The orders submitted via OCO Trader Ltd will have the X_TRADER Customer Defaults that correspond to the selected customer in this window. For example, if OCO1's D/C was GTC and Acct was G2, even*

though the fill was received for a GTD order that had an Acct of AI, the reactionary orders will be submitted as GTC, G2 orders.

20. Within each contract (row), there are two main choices displayed as checkboxes. Each one of the choices is mutually exclusive of the others:
 - Enter a Covered Limit Order on all fills generated from non-OCO Trader Ltd. submitted orders (i.e. orders placed in X_TRADER) or OCO Trader Ltd. orders when using React To Own Orders.
 - Enter a Stop Order on all fills generated from non-OCO Trader Ltd. submitted orders (i.e. orders placed in X_TRADER) or OCO Trader Ltd. orders when using React To Own Orders.
21. There will be a master switch per contract to turn the functionality “On” (Checkbox checked) or “Off” (Checkbox unchecked). “On” denotes that when a fill from an external source is tracked by the OCO Trader Ltd. application, then it will perform the rules that are defined for this contract. “Off” denotes that no action will be performed for this contract. Turning the contract’s status to “Off” for a contract will not delete any resting orders, but will terminate (i.e., not allow any more to be entered) the sending of orders for that contract from the OCO Trader Ltd. Application.
22. OCO Trader Ltd. orders that are filled will not send in another order, only ones entered from within X_TRADER®. If the user would like to react to orders that were sent by OCO Trader Ltd., they can select the “React To Own Orders” off of the “Preferences” menu item. Selecting either “Profit Orders” or “Stop Orders” will enable OCO Trader Ltd. to react to fill callback from the profit side or the Stop side of the OCO, respectively.
23. When the “Limit” checkbox is checked, the application will display and enable a spin control next to the “Limit” checkbox, which will allow the user to choose a value for each applicable contract. The spin control value defines how many ticks better than the fill price the OCO Trader Ltd. application should place a Limit Order when a fill is received (“Limit Offset”). The value of the spin control will display by default the value that is displayed in the “Default Settings Window”.
24. When the “Stop” checkbox is checked, the OCO Trader Ltd. application will show three components next to the “Stop” checkbox: 1) the Trailing Stop checkbox, 2) the stop offset spinner, and 3) a “Stop Limit” checkbox and limit

offset spinner (only visible if the “Limit” checkbox is checked). When the “Stop” is not checked these three components will disappear.

- The trailing stop checkbox, when selected, will adjust the stop orders to trail the last price by the stop offset.
- The stop offset spinner sets how many ticks worse than the fill price the OCO Trader Ltd. application should place a Stop Order when a fill is received.
- If the Stop Limit checkbox is selected, the stop limit offset spinner sets how many ticks worse than the fill price a stop limit order will be submitted when a fill is received. The stop price is the fill price minus the stop offset and the stop limit is the fill price minus the sum of the stop offset plus the stop limit offset, where both offsets are valued in ticks. If the Stop Limit checkbox is not selected, a Stop Market order is submitted.

25. When Limit and/or Stop are selected, the Multiple Level checkbox is displayed. The Multiple Level template can be selected from the drop-down list and the Multiple Level popup window can be viewed by clicking the “...” button. Figure 2 shows the Multiple Level popup window. Changing the name will create a duplicate Multiple Level template with the new name. Rows can be added or removed and each value: Limit Offset, Stop Offset and Pct can be modified. The total percentage (Pct) column must equate to 100% to commit the changes. Refer to item 30 in the Workspaces and Preferences section for an explanation of how Multiple Levels work.

Note: If the same template is used for more than one contract, any changes to the template will be applied globally to all of the contracts using the template.

26. Users can delete individual rows from the OCO Trader form by right clicking on the contract they wish to delete and selecting “Remove Row.” Removing a row will delete all OCO Orders that have been placed for that contract.

