

Introduction

Diversity CL is a price pattern-based swing trading system for the NYMEX WTI Crude Oil futures contract. The system uses multiple price patterns hence the name "Diversity". The strategy trades long and short. Percentage based stop and profit targets are used exit the market as well as a time-based exit.

The strategy has an average holding period of 2.5 days and trades 25-30 times a year on average.

Chart Setup

Diversity CL trades on the daily time frame. When adding the appropriate @CL symbol be sure to choose "Daily" as the trading interval. Choose at least several years of price history to view historical trades if desired.

Chart Setup for Live Trading

For live trading Diversity CL requires the current front month contract and the unadjusted contract from the same front month contract. The front month contract must be the primary symbol for the chart, secondly the unadjusted contract should be inserted onto the chart. To insert the unadjusted contract, right click on the @CL chart and select "Insert -> Symbol" and choose the appropriate unadjusted contract from the table below. The unadjusted contract is used to set the percentage based stop and profit target.

From the table below create a new chart window with the symbol corresponding to the front month. After the new chart window is created, insert a new symbol on the chart and select the symbol for the unadjusted close.

Front Month	Front Month Contract Symbol	Front Month Unadjusted Contract Symbol	Trading Interval
January	@CLF[Year Code]	@CLF[Year Code]=103XN	Daily
February	@CLG[Year Code]	@CLG[Year Code]=103XN	Daily
March	@CLH[Year Code]	@CLH[Year Code]=103XN	Daily
April	@CLJ[Year Code]	@CLJ[Year Code]=103XN	Daily
May	@CLK[Year Code]	@CLK[Year Code]=103XN	Daily
June	@CLM[Year Code]	@CLM[Year Code]=103XN	Daily

July	@CLN[Year Code]	@CLN[Year Code]=103XN	Daily
August	@CLQ[Year Code]	@CLQ[Year Code]=103XN	Daily
September	@CLU[Year Code]	@CLU[Year Code]=103XN	Daily
October	@CLV[Year Code]	@CLV[Year Code]=103XN	Daily
November	@CLX[Year Code]	@CLX[Year Code]=103XN	Daily
December	@CLZ[Year Code]	@CLZ[Year Code]=103XN	Daily

Year Code is a two-digit number representing the last two digits of the current year. For the year 2019, the year code is "19". Information on custom futures contracts can be found by in the TradeStation platform help manual and searching for "Futures Symbology"

The unadjusted contract will be designated as **Data2**. It can be removed from the chart via the following steps:

1. Right click on the chart
2. Select Format Symbol
3. Choose Data2
4. Select the Scaling tab
5. Under Axis, choose the Sub-Graph pull-down and select "Hidden"

Chart Setup for backtesting

Creating a new chart with @CL as the symbol and insert @CL=103XN as the unadjusted continuous contract.

Rollovers

Diversity CL is designed to run on the front month contract. The @CL symbol should not be used for live trading, only for backtesting. For live trading use the most liquid front month contract. If you are in a trade when volume and open interest move to a new front month contract, you must manually roll your position to the new contract.

Strategy Setup

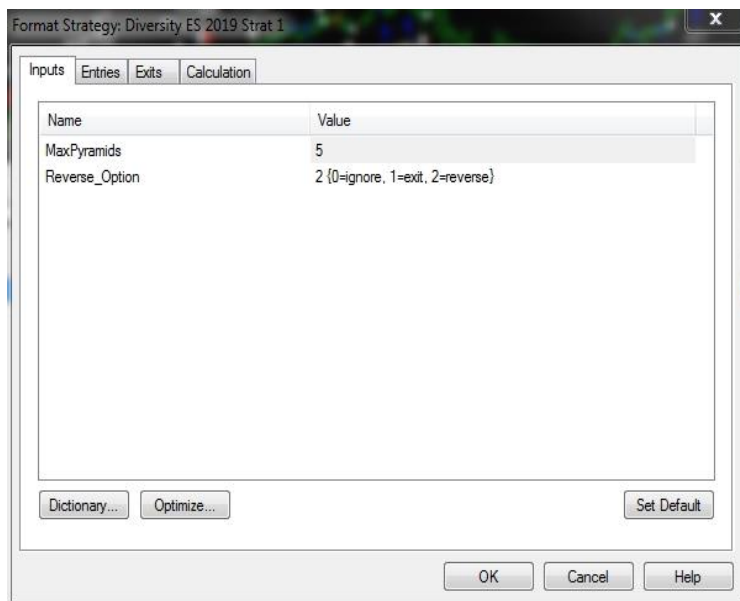
After setting up the chart window with the ES futures data you may not insert the strategy on the chart. To insert the strategy, right click on the chart window and select "Insert Strategy". Find and select Diversity CL and click the "OK" button.

