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OTC DEALER, version 5.3 USER GUIDE

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1. *Introduction*

The *OTC Dealer* is an application that provides access to OTC Markets Group's ("OTC Markets" or the "Firm") *OTC Link*, a Quotation and Messaging services. The OTC Link Quotation Service allows market participants to publish quotes that are disseminated in real-time over the Firm's proprietary network and through market data vendors. The OTC Link Messaging Service ("trade messaging") allows our broker-dealer customers to send trade negotiation messages and execution messages directly to other market participants.

The OTC Dealer connects to the Firm's servers either through a direct connection or across the public Internet. A dedicated connection is recommended when connecting over the Internet, using either a T1 (or higher), a DSL, or cable modem connection.

This guide describes the OTC Dealer application version 5.3. OTC Dealer is only supported on Windows XP operating systems, and later. Throughout the guide it is expected that users have basic knowledge of how to operate a computer, *i.e.*, point and click, select menu items, and manipulate windows.

See the OTC Dealer Install Guide for instructions on how to install the OTC Dealer application. The Install Guide as well as a copy of this user guide is available at:

<http://www.otcdealer.com/manuals>

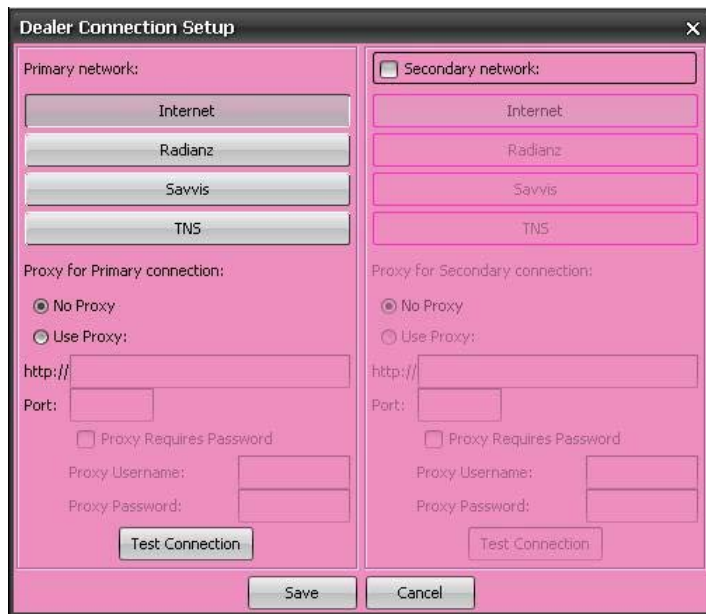
2. Getting Started

2.1 Launching the OTC Dealer Application

To launch the OTC Dealer on a Windows computer, double click on the OTC Dealer 5.3 icon on the desktop. Alternatively, the OTC Dealer can be launched from the Start menu by selecting "OTC Dealer 5.3" from the OTC Dealer 5.3 folder under the *All Programs* item in the *Start* menu.

The first time OTC Dealer is launched it opens up the Connection Setup dialog. This dialog can also be opened at any time by selecting the **Setup – Connection Setup...** command.

You must specify your primary network connecting you to the OTC Dealer servers. For your convenience we show the dominant service providers. Click on the button representing your primary connection. If you have two connections - for example, both a *Radianz* connection and Internet connection - you can specify one as primary and the other as secondary. **If your primary connection is not available, OTC Dealer will automatically switch over to the secondary connection to prevent an interruption of service.** Normally you would have a dedicated connection such as *Radianz* or *Savvis* as your primary connection and Internet as you secondary connection. To be able to specify a secondary connection, you must **first enable the option by checking the "Secondary Network" checkbox**, and the buttons representing the secondary connection then become available.



If your connection has a Proxy associated with it, specify that by selecting "Use Proxy" under the appropriate Primary or Secondary connection, and then specify the Proxy URL without the "http://" in front, and the port.

Finally, test if the connection is working by clicking the "Test Connection" button. To save the Connection Settings, click the "Save" button.

Finally, test if the connection is working by clicking the "Test Connection" button. To save the Connection Settings, click the "Save" button.

2.2 Logging In and Logging Out

Once your connection is established, the log-in window will appear. Type in your 4 character market participant identification (MPID) into the **MarketMakerID** field (for example "qxqx" or "QXQX"), your User ID as issued by *OTC Markets* (for example

"trader_a" or "TRADER_A") in the **UserID** field, and finally your password in the **Password** field. **Note: passwords are case sensitive; make sure you don't have the CAPS LOCK key on if your password contains lower case characters.** Finally, click the "Log in" button.

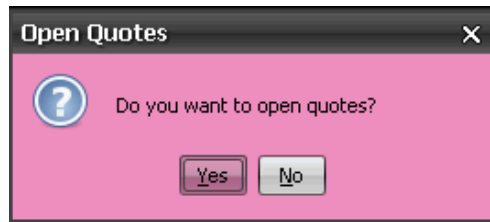


The log-in window displays the current version. If a newer version is available, it will offer you the opportunity to upgrade. As long as your current version is still supported you are not required to upgrade; however, if your current version is no longer supported, you will not be able to log in until you upgrade to a supported version.

In order to upgrade to a new version, you must download a new OTC Dealer installer and perform a new installation. Please refer to your technical support department if you are not sure how to perform the upgrade.

You are logged in when you have typed in your MPID/MMID, user name and password, and clicked the "Log in" button. You must be logged in to view information on the OTC Dealer, to submit quotations or update existing quotations, or to send trade messages to other subscribers.

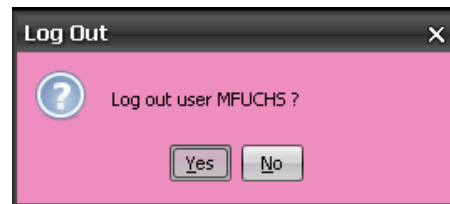
If you have quotes displayed on OTC Link you will be presented with a dialog prompting you to open your quotes when you log-in. Quotes are firm only when they are open. To find out more about open quotes, please read chapter 4.1 – *Opening and Closing Your Quotes*.



The History Server window opens after logging in. The History Server shows current and pending corporate action notices on OTC securities, such as Dividend X-dates, Splits, etc., and also allows users to search quotes and the OTC Link Messaging database. See chapter 6.1 – *History Server* for more information on History Server.

A message from the Firm may appear upon logging in. The message may inform you of upcoming changes, general comments, answers to frequently asked questions, or other topics of the day.

Selecting the **Setup – Log Out (F3)** command closes the connection to the OTC Dealer. This command presents a Log Out confirmation window. Clicking the "Yes" button logs you out of the OTC Dealer; clicking the "No" button cancels this operation without logging you out.



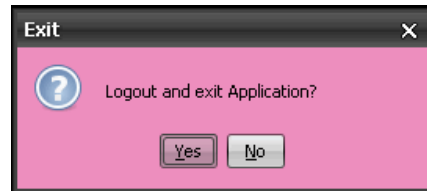
Once you have logged out, you will no longer receive updated information from the servers and will not be able to submit quote updates or send trade messages to other subscribers. **If you have not closed your quotes, you will be prompted by another dialog box asking whether or not you would like to close your quotes. Note: open**

quotes are still firm and you remain liable to honor those quotes. We suggest that you always close your quotes before logging out unless you have made arrangement for another trader at your firm to handle incoming trade messages attempting to access those quotes.

After logging out you are again presented with the log-in window.

2.3 Exiting the OTC Dealer

To exit the OTC Dealer application, select the **S**etup – **E**xit (*Ctrl-Q*) command or close the OTC Dealer window by clicking on the “x” in the top-right hand corner of the window. If you’re not logged in at this time, the OTC Dealer will quit immediately. If you are logged in when you exit the OTC Dealer, you will be requested to confirm your action. If you click “**Y**es” you will be logged out and the OTC Dealer application will quit. If you click “**N**o” the operation will be canceled without logging out or exiting the application.



Warning: Recall that if you log out without previously closing your quote, your firm quote liability will not have been extinguished. Receipt of incoming trade messages may result in regulatory liability. Always close your quotes before logging out unless you have made arrangements for another trader at your firm to monitor your quotes.

3. The OTC Dealer Window

The OTC Dealer window is the main window of the application. Through this window, you can view and control your quotes and set up trade messages to other market participants.



The following sub-chapters cover each area of the OTC Dealer window in detail.

3.1 The Menu Bar and Quick Access Buttons

At the top of the OTC Dealer window is the Menu Bar and Quick Access buttons.



The menu bar has five menus:

- **S**etup – to log in and out of OTC Dealer, change settings and exit the application
- **V**iew – to open new windows and search for securities
- **Q**uote – to manage quotes, and open and close traders
- **M**arket Info – to access company and security information on-line
- **H**elp – to access the on-line help system and information about the software

Throughout the remainder of this user guide, commands will be referred to as items in a specific menu. The menu is identified as ***bold-italic*** text, and the menu item as *italic* text. Example, the command to exit the application is ***Setup – Exit***.

There are also 10 Quick Access buttons in the Window & Web Toolbar. This toolbar may be ‘popped-out’ and moved as a separate window by selecting the square and arrow (pointing up) icon on the left. To dock the window, select a similar square and arrow (pointing down) on the toolbar.



Dealer Windows:

- **MQ** opens the My Quotes window; see chapter 4.5 – *My Quotes and Minders Windows*
- **MT** opens the My Ticker window; see chapter 4.6 – *My Ticker and Ticker Windows*
- **SK** opens the Speed Keys window; see chapter 4.8 – *Speed Keys*
- **QG** opens the Quote Guard window; see chapter 4.7 – *QGuard Window*
- **News** opens the News window; see chapter 4.9 – *News Window*
- **Print** prints the current montage
- **T.Pref** opens the Trader Preferences window; see chapter 3.8.1 – *Trader Preferences*

Web Quick Links:

- **Hist** opens the History Server main ‘Today’s Notices’ page
- **T.Hist** opens the History Server ‘OTC Link History’ page
- **Find** opens the History Server ‘Security Search’ page

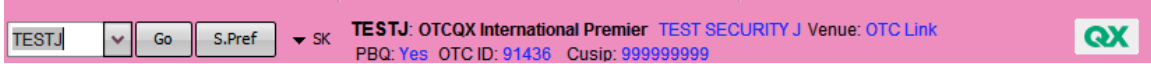
Finally, there is a button on the far right hand side to Open and Close Trader Quote. See chapter 4.1 – *Opening and Closing Your Quotes*. The text of the button changes depending on the current open status of trader as shown with text to the left of the button:

- **QOpen** opens Trader Quotes when trader is closed
- **QClose** closes Trader Quotes when trader is open

Some frequently used menu commands have keyboard shortcuts. These keyboard shortcuts are shown on the menus next to the appropriate menu command. Keyboard shortcuts are accessed either by pressing a function key on the keyboard or by holding down the Ctrl key while pressing the shortcut key. For example, to log in, users can press the F2 key on the keyboard, and to save the desktop, users can press the “S” key while holding down the “Ctrl” key (without holding down the Shift key).

3.2 Security Information Area

To view a security in the OTC Dealer window, type in the security identifier into the Security field (immediately below the Setup menu) and press ENTER on the keyboard or click “GO.” A security identifier is the trading symbol, CUSIP number, or internal OTC security ID (OTC ID).

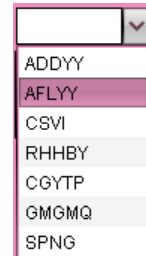


If you typed in a valid security identifier the detailed security information is displayed to the right of the security field. This information consists of the trading symbol, security name, Primary Venue, PiggyBack Qualification (PBQ, indicates whether a Form 211 filing is necessary to quote the security as a market participant; a qualified security does not need the filing), internal OTC ID and CUSIP number.

For OTCQX securities this section will display the OTCQX logo See www.otcq.com for more information on the OTCQX tiers. For non-OTCQX securities it will show other OTC tier information, *i.e.*, *OTCQB*, *OTC Pink – Current, Limited, or no Information*, etc., as well as *Caveat Emptor* warning when applicable. If trading in the security has been halted by FINRA or suspended by the SEC, a corresponding Halted or Suspended message will show in this area.

Quick Security Access

Recent Quotes - The drop down menu (represented by an arrow) next to the Security field lists the ten most recent securities pulled up by the user. If selected, the security will populate the security field and all applicable security information will be retrieved. You may navigate the quote history drop down by using the down and up keys. Clicking the symbol or selecting ‘Enter’ will populate the montage with the security selected.

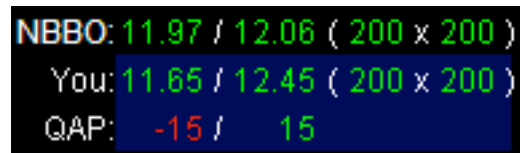


Speed Keys – If Speed Keys have been set up in Security Preferences, then to the right of the “S.Pr” button will be the Speed Key short cut button which when selected displays the users speed keys in a distinct layer. Users may select any of the speed key symbols to populate that security’s data in the main window.

You can set up Security Preferences for the security on the main window by clicking the “S.Pref” button next to the “GO” button. This opens up the Security Preferences window with the security pre-set for editing. See chapter 3.8.2 – Security Preferences.

3.3 NBBO, Your Quote and Trade Information

Below the security information area is the National Best Bid and Offer (NBBO). This is an amalgamation of the best quote from the quote displayed in OTC Link and the OTCBB, where available. If your firm has a quote for the security, your best bid and ask, quoted in OTC Link and OTCBB, is shown in the You area. If you have quotes on both venues, only the best quote will be shown. If you have specified QAP for your quote it will show below your quote. For more information on QAP see Chapter 4.2 – *Updating a Quote*. Normally, the background of the You and QAP quote information is blue, but it turns red if you have priced quotes on two venues and the prices don’t match.



Warning, FINRA requires that two priced quotations on the same security in two different quotation media that each accepts updates on a real-time basis be the same price. See FINRA rule 2320(f)(2).