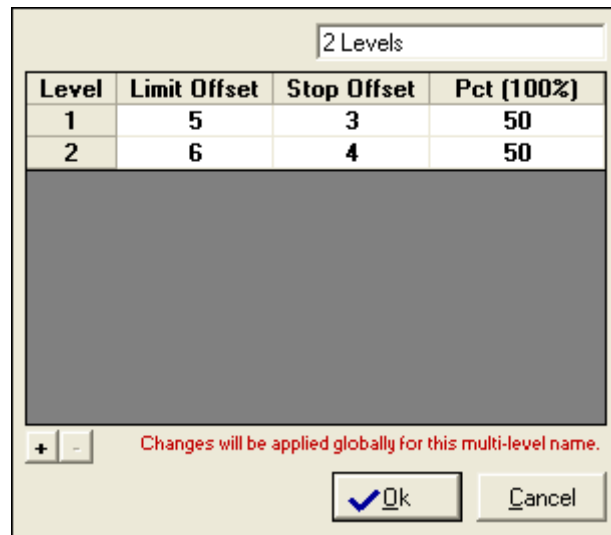


Figure 2 – Multiple Level Popup window.

27. Users trading products on the SFE exchange will see an MLM column displayed, as in Figure 3. When this box is checked, OCO Trader Ltd. will submit MLM orders in place of any limit order.

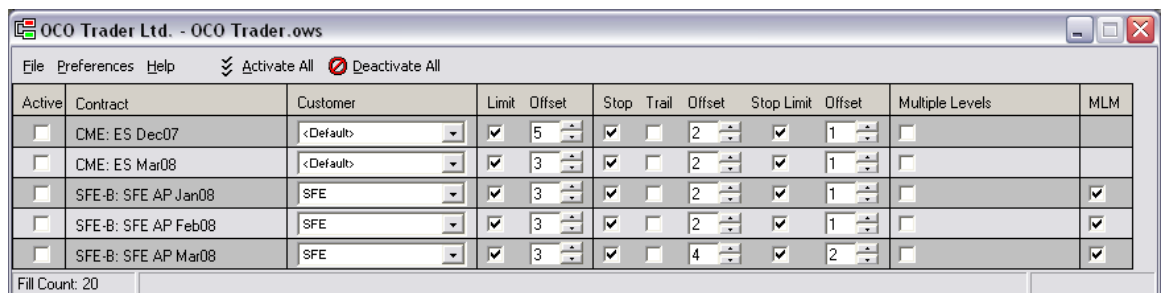
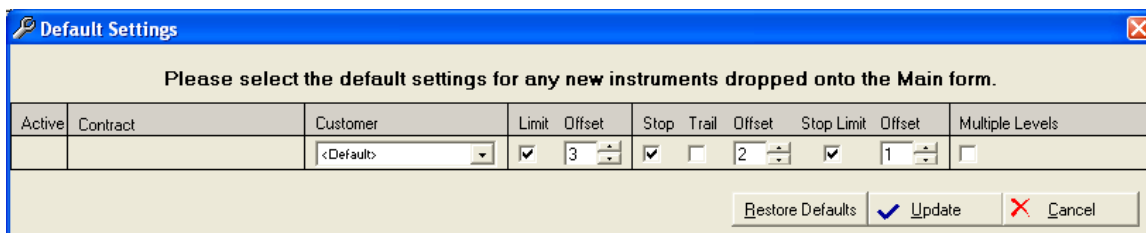


Figure 3 – OCO Trader Main window showing MLM Column.

Workspaces and Preferences

28. OCO Trader Ltd. supports the saving and loading of workspaces. The workspace that is active when OCO Trader Ltd. is closed will be restored when the application is launched again.
29. The default values for newly added contracts will be the same default values that previously had been set by the user in the default window. The “Defaults Settings Window”, off of the *Preferences* menu item, allows the user to modify the default settings for newly dropped contracts, see Figure 4 below.



Default Settings

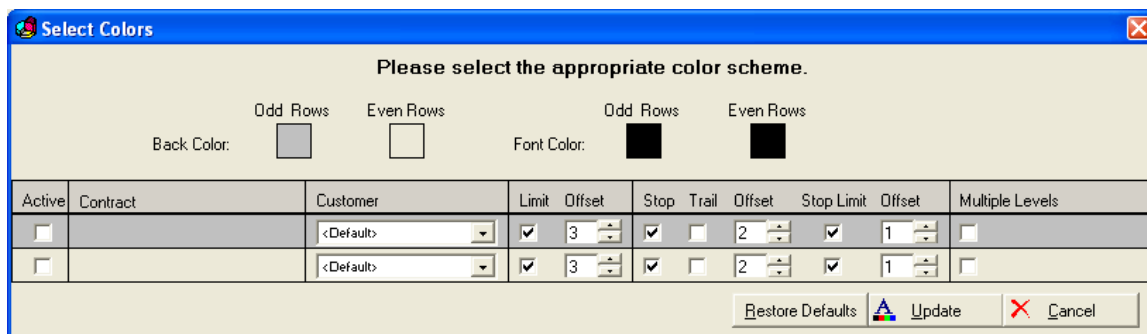
Please select the default settings for any new instruments dropped onto the Main form.

