



## **Trader's Guide**

**10.4.0.0**

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ONE BLUE HILL PLAZA, 10<sup>TH</sup> FLOOR  
PEARL RIVER, NEW YORK 10965-8689

877 RITHMIC SALES  
877 408 0008 TECH SUPPORT



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## Machine Configuration and Network Resource Recommendations and Requirements

Minimum hardware and network requirements for using R | Trader™ may vary based on a number of factors including, but not limited to, the market data activity of the instruments being traded and/or monitored, the number of instruments being traded and/or monitored, the number of active windows and the resource usage of other software running concurrently.

### Operating System and .NET Framework Requirements

<b>Operating Systems</b>	Windows 7
<b>Microsoft .NET Framework</b>	3.5

### Machine and Network Recommendations

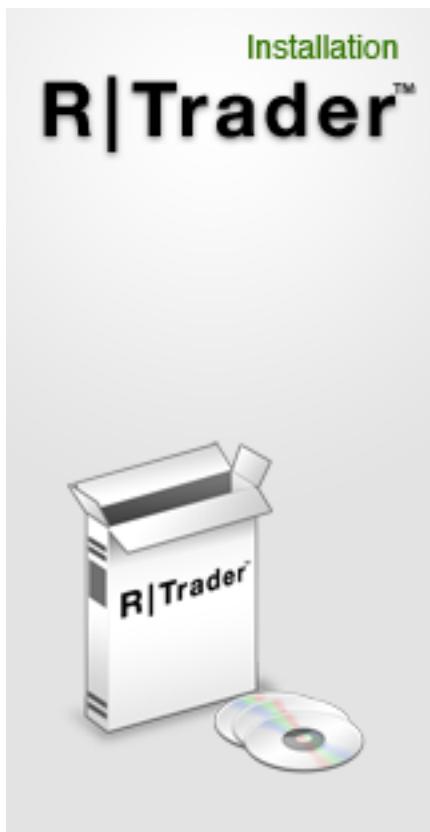
<b>CPU</b>	Single Dual Core or more
<b>RAM</b>	4096MB or more
<b>Internet Bandwidth</b>	High Speed Cable or greater

## Support

Support is available from your Futures Commission Merchant (FCM), your Broker-Dealer and/or your Introducing Broker (IB). Under certain circumstances, and upon special arrangement with your FCM, Broker-Dealer or IB, additional support may be made available from Rithmic, LLC directly.



## Installation and Login



R | Trader™ is distributed as a standard Windows Installer file (a .msi file) named as

**RithmicTrader-10.4.0.0-Setup-Name.msi**,  
where Name refers to the name of your FCM, Broker-Dealer,  
IB or trading organization, as the case may be.

Once the .msi file is copied to your machine, run it to install  
and configure the R | Trader™ application. A shortcut will be  
placed on the desktop and an entry will be placed in the Start  
Menu under:

**All Programs → Rithmic → Launch → Rithmic Trader**



Obtain a user id and password from your FCM, Broker-Dealer or IB and the name of the system to which you should connect. Through this user id you will have access to the various accounts setup by your FCM, Broker Dealer or IB on your behalf. You will be able to place, modify and cancel working orders on any of these accounts, subject to your risk settings (established and maintained by your FCM, Broker-Dealer or IB).

After launching R | Trader™, a login screen will prompt you to enter your user id, password and system. Enter your user id and password, select the system and click on the or press the enter key. If you are not sure which system to select, contact your FMC, Broker-Dealer or IB.



If you would like to launch R | Trader™ without using your previous settings, click on Skip Settings instead of on the . At any time prior to completing the login process you may cancel your login by clicking on Cancel or by pressing the ESC key.

If you find that the login process takes a long time or if you are having trouble connecting, click on "ECL" located at the bottom left of the login screen. A window will pop up from which you may select or identify a file into which R | Trader™ will log information about its connection process. Kindly e-mail the contents of that file to [operations@rithmic.com](mailto:operations@rithmic.com) so that Rithmic may use it to help determine the source of the connection problem.



## Main Console

The Main Console provides access to the various market data, risk management, position, order entry and history screens. Each screen (window) may be launched through a selection under the file menu or from the launch bar, pictured below.



Many of the screens allow you to customize their appearance, from choosing the columns of data to display, to setting fonts, colors and gridlines. Refer to **Appendix A** for details and instructions. Most windows indicate the status of their data feeds with small round colors, shaped like an led. A ● led displayed by a window for a data feed indicates that all data from that feed received by R | Trader™ destined for that window has been processed by that window. A ● led displayed by a window for a data feed indicates that some data received by R | Trader™ destined for that window still needs to be processed by that window. A ● led displayed by a window for a data feed indicates that the connection to that data feed has been broken.

The three numbers at the bottom right of the Main Console window (pictured above as 0.00, 0.00 and 0.00) indicate the number of market data messages per second received by R | Trader™ over each of 3 separate rolling time intervals. You may set the length of each time interval in the preferences window (see **Window menu options**) but by default they are usually set to 5, 10 and 30 seconds respectively.



## File menu options

By selecting an option under the File menu, you have the ability to open a new window, change your password, save and retrieve settings or exit R | Trader™. Any of the windows pictured in the launch bar above, can be opened from the file menu. They are:



### Recent Orders

The Recent Orders window displays information about working orders and completed orders (completed during the current trading day).

Recent Orders												
Working Orders (7/7)		Completed Orders (17/17)										
Account	Status	Buy/Sell	Qty To Fill	Symbol	Price Type	Limit Price	Order Number	Exchange	Order Id	Application	Rithmic Platform Transit Time (μs)	Elapsed Time (Sec)
Rithmic3	open	B	1 ESZ1	L	1132.75	6160047	71120787755	Rithmic Trader		1584	4	
Rithmic3	modified	S	1 ESZ1	L	1139.25	6160034	71120780877	Rithmic Trader		964	2095	
Rithmic3	open	S	1 ESZ1	L	1139.50	6160033	71120780873	Rithmic Trader		955	2095	
Rithmic3	open	S	1 ESZ1	L	1139.50	6160032	71120780872	Rithmic Trader		1491	2095	
Rithmic3	open	B	5 ESU1	L	1140.75	6160030	71120780815	Rithmic Trader		1355	2107	
Rithmic2	open	B	2 YMU1	L	10853	6160029	7356798426	Rithmic Trader		1187	2108	
Rithmic2	open	B	2 YMU1	L	10857	6160028	7356798423	Rithmic Trader		1510	2109	
Completed Orders (17/17)		Working Orders (7/7)										
Account	Status	Remarks	Buy/Sell	Qty To Fill	Symbol	Price Type	Avg Fill Price	Limit Price	Order Number	User Id	Rithmic Platform Transit Time (μs)	Elapsed Time (Sec)
Rithmic3	Filled		B	1 ESZ1	L	1135.00	1135.00	6160036	New User	1178	2067.116604	
Rithmic3	Filled		B	1 ESZ1	L	1136.00	1136.00	6160035	New User	1229	94.849341	
Rithmic3	Filled		B	1 ESZ1	L	1135.75	1135.75	6160031	New User	1428	2067.720964	
Rithmic2	Filled		S	2 YMU1	L	10862	10862	6160027	New User	1228	0.018397	
Rithmic2	Filled		S	2 YMU1	L	10864	10864	6160026	New User	1056	1795.505914	
Rithmic2	Filled		B	2 YMU1	L	10861	10861	6160025	New User	1487	579.681807	
Rithmic2	Filled		B	2 YMU1	M	10863	6160024	New User	1113	0.016911		
Rithmic2	Filled		S	2 YMU1	M	10862	6160023	New User	872	0.017335		
Rithmic2	Filled		S	2 YMU1	M	10862	6160022	New User	1147	0.017659		
Rithmic3	Filled		B	5 ESU1	M	1141.75	6160021	New User	1194	0.014158		
Rithmic3	Filled		S	5 ESU1	M	1141.50	6160020	New User	1167	0.014708		
Rithmic3	Filled		S	5 ESU1	M	1141.50	6160019	New User	1078	0.014670		

**Note: A trading day may begin on a prior calendar day.**

**Note: The start time and end time of a trading day for one product group may not be the same as the start time and end time of a trading day for other product groups.**

The upper pane shows working orders (open orders). Orders that are working are live and in the market, though depending upon the price type of an order, an order may be live and acknowledged by an exchange, but may not yet be in an instrument's order book (some stop orders). Additionally, some open orders may not yet have even been sent to an exchange (some stop orders, if touched orders, etc.). See **Appendix B** for a description of price types.

The lower pane shows orders that have been completed. Orders that are completed are orders whose quantity to fill has been satisfied by a combination of quantity filled and quantity cancelled, i.e. orders that no longer have any quantity that may yet be filled.



If you prefer to have the Recent Orders window display its data without upper and lower panes, click on the and the data will be organized into a working orders tab and a completed orders tab as in the picture below.

The screenshot shows the 'Recent Orders' window with two tabs: 'Working (11/11)' and 'Completed (12/12)'. The 'Working' tab is selected, displaying 11 open orders. The 'Completed' tab shows 12 completed orders. The columns include Account, Status, Buy/Sell, Qty To Fill, Max Show Qty, Symbol, Price Type, Limit Price, Qty Filled, Qty Working, Order Number, Original Sequence Number, and Current N. The data is color-coded by account (Rithmic3 in orange, Rithmic2 in red).

	Account	Status	Buy/Sell	Qty To Fill	Max Show Qty	Symbol	Price Type	Limit Price	Qty Filled	Qty Working	Order Number	Original Sequence Number	Current N
X M	Rithmic3	open	B	1		ESZ1	L	1135.00	0	1	6160036	E17AC	E17AC
X M	Rithmic3	open	B	1		ESZ1	L	1136.00	0	1	6160035	E17AB	E17AB
X M	Rithmic3	open	S	1		ESZ1	L	1139.50	0	1	6160034	E17AA	E17AA
X M	Rithmic3	open	S	1		ESZ1	L	1139.50	0	1	6160033	E17A9	E17A9
X M	Rithmic3	open	S	1		ESZ1	L	1139.50	0	1	6160032	E17A8	E17A8
X M	Rithmic3	open	B	1		ESZ1	L	1135.75	0	1	6160031	E17A7	E17A7
X M	Rithmic3	open	B	5		ESU1	L	1140.75	0	5	6160030	E17A6	E17A6
X M	Rithmic2	open	B	2		YMU1	L	10853	0	2	6160029	E17A5	E17A5
X M	Rithmic2	open	B	2		YMU1	L	10857	0	2	6160028	E17A4	E17A4
X M	Rithmic2	open	S	2		YMU1	L	10864	0	2	6160026	E17A2	E17A2
X M	Rithmic2	open	B	2		YMU1	L	10861	0	2	6160025	E17A1	E17A1

## Rithmic Platform Transit Time and Elapsed Time

Both panes of a Recent Orders window show the time taken for an order to be processed R | Trade Execution Platform™ (the Rithmic Platform Transit Time) and the time taken for an order to be completed (Elapsed Time). The Rithmic Platform Transit Time is calculated as the time just after R | Trade Execution Platform™ sent an order to the exchange minus the time just after R | Trade Execution Platform™ received that order and assigned it an order number. The elapsed time of an order is calculated as the time when R | Trade Execution Platform™ marked an order as complete minus the time just after R | Trade Execution Platform™ received that order and assigned it an order number. The range of these times depends upon a number of factors including market activity and the rate at which an exchange can fill an order, the price type of an order, whether or not an order is multi-legged, whether or not an order is directed to be held until some event happens (market open, for example) or until a particular time, concurrent order placement activity, etc. Keep in mind that the accuracy of these times is subject to the synchronization of the clocks of the machines on which R | Trade Execution Platform™ runs.

## Modifying an Order through the Recent Orders Window

To modify a working order through the Recent Orders window, click on the associated with the order in the working orders pane that you wish to modify or right click on that order and select Modify Order from the small menu that pops up. A modify orders screen will appear through which you may change the quantity and/or the price of the order.



**Modify Order 6159957**

Account Rithmic3 (Rithmic Account 3, Prospects)	Exchange CBOT	Duration DAY	5 Year US Treasury Note Futures
Buy/Sell Sell	Qty 7	Symbol ZFM1	Price Type Limit
			Limit Price 123'050
<input checked="" type="checkbox"/> Close when done			
Order 6159957: open <input type="button"/> Modify Order <input type="button"/> Close			

### Cancelling an Order through the Recent Orders Window

To cancel (or pull) a working order through the Recent Orders window click on the **X**, which by default is located in the leftmost column of the order or right click on that order and select Cancel Order from the small menu that pops up. Depending upon your preference settings the click itself or the selection from the pop up window will cause a cancellation request to be submitted to the exchange or they will cause a cancellation confirmation window to appear.

### Viewing Order Details

Order details can be viewed by double clicking on an order in either the upper or lower pane. A new window will open showing the history and details of the order's creation, its acknowledgment by the exchange, any modifications, fills and/or cancellations, rejects or failures.

**History for Order 6063787**

Date/Time (EDT)	Status	Fill Price	Qty Filled	Qty Cancelled	Qty Open	Total Qty Filled	Total Qty To Fill	Max Show Qty	User Id
2011-04-12 14:21:54.466286	complete					7	7		New User
2011-04-12 14:21:54.466286	fill	116'162	7						New User
2011-04-12 14:17:53.601611	open				7		7		New User
2011-04-12 14:17:53.590975	order sent to exch				7		7		New User
2011-04-12 14:17:53.590809	order received by exch gateway				7		7		New User
2011-04-12 14:17:53.590125	open pending				7		7		New User
2011-04-12 14:17:53.589582	Order received from client						7		New User

**Details**

Exchange CBOT	Limit Price 116'162
Symbol ZFM1	Stop Price
Price Type Limit	Avg Fill Price 116.5078120
Exchange Order Id 20110412033362	Liquidity Indicator
Fill Id	Executing Venue
Expiry Date Jun-11	Exchange Fee
Account Rithmic3	Create Time 2011-04-12 14:17:53
IB Rithmic-IB	Exchange Timestamp
FCM Rithmic-FCM	Order Duration DAY
Remarks	

### Viewing Market Data Trade History around the Time of an Order

You may view the trades that occurred in the market around the time of any of your recent orders (orders placed within the current trading session) by right clicking on an order and selecting Market Data Trade History.



**Recent Orders**

Recent Orders Accounts ALL Users ALL

Working Orders (4/4)		Order Number	Status	Buy/Sell	Max Show Qty	Qty Working	Symbol	Price Type	Limit Price	Exchange Order Id	Rithmic Platform	Elapsed Time (μs)	Elapsed Time (Sec)
X	M 605024	5765547	open	S	1	1	ESZ1	L	1140.25	641206997513	919	100	
X	M 605024	5765546	open	S	1	1	ESZ1	L	1140.25	641206997406	579	100	
X	M 605024	5765544	open	S	1	1	ESZ1	L	1139.75	641206997178	2114	100	
>	M 605024	5765540	open	S	1	1	ESZ1	L	1139.75	641206996955	1300	101	

Completed Orders (10/10)		Order Number	Status	Remarks	Buy/Sell	Qty Filled	Symbol	Price Type	Limit Price	Avg Fill Price	Exchange Order Id	Rithmic Platform	Elapsed Time (μs)	Elapsed Time (Sec)
>	605024	5765535	Filled		S	1	ESZ1	I	1138.50	1138.50	641206995796	1275	68.117726	
>	605024	5765511	Filled		S	1	ESZ1	I	1138.50	1138.50	206990909	1674	14.639678	
>	605024	5765091	Cancelled		S	0	ESU1	I	1138.50	1138.50	206863683	1865	5.515308	
>	605024	5765089	Cancelled		S	0	ESU1	I	1138.50	1138.50	206863089	1190	6.835963	
>	605024	5765061	Cancelled		S	0	ESU1	I	1138.50	1138.50	206850181	1271	8.813228	
>	605024	5765016	Cancelled		S	0	ESZ1	I	1138.50	1138.50	206816793	1414	11.670408	
>	605024	5765015	Filled		S	1	ESZ1	I	1138.50	1138.50	206816029	1483	1.598005	
>	605024	5765007	FILLED		S	1	ESZ1	I	1138.50	1138.50	206814002	1240	4.709750	
>	605024	5765006	FILLED		S	1	ESZ1	I	1138.50	1138.50	206814002	1240	4.709750	
>	605024	5765005	FILLED		S	1	ESZ1	I	1138.50	1138.50	206814002	1240	4.709750	

Order RMS Price History Trading Platform by Rithmic™

Tue, Sep 06, 2011 09:39:33 am EDT

Context menu options:

- Filter Orders... Ctrl+F
- Order History Ctrl+H
- Market Data Trade History Ctrl+D
- View Positions Ctrl+P
- Trader Dashboard Ctrl+I
- Order Book Ctrl+B
- Quote Board Ctrl+Q

The Market Data Trade History window will pop up displaying trades that were reported through the exchange's market data channels for the 300 seconds around the latest update time of your order. Some exchanges provide enough information on a market data trade report so that R | Trade Execution Platform™ can identify precisely which market data trade report corresponds to your order. If such information is not available the screen will show all market data trades that occurred during the same second as yours in orange. Trades occurring after yours will be shown with a green background and trades occurring before yours will be show with a yellow background.

**Market Data Trade History - ESZ1**

Market Data Trade History

Date/Time (EDT)	Trade Price	Trade Size	Volume	Fill Id	Net Change	% Change	Trade Condition
2011-09-06 09:38:29.850830	1137.50	1	11401		-26.00	-2.23	
2011-09-06 09:38:29.707609	1137.25	1	11400		-26.25	-2.26	
2011-09-06 09:38:29.707609	1137.25	1	11399		-26.25	-2.26	
2011-09-06 09:38:29.707609	1137.25	1	11398		-26.25	-2.26	
2011-09-06 09:38:29.707609	1137.25	1	11397		-26.25	-2.26	
2011-09-06 09:38:29.707609	1137.25	1	11396		-26.25	-2.26	
2011-09-06 09:38:26.190248	1137.00	1	11395		-26.50	-2.28	
2011-09-06 09:37:41.830927	1136.00	4	11394		-27.50	-2.36	
2011-09-06 09:37:34.130704	1135.75	6	11390		-27.75	-2.39	
2011-09-06 09:37:34.130704	1135.75	1	11384		-27.75	-2.39	
2011-09-06 09:37:33.508990	1135.50	1	11383		-28.00	-2.41	
2011-09-06 09:37:18.107244	1135.00	7	11382		-28.50	-2.45	
2011-09-06 09:37:18.107244	1135.00	1	11375		-28.50	-2.45	
2011-09-06 09:37:18.107244	1135.00	1	11374		-28.50	-2.45	
2011-09-06 09:37:18.107244	1135.00	1	11373		-28.50	-2.45	
2011-09-06 09:37:18.107244	1135.00	10	11372		-28.50	-2.45	

Fetch data for ESZ1.CME during 300 seconds around 2011-09-06 09:37:34

Order RMS Price History Trading Platform by Rithmic™ Powered by OMNE™ Tue, Sep 06, 2011 09:45:37 am EDT



## Future Options

The Future Options window displays real time market data for all options of a particular product group with a specific expiration date.

The screenshot shows the 'Future Options' window from the Rithmic 01 Test Sim. At the top, it displays the exchange (NYMEX), product (LO - NYMEX Light Sweet Crude Oil O), underlying contract (CLQ1.NYMEX), and description (Light Sweet Crude Oil, Jul-11). Below this, it shows bid and ask sizes and prices: Bid Size 6, Bid Price 99.86, Ask Size 13, Ask Price 99.87, and Market Mode Open.

The main area is a grid showing option contracts for various expiration dates. The columns include Bid Qty, Bid, Ask, Ask Qty, Last, Strike, Bid Qty, Bid, Ask, Ask Qty, and Last. The grid is divided into 'Calls' on the left and 'Puts' on the right. The underlying price (100.00) is highlighted in orange in the Strike column for many rows. The background color of the grid cells indicates whether the option is in the money (black) or out of the money (light pink).

Calls						Puts					
Bid Qty	Bid	Ask	Ask Qty	Last	Strike	Bid Qty	Bid	Ask	Ask Qty	Last	
26	1.53	1.65	15	1.65	105.00						
22	1.65	1.79	49	1.79	104.50						
21	1.81	1.94	42	1.94	104.00	1	6.13				
20	1.95	2.10	4	2.10	103.50	78	5.31				
19	2.13	2.29	17	2.29	103.00	20	5.01				
17	2.30	2.47	13	2.47	102.50	20	4.71				
16	2.49	2.67	26	2.67	102.00	12	4.87				
16	2.69	2.85	3	2.85	101.50	30	4.15				
13	2.93	3.00	8	3.00	101.00	11	4.46				
13	3.14	3.20	3	3.20	100.50	12	4.19				
10	3.39	3.44	10	3.44	100.00	10	3.93				
10	3.64	3.70	10	3.70	99.50	11	3.68				
10	3.90	3.97	10	3.96	99.00	12	3.45				
10	4.21	4.24	10	4.23	98.50	13	3.23				
10	4.50	4.54	10	4.53	98.00	22	3.05				
					97.50	1	2.84				
					97.00	18	2.63				
					96.50	19	2.45				
					96.00	1	2.30				
					95.50	20	2.13				
					95.00	23	1.98	2.04	23		
					94.50	20	1.84	1.91	26	1.85	
					94.00	26	1.71	1.76	26	1.78	

At the bottom, there are buttons for Order, RMS, Price, History, and Open, along with the date and time (Mon, Jun 13, 2011 04:46:02 pm EDT).

When an expiration date is selected, the Future Options window shows prices for call options on the left and prices for put options on the right. If the underlying contract can be determined, its symbol, exchange, description and pricing information is displayed at the top. To show which options are in the money and which are out of the money, an orange line corresponding to the underlying's last traded price is displayed in the Strike column. In the money options are displayed against a black background.



## Placing Orders from the Future Options Window

You may place orders for a specific option through the Future Options window by clicking on a "Bid" or "Ask" column of the row that corresponds to the strike price of the option you wish to buy or sell. A click on a "Bid" column on the left side of the window brings up a Place Order window populated to sell a call option with other fields containing the same contents as the Order Parameters of the Future Options window. A click on the "Ask" column of the same row on the left side of the screen brings up a Place Order window similarly populated but set to buy the call option.



Though the Place Order window pops up pre-populated, you may change the contents of the fields that have an associated drop down box. Click the "Place Order" button to submit the order. Click the "Cancel" button to close the Place Order window without placing the order.



## Options Board

The Options Board window displays real time market data for all options of an underlying symbol listed at a specified options exchange.

The screenshot shows the Rithmic Options Board window for the underlying symbol AAPL.BATS, which corresponds to APPLE INC COM STK. The window displays real-time market data for all options of this underlying symbol listed at the CBOE exchange. The top header includes the title "Rithmic 01 Test Sim : Options Board", the underlying symbol "AAPL.BATS", and the company name "APPLE INC COM STK". Below the header, there is a toolbar with various icons for managing orders and settings. The main data area is divided into two sections: "Calls" on the left and "Puts" on the right. Both sections show a grid of option contracts with columns for Bid Qty, Bid, Ask, Ask Qty, Last, Strike, and other trading details. The "Calls" section lists numerous contracts with strikes ranging from 300.00 to 390.00, while the "Puts" section lists contracts with strikes ranging from 280.00 to 335.00. The bottom of the window features tabs for "Order", "RMS", "Price", and "History", along with a large green "Open" button and a timestamp indicating the data is current as of Tuesday, June 14, 2011, at 11:24:24 am EDT.

The Options Board window shows prices for call options on the left and prices for put options on the right. Though originally designed to show equity options, you may use this window to view and trade future options as well (provided that R | Trade Execution Platform™ to which your R | Trader™ is connected can associate future options with their underlying future contract).



Rithmic 01 Test Sim : Options Board

**Options Board**

Underlying ESM1.CME      E-Mini S&P 500, Jun-11

Bid Size	Bid Price	Ask Price	Ask Size	Last Trade Price	Last Trade Size	Net Change	% Change	Trade Volume	Market Mode
235	1270.75	1271.25	5	1270.75	1	-0.75	-0.06	139868	No Cancel

Option Exchange CME

17-Jun-11

Calls						Puts				
Bid Qty	Bid	Ask	Ask Qty	Last	Strike	Bid Qty	Bid	Ask	Ask Qty	Last
1	0.05		0.05	8	1370.00					
			0.05	2	1365.00					
			0.10	25	1360.00					
					1355.00					
					1350.00					
					1345.00					
			0.10	10	1340.00					
			0.15	213	1335.00					
2	0.10	0.15	224	0.15	1330.00					
316	0.15	0.20	179	0.15	1325.00					
186	0.15	0.25	113	0.25	1320.00	24	45.75			47.00
200	0.35	0.40	77	0.40	1315.00	2	38.75			
101	0.55	0.60	88	0.55	1310.00			38.50	1	
1	1.00	1.10	74	0.95	1305.00					
126	1.50	1.55	177	1.50	1300.00	8	25.75	26.75	387	26.50
78	2.25	2.60	83	2.55	1295.00	3	24.00			24.00
92	3.45	3.65	171	3.60	1290.00	8	18.50	23.50	1	18.50
4	5.25	5.75	195	5.25	1285.00	84	14.75	16.00	12	14.75
58	7.25	7.50	171	7.25	1280.00	48	12.50	13.00	147	12.25
159	9.50	10.00	159	10.25	1275.00	159	10.00	10.50	156	10.00
153	12.50	13.00	159	13.00	1270.00	171	8.00	8.50	171	8.25
147	15.75	17.25	222	17.00	1265.00	304	6.25	6.75	189	6.25
18	19.50	20.00	10	19.75	1260.00	108	5.00	5.50	207	5.00
				48.00	1255.00	66	4.00	4.20	66	4.15
				25.00	1250.00	159	3.20	3.25	47	3.10
				1245.00	168	2.45	2.60	71	2.55	
				1240.00	99	2.05	2.10	92	2.15	
				1235.00	378	1.60	1.75	48	1.70	
				1230.00	657	1.40	1.45	48	1.50	
				1225.00	45	1.10	1.25	45	1.15	
				1220.00	45	0.95	1.00	25	1.00	
				1215.00	65	0.90	1.00	45	0.90	
				1210.00	380	0.70	0.75	45	0.75	
				1205.00	90	0.60	0.70	90		
				1200.00	45	0.50	0.65	68	0.55	
				1195.00	90	0.45	0.55	180	0.50	
				1190.00	90	0.40	0.55	90		
				1185.00	148	0.40	0.45	145	0.40	
				1180.00	90	0.35	0.40	455	0.40	

Order RMS Price History Halted

Tue, Jun 14, 2011 11:25:38 am EDT



## Placing Orders from the Options Board Window

You may place orders for a specific option through the Options Board window by clicking on a "Bid" or "Ask" column of the row that corresponds to the strike price of the option you wish to buy or sell. A click on a "Bid" column on the left side of the window brings up a Place Order window populated to sell a call option with other fields containing the same contents as the Order Parameters of the Options Board window. A click on the "Ask" column of the same row on the left side of the screen brings up a Place Order window similarly populated but set to buy the call option.