The color of the NBBO and You quotes indicate on which venue the quote is at:

- Green, quote is on OTC Link
- Cyan blue, quote is on the OTCBB

If there is no inside or your firm does not have a quote for the security, then the corresponding information will be blank. Inside prices are only shown **when two priced, open quotes exist**. Insides are shown for each side independently; there can be an inside bid but not an inside ask and vice versa. For a definition of open and closed quotes, see chapter 4.1 – *Opening and Closing Your Quotes*.

If the security has traded on the current day, the trade information will be displayed on the right.

The screenshot displays trade information for the security TESTJ. The data is as follows:

Last	▲ 12.12	0.13 (1.08%)	13:15:32	Hi: 12.12	Lo: 11.87	PCL: 11.99	Vol: 205,627	Trades: 32
\$Vol:	2,467,331.84		VWAP:		11.99907			
Press Release							TESTJ starts trading on OTCQX International Premier	
							Hide More News	

Trade Information shows the last trade price, volume and time, High and Low for the day, Previous Closing Price (PCL), Volume for the day, total number of trades for the day (OTC Link and otherwise), Total dollar value of all trades and the Volume Weighted Average Price (VWAP) for the respective security.

If a news release or financial report was posted on the OTCIQ website by the company to which the security is associated, a notification will appear below the security trade data. OTC Markets Group will also post time sensitive corporate actions information as news releases. These will also appear below the security trade data. Users may navigate to the complete news story or report by selecting the item link – the full story or report will appear in a new browser window.

3.4 The Montage

The amalgamated Montage is displayed below the Security Information area. The montage is split in half; the left side shows the Bids ranked highest to lowest in price, and the right shows the Asks ranked lowest to highest in price. Your quote is identified with a blue background. Quotes being updated briefly flash by inverting the foreground and background color. On each side the best price (the inside) is shown at the top, other priced quotes are ranked below with the worst priced quote at the bottom. BW/OW quotes and Unpriced (U) are ranked below priced quotes. Closed quotes are placed below open quotes of same price type (priced, BW/OW or unpriced). If two market participants have the same price then the market participant with the higher QAP is ranked above, where positive QAP values represent a rebate and a negative QAP represent a charge. If two market participants have the same price and QAP the market participant with the greater number of shares (size) is ranked above. If all of price, QAP and size are the same then the market participant with earliest time of update is placed above. *Exception: all priced quotes in OTC Link are ranked above same price quotes from OTCBB.*

INTL	11.97	-10	200	12:39	JANE	12.06	10	200	12:51
ARCA	11.96	30	2000	12:58	AUTO	12.06		200	11:59
JANE	11.93	10	200	12:51	ARCA	12.11	-5	2000	12:58
ETRF	11.92		200	12:59	INTL	12.19		200	12:39
CSTI	11.80		200	12:18	HDSN	12.30		200	11:16
TEST	11.65	-15	200	12:51	ETRF	12.33		200	12:59
STXG	11.62		200	03/11	CSTI	12.35		200	12:18
MAXM	11.62		200	03/11	TEST	12.45	15	200	12:51
HDSN	11.60		200	11:16	GLCH	12.50		200	07:51
SUNR	11.59	-15	200	03/11	FORT	12.53		200	09:19

The montage shows the combined OTC Link and OTCBB quotes. If a market participant has quotes on both venues, both quotes are shown (unless the prices on both quotes match or either the quote is unpriced on OTC Link -- then, just the priced quote is shown). By placing your cursor over any quote on the montage, a box will open showing the price and size associated with stock quotation in both OTC Link and OTCBB.

The first column on each side shows the MPID of the market participant that is quoting the price. Quotes on OTC Link are regarded as market maker quotes by default. *Unsolicited* quotes, those reflecting unsolicited customer orders, are identified with a lower case "u" after the MPID. **The second column** shows the dollar price per share being quoted (on the left hand side the Bid and on the right hand side the Ask). Alternatively, quotes can be unpriced ("U"), Offer Wanted ("OW"), or Bid Wanted ("BW").

The third column shows the QAP. A positive QAP, representing a rebate, is shown in green, while a negative QAP, representing a charge, is shown in red.

The fourth column is the size in actual shares, e.g., a size of 200 means *two hundred* shares.

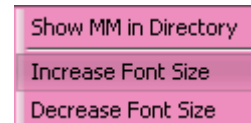
The fifth column shows the last time the quote was updated in military 24 hour format. If the quote has not been updated during the current trading day, the time columns shows the day it was updated in format MM/DD, or the text ">year" if it's been more than a year since the quote was last updated.

Double clicking on the MPID column opens a window with contact information for the market participant, which includes phone number(s) location and trader ID.



Double clicking on any other column than MPID sets up an OTC Link message. See chapter 5 – *OTC Link Messaging*.

Right clicking on the montage shows a menu that allows you to look up more detailed information on the Market Participant in the History Server by selecting the *Show MM in Directory* comment. This menu also has commands to increase or decrease the font size of the montage.



Quotes are identified by color. The meanings of the colors are:

- green – inside on OTC Link, open priced quote, i.e., top of the Montage

INTL 11.97 -10 200 12:39

- yellow – other OTC Link open quotes not on the inside

ARCA 11.96 30 2000 12:58

- cyan blue –OTCBB quote accessible through OTC Link (MPID has quotes on both OTC Link and OTCBB)

FANC	0.036	5000	11:22
------	-------	------	-------

- light purple – Unable to access OTCBB quote through OTC Link (trader is closed or does not have a quote on OTC Link)

GARC	Unpr		07:30
------	------	--	-------

- amber – closed quotes on OTC Link

cPINK	11.97	-15	200	03/15
-------	-------	-----	-----	-------

- gray – stale quote, OTC Dealer has lost connection to server

NITE	1.32	500	03/14
------	------	-----	-------

If a market participant has identical quotes for a security on both OTC Link and the OTCBB only the quote displayed in OTC Link will appear in the montage. In the event that quotes displayed on OTC Link and OTCBB differ, both quotes will appear in the montage unless one of the quotes is unpriced. In this instance, only the priced quote will be displayed. If the quote is unpriced on the OTCBB then the priced and unpriced quotes will appear. Any quote entered in OTC Link will be ranked on the montage above an OTCBB quote of same price, regardless of quote size or time of update.

Open priced quotes are considered firm by FINRA Rules

(see Notice to Traders <http://www.otcbb.com/news/2000/GeneralNews/headtrader20009.stm>)

Closed quotes on OTC Link, i.e., quotes from market participants who haven't opened their quotes, are shown in amber, but they also have a "c" preceding the MPID. See chapter 4.1 – Opening and Closing your Quotes, for a definition on open and closed traders.

When quotes are updated, they are briefly flashed in a reverse color. **If the Montage turns gray, it means the OTC Dealer has lost connection to the server. Please refer to chapter 3.8.1 – The Status Panel** for further explanation.

3.5 Trade & Advertisement Report Area

The trade and advertisement report area is located below the montage. The area displays trade and market maker advertisement data. The trade data displayed is from the FINRA/NASDAQ's real-time OTC trade tape. This data is an add-on service that must be activated by OTC Markets Group Inc. Advertisement data originates from the OTC Link system. Advertisements are trades in which at least one side of the trade decides to 'advertise' their participation.

Timestamp	Price	Volume	Tick Direction	Change
11:45:46	12.03	198	▲	+0.04
11:50:49	12.04	114	▲	+0.05
12:20:42	12.06	639	▲	+0.07
12:34:44	12.06	172		+0.07
12:35:44	12.06	274		+0.07
12:49:17	12.12	220	▲	+0.13

The report area has three separate tabs. The 'Trades' tab displays only OTC trade feed data. The 'Ads' tab displays only OTC Link 'advertised' trades. The 'Trades & Ads' tab displays both sets of data.

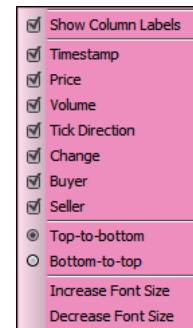
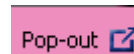
Trades display the following values: trade time, price, trade size, tick direction and net change from previous day's close. If the trade message is a trade cancel or correction message, a 'X' will appear at the beginning of the message for cancelled trades and a 'C' will appear for corrected trades.

Ads display the following values: trade time, price, trade size, buyer and seller. The buyer and seller fields will be populated by the applicable MMID or by 'ANON'. 'ANON' means that the respective party has decided to remain anonymous.

The 'Trades & Ads' tab displays all the above fields as they apply to the specific data type. In order to easily determine advertisements on this tab, an 'A' is shown at the beginning of every advertisement message.

You may minimize the entire Trade & Advertisement window by selecting the 'Hide' arrow button to the left of the 'Trades' tab. The same action on a 'Show' button when the window is minimized on an upward arrow will expand the window to its default size. To vertically expand or minimize the size of the trade report area, drag the dotted divider between the report area and the montage up or down.

You may 'Pop-out' the trades & advertisement window by selecting the Pop-out link and icon. Once the window is popped-out you may place it anywhere on your screen(s). Dealer will remember the window placement when you log off. To dock (return to the window to Dealer) the window, select the square and arrow (pointing down) icon on the top right of the window.



To hide or show columns labels, hide or show individual columns or alter the sort order of the data (top to bottom or bottom to top), you may right-click within the report area to view the preference menu.

3.6 The Message Pane

The Message Pane area shows all your incoming and outgoing trade messages. The Message Pane is covered in detail in chapter 5.2 – *Viewing Messages*.



3.7 The Status Panel and Alerts

3.7.1. The Status Panel



The title bar of the main window will show your log-in status; for example, "User TRADER_A logged in."

The status area at the bottom of the OTC Dealer window has 3 areas:



- At the far left there is a *latency indicator*. This indicator shows the latency in communication to our server. If latency becomes high, quote updates and message delivery times will be slow. Double clicking the latency indicator brings up the About OTC Dealer dialog showing detailed latency statistics. The area also doubles as an *activity indicator*; this indicator will move forwards and backwards whenever network activity exists between the OTC Dealer and its server.
- Connection Latency
 Current: 0.06s
 Minimum: 0.03s
 Maximum: 0.43s
 Average: 0.09s
 Sample Time: 4.50m
- The center shows *alerts, i.e.*, response on last user action. Clicking the *All Alerts* button opens up a window that shows previous alerts. See the next section for more on alerts. This area will switch to show *important status information* when applicable, such as information on a lost connection to the servers.
 - At the far right there is the *time of last message* indicator. This indicator will update about every 5-10 seconds with the current time. If it fails to update, it indicates a network problem exists and the OTC Dealer is not able to communicate with the server.

If there is a communication problem between the OTC Dealer and the servers, the status bar will show a message like, "Not heard from server since 12:00:00". **If this persists for a few seconds, the entire montage will turn gray.** This indicates that the OTC Dealer application most likely has temporarily lost connection to the server. **Even though you may still be able to view information stored locally in your computer's cache, the information you see on the screen might not be accurate.** As soon as the connection comes back up, the screen will revert to its regular colors. If the problem persists for a protracted period, users should call their in-house technical support or our help desk at 1-800-LIST OTC. If there is an issue with the OTC Link Quote system (quotes) or the OTC Link message system, alerts will appear on the Dealer interface. For more information see 6.3 Service Disruptions Alerts/Pop-ups.

3.7.2. Viewing Alerts

The Alerts Panel at the bottom of the window shows alerts that the system sends to you, such as notifications of successful or not successful operations. An alert will be sent each time you update a quote, open or close your market, or when you receive, send or execute against a trade message. Alerts are color-coded:

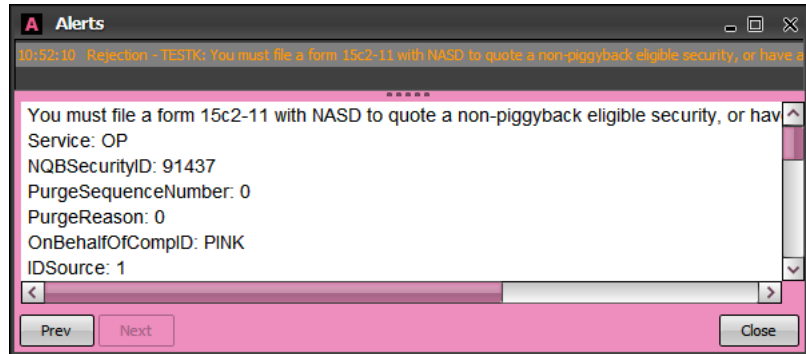


- Acknowledgements when successfully sending a trade message are shown in green text (successful quote submission is never acknowledged)
- Rejections for unsuccessfully submitted quotes and trade messages are shown in amber

The alerts panel only has room to show one alert, by default it's the latest alert received. To view other alerts, you can click on the "All Alerts" button to open the Alerts window shown at the right. The Alerts window shows a list of all alerts sent since you last logged on. By clicking on an alert in the list, the full message of the alert will be displayed. Double clicking on the single alert on the main window also opens up the alert window

and automatically displays the content of the message that is currently showing on the main window.

The alerts window scrolls rapidly during busy periods of the trading day, but will pause if you click on an individual message or move the scroll bar on the right. Scrolling pauses for 10 seconds with no mouse activity.



3.8 Setting Preferences

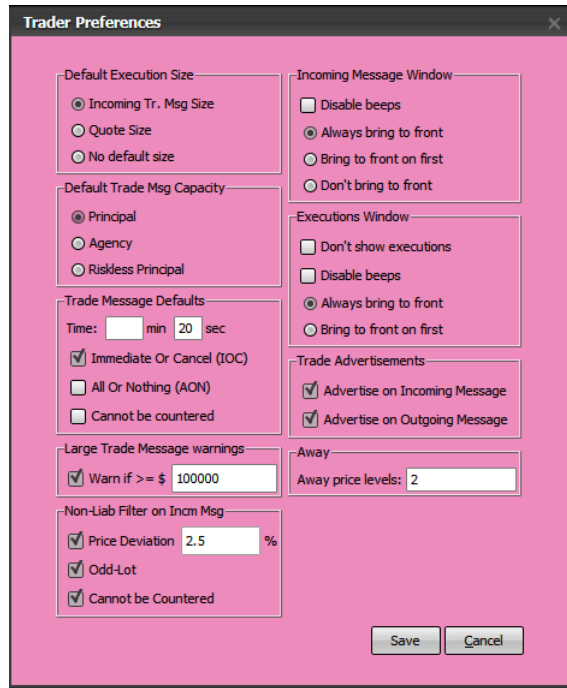
3.8.1. Trader Preferences

The Trader Preferences window is used to set up options for general behavior of OTC Dealer and OTC Link. Open the dialog with command **Setup – Trader Preferences...**, or click the **T.Prefs** button in the quick links toolbar at the top of the main window.

