

Automated Trading Using CQG 7.4

by Thom Hartle

Traders using CQG can set up automated trading based on CQG's alerts.

A CQG alert can send a market order, a cancel order or a liquidate positions order to a futures exchange through CQG's gateway.

Why use alerts? Today's global markets offer traders many opportunities and alerts can be one way to continuously stay on top of multiple markets.

Originally, alerts were used as the name implies: a defined market event occurred and the trader was notified. For example, the market event could be that a price level had been hit. Once the alert was triggered, a variety of notification choices were available:

- Open an Alert Trigger Dialog and Order Window.
- Display a chart and Time & Sales screen.
- Trigger an audible alarm.
- Send an email anywhere, even to your phone.

Version 7.3 added order routing to the list of actions available following a triggered alert. Version 7.4 includes new order routing features for traders that use alerts, but want to send the order manually using new features added to the DOMTrader and Order Ticket, such as an OCO order (order-cancels-order).

Getting Started

Alerts are applied to one market, and for order routing, the market has to be an electronically traded futures contract. All of the examples detailed here will use the E-mini

S&P futures contract traded on the CME Globex exchange. There are five types of alerts available that include order routing:

- Price Alerts
- Time Alerts
- Price X Line Alerts
- Study Alerts
- Condition Alerts

Today's global markets offer traders many opportunities and alerts can be one way to continuously stay on top of multiple markets.

First, as with all windows in CQG, a right-click on the title bar brings up a menu.

Figure 1, the menu displayed is from a right click on the title bar of the Price Alert window. Here, the fonts and the colors can be managed. In addition, other alert types can be brought up. The current alert window can be managed to display or hide "Actions" and display or hide "Names & Preferences." Also notice that the overall look is a spreadsheet style with many rows available for placing alerts at various price levels and numerous markets.

Our first example will use a Price Alert.

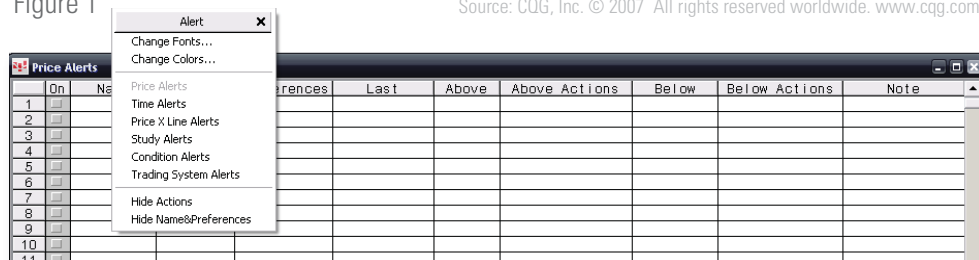
Price Alerts

The price alert is setup with two action options available in the setup window. First, take action at a price above the last price and second, take action at a price below the last price.

The simplest step to creating a price alert is to work directly from the chart. Right-click on the price bar and select "Add Price Alert on bar" and the price alert menu opens with the pertinent information filled in, such as issue symbol, and the preferences are set to that bar interval.

Figure 1

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Title Bar menu. Right-clicking on the title bar brings up a menu for managing the look of the Price Alert, calling up other types of alerts, and to Hide/Show certain columns.

Table 1: Each of the columns is described as follows:

On:	If checked, then the alert is enabled.
Name:	Enter a name for the alert.
Issue:	Any symbol can be tracked, but trade routing is only available for electronically traded futures markets.
Preferences:	Select the session for trading, the bar interval (important as some alerts can be reset at the close of a bar), and continuation chart preferences for futures.
Last:	The current price of the issue.
Above:	The price level above the last price that triggers the Alert. The choices include: trade, bid, ask, and settlement prices.
Above Actions:	Select which actions to be taken from the "set actions" menus.
Below:	The price level below the last price that triggers the alert. The choices include: trade, bid, ask, and settlement prices.
Below Actions:	Select which actions to be taken from the "set actions" menus.
Notes:	Log any memos related to the alert.