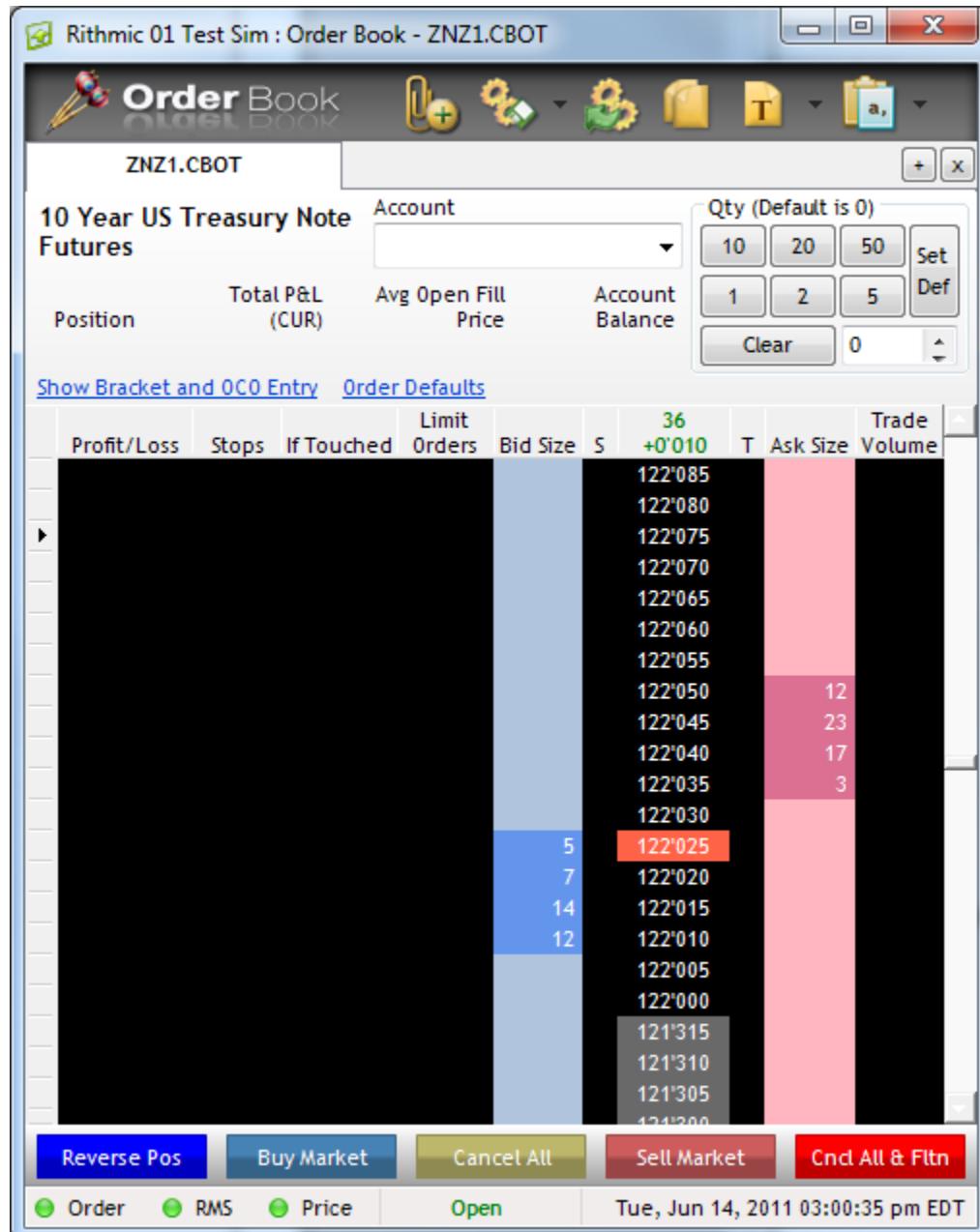


Though the Place Order window pops up pre-populated, you may change the contents of the fields that have an associated drop down box. Click the "Place Order" button to submit the order. Click the "Close" button to close the Place Order window without placing the order.



## Order Book

Use the Order Book window to view real time market depth and to place and manage orders for a particular instrument.

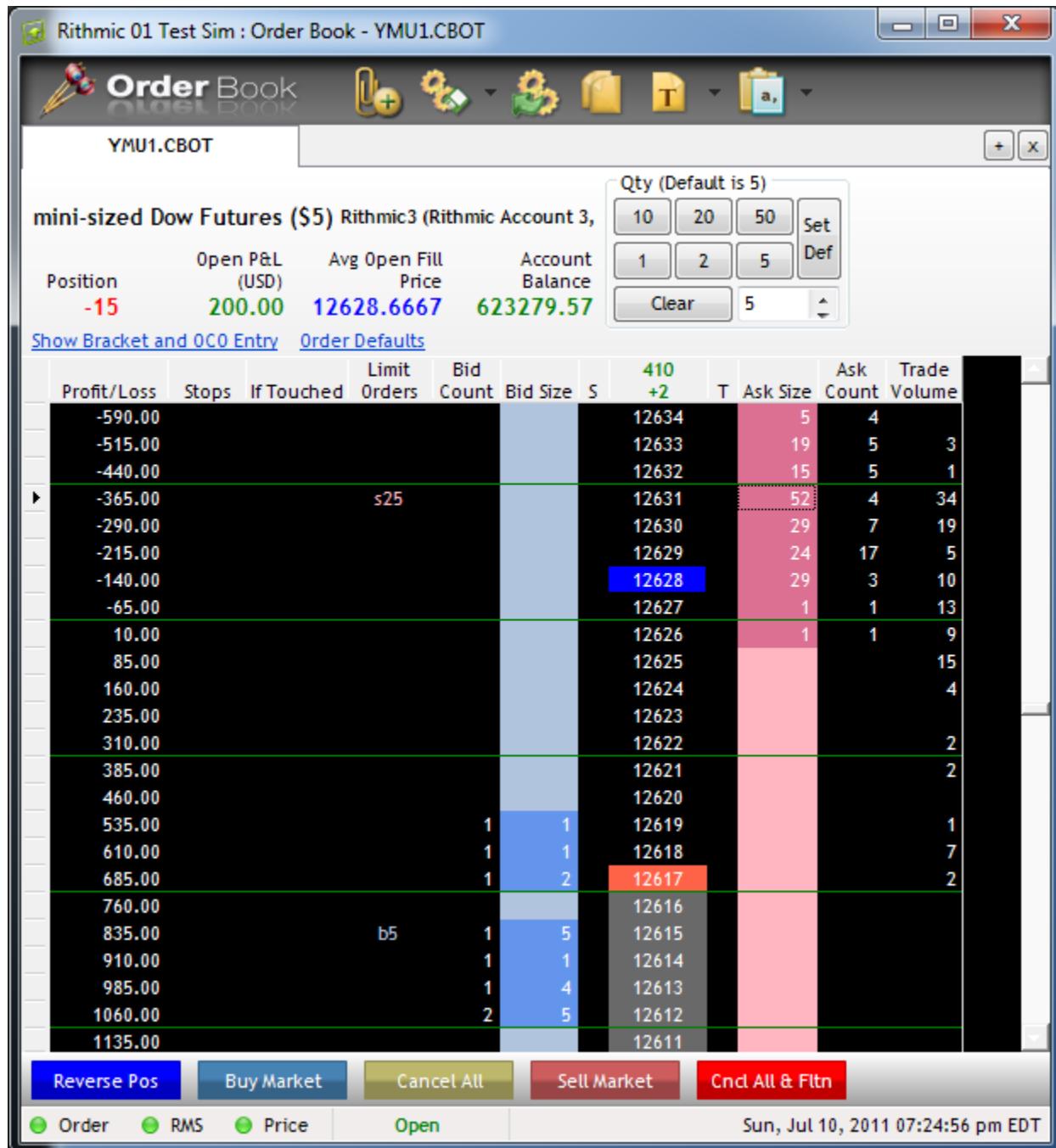


### Order Book Basics

Depending upon which columns you select to be displayed, an order book can show you an instrument's last trade price, its quantity available to be bought or sold at various prices and



the number of buy and sell orders at each price. Additionally you may view an account's position, its open orders and its p&l for a particular instrument.



The Order Book above shows pricing information for YM1 at the CBOT and position, open orders and p&l on YM1 for account Rithmic3.



### Setting and Selecting an Instrument to View and/or Trade

When an Order Book window is launched, it displays an empty box labeled Symbol.Exchange. Type the symbol that corresponds to the instrument whose order book you would like to view in that box followed by the symbol-exchange separator (a period "." by default) then followed by the id of the exchange or other trading venue on which that instrument trades (refer to **Appendix C** for a list of exchange and other trading venue ids). Press enter or tab or click away from the box and, if the symbol-exchange pair you entered is valid, its description and its order book will be displayed in the Order Book window.

You may change the instrument whose order book you wish to view by clicking on the description (the symbol-exchange pair of the instrument whose order book is currently displayed will be shown) and then by typing over the current symbol-exchange pair and pressing enter or tab.

If you do not know the symbol that corresponds to the instrument whose order book information you wish to view, double click on the symbol-exchange pair (or in the empty box labeled Symbol.Exchange, as the case may be) and an Add Symbol window will pop up. Refer to **Appendix D** for information on how to select a symbol through an Add Symbol window.

### Setting and Selecting an Account

When an Order Book window is launched, it displays an empty drop down box labeled Account. Select the account from the drop down box whose orders and p&L information you wish to view for the instrument identified by the symbol-exchange pair of the Order Book window. The description of the selected account will be displayed in the Order Book window.

You may change the Account whose orders you wish to view by clicking on the account's description and selecting a different account.

**Note:** The account drop down box will only show the accounts to which you have permission to view and/or trade.

### Position

The column labeled "Position" at the top of the Order Book indicates the net open position of the instrument (YMU1) for the account (Rithmic3). A negative number indicates a short position.

### P&L

The number to the right of the "Position" indicates the open p&l in the currency of the account (in this case USD). By clicking on the p&l you may toggle through several types of p&l to display – Total P&L in the currency of the account, in ticks or in price points, Open P&L in the currency of the account, in ticks or in price points or no p&l display.



### Average Open Fill Price

The number to the right of the p&l is the average open fill price of the current open position, in this case, of YMU1 for Rithmic3. It is also highlighted in the price column by a colored bar, in this case blue. If the average open fill price is not a tradable price then it is highlighted in the price column at the first price at which a flattening of the position would yield a profit. For example, if the average open fill price for a long position were 829.125 of an instrument that trades in increments of 0.25, then the highlighted price would be 829.25.

### Account Balance

Depending upon the type of risk management algorithm your FCM, Broker-Dealer or IB has chosen for your account, the balance of your account may be displayed in the middle of the top part of the Order Book, on the left of the number pad.

### Quantity

Toward the right side of the top of the Order Book is a number pad that you may use to specify the default quantity to fill and a box that indicates the quantity to fill on the next order. You may specify a quantity in the box with the arrows directly or by clicking on a number in the number pad. Each click of a number in the number pad adds that number to the quantity in the box with the arrows. You may increase the quantity in the box by clicking on the up arrow and you may decrease the quantity in the box by clicking on the down arrow. To clear the quantity, click on the "Clear" button. To set the default quantity, click on the "Set Def" button.

When an order is placed through the Order Book, the quantity to fill on that order will be the quantity that is displayed in the box with the arrows at the time that the order is submitted. After an order is placed through the Order Book, the quantity in the box with the arrows is automatically reset to display the default quantity. For example, if the default quantity is 5, and the number in the box with the arrows is 7, and an order is placed through the Order Book, that order will have a quantity of 7 and the quantity displayed in the box with the arrows will then be reset to 5. The default quantity is displayed on the thin line that surrounds the number pad (just above the 10, 20 and 50 buttons).

### Bid and Offer Sizes and Counts

The number of orders bid at a certain price is displayed in the column with the heading "Bid Count" on the row that displays that price. The quantity available to be bought at a certain price is displayed in the column whose heading is "Bid Size" on the row that displays that price. In the Order Book above, there is a quantity available to be bought of 381 spanning 23 orders at a bid price of 1266. Similarly, the number of orders offered at a certain price is displayed in the column with the heading "Ask Count" on the row that displays that price and the quantity available to be sold at a certain price is displayed in the column whose heading is "Ask Size" on the row that displays that price.

### Last Trade Price and Net Change

The price at which an instrument has last traded is highlighted in the price column by a colored bar, in this case orange.



The net change of the instrument is displayed at the top of the price column.

### Trade Volume

The Trade Volume column displays either the quantity traded at each price of the order book or the quantity traded at the best bid price and the best ask price since those prices became the best prices. You may toggle which quantities are displayed by clicking on the column heading.

### Market Mode

The market mode (trading status) of an instrument is displayed in the middle of the bottom of an Order Book. Refer to **Appendix B** for more information about market modes.

### Centering the Price Rows

By default, the rows that display prices in the Order Book are centered around the midpoint of the current best bid and best offer prices. As these prices change the Order Book will dynamically reposition the price rows accordingly, at an effective rate of about 1 row per second. For example, if the midpoint of an instrument's best bid and offer price suddenly drops by 5 ticks (5 rows), the Order Book will reposition the price rows by moving them up by 5 rows in about 5 seconds. While repositioning these rows, if the midpoint of the instrument's best bid and offer price suddenly rises by 10 ticks, the Order Book will switch the direction of its movement to reposition the rows accordingly. If you change the view of the price rows by scrolling, once you stop scrolling, the Order Book will begin to move the rows back to their default position. At any time you may cause the Order Book to display the price rows in their default position by double clicking on any row in the price column.

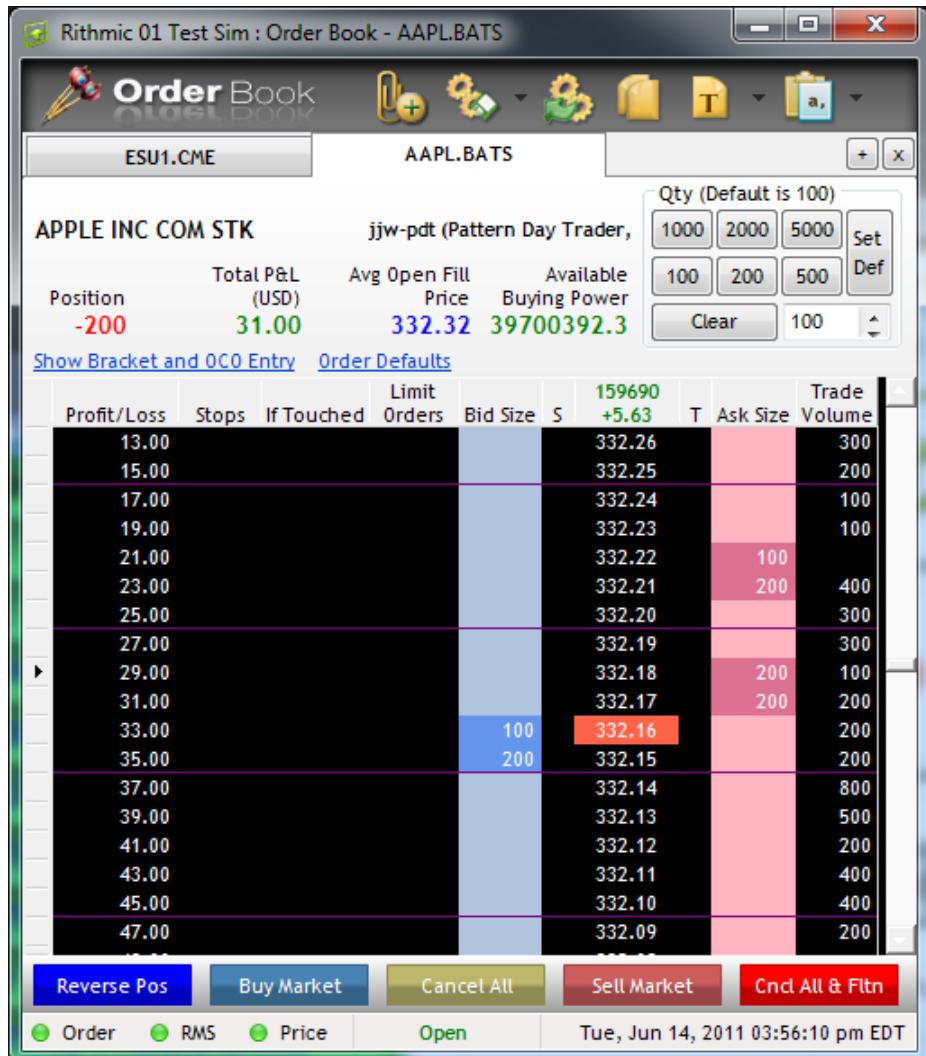
### Freezing the Movement of the Price Rows

If the "Hide sizes and counts on mouse over" box is checked on the Windows tab of the General tab of the Preferences window, then, while your mouse is over any cell of a price row in an Order Book that permits you to place, modify or cancel an order, the sizes and counts will not be visible in that Order Book and the price rows of that Order Book will not move. As soon as your mouse is no longer over any such cell, the sizes and counts will become visible and the price rows will resume their movement.

Alternatively, if the "Hide sizes and counts on mouse over" box is checked you may freeze the movement of the price rows and hide the sizes and counts of an in focus Order Book by pressing and holding the Ctrl key. As soon as the Ctrl key is released, the sizes and counts will become visible and the price rows will resume their movement.

### Viewing Multiple Order Books within a Single Order Book Window

You may view multiple order books within a single Order Book window by clicking on the "+" button at the top right. Each click of the "+" button opens an additional tab within the Order Book window and each tab may be configured to show prices for a different instrument as in the picture below. Click on the "x" button (next to the "+" button) to delete the current tab.



### Grid Lines

You may apply, change or remove gridlines from an Order Book by clicking on the icon at its top and selecting "Grid Lines...". You may move horizontal gridlines in an order book by clicking on a price row, holding down the Ctrl key and then pressing the up arrow or down arrow key.



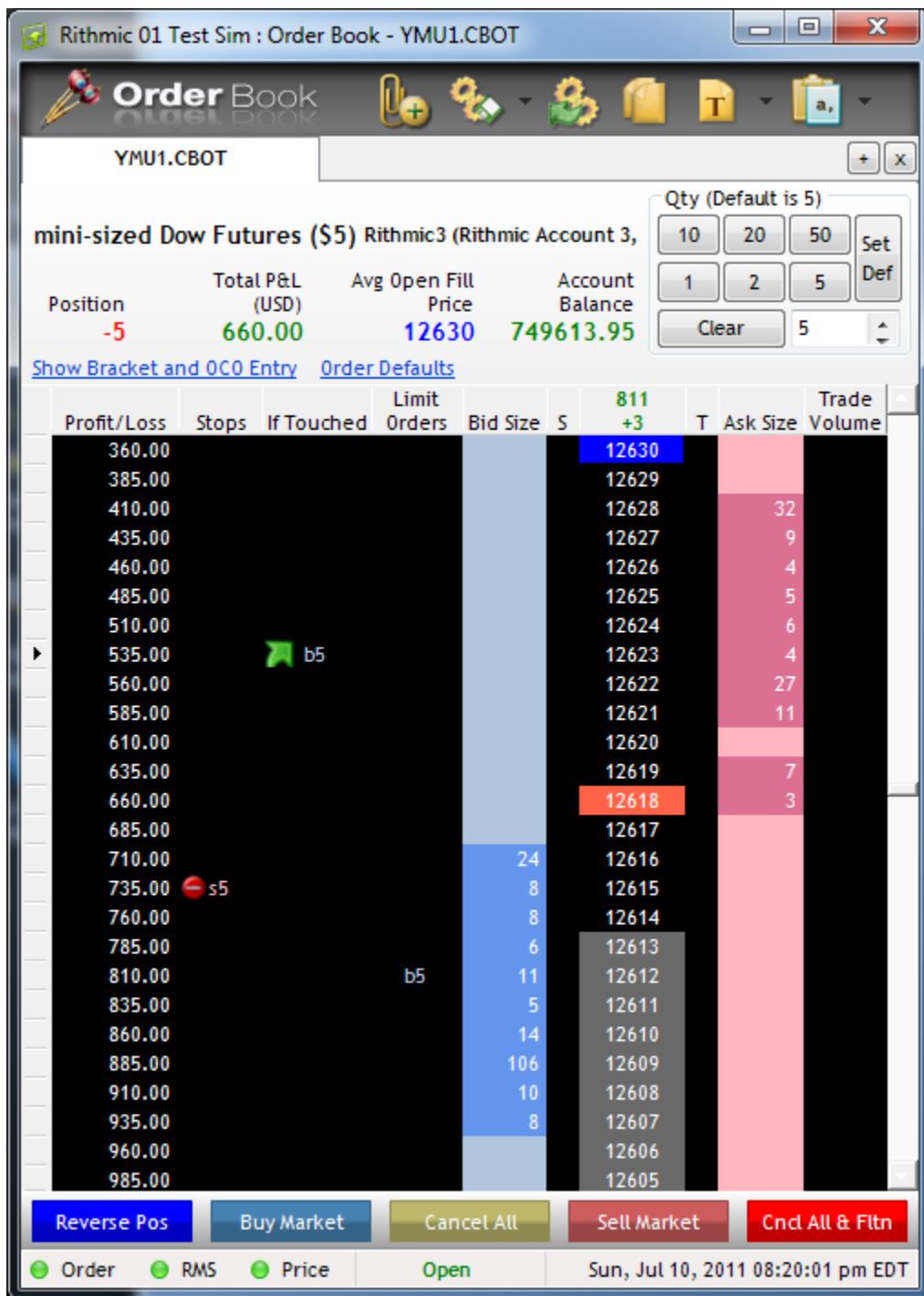
### Tool Tips

If you would like to view tool tips when your mouse hovers over cells of a row in an Order Book that permit you to place, modify or cancel orders, uncheck the "Disable tooltips" box in the General tab of the Preferences window.



## Standard Open Order Indicators

In the Order Book below, the column on the left shows the total profit or loss that the account would have for YMU1 if the current position were to be flattened at any particular price.





For example, if the current position were flattened at a price of 12608 then the account would have a profit of \$910.00 for YM1. The **b5** indicates that one or more limit orders have been placed on this account and remain open to buy a total quantity of 5 at a price of 12612. The **s5** indicates that one or more stop orders have been placed on this account and remain open to sell a total quantity of 5 with a stop price of 12615. The **green b5** indicates that at least one if touched order has been placed on this account and remains open to buy a quantity of 5 with a trigger price of 12623.

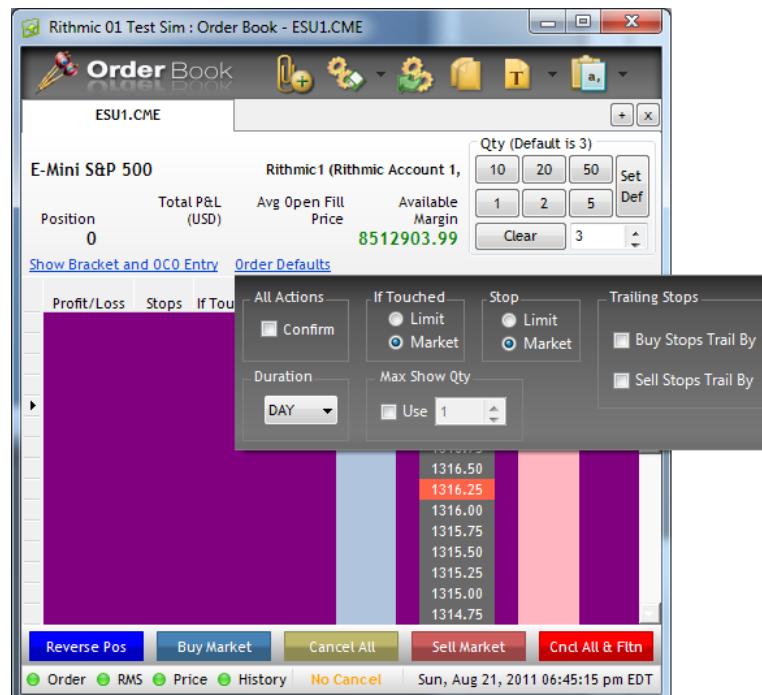
A “**b**” before a number in the Stops, If Touched or Limit Orders column indicates a buy quantity. An “**s**” before a number in the Stops, If Touched or Limit Orders column indicates a sell quantity. The price on the row on which a “**b**” before a number or an “**s**” before a number resides indicates the price associated with that quantity to be filled. The type of price is indicated by the heading of the column in which the “**b**” before a number or the “**s**” before a number resides and is also indicated by **red minus** for stops and **green plus** for if touched.

**Note:** The quantity preceded by a “**b**” or an “**s**” indicates the total quantity open at that price, across all orders (of the account) for the instrument.