The dialog has eight sections:

The **Default Execution Size** section is for setting the default execution size on incoming trade messages:

- *Incoming Trade Message Size*, to set the execution size to the size of the incoming message
- *Quote Size*, to set the execution size of incoming messages to the size of your quote for the security
- *No default size*, assumes no default execution size, user must type in their own size



The **Default Trade Msg Capacity** section sets the default capacity on outgoing trade messages. These default values can always be changed when sending a message through the New Trade Message dialogs:

- *Principal*, message defaults to Principal
- *Agency*, message defaults to Agency
- *Riskless Principal*, message defaults to Riskless Principal

The **Trade Message Defaults** section is for setting the default parameters for new OTC Link messages other than Trade Message Capacity. These default values can always be changed when sending a message through the *Send a Trade Message* window:

- *Time*, the time the recipient has to respond to your message
- *Immediate Or Cancel (IOC)*, used to seek only an immediate response to your outgoing message
- *All Or Nothing (AON)*, used to seek only a complete fill to your messages, *i.e.*, no partial executions accepted
- *Cannot be countered*, used to seek complete acceptance by the recipient

The **Non-Liability Filter on Incoming Messages** section allows user to specify not to be informed of incoming non-liability messages that meet certain unfavorable conditions. The messages will still show up in the *Incoming Message Window*, but messages that meet the user criteria will not bring the window to the front and will never move automatically to the focus area. The criteria for filtering on non-liability messages that user can select are any or all of below:

- *Price Deviation*, along with user specified price deviation percentage, filter out those messages that have a worse price by the specified percentage or more than the user's quote, or
- *Odd-Lot*, filter out those messages that have size less than the lower of 100 or the quote tier size, or
- *Cannot be Countered*, filter out those messages that cannot be countered

The **Large Trade Message warnings** section shows a warning dialog if you attempt to send a new message that is greater than a set value.

- *Warn if >= \$*, when this box is checked you must specify the dollar amount in the accompanied input field. Whenever you attempt to send a message that is greater or equal to this amount you will get a warning that you must confirm to send the message

The **Incoming Message Window** section sets default behavior of the Incoming Trade Message Window:

- *Disable beeps*, check if you want the IOW to remain silent whenever a live message exists in the window
- *Always bring to front*, when set the IOW will always come to the front whenever a new message comes into the window
- *Bring to front on first*, when set the IOW will only come to the front when a new message comes into the window and the window does not already contain an active message
- *Don't bring to front*, when set the IOW will remain hidden from view upon the arrive of a new message

The **Executions Window** section sets default behavior of the Execution Confirmation Window:

- *Don't show executions*, check if you want the Executions Confirmation window to remain hidden from view
- *Disable beeps*, check if you want the Executions Confirmation window not to beep whenever it is showing

- *Always bring to front*, when set the Executions Confirmation window will always come to the front whenever a new execution comes into the window
- *Bring to front on first*, when set the Executions Confirmation window will only come to the front when a new execution comes into a closed window

The **Trade Advertisements** section sets default behavior for advertisements on outgoing and incoming trade messages

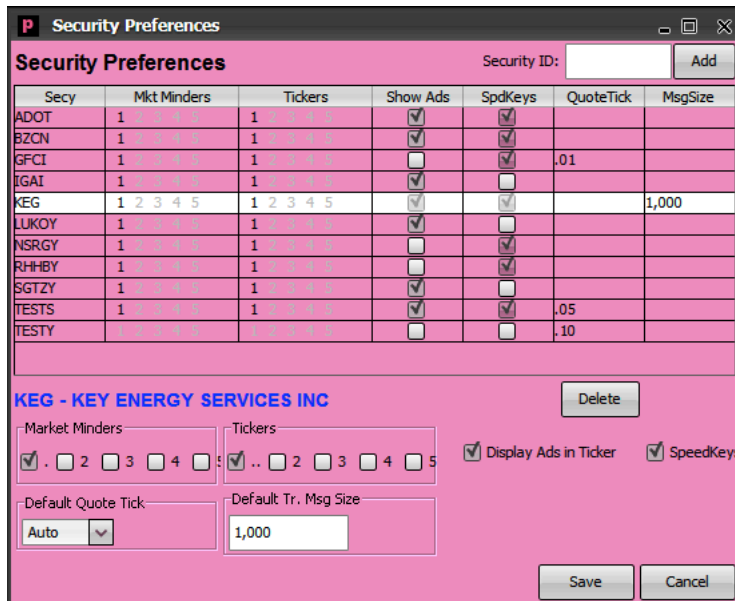
- *Advertise on Incoming Trade Messages*, check if you want as a default to advertise on incoming trade messages.
- *Advertise on Outgoing Trade Messages*, check if you want as a default to advertise on outgoing trade messages.

The **Away** section sets the number of price levels that the Away button will move a trader's quote. The Away button moves quote price lower on the bid side and higher on the offer side of the market. The default value is 2.

Click on the "Save" button to save your settings. The "Cancel" button will close the dialog without saving.

3.8.2. Security Preferences

The Security Preferences window allows you to set preferences to individual securities, such as default tick size, default trade message size, and if to display the security on any of the five Market Minder windows, the five Tickers (not the My Ticker), or the Speed Keys window. To open the Security Preferences window, choose the **Setup – Security Preferences...** command. Alternatively, you can click the "S.Pref" button next to the Security input field on the main window to set the preferences for the security currently being viewed on the main window.



To set up preferences for a new security, type in the "Security ID:" symbol into the field at the top right corner and click "Add" button. This sets up a preference for this security with default values.

The Security Preferences list shows all securities that have been set up with one or more preferences. Each line in the list consists of columns representing the preferences for that security. If you click on any line then the preferences for that particular security are shown in details below. You change the preferences either by changing the values in the detail area, or you may also change the values in the list.

You can set the following preferences:

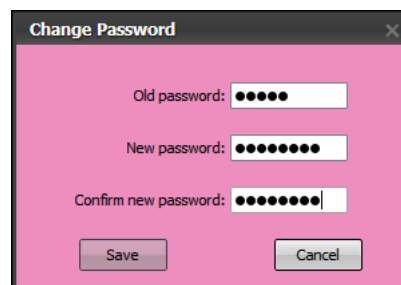
- **Market Minders**, checking a checkbox or highlighting a number in the MktMindere column will show the security on the corresponding Market Minder window.
- **Tickers**, checking a checkbox or highlighting a number in the Tickers column will show the security on the corresponding Ticker window.
- **Show Ads**, checking the checkbox in the details area or in the Show Ads column will show advertisement information on the Ticker windows, but not within the Market Mindere windows.
- **Speed Keys**, checking the checkbox in the details area or in the SpeedKeys column will show the security on the Speed Keys window.
- **Quote Tick**, select the quote tick from the pop-up menu. Selecting *Auto* means the default step based on the spread will be used. The Quote tick value will be pre filled in the quote step indicator next time you view the security on the montage. This value will change if you manually change the quote tick on the step indicator on the main screen. See chapter 4.2 – *Updating a Quote*.
- **Default Trade Message Size**, set the default shares you wish to trade in this security. When you open up the Trade Message Entry window the size field will be pre- filled with this value. See chapter 5.3.2 – *Sending Messages with the Trade Messages Entry Window*.

To delete preferences for a security, first click on the symbol in the list then click on the “Delete” button.

To save and apply the new settings, either close the window, in which case you will be asked if you want to save changes, or click the “Save” button. After the settings have been saved, all open windows affected by the new setup will be updated. To close the window without saving, click on the “Cancel” button.

3.8.3. Changing the Password

To change your login password, select the **Setup – Change Password** command. You will be presented with the Change Password dialog. Enter your old password for verification, then the new password twice for confirmation. **The passwords are case sensitive.** Click “OK” to make the change or “Cancel” to exit without changing the password.



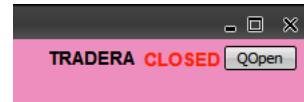
4. Viewing and Managing Quotes

4.1 Opening and Closing Your Quotes

OTC Markets does not set opening hours for traders so you must open or close your market when you want quotes to become firm or not firm. **Only when your quotes are open are your quotes considered firm by FINRA. Also, you will not be able to receive trade messages from other firms unless your quotes are open** (see chapter 5 – *OTC Link Messaging*). Closed quotes will always be ranked below any other quotes of same price type (priced, BW/OW or unpriced), and closed quotes can never affect the inside price of a security. The indicator at the top right hand side of the main window shows your current open/closed status.

To open quotes, you can:

- Click on the "QOpen" at the top-right hand corner of the OTC Dealer window (only applicable when your quotes are closed),
- Select the **Quote** – *Open Trader* command, or
- Hit the *F4* key.



Similarly, to close your quotes:

- Click on the "QClose" at the top-right hand corner of the OTC Dealer window (only applicable when your quotes are open),
- Select the **Quote** – *Close Trader* command, or
- Hit the *F5* key.

The easiest way to change your open status is to click the button at the top right hand side. If your quotes are currently closed, the button will say "QOpen". If your quotes are currently open, the button will say "QClose". Clicking the button will flip your open status, and subsequently alter the open status of all your quotes on all relevant montages and inside quotes.

When closing your quotes you will get a dialog asking you to confirm. Click on **Yes** button to close your markets.



When you open your quotes, only those quotes that appear in the My Quotes window will open, (see chapter 4.5 – *My Quotes and Minder Windows*). If a particular quote does not open, it is because someone else at your firm is quoting it, and thus, the quote is associated with another trader ID at your firm. To confirm this, double click on the MPID of the quote, and the information window will show you the trader who is associated with the quote (see chapter 3.4 – *The Montage*). If this window shows another trader at your firm as the owner, you may still be able to update the quote because of your update privileges, but you cannot open the quote. You either need to ask the other trader to open his quotes, or you can remove the

quote and then add it back on. The quote will then be associated with your trader ID. See generally chapters 4.3 – *Adding a Quote* and 4.4 – *Removing a Quote*.

4.2 Updating a Quote

4.2.1. Quote Update Window

Clicking the “Update” button on the main window or using the keyboard shortcut ‘Ctrl - U’ brings up the Update Quote window where you may specify the bid and ask prices and sizes.

Your current quote is shown at the top. Your quote is in dollar amount by default. You simply enter the bid and ask price into the “Pr” fields. Alternatively you can have an unpriced side by clicking the “Unp” button at the corresponding side, or you can set it to Offer Wanted (OW) or Bid Wanted (BW).

You may submit one-sided quote updates by populating values on one side of the quote and leaving the other side blank. The current quote price will not change if it was omitted before clicking the “Update” button. For example, if you have an existing two-sided priced quote for a security and you update only the price on the bid side then only the bid side will be updated and given a new timestamp. The ask side will not be updated and will keep the existing timestamp.

If you specify only price and no size, the size will default to different values depending on the type of security and the unsolicited status of the quote:

- For securities other than bonds having non unsolicited quote, **Dealer will submit the default minimum size as specified in FINRA Rule 6650, *Minimum Quotation Size Requirements for OTC Equity Securities*, for the price you specified.** You are allowed to specify a size greater than the minimum size. If the

size entered is lower than the minimum required at the price, the quote update will be rejected.

- For unsolicited quotes and quotes for securities that are bonds, Dealer will submit the previous size of the quote. Unsolicited quotes have a minimum of 100 shares while quotes for bonds on the Yellow Sheets have a minimum of 1 share.

The QAP value, or Quote Access Payment, is a value that represents a fee to be paid for accessing your quote through OTC Link Messaging, or a rebate you pay back. The QAP ranges in value from -30 to 30 for stocks and -300 to 300 for bonds. Negative values represent net fees and positive values represent rebates. For more information on QAP see documentation at <http://www.otcmarkets.com/content/doc/qap-introduction.pdf>

To submit your quote, click the “Send” button or click “Cancel” to cancel.

4.2.2. Quote Update Buttons

The area above and to each side of the Montage holds a range of buttons to update your quotes. These buttons do not work for unsolicited quotes; you can only update your unsolicited quote by using the Update Quote dialog. If your firm does not have a quote for the security currently on Montage or the quote is unsolicited, this area will be mostly disabled except for the “Update” / “Add” button.



The row of quick quote update buttons (to the right of the Update button and alongside the montage) are used for updating the prices on both sides of the quote by a particular step amount. Size will not be submitted when these buttons are clicked, meaning size will be treated as specified in the previous chapter.

Up and Down buttons move the quote up or down by the amount specified with the step indicator, between the up and down button. If you change the step indicator for a security then the same step tick will automatically be used next time you view the security. You can also set this through the Security Preferences window. See chapter 3.8.2 – *Security Preferences*. When clicking on the dual sided Up or Down button, both sides of your quote are updated by the same amount, thus maintaining your spread. The Up button on the left increases the prices on both sides thus moving the quote closer to the inside on the bid side and away from the inside on the ask side; the Down button on the right decreases the prices on both sides thus moving the quote away from the inside

on the bid side and closer to the inside on the ask side. The dual sided QAP Up and Down buttons increase or decrease the QAP on both sides of the quote by 1.

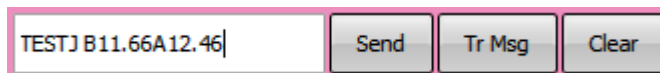
Clicking the "Unpr" button makes both sides of your firm's quote unpriced. The "Min Sz" button sets your quote size to the minimum size required for the price. The "Rmv" button brings up a dialog asking you to confirm that you wish to remove the quote. See chapter 4.4 – *Removing a Quote*.