After selecting the Diversity CL strategy, the "Format Analysis Techniques & Strategies" window will open where you can change strategy settings if desired.

Strategy Inputs

The strategy has two user modifiable inputs:

- MaxPyramids: whether you would like to take additional signals in the same direction (pyramid) and if so, how many additional signals to take. Setting this value to zero will not take additional signals in the same direction. **Please be aware that taking additional signals entails adding additional risk to your position.**
- Reverse_Option: whether to reverse a position when an opposite direction signal is detected (long to short or short to long). 0 = no reversal, 1 = exit on signal reversal, 2 = reverse long to short or short to long (default)

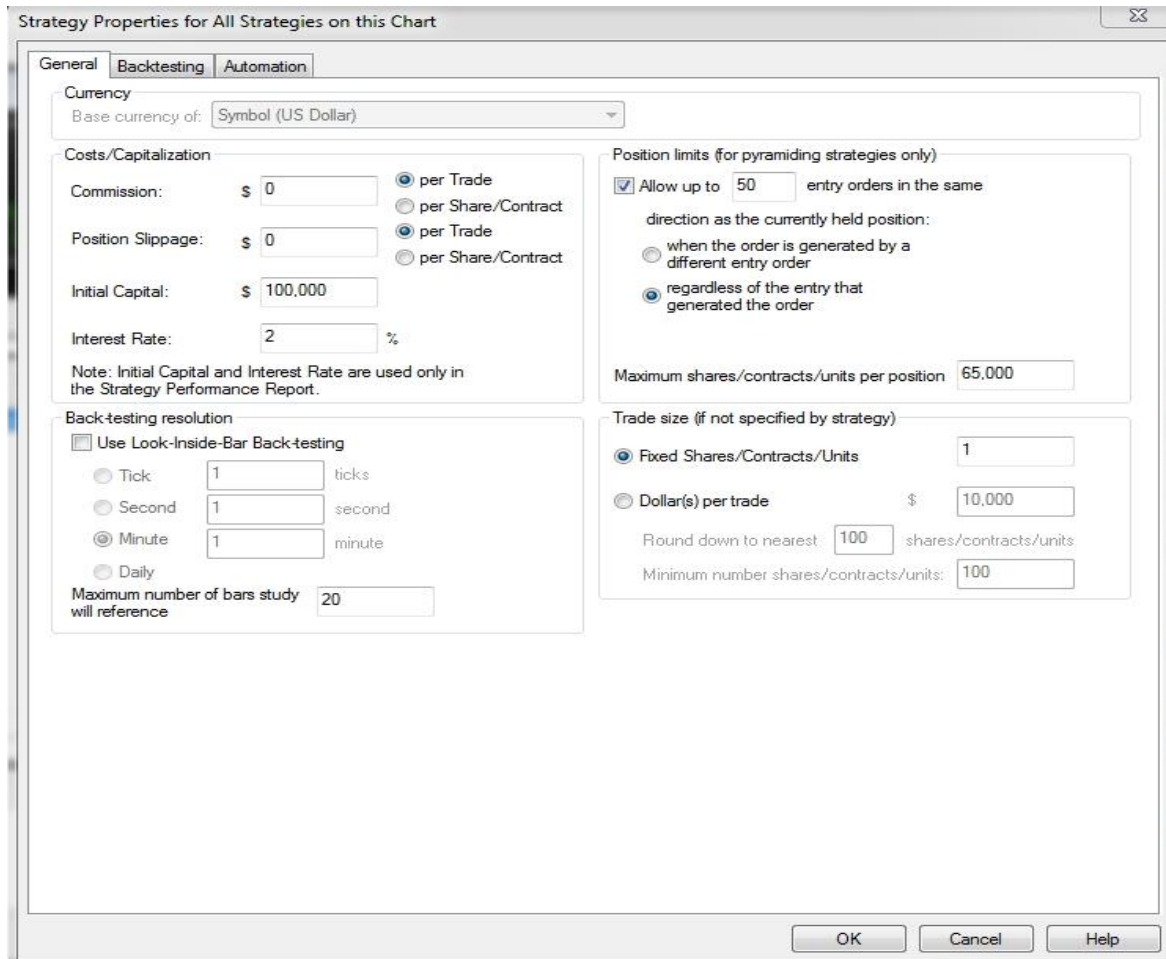


Modify the inputs either when the strategy is first added to the chart or by right clicking on the chart and selecting “Format” and modifying the inputs accordingly.