Figure 2 is an example of a price alert. Here, tracking the September E-mini S&P 500 action is taken if the market trades at 1304.00 or at 1300.00.

The Above and Below columns refer to a price above the last price and a price below the last price. It does not mean that the market has to trade above or below the price listed in the Above or Below cell; the market only has to trade at the price in the respective cells to trigger the alert.

Table 1 details each of the columns used in the Price Alerts menu window.

As stated earlier, the simplest way to create an alert is from the chart, but let's walk through setting up the Price Alert manually, not by opening the chart and adding

the price alert to the chart. The name of the alert and the issue tracked is entered.

The preferences column is for setting the interval of the bar for the alert, as well as choosing whether to use both day and night sessions (if available) and the choice of using a continuation algorithm for a futures contract.

Figure 3 shows the Preferences Window that appears from right-clicking in the Preferences cell and selecting Edit Preferences or double-clicking in the cell which brings up the Preferences window.

In Figure 2, the Preferences are set to one-minute bars. We will show shortly that there is an option for resetting the alert in the Actions Menu, as well as the Alert

Trigger dialog when the bar closes. In this case, if this option to "Reset" is selected then the alert would reset at the close of the one-minute bar.

This preference is critical in managing trade routing. Setting it to "Reset the alert at the close of the bar" could lead to orders being sent to the exchange unintentionally.

Once preferences are set, enter the price in the Above column to trigger the alert. The

Figure 2

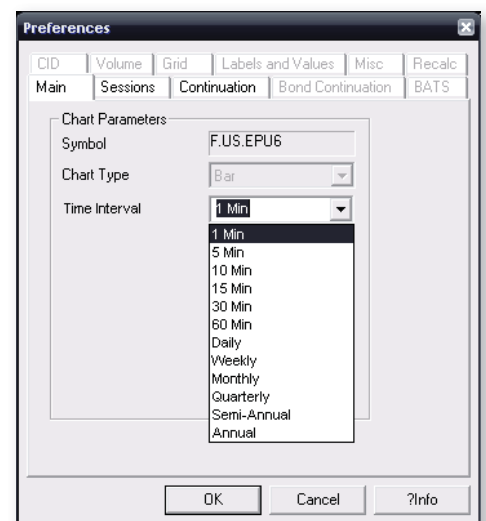
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On	Name	Issue	Preferences	Last	Above	Above Actions	Below	Below Actions	Note
<input checked="" type="checkbox"/>	Breakout	EPU6		1302.00	1304.00	Silent Order Trade	1300.00	Silent Chart Order Trade	
<input type="checkbox"/>									
<input type="checkbox"/>									
<input type="checkbox"/>									
<input type="checkbox"/>									
<input type="checkbox"/>									
<input type="checkbox"/>									
<input type="checkbox"/>									

EPU6 Price Alert. The name is Breakout for the September E-mini S&P 500 futures contract using 1-minute bars. If the market trades at 1304.00 the audible is silent, the Order Ticket Window (Order) and the Alert Trigger Dialog window opens, and an order (Trade) is sent to the exchange. If the market trades at 1300.00 the same actions occur plus the chart of the EPU opens. All other notifications are turned off.

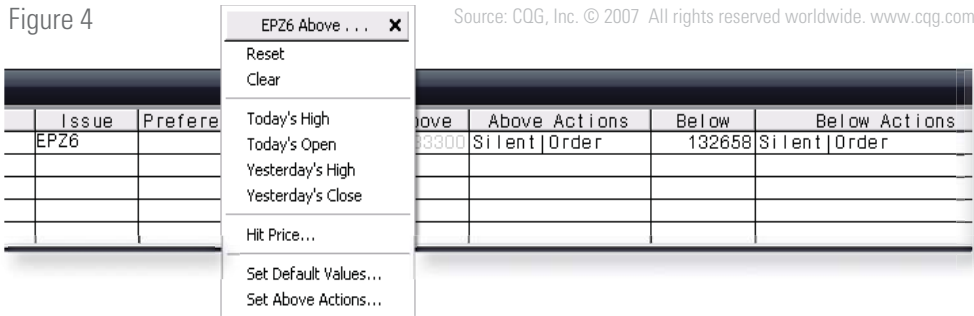
Figure 3

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Setting Preferences. Right click in the Preferences Cell, select "Edit Preferences", and choose the bar interval, sessions, and continuation algorithm if needed for a futures contract. If a customized session is used, then select the Sessions tab.