The quick quote update buttons on each side of the montage only affect the corresponding side of the quote. The Up and Down buttons move the bid/ask price up or down respectively by the amount specified in the step indicator above the montage. The "Join" button has a dual function. Clicking "Join" usually brings the bid/ask to the inside, *i.e.*, matches the highest bid or lowest ask. However, if you first click on a quote in the montage to select it and then click "Join", the quote will be updated to equal the price of the quote that was selected. Clicking "Best" moves your quote \$0.01 above the highest bid or \$0.01 below the lowest ask. "Away" moves the quote down the montage (lowers the bid or increases the ask price). More specifically, clicking "Away" will take the price down two price levels, which will match it with a quote that is second best below your current quote. The QAP Up and Down buttons increase or decrease your QAP by 1.

Note: All quotes above a dollar will be rounded to the nearest penny for OTC Link only securities. All quotes (Dually quoted and OTC Link only) below one dollar may be precise to four decimal places.

4.2.3. Quick Quote Update Text

Another way to update your quote is through the quick entry field. It's located above the montage in the center of the window. This field is also used to submit trade messages (see Chapter 5 – *OTC Link Messaging*).



The syntax of the input text determines whether the text is taken as a quote update or a trade message string. The quote update string has the following syntax:

symbol –space– **B***bid* **BS***bidsize* **A***ask* **AS***asksize*

"Symbol" is the symbol of the security. Follow the symbol with a space. To change the Bid (Ask) price, type in "B" ("A") followed by the bid (ask) price, etc. For example: "**TESTJ B11.66BS200A12.46AS200**" sets your quote for security "TESTJ" to 11.66 / 12.46 (200x200).

To submit your quote update, click "Send" or press ENTER on your keyboard.

All parameters are optional. If no symbol is specified it will submit a quote update for the current security on the montage. If B and/or A parameters are omitted, the bid and/or ask price will remain unchanged, and if BS and/or AS are omitted, the bid and/or ask size will revert to the minimum quote size required by FINRA Rule 6650. For example: "**TESTJ B11.66BS200**" only affects the bid side of the quote and leaves the ask side unchanged, and "**TESTJ B13.05**" sets the bid to 13.05, but bid size and ask side remain unchanged. Entries that only affect one-side of the quote will only update the applicable side. The unaffected side will not be updated and the time-stamp associated with the unaffected side will not change.

QAP cannot be set with the quick quote update text.

4.2.4. Risk Controls When Updating Quotes

You can update quotes belonging to other traders at your firm as long as you have the required update privileges. There are three levels of update authority: 1) own; 2) location; and 3) market participant. These authorize you to update only your own quotes, all quotes by traders at your location, or all quotes at your market participant firm. Only OTC Markets Trading Services can set the update authority. Call **1-800-LIST-OTC** to ask about your authority level or to make changes.

OTC Link will reject all quotes that lock or cross the market unless you have explicitly checked the “Allow quote to lock/cross market” checkbox on the Quote Update window before you submitted the quote. You will not be warned before submitting a quote if your quote update will lock or cross the market. You are not allowed to self lock/cross your quote, regardless whether you checked the “Allow quote to lock/cross market” checkbox or not.

The “Unsolicited quote” checkbox on the Update Quote window shows whether the market participant is quoting the security solicited or unsolicited. The solicited/unsolicited status can only be set when the quote is added, not during an update. If you want to change the unsolicited status of an existing quote you should first remove it and then add it back with the desired unsolicited status. See chapters 4.4 – *Removing a Quote* and 4.3 – *Adding a Quote*.

You will be warned if a quote update is rejected for any reason, and you will receive a notification from the system that can be viewed in the Alerts window (see chapter 3.8.2 – *Viewing Alerts*). If set in advance, your QGuard box will open also to indicate you quote has been rejected. See chapter 4.7 – *QGuard Window* on quote warnings.

4.3 Adding a Quote

To submit a new quote for a security, you must first bring up the selected security in the montage. If your firm does not have a quote for the security on the montage, the quote update button changes to “Add”. You may also bring up the Add Quote window by using the keyboard shortcut ‘Ctrl - U’.

You can submit a new quote for a security to OTC Link, provided that:

- your market participant ID is not already employed to quote the security
- the security exists in OTC Link
- if the security is an equity, it is “PiggyBack” qualified or the quote represents an unsolicited customer order

Clicking the “Add” button or selecting command **Quote** – *Add quote* will bring up the Add quote window. The Add Quote window is identical to the Update Quote window except that no current quote is shown and the “Unsolicited quote” check box is enabled.

Unsolicited quotes are quotes entered by a dealer on behalf of a



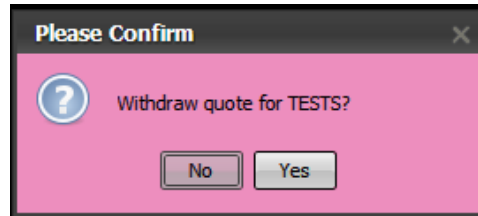
customer or a customer of another FINRA member firm. Although it is possible to enter an unsolicited quote for a non-PiggyBack eligible security that is quoted on an unsolicited basis by other firms, this feature is not intended to bypass FINRA’s Form 211 process.

You will be warned if a new quote is rejected for any reason, and you will receive a notification from the system that can be viewed in the Alerts window (see chapter 3.8.2 – Viewing Alerts).

4.4 Removing a Quote

If you click the “Remove” button on the Quote window or choose the **Quote – Remove Quote** command, you will be presented with the Remove Quote confirmation window. This command will be disabled if you are not viewing a security or if your firm does not have a quote for the security you are viewing.

Click “Yes” to remove your firm’s quote, or click “No” to close the window without removing the quote.



4.5 My Quotes and Minder Windows

The My Quotes window is a special instance of the Market Minder windows that is preset to show all your quotes on OTC Link and OTCBB. “My Quotes” represents all quotes by your firm that are associated with your trader ID. It does not show quotes by other traders at your firm. To open the My Quotes window, click on the “MQ” button at the top of the OTC Dealer window or choose the **View – My Quotes** command.

Symbol	MBid	MAsk	MBSz	MASz	Bid	Ask	BSz	ASz	LastPx	LastVol	LastTime
OTCM	5.03	6.00	500	500	16.00	6.00	200	500	5.80		03/16
TEST.B	Unpr	Unpr									
TESTJ	11.65	12.45	200	200					7.99		12/15/2010
TESTS	Unpr	Unpr									
TESTY	Unpr	Unpr									

Other Market Minder windows can be configured to show any security you want by using the Security Preferences window (see chapter 3.8.2 – Security Preferences). Market Minder windows are opened by selecting the appropriate window from the **View – Market Minder** command.

Each line of the Market Minder windows shows quote and trade information for the security. Double clicking on any line pulls up the montage for the security on the main Dealer window.

If your firm has a quote for the security, it will show in the 4 columns MBid, MAsk, MBSz and MASz, for the bid price, ask price, bid size, and ask size respectively. The inside quote is shown in the Bid, Ask, BSz and ASz columns in the same manner. Quotes are colored according to where they originate. If the inside quote is displayed on OTC Link, it is shown in green. If the inside is on the OTCBB, it is shown in cyan blue. If your best quote is displayed on OTC Link, it will be displayed either in yellow, or in green if you

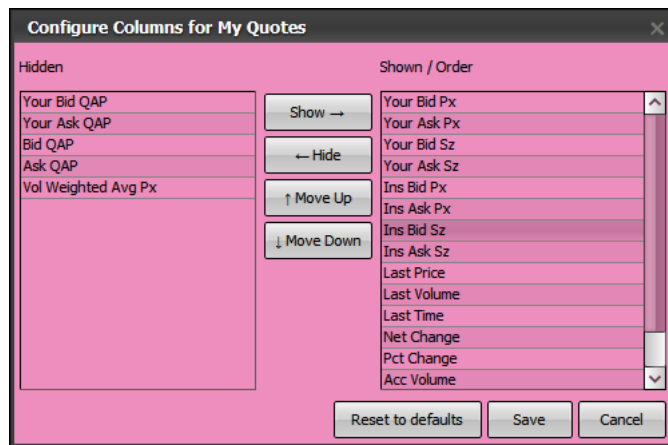
have the inside quote is displayed on OTC Link and that quote is open, or in amber if your quote is closed. If your best quote is on the OTCBB and it is open, the quote is shown in cyan blue, or purple if your quote is closed or you have no displayed quote on OTC Link.

N.B. If you have priced quotes on both OTC Link and the OTCBB, but the price differs, the columns showing your firm's quote will have a red background.

The trade information consists of Last Price, Last Volume, Last Time (of trade), Net Change, Percentage Change, Accumulated Volume, Total Dollar Volume, Trades (number of trades today, as reported to NASDAQ) and VWAP (Volume Weighted Average Price).

You can click on any column heading to sort by that column. Click again to reverse sort. Sorts are not dynamic, but the window gets sorted every time you click on the heading.

Each Market Minder window, including the My Quotes window, can be independently configured to show or hide each column and specify in which order the columns appear. Click on the **Configure...** button at the top of the corresponding Minder window to open up the *Configure Columns* dialog. You can click on any column name and move them from the Shown/Order column to the Hidden column or vice versa by clicking on the **<Hide<** or **>Show>** buttons respectively. Similarly, click on a shown column to **Move Up** or **Move Down** in the column order; the top column in the list will appear on the left of the My Quotes window. To save your settings, click on **Save**, or click on **Reset to defaults** to go back to default settings, or **Cancel** to close without saving your changes.



To alter the securities within your market minders you may select the 'S.Pref' button to the right of the 'Configure' button.

4.6 My Ticker and Ticker Windows

The My Ticker window is a special instance of a Ticker window that is preset to show all your quotes on OTC Link and OTCBB. The My Ticker window will show quote updates, inside changes, trade data and advertisements for securities that are currently associated with your trader ID. The securities shown on the My Ticker window are the same that appear on the My Quotes window. To open the My Ticker, click on the **"MT"** button at the top of the OTC Dealer window or choose **View – My Ticker** command.



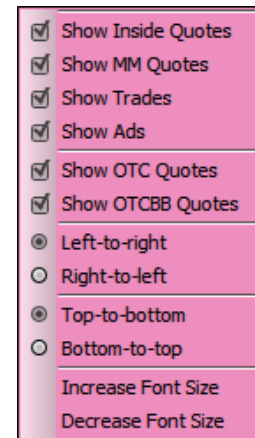
Other Ticker Windows can be configured to show any security you want by using the Security Preferences window (see chapter 3.8.2 – Security Preferences). Ticker Windows are opened by selecting the appropriate window from the **View – Tickers** command.

The Ticker window shows market participant quote movement, inside quote changes, trade data and advertisements for securities set up for the appropriate Ticker, or in the case of My Ticker, any security that you are quoting. If the trade message is a trade cancel or correction message, a 'X' will appear at the beginning of the message for cancelled trades and a 'C' will appear for corrected trades.

By right clicking on a ticker you specify what information to show on the ticker. Check *Show Inside Quotes* to show the inside quotes, *Show MM Quotes* to show any quote update, *Show Ads* to show advertisement data and *Show Trades* to show trade information. You can further filter the quotes to show you OTC Link and/or OTCBB quotes. You can also set the direction of the Ticker and alter the font size.

Inside Quotes are identified by a green symbol, followed by the current inside quote. The color of the bid and ask indicates where the price is:

- green indicates a Quote displayed on OTC Link
- cyan blue indicates OTCBB price and that the market participant is accessible via the OTC Link Trade Message
- purple indicates an OTCBB price but the market participant is inaccessible via OTC Link trade message.



Market Participant quotes are identified by a yellow symbol followed by the MPID. The color of the quote is identical to the inside quote above.

Trades are shown in white text, with a green up tick or red down tick symbol.

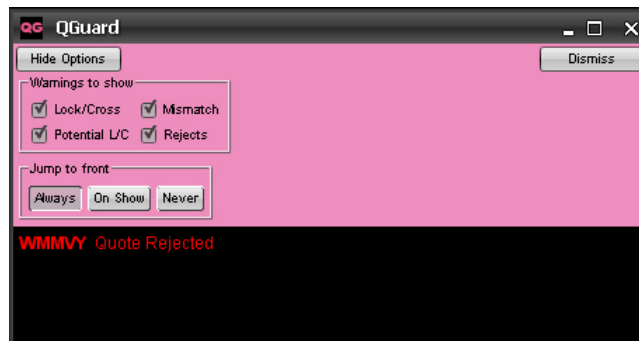
Advertisements are shown in pink text, with the first displayed MPID being the buyer and the second MPID being the seller. If the MPID shows as 'ANON' it means that the respective party chose not to advertise.

Tickers do not show QAP values that may be associated with Market Participant quotes.

4.7 QGuard Window

The QGuard window watches your quotes and warns you of potential exposure to bad quotes and lock/cross situations. To open the QGuard window, click the **QG** button at the top of the main window, or select **View – QuoteGuard** command.

The window shows a list of securities that fulfill preset conditions that you can control. Its purpose is advisory only and it does not attempt to correct any bad quotes



automatically. By double clicking on any item on the window you can view the security on the main window and alter your displayed quote.

Clicking on the “Show Options” button reveals a setting panel. You can specify which conditions to watch:

- **Lock/Cross**, shows securities you are quoting which have a locked or crossed market
- **Potential L/C**, when your quotes are closed, this feature shows securities you are quoting that may have a locked or crossed market upon opening your quotes
- **Mismatch**, shows securities you are quoting which have different quotes displayed on OTC Link and the OTCBB
- **Rejects**, shows securities that get a quote update reject message

In addition, you can set the behavior of the window when a new warning arrives. You can set the window always to jump to front on a new warning, only jump to front when the first warning of the window arrives, or never jump to front.

To hide the setting panel, click on “Hide Options”. Click the “Dismiss” button to close the window.

