

# CQG Spreader Quick Reference Guide

# Creating a Spread QFormula,

Spread Formula = SPREAD (<CQG expression>, <calculation mode>, <tick size>, <trade ratio>, <BAT filter>, <rollover>)

Always include the comma, even if you do not enter a value. For example: SPREAD(1.6\*TYA-USA,,,5:3)

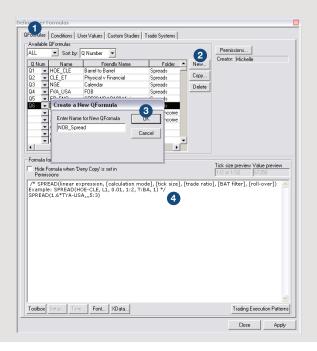
### **Spread Formula Components**

- CQG expression: Names the symbols and optional multipliers. Each element of the expression can consist of one symbol and one multiplier.
- Calculation mode: Identifies how you would like the spread calculated, by legs or currency.
  - Auto = displays difference in price between symbols.
  - L1, L2, L3, etc. = displays price based on tick value of leg.
  - CUR = displays the price based on currency values of the legs.
- Tick size: Specifies the spread tick size. Specify tick size in binary format as well as decimal format.
  - 1/2 1/4 1/8 1/16 1/32 1/64 1/128 1/256 1/512 1/1024 1/2048 1/2 1/64 1/8 1/32 1/4 1/32 1/2 1/32
  - For CUR mode, tick size is the maximum common denominator of leg tick values or else the minimum tick value.
- Trading ratio: Specifies the order quantity for each leg in this format: leg one:leg two:leg three.
- BAT filter: Each leg has a BAT (Bid/Ask and Trade) filter. Separate
  the filter for each leg with a colon. If the leg has no bid/ask data,
  trades are used.
  - BA = specifies that bids and asks of the given leg are used for synthetic quotes calculation.
  - T = specifies that trades of the given leg are used for synthetic quotes calculation.
- Rollover: If turned on, when one leg expires, all legs roll over to the same month.
  - 0 = same month rollover is turned off.
  - 1 = same month rollover is turned on.

### To Create a Spread QFormula

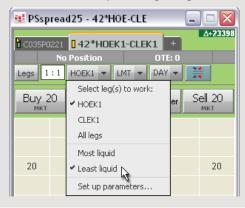
- 1. Open the **Define User Formulas** window, and go to the **QFormulas** tab.
- 2. Click the New button.
- 3. Enter a name for the QFormula, and click **OK**.
- 4. In the Formula Editor, type **SPREAD(**. The system displays the spread format for you. Replace **SPREAD(@)** with your spread formula.

The formula is assigned a QNumber that you enter directly on the DOMTrader or Order Ticket.



## Working Leg Options >

On this menu, you choose which of the spread legs to work first: **Most liquid** (CLE), **Least liquid** (ET), or **All legs**, which works both simultaneously. Clearing all legs initiates Sniper mode.



## Charting Spreads >

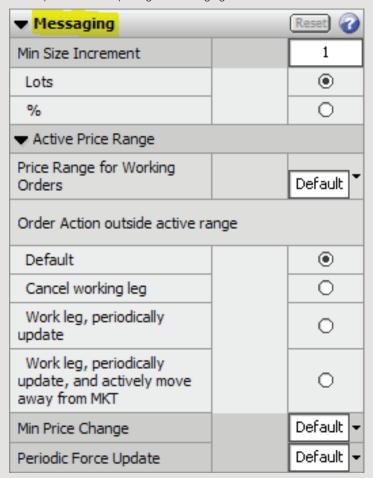


The DOMTrader and chart are configured to display the dollar difference between the price of the eCBOT 10-year T-note contract and the weighted price of the 30-year T-bond contract.



# **Setting Messaging Parameters** >

These parameters help mitigate messaging:



• Min Size Increment: Tells the system to modify a working order quantity only if the quantity available in the monitored leg increases by at least n. This parameter minimizes transaction count and is applied to the working order only when the monitored available quantity increases less than n. The working order size is always modified down on a decrease when the available quantity on the monitored market decreases. Choose between lots and percentage.

Allowed values = 1 to 9999.

Default = 1 lot.

- Active Price Range: Defines the range (from best bid/best offer, whichever is closest) where orders are actively worked in price increments.
- Range Size: Uses the following values to define the range.
   Default = do not override the server setting.
   Any = no limit.

0 = work the order if on best bid/best offer only. 1-10, 20, 30 = price increments from best bid/best offer where orders will be worked or modified.

Order Action outside active range: Determines how working legs
that are far from best bid/best ask are handled by the Spreader
system. A working leg order is considered far from best bid/ask by
the number of price increments specified in the Active Price Range
field.

