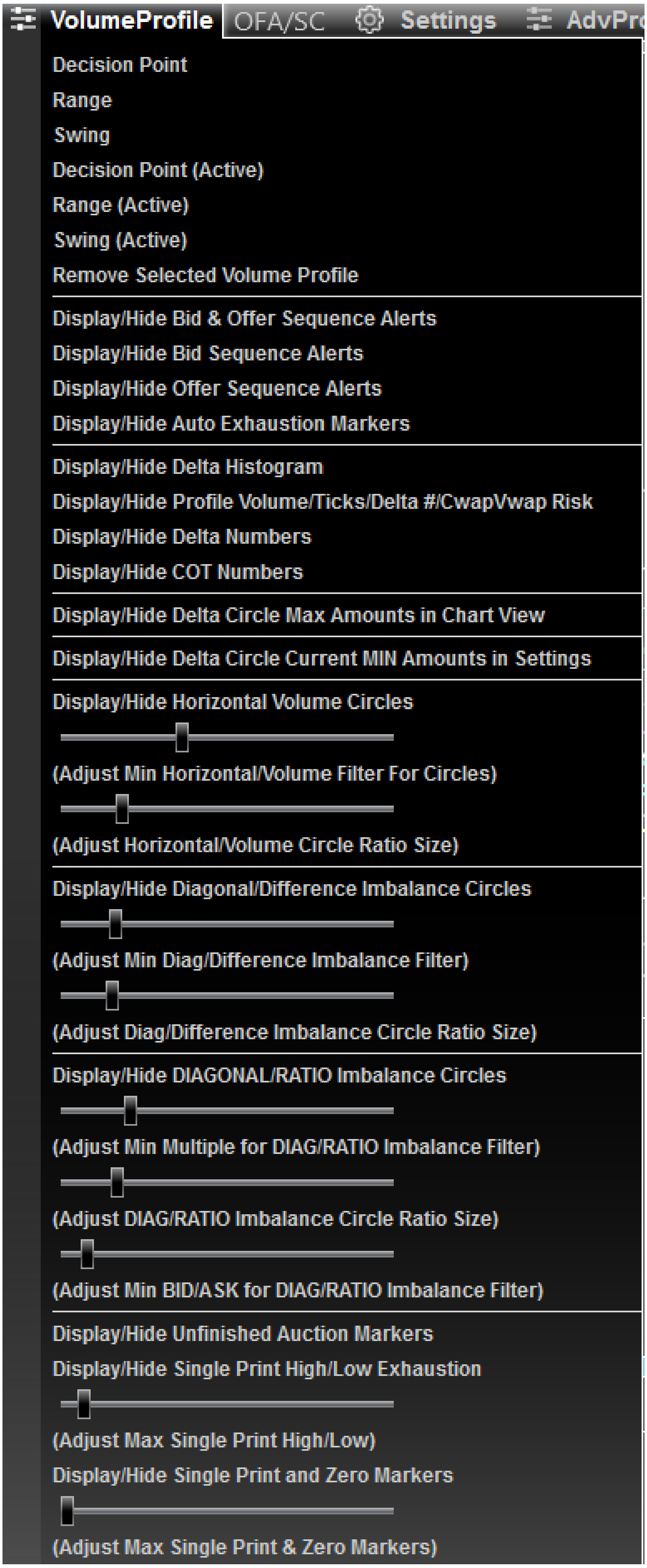
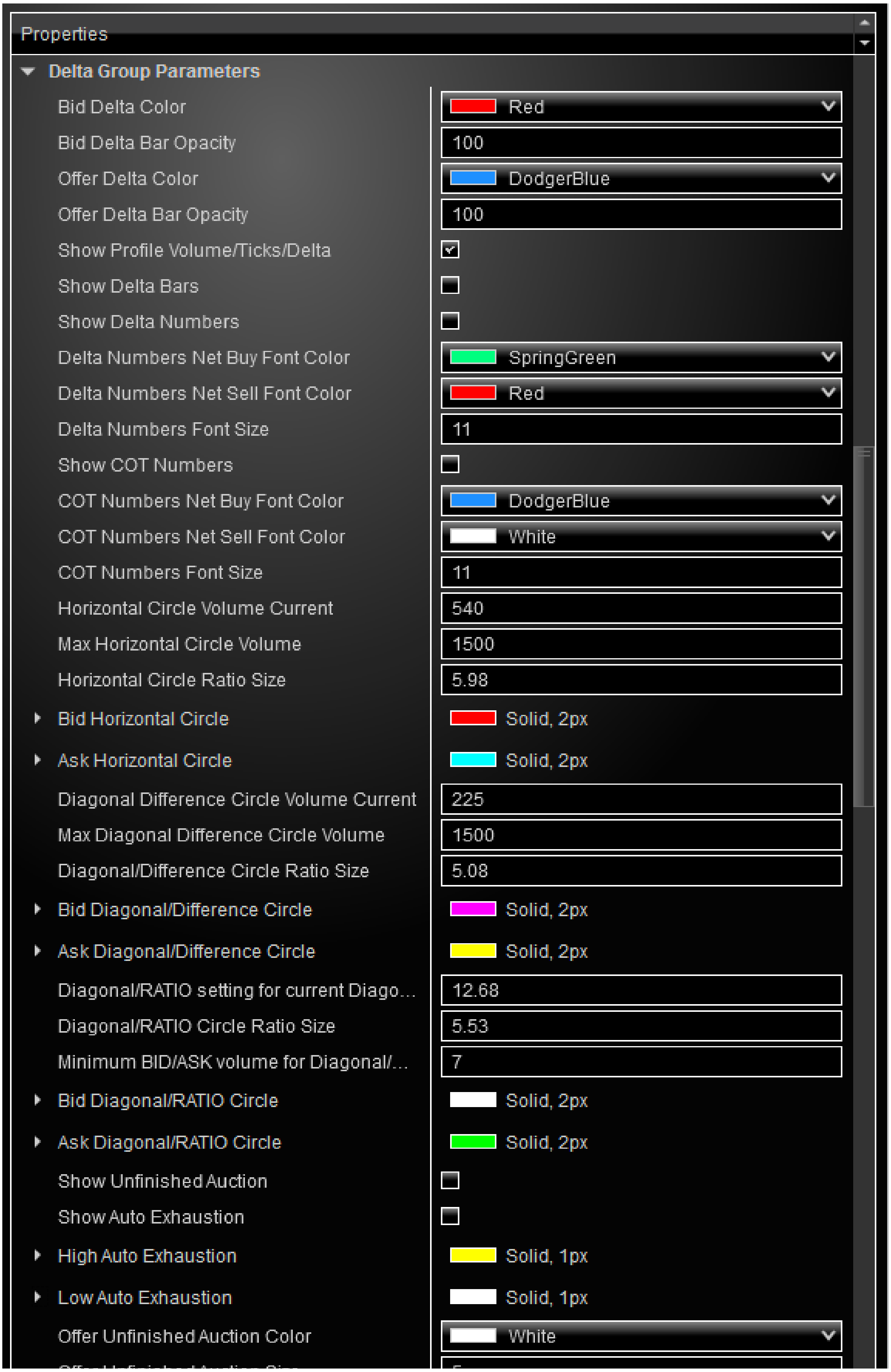
<u>Delta Addon Features and Enhancements for new versions</u>

The following section covers the Delta Addon functionality and settings in the OFA indicator settings panel & the use and operation of the controls on the **VolumeProfile** Menu.

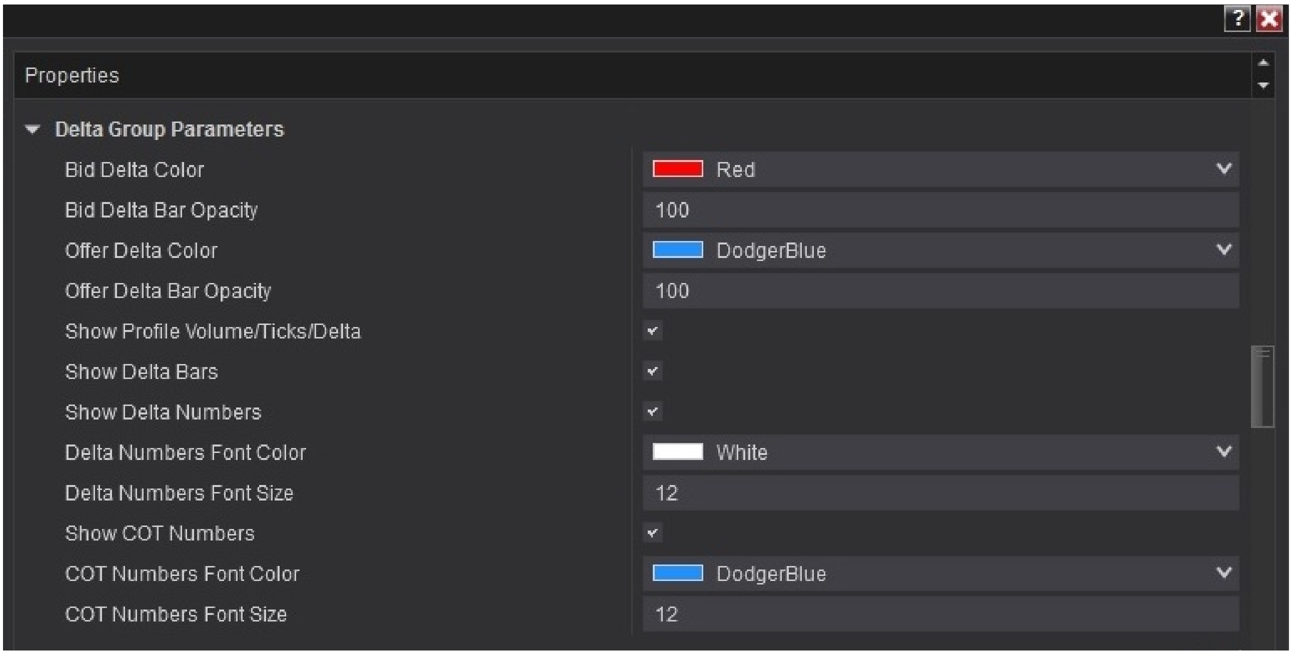
Note : the details of the Cumulative Delta Indicator can be found in the last section of the document.