4.8 Speed Keys

The Speed Keys window has a number of hot buttons that give one-click access to security information on the OTC Dealer window. To open the Speed Keys window (shown below), you may click on the “SK” button in the quick links toolbar at the top of the OTC Dealer window, select the “SK” button next to the security submission text box or choose the View – Speed Keys command.

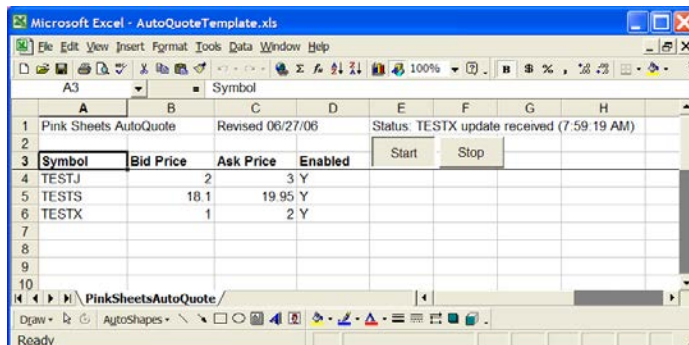
The caption of each button is the symbol of the security to which it corresponds. The buttons will be sorted alphabetically by their caption, starting at the top-left corner, then going across, fitting as many buttons as possible, before continuing on the next line.



You can choose which securities you want to have represented on the Speed Keys window. See chapter 3.8.2 – *Security Preferences* for detailed instructions on this function.

4.9 Auto Quoting with Excel – for ADR, Foreign Ordinary & Convertibles

The Auto Quoting feature allows you to calculate your quotes in Excel and have them automatically submitted to the OTC Dealer to be published in OTC Link. This feature has been tested on Windows XP with Excel



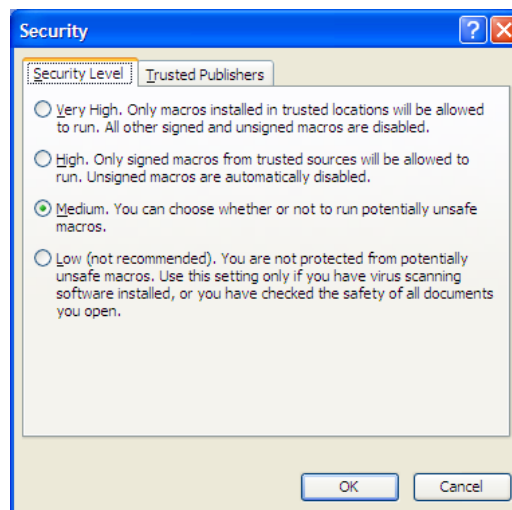
2000, 2003 and 2007. It may work on other versions but OTC Markets does not offer support unless you use the above versions. **The Auto Quoting feature is not connected to OTC Link and does not automatically respond to incoming Trade Messages.**

You must be entitled by the OTC Markets Group/OTC Link to use Auto Quoting. Please contact OTC Markets Group at 1-800-LIST-OTC to inquire about enabling Auto Quoting on your account and PC.

4.9.1. Setting Up Auto Quoting in Excel

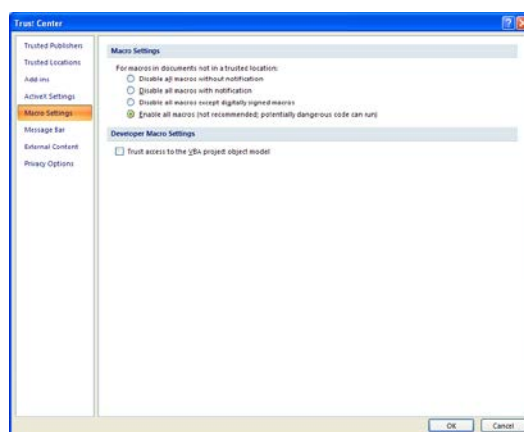
To use Auto Quoting you must first set up your Excel workbook to include a worksheet called *OTCLinkAutoQuote*, which comes in a workbook called *AutoQuoteTemplate.xls* and was installed with the OTC Dealer. **Macro Security in Excel must be set to Medium or lower for Auto Quote to work. In Excel go to Tools – Options, then click on the Security tab, then click button Macro Security and set the security level to medium.**

Excel 2007 users must turn on macros by default so that they are not prompted to do so every time the file is opened. This may be done by selecting: Office Icon > Excel Options > Trust Center > Trust Center Settings > Macro Settings



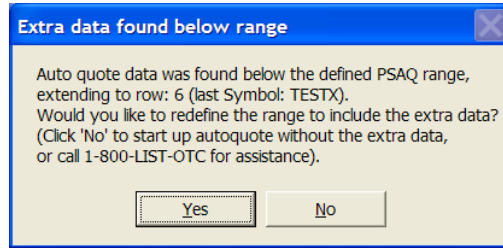
The *OTCLinkAutoQuote* worksheet contains 4 columns labeled *Symbol*, *Bid Price*, *Ask Price* and *Enabled*. It also has two buttons, *Start* and *Stop*. You must fill in the columns with appropriate links to information terminals like Bloomberg or Reuters, or, alternatively, have them point to a second workbook where calculations are done based on information from such information terminals. To clarify, the 4 columns you must fill in are:

- Symbol, the symbol of the security
- Bid Price, usually a formula you create to calculate your bid or 0 (zero) for an unpriced bid
- Ask Price, usually a formula you create to calculate your ask or 0 (zero) for an unpriced ask
- Enabled. This column should be populated with “Y”, “YO” or “N”, indicating whether this quote should be automatically submitted to the OTC Dealer. “YO” is identical to “Y” but will overwrite the lock/cross check on quote submission, *i.e.*, it will allow you to lock or cross the market when Auto Quoting.



The final step is to define the range where your data is contained. The range should be 4 columns wide and contain at least as many lines as the number of securities you wish to

Auto Quote. The range comes preset to include up to 30 lines of data. The range will then auto adjust. If it detects Auto Quote data below the defined range it will present the dialog shown to the right. Clicking Yes will auto adjust the range.



To adjust the range manually, select the **Insert – Name / Define** command in Excel. This presents you with the dialog shown on the right.

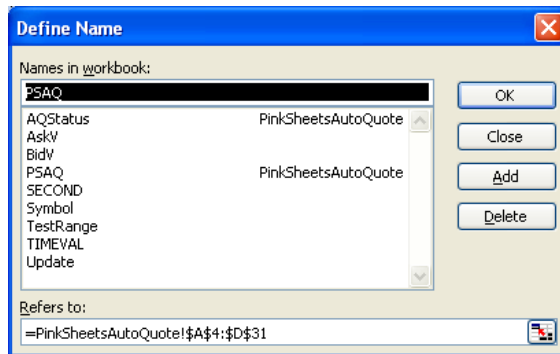
Locate and click on the “OLPSQS” in the list under “Names in workbook”. You can then edit the range where your data is contained in the *Refers to* section. Remember to exclude the top line where the heading is. It does not matter if you define the range deeper than your data as all empty lines will be ignored.

In the example above, we selected columns A through D and lines 2 through 6, omitting the top line where the captions are. You can also specify the range manually in the “Refers to” field by typing in

=OTCLinkAutoQuote!\$first_col\$top_row:\$last_col\$bottom_row

You should substitute “first_col” with the first column of the data -- in this example “A”, etc.

Click “OK” to save your range and then save your workbook.



The range should always be exactly 4 columns wide. You can define a range that is much deeper than your current data, e.g., if you had specified rows 2 through 200 above, only rows containing data will be used. This is useful if you want to be able to add more securities for Auto Quoting later without making changes to your range definition. **You can always use the Insert – Name / Define command in Excel to change the definition of your range, just click on the “OLPSAQ” item in the list and then edit the definition in the “Refers to” field. You should always check that newly added securities to your data fall within the range you have defined; otherwise, they will not be part of your Auto Quote data.**

Excel 2007 users may have to extend their lookup range. Select the “Refers to” box and make sure the range covers all the cells on your spreadsheet.

4.9.2. Using Auto Quoting with the OTC Dealer

You are ready to start Auto Quoting in the OTC Dealer once you have set up your Excel worksheet as specified above and have been entitled to use auto quoting. If you have just been entitled to use Auto Quoting, you may have to log out of your Dealer application and log back in again before you can start Auto Quoting.

To enable Auto Quoting, you have to start your Excel application and open the workbook that contains the “OTCLinkAQ” worksheet. You must then click the “Start” button in the Excel spreadsheet.

The symbol column in the My Quotes window will turn green for every security you have included in your Auto Quote list and where the *Enabled* column is either “Y” or “YO.” To

stop auto quoting temporarily in one particular security, change the value in the *Enabled* column to “N.”

If a quote update fails with Auto Quote, the symbol column will turn red.

You are not allowed to Auto Quote a security that does not appear in your My Quotes window. If you want to Auto Quote a security your firm is quoting, but it does not show in your My Quotes window, remove the quote and then add it back in. It should now be in your account and displayed on your *My Quotes* window.

If you want to add securities to your Auto Quote list during the day, add the security to the list in the Excel auto quote workbook, stop Auto Quoting briefly and start it again.

Auto Quote will always submit the minimum size required for the price, as specified in chapter 4.2 – *Updating a Quote*. Bid prices will be reduced down to the nearest 1 cent (\$.01) if the price is less than one dollar, and down to the nearest 5 cents (\$.05) if the price is 1 dollar or higher. The same rule applies to ask prices, except that prices are increased up to the nearest 1 cent or 5 cents.

To stop Auto Quoting completely, click the “*Stop*” button in the Excel spreadsheet. The symbol column on your My Quotes window will turn white when Auto Quoting has been disabled.

5. OTC Link Messaging

5.1 Introduction

OTC Link enhances the trading process for OTC securities with an electronic link for instant communication, straight through processing, and increased trader efficiency.

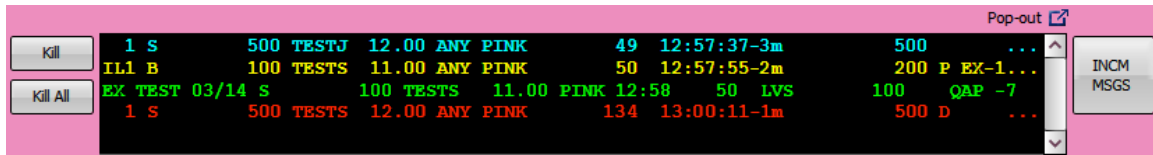
OTC Link works with the displayed quote to bring *Negotiation* and *Execution Report* message delivery across the OTC Dealer service and via a FIX connection. OTC Link allows market participants and broker-dealers using the OTC Dealer to communicate instantly with each other. With OTC Link, traders can electronically send market participants invitations to negotiate that the receiving market participants can quickly execute, counter, or decline. An *Execution Report* message is then sent back through OTC Link notifying the sender of the recipient's actions.

Trade messages are viewed and managed from the OTC Dealer window or the OTC Link trade messages window. In addition, historical trade messages can be viewed through the History Server (see chapter 6.1 – *History Server*).

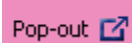
OTC Link trade messages can only be directed to a particular market participant or group of market participants at the same price. A trade message cannot be sent to a market participant who does not have a quote open in OTC Link for the security. Trade messages are always directed to the trader at the receiving firm who has a displayed quote for the security. However, if the trader is open and able to receive a message, other traders at the same firm can choose to receive copies of all messages sent to him. See chapter 5.4.15 – *Trader Proxying: Receiving OTC Link Messages Sent To Other Traders*.

5.2 Viewing Trade Messages

The message pane is located below the trade report area on the OTC Dealer window. The message pane is primarily intended to watch for outgoing messages and for Killing/Canceling outgoing messages. The message pane will also show a copy of all incoming messages and executions.



The message pane's size can be expanded vertically by dragging the dotted divider between the message pane and the trade report area up or down.

You may 'Pop-out' the message window by selecting the Pop-out link and icon. Once the window is popped-out you may place it anywhere on your screen(s). Dealer will remember the window placement when you log off. To dock (return to the window to Dealer) the window, select the square and arrow (pointing down)  icon on the top right of the window.

You can also scroll the list to see messages that may have gone off the list.

Messages are color-coded depending on what they represent:

- Yellow – Incoming message pending your response
- Light Blue – Outgoing messages pending the recipient’s response
- Green – Execution reports
- Red – Declined messages
- Amber – Expired, fully executed, or killed messages

5.3 Sending an OTC Link Trade Message

There are two ways to send an OTC Link Trade message using OTC Dealer; either using Quick Trade Entry field or by using the Trade Message Entry Window. The area above the right hand side of the montage and the 3 lowest buttons along the side of the montage/trade messages are used for this purpose.



5.3.1. Quick Trade Message Entry

A quick way to submit a single trade message is to enter a message string directly into the quick entry field above the montage.

The format of the quick entry string for trade messages is:

B / S / SS shares symbol price market participant [.N] [.F]

Start with “B” if this is a buy message, “S” if this is a sell message and “SS” for short sell. Then specify number of shares, the symbol, the price and the receiving market participant. Leave no spaces between each item. Optionally, you may also put a single “.” between the price and market participant for compatibility with other systems that may require this.

For example, “**B200TESTJ12.06TEST**” means, I want to buy 200 shares of TESTJ at 12.06 and direct the message to market participant TEST.

To submit this message, press the Enter key on your keyboard or click “Send”. If you want to alter the message before submitting it, you can either directly edit the quick entry field or click the “Tr.Msg” button to the right of the field to open the Trade Message Entry window (see chapter 5.3.2 – *Sending Messages with the Trade Message Entry Window*).

You can put “.N”, “.F”, “.I”, “.A” or “.NA” at the end of the text for *non negotiable*, *all or none* (AON), *immediate or cancel* (IOC), *Advertise*, an *No Advertisement*, respectively. These parameters take on the default values as specified in the Trader Preference

dialog. See chapter 3.8.1 – *Trader Preferences*. It is not possible to disable IOC or AON, and they cannot be countered parameters through the quick entry field if they were set as default in the Trader Preference dialog. You can only disable it on a single message basis through the *Send a Trade Message* window (see next chapter).