**Note:** Unless the instrument to be traded when an if touched trigger condition is met is the same as the instrument associated with the trigger condition, an Order Book does not show the id (Symbol) of the instrument that will be traded - they need not be same instrument. Refer to **Appendix B** for details on if touched price types.

### Setting Order Defaults

Click on **Order Defaults** and a window will pop up through which you may set the defaults for many of an order's parameters.





### All Actions

Check the Confirm box in the All Actions section if you would like an order ticket to be displayed prior to placing, modifying or cancelling an order.

### If Touched

If you would like an if touched order to be a market order by default, select Market in the If Touched section. If you would like an if touched order to be a limit order by default, select Limit in the If Touched section.

### Stop

If you would like a stop order to be a market order by default, select Market in the Stop section. If you would like a stop order to be a limit order by default, select Limit in the Stop section.

### Trailing Stops

If you would like a buy stop order to trail a price by default, check the box labeled "Buy Stops Trail By", select a price type from the drop down box in the column labeled "Price Field" and set the number of ticks to trail by in the box in the column labeled Ticks. Similarly, if you would like a sell stop order to trail a price by default, check the box labeled "Sell Stops Trail By", select a price type from the drop down box in the column labeled "Price Field" and set the number of ticks to trail by in the box in the column labeled Ticks.

### Duration

Set the default duration of an order (time in force) from the Duration drop down box. Refer to **Appendix B** for details.

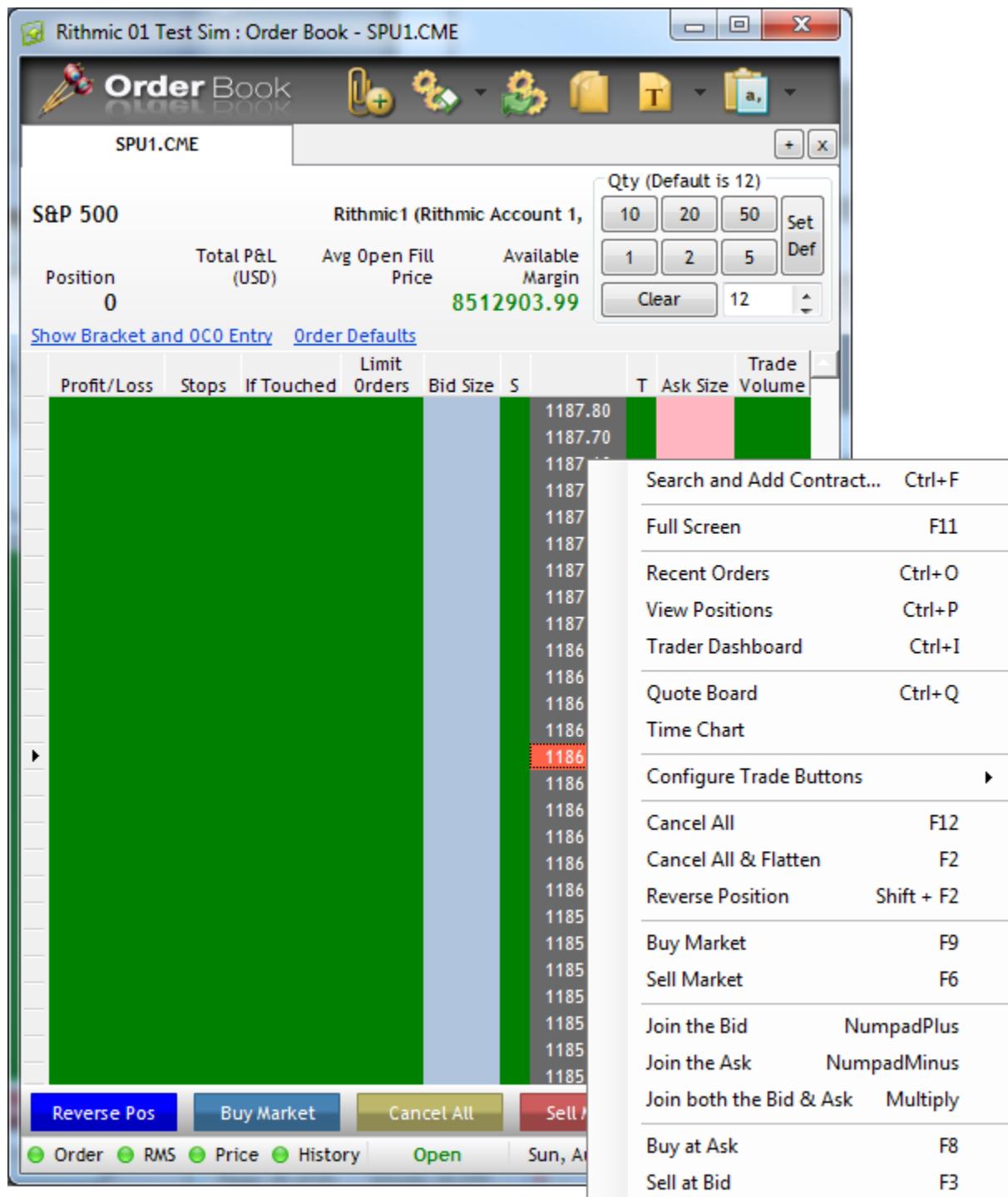
### Max Show Quantity

If you would like your orders to indicate a maximum quantity to show (an iceberg quantity) by default click the Use box in the Max Show Qty section and specify a maximum quantity to show in the box next to the Use box.

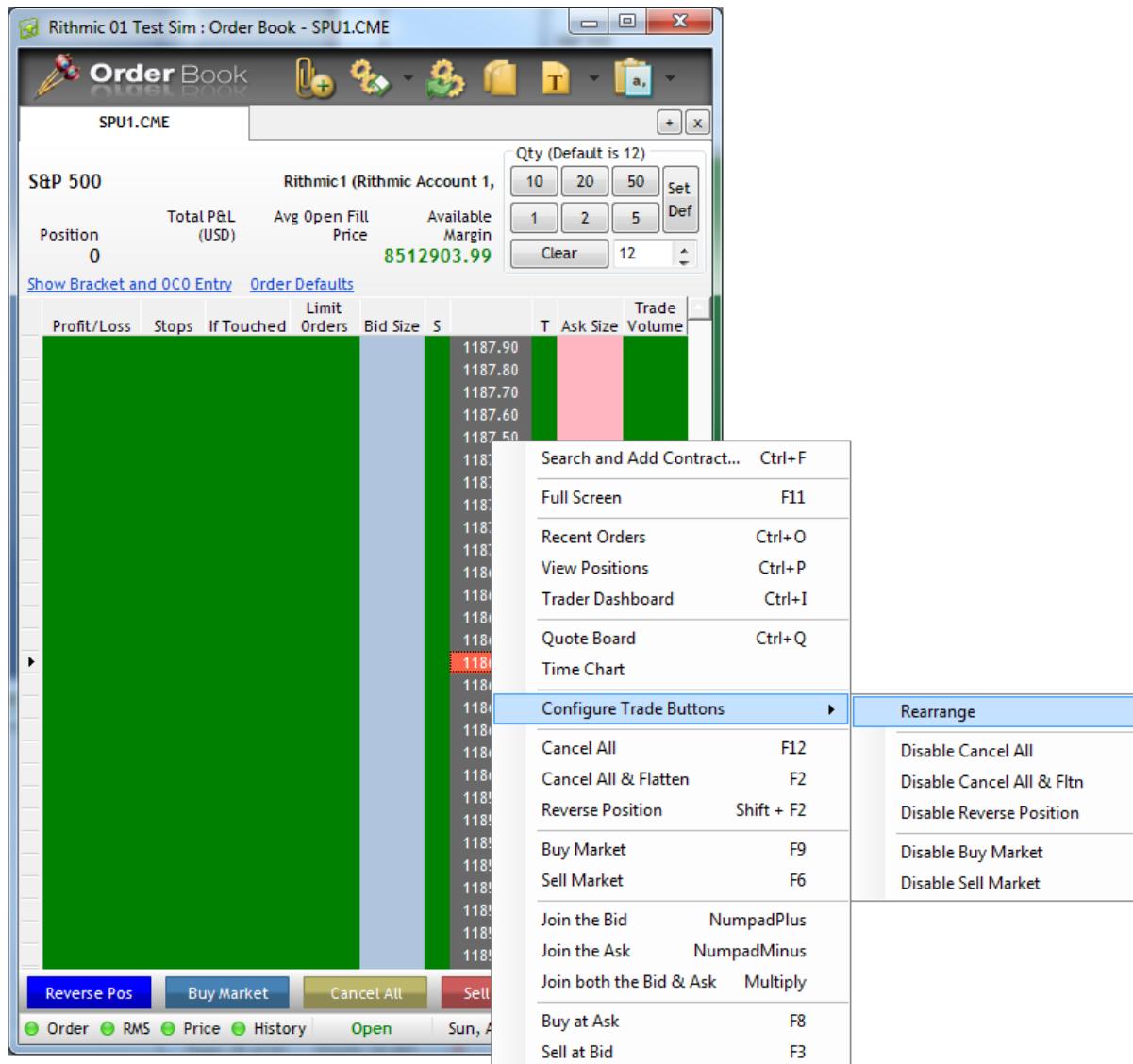
## Configuring the Trade Buttons

### Rearranging the Left-Right Order of the Trade Buttons

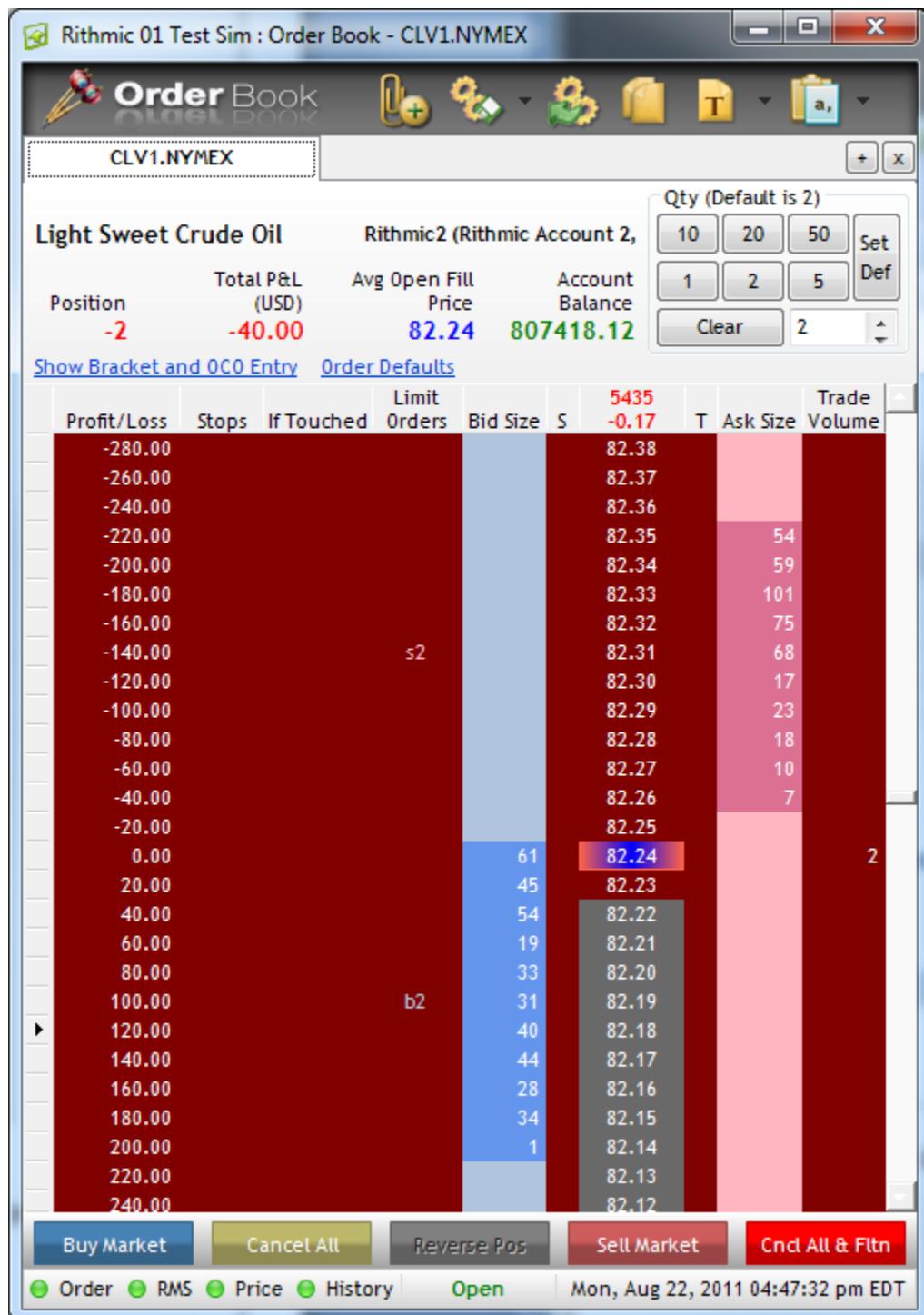
Right Click on any column of a price row of an order book and a menu will pop up from which you can select "Configure Trade Buttons". The trade buttons are the big buttons at the bottom of an order book that are used to place market orders, reverse positions and cancel or flatten positions.



Another menu will then pop up from which you may choose to rearrange the left to right order of the trade buttons and from which you may disable any or all of the trade buttons.



To rearrange the left to right order of the trade buttons, select "Rearrange". The trade buttons will vibrate and their function, if not already disabled, will be suspended until the rearrangement of the trade buttons is complete. Click, hold and drag each button you wish to rearrange and place it in the position you desire. When you are done rearranging the trade buttons, click anywhere on the order book. The buttons no longer vibrate. They will remain fixed in their location until you rearrange them again and their functionality will return to the state (disabled or enabled) they were prior to rearranging them.



### Disabling and Enabling the Function of a Trade Button

You may disable or enable the function of a trade button through the "Configure Trade Buttons" menu. When a trade button is disabled its color is rendered grey.



## Placing Simple Orders through the Order Book

Once an instrument, an account, a duration and a quantity have been set, you may place orders through the Order Book. All orders placed through the Order Book will be submitted for the instrument and on the account you have set and with the duration and quantity that you have set.

### Market Orders

Click on the button at the bottom of the Order Book labeled "Buy Market" to place an order to buy at the market. Click on the button at the bottom of the Order Book labeled "Sell Market" to place an order to sell at the market.

### Limit Orders

Click in the Bid Size column, on the row that corresponds to the price at which you would purchase the instrument, to issue a "Buy Limit" order. Click in the Ask Size column, on the row that corresponds to the price at which you would sell the instrument, to issue a "Sell Limit" order. Shortly after the order is confirmed by the exchange as being open, you should see an entry in the Limit Orders column on the row on which you clicked, indicating the total quantity the account has open at that price for the instrument. As the order gets filled, the quantity displayed is reduced and when completely filled, removed.

### Stop (Market) Orders

Set the default price type in the Stop section of the [Order Defaults](#) to Market.

Click in the column whose heading is an "S" on the row that corresponds to the stop price you would like to set. A stop (market) order will be placed immediately. If you clicked on a row whose price is above the last trade price, then the stop order will be a buy order. If you clicked on a row whose price is equal to or less than the last trade price, then the stop order will be a sell order.

### Stop Limit Orders

Set the default price type in the Stop section of the [Order Defaults](#) to Limit.

Click in the column whose heading is an "S" on the row that corresponds to the stop price you would like to set. An order ticket will pop up populated with the instrument, account and quantity displayed in the Order Book, a duration as set in the Duration section of the [Order Defaults](#) and a price type of "Stop Limit". If you clicked on a row whose price is above the last trade price, then the order ticket will be set for a buy order. If you clicked on a row whose price is equal to or less than the last trade price, then the order ticket will be set for a sell order. In both cases, the limit price and the stop price will be set to the price displayed on the row on which you clicked. You may change the quantity, stop and limit price of the order by clicking on the arrows of their respective boxes or by typing in them directly. Click "Place Order" to submit the order or "Close" to close the window without placing the order.



### Limit If Touched Orders

Set the default price type in the If Touched section of the [Order Defaults](#) to Limit.

Click in the column whose heading is a "T" on the row that corresponds to the limit price you would like to set. An order ticket will pop up populated with the instrument, account and quantity displayed in the Order Book, a duration as set in the Duration section of the [Order Defaults](#), a price type of "Limit if Touched". If you clicked on a row whose price is greater than or equal to the last trade price, then the order ticket will be set for a sell order and the trigger price will be set to the best bid price. If you clicked on a row whose price is less than the last trade price, then the order ticket will be set for a buy order and the trigger price will be set to the best offer price. Refer to [Appendix B](#) for more information on populating an order ticket for an if touched order. Click "Place Order" to submit the order or "Close" to close the window without placing the order.

### Market If Touched Orders

Set the default price type in the If Touched section of the [Order Defaults](#) to Market.

Click on a row in the column whose heading is a "T". An order ticket will pop up populated with the instrument, account and quantity displayed in the Order Book, a duration as set in the Duration section of the [Order Defaults](#) and a price type of "Market if Touched". If you clicked on a row whose price is greater than or equal to the last trade price, then the order ticket will be set for a sell order and the trigger price will be set to the best bid price. If you clicked on a row whose price is less than the last trade price, then the order ticket will be set for a buy order and the trigger price will be set to the best offer price. Refer to [Appendix B](#) for more information on populating an order ticket for an if touched order. Click "Place Order" to submit the order or "Close" to close the window without placing the order.

### Modifying and Cancelling Orders and Flattening Positions through the Order Book

To modify the price of an open order through the Order Book click on an open order indicator and drag it to the row that displays the price at which you would like the quantity to be filled, stopped or triggered, as the case may be. A colored bar (usually red) will highlight the price as you drag the open order indicator as in the Order Book below. When you release it, a request will be sent to the exchange to modify the relevant price for all orders whose quantity was just dragged to the price that was last highlighted.



Rithmic 01 Test Sim : Order Book - CLV1.NYMEX

**Order Book**

CLV1.NYMEX

Qty (Default is 2)

10	20	50	Set
1	2	5	Def
Clear		2	▲

**Light Sweet Crude Oil**      Rithmic2 (Rithmic Account 2,

Position	Total P&L (USD)	Avg Open Fill Price	Account Balance
-2	-40.00	82.24	807418.12

[Show Bracket and OCO Entry](#) [Order Defaults](#)

Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	T	Ask Size	Trade Volume
-220.00					5435			
-200.00					-0.17			
-180.00						82.35	54	
-160.00						82.34	59	
-140.00		s2				82.33	101	
-120.00						82.32	75	
-100.00						82.31	68	
-80.00						82.30	17	
-60.00						82.29	23	
-40.00						82.28	18	
-20.00						82.27	10	
0.00				61		82.26	7	
20.00				45		82.25		
40.00				54		82.24		2
60.00						82.23		
80.00						82.22		
100.00		b2				82.21		
120.00						82.20		
140.00						82.19		
160.00						82.18		
180.00						82.17		
						82.16		
						82.15		

[Buy Market](#) [Cancel All](#) [Reverse Pos](#) [Sell Market](#) [Cncl All & Fltn](#)

[Order](#) [RMS](#) [Price](#) [History](#) [Open](#) Mon, Aug 22, 2011 04:51:04 pm EDT

To cancel all open orders represented by a single open order indicator, double click on it.

To cancel all open orders (with respect to the account) for this instrument click on the "Cancel All" button at the bottom of the Order Book.

To cancel all open orders (with respect to the account) for this instrument and then flatten the current position of the instrument, click on the "Cncl All & Fltn" button at the bottom of the Order Book. R | Trade Execution Platform™ will first cancel the account's open orders for the instrument and then issue a market order to flatten (close) its position.



## Reversing a Position through the Order Book

To reverse a position of an instrument for an account, i.e. to go from a position of long 5 to a position of short 5, click on the "Reverse Pos" button at the bottom of the Order Book. A single market order will be placed with a quantity equal to double the size of your position. The order will be a "Buy" order if your position is short and a "Sell" order if your position is long.

## Placing One Cancel Other Orders through the Order Book

A One Cancels Other order (an OCO, also referred to as One Cancels All) placed through the Order Book is a set of orders that are placed simultaneously such that when any one of them is completed (either filled, cancelled or partially filled with its balance cancelled), the others will be cancelled (or balance cancelled, as the case may be), automatically by R | Trade Execution Platform™.

To place an OCO through the Order Book you must first put the Order Book into OCO mode. Click on "Show Bracket and OCO Entry" and then click on the red "Disabled" button in the One Cancels All box in the top part of the Order Book.

Rithmic 01 Test Sim : Order Book - CLV1.NYMEX

**Order Book**

CLV1.NYMEX

Light Sweet Crude Oil      Rithmic2 (Rithmic Account 2)

Position <b>-2</b>	Total P&L <b>-40.00</b>	Avg Open Fill <b>82.24</b>	Account Balance <b>807418.12</b>
-----------------------	----------------------------	-------------------------------	-------------------------------------

Qty (Default is 2)

10	20	50	Set
1	2	5	Def
Clear		2	▲

Hide Bracket and OCO Entry   Order Defaults

Brackets      One Cancels All

Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	T	Ask Size	Trade Volume
-120.00					5435 -0.17	82.30	17	
-100.00						82.29	23	
-80.00		s2				82.28	20	
-60.00						82.27	10	
-40.00						82.26	7	
-20.00						82.25		
0.00				61	82.24			2
20.00				45	82.23			
40.00				54	82.22			
60.00		b2		21	82.21			
80.00				22	82.20			

Buy Market   Cancel All   Reverse Pos   Sell Market   Cnd All & Fltn

Order RMS Price History   Open   Mon, Aug 22, 2011 05:01:40 pm EDT



The button will turn green and display "Enabled" indicating that the Order Book is in OCO mode, as in the Order Book below.

Rithmic 01 Test Sim : Order Book - CLU1.NYMEX

**Order Book**

CLU1.NYMEX

Light Sweet Crude Oil      Rithmic3 (Rithmic Account 3,  
Position      Total P&L      Avg Open Fill      Account  
      0      (USD)      Price      Balance  
                0.00      624722.06

Qty (Default is 3)  
10    20    50    Set  
1    2    5    Def  
Clear    3

[Hide Bracket and OCO Entry](#)    [Order Defaults](#)

**Brackets**  
Disabled    Config    One Cancels 0 Orders  
Enabled    Submit

Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	25 +0.11	T	Ask Size	Trade Volume
0.00						82.46			
0.00						82.45			
0.00						82.44			
0.00						82.43			
0.00						82.42			
0.00						82.41			
0.00						82.40			
0.00		s3				82.39		3	
0.00						82.38		5	
0.00						82.37		3	
0.00						82.36			
0.00				5		82.35			
0.00				1		82.34			
0.00				6		82.33			
0.00						82.32			
0.00						82.31			
0.00				3		82.30			
0.00						82.29			
0.00						82.28			

Reverse Pos    Buy Market    Cancel All    Sell Market    Cncl All & Fltn

Order RMS Price History    Open    Sun, Aug 21, 2011 08:12:00 pm EDT

Until the Order Book is taken out of OCO mode (by clicking the button again which will cause it to turn red and display "Disabled"), clicking to place an order will instruct the Order Book to include that order in the next OCO order but will **not** submit that order to R | Trade Execution Platform™.



Click on the Order Book as if you were placing orders. Upon each click an open order indicator will appear except that it will be preceded by an asterisk ("\*") indicating that that order will be part of an OCO order and has not yet been submitted to R | Trade Execution Platform™ (nor to the exchange). In the Order Book below you can see that a sell limit and a sell stop order will be part of the next OCO order.