Figure 4



Above Menu. Clicking in the Above cell brings up a menu that lists choices for price levels to trigger the alert. The price has to be above the last price, the market does not have to trade above the price entered into the Above cell.

price must be above the last price displayed in the Last cell. This price triggers the alert if the market price reaches this level. In addition, a right-click in the Above cell will display a menu of choices.

Figure 4 displays the menu from a right-click in the Above cell. The available choices are to reset, clear, or to pick today's high, today's open, yesterday's high, and yesterday's close. You can also choose the hit price, set default values, and set above actions.

Selecting Hit Price from the Above menu brings up another menu offering the choice of using trade, bid, ask, and settlement prices to trigger the alert. If ask is selected, the market does not have to trade at the trigger price, just an offer to sell at the trigger price being posted in the queue will set off the action for the alert. A right-click in the Below cell brings up the same menu except today's low and yesterday's low is substituted for today's high and yesterday's high.

Next, right-click on the Above Actions cell and choose the action to be taken if the alert is triggered. Figure 5 shows the four Action menus available for the price alert.

Each of the Alerts, Price, Time, etc., have Action windows. In general, the action windows consist of four sets of actions shown in Figure 5. First, is to place an order, second is to set the audible alert, third is to decide to display a chart, a time & sales window and order window, and finally, an email can be sent.

The bottom menu in Figure 5 is an example of the Above Actions window with the first tab, "Place Orders", selected. An order will be placed based on the market trading at 1304.00.

To enable sending an order to the exchange, click in the "On" cell. Next, select which trading account is to be used in the Account Column. Next, enter the symbol and then choose the type of order to be sent. The choices are buy at the market, sell at the market, liquidate position, and cancel rest-

ing orders. You must be logged on to the Gateway for order routing.

The quantity column is the size for buying or selling using the market order. If the Alert sends a cancel order, then all resting orders for that symbol are canceled. If the Alert sends a liquidate order then the current position for that symbol is liquidated using a market order.

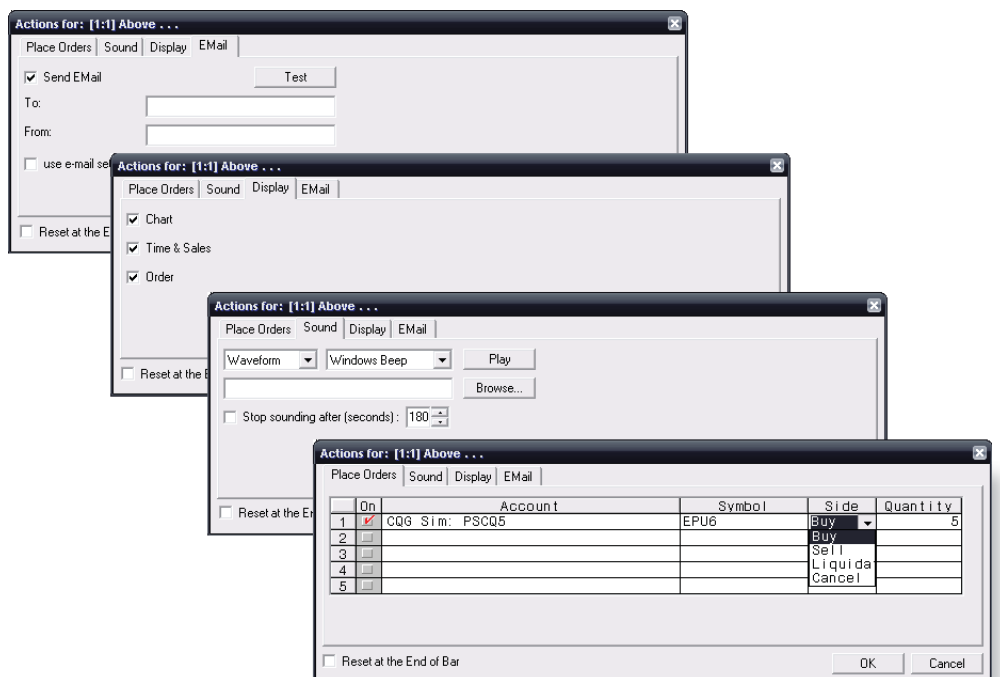
The alert can be set to "Reset at the End of the Bar." This choice is listed on every Alert Action window. Recall that the interval of the price bar referenced here is set under the Preferences column in the Price Alerts Menu.