5.3.2. ***Sending Messages with the Trade Message Entry Window***

The Trade Message Entry window can be used to send a single or multiple messages simultaneously. The Trade Message Entry window can be opened in various ways:

- **Click the “Trade Message” button to the right of the quick entry field.** This brings up a blank Trade Message Entry window. If a message string has been entered into the quick entry field the window will pre-fill with the trade message.
- **Double click any price or size on the montage.** This brings up the Trade Message Entry window pre filled with a trade message based on the quote that was double-clicked on.
- **Click the “Hit” or “Take” buttons to the side of the montage.** These buttons have dual functionality:
 - By default these buttons set up a message based on the **single** quote at the top of the montage, *i.e.*, a single message for the market participant with the best bid or ask.
 - If you click on one or more quotes on the montage, one or more message will be set up based on that particular quote(s). It is only possible to select multiple quotes of the same price.
- **Click the “Sweep” buttons to the side of the montage.** These buttons also have a dual functionality:
 - By default these buttons set up a message to **all** market participants on the inside.
 - If you click on one or more quotes on the montage, one or more messages will be set up for each market participant quoting at that price level. It is only possible to select multiple quotes of the same price.
- **Click the “Max” buttons to the side of the montage.** Max is a new trade message which performs the following functions. See chapter 5.3.4 *Max Message* for more information:
 - By default these buttons set up a message to **all** market participants on the inside. The Max message sends out one size to **all** market participants included in the message. Participants can then take as much of the size as available and the Max message will automatically update the message with the new size or kill the message if the entire size has been filled.
 - If you click on one or more quotes on the montage, one or more messages will be set up for each market participant quoting at that price level. It is only possible to select multiple quotes of the same price.

The Trade Message Entry window will now open. In most cases it will be pre filled with trade message(s) based on the quotes selected as specified above.

The “BUY” and “SELL” buttons at the top indicate if you are buying or selling. You must first specify the side, then the total number of shares being bought or sold, followed by the price. The Trade Message Entry window can only be used to send messages at one particular price. If you specify Sell you can further specify Short sell by checking the checkbox to right of the shares field.

You can set the value in the shares field as the default shares for all further messages for this security by clicking the “Set” button below the field. It will then be added to the Security Preferences for this security. You can clear this preference with the “Reset” button.

Each market participant that is to receive a message has a separate line on the window. If the window was opened by double clicking the montage or with the Hit/Take or Sweep buttons, then at least one market participant has been pre-established. At least one blank line will always exist that you can use to specify an additional receiving market participant. After you have typed in the MPID of the receiver, a new blank line will appear.

The QAP value associated with the receiver’s quote will be shown to the right of the MPID. The QAP value will be associated with the message if it is sent successfully, and will affect the total execution price. A positive QAP value means the receiver will pay a rebate should the message get execution, whereas a negative QAP means the receiver will charge a fee. For more information on QAP see www.otcdealer.com/gap.

Use the field to the right of the MPID field/QAP to specify how many shares to send to that market participant. This option will not appear for ‘Max’ trade messages as only one size is sent to all market participants. The size is pre-filled with the default trade message size for the security if you have set it up with Security Preferences. If no preference is set then it will be pre-filled with the quote size of the receiving market participant. The size can be changed individually for each market participant, either by typing in the number of shares or by using any of the quick size buttons:

- A row of pre-size buttons is displayed above the market participant information. Clicking any of these buttons pre-fills the trade message size field that currently has the cursor with the appropriate size. Button “QSz” will fill in with the minimum size required at the price, buttons “500”, “1k” etc., will fill in with 500 shares, 1000 shares, etc.
- Quick size multipliers are on each line. Clicking the “x2” button will double the size of the corresponding message. Clicking the “/2” halves the size. “x5” and “/5” similarly multiple or divide the size by a factor of 5. Option not available for ‘Max’ trade messages.
- By changing the value of the total size field at the top, the total number of shares are allocated to the market participants you have specified. Similarly, the quick size multiplier works on the total number of shares and increases each market participant line accordingly. Not available for ‘Max’ trade messages.

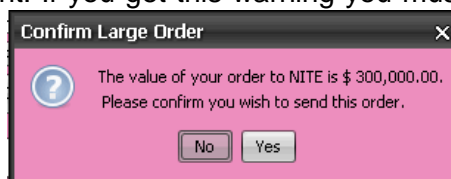
For all trade messages except Max, each line can be sent off independently with the “Send” button on the corresponding line. Clicking the “SEND ALL” button will send off all messages at the same time and close the window. The “Close” button closes the window without sending any message. A single market participant line can be deleted by clicking the corresponding “Remove” button.

As specified above, if you are sending a sell trade message you can use the checkboxes to the right of the price field to specify short sell. The recipient will not see that you have elected to sell short, the short sell will be masked as a regular sell to the recipient.

Similarly, checkboxes at the bottom of the window are for specifying principal, agency, or riskless principal messages. Principal is default if neither button is selected.

Other buttons and input fields at the bottom are for setting the time in force of the messages and to specify other values such as AON, IOC, No Counter, Strict and the advertisement option. These buttons apart from Strict take on the default values as specified on the Trader Preferences window (see chapter 3.8.1 – *Trader Preferences*).

Trader Preferences also has an option to get a warning when attempting to send out an trade message for more than a specific dollar amount. If you get this warning you must acknowledge sending the trade message by clicking on the “Yes” button on the warning dialog. Clicking the “No” button returns you to the Send a Trade Message window to edit the message or dismiss it. See chapter 3.8.1 – *Trader Preferences* for how to set this limit.



5.3.3. Trade Message Options and Risk Controls

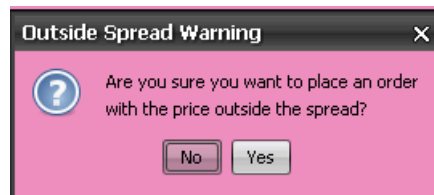
OTC Link trade messages can only be sent to market participants with open quotes. Attempting to send a message to a trader with closed quotes will fail, and an appropriate message will appear in the Alerts pane.

Maximum size of an individual trade message is 9,999,999 shares. You can, however, specify size up to 100 million for a single receiving market participant. Any such trade message of 10 million shares or more will be broken down into a series of smaller trade messages, specifically a series of 9 million shares trade messages and one trade message with the remainder to make up your required number of shares.

Trade message sizes can be entered using “K” or “M,” representing one thousand shares, and “MM” for one million shares. For example, “5.4k” or “5.4m” is “5,400” and “10mm” is “10,000,000.”

Maximum price of an individual trade message is \$ 999,999.999.

If you attempt to send a trade message that is outside the current spread of the best bid and ask, you will get a warning like the one to the right. Clicking “Yes” proceeds and sends the message.



All outgoing trade messages have default settings for time in force and other trade message options. The default trade message settings are set on the Trader Preferences window (see chapter 3.8.1 – *Trader Preferences*). Settings can also be changed for individual trade messages through the Trade Message Entry window (see chapter above).

The options and settings you can specify are:

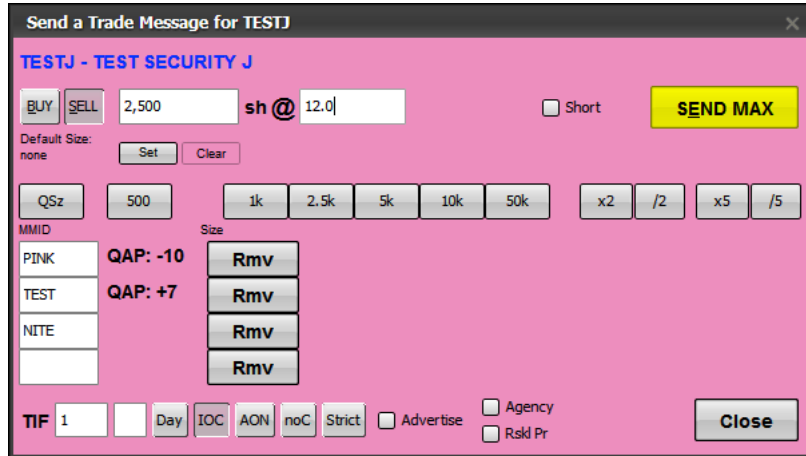


- *Time in force (TIF)*: the duration from the time the message is sent until it times out. Specified as minutes and seconds. This can be set to anywhere from 10 seconds to 999 minutes.
- *Day Order (Day)*: Alternatively, you can specify the time in force as day order or “good until end of day” by clicking the *Day* button. (You cannot make Day Order the default.)
- *Immediate Or Cancel (IOC)*: does not imply a specific duration or time in force, but if set will kill/cancel the remainder of the message if the receiver partially executes the message
- *All Or None (AON)*: the receiver has to accept the full amount of shares, or decline the message.
- *Cannot be Countered (noC)*: the receiver cannot counter an incoming message with a different price and/or size.
- *Strict Limit (Strict)*: the receiver cannot price improve the message. (You cannot make Strict the default).
- *Advertise*: sets whether to advertise your side of the trade
- *Agency*: sets the capacity of the message to Agency
- *Rskl Pr (Riskless Principal)*: sets the capacity of the message to Riskless Principal

5.3.4. MAX Trade Messages

MAX Trade messages differ from regular trade message in that when you send an identical message to multiple receivers you can only get combined executions for the number of shares you specify in the MAX trade message. For example, if you send a MAX trade message to 3 market participants for 600 shares and the first market participant executes 400 shares, then there will only be 200 shares available for execution to the other 2 market participants between them.

Click the MAX button on either side of the quote montage to set up a MAX trade message. This brings up a slightly different Trade message Entry window as shown on the image right. You can specify any number of receivers as before, but you no longer can specify the number of shares for each receiver or send off messages individually to each receiver. You can specify any trade message parameter as on a regular trade message.



To send the MAX trade message click the “SEND MAX” button which has replaced the “SEND” button on the Trade message Entry window.

5.3.5. Trade message Entry Window Keyboard Shortcuts

Many of the Trade message Entry Window functions noted in the previous section may be accessed by using the following keyboard short cuts

- Hit: Ctrl - H
- Take: Ctrl - T
- Sweep the Bid: Ctrl - J
- Sweep the Offer: Ctrl - R
- MAX Trade message the Bid: Ctrl - K
- MAX Trade message the Offer: Ctrl - E

5.3.6. Viewing Outgoing Trade messages

After you’ve submitted a message, it will appear in the sender’s message pane on the OTC Dealer window in light blue/cyan color. When a message expires or is fully executed it turns amber.

```

L1 B      200 TESTJ 11.00 ANY PINK      2 13:10:30-1m      200      QAP -10
L1 S      0 TESTJ 10.00 ANY PINK      3 13:10:53-1m      500 E EX-500  QAP -10
EX TEST 03/17 s      500 TESTJ 10.00 PINK 13:10      3 FILLS      QAP -10
    
```

At the very bottom of the OTC Dealer window is an alert indicating the success of the trade message submission; if the trade message is rejected for any reason, the message will reveal what went wrong.

The outgoing trade message text has the following parameters:

- First column shows a number that represents the number of message sent to this market participant at this price that were active **at the time you submitted your trade message**. “1” means there were no live trade messages for that price awaiting the market participant’s action before you sent the trade message, and “2” that one other broker-dealer has sent the market participant a trade message

before you, etc. Additionally, “L” in front of the number means that the trade message is liable, *i.e.*, you matched or improved the recipient’s bid or ask.

- Second column shows "B" for buy, "S" for sell or "SS" for short sell **from your perspective**. Short sell is not shown to the recipient of the message, but they will always show up as "S" (regular sell) for the targeted counterparty.
- Third column is the number of shares that can be executed; any partial fills will decrease this number; and fully filled trade messages will have "0" in this column.
- Fourth column is the Symbol
- Fifth column is the price of the trade message
- Sixth column shows whether the recipient can execute "ANY" amount of the trade message or "AON" (all or none)
- Seventh column is the MPID of the recipient
- Eighth column is the message number; each message will have unique number
- Ninth column is the time the trade message was submitted; its time in force (TIF) is also shown after the “-“
- Tenth column shows the number of shares in the original message
- Eleventh column shows the QAP value that was assigned to the message. It will be equal to the QAP value on the receiver’s quote at the time the message was sent.
- Twelfth column shows the status of the trade message. As this trade message has not been answered, the status is blank. Status can also be "T" timed out, "X" killed by sender, "D" declined by recipient, "P" partially executed, "E" fully executed, or "C" countered.
- An optional thirteenth column shows “AY” for agency or “RP” for riskless principal transaction if you specified this on the outgoing trade message. Principal is default and is not specifically identified.

5.3.7. Viewing Outgoing MAX Trade messages

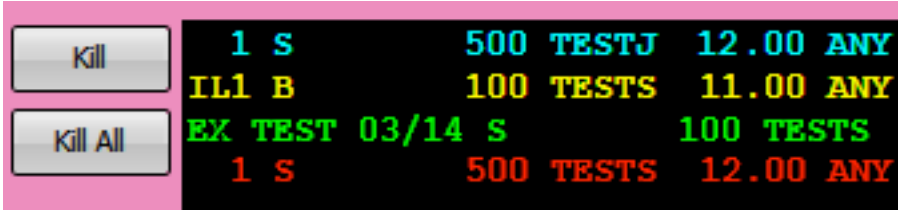
Sending a MAX trade message to multiple receivers’ results in multiple identical outgoing trade messages. These trade messages are considered to be part of a single MAX trade message group. For example, if you send a MAX trade message to 3 market participants for 600 shares, you will see 3 outgoing trade messages each for 600 shares. Each trade message will be identified with a “MAX” identifier.

If one trade message gets execution then the size of all trade messages in the MAX trade message group will be reflected to show the remaining shares available across the MAX trade message group. Using the example from above, if the first receiver executes 400 shares you will see that each trade message in the MAX group now has 200 shares available and each trade message in the MAX trade message group will indicate that 400 shares have been executed. When 600 shares have been executed across all trade messages in the MAX trade message group then all trade messages are killed automatically.