Rithmic 01 Test Sim : Order Book - CLU1.NYMEX

**Order Book**

CLU1.NYMEX

**Light Sweet Crude Oil**      Rithmic3 (Rithmic Account 3,

Position	Total P&L (USD)	Avg Open Fill Price	Account Balance
0	0.00	624662.69	

Qty (Default is 3)

10	20	50	Set
1	2	5	Def
Clear			3

[Hide Bracket and OCO Entry](#) [Order Defaults](#)

**Brackets**

Disabled  One Cancels 2 Orders

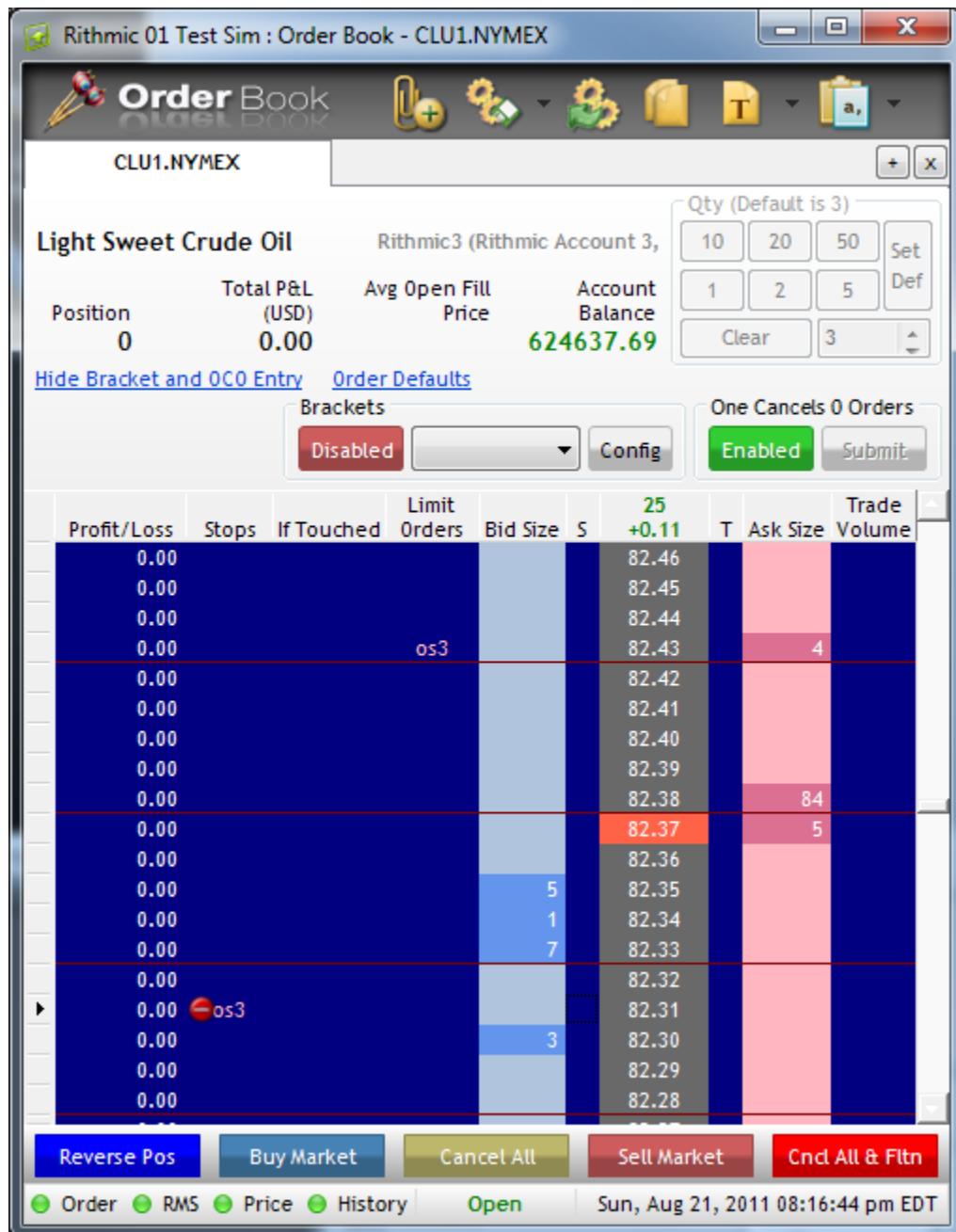
Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	T	Ask Size	Trade Volume
0.00					25	+0.11		
0.00						82.46		
0.00						82.45		
0.00						82.44		
0.00		*s3				82.43		
0.00						82.42		
0.00						82.41		
0.00						82.40		
0.00						82.39		
0.00						82.38	5	
0.00						82.37	3	
0.00						82.36		
0.00				5		82.35		
0.00				1		82.34		
0.00				7		82.33		
0.00						82.32		
0.00	-s3					82.31		
0.00				3		82.30		
0.00						82.29		
0.00						82.28		

Order  RMS  Price  History  Sun, Aug 21, 2011 08:15:02 pm EDT

When you have finished organizing the individual orders for an OCO order, click on the blinking) "Submit" button in the One Cancels All box and the orders will be submitted to R | Trade



Execution Platform™ as an OCO order (and then to the exchange as appropriate). As the individual orders of the OCO order are confirmed open by the exchange (or confirmed held by R | Trade Execution Platform™, as the case may be), each order of the OCO order will appear in the Order Book as usual but preceded by an "o".



The Order Book above shows 2 individual orders of an OCO order – an order to sell 3 at a limit price of 82.43 and an order to sell 3 stopped at a price of 82.31.



Continue clicking on the Order Book as if you were placing orders to set up the next OCO order and then click on the "Submit" button to submit them R | Trade Execution Platform™. Repeat this to place as many OCO orders as you would like. When you are done placing OCO orders click on the (green) "Enabled" button to take the Order Book out of OCO mode.

**Note:** An Order Book cannot be in OCO mode and in Bracket mode simultaneously. If an Order Book is in Bracket mode and you click on the "Disabled" button in the One Cancels All box then the Order Book will disable Bracket mode and enter into OCO mode. Disabling the OCO mode will not put the Order Book back into Bracket mode.

### Placing Bracket Orders through the Order Book

A Bracket order is comprised of an entry order and one or more associated OCO orders. As the entry order gets filled, R | Trade Execution Platform™ (not R | Trader™) automatically places OCO orders configured to capture a specified profit and configured to limit a specified loss.

To place a Bracket order you must first put the Order Book into Bracket mode. Click on "Show Bracket and OCO Entry" and then click on the red "Disabled" button in the Brackets box on the top part of the Order Book. The button will turn green and display "Enabled" indicating that the Order Book is in Bracket mode, as in the Order Book below.

The screenshot shows the Rithmic Order Book interface for CLU1.NYMEX. At the top, there are buttons for 'Order Book' (highlighted), 'RMS', 'Price', 'History', and 'Open'. Below the title bar, there's a toolbar with icons for file operations. The main area displays the following information:

- Market:** CLU1.NYMEX
- Position:** 0
- Total P&L (USD):** 0.00
- Rithmic3 (Rithmic Account 3, Balance):** 624675.19
- Qty (Default is 3):** Set Def (values: 10, 20, 50, 1, 2, 5, Clear, 3)

Below this, there are two tabs: Brackets (selected) and One Cancels All. The Brackets tab has buttons for **Enabled** (green), **A** (dropdown), **Config**, **Disabled** (red), and **Submit**.

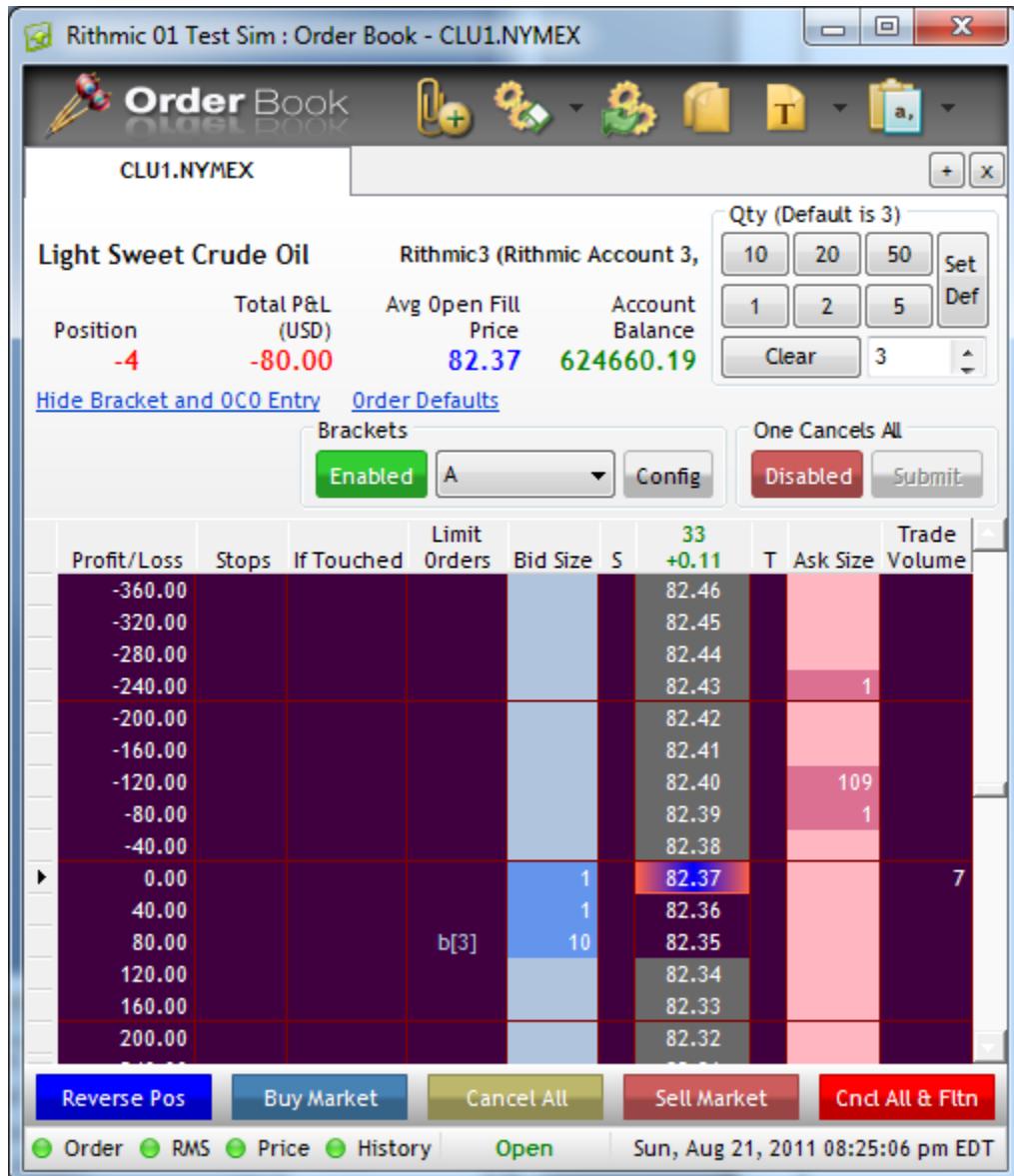
The main grid displays the following data:

Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	29 +0.11	T	Ask Size	Trade Volume
0.00						82.42			
0.00						82.41			
0.00						82.40			
0.00						82.39		107	3
0.00						82.38			
0.00				1		82.37			
0.00				1		82.36			
0.00				5		82.35			

At the bottom, there are buttons for **Reverse Pos**, **Buy Market**, **Cancel All**, **Sell Market**, and **Cnd All & Fltn**. The status bar at the bottom right shows the date and time: Sun, Aug 21, 2011 08:23:40 pm EDT.



Next, select a bracket configuration to use from the drop down box next to the "Enabled" button. Refer to **Appendix E** for instructions on how to configure a bracket.



Until the Order Book is taken out of Bracket mode (by clicking the "Enabled" button which will cause it to turn red and display "Disabled"), clicking to place an order will instruct the Order Book to send that order to R | Trade Execution Platform™ as an entry order together with the contents of the bracket that was displayed in the drop down box at the time the order was clicked. The Order Book above shows an open buy entry order for 2 CLU1 at a limit price of 82.35, bracketed. The "[]" surrounding a quantity indicate that the orders for the (open) quantity are the entry orders of bracket orders. As the open bracket order gets filled, R | Trade Execution Platform™ places OCO orders consisting of limit orders and corresponding stop



(market) orders based upon the configuration of the bracket that was sent along with the entry order.

Rithmic 01 Test Sim : Order Book - CLU1.NYMEX

**Order Book**

CLU1.NYMEX

**Light Sweet Crude Oil**      Rithmic3 (Rithmic Account 3,

Position	Total P&L (USD)	Avg Open Fill Price	Account Balance
5	-50.00	82.374	624612.69

Qty (Default is 5)

10	20	50	Set
1	2	5	Def
Clear		5	▼

[Hide Bracket and OCO Entry](#) [Order Defaults](#)

**Brackets**

Enabled A Config Disabled Submit

Profit/Loss	Stops	If Touched	Limit Orders	Bid Size	S	58 +0.11	T	Ask Size	Trade Volume
650.00						82.51			
600.00						82.50			
550.00						82.49			
500.00						82.48			
450.00						82.47			
400.00						82.46			
350.00						82.45			
300.00						82.44			
250.00						82.43		1	
200.00						82.42			
150.00						82.41		6	
100.00						82.40		55	
50.00			os1			82.39		1	
0.00			os2			82.38		2	
-50.00			b[2]	4		82.37			4
-100.00						82.36			
-150.00				4		82.35			
-200.00						82.34			
-250.00						82.33			
-300.00	os2					82.32			
-350.00	os1					82.31			
-400.00						82.30			
-450.00						82.29			
-500.00						82.28			
-550.00						82.27			
-600.00						82.26			

Reverse Pos Buy Market Cancel All Sell Market Cndl All & Fltn

Order RMS Price History Open Sun, Aug 21, 2011 08:34:14 pm EDT



The Order Book above shows OCO orders that were placed as the entry order was filled. The entry order was a buy order for 5 CLU1 at a limit of 82.37. 3 were filled which caused R | Trade Execution Platform™ to place 2 pairs of OCO orders. The first OCO pair consisted of a sell order for 2 CLU1 at a limit price 1 tick above the entry order fill price and a sell market order for 2 stopped at 5 ticks below the entry order fill price. The second OCO order consisted of a sell order for 1 CLU1 at a limit price 2 ticks above the entry order fill price and a sell market order for 1 stopped at 6 ticks below the entry order fill price. As only a quantity of 3 was filled, 2 remain open on the Order Book. The composition of the bracket used to place the bracket order (A) can be viewed in **Appendix E**.

You may place as many bracket orders as you wish, subject to your risk limits, by clicking on the Order Book to place orders while the Order Book is in Bracket mode. When you are done placing bracket orders click on the (green) "Enabled" button to take the Order Book out of Bracket mode.

**Note:** An Order Book cannot be in Bracket mode and in OCO mode simultaneously. If an Order Book is in OCO mode and you click on the "Disabled" button in the Brackets box then the Order Book will disable OCO mode and enter into Bracket mode. Disabling Bracket mode will not put the Order Book back into OCO mode.

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## Order History

The Order History window displays information similarly to the Recent Orders window.

The screenshot shows the 'Order History' window for the account 'Rithmic3'. The window has two main sections: 'Working Orders' (2/2) and 'Completed Orders' (10/10). The 'Working Orders' section lists two open orders: one to buy 2 shares of YMM1 at \$100.01 and another to buy 2 shares of YMM1 at \$99.87. The 'Completed Orders' section lists ten filled or cancelled orders from May 15 to May 29, 2011. A date dropdown menu is open, showing dates from May 15 to June 13, 2011. The bottom of the window includes navigation buttons and links for Order, RMS, Price, and History, along with a footer indicating the platform is 'Powered by OMNE' and the current date and time.

Symbol	Buy/Sell	Qty To Fill	Avg Fill Price	Limit Price	Order Number
YMM1	B	5	99.87	100.01	6089333
YMM1	S	5	99.99		6089332
YMM1	B	7	99.81		6089331
YMM1	B	5	99.83		6089330
YMM1	B	5	99.84		6089329
YMM1	B	5	99.87		6089328
YMM1	B	5	99.87		6089327
YMM1	S	5	99.93		6089326
YMM1	S	5	99.88		6089325
YMM1	B	5	99.86		6089324

You may review orders of accounts for which you have permission. Select the account and date of the orders you wish to review from their respective drop down boxes. Click on the and the orders for that account on that date, if any, will be displayed, just like in the Recent Orders window. Double click on an order and its details will be displayed in a pop-up window.



## Market Data Trade History

The Market Data History window displays information about trades reported through an exchange's market data channels.

Rithmic 01 Test Sim : Trade History - ESM1

The screenshot shows a Windows application window titled "Rithmic 01 Test Sim : Trade History - ESM1". The main title bar has a green checkmark icon. The window contains a grid of trade history data with the following columns: Date/Time (EDT), Trade Price, Trade Size, Volume, Fill Id, Net Change, % Change, and Trade Condition. The data rows show various trades between 1271.50 and 1274.00, with volumes ranging from 1 to 100. The "Trade Condition" column shows values like 0.00, -0.25, -1.00, etc. The bottom of the window has a search bar with the text "Fetch data for ESM1.CME during 30000 seconds around 2011-06-14 11:49:01" and a magnifying glass icon. Below the search bar, there are buttons for Order, RMS, Price, and History, and a status message "23387 records found in 2.32 seconds." The date at the bottom right is "Tue, Jun 14, 2011 11:51:31 am EDT".

Date/Time (EDT)	Trade Price	Trade Size	Volume	Fill Id	Net Change	% Change	Trade Condition
2011-06-14 11:50:32.874258	1271.50	1	141548		0.00	0.00	
2011-06-14 11:49:32.877889	1271.50	1	141547		0.00	0.00	
2011-06-14 11:49:02.689071	1271.25	21	141546		-0.25	-0.02	
2011-06-14 11:49:02.689071	1271.25	10	141525		-0.25	-0.02	
2011-06-14 11:49:02.689071	1271.25	6	141515		-0.25	-0.02	
2011-06-14 11:48:32.851716	1270.50	1	141509		-1.00	-0.08	
2011-06-14 11:48:24.271261	1271.25	4	141508		-0.25	-0.02	
2011-06-14 11:47:45.234314	1270.50	1	141504		-1.00	-0.08	
2011-06-14 11:47:32.870731	1270.50	1	141503		-1.00	-0.08	
2011-06-14 11:46:32.898959	1270.50	1	141502		-1.00	-0.08	
2011-06-14 11:46:22.959060	1272.50	1	141501		1.00	+0.08	
2011-06-14 11:45:32.900933	1270.50	1	141500		-1.00	-0.08	
2011-06-14 11:45:00.520050	1270.50	33	141499		-1.00	-0.08	
2011-06-14 11:44:53.734685	1270.50	100	141466		-1.00	-0.08	
2011-06-14 11:44:52.867919	1270.50	99	141366		-1.00	-0.08	
2011-06-14 11:44:52.867919	1270.75	1	141267		-0.75	-0.06	
2011-06-14 11:44:32.865090	1271.50	1	141266		0.00	0.00	
2011-06-14 11:44:24.661339	1273.25	1	141265		1.75	+0.14	
2011-06-14 11:44:21.916532	1274.00	50	141264		2.50	+0.20	
2011-06-14 11:44:21.092412	1274.00	49	141214		2.50	+0.20	
2011-06-14 11:44:21.092412	1273.75	1	141165		2.25	+0.18	
2011-06-14 11:44:20.355926	1274.00	49	141164		2.50	+0.20	
2011-06-14 11:44:20.355926	1273.75	1	141115		2.25	+0.18	
2011-06-14 11:44:19.451784	1274.00	49	141114		2.50	+0.20	
2011-06-14 11:44:19.451784	1273.75	1	141065		2.25	+0.18	
2011-06-14 11:44:18.089567	1274.00	36	141064		2.50	+0.20	
2011-06-14 11:44:18.089567	1274.00	5	141028		2.50	+0.20	
2011-06-14 11:44:18.089567	1274.00	3	141023		2.50	+0.20	
2011-06-14 11:44:18.089567	1274.00	1	141020		2.50	+0.20	

Fetch data for ESM1.CME during 30000 seconds around 2011-06-14 11:49:01

Order RMS Price History 23387 records found in 2.32 seconds. Tue, Jun 14, 2011 11:51:31 am EDT



## Positions

The Positions window displays information about positions and profit and loss for each account to which you have access. The upper pane shows the position by instrument and account and the lower pane shows fill reports for a selected instrument-account pair.

The screenshot shows the 'Rithmic 01 Test Sim : Positions' window. The top pane, titled 'Positions (4/4)', displays a table of open positions. The columns include Symbol, Net Quantity, Buy Quantity, Sell Quantity, Avg Open Fill Price, Last Price, Open Profit/Loss, Closed Profit/Loss, Total Profit/Loss, Account, and Account Balance. The bottom pane, titled 'Fills (8/22)', displays a table of fills. The columns include Account, Exchange, Order Id, Fill Id, Order Number, Buy/Sell, Symbol, Expiration Month, Exchange, Fill Size, Fill Price, and Liquidity Indicator. The 'jjw-pdt' account has several entries in the fills table, mostly for BATS exchange at price 39.13.

Symbol	Net Quantity	Buy Quantity	Sell Quantity	Avg Open Fill Price	Last Price	Open Profit/Loss	Closed Profit/Loss	Total Profit/Loss	Account	Account Balance
YMM1	2	2	0	12013	12002	-140.00	0.00	-140.00	Rithmic3	691999.61
ESM1	-2	6	8	1331.75	1270.50	6050.00	-112.50	5937.50	Rithmic1	8506178.99
CLQ1	15	15	0	99.87	97.67	-33000.00	0.00	-33000.00	Rithmic3	691999.61
C	0	1000	1000		39.13	0.00	5.00	5.00	jjw-pdt	9999991.69

Account	Exchange	Order Id	Fill Id	Order Number	Buy/Sell	Symbol	Expiration Month	Exchange	Fill Size	Fill Price	Liquidity Indicator
jjw-pdt	1E1U0600254D	R1900088G	6089501	B	C			BATS	125	39.13	Routed
jjw-pdt	1E1U0600254D	R1900088F	6089501	B	C			BATS	125	39.13	Routed
jjw-pdt	1E1U0600254D	R1900088E	6089501	B	C			BATS	250	39.13	Routed
jjw-pdt	1E1U0600254B	01900088D	6089500	B	C			BATS	500	39.13	Removed
jjw-pdt	1E1U060024NB	01900088D	6089498	SS	C			BATS	500	39.13	Added
jjw-pdt	1E1U060024XI	R1900087E	6089499	SS	C			BATS	250	39.14	Routed
jjw-pdt	1E1U060024XI	R1900087F	6089499	SS	C			BATS	125	39.14	Routed
jjw-pdt	1E1U060024XI	R1900087G	6089499	SS	C			BATS	125	39.14	Routed

To cancel open orders (if any) and flatten the position of a instrument in an account, click on the **X**, which by default is located in the leftmost column of the instrument whose position you wish to flatten.



## Quote Board

Use the quote board to view market data and to place new orders.

### Viewing Market Data in the Quote Board

There are 2 ways to enter the symbol and exchange ids of the instrument whose market data you wish to view into a cell of a row:

1. Click on the cell that corresponds to the row on which you wish to view the market data and to the column labeled "Symbol". Type the symbol in that cell followed by the symbol-exchange separator (a period "." by default) then followed by the id of the exchange or other trading venue on which that instrument trades (refer to **Appendix C** for a list of exchange and other trading venue ids). Tab out of the cell, press enter or click outside the cell and the market data for that instrument should appear; or
2. Select an instrument from a search window. You may bring up the Add Symbol search window by right clicking on the row on which you wish to see the market data and selecting "Search and Add Symbol" from the ensuing popup window. Refer to **Appendix D** for instructions on how to use the Add Symbol window.

The screenshot shows the Rithmic Quote Board interface. The main window displays a grid of market data for various instruments. The columns include: Symbol, Exchange, Description, Bid Size, Bid Price, Offer Price, Offer Size, Net Change, % Change, Market Mode, Last Trade Price, Last Trade Size, Last Trade Volume, Low Price, High Price, and Close Trade Price. The data is organized into sections: Hardware, Banks, and ETF's. Each section contains multiple rows of instrument information. The hardware section includes AAPL, CSCO, IBM, HPQ, and XRX. The banks section includes BAC, JPM, MS, and MSO911. The ETF section includes SPX, SPY, and QQQ. The bottom of the window features a toolbar with icons for Order, RMS, Price, and History, along with a note about the trading platform and power source.

Symbol	Exchange	Description	Bid Size	Bid Price	Offer Price	Offer Size	Net Change	% Change	Market Mode	Last Trade Price	Last Trade Size	Last Trade Volume	Low Price	High Price	Close Trade Price
YHOO0911	1C	YHOO	20	13.78	13.83	20			Open	13.83	18	18	13.83	13.83	13.84
<b>Hardware</b>															
AAPL	BATS	APPLE INC COM STK	200	388.71	389.04	103	+0.05	+0.01	Open	388.87	100	587586	388.50	392.08	388.82
AAPL0911	1C	AAPL	5	388.69	389.20	5	-0.24	-0.06	Open	389.91	1	1	389.91	389.91	390.00
CSCO	BATS	CISCO SYSTEMS INC	5700	15.81	15.82	14700	+0.175	+1.12	Open	15.815	100	1634384	15.70	15.95	15.64
CSCO0911	1C	CSCO	10	15.79	15.84	50			Open						15.63
DELL	BATS	DELL INC	3762	15.01	15.02	2440	+0.16	+1.08	Open	15.02	100	674362	14.81	15.105	14.86
DELL0911	1C	DELL	50	12.62	17.42	50			Open						14.86
HPQ	BATS	HEWLETT-PACKARD CO	1640	26.20	26.22	3054	+0.21	+0.81	Open	26.21	2	345966	26.165	26.41	26.00
HPQ0911	1C	HPQ	5	26.05	26.13	5	+0.5	+1.94	Open	26.30	1	1	26.30	26.30	25.93
IBM	BATS	INTL BUSINESS...	39	173.31	173.42	100	+0.76	+0.44	Open	173.19	34	188190	170.72	173.705	172.43
IBM0911	1C	IBM	5	173.26	173.50	10			Open						172.44
INTC	BATS	INTEL CORP	3259	20.31	20.32	4346	+0.09	+0.45	Open	20.31	56	1066583	20.16	20.405	20.22
INTC0911	1C	INTC	25	20.29	20.34	25			Open						20.22
XRX	BATS	XEROX CORPORATION	4051	8.25	8.26	5680	+0.17	+2.10	Open	8.26	20	198578	8.16	8.355	8.09
XRX0911	1C	XRX	10	7.76	8.39	10			Open						8.07
<b>Banks</b>															
BAC	BATS	BANK OF AMERICA CORP	38441	8.13	8.15	35660	+0.04	+0.49	Open	8.14	100	5082215	8.14	8.29	8.10
BAC0911	1C	BAC	50	8.11	8.17	100			Open						8.11
C	BATS	CITIGROUP	607	31.26	31.27	782	+0.39	+1.26	Open	31.27	18	829372	30.97	31.53	30.88
C0911	1C	C	5	31.22	31.29	5			Open	31.17	10	10	31.17	31.17	30.94
JPM	BATS	JPMORGAN CHASE & CO...	2550	37.69	37.71	1747	+0.64	+1.73	Open	37.70	100	741514	37.34	38.03	37.06
JPM0911	1C	JPM	20	37.67	37.75	50			Open						37.07
MS	BATS	MORGAN STANLEY	800	17.42	17.43	1216	+0.38	+2.23	Open	17.43	100	292944	17.11	17.475	17.05
MS0911	1C	MS	5	17.40	17.45	5			Open						17.04
<b>ETF's</b>															
SPX	CBOE	SPX							Open	1226.5			1213.0	1230.71	1212.92
SPY	BATS	SPY	1000	123.06	123.07	5596	+2.14	+1.77	Open	123.07	100	14275...	121.87	123.50	120.93
SPY0911	1C	SPY	10	121.56	123.57	10			Open						120.92
QOO	BATS	QOO	36967	55.51	55.53	50430	+0.70	+1.44	Open	55.52	1000	4588194	55.14	55.74	54.73

In almost all cases the symbol must be of the form recognized by the exchange on which it trades.