The next tab in the Actions menu is the Sound tab and present choices for the audible alert, which is the menu item second from the bottom in Figure 5.

Under the audible alerts, the choices for the Speaker pull-down menu include Silent, Speaker, Waveform and MIDI. The sounds available for the Speaker choice include au-

Figure 5

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Action Choices. For most of the alerts, the Above Actions and Below Actions menus will consist of the four menu windows shown here.

dible alerts and tunes: Windows Beep, up, down, In the Money, and Spare a Dime. The path to play Waveform (*.wmv) and MIDI (*.mdi) files can be found by clicking on the "Browse" button. In addition, your own waveform files can be used.

The audible alert will play every three seconds until the Reset button is clicked on the Alert Trigger Dialog window or the Alert Trigger Dialog window is closed. In addition, the audible alert can be set to turn off after a set amount of time in the Sound window. Finally, selecting "Use for new Alerts" allows you to setup the default audible settings for new alerts.

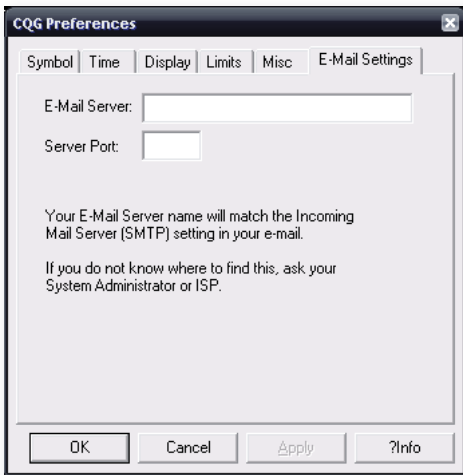
The next choice in Figure 4 is the Display tab. The choices are to display a chart of the market, the time & sales window, and an order entry display: the DOMTrader or the Order Ticket, depending on the default setting under Trading Preferences for trade routing.



Price Alert and TradeFlow. In this example, the alert triggered a buy at the market order for five E-mini S&P futures contracts. The Fill Report appears along with the Alert Trigger Dialog Window. The option to reset the alert is available in the Alert Trigger Dialog Window. Once an Alert is built, the menu can be closed and still be active.

Figure 6

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Email Alerts. An email can be sent stating the alert has been triggered.

The final choice in Figure 5, which is the top menu, is to select "Send Email" and then fill in the information for To and From. If you have not set the preferences for sending email from your CQG Client, then select

"use E-mail settings" to enter in the E-mail Server. Figure 6 is the dialog box for setting up e-mail.

Alert

When the alert is triggered, an Alert Trigger Dialog Window appears, and if there is a trade placed, then a fill report appears, as shown in Figure 7. If you were viewing another page within CQG, the notifications will open on that page. If you were in another application, such as checking email, the notifications will open on top of the email window.

In Figure 7, a Price Alert to buy five E-mini S&P 500 contracts at the market if the market hits 1309.50 was triggered. Notice that in the Alert Trigger Dialog, the option to Reset the alert is available. In this case, the market is trading above the 1309.50 trigger level, and if the Reset button was clicked, the Alert Trigger Dialog window

would show "Reset Failed." If the price was below the trigger price, then the Price Alert would be reinstated.