5.3.8. Killing/Canceling Outgoing Trade messages

You can Kill/Cancel any outgoing message while it is still active. You can either kill a single trade message or all trade messages for a particular security.

To kill a single message, first click on it to select and then click “Kill.”

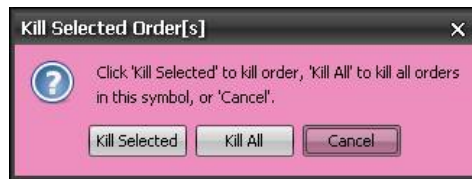


To kill multiple trade messages, you can do either of two things:

- To kill all messages for the security on the montage, simply click “Kill all.”
- To kill all trade messages for a particular security, click on a single outgoing message for the security and then click “Kill all.”

If you are the initiator of a MAX Trade message, killing an trade message that is part of a MAX group kills all the MAX related trade messages

Alternative method is to double click on an outgoing messaging. This brings up a dialog. You can select to kill just the selected trade message, kill all trade messages for the security, or cancel out the balance of an trade message.



OTC Link has no minimum requirements regarding how long the trade message must remain active before you can kill it or kill/replace it.

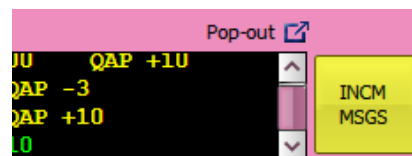
5.4 Receiving an OTC Link Trade Message

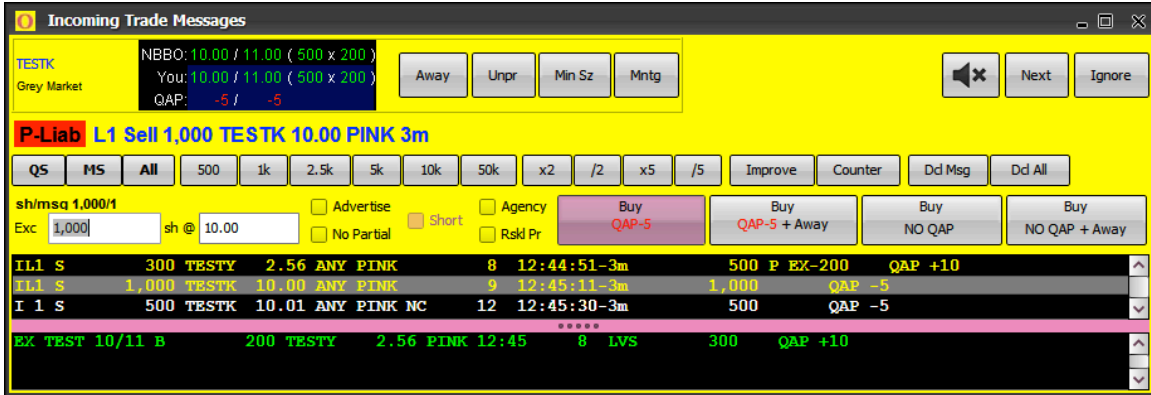
5.4.1. Incoming OTC Link Message Window

The Incoming Trade Message Window displays your incoming messages and is used for trade message management. The window changes colors, from pink to yellow, whenever you have a live incoming message. This window is divided into 3 sections:

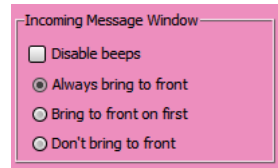
- *Focus area*, shows details of one message and allows you to execute the message, decline or counter.
- *Incoming Trade message List*, shows all live incoming messages in the time order of their arrival. You can click on messages in this list to move them to the focus area.
- *List of executions and expired trade messages*.

The OTC Link Trade message window can be brought to the front manually by clicking the “INCM MSGS” button on the main window, next to the message pane. This button will blink yellow whenever a live incoming message exists.





The OTC Link Trade message window can be set to pop-up to the front whenever a new message arrives, or when a new message arrives and no prior live trade message exists in the list. This is set through the Trader Preferences window (see chapter 3.8.1 – *Trader Preferences*). If user has specified to use Non-Liability filter on Incoming Messages in *Trader Preferences*, then non-liability messages that meet any criteria set up by user will not cause the window to pop-up to the front.



Audible beeps can be muted by clicking the speaker button on the window. Button toggles between mute and sound on. The setting is automatically saved to the Trader Preferences window.



5.4.2. The Focus Area

The focus area of the Incoming Trade Message Trade messages window is used to execute, decline, or counter incoming messages. This chapter will describe in detail the information on the focus area. Chapter 5.4.4 – *Incoming Trade message Management* will describe how to act on an incoming message using the focus area.



In the top left corner of the focus area, you will find the security information, the symbol and primary market of the security. The primary market shows “OTC Link” for securities that primarily trade on OTC Link, “OTC Link/BB” for securities that are quoted on both the OTCBB and OTC Link, etc.

The *NBBO* shows the National Best Bid and Offer. It's colored according to quote origination: green means the price is displayed on OTC Link while cyan blue is from the OTCBB. The *You* information is your best quote displayed on OTC Link or OTCBB, colored same as the NBBO information. The QAP value in the message was taken from your quote at time the message was sent.

You can update your quote with the buttons to the right. Either move your quote away from the current price with the “Away” button, set size to minimum required size with the “Min Sz” button or unprice it with the “Unpr” button. These buttons only affect one side of your quote -- the bid side if you receive a Sell trade message and the ask side if you

receive a Buy trade message. Finally, the “Mntg” button will bring up the montage on the main OTC Dealer window for the security.

The details of the message are shown in the message string. The format of this string is described in details in next chapter, 5.4.3 – *Incoming Trade message List*. The trade message text has the following meaning (numbers refer to the sample picture above):

The sender wishes to Buy or Sell #number of shares (1,000) of security (TESTK) at price (10.00), sender is (PINK), with options (blank, AON or ANY), and time in force of message is (minutes:seconds or “DY” for Day Order).

Just below the message string, you’ll see the accumulated number of shares and the number of messages there are currently live for this security at this price and side. In this case you have one live incoming trade message for 20000 shares, shown as “sh/ord 20,000/1.”

P-Liab L1 Sell 1,000 TESTK 10.00 PINK 3m

Potential liability is indicated with text and color in front of the message string. Potential liability is identified with text “P-Liab” on a red background, and a non-liability is indicated with text “No-Liab” on a cyan background.

No-Liab 1 Sell 1,000 TESTK 10.04 PINK AON

5.4.3. Incoming Trade message List

The Incoming Trade message List shows all live incoming trade messages, in the trade message of their arrival with the oldest at top. When a message is executed or it expires, it is automatically removed from the list. By default, the message at the top of the list is also shown in the focus area. Clicking any message in the list will bring that message to the focus area and it can be acted upon.

IL1 S	300	TESTY	2.56	ANY	PINK	8	12:44:51-3m	500	P	EX-200	QAP +10
IL1 S	1,000	TESTK	10.00	ANY	PINK	9	12:45:11-3m	1,000		QAP -5	
I 1 S	500	TESTK	10.01	ANY	PINK NC	12	12:45:30-3m	500		QAP -5	

The live incoming messages are shown as lines of yellow or white text. Incoming messages are normally colored yellow, but if Non-Liability filter was active and message was filtered based on user specified criteria, or message was manually Ignored by user by clicking the *Ignore* button, it will show as white. The meaning of the message text is the following:

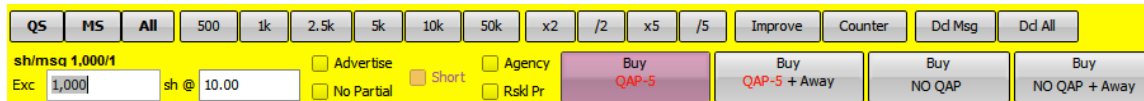
- The first column indicates liability and order position. “IL” means it’s a potential liability trade message, “I” means it is non-liability. The subsequent number shows the position in the queue, *i.e.*, if it’s the first to come in at this price or second, etc. Thus “IL1” means it is a potential liability and you received no prior message for this security at this price.
- The second column shows either "B" or "S" for buy or sell trade message **from the sender’s perspective**.
- Third column is the number of shares that can be executed; any partial fills will decrease this number.
- The fourth column is the Symbol.
- Fifth column is the price of the trade message.
- Sixth column shows whether you can execute "ANY" amount of the trade message or "AON" (all or nothing). Alternatively it will be “MAX” if the message was sent as a MAX trade message.

- Seventh column is the MPID of the sender.
- Eighth column is the message number; each message will have unique number.
- Ninth column is the time the message was submitted, its time in force (TIF) is also shown after the “-”, e.g., in this case 3 minutes.
- Tenth column shows the number of shares in the original message.
- Eleventh column shows the QAP value assigned to the message, the QAP value from the underlying quote at the time the message was sent.
- Twelfth column may show “AY” for agency or “RP” for riskless principal. This only happens when you are receiving a message containing your prior message in which one of these parameters were specified. The incoming counter trade message will show the same parameters you specified on the outgoing trade message.

Short sell is never shown to the recipient on incoming trade messages. If a sender has sent a short sell trade message it will show up as an “S” (regular sell) on the recipient. If the incoming trade message is a countered buy trade message on an outgoing short sell, the short sell information is still retained in the message and the Incoming Trade message Window will default to execute the countered buy trade message as selling short. See next chapter.

5.4.4. Incoming Trade Message Management

The focus area of the Incoming Trade Message window is used for responding to incoming messages.



Through the focus area, you can:

- Execute the trade message, either fully or partially. You can also execute more than one trade message if you have received two or more messages at the same price for the security.
- Decline the trade message. You can also decline all trade messages coming in at the same price for the security.
- Counter the trade message with different price and/or size.

5.4.5. Specifying Execution Size

To execute the message you must first specify in the size field how many shares to execute. You can specify if the execution size field should be pre-populated with the size of the incoming trade message, the size of your quote, or none on the Trader Preferences window (see chapter 3.8.1 – *Trader Preferences*). You can also click any of the 3 buttons to the left of the field to populate with preset sizes:

- Clicking the “QS” button will populate the field with the size of your quote (this is the default size for execution).
- Clicking the “MS” button will populate the field with the size of this trade message.

- Clicking the “All” button will populate the field with the cumulated size of all trade messages at this price.

You can also edit the size field to any number of shares so that you may give a partial execution.

5.4.6. Specifying Execution Price – *Price Improve*

You can specify the price at which to execute, with the default at the price of the incoming message. You can only give an inferior price for your side in your reply message, *i.e.*, sell at a lower price or buy at a higher price. This we call ‘price improvement’.

If there is an NBBO for the security, the *Improve* button will be enabled. Clicking the *Improve* button automatically adjusts the execution price in the price field as noted below to meet the required FINRA price improvement increments of IM-2110-2:

1. For trade messages priced greater than or equal to \$.01 and less than \$1.00 the default price improvement should be is the lesser of \$0.01 or one-half (1/2) of the current inside spread;
2. For trade messages priced less than \$.01 but greater than or equal to \$0.001, the default price improvement increment should be the lesser of \$0.001 or one-half (1/2) of the current inside spread;
3. For trade messages priced less than \$.001 but greater than or equal to \$0.0001, the default price improvement increment should be the lesser of \$0.0001 or one-half (1/2) of the current inside spread;
4. For trade messages priced less than \$.0001 but greater than or equal to \$0.00001, the default price improvement increment should be the lesser of \$0.00001 or one-half (1/2) of the current inside spread;
5. For trade messages priced less than \$.00001, the default price improvement increment should be the lesser of \$0.000001 or one-half (1/2) of the current inside spread.

For securities where there is no inside or there is a locked/crossed market, the default price improvement will employ the above limitation that will exclude the inside spread option. The improvement will be based entirely on the trade message price.

Clicking the *Improve* button does not issue a Buy/Sell command; moreover, the *Improve* button is not limited to dually quoted securities, and can be used on unique securities displayed on OTC Link as well. Clicking the *Improve* button changes the caption of the button to *Reset Px*. Clicking the *Reset Px* button resets the execution price in the price field to the trade message price.

5.4.7. Executing the Trade message

After you have specified the number of shares, and optionally adjusted the execution price, click “Buy” or “Sell” buttons to execute. The caption of this button will depend on the incoming trade message; for example, an incoming sell message will show the “Buy” button while an incoming buy message will show the “Sell” button. The button will also show the QAP value on your quote. A red negative QAP means that you will charge the sender for executing the message, while a green positive QAP means you will be giving a rebate. When your QAP is negative, you can decide to waive the QAP fee by clicking the “Buy NO QAP” or “Sell NO QAP” buttons instead of the Buy/Sell with QAP buttons.

The “Buy + Away” and “Sell + Away” buttons act the same as the “Buy” and “Sell” button, but in addition will move your quote down the montage after executing. Only one side of the quote will change -- the side on which the trade message was based.

OTC Dealer will attempt to execute one or more messages to get the number of shares you requested. If you specify fewer shares than are available, you might get partial executions. If you specify more shares than are available, you'll get a warning before proceeding.

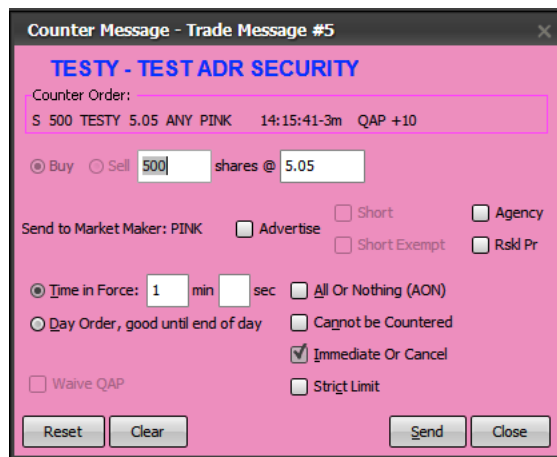


5.4.8. Declining the Trade Message

To decline the single message shown in the focus area, click the “Dcl Ord” button. “Dcl All” button declines all incoming trade messages for the security at the same price.