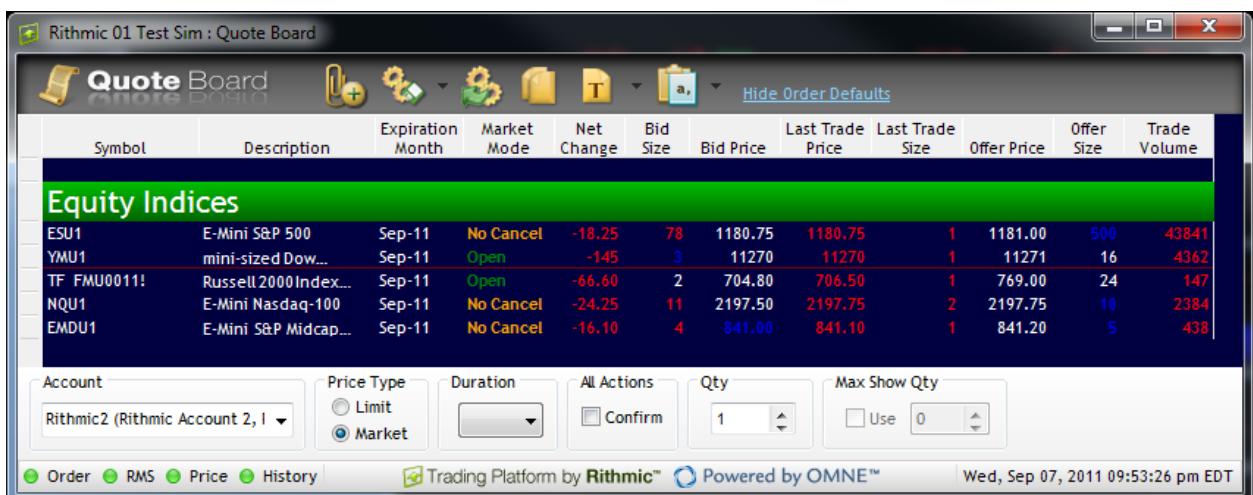
Examples:

<b>CLV1.NYMEX</b>	Crude Oil Future traded at the NYMEX expiring in September 2011
<b>ESZ1.CME</b>	E-Mini S&P Future traded at the CME expiring in December 2011
<b>ESX1 C1280.CME</b>	E-Mini S&P 1280 Call traded at the CME expiring in November 2011
<b>FESX0312.EUREX</b>	Euro Stoxx 50 Index future traded at the Eurex expiring in March 2012
<b>LFI0308.LIFFE</b>	Three Month Euro Future (Euribor) traded at the LIFFE expiring in March 2012
<b>YMU1.CBOT</b>	Mini Dow Jones Future traded at the CBOT expiring in September 2011

### Placing Orders from the Quote Board

There are 4 ways to place an order for an instrument from the quote board:

1. Double click on any column in the row showing market data for the instrument you wish to trade (except the column labeled "Symbol") and an Order Book window will pop up displaying data for that instrument. You may also right click on that row and select "Order Book" from the right click pop up menu. Refer to the section on the Order Book in this document for a description of placing orders from the Order Book window.
2. Click on **Show Order Defaults** at the top right of the Quote Board window. The bottom of the Quote Board window will show order defaults which you may modify.



Set the default quantity to trade and the default account to use. You may hide the order defaults at any time by clicking on **Hide Order Defaults** at the top right of the Quote Board window.

Click on either the column labeled "Bid Size" or on the column labeled "Offer Size" of the row showing market data for the instrument you wish to trade. A click on the "Bid Size" indicates that a sell order is forthcoming and a click on the "Offer Size" indicates that a buy order is forthcoming.

- a. If the Confirm box in the All Actions section of the order defaults is checked, then a Place Order window (an order ticket) will pop up, pre-populated with the symbol and exchange ids of the instrument you wish to trade, with the default



quantity to trade and the default account to use (from the bottom of the Quote Board window).

- i. If you clicked on the "Bid Size" column then the order ticket will be for a sell order and if the order is a limit order (as indicated in the defaults at the bottom of the Quote Board window) the limit price will be populated with the offer price as of the time at which you clicked on the "Bid Size".
- ii. If you clicked on the "Offer Size" column then the order ticket will be for a buy order and if the order is a limit order the limit price will be populated with the bid price as of the time at which you clicked on the "Offer Size".



Click the "Place Order" button to submit the order and close the order ticket. Click the "Close" button to close the order ticket without submitting the order.

- b. If the Confirm box in the All Actions section of the order defaults is **not** checked, then:
  - i. If you clicked on the "Bid Size" column and if the order is a market order (as indicated in the defaults at the bottom of the Quote Board window) then an order to sell at the market will be sent. If the order is a limit order then an order to sell with a limit price equal to the bid price as of the time at which you clicked on the "Bid Size" will be sent.
  - ii. If you clicked on the "Offer Size" column and if the order is a market order (as indicated in the defaults at the bottom of the Quote Board window) then an order to buy at the market will be sent. If the order is a limit order then an order to buy with a limit price equal to the offer price as of the time at which you clicked on the "Offer Size" will be sent.
- 3. Click on **Show Order Defaults** at the top right of the Quote Board window. The bottom of the Quote Board window will show order defaults which you may modify. Set the default quantity to trade and the default account to use and set the default price type to Limit. You may hide the order defaults at any time by clicking on **Hide Order Defaults** at the top right of the Quote Board window.

Select the row showing market data for the instrument you wish to trade and move your mouse pointer over the column of that row labeled "Bid Price" or "Offer Price" (or, if the row showing market data for the instrument you wish to trade has not been selected, click on the column labeled "Bid Price" or "Offer Price" of that row). A small list, displaying the prices in a column next to the one in which your mouse is hovering (or



next pt the column in which you clicked) and up to 5 related prices, each 1 tick apart, will pop up.

Symbol	Description	Expiration Month	Market Mode	Net Change	Bid Size	Bid Price	Last Trade Price	Last Trade Size	Offer Price	Offer Size	Trade Volume
<b>ESU1</b>	E-Mini S&P 500	Sep-11	Open	4.25	10	1197.75	1203.25	6	1200.50	20	10824
<b>YMU1</b>	mini-sized Dow...	Sep-11	Open	-415			11000	1			1
<b>TF_FMU0011!</b>	Russell2000Index...	Sep-11	Open	-66.60	2	704.80	706.50	1	769.00	769.00	147
<b>NQU1</b>	E-Mini Nasdaq-100	Sep-11	Open						768.90	768.90	
<b>EMDU1</b>	E-Mini S&P Midcap...	Sep-11	Open	-45.00			812.20	1	768.80	768.80	1
									768.70	768.70	
									768.60	768.60	

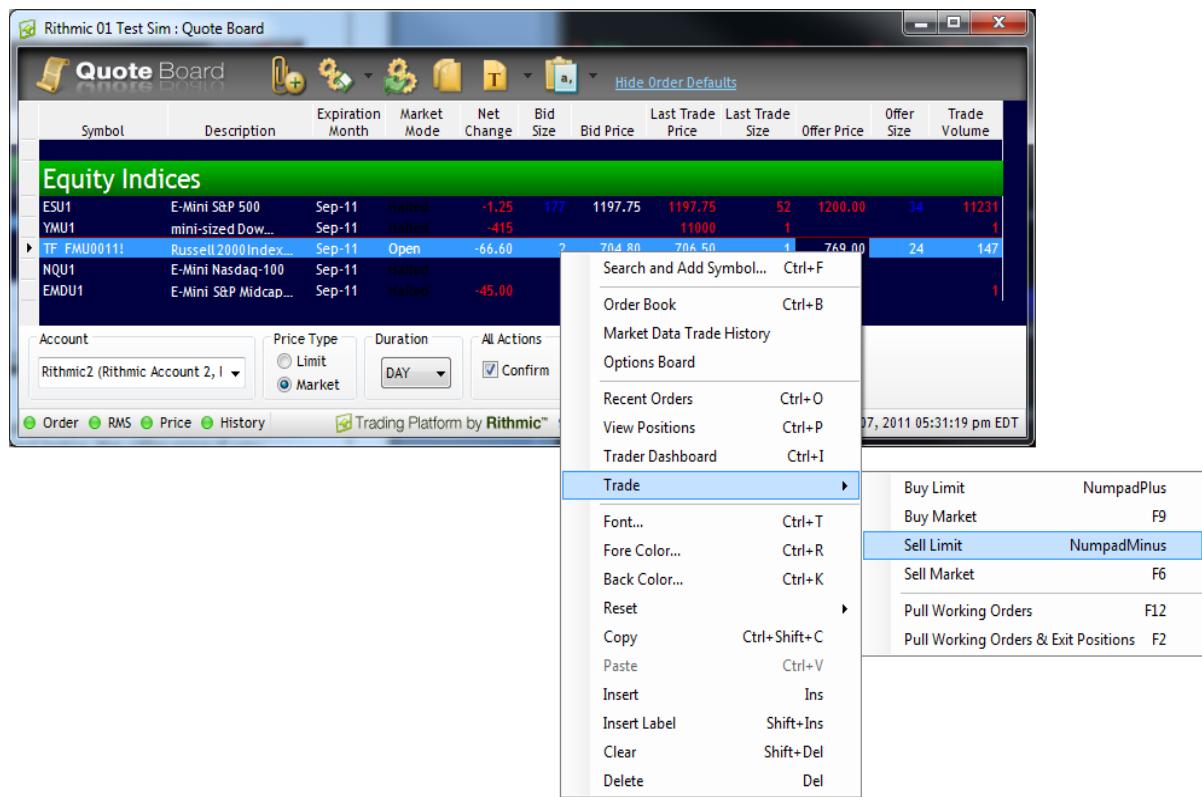
The 5 prices will be at and above the price of the bid price if you hovered over or clicked on the column labeled "Bid Price" and they will be at and below the offer price if you hovered over or clicked on the column labeled "Offer Price". If the price you wish to trade is not visible in the pop up list, click on the arrow to advance the prices to the one you wish to trade.

If the Confirm box in the All Actions section of the order defaults is checked then clicking on one of the prices will bring up an order ticket with a limit price equal to the price on which you clicked. The order will be a sell order if you hovered over or clicked on the column labeled "Bid Price" and the order will be a buy order if you hovered over or clicked on the column labeled "Offer Price". The order ticket will be pre-populated with the symbol and exchange ids of the instrument you wish to trade, and with the default quantity to trade and the default account to use (from the bottom of the Quote Board window). Click the "Place Order" button to submit the order. Click the "Close" button to close the order ticket without submitting the order.

If the Confirm box in the All Actions section of the order defaults is **not** checked then clicking on one of the prices in the pop up list will automatically submit an order with a limit price equal to the price on which you clicked for the symbol and exchange ids of the instrument you wish to trade, and with the default quantity to trade and the default account to use.

- Click on **Show Order Defaults** at the top right of the Quote Board window. The bottom of the Quote Board window will show order defaults which you may modify. Set the default quantity to trade and the default account to use at the bottom of the Quote Board window. You may hide the order defaults at any time by clicking on **Hide Order Defaults** at the top right of the Quote Board window.

Right click on the row showing market data for the instrument you wish to trade and a menu will display. Select the Trade sub menu and a list of trading actions will be shown.



Click on the action you wish to execute and an order ticket will pop up appropriately populated. Alternatively you may press the keystrokes indicated in the Trade submenu to pop up the order ticket (the "+" sign on the number pad to bring up a buy limit order ticket, ...).



Though the Place Order window (the order ticket) pops up pre-populated, you may change the contents of any of the fields. Click the "Place Order" button to submit the order. Click the "Close" button to close the Place Order window without placing the order.



## Trader Dashboard

The Dashboard window displays position and profit and loss information for each account to which you have access.

Account	Open Profit/Loss	Closed Profit/Loss	PNL	Account Balance	Cash On Hand	Fill Buy Qty	Fill Sell Qty	Net Position	Available Margin	Reserved Buying Power	Used Buying Power	Available Buying Power
Rithmic1	6075.00	-112.50	5962.50	8506203.99	8500276.49	6	8	-2	8505203.99			
Rithmic2	0.00	0.00	0.00	807463.12	807463.12	0	0	0	807463.12			
Rithmic3	-32860.00	0.00	-32860.00	692279.61	725182.11	17	0	17	683779.61			

Double click on an account and you will bring up the Symbol Dashboard window. This window displays position and profit and loss information for each instrument traded in that account.

Symbol	Buy Exposure	Sell Exposure	PNL	Working Buy Qty	Fill Buy Qty	Working Sell Qty	Fill Sell Qty	Net Position
6BU1	0	50	0.00	0	0	50	0	0
6EU1	20	0	0.00	20	0	0	0	0
6MU1	20	0	0.00	20	0	0	0	0
CLQ1	15	-15	-32550.00	0	15	0	0	15
ESM1	5	0	-62.50	0	5	5	0	5
J7U1	5	0	0.00	5	0	0	0	0
QIN1	12	0	0.00	12	0	0	0	0
QOQ1	0	12	0.00	0	0	12	0	0
YG0711	1	0	0.00	1	0	0	0	0
YI0711	2	0	0.00	2	0	0	0	0
YM1	2	0	-190.00	0	2	2	0	2
ZBM1	0	2	0.00	0	0	2	0	0
ZBU1	1	0	0.00	1	0	0	0	0
ZCU1	2	0	0.00	2	0	0	0	0
ZOU1	1	0	0.00	1	0	0	0	0

Right click on an account and you will be able to select from the following options:



## View Risk Parameters

View the risk parameters of each product code which may be traded on the selected account.

The screenshot shows the 'Risk Parameters' window for the account 'Rithmic1'. The top section displays general account settings:

Account	Buy Limit	Sell Limit	Loss Limit	Max Order Qty	Min Account Balance	Net Open Value Limit	Min Margin Balance
Rithmic1	5000000	5000	0	0	0.00	0	1000.00

The bottom section lists products with their specific risk parameters:

Product	Buy Limit	Sell Limit	Loss Limit	Max Order Qty	Commission Fill Rate	Buy Long Margin Rate	Sell Short Margin Rate
ZQ	0	0	0	0	2.50	500.00	500.00
ZR	0	0	0	0	2.50	500.00	500.00
ZS	0	0	0	0	2.50	500.00	500.00
ZT	0	0	0	0	2.50	500.00	500.00

At the bottom of the window, there are buttons for Order, RMS, Price, History, and a timestamp: Tue, Jun 14, 2011 12:21:43 pm EDT.

## View Positions

Launch a Positions window for the selected account.

## Open Order Book

Launch an Order Book window for the selected account.

## Open Options Board

Launch an Options Board window for the selected account.

## View Recent Orders

Launch an Actual Orders window for the selected account.

## Pull Working Orders

Cancel all working orders for the selected account.

## Pull Working Orders and Exit Position

Cancel all working orders then flatten all positions for the selected account.



## Future Strategies

The Future Strategies window displays the composition of exchange listed strategy instruments and real time prices for these instruments, their legs and for the synthetic calculation of the strategy.

The screenshot shows the "Future Strategies" window with the following details:

- Header:** Rithmic 01 Test Sim : Future Strategies
- Toolbar:** Includes icons for New, Open, Save, Print, and Show Order Defaults.
- Filter Options:** Exchange (CBOT), Product (YM - mini-sized Dow Futures (\$5)), and Strategy Type (Futures Calendar).
- Time Period:** Sep-11, Dec-11, Mar-12, Jun-12.
- Table Headers:** Symbol, Weight, Bid Qty, Bid, Ask, Ask Qty, Last.
- Data Rows:**
  - YMU1-YMM2 Synthetic: Weight 20, Bid 10859, Ask 10861, Last 10859.
  - YMU1 YMM2: Weight -1, Bid 7, Ask 10764, Last 10734.
  - YMU1-YMZ1 Synthetic: Weight 322, Bid -72, Ask -71, Last -72.
  - YMU1 YMZ1: Weight -1, Bid 10859, Ask 10861, Last 10859.
  - YMU1-YMH2 Synthetic: Weight 20, Bid -155, Ask -152, Last -152.
  - YMU1 YMH2: Weight -1, Bid 10859, Ask 10861, Last 10859.
  - YMU1-YMU2 Synthetic: Weight 401, Bid 10706, Ask 10707, Last 10707.
  - YMU1 YMU2: Weight -1, Bid 7, Ask 10861, Last 10859.
- Bottom Bar:** Order, RMS, Price, History, Trading Platform by Rithmic™, Powered by OMNE™, Date/TIME.

Right click on a strategy instrument and select "Show Order Book" and an order book window for that strategy instrument will display. If you right click on a line labeled "Synthetic" then an order book window for the strategy instrument of which the synthetic entry is a part will be displayed as well as an order book window for each of its legs (the order books will be stacked on each other but can be moved (dragged) separately).

### Placing Orders from the Future Strategies Window

You may place orders for a listed strategy through the Future Strategies window by clicking on a "Bid" or "Ask" column of the row that corresponds to the strategy you wish to buy or sell. A click on a "Bid" column price brings up a Place Order window populated to sell the strategy with and fields containing the default values as set through [Show Order Defaults](#). A click on the "Ask" column price brings up a Place Order window similarly populated but set to buy the strategy.



Though the Place Order window pops up pre-populated, you may change the contents of the fields that have an associated drop down box. Click the "Place" button to submit the order. Click the "Close" button to close the Place Order window without placing the order.

**Note: As of the date of this publication the calculation of the synthetic value of a strategy may not be correct in all cases and should not be used in any trading decisions.** Contact your FCM, Broker-Dealer or IB for more information.

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## Equity Option Strategies

The Equity Option Strategies window displays the composition of exchange listed strategy instruments and real time prices for these instruments, their legs and for the synthetic calculation of the strategy.

Symbol	Weight	Bid Qty	Bid	Ask	Ask Qty	Last
AAPL:+1 19Jan13P220 -1...						-10.00
AAPL:+1 19Jan13C415 -1...						5.58
AAPL:-1 19Jan13P345 +1...						
AAPL:+1 19Jan13P320 -1...						-7.00
AAPL:+1 19Jan13P150 -1...						
AAPL:+1 19Jan13P180 -1...						
AAPL:-1 19Jan13C350 +1...	2		-48.25			
AAPL:+1 19Jan13C470 -1...						
AAPL:+1 19Jan13C350 -1...				8.40	10	5.50
AAPL:+1 19Jan13C360 -1...	1		10.00			18.10
AAPL:+1 19Jan13C400 -1...						33.53
AAPL:+1 19Jan13C370 -1...	1		11.95			
Synthetic	20		14.25	16.45	10	
AAPL19Jan13C370	+1	20	73.25	74.70	144	74.40
AAPL19Jan13C400	-1	10	58.25	59.00	71	58.70
AAPL:-1 19Jan13C340 +1...		1	-24.00			
Synthetic	108		-16.40	-13.20	20	
AAPL19Jan13C340	-1	20	90.50	92.00	145	
AAPL19Jan13C365	+1	108	75.60	77.30	146	
AAPL:-1 19Jan13C310 +1...		1	-26.50			-18.38
Synthetic	20		-21.30	-17.80	62	
AAPL19Jan13C310	-1	62	109.80	111.80	135	
AAPL19Jan13C340	+1	20	90.50	92.00	145	
AAPL:+1 19Jan13P260 -1...						-4.25
AAPL:+1 19Jan13P180 -1...						
AAPL:+1 19Jan13C330 -1...						17.75
AAPL:+1 19Jan13C300 -1...	25		20.00			20.80
Synthetic	10		19.45	20.95	20	
AAPL19Jan13C400	+1	10	58.25	59.00	71	58.70
AAPL19Jan13C450	-1	20	38.05	38.80	21	38.25

Below the table are several input fields and buttons for placing orders:

- Account dropdown
- Price Type radio buttons: Limit (selected), Market
- Duration dropdown: DAY
- All Actions checkbox (checked)
- Qty input field: 0
- Max Show Qty input field: 0
- Routing Instructions dropdown: CBOE (selected), CBOE

At the bottom of the window are buttons for Order, RMS, Price, and History, along with the text "Trading Platform by Rithmic™ Powered by OMNE™".

Right click on a strategy instrument and select "Show Order Book" and an order book window for that strategy instrument will display. If you right click on a line labeled "synthetic" then an order book window for the strategy instrument of which the synthetic entry is a part will be displayed as well as an order book window for each of its legs.

### Placing Orders from the Equity Options Strategies Window

You may place orders for a listed strategy through the Equity Options Strategies window by clicking on a "Bid" or "Ask" column of the row that corresponds to the strategy you wish to buy or sell. A click on a "Bid" column price brings up a Place Order window populated to sell the



strategy with other fields containing the same contents as the Order Parameters of the Strategy Board window. A click on the "Ask" column price brings up a Place Order window similarly populated but set to buy the strategy.



Though the Place Order window pops up pre-populated, you may change the contents of the fields that have an associated drop down box. Click the "Place Order" button to submit the order. Click the "Close" button to close the Place Order window without placing the order.

**Note: As of the date of this publication the calculation of the synthetic value of a strategy may not be correct in all cases and should not be used in any trading decisions.** Contact your FCM, Broker-Dealer or IB for more information.

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## Synthetic Board

The Synthetic Board displays information about strategy instruments that are not listed on an exchange. These instruments are defined by users of R | Trade Execution Platform™ and are visible to any user. A synthetic instrument may be composed of instruments of varying types (futures, options on futures, exchange listed strategies) and/or instruments that trade on different exchanges. To create a synthetic instrument, contact the support desk of your FCM, Broker-Dealer or IB.

Symbol	Exchange	Weight	Bid Qty	Bid	Ask	Ask Qty	Last
R:HE-LE:Q1	Lean Hog - Cattle:August 11						
				Buy	Sell	Buy	Trigger Price
							Sell
R:1ES:Z1:U1	CME	1	41	-262	-237	20	-262
ESZ1	CME	1	41	1192.00	1192.25	20	1192.00
ESU1	CME	-1	133	1197.00	1197.25	110	1197.25
R:1TF-1ES:U1	NYBOT	1	1	600.30			770.00
TF FMU0011!	CME	-1	133	1197.00	1197.25	110	1197.25
ESU1	CME	-1	133	1197.00	1197.25	6	2622
R:1ES-1YM:U1	CME	1	8	2610	2627	110	1197.25
ESU1	CME	1	133	1197.00	1197.25	110	1197.25
YMU1	CBOT	-1	6	11447	11448	7	11448
R:2ES-1TF:U1	CME	2	133	1197.00	1197.25	110	1197.25
ESU1	NYBOT	-1	1	600.30			770.00
R:1ZB-1ZN:U1	CBOT	1	93	8031	8078	34	8046
ZBU1	CBOT	-1	51	138'15	138'16	169	138'15
R:5NQ-4ES:U1	CME	5	3	-18625	-18550	4	-18600
NQU1	CME	-4	17	2208.25	2208.50	20	2208.50
ESU1	CME	-4	133	1197.00	1197.25	110	1197.25
R:2ZN-3ZF:U1	CBOT	2	25	-110125	-110046	235	-110125
ZNU1	CBOT	-3	51	130'135	130'140	532	130'135
ZFU1	CBOT	-3	706	123'205	123'210	273	123'210

To view composition and price information about a synthetic instrument, enter its id in the box labeled Symbol at the top of the Synthetic Board window and press Enter. If you do not know its id you may look it up by double clicking in the Symbol box. The Synthetic Board window will then display the Add Symbol screen showing all synthetic symbols known to R | Trade Execution Platform™. To add a synthetic symbol to the Synthetic Board, select a symbol and click on the Add button or merely double click on the symbol you wish to add. You may sort the rows in the Add Synthetic Instrument window by clicking on the column headings. Click on the Close button to close the Add Symbol screen.



**Add Synthetic Symbol**

**Add Symbol**

Find **Synthetic** whose  **Symbol**  **Description** begins with

49 symbols found. [Search within these...](#)

Symbol	Description	Exchange	Product	Expiration / Month
R:1RB-1HO:Q1	RBOB GAS NY - HEATING...	SYN	SYN	Jul-11
R:1CL-1BRN:U1	CRUDE OIL - BRENT CRUDE:SEPT 11	SYN	SYN	Aug-11
R:HE-LE:Q1	LEAN HOG - CATTLE:AUGUST 11	SYN	SYN	Aug-11
R:1RB-1CL:U1	RBOB GAS NY - CRUDE OIL:SEPT 11	SYN	SYN	Aug-11
R:1HO-1CL:U1	HEATING OIL - CRUDE OIL:SEPT 11	SYN	SYN	Aug-11
R:CL-WBS:U1	CRUDE OIL:NYMEX - ICE:SEPT 2011	SYN	SYN	Aug-11
R:1CL:U1-V1	1 CRUDE OIL:SEPT 11 - OCT 11	SYN	SYN	Aug-11
R:1RB-1HO:U1	RBOB GAS NY - HEATING OIL:SEPT 11	SYN	SYN	Aug-11
R:CL:2U1-1V1	CRUDE OIL:2 SEPT 11 - 1 OCT 11	SYN	SYN	Aug-11
R:16A-16J:U1	AUD - JPY:JUNE 11	SYN	SYN	Sep-11
R:1EMD-1TF:U1	1 S&P MIDCAP 400 - 1 RUSSELL:SEPT...	SYN	SYN	Sep-11
R:1ES-1YM:U1	1 S&P - 1 DOW:SEPT 11	SYN	SYN	Sep-11
R:1ES:Z1-U1	1 S&P:DEC 11 - SEPT 11	SYN	SYN	Sep-11
R:1FESX-1ES:U1	1 EURO STOXX - 1 S&P:SEPT 11	SYN	SYN	Sep-11
R:1FESX-1NQ:U1	1 EURO STOXX - 1 NASDAQ:SEPT 11	SYN	SYN	Sep-11
R:1TF-1ES:U1	1 RUSSELL - 1 S&P:SEPT 11	SYN	SYN	Sep-11
R:ESU1 C1170-ESZ1 C1170	ES LONG 1 SEPT 11.70 CALL SHORT...	SYN	SYN	Sep-11
R:1TF-1YM:U1	1 RUSSELL - 1 DOW:SEPT 11	SYN	SYN	Sep-11

Add  Close

The weight of a component of a synthetic instrument indicates the number of contracts (or shares) that would be traded for that component if the synthetic instrument were to be traded. As the synthetic instrument itself is not tradable on an exchange, trading the synthetic instrument really means trading its components. Effectively the Synthetic Board enables you to trade a synthetic instrument by issuing orders to trade its components, weighted accordingly.