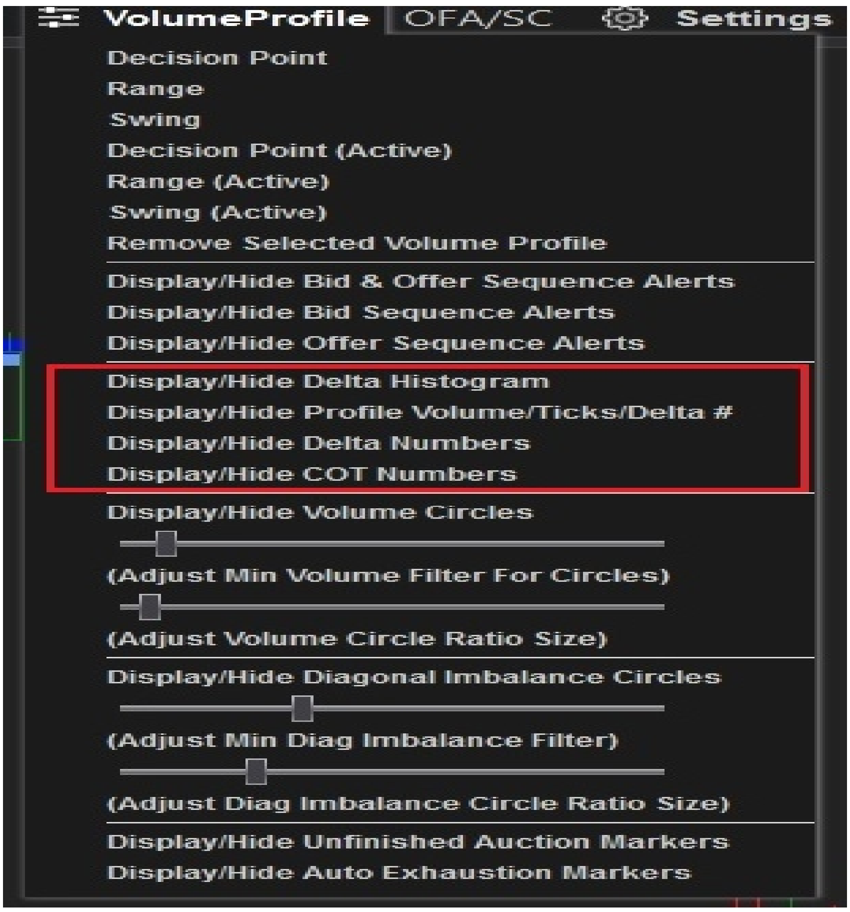

VolumeProfile
OFA/SC
Settings
AdvPr
Decision Point
Range
Swing
Decision Point (Active)
Range (Active)
Swing (Active)
Remove Selected Volume Profile
Display/Hide Bid & Offer Sequence Alerts
Display/Hide Bid Sequence Alerts
Display/Hide Offer Sequence Alerts
Display/Hide Auto Exhaustion Markers
Display/Hide Delta Histogram
Display/Hide Profile Volume/Ticks/Delta #/CwapVwap Risk
Display/Hide Delta Numbers
Display/Hide COT Numbers
Display/Hide Delta Circle Max Amounts in Chart View
Display/Hide Delta Circle Current MIN Amounts in Settings
Display/Hide Horizontal Volume Circles
(Adjust Min Horizontal/Volume Filter For Circles)
(Adjust Horizontal/Volume Circle Ratio Size)
Display/Hide Diagonal/Difference Imbalance Circles
(Adjust Min Diag/Difference Imbalance Filter)
(Adjust Diag/Difference Imbalance Circle Ratio Size)
Display/Hide DIAGONAL/RATIO Imbalance Circles
(Adjust Min Multiple for DIAG/RATIO Imbalance Filter)
(Adjust DIAG/RATIO Imbalance Circle Ratio Size)
(Adjust Min BID/ASK for DIAG/RATIO Imbalance Filter)
Display/Hide Unfinished Auction Markers
Display/Hide Single Print High/Low Exhaustion
(Adjust Max Single Print High/Low)
Display/Hide Single Print and Zero Markers
(Adjust Max Single Print & Zero Markers)

This screen shows the entire set of Delta Parameters and these are covered in the following section one group at a time.



This section covers the Delta Histogram ; Profile Volume/Ticks/Delta values and the Delta Numbers and COT Numbers that appear above or below each period bar. The Delta & COT Numbers will appear as part of the core OFA version : The Delta Histogram and all other elements in this document require the Addon Authorization in order to function and to be enabled in the menu shown below : In addition to the following elements : ***the Fib Tab covered in the Volume Profile Settings Document*** is also included in the Delta Addon package and ***requires authorisation*** for the effects and application of the settings to the volume profile region.



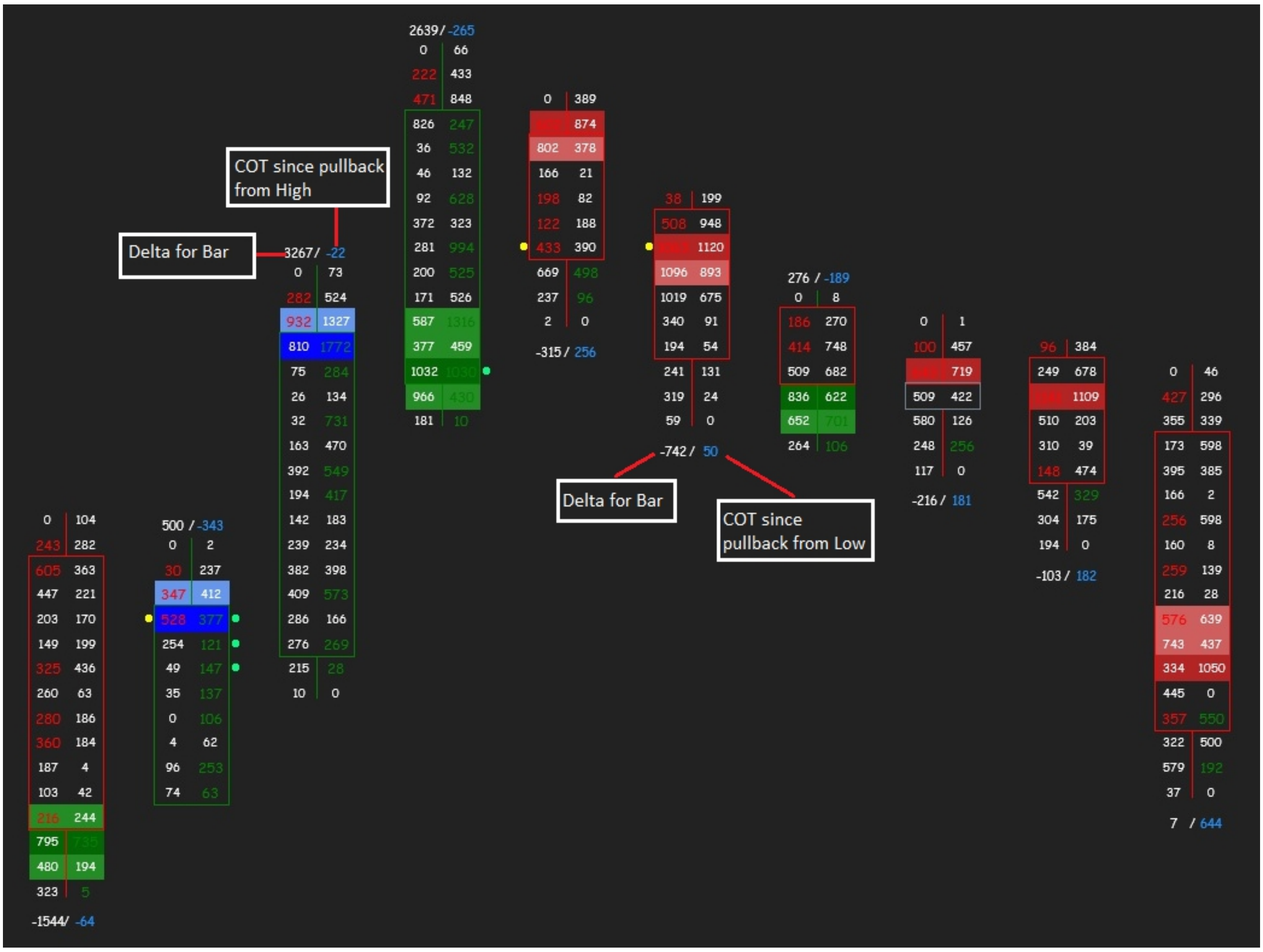


You will see in the Delta Group Parameters section of the OFA Indicator parameters the items : Show COT Numbers and Show Delta Numbers ; you will see the numbers above in a Probes Up bar and below the candle/bar in a Probes down bar. You will see two numbers :

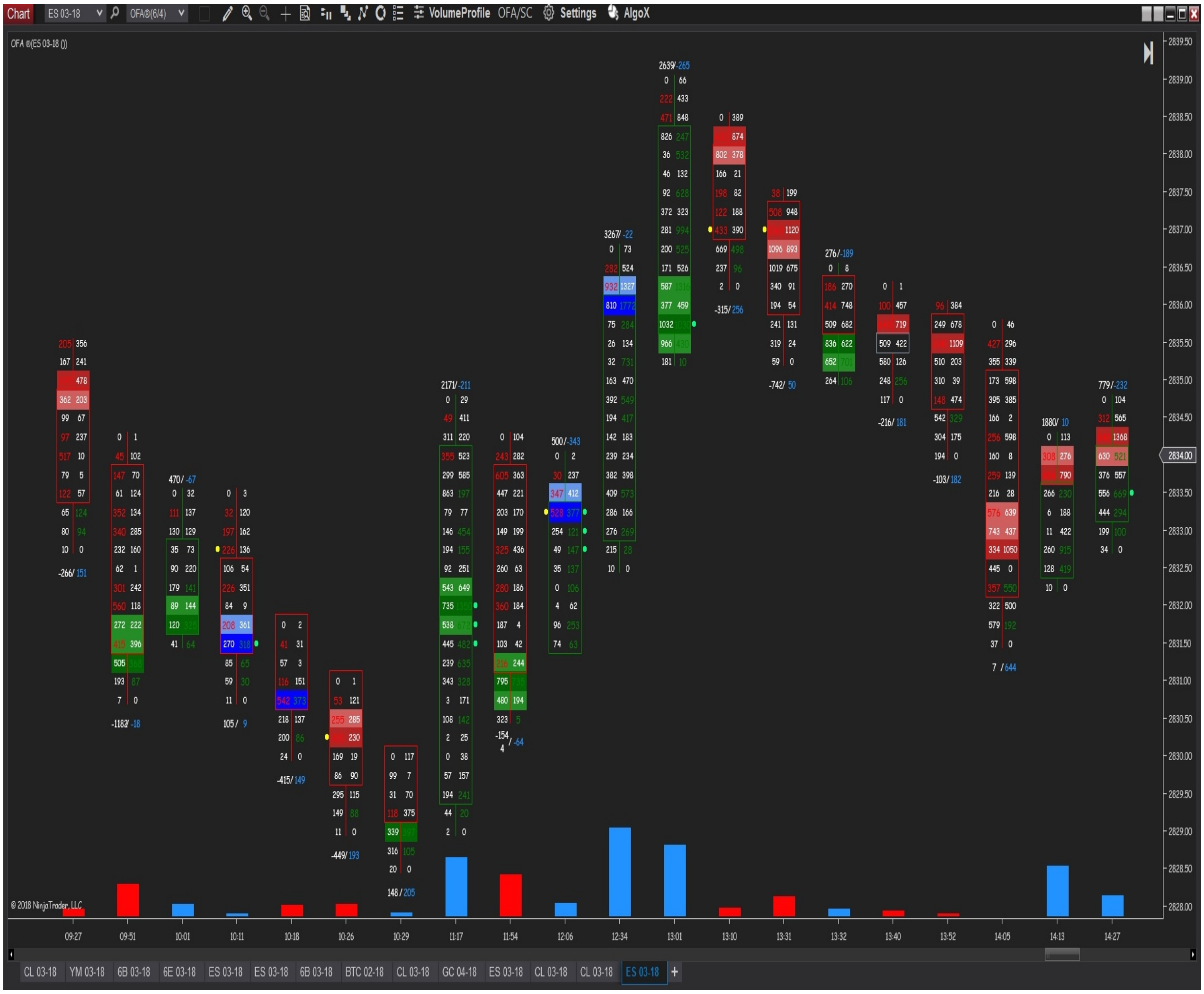
The number on the left represents the total delta for the entire period ; so if we were to take all the values at the offer and subtract all of the values at the bid we come up with a total number.