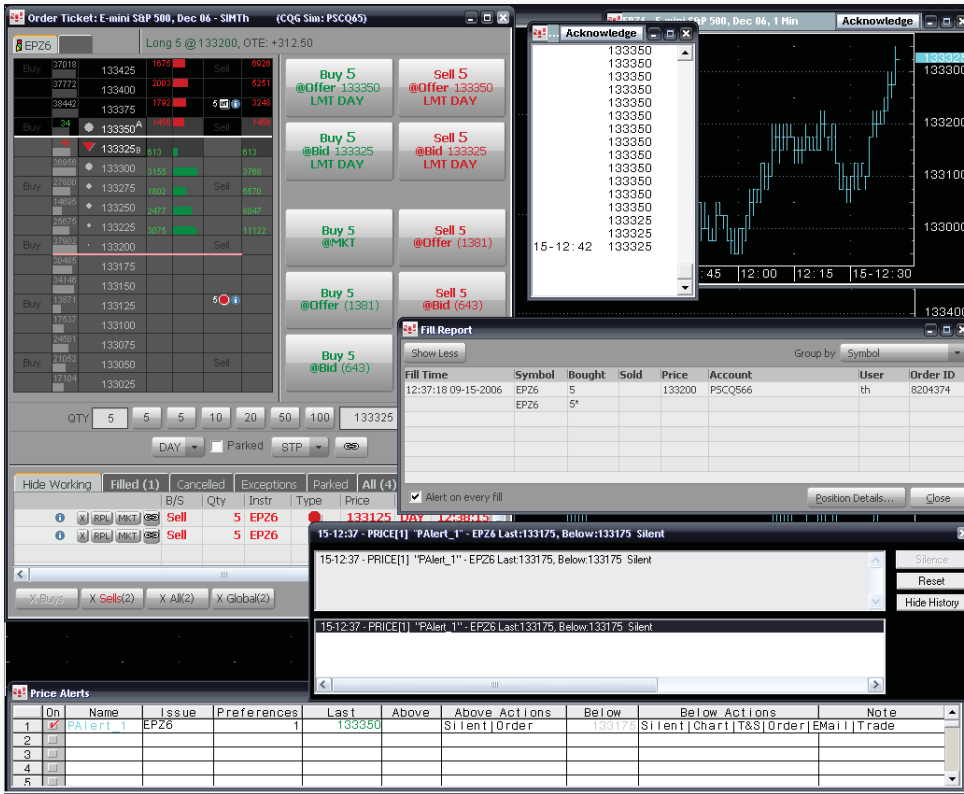
For the price alert, the Order Ticket or the DOMTrader can be launched along with a chart and the time & sales window. The open chart can provide an instant view to determine where to place a stop loss order and where to take a profit using the Order Ticket or DOMTrader.

For example, if a trade was placed on the alert, then an OCO order (Order-Cancels-Order) can be manually placed through the order entry display to manage risk and to take profits. Also, CQG now offers both a fixed stop management approach and a trailing stop function.

Figure 8, (see next page), is an example of where the Alert was to buy five E-mini S&P 500 contracts at the market if the market traded down to 1331.75. The price trigger

Figure 8

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Display Options. As soon as the alert is triggered, a fill report opens, an email is sent, the Order Ticket opens and, a chart and a time & sales window comes up. Stop loss and target orders can be placed immediately to manage the trade.

was hit, the Alert Trigger Dialog opened and, the Fill report opened. The trade was filled at 1332.00. The Order Ticket opened and an OCO order was manually placed to sell five at 1331.25 STP and 1333.75 limit. The time & sales tape and a chart opened up. An email was sent stating the following:

Alert EMail Action. 15-12:19 - PRICE[1] "PAAlert_1" - EPZ6 Last:133150, Below:133150 Silent.

The first example detailed an alert based on a breakout above the last price. The second example was to buy at a level below the last price. Consider a situation where a trader identified a support level exists below the last price; the alert can buy when the market trades down to a price level that is just above support, and then hold the position as long as the support level is not broken.

In this situation, the alert is the same as a "market if touched" order. This example

would require two alerts entered in the price alerts menu: one to go long at the price right above or at support and one to liquidate the position if the market trades through the support level. In this case, "Below" and "Below Actions" preferences are used as the support level would be lower than the last price.