**By definition, the Synthetic Board will issue orders to buy components that have positive weights and to sell components that have negative weights when instructed to buy a synthetic instrument. Conversely it will issue orders to sell components that have positive weights and to buy components that have negative weights when instructed to sell a synthetic instrument.**

If you right click on a line in the synthetic board that contains a synthetic instruments' id a small menu will pop up. Select Show Order Book to display an Order book for the synthetic instrument or select Delete to remove it from the Synthetic Board. **Note: An order book for a synthetic instrument is not capable of placing orders for the synthetic instrument.**



Rithmic 01 Test Sim : Synthetic Board

### Synthetic Board

Symbol: R:HE-LE:Q1      Lean Hog - Cattle:August 11

Market: Buy      Sell      Market If Touched: Buy      Trigger Price: 42675      Sell

Symbol	Exchange	Weight	Bid Qty	Bid	Ask	Ask Qty	Last
R:1ES:Z1:U1			11	-275	-212	66	-212
R:1TF-1ES:U1			1	179			17162
TF FMU0011!	NYBOT	1		600.30			770.00
ESU1	CME	-1	679	1196.75	1197.00	823	1196.75
R:1ES-1YM:U1			6	2612	2630	4	2617
ESU1	CME	1	679	1196.75	1197.00	823	1196.75
YMU1	CBOT	-1	4	11444	11445	6	11444
R:2ES-1TF:U1				59670		1	42675
ESU1	CME			1196.75	1197.00	823	1196.75
TF FMU0011!	NYBOT			600.30			770.00
R:1ZB-1ZN:U1				8125	8171	28	8156
R:5NQ-4ES:U1			1	-18600	-18525	5	-18525
NQU1	CME	5	8	2208.00	2208.25	29	2208.25
ESU1	CME	-4	679	1196.75	1197.00	823	1196.75
R:2ZN-3ZF:U1			2	-110125	-110070	2	-110093
ZNU1	CBOT	2	28	130'135	130'140	4	130'140
ZFU1	CBOT	-3	66	123'207	123'210	8	123'210

Order RMS Price History      Trading Platform by Rithmic™      Powered by OMNE™      Wed, Aug 31, 2011 09:37:46 am EDT

### Trading a Synthetic Instrument

Once you have set the Quantity, Duration and Account for your trade, you may buy or sell a synthetic instrument at its calculated market price (more specifically, you may buy or sell the components of the synthetic instrument at each component's current market price) by selecting the row that displays the synthetic instrument you wish to trade (highlighting it) and then by clicking on the Buy or Sell button in the box labeled Market in the middle of the top part of the Synthetic Board.

You may condition the purchase or sale of a synthetic instrument by entering a trigger price in the box labeled Trigger Price and then by clicking on the Buy or Sell button in the box labeled Market If Touched. Market if touched orders will then be submitted to and held by R | Trade Execution Platform™ for each of the components until one of the following conditions is met (at which time the held orders will be submitted to the exchange):

- If the transaction type is Buy, market orders for the components will be submitted to the exchange when the offer price of the synthetic instrument is less than or equal to the trigger price; or
- If the transaction type is Sell, market orders for the components will be submitted to the exchange when the bid price of the synthetic instrument is greater than or equal to the trigger price.

The Market If Touched orders are sent as an OCO order with the condition that if one is cancelled then all are cancelled.



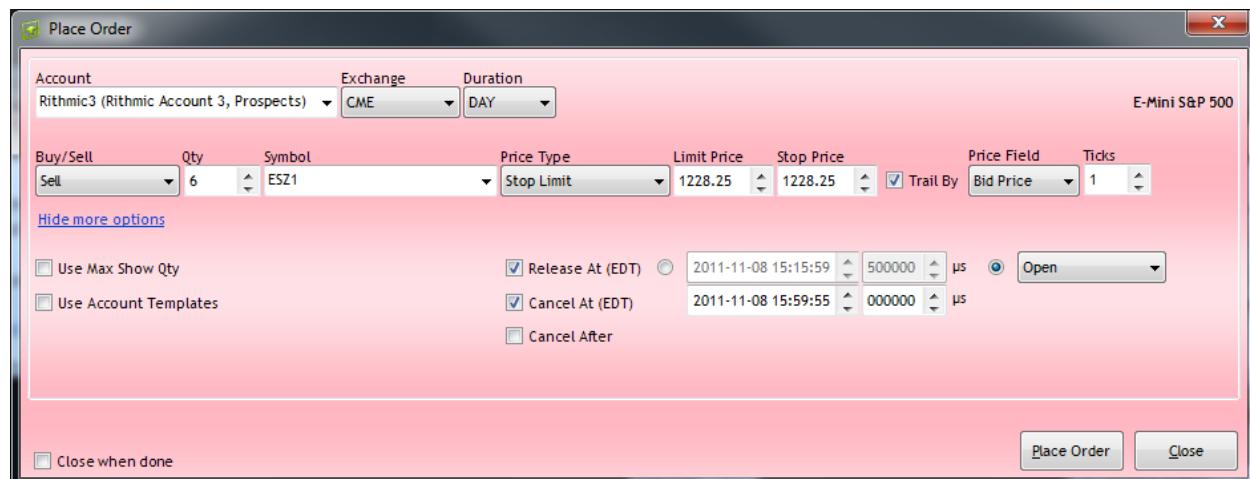
## Trade menu options

From the Trade menu you may bring up an order entry ticket (the Place Order window), configure and manage drip orders, search for instruments to trade and view the easy to borrow list.



### Place Order

The Place Order window is an order ticket. From this window you may configure and place market, limit, stop and if touched orders.



You may specify a date and time for a new order to be released, you may instruct R | Trade Execution Platform™ to cancel the unfilled portion of that order at a specified time and/or after a specified number of seconds have elapsed since it was submitted to the exchange. If you



have access to several accounts, you may use this window to indicate that the quantity to be filled should be split across several orders according to the contents of a specified template.

### Account

Select the account on which the order is to be placed. Only the accounts for which you have permission to trade are displayed in the Account drop down box.

### Exchange

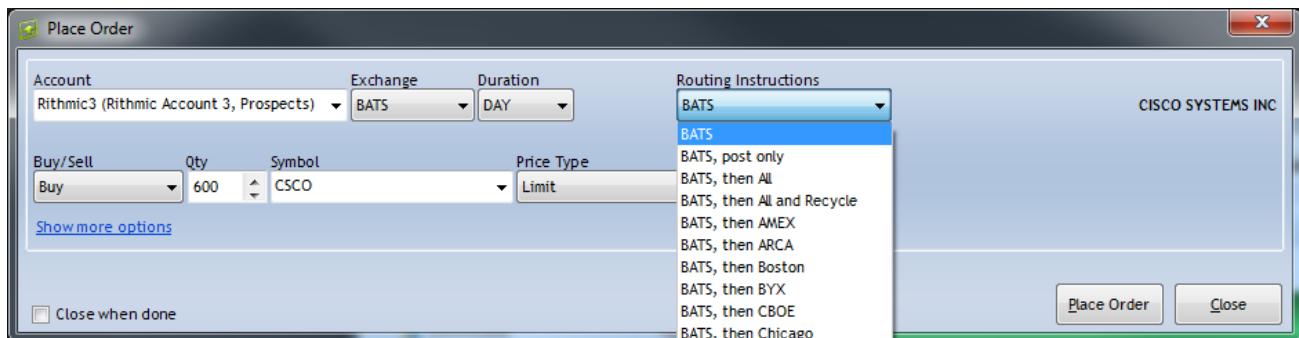
Select the id of the exchange or other trading venue on which you would like to place an order. Refer to **Appendix C** for a list of exchange and other trading venue ids. The Exchange drop down box may show all the exchanges to which R | Trade Execution Platform™ is connected (not just the exchanges on which you may trade).

### Duration

Select the duration of the order to be placed. The Duration drop down box displays all the durations applicable to the instrument to be order that are supported by R | Trade Execution Platform™. Refer to **Appendix B** for details.

### Routing Instructions

Some exchanges require routing instructions to accompany an order. If you select such an exchange then a drop down box will appear from which you may select appropriate routing instructions.



### Trans

Select the transaction type of the order to be placed. The Trans drop down box displays all the transaction types supported by R | Trade Execution Platform™.

**Note:** Not all transaction types are applicable to all instruments. For example, Sell Short is not applicable to futures. Also, some accounts may be restricted from using certain transaction types. For example, IRA accounts may not be permitted to Sell Short.

### Qty

Enter the size of the order to be placed. You may change the size directly or by clicking on the up and down arrows.



## Symbol

Select the symbol that corresponds to the instrument you would like to trade. If that symbol is not in the Symbol drop down box, type it in.

## Price Type

Choose the price type of the order you would like to place. The Price Type drop down box shows all the price types supported by R | Trade Execution Platform™. Refer to **Appendix B** for details.

## Limit Price

Upon the selection of a price type that involves a limit price a Limit Price box appears to the right of the Limit Price box. If the order is a buy order, the Limit Price box is populated with the current best ask price of the symbol to be traded. If the order is a sell order, the Limit Price box is populated with its current best bid price. You may change the limit price directly or by clicking on the up and down arrows. Clicking on the up and down arrows moves the price by 1 tick per click.

## Stop Price

Upon the selection of a price type that involves a stop price, a Stop Price box and a Trail By check box appear to the right of the Price Type box, leaving enough room for a Limit Price box to appear between them should the price type also require a limit price. If the order is a buy order, the Stop Price box is populated with the current best ask price of the symbol to be traded. If the order is a sell order, the Stop Price box is populated with its current best bid price. You may change the stop price directly or by clicking on the up and down arrows. Clicking on the up and down arrows moves the price by 1 tick per click.

If you would like the stop price to trail the instrument's bid, offer or last trade price check the Trail By box and a Price Field box and a Ticks box will appear. Select the price that and the number of ticks from that price that you would like the stop to trail.

## Use Max Show Qty

Check the Use Max Show Qty box if you would like to submit an iceberg order. Enter in the maximum quantity for the exchange to show on your order in the box directly or by clicking on the up and down arrows.



## Use Account Templates

If you have access to multiple accounts and you check the Use Account Templates box you may select an account template to be applied to the order. When you click on the "Place Order" button, instead of releasing one order R | Trade Execution Platform™ will release one order for each account in the template that has a no-zero Qty Ratio, configured identically except that the quantity of each order will be pro-rated according to the Qty Ratio associated with the account on the order.

Account	Account Name	Qty Ratio
Rithmic1	Rithmic Account 1	1
Rithmic2	Rithmic Account 2	2
Rithmic3	Rithmic Account 3	3

For example, when a place order window shows the order configured as above, using the template above, clicking on "Place Order" will submit 3 orders. The difference between the orders will be that the order for account Rithmic1 will have a quantity of 100 shares, the order for account Rithmic2 will have a quantity of 200 shares and the order for account Rithmic3 will have a quantity of 300 shares.

**Note:** If any order in a group generated by using account templates is rejected by R | Trade Execution Platform™ (risk limits exceeded, ...) all of the orders in that group will be rejected.

### Release At

If you would like to specify the date and time at which R | Trade Execution Platform™ should release the order check the Release At box and check the radio button on the left of the boxes



showing a date and time. For example, if you would like R | Trade Execution Platform™ to release the order at 9:30:05am New York time on November 21, 2011, and the time zone displayed on the right of "Release At" is CST (central standard time) as you fill out the Place Order window, set the date and time in the Release At box to 2011-11-21 08:30:05 (which corresponds to 9:30:05am New York time).

Alternatively you may direct R | Trade Execution Platform™ to release the order when it receives a message indicating that the symbol has entered a particular trading state (its market mode). For example, if you would like R | Trade Execution Platform™ to release the order at market open, check the Release At box, check the radio button to the left of the box showing a market mode and select "Open" from that box's drop down list.

**Note:** The time zone of the time in the box is always the time zone of your machine (local time) and is displayed to the right of "Release At".

**Note:** If the Release At box is unchecked, then, upon clicking the Place Order button, the order will be released to the exchange or trading venue as soon as possible.

#### Cancel At

If you would like to specify the date and time at which R | Trade Execution Platform™ should cancel the unfilled portion of an order check the Cancel At box and select the time at which the balance of the order is to be cancelled. For example, if you would like R | Trade Execution Platform™ to cancel the order at 3:59:55pm New York time on November 21, 2011, and the time zone displayed on the right of "Release At" is CST (central standard time) as you fill out the Place Order window, set the date and time in the Cancel At box to 2011-11-21 14:59:55 (which corresponds to 3:59:55pm New York time).

**Note:** The time zone of the time in the box is always the time zone of your machine (local time) and is displayed to the right of "Cancel At".

#### Cancel After

Check the Cancel After box if you would like R | Trade Execution Platform™ to cancel the unfilled portion of an order after a specified number of seconds since that order was submitted to an exchange or trading venue. Enter in the specified number of seconds directly in the box or you may set/change the specified number of seconds by clicking the up and down arrows.

#### Close when done

Check this box if you would like the Place Order window to automatically close after you click on the "Place Order" button. Otherwise the window will remain open (so you do not have to launch it each time you place an order).

#### Place Order and Close Buttons

Click the "Place Order" button to submit the order (and close the Place Order window if the Close when done box is not checked). Click the "Close" button to close the Place Order window without placing the order.



## If Touched Orders

If the price type of the order to be placed is an "If Touched" price type then the Place Order window expands to display selections that pertain to if touched orders under the heading "Release Order When". Refer to **Appendix B** for details.



### Price Field

Select the type of price to be used as part of the evaluation to release the "If Touched" order. The Price Field drop down box shows all the fields whose prices may be used as part of the release evaluation. See **Appendix B** for details.

### Symbol

Type in the symbol that corresponds to the instrument whose price (as indicated in the Price Field box) should be used to evaluate whether or not the "If Touched" order should be released. This symbol need not be the same as the symbol that corresponds to the instrument to be traded.

### Exchange

Select the exchange or other trading venue on which the instrument, whose price is to be used to evaluate whether or not the "If Touched" order is to be released, trades. Refer to **Appendix C** for a list of exchange and other trading venue ids. The Exchange drop down box shows all the exchanges to which R | Trade Execution Platform™ is connected (not just the exchanges on which you may trade). See **Appendix B** for details.

### Condition

Select the condition (a logical comparison) to be used to evaluate whether or not the "If Touched" order is to be released. The Condition drop down box shows all the conditions supported by R | Trade Execution Platform™. See **Appendix B** for details.

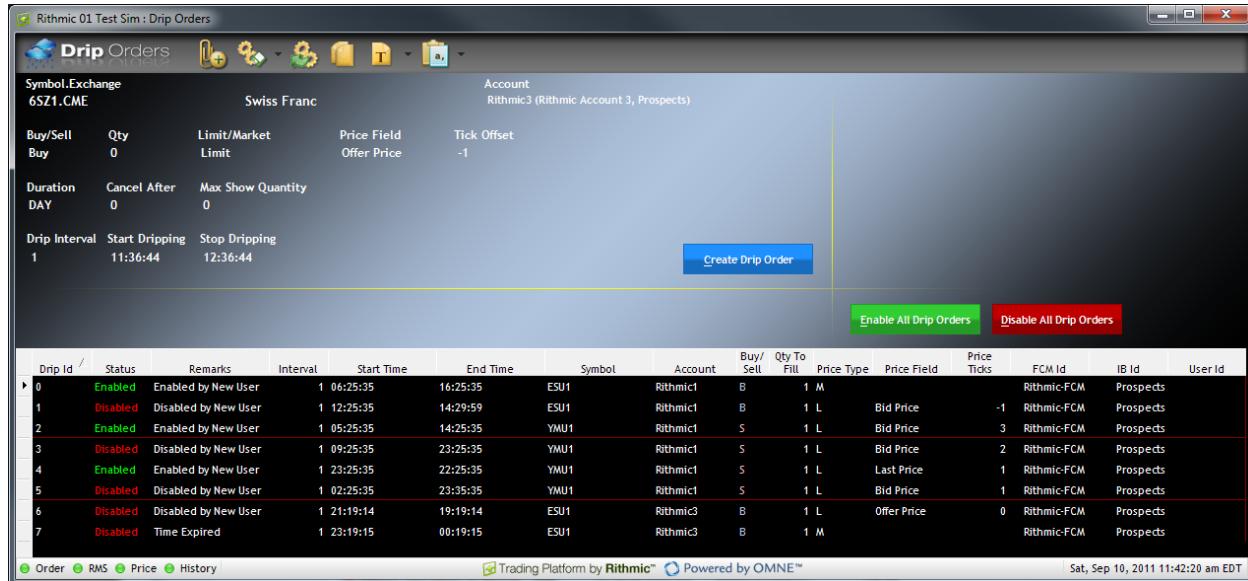
### Price

Enter the price to be used as part of the evaluation to release the "If Touched" order.



## Drip Orders

Drip orders are orders that are identical (except for their price if a limit price is specified) which are submitted automatically at regular intervals. On the Drip Orders window you may configure a new drip order and you may view the drip order parameters of all drip orders for the accounts to which you have access.



A drip order may be enabled (active) or disabled by any user who has access to the account of the drip order. The scope of the lifetime of an enabled drip order is the current trading session (or the next trading session if the market is closed when a drip order is enabled). Regardless of when a drip order is enabled or the time when its dripping is set to end, **a drip order will be disabled automatically upon receipt by R | Trade Execution Platform™ of a message indicating that the current trading session has closed.**

### Creating a Drip Order

You may configure an order through the Drip Order window as you would configure any other order (see the section on the Place Order window) with a few exceptions:

#### Buy/Sell

Select Buy or Sell. Other transaction types are not supported.

#### Limit/Market

Select Limit or Market. Other price types are not supported. If "Limit" is selected then a drop down box for Price Field and for Tick Offset will appear.

#### Price Field

Select a price from the Price Field drop down menu. If the price type selected is "Limit" then the price at which an order will be dripped (submitted) will be based upon the price as selected in the Price Field at the time the order is to be dripped,



adjusted for the number of ticks in the Tick Offset field. For example, if a drip order has a price type of Limit and its Price Field is Bid Price and its Tick Offset is -1, then when an order is dripped it will have a price equal to 1 tick less than the bid price at the time the order is to be dripped.

### **Tick Offset**

You may set the tick offset directly or by clicking on the up and down arrows. If the price type selected is "Limit" then the price at which an order will be dripped (submitted) will be based upon the price as selected in the Price Field at the time the order is to be dripped, adjusted for the number of ticks in the Tick Offset field. For example, if a drip order has a price type of Limit and its Price Field is Bid Price and its Tick Offset is -1, then when an order is dripped it will have a price equal to 1 tick less than the bid price at the time the order is to be dripped.

### **Use Account Templates**

Not supported.

### **Drip Interval**

Enter the interval (frequency) at which orders are to be dripped (submitted) into the market.

### **Start Time**

Enter the time (local time as per your computer's time zone) at which orders may begin to be dripped (submitted). The scope of the lifetime of an enabled drip order is the current trading session (or the next trading session if the market is closed when a drip order is enabled).

### **End Time**

Enter the time (local time as per your computer's time zone) at which dripping should be stopped. The scope of the lifetime of an enabled drip order is the current trading session (or the next trading session if the market is closed when a drip order is enabled).

Once all the parameters for a drip order have been set, click on the Create Drip Order button to create the drip order.

When a drip order is created it is in a disabled state. To start dripping an order you will need to enable it. **A drip order will not start dripping unless it is in an enabled state.**

Drip orders have been designed to be used daily, i.e. the orders that are dripped today, may be dripped tomorrow without having to be reconfigured. When a drip order is created it is stored in R | Trade Execution Platform™ so that the state and submission of a drip order will continue as appropriate, even if you log out or lose your connection to R | Trade Execution Platform™.

### **Deleting a Drip Order**

You may delete a drip order by right clicking on it and selecting Delete.



### Disabling a Drip Order

You may Disable a drip order by clicking on the entry in status column (where it shows **Enabled**) or by right clicking elsewhere on the drip order and selecting Disable. A drip order will be disabled automatically upon receipt by R | Trade Execution Platform™ of a message indicating that the current trading session has closed.

### Disabling all Drip Orders

You may disable all drip orders by clicking on the "Disable All Drip Orders" button.

### Enabling a Drip Order

You may enable a drip order by clicking on the entry in status column (where it shows **Disabled**) or by right clicking elsewhere on the drip order and selecting Enable.

### Enabling All Drip Orders

You may enable all drip orders by clicking on the "Enable All Drip Orders" button.

### Modifying a Drip Order

You may modify the drip interval (frequency of order submission), the start and end times, the price field and tick offset of a drip order by clicking on the parameter you wish to change and entering a new value of that parameter.

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## Search Symbol

See **Appendix D.**

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## Easy to Borrow List

The Easy to Borrow List is a list of symbols for stocks whose shares your broker-dealr has a reasonable expectation to be able to borrow.

The screenshot shows a software interface titled "Rithmic 01 Test Sim : Easy to Borrow List". The main window displays a table with four columns: "Symbol (2)", "Qty Available", "Qty Needed", and "Borrowable? (1)". The table lists 18 symbols, all of which are marked as "Yes" in the "Borrowable?" column. The symbols listed are: ZINC, ZION, ZIXI, ZMH, ZOLL, ZOLT, ZOOG, ZQK, ZRAN, ZUMZ, ZZ, AAME, AAT, AAUKF, AB, ABH, and ABLZF. The table is sorted by the "Borrowable?" column, with "Yes" entries at the top and "No" entries at the bottom. The software interface includes a toolbar with various icons and a status bar at the bottom.

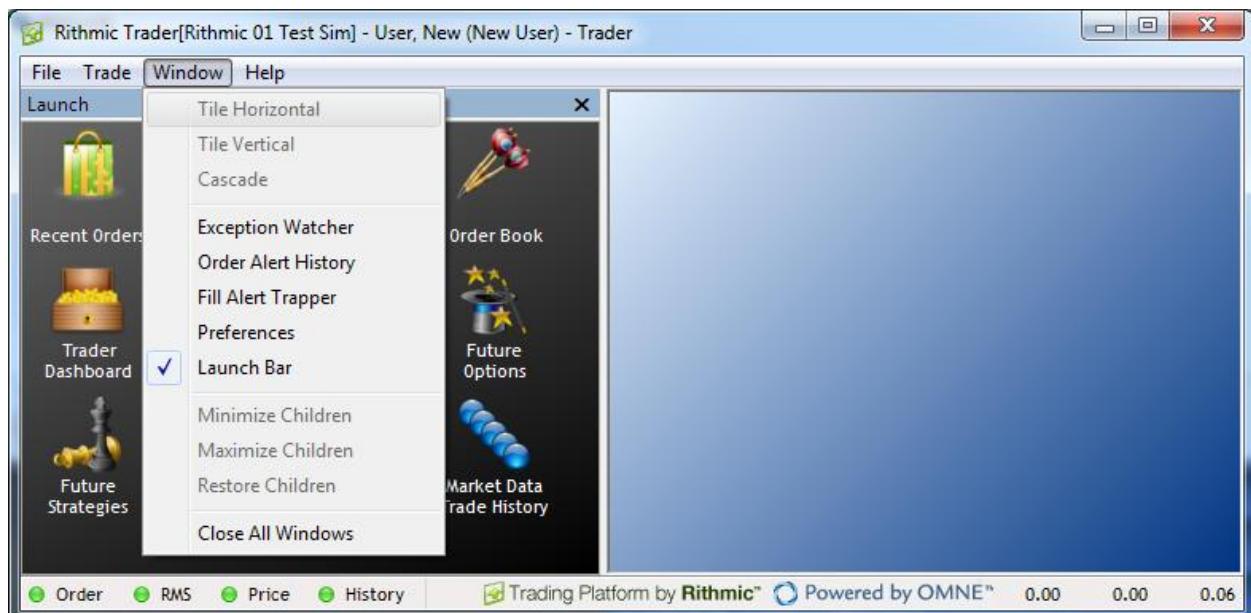
Symbol (2)	Qty Available	Qty Needed	Borrowable? (1)
ZINC	7154900		Yes
ZION	7921100		Yes
ZIXI	178200		Yes
ZMH	16646600		Yes
ZOLL	2908100		Yes
ZOLT	168100		Yes
ZOOG	360500		Yes
ZQK	10540100		Yes
ZRAN	4371100		Yes
ZUMZ	795900		Yes
ZZ	254800		Yes
AAME	42500		No
AAT	3297400		No
AAUKF	113700		No
AB	37100		No
ABH	573100		No
ABLZF	227200		No

In the picture above, the easy to borrow list is sorted first by whether or not a symbol is borrowable and then alphabetically by symbol.



## Window menu options

The Window menu provides you with several ways to arrange the open windows. It also provides you with a way to close all windows, view processing exceptions detected by R | Trader™, view the history of order alerts and set window and application preferences.



### Exception Watcher

R | Trader™ records the details of processing exceptions it detects about itself. A listing of such exceptions can be viewed by selecting Exception Watcher from the window menu. If a processing exception occurs, you may view its history in this window and then report the exception to Rithmic Operations Support.