Historical research and testing have shown that the strategy performs best with MaxPyramids ≥ 2 and Reverse_Option = 2.

Setting for Order Pyramiding

If you plan to use the strategy to pyramid when new signals are received (MaxPyramids input ≥ 1), make sure the strategy setting allow for additional orders. Right click on the chart, and select Format Strategies. Then select “**Properties for All**” and enable “**Allow up to N entry order in the same direction**” with the additional selection of “**regardless of the entry that generated the order**”. as shown below:



MaxBarsBack Setting

MaxBars back for the strategy should be set to twenty (20). This setting applies to historical backtests and live trading. A execution error will result if MaxBarsBack is not set to at least 20.

Stops and Risk

Diversity CL uses a 2% stop which allows for normal daily fluctuation. Percentage based stops adapt to changes in market levels and increase in size as the market in question rises and vice versa. Because of this fact you should be aware of the risk you are taking on each trade. The risk could be as high as 2.0% + commissions + slippage on a one-contract basis.

Strategy Orders

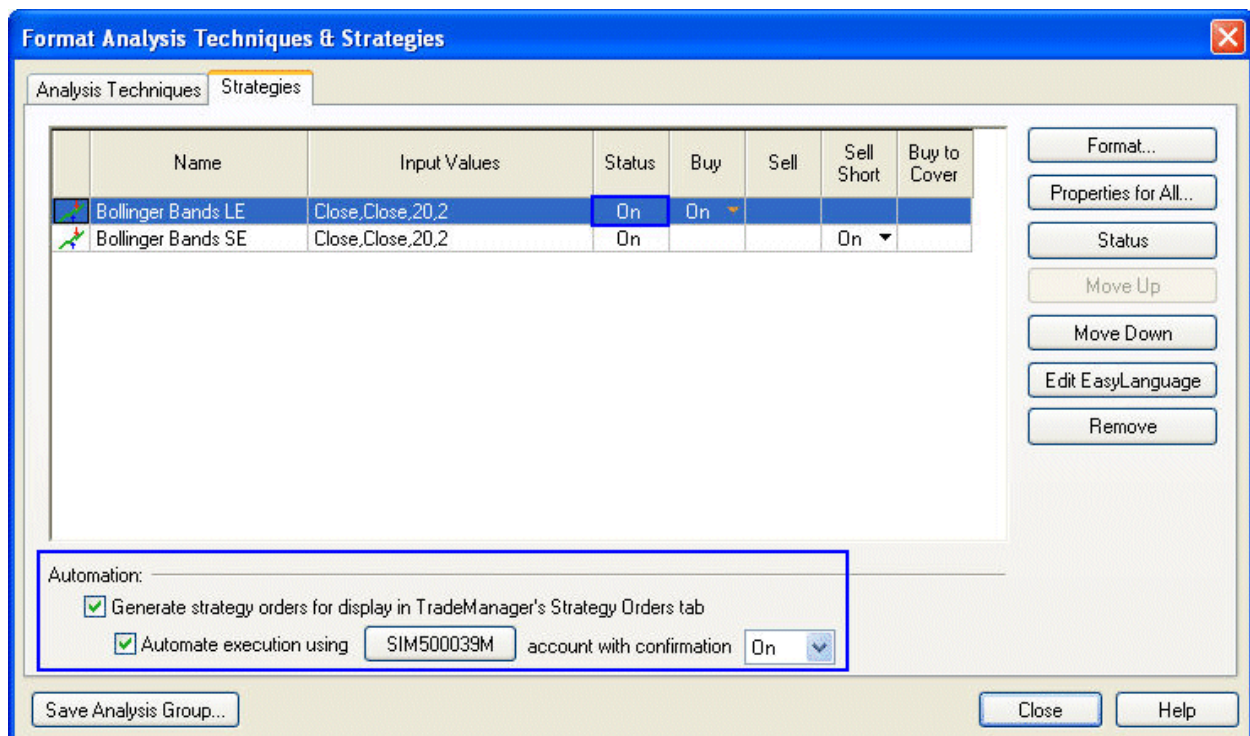
Diversity CL generates a market order to enter on the next open. The strategy generates a protective stop order and limit profit target order as well. **Because the protective stop order and profit target are dependent on the entry price, no orders for protective stop or profit target are generated for the day of entry.** Research has shown that a profit target and stop on the day of entry reduces overall profitability

For instructions on manually placing protective stop and profit target orders on the day of entry please see the additional document provided with the strategy entitled "**Placing Manual Stop and Profit Target Orders**".