5.4.9. Countering the Trade Message

The “Counter” button brings up the Counter window. It is similar to the Trade message Entry window except that some parameters cannot be changed. For example, if the incoming message was a trade message to sell from the sender’s point of view, your counter message will be an trade message to buy, and vice versa. Also, the recipient cannot be changed: it is always the sender of the previous message. All other parameters can be changed. If you enter a price that is less favorable to you than the original message, you are warned and asked if you want to continue.



5.4.10. Specifying Short Sale and Trade message Capacity

If you get an incoming buy trade message you can execute it as a regular sell or, sell short. If you check the “Short” checkbox you execute a short sell when you click the “Sell” button. If button is unchecked, it is a regular sell. Similarly, you can specify your execution as principal, agency, or riskless principal by checking the “Agency” or “Rskl Pr” buttons. If neither button is checked, it will default to a principal execution. If the trade message being executed is a countered trade message, whatever short or capacity parameters you specified on the outgoing message that is being countered are retained within the message and the checkboxes will be pre-populated accordingly.

5.4.11. Advertising a Trade

You may specify that you want to advertise your execution by checking the “Advertise” checkbox. If the trade message being executed is a countered trade message, whatever parameter you specified on the outgoing message that is being countered is retained within the message and the checkbox will be pre-populated accordingly.

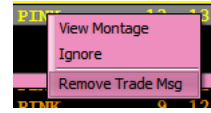
5.4.12. Navigating through Incoming Trade Messages

The “Next” button allows you to step between messages in the trade message queue. The “Ignore” button moves the message out of focus and colors the message white in the incoming message list. Once a



message has been ignored it will never move back to focus, but can be clicked on in the list in order to bring it to focus manually.

If for any reason a message remains live in the incoming list after it has expired, you may still remove it permanently from the list. Right click on the trade message in the list and select "Remove Message" from the pop-up menu that appears. Once the message has been removed, it is impossible to get it back.



5.4.13. The Execution Reports and Expired Trade message List

Upon execution of a trade message, an Execution message shows up in the message panes of the main window and the Incoming OTC Link Trade message windows. Execution reports are colored green. The execution message will appear on both sides of the execution, i.e., the sender and the receiver of the message. The execution message will always reflect **what you did** (whether you bought or sold).

The picture below shows an expired trade message in amber and an execution in green on the Incoming Trade messages window.

L1 S	20,000	CSVI	0.64	ANY TEST	34656	14:25:57-3m	20,000	D
EX PINK 06/16 S	2,500	TESTY	1.00	TEST	14:26	34655	FILLS	
L2 S	0	CSVI	0.64	ANY TEST	34657	14:26:15-3m	20,000	E EX-20,00...
EX PINK 06/16 S	20,000	CSVI	0.64	TEST	14:26	34657	FILLS	
L1 S	20,000	CSVI	0.64	ANY TEST	34658	17:01:20-3m	20,000	T
L1 S	2,500	TESTY	1.00	ANY TEST	34659	17:04:22-3m	2,500	D
L2 S	20,000	CSVI	0.64	ANY TEST	34660	17:04:29-3m	20,000	D
L1 S	500	TESTJ	1.84	ANY TEST	34661	17:08:01-3m	500	T
L1 S	2,500	TESTY	1.00	ANY TEST	34662	17:09:47-1m	2,500	T

Incoming Trade Messages that have been fully executed, have timed out, were killed or countered are shown in amber color. Declined messages are shown in red. The format of expired messages is the same as live incoming, as specified in chapter 5.4.3 – *Incoming Trade Message List*, with the addition of last column showing the reason it expired. For messages that have timed out, the last column will display "T", "X" if killed by sender, "D" if declined by receiver, "P" if partially executed, "E" if fully executed, or "C" if countered.

The format of executions is the following:

- First column is always "EX".
- Second column shows your MPID.
- Third column shows the date.
- Fourth column show whether you "B" bought, "S" sold or "SS" sold short
- Fifth column shows the quantity of the execution.
- Sixth column shows the security.
- Seventh column shows the execution price. If the trade message was "Price Improved", then the execution price will be preceded with a "+". See chapter 5.4.6. – *Specifying Execution Price – Price Improve*
- Eighth column shows the MPID of the counter party.
- Ninth column shows the time of the execution.
- Tenth column shows the serial number of the trade message executed.

- Eleventh column shows a status text. The text is either "FILLS" if the trade message has been fully filled, or "LVS #number of shares" if this was a partial fill.
- Optionally, the twelfth column may show "AY" if you executed the trade message as agency or "RP" if you executed as riskless principal.

5.4.14. Execution Confirmation Window

If you are the sender of a message, you have the option of seeing an Execution Confirmation window upon its execution from the contra-party. To set this option, choose command **Setup** – *Trader Preferences* and make sure option "Don't show executions" is unchecked. The pop-up behavior of this window can also be set on the Trader Preferences window. See chapter 3.8.1 – *Trader Preferences*.



The message format in the Execution Confirmation window is identical to the execution message in the trade message pane or trade messages window (see chapter 5.4.12 – *The Execution Reports and Expired Trade Message List*).

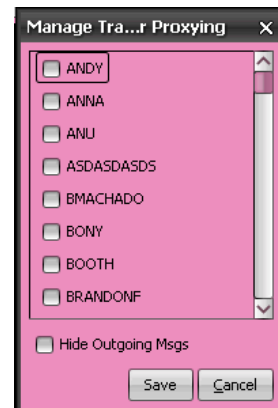
The Execution Confirmation window shows you how many confirmations you have in the queue, allowing you to view the next execution in the queue (if applicable) or closing the window.

Audible beeps can be muted by clicking the speaker button on the window. Button toggles between mute and sound on. The setting is automatically saved to the Trader Preferences window.

5.4.15. Trader Proxying: Receiving OTC Link Trade Messages Sent To Other Traders

A trade message is always sent to the owner of the quote at the recipient firm and all the owner's assistants; however, through *Trader Proxying*, it is possible for any other trader at the firm to request a copy of all trade messages sent to another particular trader at your firm. Optionally, you can request to see a copy of this trader's outgoing messages as well. Proxying a trader does not relax the rule that a quote must be open and the owner of the quote must be logged into the OTC Dealer to receive OTC Link trade messages. To minimize regulatory exposure, it is useful for two or more traders to share some stocks so one's quote is always honored.

To turn on Trader Proxying, go to **Setup** – *Manage Trader*



Proxying. You will see this dialog. Simply check any trader(s) at your firm that you wish to receive copies of messages they receive. As soon as you click “OK,” any message received by the trader(s) you have checked will be received by you and you can respond to it just as if you were the intended receiver.

By default you will get a copy of trader’s outgoing messages when you proxy. You can turn this off by checking the “Hide Outgoing Msgs” checkbox. If it’s checked you will only see messages received by the trader, not his outgoing messages.

6. *Advanced features*

6.1 *History Server*

The History Server is a service provided by OTC Markets Group Inc. It allows users of OTC Dealer to view historical quote and trade information, to search for securities and to view corporate actions. History Server opens up automatically after user logs into OTC Dealer. History Server can also be opened up by clicking the “Hist” button on the main window of OTC Dealer. Additionally, the advanced search page of History Server can be accessed by clicking the “Find” button and the OTC Link trade history search by clicking the “T.Hist” button on the main window of OTC Dealer.

History Server is under constant development and features and functionality are subject to change.

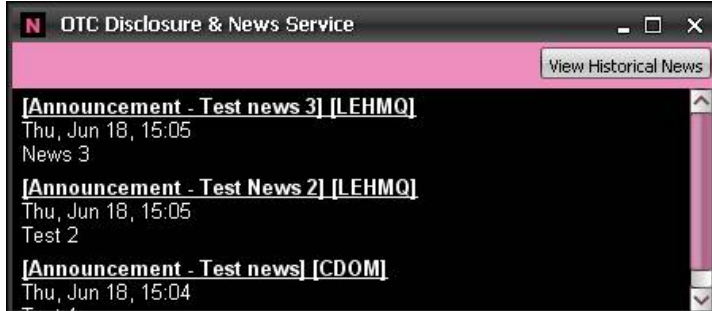
At the time of release of OTC Dealer 5.1, the following features are included in History Server:

- **Today’s Notices** – the default front page of History Server shows the current day’s corporate actions. This can be filtered down to show corporate actions relevant to the firm’s quotes or user’s own quotes only.
- **Pending Corporate Actions** – displays corporate actions that are in the pending state. The data for corporate actions is received by OTC Markets from NASDAQ/FINRA and the NYSE. Pending corporate actions are not yet effective. If they become effective they will appear on the ‘Today’s Notices page on their respective effective date.
- **MMID Directory** – allows searching for information on Market Participants, such as addresses and phone numbers
- **Quote and Inside History** – shows historical quote (first activity and last activity) and inside quote information for quotes on OTC Link
- **Market Maker Security List** – shows a list of all quotes a particular Market Participant has on OTC Link
- **Market Maker Security Activity** – shows Market Participant’s activity in a particular security on OTC Link
- **Trader Open/Close History** – shows historical information on when a particular trader opened or closed their markets on OTC Link
- **PS/BB Quote Divergence** – shows list of securities that a Market Participant is quoting on both OTC Link and OTCBB where the quotes on the two venues do not match.
- **OTC Link Trade History** – allows user to search for trade message history and see detailed message trail of each OTC Link trade message
- **Security Changes** – comprehensive search for name, symbol and venue changes, and split changes.

- **Security Search** – comprehensive search for securities by venue, domestic vs. foreign origin, Piggy Back status and Unsolicited quote status.

6.2 News Window

News and Financial Reports from the OTC Disclosure and News Service will be available through the News window. The window will include news/financial reports relating to all securities being quoted by the respective trader. The News window will display the story headline – by selecting the headline link, you will be taken to complete news story on otcmarkets.com.



News & Financial Reports will also be available in the montage for securities where there is a new entry for the particular trading day. Selecting the link in the montage will also take the user to the complete story on otcmarkets.com.

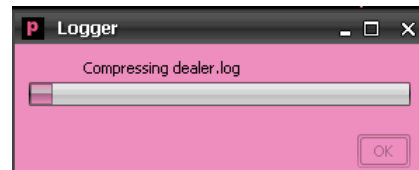
6.3 Service Disruption Alerts/Pop-ups

Dealer will now alert users of disruptions to either quote, trade service or both. If there is a service disruption an alert/pop-up will appear on the Dealer interface informing the user of the disruption. In the case of trade service disruption, users will still be able to update quotes. For all other disruptions, quoting and trading services will not be available. When service is resumed, a new alert/pop-up will appear informing the user that OTC Dealer is now fully operational.



6.4 Dealer Log Upload Function

Dealer makes it simple to upload log information to OTC Markets Group. If there is a technical issue with the Dealer, OTC Markets support personnel may request that you upload Dealer log files to our servers. To upload log files, select Help – *Upload Log File*. This will initiate an automatic service which will zip your log files and send them to OTC Markets. If Dealer cannot automatically upload the packaged log files, then Dealer will open your default email client with the send to address populated and include a message with instructions on where to find the log files on your computer..



6.5 Managing Desktop

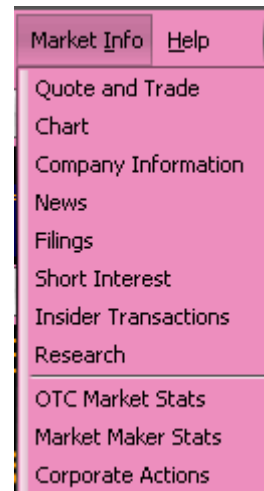
You can save your current desktop configuration including the location and size of all currently open windows. The command **Setup – Save Desktop (Ctrl-S)** saves the current desktop. To retrieve the last saved desktop, select the **Setup – Reload Desktop (Ctrl-O)** command. The last saved desktop is automatically retrieved when you log into the OTC Dealer.

The command **Setup – Save Desktop on Log Out** specifies whether to automatically save the current desktop each time you log out or not.

6.6 On-line Security Information

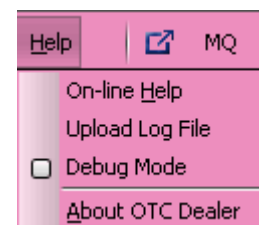
The **Market Data** menu has direct access to the www.otcmarkets.com website to view security, quote and trade information and news on the security currently on the montage. The options are:

- **Quote and Trade** – delayed quote and trade information
- **Chart** – historical and intraday price charts
- **Company Information** – current information on the issuing company
- **News** – news posted by the issuing company on OTC Markets' *OTC Disclosure and News Service* and other sources
- **Filings** – SEC filings and financial reports posted via OTC Markets *OTC Disclosure and News Service*
- **Short Interest** – bi-monthly short interest numbers as reported to NASDAQ/FINRA
- **Insider Transactions** – SEC filed insider transactions and transactions posted via OTC Markets' *OTC Disclosure and News Service*
- **Research** – research reports posted by S&P and other contributing firms
- **OTC Market Stats** – various OTC market statistics, such as most active by dollar volume, share volume and trades, advancers and decliners,
- **Market Maker Stats** – Market maker OTC Link trade statistics for current day.
- **Corporate Actions** – corporate action data including: venue changes, symbol changes, splits, dividends, and OTC tier changes.



6.7 Debug Mode

The Debug Mode control, available within the Help menu, sets the amount of logging OTC Dealer will perform. When the Debug Mode control is set to True (checked) then all messages sent and received by OTC Dealer are written to a log file. This setting helps OTC Markets Group troubleshoot reported application issues.



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Since Debug Mode inherently slows down OTC Dealer, the default value will be false (unchecked). If an issue is reported then OTC Markets Group technical support may request that Debug Mode be enabled.

7. *Support*

OTC Dealer Support & Customer Service

OTC Link Trading Services

800 LIST OTC

tradingservices@otcmarkets.com