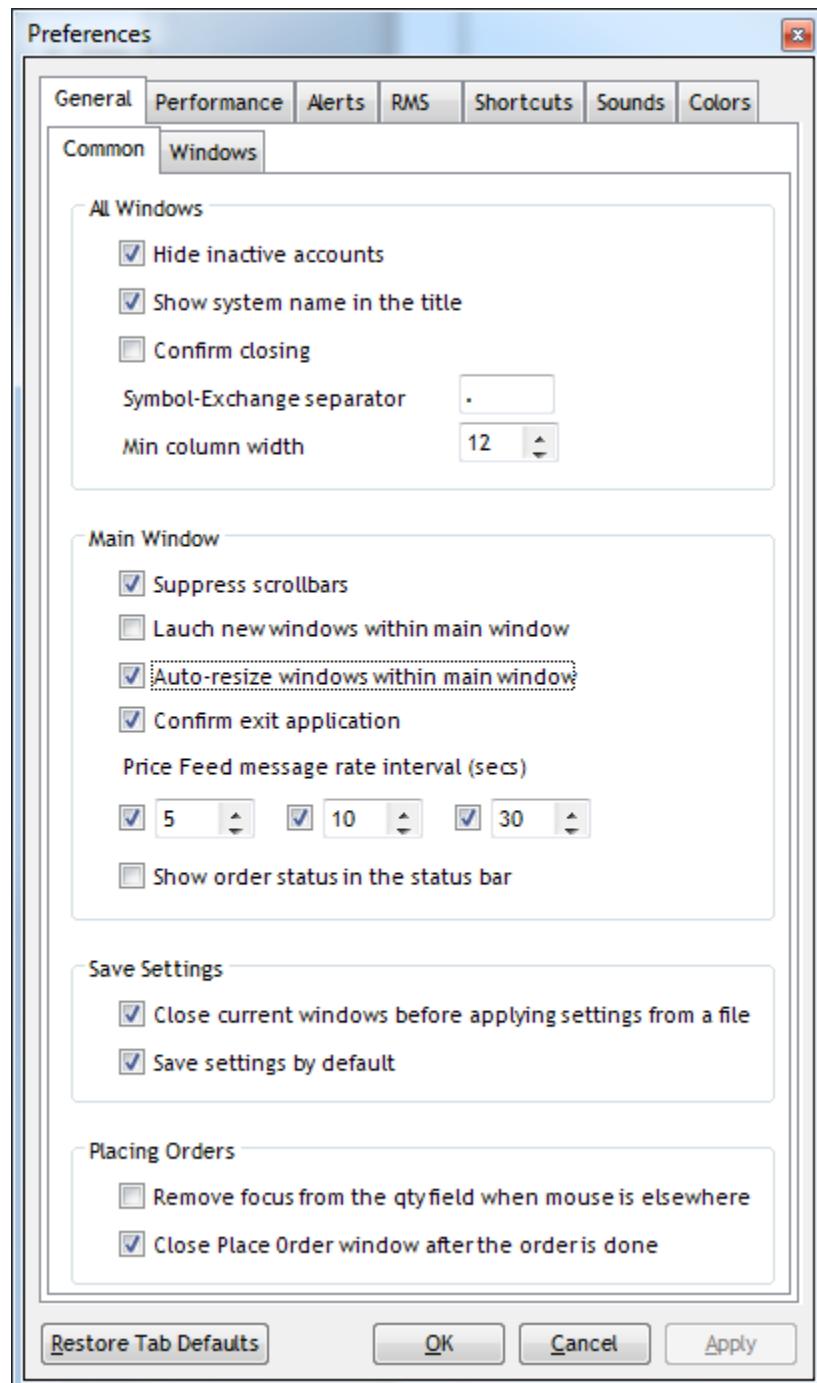
### Order Alert History

The Order Alert History window shows orders that failed or were rejected similarly to such orders shown in the Actual Orders window. This information is available in the Actual Orders window as well, but for ease of monitoring only failed or rejected orders, this window has been provided.



## Preferences

You may customize various window and application settings through the Preferences window.

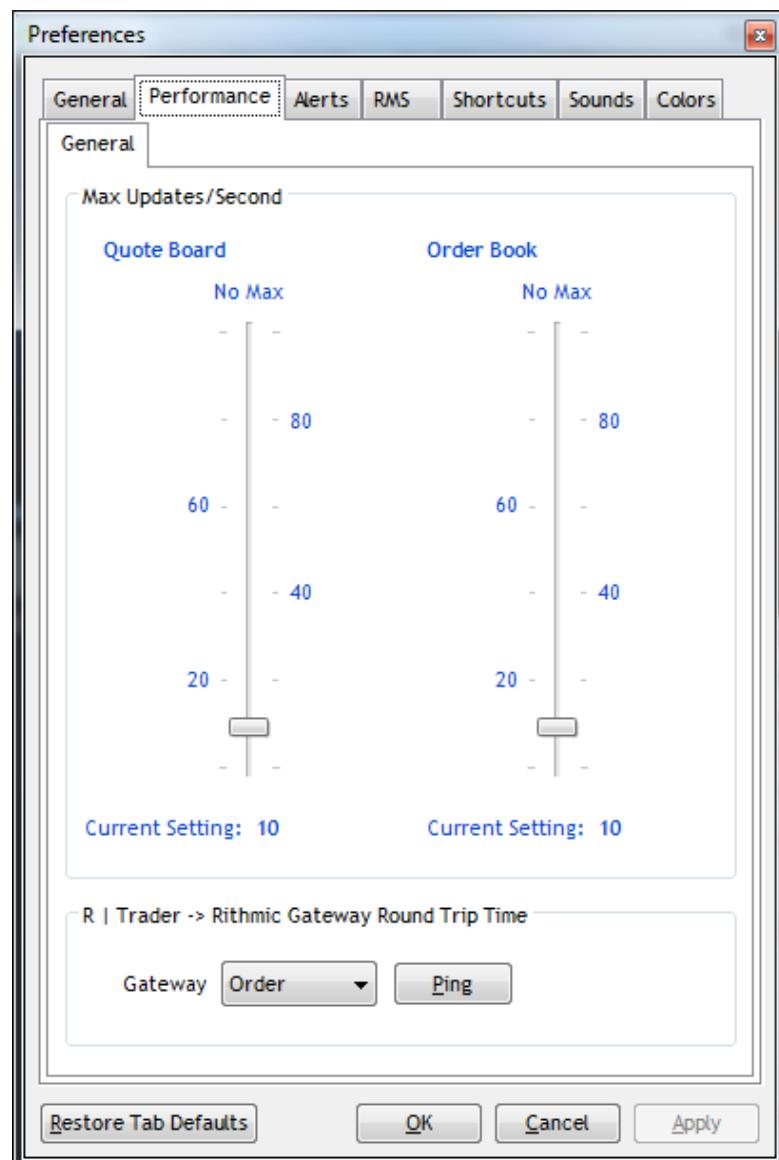




## Performance

Sometimes the rate at which market data is sent to and displayed by R | Trader™ is faster than can be discerned by the human eye. If the human eye cannot see all the updates then the trader cannot react to all of them. CPU cycles (of which there are a finite number on any machine) spent on displaying all market data updates, when not all can be seen, may be better spent by R | Trader™ on other tasks or by other applications, especially as market data rates seem to keep increasing.

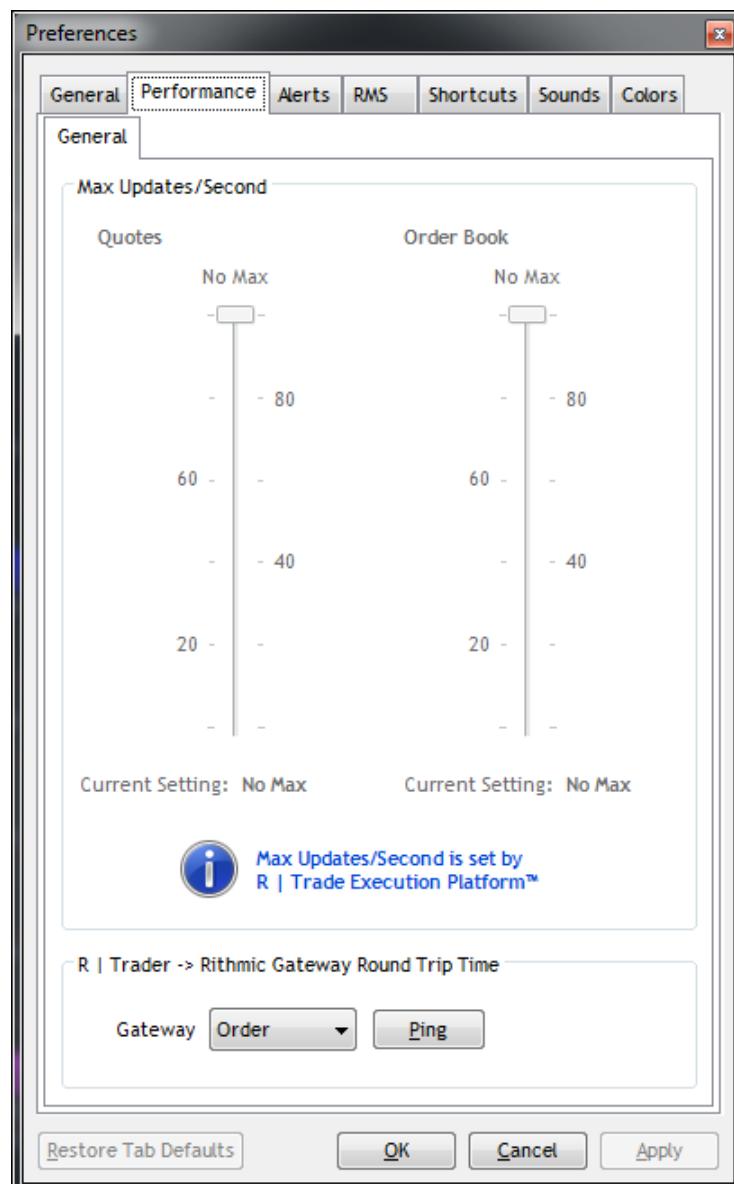
You may reduce the amount of CPU used by the Quote Board and Order Book windows by moving the sliders in the Performance tab of the Preferences window. The lower the slider, the less frequent these windows will update and the less CPU they will use. By default the sliders are set to limit these windows to update no more than 10 times per second.





In addition to providing unfiltered market data, some deployments R | Trade Execution Platform™ are configured to provide aggregated market depth and best bid/ask updates on a separate channel (the aggregated channel). When so configured, R | Trade Execution Platform™ forwards best bid/ask and market depth updates periodically on the aggregated channel while still forwarding all (i.e. unfiltered) market data updates on the regular channel. Consequently, the aggregated channel requires less CPU to process and publish market data and less bandwidth to transport the published market data. Likewise recipients of aggregated market data require less bandwidth to receive it and less CPU to process and display it.

If R | Trader™ detects that the market depth updates and the best bid/ask updates it receives are aggregated by R | Trade Execution Platform™ then the sliders will show **No Max** for the Current Setting and the ability to adjust them will be disabled.





**Note: At the time aggregated best bid/ask and market depth updates are published they are as current as the corresponding market data from the non-aggregated (unfiltered) channel.**

**Note: R | Trade Execution Platform™ does not aggregate last trade price and size (also known as most recent trade price and size).**

Contact your FCM, Broker-Dealer or IB's support group to find out how to get access to aggregated market depth and aggregated best bid/ask updates.

### **Launch Bar**

You may toggle the display of the launch bar by checking and un-checking the launch bar option of the window menu.

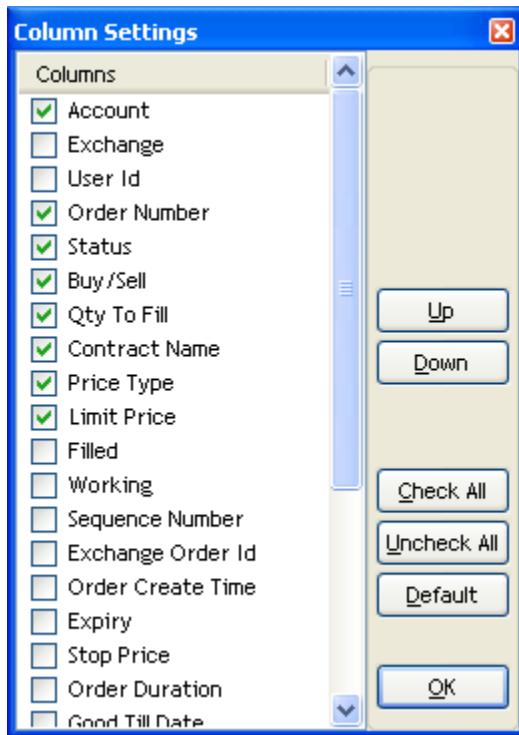
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## Appendix A – Setting and Saving Window Properties, Filtering, Saving and Sorting Data

### Customizing Columns

You may configure the display of data in columns for many of the windows. Right click on the column header line and a small window will pop up and display several options. Clicking on "Add/Remove Columns" will bring up a "Column Settings" window, pictured below.



Data for columns which are checked will be displayed; data for unchecked columns will not be displayed. Clicking on a column in "Column Settings" will allow you to arrange the order in which columns are displayed (left to right) by moving the column name up or down in the "Column Settings" window (this change is applied as you click). You may also arrange the columns of a window by clicking on the column header you wish to move and dragging it to the desired position. Clicking (left clicking) on a column header will sort the rows by that column.

### Sorting Data in Columns

You may sort the data in a window by clicking on a column heading. Subsequent clicks will toggle the sort between ascending order, descending order and no sort order (data presented as it was sorted prior to clicking on the column heading). You may apply subordinate sorting criteria (sort by column 1, then by column 3, then by column 2, ...) by clicking on a column heading and then by clicking on additional column headings while holding down the shift key. When subordinate sorting criteria is applied, each column heading to which sorting and subordinate sorting criteria have been applied will be identified with a number indicating its



precedence in the sort (1 having the highest precedence and applied to the column whose heading was clicked first).

### Filtering Rows

Several windows organize their data by account and/or by user id. If you have access to multiple accounts you may wish to configure some windows to show activity for specific accounts and/or for specific users. Use the drop down selection box (or boxes as the case may be) to select "All" or "Filtered". Selecting "ALL" will display all accounts (or users as the case may be) while selecting "Filtered" will bring up a selection window through which you may indicate which accounts (or users as the case may be) whose information you wish to view.

Advanced filtering by order number, order size or order type can be applied to each window (or to each pane within a window separately) by clicking on the and icons located near the top left corner of each window (or pane).

### Saving Window Settings and Properties and Saving Data

Each window has its own settings and properties that you can configure. You may save these settings either to your local machine or to the network. At the top of each window a set of icons are displayed that when selected, enable you to modify and save a window's various properties and settings, export its data to a .csv file or toggle the organization and display of a window's data between panes and tabs.

- Release the window from the Main Console and allow it to be placed anywhere on the screen by clicking on the paperclip icon.
- Save a window's settings by clicking on the cog icon with a picture of a floppy disk.
- Restore a window's default settings by clicking on the cog icon with an arrow.
- Clone a window by clicking on the icon of 2 sheets of paper.
- Manage the fonts, foreground and background colors and grid lines of a window by clicking on the icon with the letter "T".
- Save the data content of a window to a .csv file by clicking on the icon with the letter "a" followed by a comma.
- Toggle the organization and display of a window's data between panes and tabs.

### Grid Lines

Most of the windows display some of their data in a grid format though grid lines may not always be visible by default. To adjust the position of the grid lines click on a row of the grid and hold down the Ctrl key. Press the up arrow key to move the gridlines up. Press the down arrow key to move the grid lines down.



## Appendix B – Price Types, Order Duration and Market Mode

### Price Types

#### Limit

An order with a price type of Limit requires a price to be submitted as part of the order. This price, known as the limit price, indicates the maximum price the trader will pay on a buy order, and the minimum price at which the trader will sell on a sell order.

#### Limit If Touched



An order with a price type of Limit If Touched is a limit order which is held by R | Trade Execution Platform™ and submitted to the exchange once a particular price of a specified contract or instrument (the trigger symbol) meets a specified value (the trigger value). The trigger symbol need not be the same as the contract or instrument of the limit order. For example:

Buy 10 ESM8.CME at 1300.00 Limit if Touched, Bid Price of YMM8.CME  $\geq$  12300 means that R | Trade Execution Platform™ will submit a limit order to the CME to buy 10 contracts of ESM8 at a price of 1300.00, once the bid price of YMM8 at the CME meets or exceeds 12300.

The valid trigger conditions are:

- $\neq$  (not equal to)
- $<$  (less than)
- $\leq$  (less than or equal to)
- $=$  (equal to)
- $\geq$  (greater than or equal to)
- $>$  (greater than)

The valid compare fields are:

- |             |            |                    |
|-------------|------------|--------------------|
| Bid Price   | Last Price | (Last Trade Price) |
| Offer Price | Ask Price  |                    |

The trigger symbol and the contract or instrument to be traded need not be the same. Additionally, the trigger symbol need not be a tradable (real) contract or instrument. For example, if R | Trade Execution Platform™ provides real time index values or synthetic instrument price calculations, the symbols identifying such indices and/or synthetic instruments can be used as trigger symbols.

#### Market

An order with a price type of Market is an order that will be filled by the exchange at the best available price. A buy order will be filled at the best available offer price and a sell order will be filled at the best available bid price.

When the quantity on a Market order is greater than the quantity available at the best price, not all exchanges treat the unfilled balance of the Market order the same way. Some exchanges convert the balance of the unfilled Market order to a Limit order at the price at which the Market order was partially filled; others may continue to fill the Market order at the next best prices until the Market order is filled completely. While other exchanges may continue to



fill the Market order at the next best prices until it is filled completely, subject to some limits on the prices (offering some price protection for trading contracts or instruments that have thin and sparse sizes on their order book). Refer to an exchange's website for information on how it treats the balance of unfilled market orders.

**Note:** Some exchanges (or other trading venues) do not support Market orders and some exchanges do not support Market orders for certain instrument types. Where a Market order is not supported by an exchange (or other trading venue) natively, R | Trade Execution Platform™ may simulate a Market order by sending a limit order with a price equal to an instrument's current best price offset by a specified number of ticks. For a buy order the limit price will be equal to the instrument's current best offer price, as known to R | Trade Execution Platform™ at that instant, plus a specified number of ticks. For a sell order the limit price will be equal to the instrument's current best bid price, as known to R | Trade Execution Platform™ at that instant, minus a specified number of ticks. The specified number of ticks by which a best price is offset is determined by you FCM, Broker-Dealer or IB. See below for a list of exchanges and other trading venues that do not support Market orders.

### Market If Touched

An order with a price type of Market If Touched is a market order which is held by R | Trade Execution Platform™ and submitted to the exchange once a particular price of a specified contract or instrument (the trigger symbol) meets a specified value (the trigger value). The trigger symbol need not be the same as the contract or instrument of the limit order. For example:

Sell 5 CLK8.NYMEX Market if Touched, Offer Price of UHO FMK0008!.ICE <= 3.2221 means that R | Trade Execution Platform™ will submit a market order to the NYMEX to sell 5 contracts of CLK8, once the offer price of UHO FMK0008! at the ICE meets or drops below 3.2221.

The valid trigger conditions are:

!=	(not equal to)
<	(less than)
<=	(less than or equal to)
=	(equal to)
>=	(greater than or equal to)
>	(greater than)

The valid compare fields are:

Bid Price	
Last Price	(Last Trade Price)
Offer Price	(Ask Price)

The trigger symbol and the contract or instrument to be traded need not be the same. Additionally, the trigger symbol need not be a tradable (real) contract or instrument. For example, if R | Trade Execution Platform™ provides real time index values or synthetic instrument price calculations, the symbols identifying such indices and/or synthetic instruments can be used as trigger symbols.

### Stop Limit

An order with a price type of Stop Limit is a limit order that is held by the exchange and inserted into an instrument's order book once that instrument trades at or worse than a specified price (the stop price). For example:

Buy 6 ESU8.CME at 1300.25, Stop Limit at 1299.75



means that the CME will enter an order to buy 6 ESU8 with a limit price of 1300.25 into the ESU8 order book when ESU8 trades at the CME at a price of 1299.75 or higher. Similarly:

Sell 7 NQM8.CME at 1825.00 Stop Limit at 1825.75

means that the CME will enter an order to sell 7 NQM8 with a limit price of 1825.00 into the NQM8 order book when NQM8 trades at the CME at a price of 1825.75 or lower.

When a stop is triggered the corresponding Limit order becomes active. A stop is considered to have triggered when an instrument trades at or worse than the stop price (at or worse for a buy order means greater than or equal to the stop price, at or worse for a sell order means less than or equal to the stop price). When constructing a Stop Limit order, the stop price for a buy order should be greater than the current trade price of the instrument and the limit price should be greater than or equal to the stop price; the stop price for a sell order should be less than the current trade price of the instrument and the limit price should be less than or equal to the stop price. If the stop price were less than or equal to the current trade price for a buy order, the stop would trigger upon receipt of the Stop Limit order by the exchange and the corresponding limit order would become active immediately. Similarly, if the stop price were greater than or equal to the current trade price for a sell order, the stop would trigger upon receipt of the Stop Limit order by the exchange and the corresponding limit order would become active immediately. Some exchanges may reject such Stop Limit orders.

Not all exchanges accept Stop Limit orders and not all exchanges accept Stop Market orders for all instruments. When a Stop Market order is not supported by an exchange R | Trade Execution Platform™ holds a Stop Market order until the stop triggers and then submits a Market order to the exchange. **In contrast to an exchange (which usually compares a stop price with the last trade price), R | Trade Execution Platform™ considers a stop to have triggered when the offer price of the instrument in a buy order becomes greater than or equal to its stop price and, for a sell order, when the bid price of the instrument becomes less than or equal to its stop price.** See below for a list of exchanges and other trading venues that do not support Stop Limit orders.

### Stop Market

An order with a price type of Stop Market is a market order that is held by the exchange and inserted into an instrument's order book once that instrument trades at or worse than a specified price (the stop price). For example:

Sell 4 ESZ8.CME Stop Market at 1350.25

means that the CME will enter an order to sell 4 ESZ8 at the market into the ESZ8 order book when ESZ8 trades at a price of 1350.25 or lower. Similarly:

Buy 3 NQU8.CME Stop Market at 1816.75

means that the CME will enter an order to buy 3 NQU8 at the market into the NQU8 order book when NQU8 trades at the CME at a price of 1816.75 or higher.

When a stop is triggered the corresponding Market order becomes active. A stop is considered to have triggered when a instrument trades at or worse than the stop price (at or worse for a buy order means greater than or equal to the stop price, at or worse for a sell order means less than or equal to the stop price). When constructing a Stop Market order, the stop price for a buy order should be greater than the current trade price of the instrument; the stop price for a sell order should be less than the current trade price of the instrument. Otherwise the stops would trigger upon receipt of the Stop Market order by the exchange and the corresponding



market order would become active immediately - some exchanges may reject such Stop Market orders.

When a stop is triggered, some exchanges convert the market order to a limit order (with a limit price based upon a formula specific to that exchange) and enter the limit order into the instrument's order book. Refer to an exchange's website for information on how it treats stop market orders when the stop is triggered.

Not all exchanges accept Stop Market orders and not all exchanges accept Stop Market orders for all instruments. When a Stop Market order is not supported by an exchange R | Trade Execution Platform™ holds a Stop Market order until the stop triggers and then submits a Market order to the exchange. **In contrast to an exchange (which usually compares a stop price with the last trade price), R | Trade Execution Platform™ considers a stop to have triggered when the offer price of the instrument in a buy order becomes greater than or equal to its stop price and, for a sell order, when the bid price of the instrument becomes less than or equal to its stop price.** See below for a list of exchanges and other trading venues that do not support Stop Market orders.

### **Exchange and Other Trading Venues that do not Support Certain Price Types**

Not all exchanges or other trading venues support all price types and when a price type is supported, it may not be supported for all instrument types (for example, sometimes Market orders are not supported for options). Furthermore, R | Trade Execution Platform™ may implement its own version of that price type for an exchange or other trading venue whether or not it is supported natively by that exchange or other trading venue.

The table below indicates the exchange and synthetic price types supported by R | Trade Execution Platform™.

<b>Exchange Id</b>	<b>Stop Market</b>	<b>Stop Limit</b>	<b>Exchange Id</b>	<b>Stop Market</b>	<b>Stop Limit</b>
<b>AEX</b>	Synthetic	Synthetic	<b>LIFFE-EQ</b>	Synthetic	Synthetic
<b>BATS</b>	Synthetic	Synthetic	<b>LIFFE</b>	Synthetic	Synthetic
<b>BMF</b>	Synthetic		<b>MATIF</b>	Synthetic	Synthetic
<b>BYX</b>	Synthetic	Synthetic	<b>NLX</b>		Synthetic
<b>CBSX</b>	Synthetic	Synthetic	<b>OSE</b>	Synthetic	Synthetic
<b>EUREX</b>		Synthetic	<b>RTS</b>	Synthetic	Synthetic
<b>FORTS</b>	Synthetic	Synthetic	<b>RTSST</b>	Synthetic	Synthetic
<b>IDEM</b>	Synthetic	Synthetic	<b>SGX</b>	Synthetic	Synthetic
			<b>TDEX</b>		Synthetic

Contact your FCM, Broker-Dealer or IB's support group to find out if an exchange or other trading venue limits its support for certain price types to certain instrument types.



## Order Duration

Order duration, also known as time in force, indicates the maximum time an order can remain open on the books of an exchange. R | Trade Execution Platform™ supports the following order durations:

Order Duration Id	Order Duration Description
<b>DAY or Day</b>	Any unfilled balance of a Day order is cancelled by the exchange automatically at the close of the trading day on which it was submitted to the exchange.
<b>FOK*</b>	Upon receipt by an exchange, an FOK order (Fill or Kill) is filled completely or, if it cannot be filled completely, it is cancelled in its entirety.
<b>GTC</b>	Any unfilled balance of a GTC order (Good 'Till Cancelled) remains open and on the books of the exchange until specifically cancelled by the trader or until the maximum time allowed by the exchange for a GTC order to remain open has transpired.
<b>IOC</b>	Upon receipt by an exchange, an IOC order (Immediate Or Cancel) is filled to the extent possible and any unfilled balance, up to and including the entire order, is cancelled.