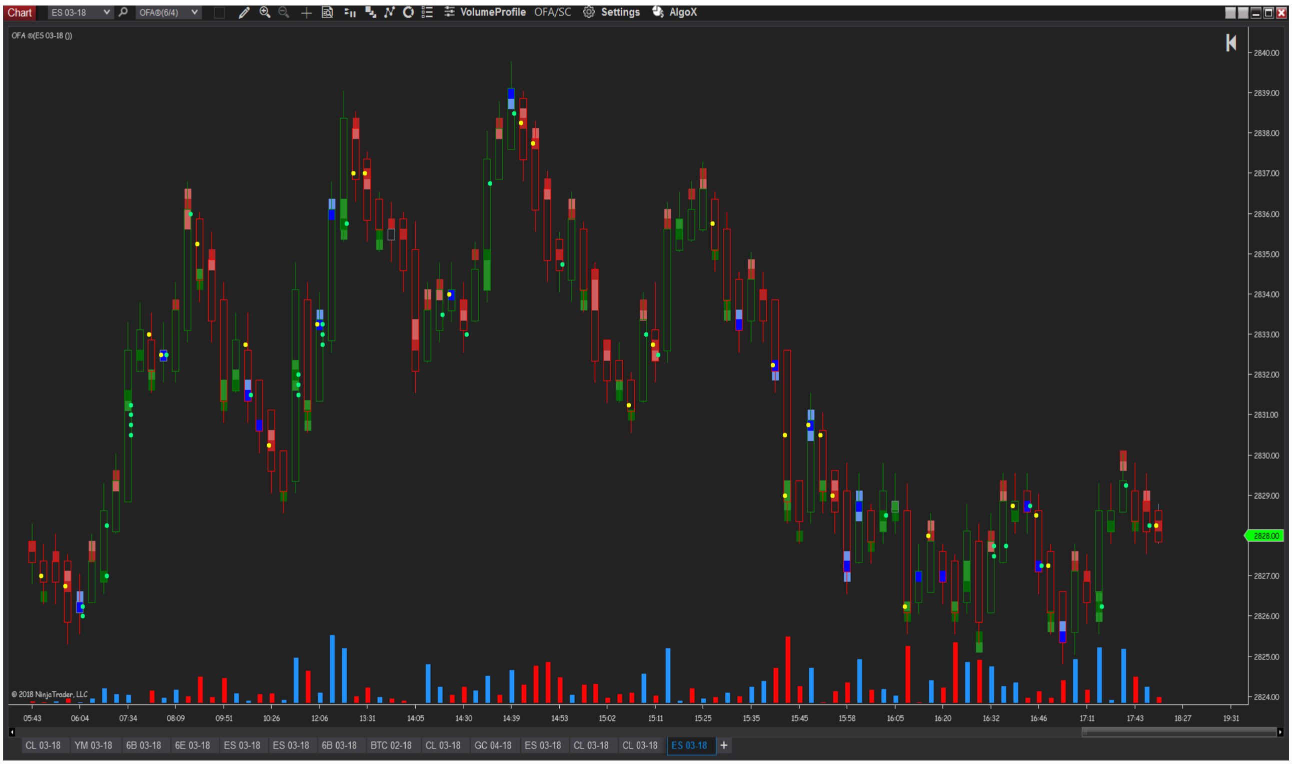
The second number (COT) represents the pullback before a new period is created in this case we are taking the values of the bid minus the ask in the upper portion and doing the same subtracting process.
The number is reset everytime we come up and make a new high or go down and make a new low ; thus everything that was printed prior is excluded ; so we are taking the delta since we pulled back or rotated. Some people find this information useful.

See the chart below for how these numbers are displayed. The above panel illustrates where the Color, Font size can be adjusted for each of these numbers.



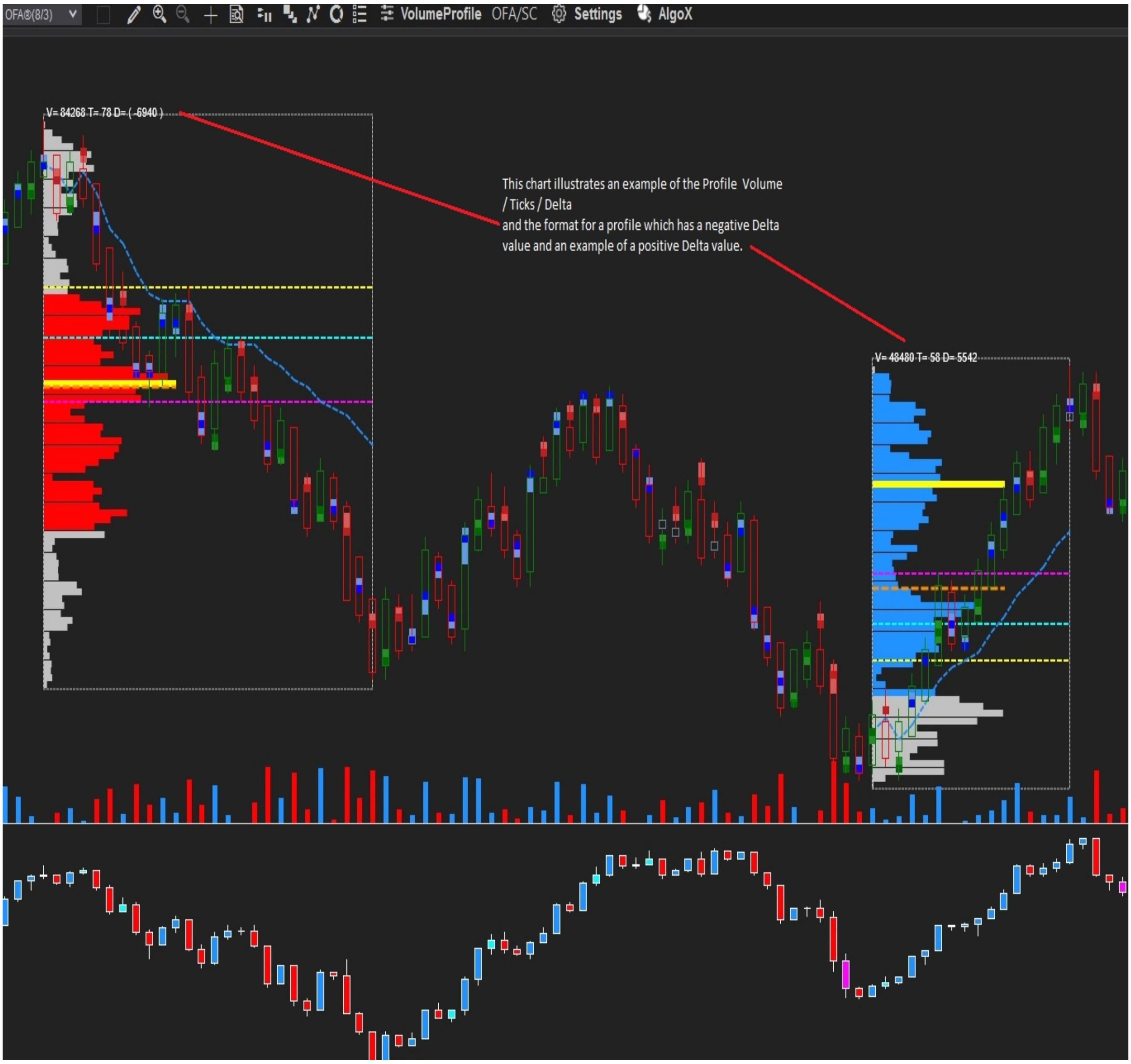
The Delta histogram is a new addition which appears as a histogram within the same panel as the OFA price bars. The rationale for this approach is to use less valuable screen real estate which is required when opening a separate indicator panel in Ninjatrader 8. The scaling of this will be relative to the visible range of bars that appear in the chart panel & will scale accordingly for Delta Values of higher order. The convenience ***Display/Hide Delta Histogram*** menu item that can be seen above enables the user to toggle between having this hidden or displayed. The color and opacity of these bars can be modified in the parameter settings shown also in the above graphic. The width of these histogram bars is scaled according to the bar width on display ; and thus will appear wider when being used in the print display versus the structure display of OFA bars shown below :





The next item in this delta group is the ***Profile Volume/Ticks/Delta*** numbers. These numbers are calculated for each Volume Profile added to the chart. These comprise of the ***total volume*** for the profile region ; the ***Ticks*** between the ***profile high & low*** ; the ***cumulative net Buy/Sell volume (Delta)*** for the profile. An example of the format for negative Net Volume where Selling volume exceeds the Buying volume for the profile region is as follows : (-2500) : this means the profile is net 2500 Selling; & the negative value is bracketed to distinguish from positive values. Where Buying volume exceeds the Selling volume the format is the # value without brackets. The chart below depicts an example of each where the set of numbers is displayed on the top left area just above the profile high price level.

The convenience ***Display/Hide Profile Volume/Ticks/Delta #*** menu item that can be seen above enables the user to toggle between having these values hidden or displayed. The color of the text used is derived from the color setting of the Standard Deviation lines in the volume profile.