Four more types of alerts are available that include order routing. Next on the Alert

menu is Time Alerts, where a specific time triggers the alert. This could be used to trigger a notification before an economic release, a market is nearing the close for the session, or other time related events. A trader could use a time alert to liquidate all equity index futures positions as the stock exchange closes, (futures trade an additional 15-minutes), to avoid volatile market conditions as companies release earnings following the close of the equity exchanges.

Price Cross (X) Line alerts can be used for triggering notification and sending orders if a trend line is crossed. The trend lines can be placed by using the chart trend tool. Click on the Trend toolbar button. The alert will automatically track the price action relative to the trend line. To place an alert on a trend line, simply right-click on the line and select "Add Price X Line Alert on trend", and the initial information is already logged into the Price X Cross menu. Next, decide what actions to take and set up the Above or Below Actions menu.

Figure 10, (see next page), is an example of a down trend line placed on a constant volume chart set to 5,000 contracts. The trend line was penetrated at a price of 1330.00. The order to buy five contracts was filled, and the DOMTrader window opened with a TradeFlow chart attached. At that point, OCO orders were placed to take profits and manage the risks. The orders are shown in the DOMTrader price ladder.

The next Alert is the Study alert. Right-click on the study, for example, the relative

Figure 9

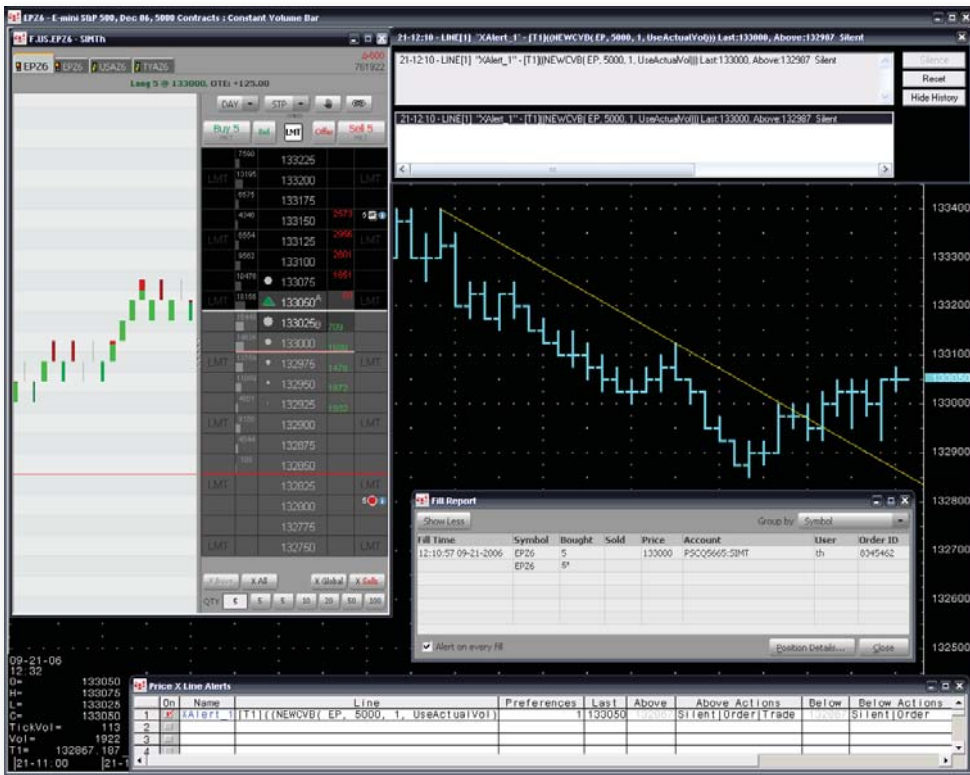
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	On	Local	Name	Time	Actions	Occurs	Note
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Close	14:00	Spkr:Up	Once	Stock Market Closes
2	<input type="checkbox"/>	<input type="checkbox"/>					
3	<input type="checkbox"/>	<input type="checkbox"/>					
4	<input type="checkbox"/>	<input type="checkbox"/>					
5	<input type="checkbox"/>	<input type="checkbox"/>					
6	<input type="checkbox"/>	<input type="checkbox"/>					
7	<input type="checkbox"/>	<input type="checkbox"/>					

Time Alerts can be used for generating the notification that a market is closing.