\* R | Trade Execution Platform™ supports FOK orders only on the following exchanges/venues: 1C, BMF, BTEC, CBOE, CBOT, CBSX, CFE, CME, COMEX, DME, ICE, ICE-OTC, KCBT, KRCX, MEXDER, MGEX, NLX, NYBOT, NYMEX, SGX, WCE but is not yet available through R | Trader™.



## Market Mode

The Market Mode of an instrument indicates the status of its order book at the exchange on which it trades. Each exchange has its own set of market mode indicators and meanings. Some exchanges have one set of market modes for futures and another set of market modes for options on futures. Refer to an exchange's website for information on its market modes. The table below shows the market modes that are common across the exchanges to which R | Trade Execution Platform™ connects:

Market Mode	Market Mode Description	R   Trade Execution Platform™ Action
<b>Pre-Open</b>	A new trading day will begin shortly for this instrument or trading will resume shortly after a trading halt or trading suspension. Generally, limit orders may be accepted and cancelled but none will be matched until trading matching of the instrument opens.	When a new trading day for this instrument will begin shortly, the previous day's trading statistics for the instrument are cleared: open, high and low trade price, last trade price and size, net change and % change, daily trade volume  and positions in all accounts for this instrument are netted and marked to the previous day's close trade price or settlement price.
<b>Open or Normal</b>	Trading matching of this instrument in the new trading day has begun and is proceeding normally.	
<b>End of Day</b>	Trading matching of this instrument for the current trading day has ended.	A final profit and loss message is published for each account that placed an order for this instrument during the current trading day.  The best bid price, size and order count and the best ask price, size and order count are cleared. Close trade price is published.



## Appendix C – Exchange and Other Trading Venue Ids

The exchanges and other trading venues to which R | Trade Execution Platform™ connects may vary from deployment to deployment.

The exchanges and other trading venues to which R | Trade Execution Platform™ can connect are listed in the following table:

Exchange Id	Exchange Name	Access Line
<b>1C</b>	One Chicago	CBOE
<b>AEX</b>	Amsterdam Exchange	LIFFE
<b>BATS</b>	BATS "Z" Exchange	BATS
<b>BMF</b>	BM&FBOVESPA	Globex
<b>BYX</b>	BATS's "Y" Exchange	BATS
<b>CBOE</b>	Chicago Board Options Exchange	CBOE
<b>CBOT</b>	Chicago Board of Trade	Globex
<b>CBSX</b>	CBOE Stock Exchange	CBOE
<b>CFE</b>	CBOE Futures Exchange	CBOE
<b>CME</b>	Chicago Mercantile Exchange	Globex
<b>COMEX</b>	COMEX Commodity Exchange	Globex
<b>DME</b>	Dubai Mercantile Exchange	Globex
<b>EUREX</b>	Eurex	Eurex
<b>FORTS</b>	Russian Trading System Futures and Options	RTS
<b>ICE</b>	The Intercontinental Exchange	ICE
<b>ICE-OTC</b>	The Intercontinental Exchange (OTC)	ICE
<b>IDEM</b>	Italian Derivatives Exchange Market	IDEM
<b>KCBT</b>	Kansas City Board of Trade	Globex
<b>KRX</b>	Korea Exchange	Globex
<b>LIFFE</b>	London International Financial Futures Exchange	LIFFE
<b>LIFFE-EQ</b>	London International Financial Equities Exchange	LIFFE
<b>LME</b>	London Metals Exchange	LME
<b>MATIF</b>	Marché à Terme International de France	LIFFE
<b>MEFF</b>	Mercado Español de Futuros Financieros	MEFF
<b>MEXDER</b>	Mexican Derivatives Exchange	Globex
<b>MGEX</b>	Minneapolis Grain Exchange	Globex
<b>MX</b>	Montreal Exchange	MX
<b>NYBOT</b>	New York Board of Trade	ICE
<b>NYMEX</b>	New York Mercantile Exchange	Globex
<b>NLX</b>	NYSE LIFFE US	NYSE LIFFE US
<b>OSE</b>	Osaka Stock Exchange	OSE
<b>RTS</b>	Russian Classica Trading System	RTS
<b>RTSST</b>	Russian Standard Trading System	RTS
<b>SGX</b>	Singapore Exchange	SGX
<b>TDEX</b>	Tokyo Derivatives Exchange	TDEX
<b>WCE</b>	Winnipeg Commodity Exchange	ICE

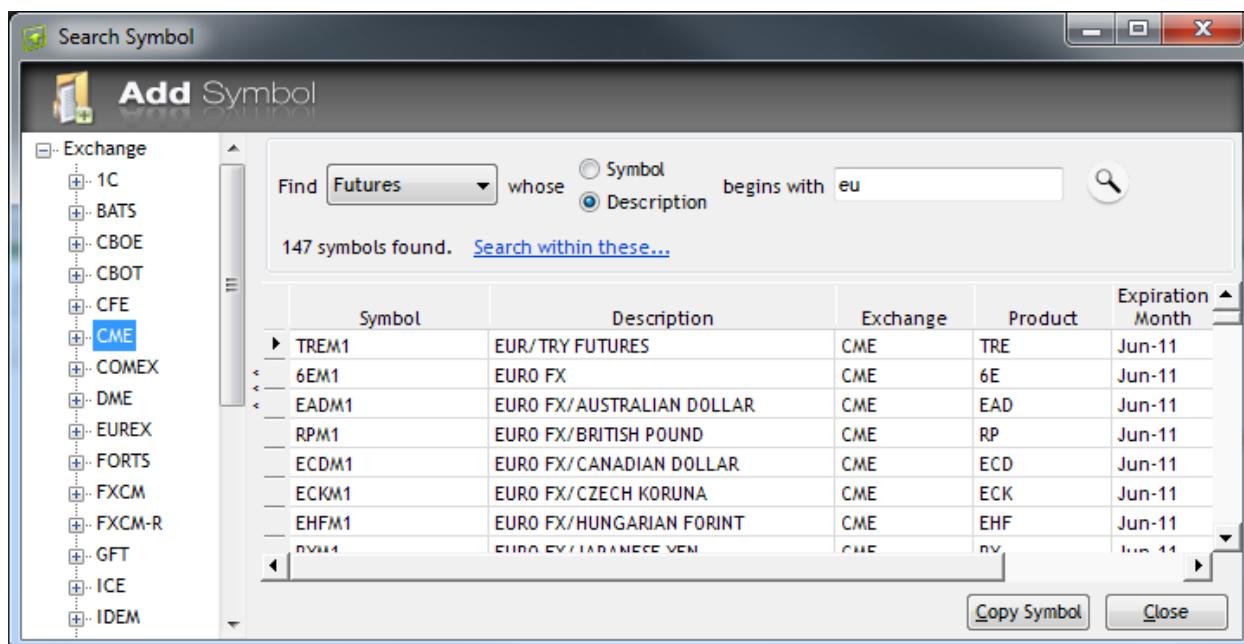


## Appendix D – Add Symbol

Several windows that display market data allow you to enter symbols into the window directly or through the Add Symbol window. The left side of the window displays a list of exchanges and venues known to your deployment of R | Trade Execution Platform™. The right side of the window allows you to enter criteria that will be applied to your exchange and/or venue selections.

### Searching for Symbols within an Exchange or within All Exchanges

If you do not know the exchange (or venue) on which an instrument trades, select (highlight) "Exchange" from the list on the left and enter your best guess of the first few (a minimum of 2) letters of the instrument's description in the box on the right. If you do know the exchange on which the instrument trades then select it from the list on the left instead of "Exchange". Click on the icon on the right to start a symbol search. To interrupt the search just click on the icon.



If you know the instrument type of the instrument you wish to trade then select it from the "Find" drop down box at the top of the window. By default the search will look at an instrument's description when matching the letters entered in the box at the right. You may change the search to look at an instrument's symbol instead of its description by clicking on the radio button to the left of the word "Symbol" as in the picture below.



**Search Symbol**

### Add Symbol

Find **Futures** whose  **Symbol** begins with **kk**

33 symbols found. [Search within these...](#)

Symbol	Description	Exchange	Product	Expiration Month
KKJM1	DETROIT APRIL COOLING DEGREE DAY	CME	KKJ	Jul-11
KKKM1	DETROIT MAY COOLING DEGREE DAY	CME	KKK	Jul-11
KKM1	DETROIT COOLING DEGREE DAY	CME	KK	Jul-11
KKJN1	DETROIT APRIL COOLING DEGREE DAY	CME	KKJ	Aug-11
KKKN1	DETROIT MAY COOLING DEGREE DAY	CME	KKK	Aug-11
KKMN1	DETROIT JUNE COOLING DEGREE DAY	CME	KKM	Aug-11
KKN1	DETROIT COOLING DEGREE DAY	CME	KK	Aug-11
KK104	DETROIT APRIL COOLING DEGREE DAY	CME	KK	Aug-11

### Searching for Symbols within a Product Group of an Exchange

If you know the product group to which the instrument you wish to trade belongs, click on the "+" sign to the left of the exchange on which it trades. The "+" sign will become a "-" sign and a list of popular product groups will appear underneath the exchange. If that product group is not shown in the popular list, click on the "+" to the left of "All Products" and all product groups for that exchange will be shown.

**Search Symbol**

### Add Symbol

Find **Spreads** whose  **Symbol** begins with

3140 symbols found. [Search within these...](#)

Symbol	Description	Exchange	Product	Expiration Month
CLU0-REBU0	LIGHT SWEET CRUDE OIL	NYMEX	CL	Aug-10
CLU0-REU0	LIGHT SWEET CRUDE OIL	NYMEX	CL	Aug-10
CL:BF N1-Q1-U1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CL:BF N1-V1-F2	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CL:C1 HO-CL N1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CL:C1 RB-CL N1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CL:FS 03M N1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CLN1-BZN1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11
CLM1-CFZ1	LIGHT SWEET CRUDE OIL	NYMEX	CL	Jun-11

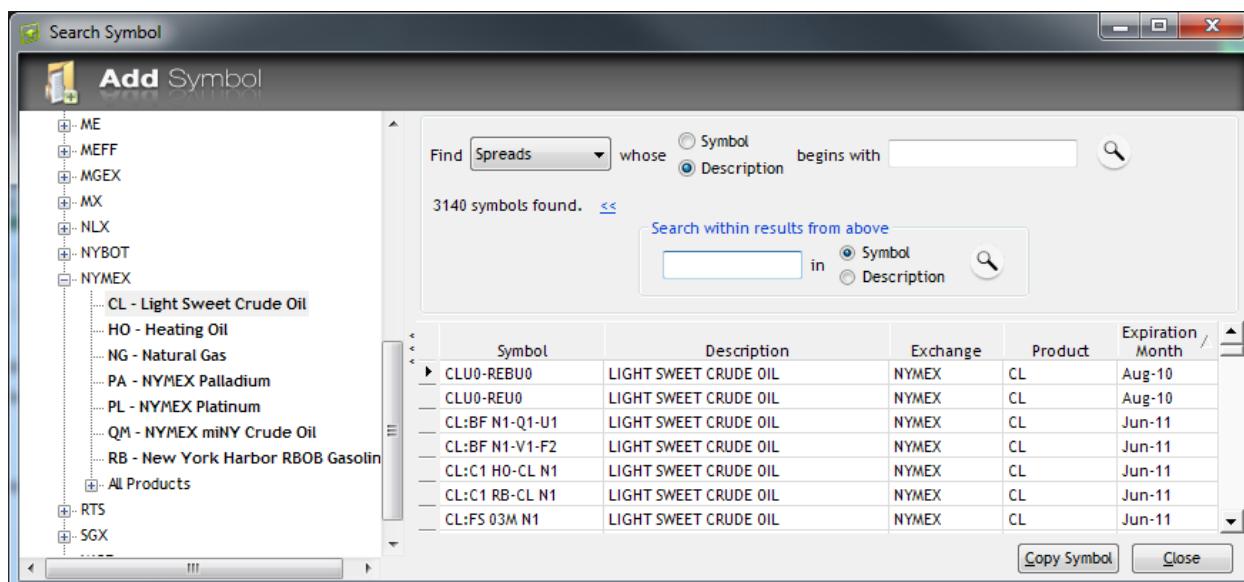
Double click on the product group to which the instrument you wish to trade belongs to start the search. At any time you may stop the search by clicking on the



As with searching through an entire exchange or across all exchanges you may narrow your search by selecting an instrument type from the drop down box at the top of the window and/or entering at least 2 letters in the box on the right. You may also direct the search to look at an instrument's symbol instead of its description by clicking on the radio button to the left of the word "Symbol".

## Refining Your Search

Once you have obtained a set of instruments from a multi-exchange, single exchange or product code search (the initial symbol set), you may refine your search. Click on "[Search within these...](#)" and the Add Symbol window will transform a bit to provide you with a mechanism to specify search criteria to be applied to the initial symbol set.



Type a set of characters in the box in the middle of the top part of the window, click on the Symbol or Description radio button (as above) and then click on the icon. R | Trader™ will search within the initial symbol set for all instruments whose symbol or description, as the case may be, contain the characters as shown in the box (the characters need not begin the symbol or description as the initial search requires). For example, if you were to type "z9" in the box above and apply it to the symbols in the initial symbol set pictured above, you would see a list of symbols similar to the ones pictured below.



**Search Symbol**

### Add Symbol

Find Spreads whose  Description begins with

24 of 406 symbols. << [Search within results from above](#)

Symbol	Description	Exchange	Product	Expirat Mont
BBN1-BBZ1	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Jun-11
BBQ1-BBZ1	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Jul-11
BBU1-BBZ1	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Aug-11
BBV1-BBZ1	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Sep-11
BBX1-BBZ1	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Oct-11
BBZ1-BBF2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBF3	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBH3	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBJ2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBJ3	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBK2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBK3	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBM2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBM3	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBN2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11
BBZ1-BBQ2	BRENT CRUDE OIL - FINANCIAL...	NYMEX	BB	Nov-11

[Copy Symbol](#) [Close](#)

Each instrument in the list obtained by the refined search (the secondary symbol set) contains the letters "z1" (case independent) somewhere in its symbol.

### Adding a Symbol to the Window that Launched the Add Symbol Window

To insert an instrument into the window from which the Add Symbol window was launched double click on the instrument or highlight it and click the button labeled "Copy Symbol" at the bottom.

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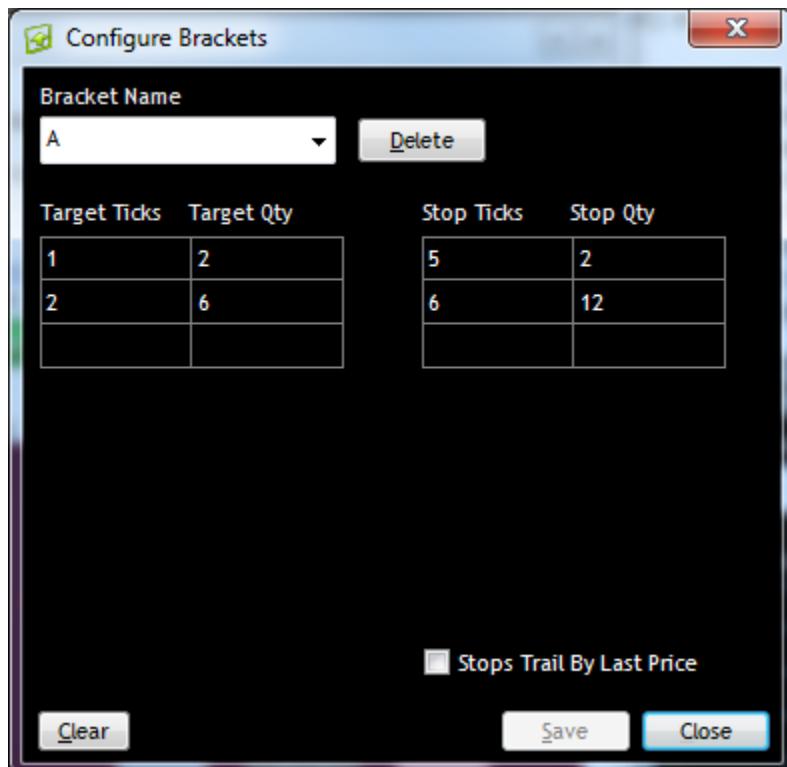
## Appendix E – Understanding and Configuring Brackets

### What is a Bracket?

A bracket is a set of orders that are placed around an open position to simultaneously establish a point at which the open position should be closed and profits taken or losses realized and limited. A bracket is used to limit, or bound (or bracket), a position's profit and loss.

A Bracket order combines an entry order, which when filled or partially filled, establishes an open position around which brackets are then placed, and a series of OCO orders that are placed to implement the bracket. One part of the OCO order is a limit order, the other is a stop (market) order.

A bracket can be configured in tiers or levels. For example, if an entry order for a buy quantity of 6 is filled, the bracket may be configured to close the position and take profits by placing an order to sell a quantity of 2, 1 tick above the price at which the 6 were filled, a quantity of 2, 2 ticks above the price at which the 6 were filled and a quantity of 2, 3 ticks above the price at which the 6 were filled, as in the Configure Brackets window below. Correspondingly, the bracket may be configured to dump 3 at market when the price of the instrument falls 5 ticks below the price at which the 6 were filled and 3 at market when the price of the instrument falls 7 ticks below the price at which the 6 were filled.





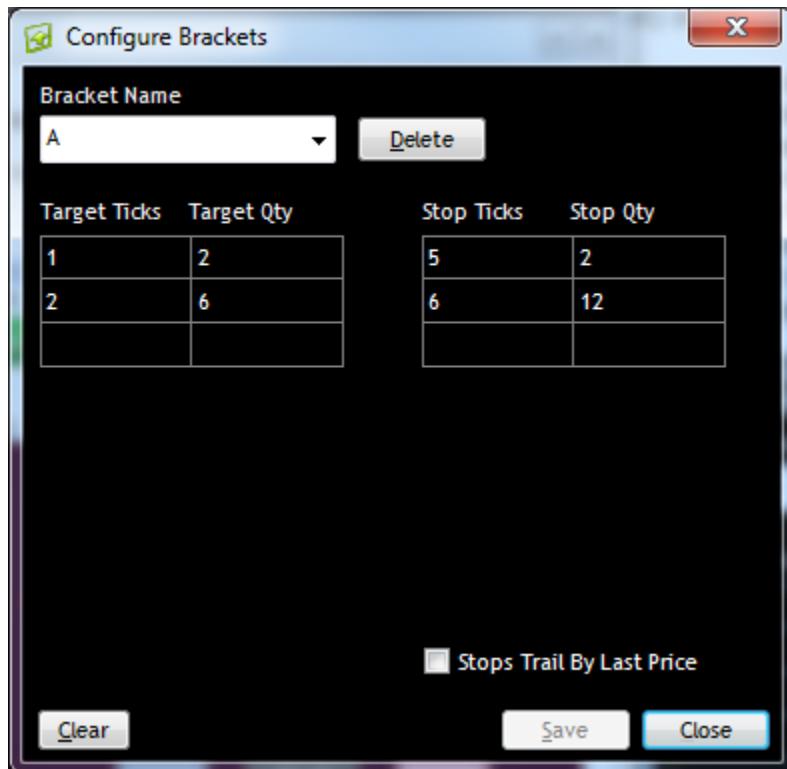
The price levels for taking profit are called target ticks or target levels. The price levels for realizing and limiting losses are called stop ticks or stop levels.

**Note:** The quantity of an entry order may never exceed the lesser of (a) the sum of the target quantities of a bracket or (b) the sum of the stop quantities of the bracket. Consequently, a bracket may be configured to handle quantities larger than required for a particular entry order. Configuring brackets to handle larger than required entry order quantities enables you to use such brackets on orders containing various entry quantities without having to have one bracket for each entry quantity.

### Creating a New Bracket

To configure a bracket click on the button labeled "Config" located in the Brackets box on the left of the top part of the Order Book. A Configure Brackets window will pop up empty if you do not have any brackets configured. Otherwise, select a bracket to view from the drop down box.

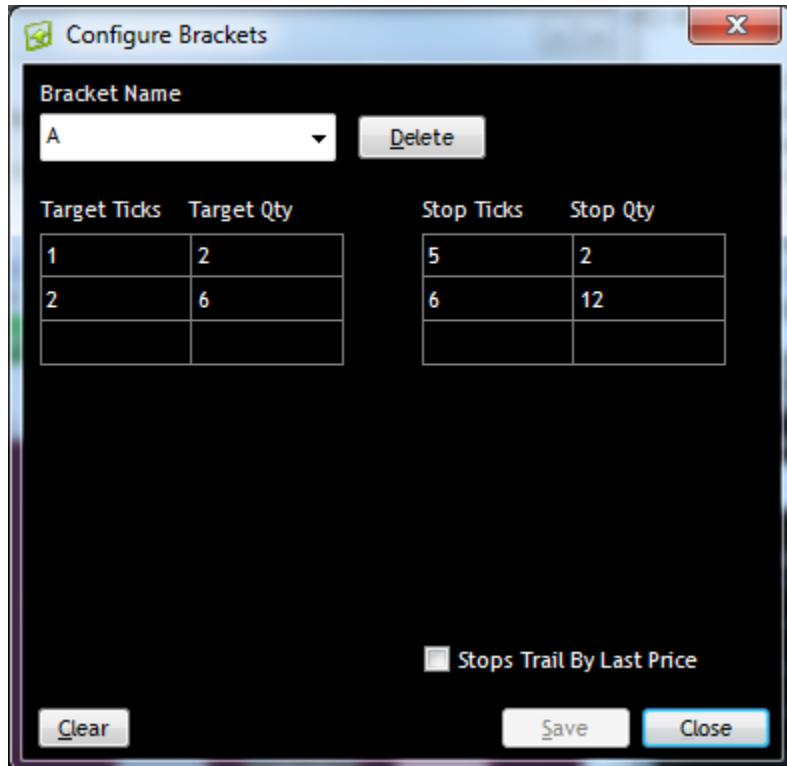
You may create a new bracket either by selecting (and even modifying) an existing bracket, overwriting its name and saving it, or by starting with a clear Configure Brackets window. If you have not previously saved any brackets then the Configure Brackets Window will be clear. Otherwise to start with a cleared window, click on the "Clear Window" button.



Type the name in the Bracket Name box under which the bracket configuration will be identified and saved. Click in the Target Ticks boxes to set the target levels (in ticks) for this bracket. Click in a Target Qty box next to a Target Ticks box to set the quantity for that target level. Click in the Stop Ticks boxes to set the stop levels (in ticks) for this bracket. Click in a Stop Qty box next to a Stop Ticks box to set the quantity for that stop level.



You may change the target ticks levels and associated quantities and the stop ticks levels and associated quantities by clicking in the box you wish to change. Type in a new value directly or click on the arrows to change the value. You may delete a Target or Stop level by right clicking on that level and selecting Delete from the pop window.



Save the bracket configuration by clicking on the "Save" button.

When you are done creating brackets click on the "Close" button.

### Deleting a Bracket

To delete a bracket click on the button labeled "Config" located in the Brackets box on the left of the top part of the Order Book. Select the bracket you wish to delete from the drop down list and click the "Delete" button.

When you are done deleting brackets click on the "Close" button.

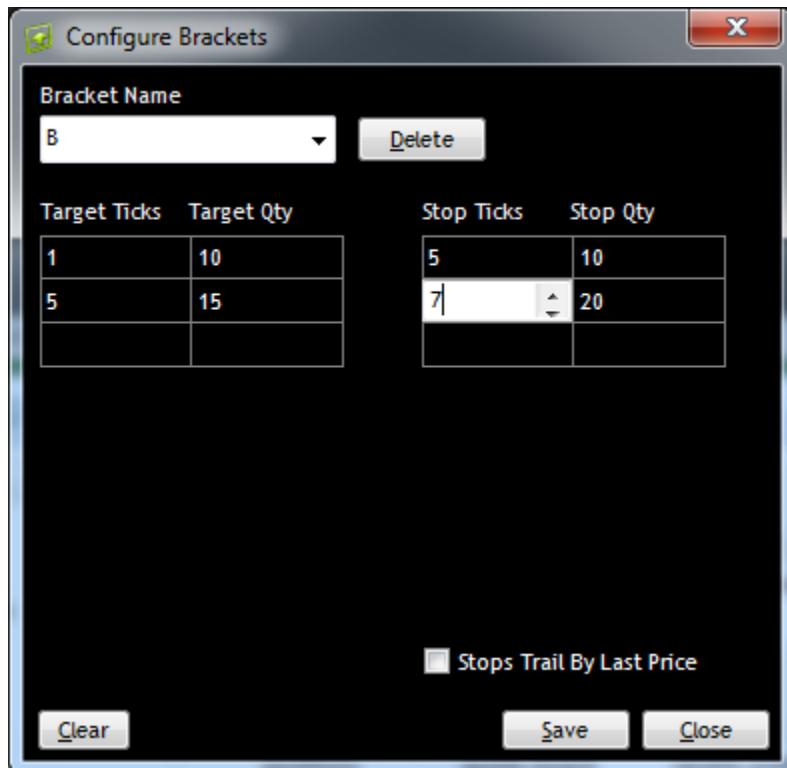
### Modifying a Bracket

To modify a bracket click on the button labeled "Config" located in the Brackets box on the left of the top part of the Order Book. Select the bracket you wish to modify from the drop down list.

You may modify the target ticks levels and associated quantities and the stop ticks levels and associated quantities of the bracket by clicking in the box you wish to change. You may type in



a new value directly or click on the arrows to change the value. You may delete a Target or Stop level by right clicking on that level and selecting Delete from the pop window.



Save the modified bracket configuration by clicking on the "Save" button.

When you are done modifying brackets click on the "Close" button.