The typical exits are profit target (limit order), stop loss (stop order), reversal (market order). The strategy will also generate orders to exit at the market if the strategy holding period is met or if overbought/oversold conditions are met.

In order to see orders generated by Diversity CL, strategy automation must be enabled. **It is critically important that you allow the strategy to send orders to the order manager.** The risk of not allowing strategy automation is that you may miss strategy orders and not exit the market in a timely fashion.

To enable automation right click on the chart and select "Format Strategies". Select the "Strategies" tab from the dialog window and you should see the following dialog box:



TradeStation has two levels of Strategy Automation:

- **Generate strategy orders for display in TradeManager's Strategy Orders tab**

This checkbox, used alone, will track hypothetical positions and create a real-time log of orders in the TradeManager window but will NOT send orders to the market for execution

- **Automate execution using <account number> account with confirmation On/Off**

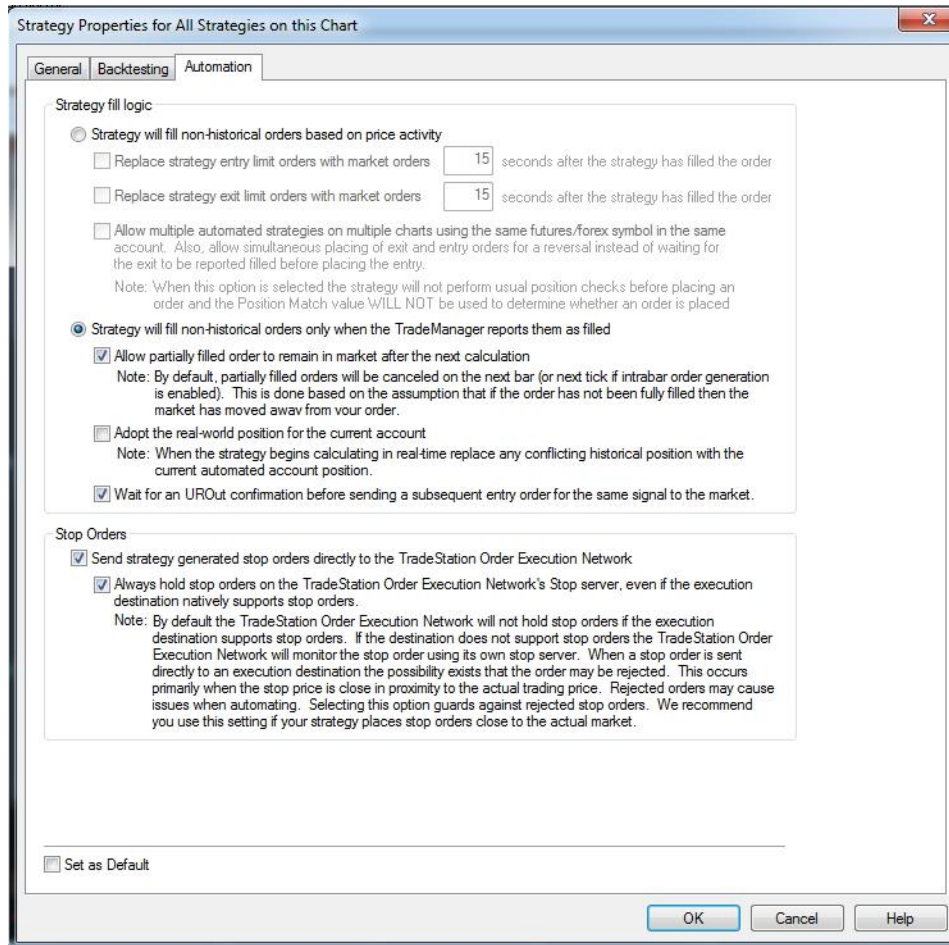
This checkbox authorizes orders to be sent to market for execution in the account you specify. Confirmation On requires that you authorize each order before it is placed

Details on enabling strategy automation may be found in the Platform Help Manual by searching for "Enabling Automated Execution for a Strategy"

Strategy Order Handling

In addition to automating the strategy, you must decide what the logic should be for handling strategy fill orders for limit and stop prices. Read the platform help manual to understand strategy order handling under “Enabling Automation Execution for a Strategy”.