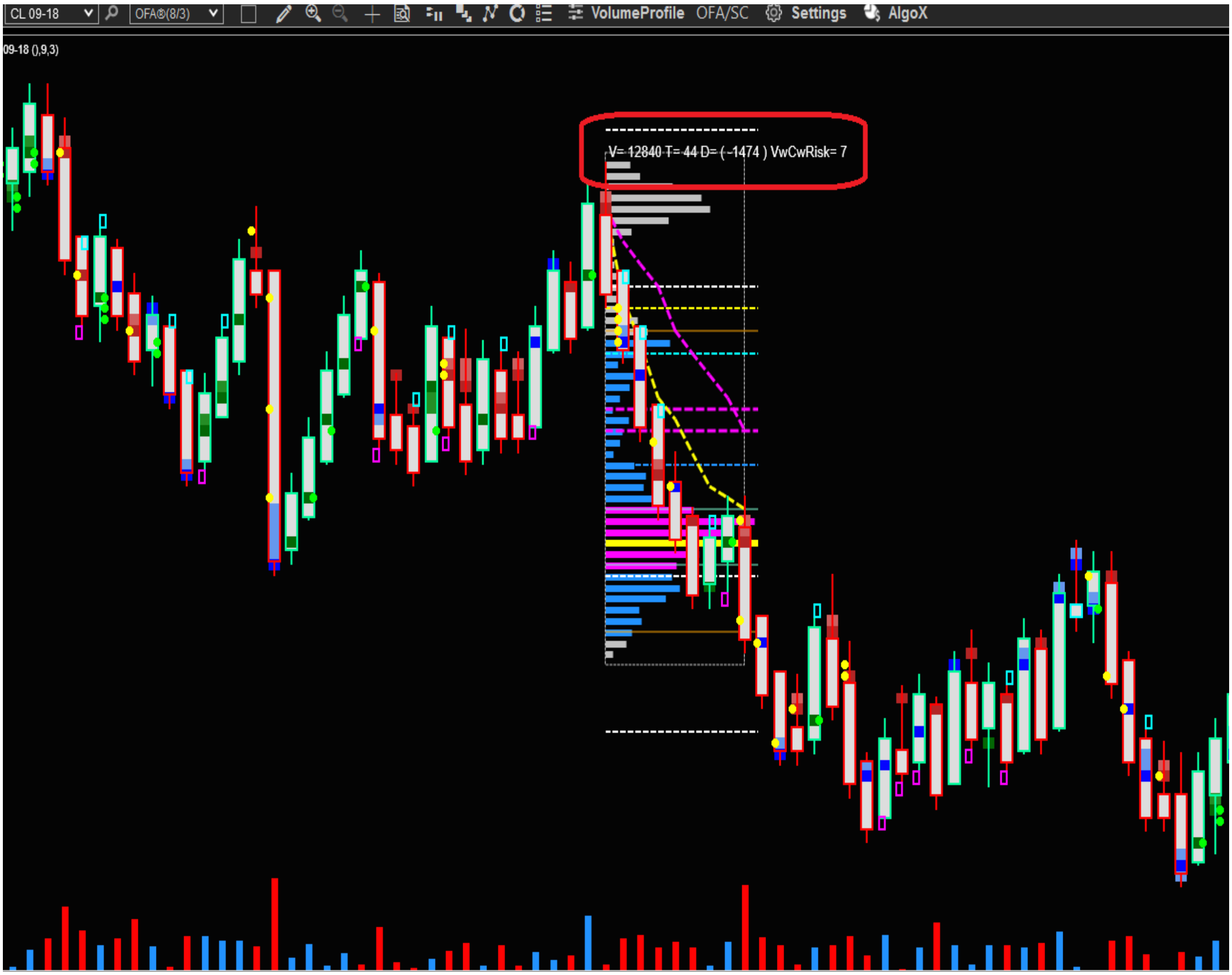


A new addition was made to the above CWAP/VWAP Risk Display At Top of Profile

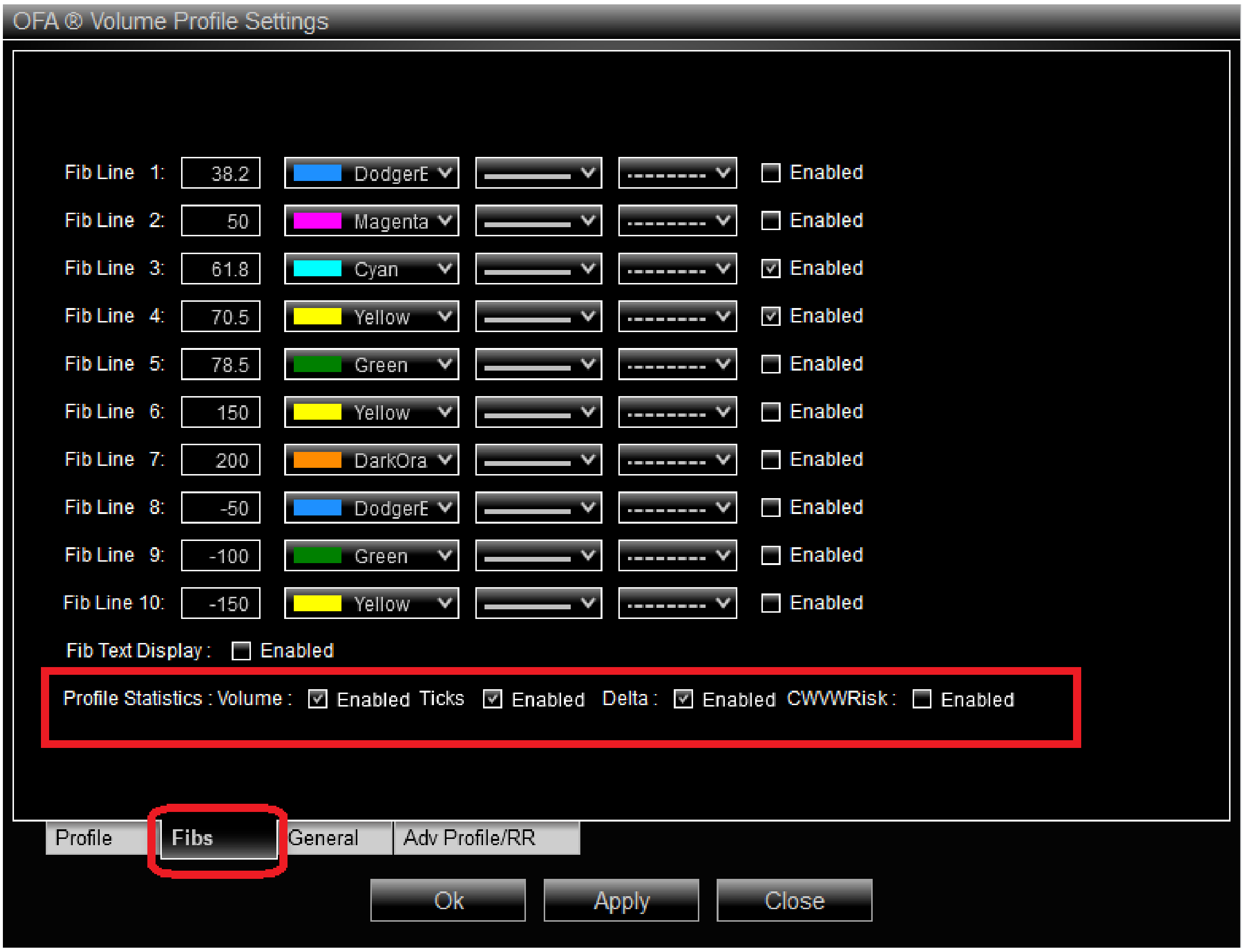
Cwap / Vwap Risk – display of the number of Ticks between the Profile VWAP price and the CWAP price at the right edge/live edge of profile.

This value is the last value displayed at the Top Left Display of the profile with menu option to Display/Hide the values. This value will update for profiles that are tracking the latest live bar. This gives an at a glance display in order to assess risk to reward of potential trades based on the entry at or around profile CWAP price with the Risk/Stop defined by the VWAP price.

The VWAP history line now also updates Realtime along with the horizontal vwap line.



All of the above elements for this profile statistics display can be configured to display any or none of the options : **Volume / Ticks / Delta / CWAPVWAP Risk** in the Fib tab of the Volume Profile Settings and saved for each of the 3 Profile Types. See below :



The next section covers the **THREE GROUPS** of **VOLUME/IMBALANCE Circle** tools provided in this version.

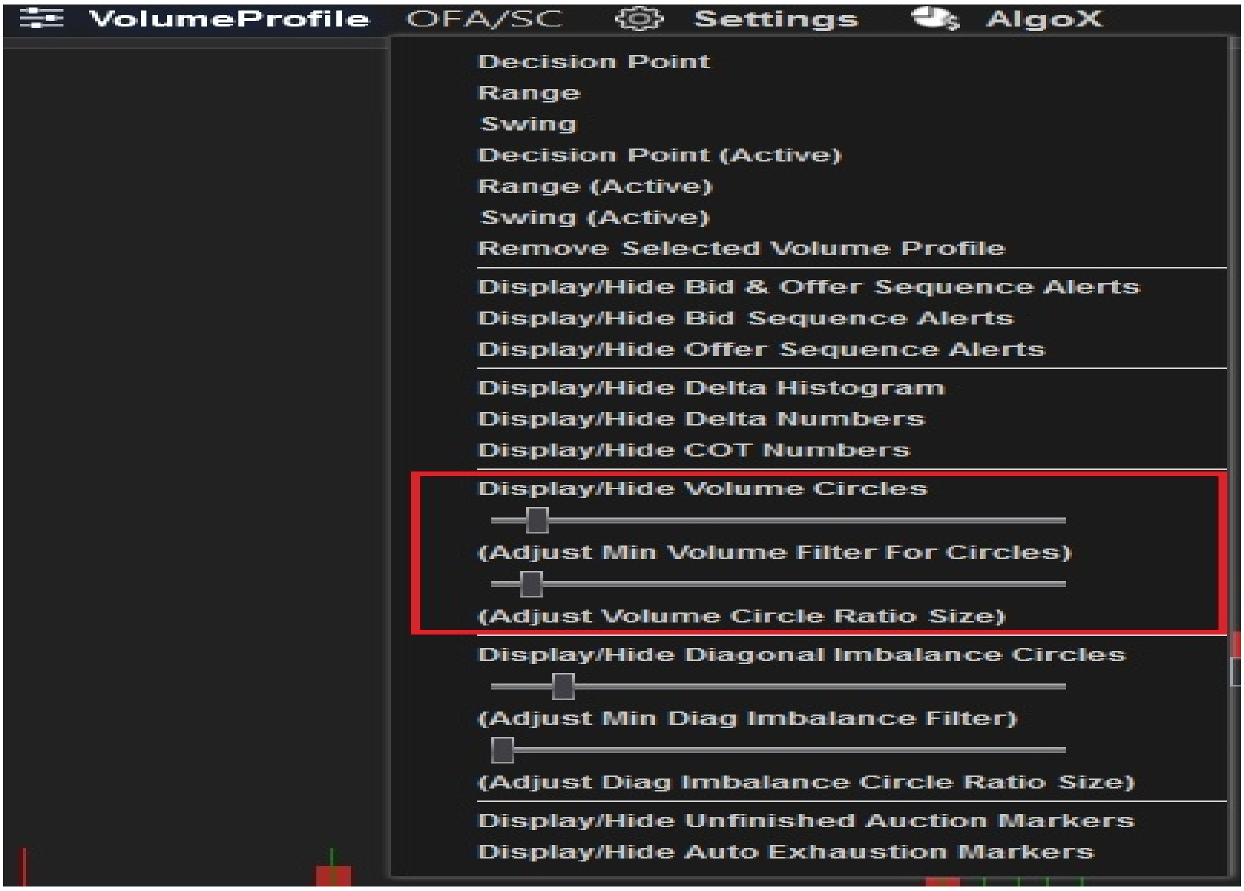
The **FIRST** of these is as shown in the menu below and will draw a circle that is scaled to the volume numbers at the bid or ask price level for the OFA bars within the visible range of the chart.