Active	Contract	Customer	Limit	Offset	Stop	Trail	Offset	Stop Limit	Offset	Multiple Levels
<input type="checkbox"/>		<Default>	<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>

Restore Defaults ☒ Update ☐ Cancel

Figure 4 – Default Settings Window.

30. The *Select Colors* form, Figure 5 below, enables the user to customize the look and feel of the OCO Trader Ltd. Clicking on any of the colored squares enables the user to change the color of the selected item. Clicking “Update”, updates the OCO Trader Ltd. form and clicking the “Restore Defaults”, restores the original color schema.



Select Colors

Please select the appropriate color scheme.

Back Color: Odd Rows Even Rows Font Color: Odd Rows Even Rows

Active	Contract	Customer	Limit	Offset	Stop	Trail	Offset	Stop Limit	Offset	Multiple Levels
<input type="checkbox"/>		<Default>	<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>
<input type="checkbox"/>		<Default>	<input checked="" type="checkbox"/>	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	2	<input checked="" type="checkbox"/>	1	<input type="checkbox"/>


Restore Defaults  Update ☐ Cancel

Figure 5 – Select Color Window.

31. The *Multiple Levels* setup window is used to configure the Multiple Level templates. See Figure 6 below. These templates can then be applied to individual contracts within OCO Trader’s main window using the Multiple Levels checkbox. Multiple Levels places a percentage of each offsetting limit and/or stop orders at the specified tick offset. The order of execution starts with the level with the highest percent allocated to it and sequentially distributes based on which level is furthest from fulfilling its allocation percent. Any ties go to the lower level number. See the examples in Appendix A for a screenshot and examples of different scenarios.

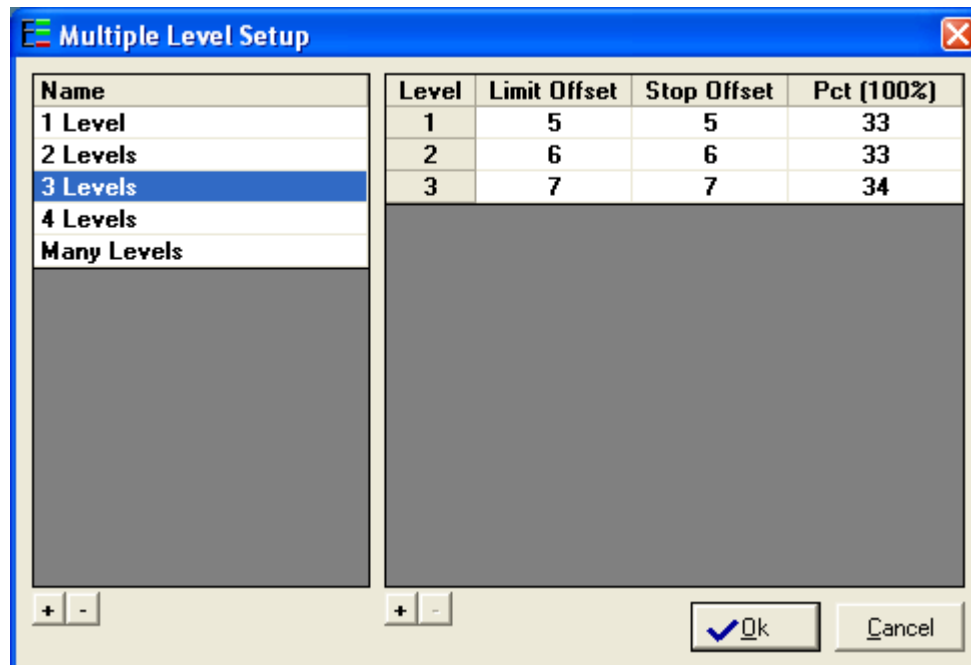


Figure 6 – Multiple Level Setup window.