The screen shot below shows the settings that I recommend:



NOTE: Please do not enable Diversity CL for live trading until you thoroughly understand how to automate a strategy including the order handling logic.

Support

You may contact me at collison956@gmail.com with any support questions

Disclaimer

CFTC DISCLAIMER

HYPOTHETICAL PERFORMANCE RESULTS HAVE MANY INHERENT LIMITATIONS, SOME OF WHICH ARE DESCRIBED BELOW. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFITS OR LOSSES SIMILAR TO THOSE SHOWN. IN FACT, THERE ARE FREQUENTLY SHARP DIFFERENCES BETWEEN HYPOTHETICAL PERFORMANCE RESULTS AND THE ACTUAL RESULTS SUBSEQUENTLY ACHIEVED BY ANY PARTICULAR TRADING PROGRAM.

ONE OF THE LIMITATIONS OF HYPOTHETICAL PERFORMANCE RESULTS IS THAT THEY ARE GENERALLY PREPARED WITH THE BENEFIT OF HINDSIGHT. IN ADDITION, HYPOTHETICAL TRADING DOES NOT INVOLVE FINANCIAL RISK, AND NO HYPOTHETICAL TRADING RECORD CAN COMPLETELY ACCOUNT FOR THE IMPACT OF FINANCIAL RISK IN ACTUAL TRADING CONDITIONS. IN ADDITION THE ABILITY TO WITH STAND LOSSES OR TO ADHERE TO A PARTICULAR TRADING PROGRAM IN SPITE OF TRADING LOSSES ARE MATERIAL POINTS WHICH CAN ALSO ADVERSELY AFFECT ACTUAL TRADING RESULTS. THERE ARE MANY OTHER FACTORS RELATED TO THE FINANCIAL MARKETS IN GENERAL OR TO THE IMPLEMENTATION OF ANY SPECIFIC TRADING PROGRAM WHICH CANNOT BE FULLY ACCOUNTED FOR IN THE PREPARATION OF HYPOTHETICAL PERFORMANCE RESULTS, ALL OF WHICH CAN ADVERSELY AFFECT ACTUAL TRADING RESULTS.

THE RISK OF LOSS IN TRADING FUTURES, OPTIONS, COMMODITIES, AND STOCKS CAN BE SUBSTANTIAL. YOU SHOULD THEREFORE CAREFULLY CONSIDER WHETHER SUCH TRADING IS SUITABLE FOR YOU IN LIGHT OF YOUR FINANCIAL CONDITION. IN CONSIDERING WHETHER TO TRADE OR TO AUTHORIZE SOMEONE ELSE TO TRADE FOR YOU, YOU SHOULD BE AWARE OF THE FOLLOWING: IF YOU PURCHASE OR SELL A FUTURE, OPTION, YOU MAY SUSTAIN A TOTAL LOSS OF THE INITIAL MARGIN FUNDS AND ANY ADDITIONAL FUNDS THAT YOU DEPOSIT WITH YOUR BROKER TO ESTABLISH OR MAINTAIN YOUR POSITION. IF THE MARKET MOVES AGAINST YOUR POSITION, YOU MAYBE CALLED UPON YOUR BROKER TO DEPOSIT A SUBSTANTIAL AMOUNT OF ADDITIONAL MARGIN FUNDS, ON SHORT NOTICE. IF YOU DO NOT PROVIDE THE REQUIRED FUNDS WITHIN THE PRESCRIBED TIME, YOUR POSITION MAY BE LIQUIDATED AT A LOSS, AND YOU WILL BE LIABLE FOR ANY RESULTING DEFICIT IN YOU ACCOUNT. THE PLACEMENT OF CONTINGENT ORDERS BY YOU OR YOUR TRADING ADVISOR, SUCH AS A "STOP LOSS" OR "STOP LIMIT" ORDER, WILL NOT NECESSARILY LIMIT YOUR LOSSES TO THE INTENDED AMOUNTS, SINCE MARKET CONDITIONS MAY MAKE IT IMPOSSIBLE TO EXECUTE SUCH ORDERS.

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