The circle will appear when the Horizontal Volume at the bid or ask price level is **AT A MINIMUM** the current slider setting value on the slider control. In other words the volume at the bid or ask (and these are denoted by different color circles) must be greater than the slider control value in order for a circle to appear. This can be a useful tool to facilitate visually marking bid ask levels at price where significant volume appeared & may be if interest in our analysis. As has already been stated in the PrintMode &Settings document at every price level and on each side of the bar, the number represents an equal number of buyers & sellers. The focus of this tool is to filter out where significant Aggressive Buying or Selling took place and to visually mark this with the circles.

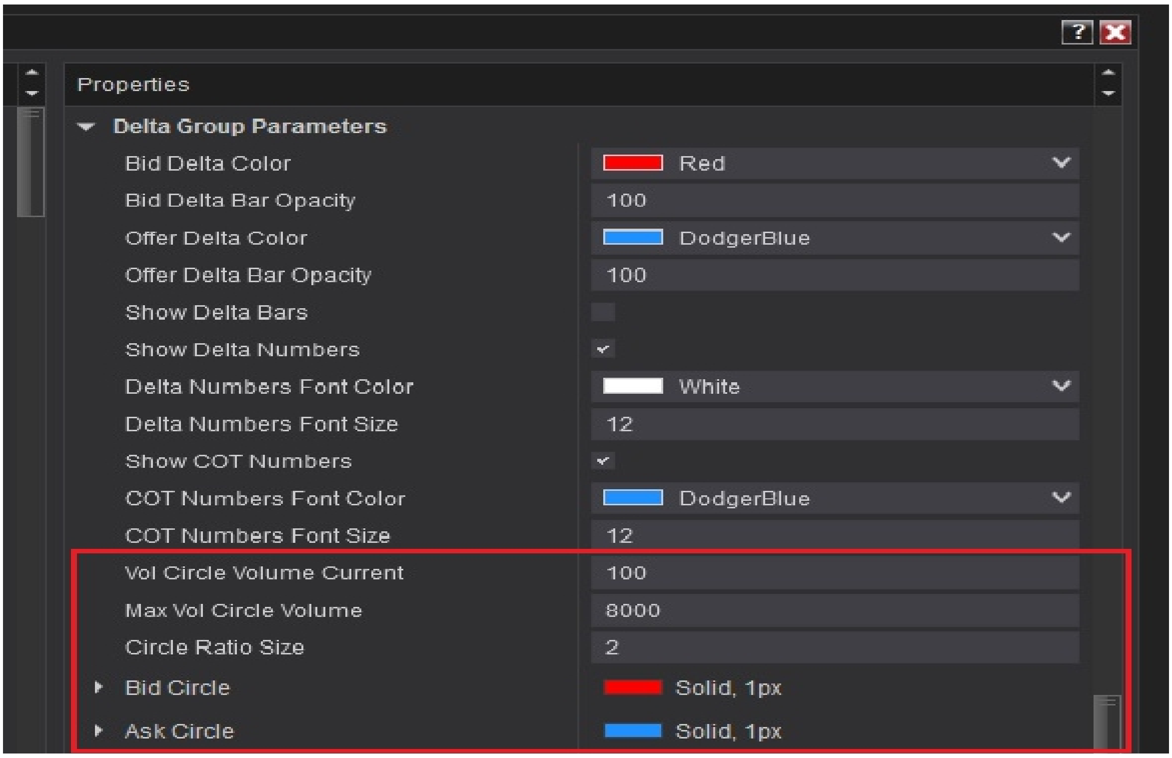
Since each instrument has different volume & liquidity characteristics one can dynamically adjust the slider control to guage what level of volume we wish to set as the minimum for the current chart period/session of trading without the need to reload the indicator with values set in the parameters.

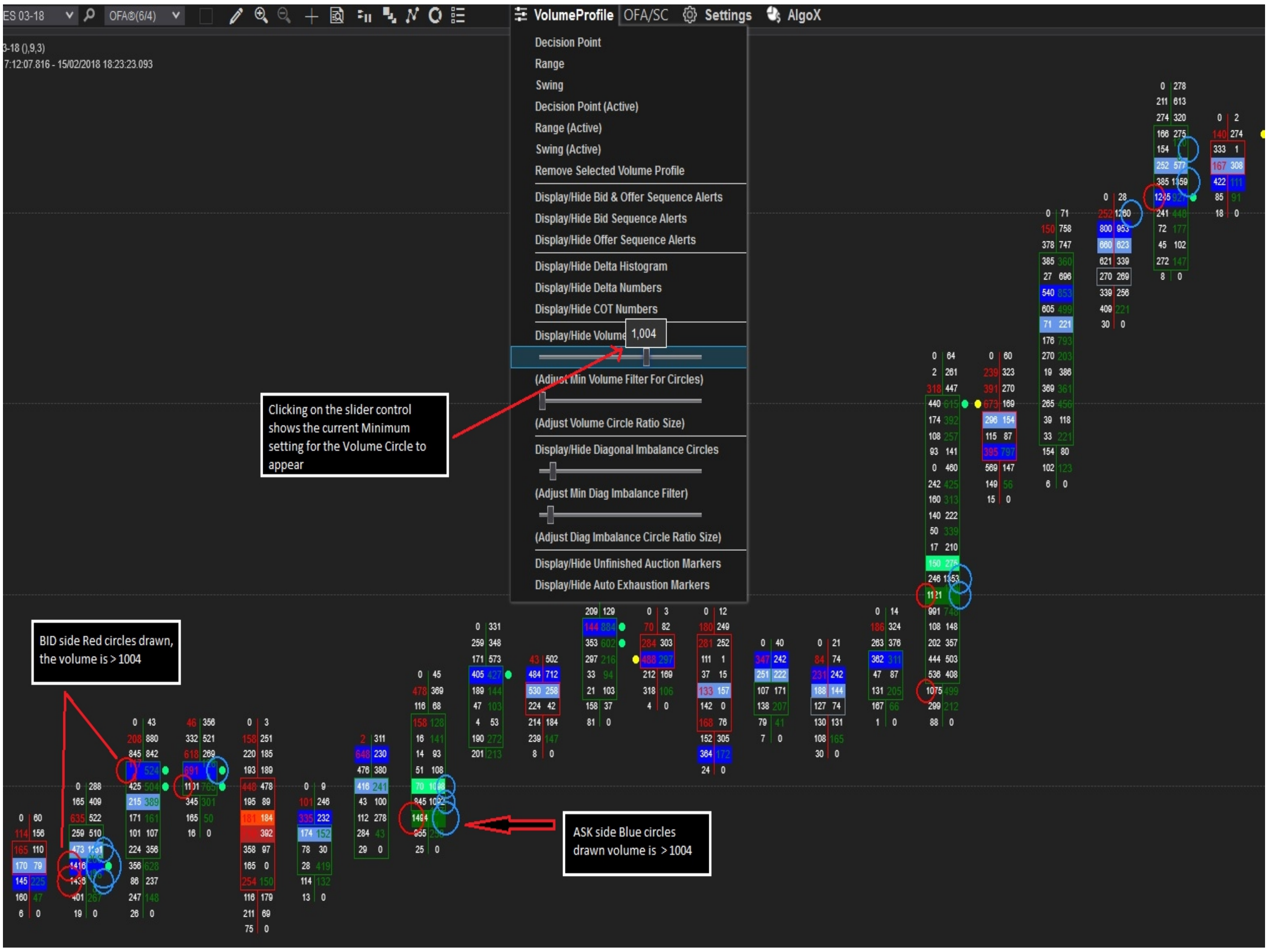
The ratio size of the circle can be adjusted also via the slider control and is a factor of the current bar width on display in the chart panel. Adjusting the X axis by holding the left mouse button down and expanding/contracting the width of the bars will automatically adjust the circle size also.

The Display/Hide Volume Circles is a convenience toggle to enable the user to show or hide the circles. The default currently when loading the chart is to Hide the circles, removing unnecessary clutter when initially reviewing the chart. These can easily be enabled by clicking on the Display/Hide menu item for this type of Volume circle.



In the parameters section below, note that the Color, opacity, width and style of the circles can be modified. This is where we additionally set what value we wish to be the **MAX** size of the slider for the instrument on this chart. For example the ES will have a higher setting eg. 9000 or more versus the CL or 6E with 1200 and 600 values used respectively for these instruments. This is settable and adjustable in the parameters by the user.





The above chart depicts and example of the **Horizontal Volume Circles** at Bid or Ask where volume exceeds the **Minimum Value** highlighted in the Slider Control setting.

The S**ECOND** of these is as shown in the menu below and will draw a circle that is scaled to the volume numbers at the bid or ask price level for the OFA bars within the visible range of the chart.