Default = do not override server settings.

Cancel working leg = cancels leg immediately if outside of range. Work leg, periodically update = keep the order wherever it is and move it only when the time comes for a periodic update (set in the Periodic Force Update field).

Work leg, periodically update, and actively move away from MKT = keep the order wherever it is, but move the order away from the market every time it should be adjusted away, and do periodic updates to the order to move it closer to the best bid/ask when necessary.

- Min Price Change: Updates the working leg order price in price increments/ticks. The Spreader system ignores any price changes that are smaller in price increments/ticks than this value.
   Default = do not override the server setting.
   1–3 = changes in price increments.
- Periodic Force Update: Applies a period of updates to the working leg order in seconds, such that every n seconds, the leg is put where it ought to be placed based upon current prices.

Default = do not override the server setting.

1, 5, 10, 30, 60, 300, 600 = number of n seconds chosen.



### **Setting Trading Parameters** >

#### Spread Properties



- Color: Determines the background color of the trading window.
- Overfill Management: Specifies how to manage overfills. No selection: Indicates that the trader manages the overfill and that the system should take no action.

Auto Hedge Overfills: Indicates that when either the working or leaning leg is overfilled, the system should try to maintain the leg ratio. Avoid Overfills: Indicates that the system should minimize the chance for an overfill to occur by working legs less aggressively.

• Ignore partial fills in price discovery: Indicates that the system ignores fill prices on the primary order.

#### How to Work



- Size: Indicates the size of each leg as determined by leg ratio setting.
- Work: Indicates which leg to work one, all, or neither.

### ▼ Messaging.



- Volume Multiplier: Determines size of working orders based on a percentage of resting volume available in queue of monitored leg.
- Work Threshold: Tells system to work order and if and only if available quantity in monitored leg is and remains greater than this value. The system works order only for quantity that exceeds this threshold.
- Min Size Increment: Tells the system to place an order only if the quantity available in the monitored leg is at least this much and to modify a working order only if the quantity available in the monitored leg increases by at least this much.

#### Proportional Execution



• Trigger: Used with ratio spreads. Indicates how many contracts (lots or percent) should be filled before second leg order is placed.

#### Queue Holders



- Min and Max Number of holders: Sets minimum and maximum number of orders to include in queue.
- # of levels: Indicates how many price levels to skip between orders
- Order size restore threshold: Indicates how far the market should run before maximizing size of a recently placed order that is now part of the group of stacked orders. The size of the working order is based on the currently available size in the monitored leg and the size of the orders in the group of stacked orders at the maximum order size. This setting overrides that system behavior in order to cut down on messaging.

#### If Incomplete





- Replace order to complete strategy by using selected method below: Determines whether the system should react to incomplete orders. Used with trailing limits and payups to determine how incomplete orders should be handled (the incomplete strategy). If not selected, the system does nothing.
- · Execute incomplete strategy if order is not filled in this many seconds: Indicates the amount of time that must elapse from acknowledgement before the incomplete strategy is executed. It allows you, for example, to wait a second to see if the market comes back.
- Allow leg to slip this number of ticks: Indicates the maximum number of ticks of slippage for the incomplete strategy. Can be a positive or negative value.

Trailing Limit, same side = Places a trailing limit order that tracks the same side as the incomplete order.

**Trailing Limit, opposite side =** Places a trailing limit order that tracks the opposite side of the incomplete order.

Payups = Replaces the original limit order to complete the spread with a limit order that has the price adjusted based on number of slip ticks.

- Monitor leaning DOM volume to determine when to replace order: Determines whether the system should monitor leaning DOM volume. The condition chosen from the list below must be met before the unfilled order is modified (either payup or trail it).
- Volume or volume ratio threshold: Determines whether the system should monitor leaning DOM volume. This condition must be met before the unfilled order is modified (either payup or trail it). **DOM Volume =** Uses the threshold parameter as an absolute volume. When the leaning leg volume available at the exchange (best bid/ask, as appropriate for a leaning sell/buy order) drops below this specified volume, then the system performs a payup (replaces the original limit order to complete the spread with a limit order that has the price adjusted based on specified number of slipped ticks) or a trailing limit.

**DOM Volume relative to order size =** Uses the threshold parameter as a volume ratio.

DOM ratio between best bid/ask = Uses the threshold parameter as a volume ratio. When the ratio between volumes available at the exchange (best bid/ask for a leaning sell order, best ask/bid for a leaning buy order) falls below the specified ratio, then the system performs a payup (replaces the original limit order to complete the spread with a limit order that has the price adjusted based on specified number of slipped ticks) or a trailing limit.