OCO Trader Ltd. Order Types

OCO Trader Ltd. Order Types

Limit Order	If the Limit Checkbox is checked and a non-OCO Trader submitted fill is received or an OCO Trader submitted fill is received when using React To Own Orders, the application will place an opposite limit (e.g. Buy fill will create a Sell Order) order at the tick amount (1 through n) better than the fill price. Ex. A fill comes in for a buy of 5 ES Sep03 at 11300 and the spin control is set to “2”, then the OCO Trader Ltd. application will automatically submit a sell order of 5 ES Sep03 at 11350 which is 2 ticks above the fill that arrived. This type of order is referred to as a Covered Limit Order.
Stop Order	If the Stop Checkbox is checked and a non-OCO Trader submitted fill is received or an OCO Trader submitted fill is received when using React To Own Orders, the application will place an opposite stop limit or stop market order at the fill price

OCO Trader Ltd. Order Types

	<p>minus the stop tick offset value.</p> <ul style="list-style-type: none"> • Stop Limit Order - When the “Stop Limit” checkbox is selected a standard Stop Limit order will be submitted. A standard stop limit order will be submitted with a stop price equal to the fill price minus the stop tick offset and a stop limit price equal to the fill price minus the sum of the stop tick offset and the stop limit tick offset. • Stop Market Order - When the “Stop Limit” checkbox is NOT selected a standard Stop Market order will be submitted. A standard stop market order will be submitted with a stop price equal to the fill price minus the stop tick offset. • Trailing Stops - All Stop orders can be trailing stops with the “Trail” Checkbox checked. Selecting the checkbox at any time will enable trailing stops and deselecting will disable trailing stops.
OCO Order	<p>An OCO-Order is a combination of a Profit Limit order and a Stop Loss order, where these two orders are tied together. When one order is partially or completely filled, the other order is changed to the new value or deleted, respectively. OCO Orders are submitted when both the Limit and Stop checkboxes are selected. The application manages these two orders as if they were one order. The stop side of the OCO Order will be trailing if the “Trail” checkbox is selected.</p>
Multiple Level OCO Order	<p>A Multiple Level OCO Order places an OCO Order with a percentage of the total order quantity at the offsets specified in the Multiple Level Setup window.</p>

Version Comparison

OCO Trader has the following features that are not available in OCO Trader Ltd:

- **Cancel Thresholds** - the application will delete all non-OCO Trader orders resting at a price level where the total bid/offer size do not satisfy the threshold.
- **Stop Thresholds** - enables the user to submit disclosed stop orders. Disclosed stop orders will be submitted as limit orders when the last traded price equals the stop price and the quantity in the depth satisfies the threshold operand.
- **Account Filtering** – enables the user to choose which account(s) to ignore or react to when a fill is received.

Requirements

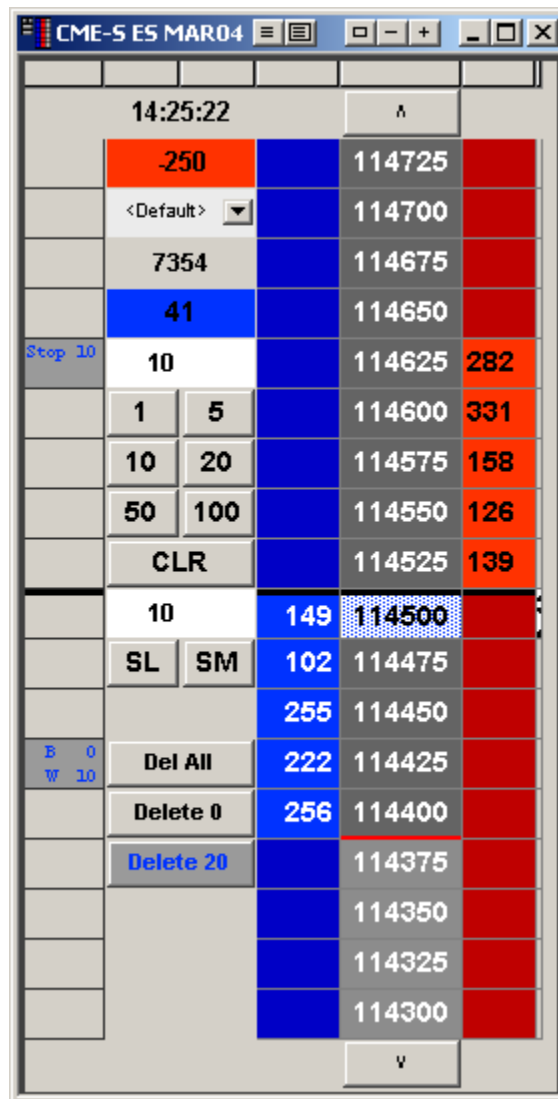
This application will be compatible with:

- X_TRADER® API release v6.2.2 or higher
- X_TRADER® release v6.10.2 or higher

Appendix A

Example 1 – Single Reactionary OCO with limit and stop orders.

This example shows how a sell order for a 10-lot was completely filled on CME-S ES Mar04 at 114525. Once it was filled it immediately put in a buy stop market order for 10 at 114625, and a buy limit order for 10 at 114425. If 1 of the buy limit order is filled, then it will reduce the size of the buy stop market order to 9.



The screenshot shows the OCO Trader interface for CME-S ES MAR04. The main window displays a list of orders with columns for quantity, price, and status. The top row shows a sell order for 250 contracts at 114725. Below it, a buy stop market order for 10 contracts at 114625 is shown with a status of 282. A buy limit order for 10 contracts at 114425 is also shown with a status of 222. The interface includes various controls like 'Stop 10', 'SL', 'SM', 'Del All', 'Delete 0', and 'Delete 20'.

Quantity	Price	Status
250	114725	
<Default>	114700	
7354	114675	
41	114650	
10	114625	282
1 5	114600	331
10 20	114575	158
50 100	114550	126
CLR	114525	139
10	114500	149
SL SM	114475	102
	114450	255
Del All	114425	222
Delete 0	114400	256
Delete 20	114375	
	114350	
	114325	
	114300	

Example 2 – Multiple Level Reactionary OCO with limit and stop orders.

The “3 Levels” template shown below contains three levels with 5, 6, and 7 limit and stop offsets. $1/3^{\text{rd}}$ of the filled order (10-lot, filled at 114625) will have an OCO placed at 5 ticks, $1/3^{\text{rd}}$ will be placed at 6 ticks and finally $1/3^{\text{rd}}$ at 7 ticks. Because $1/3^{\text{rd}}$ does not equate to a whole number to fulfill 100 percent, a round-off of 1-lot is added to the third level because it has a higher percent allocated to it.

CME-S ES JUN07

09:05:25

-250

<Default>

325283

20

10

1 5

10 20

50 100

CLR

10

SL SM

Limit

Del All

Delete 20

Delete 0

Trade Out

U.S. Pat. 6,766,304
& 6,772,132

Level	Limit Offset	Stop Offset	Pct (100%)
1	5	5	33
2	6	6	33
3	7	7	34

3 Levels

Level	Limit Offset	Stop Offset	Pct (100%)
1	5	5	33
2	6	6	33
3	7	7	34

Changes will be applied globally for this multi-level name.

Ok Cancel

Example 3 – Multiple Level Reactionary OCO with limit and stop orders.

As a continuation of Example 2, if the lot size was 11, instead of 10, there would be a tie between Level 1 and Level 2 for which gets the final lot allocated to it. OCO Trader will settle ties by allocating the order to the lowest level, which in this case is Level 1. It is important to note that if traders want additional lots

allocated closest to the inside market, they should put their levels with the lowest offset at the top of the Multiple Level Setup window.

CME-S ES JUN07

09:05:25

-250

<Default>

325283

20

10

1 5

10 20

50 100

CLR

10

SL SM

Limit

Del All

Delete 20

Delete 0

Trade Out

U.S. Pat. 6,766,304
& 6,772,132

Level	Limit Offset	Stop Offset	Pct (100%)
1	5	5	33
2	6	6	33
3	7	7	34

3 Levels

Level	Limit Offset	Stop Offset	Pct (100%)
1	5	5	33
2	6	6	33
3	7	7	34

Changes will be applied globally for this multi-level name.

Ok Cancel