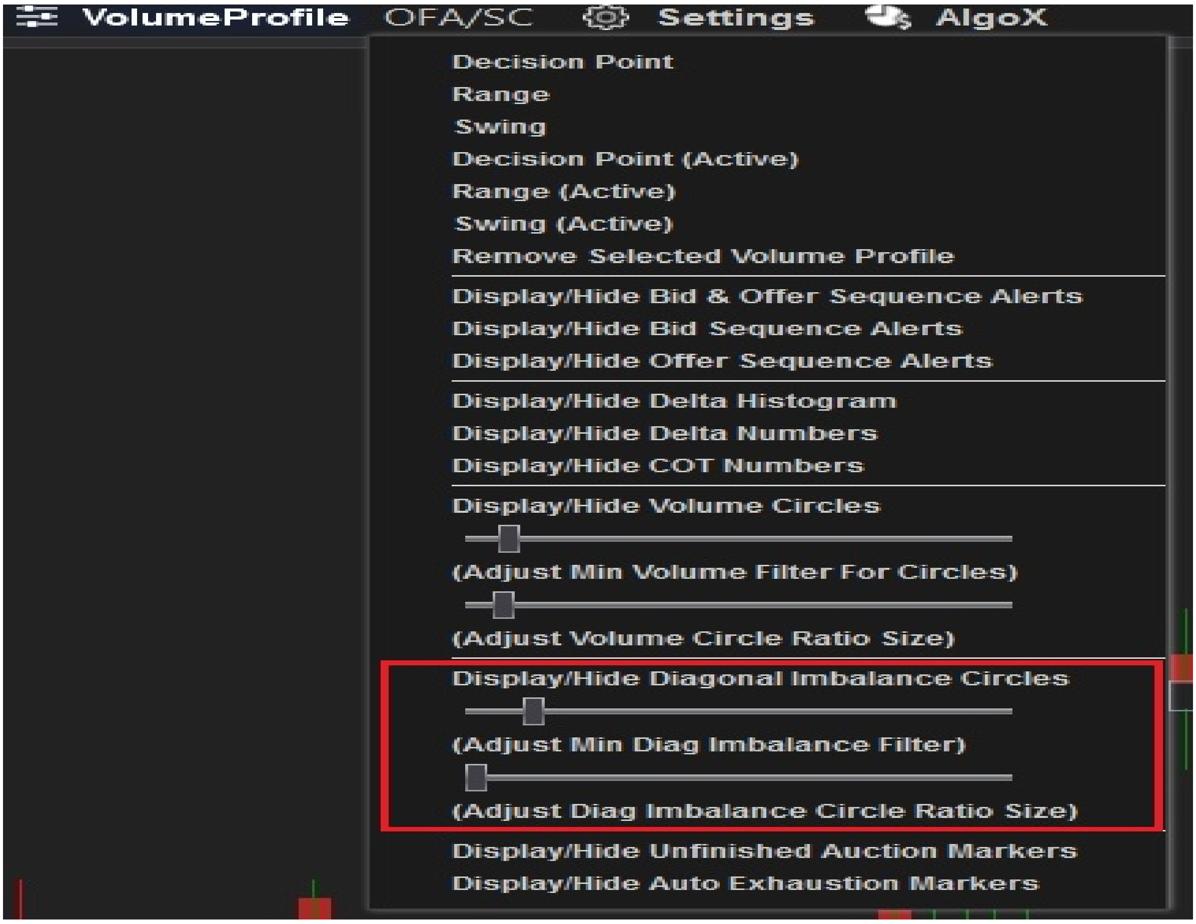
The circle will appear when the ***Diagonal difference*** between the bid volume and the ask volume (at 1 tick above the bid price) is **AT A MINIMUM** the current slider setting value on the slider control. In other words the volume difference on the Diagonal between the bid & ask / ask & bid (and these are denoted by different color circles) must be greater than the slider control value in order for a circle to appear. This can be a useful tool to facilitate visually marking bid ask levels on the Diagonal Imbalance comparison where significant volume appeared & may be if interest in our analysis. As has already been stated in the PrintMode&Settings document at every price level and on each side of the bar, the number represents an equal number of buyers & sellers. The focus of this tool is to filter out where significant Aggressive Buying or Selling took place based on the Diagonal comparison and to visually mark this with the circles.

Since each instrument has different volume & liquidity characteristics one can dynamically adjust the slider control to guage what level of volume we wish to set as the minimum for the current chart period/session of trading without the need to reload the indicator with values set in the parameters.

Please note in the case of the Diagonal volume difference case : if either the bid volume or ask volume is 0 (Zero) in the diagonal no difference calculation will apply. Both the bid and ask volumes in the diagonal must have a volume greater than 0 (Zero).

The ratio size of the circle can be adjusted also via the slider control and is a factor of the current bar width on display in the chart panel. Adjusting the X axis by holding the left mouse button down and expanding/contracting the width of the bars will automatically adjust the circle size also.

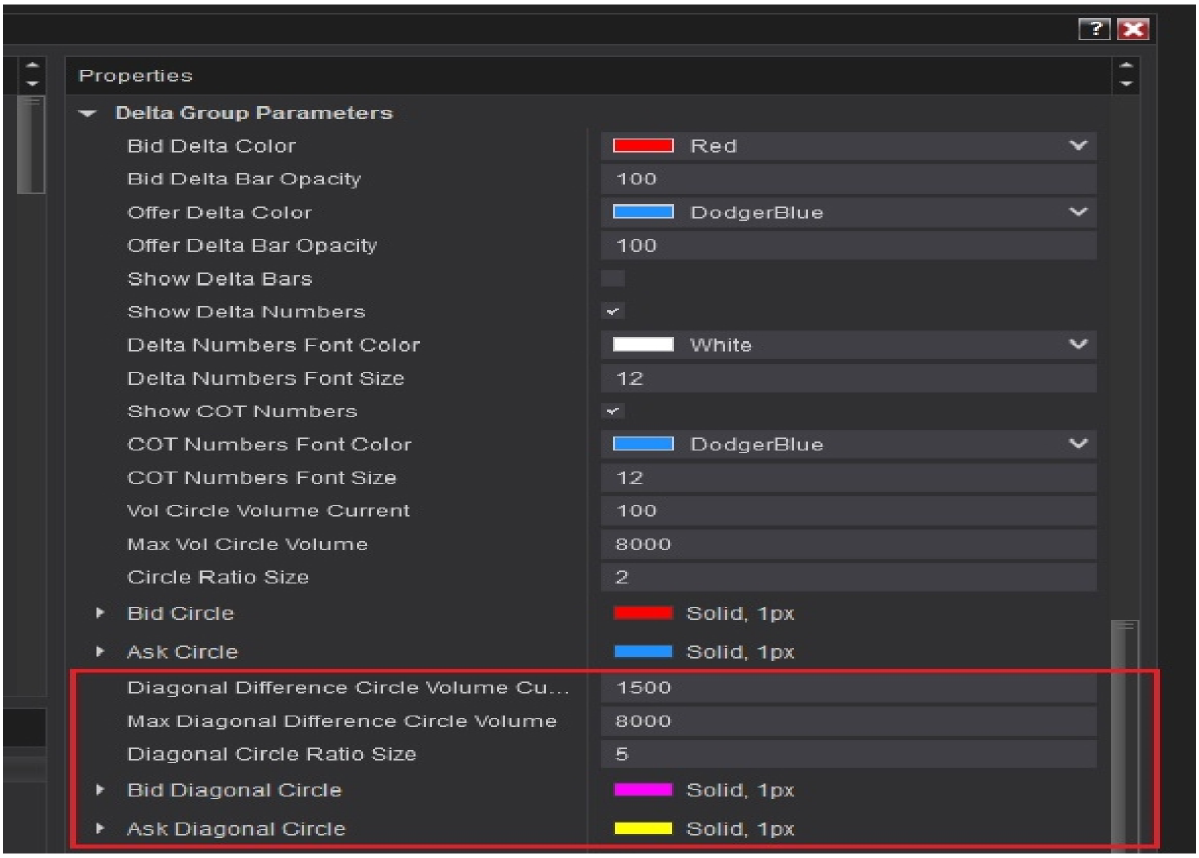
The Display/Hide Diagonal Imbalance Circles is a convenience toggle to enable the user to show or hide the circles. The default currently when loading the chart is to Hide the circles, removing unnecessary clutter when initially reviewing the chart. These can easily be enabled by clicking on the Display/Hide menu item for this type of Volume circle.

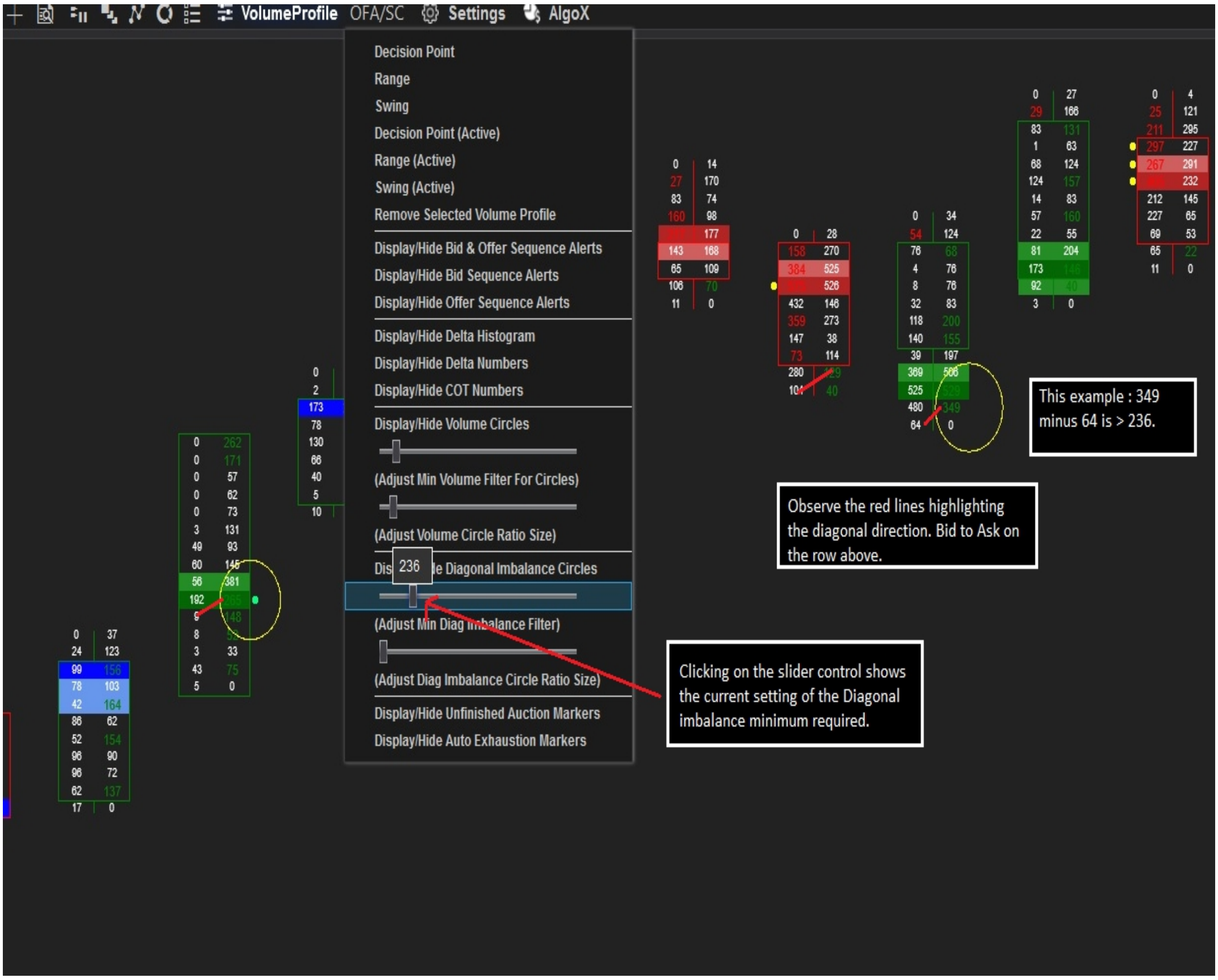


In the parameters section below, note that the Color, opacity, width and style of the circles can be modified. This is where we additionally set what value we wish to be the MAX size of the slider for the instrument on this chart. For this type of volume analysis circle the MAX is based on the diagonal difference between the bid and the ask volumes.