Figure 10

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Price X Line Alerts. Horizontal, up and down trend lines can be used to signal alerts. In the Price X Alerts menu the Above value is grayed out because the last price is above the trend line. Initially, when the last price was below the trend line value when the alert was attached to the trend line then the trend line reading in the Above cell was black. The current value of the trend line is shown as T1 in the lower cursor window.

Figure 11

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Study Alerts. Take study setups and convert them to alerts. Here, a long position was being managed with a trailing stop, but if the RSI hit 75, then the Alert Trigger Dialog Window and the DOMTrader opened, offering the trader the chance to take profits at an overbought condition in the market.

strength index (RSI), and select “Add Study Alert on RSI.”

For example, a position may be held with a trailing stop managed by CQG trade routing. But, if the RSI on the price hits 75 (often considered an overbought momentum reading), then an alert could be setup to open the DOMTrader and the chart. Analysis could be performed to decide whether taking profits is warranted. An order could be sent immediately to the exchange.

Figure 11 is an example of a profitable trade with a trailing stop resting in the DOMTrader. But, the one-minute bar RSI hit 75, and the study alert, which was setup to notify if the RSI hit 75 and bring up the DOMTrader, was triggered. The trader can elect to take profits and cancel the trailing stop.

The final alert is the Condition Alert. Conditions are a true/false situation. For example, the relative strength index is above 75, or the close of the bar is below the 20-bar simple moving average, or the current bar’s high is above the bar’s high five bars back, are all situations that are either true or false.

The Conditions Alert menu offers a Signal trigger input as well as a separate signal setup to restore the original signal. One use for conditions could be based on the observation that as markets trend, the price action tends to zigzag. Traders use momentum based oscillators to identify high and low points about the trend. The relative strength index (RSI) is one momentum oscillator used for this purpose.

The Conditions Alert menu can be set using the RSI to signal rising momentum from an oversold condition. The Signal setup in this case would be the RSI crossing 40 from below 35, i.e. momentum is turning up. The Restore Signals would be the RSI tagging 35. The RSI would have to drop to 35 first, and then the crossing above 40 would be the Alert.

Figure 12 is a chart example of this series of events. The bars are colored as well, based on these conditions. The bars are green if the RSI is greater than 40. The bars are blue if the RSI is below 40, and red if the RSI is below 35. In this case, the price action dropped, and the RSI went below 35, which set the reset signal for an Alert if the RSI climbed back above 40, and the DOMTrader with the TradeFlow chart opened up for a trader to place a trade. The alert could have included sending a market order to the exchange to buy.

Summary

Using CQG alerts is like having a trading assistant. Various setups based on price levels, conditions, study values, time of the day, and trend line breaks can be used over numerous markets. Now, a trader can convert technical knowledge, such as pattern recognition with studies, into precise setups and create alerts. The alert can trigger the alert trigger dialog, order routing displays, charts, audible warnings, and send orders to the exchanges. Positions can be placed and liquidated, and orders can be cancelled. Alerts can be used on any market, (trade routing is only available for electronically traded futures), giving traders a wide spectrum of opportunities to monitor. ■

Trading and investment carry a high level of risk, and CQG, Inc. does not make any recommendations for buying or selling any financial instruments. We offer educational information on ways to use our sophisticated CQG trading tools, but it is up to our customers and other readers to make their own trading and investment decisions, or to consult with a registered investment advisor.

Figure 12

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Condition Alerts. This condition alert brought up the DOMTrader if the RSI dropped below 35 and then climbed back above 40 on this one-minute chart of the E-mini S&P 500. This occurred on the first green bar following the bottom and closed at a price of 1322.25. At this point, the Signal is grayed out because the RSI has climbed back above 40. If the RSI drops below 35 again, the Signal setup is restored.

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