For example the ES will have a higher setting eg. 6000 or more versus the CL or 6E with 800 and 300 values used respectively for these instruments. This is settable and adjustable in the parameters by the user. The chart picture following illustrates an example of this and the slider value and the diagonal comparison direction for the calculation.

With practice and time the use of the slider controls & dynamically adjusting the values which work best for the current trading conditions and volume ; will become more intuitive, including the ratio size of the circle. Typically for print mode display a ratio size of 1 will suffice – for structure charts depending on the number of visible bars and the current minimum volume setting a bigger ratio size to visualise more prominent volume zones will be needed. This technique applies to both types of volume filter described.


Properties
Delta Group Parameters
Bid Delta Color
Red
Bid Delta Bar Opacity
100
Offer Delta Color
DodgerBlue
Offer Delta Bar Opacity
100
Show Delta Bars
Show Delta Numbers
Delta Numbers Font Color
White
Delta Numbers Font Size
12
Show COT Numbers
COT Numbers Font Color
DodgerBlue
COT Numbers Font Size
12
Vol Circle Volume Current
100
Max Vol Circle Volume
8000
Circle Ratio Size
2
Bid Circle
Solid, 1px
Ask Circle
Solid, 1px
Diagonal Difference Circle Volume Cu...
1500
Max Diagonal Difference Circle Volume
8000
Diagonal Circle Ratio Size
5
Bid Diagonal Circle
Solid, 1px
Ask Diagonal Circle
Solid, 1px


VolumeProfile
OFA/SC
Settings
AlgoX
Decision Point
Range
Swing
Decision Point (Active)
Range (Active)
Swing (Active)
Remove Selected Volume Profile
Display/Hide Bid & Offer Sequence Alerts
Display/Hide Bid Sequence Alerts
Display/Hide Offer Sequence Alerts
Display/Hide Delta Histogram
Display/Hide Delta Numbers
Display/Hide COT Numbers
Display/Hide Volume Circles
(Adjust Min Volume Filter For Circles)
(Adjust Volume Circle Ratio Size)
236
le Diagonal Imbalance Circles
(Adjust Min Diag Imbalance Filter)
(Adjust Diag Imbalance Circle Ratio Size)
Display/Hide Unfinished Auction Markers
Display/Hide Auto Exhaustion Markers
This example : 349 minus 64 is > 236.
Observe the red lines highlighting the diagonal direction. Bid to Ask on the row above.
Clicking on the slider control shows the current setting of the Diagonal imbalance minimum required.

How we utilize this information will depend on our trading style & experience and the depth of understanding of volume on both the market order side (aggressive side) and the passive side (limit orders on the Order Book).

Some questions to consider when noticing high volume at price OR on the Diagonal difference (Imbalance) are : was there follow through on the volume (effort vs result) ? Do we see trapped traders in this volume zone of price. Again remember where we see market order volume in the print there is an equal number of limit sellers on the other side in the case of volume at the Ask & an equal number of limit buyers on the Bid side in the case of volume at the bid. Consider the type of buyer and seller in each zone being analyzed. Example on a structure chart can be seen below :

New THIRD Diagonal Imbalance Circle Analysis Tool. This method is based upon the **RATIO** defined by the menu control of Bid/Ask or Ask/Bid whichever is greater. In addition to the control to define the size of the circle drawn at Bid or Ask there is a control which specifies the **Minimum volume** ; which determines which Diagonal Bid/Ask will be included. If we only want bid or ask volumes that are >= 5 or >= 10 we set the control accordingly.

So the filter is based on volumes at Bid or Ask >= to the value in the control.

For the bars in view in the current chart window we can dynamically view at a glance where the ratio of Ask to Bid is in favour of the Buyers at the Ask or the Sellers at the Bid.

The ratio setting can be set to a value between 1.0 and 60.0 and decimal settings eg 1.5 or 1.75 can be set.

The minimum BID/ASK for the Diagonal Ratio can be set to currently a value between 1 and 100.

Print Mode of OFA Bars Observation

If we consider the importance structure of the market eg. on a 15M or say 30M for the market to advance higher or move lower ; if you take a look at the Print mode with the Ratio markers – it can highlight areas in our Probe Rotation bars where there may be some imbalance/weakness in the Order flow print that the market can come back to retest and fill with more Order flow before continuing.

The ES which is a more liquid contract is a good one to take a look at initially. I covered a CL example in the video that was uploaded at the time of this Release.
Use a low setting of Minimum volume control to observe the smaller circles and weaker volume print.

I just wanted to point this out as another potential usage of this tool in addition to visually and dynamically pinpointing areas where we have aggressive buyers or sellers and in particular zones.

Some Questions to consider when observing the chart and Order Flow :

As before with the other Imbalance tools consider the Location of the circles
Observe the Effort vs Result – is there follow through with the Imbalance ?
Look for retesting of these zones.
Where are the trapped traders?

To support an up move look for :

Ask Ratio circles in the lower part of a probe rotation bar & in the lower section of an up swing.

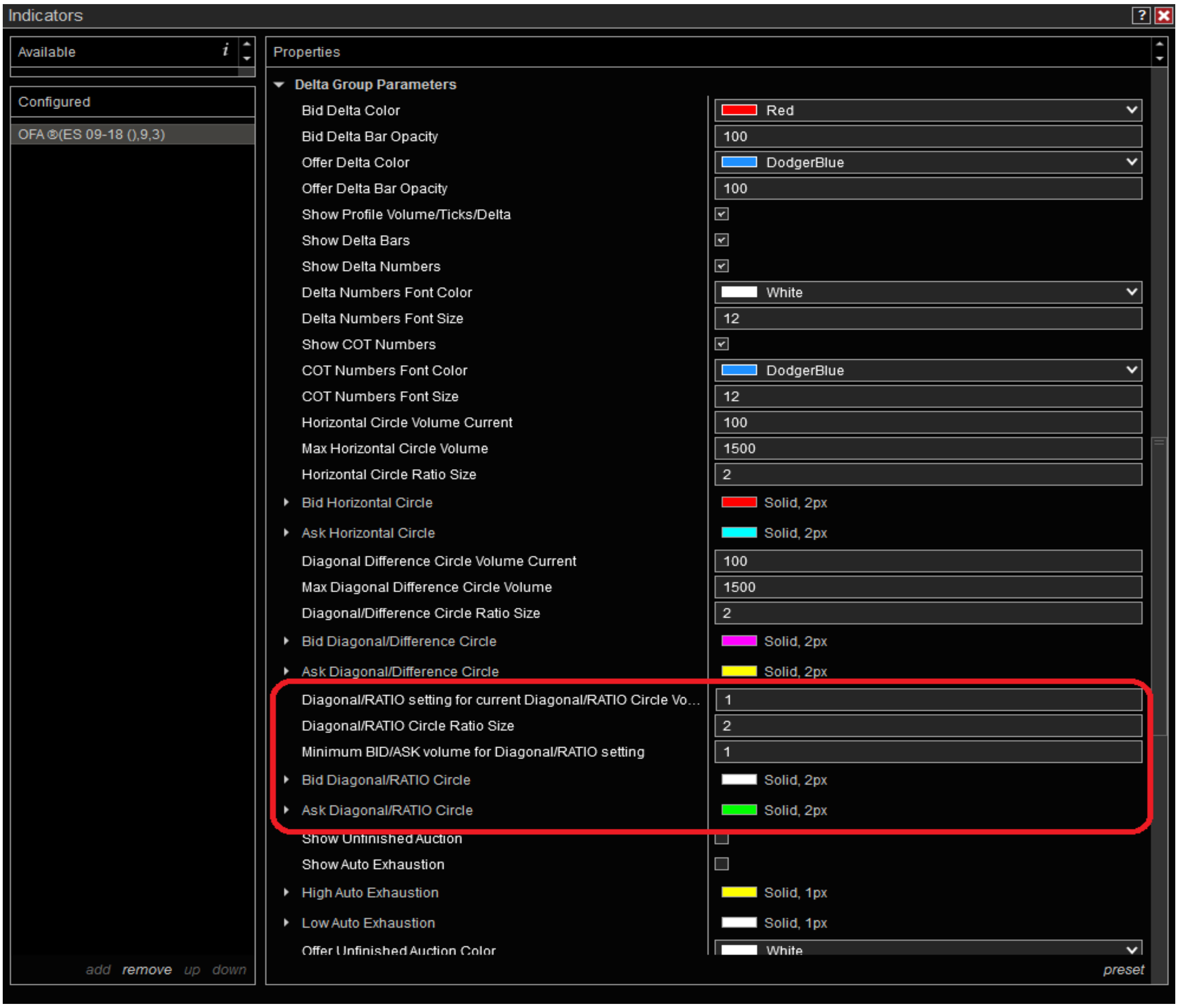
To support a down move look for :

Bid Ratio circles in the upper part of a probe rotation bar & in the upper section of a down swing.

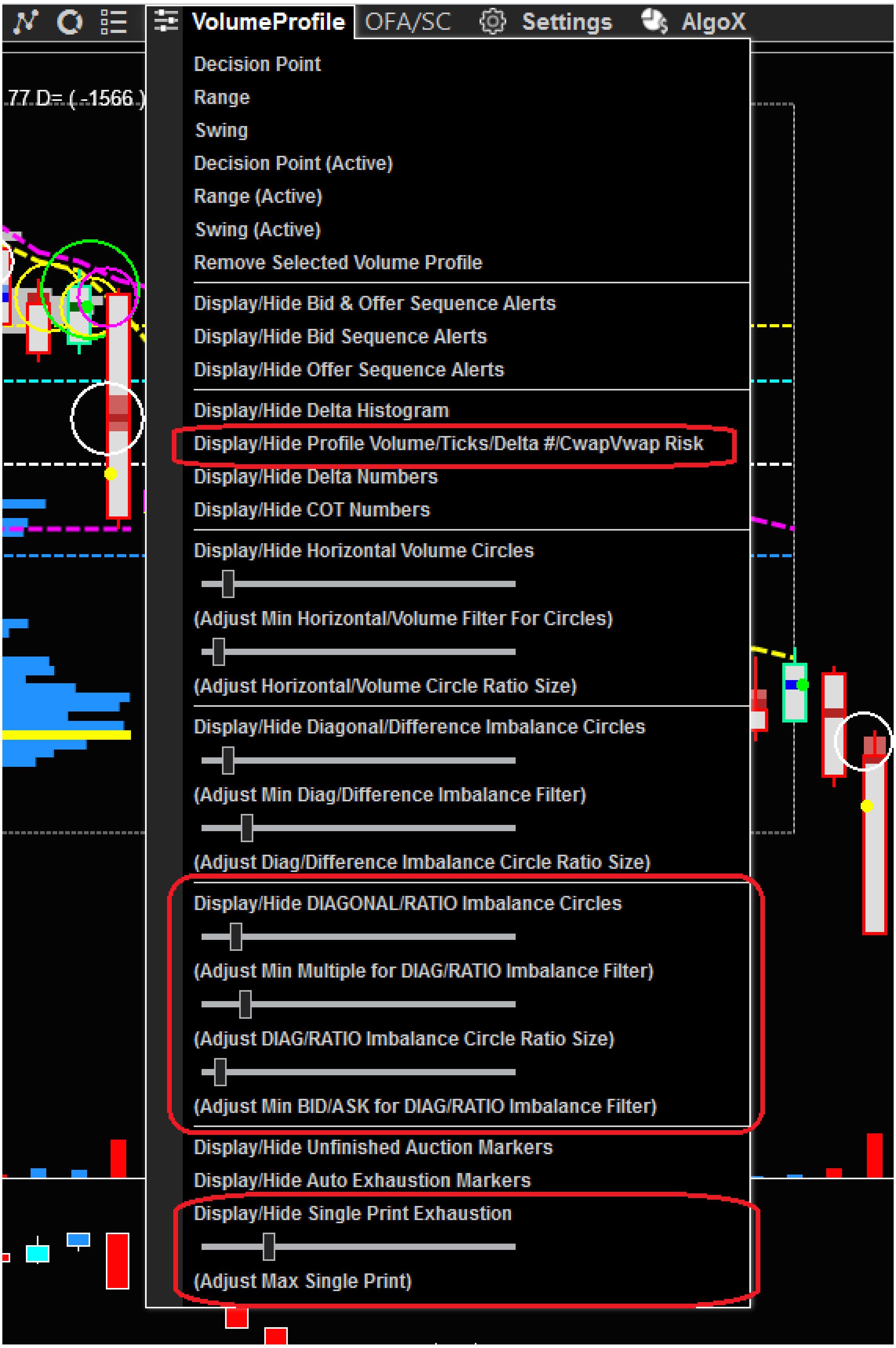
Look for evidence of Absorption by the Limit Orders :

Do we have more Absorption by the Limit order Sellers at the High of a bar & in the upper section of an up swing ; with Strong Ask Ratio Imbalance Circles? Or more absorption by the Limit order Buyers at the Low of a bar & the lower section of a down swing; with Strong Bid Ratio Imbalance Circles?

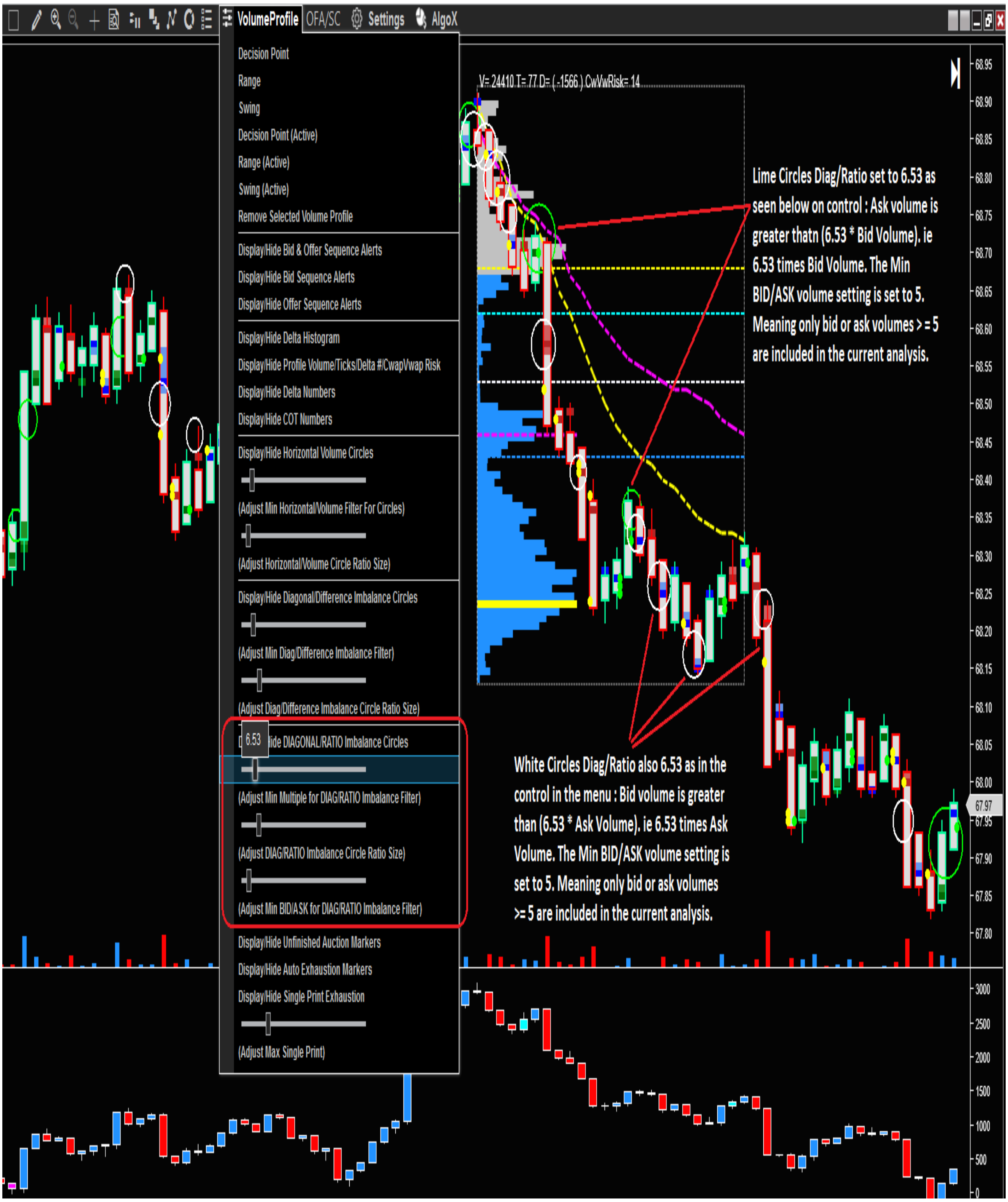
Parameter Settings for Diagonal RATIO Imbalance Circles.



Additional VolumeProfile Menu Settings to support New Features



Examples of the New Diagonal Ratio Analysis Tool



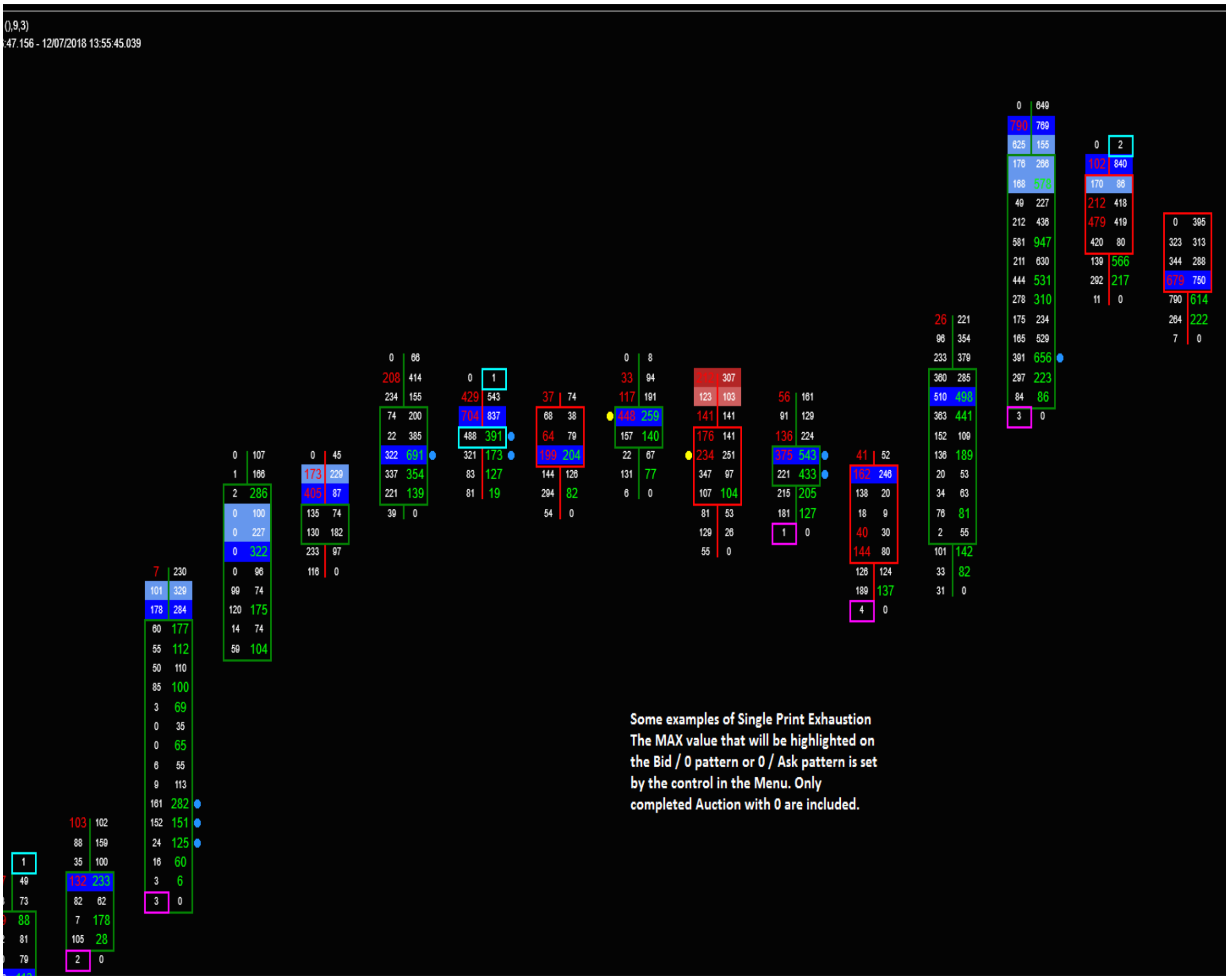

CL 09-18
OFA®(8/3)
VolumeProfile
OFA/SC
Settings
AlgoX
V= 24410 T= 77 D= (-1566) CwVwRisk= 14
Additional context is shown here with Magenta circles (Diagonal/Difference for Bid) and Yellow circles (Diag/Difference for Ask).
So the Magenta at the Bid combined with the White circles (Diag/Ratio at the BID) - it gives more weighting to a sell opportunity and something to lean on. There is follow through with selling activity.

Single Print Exhaustion at Bid or Ask.

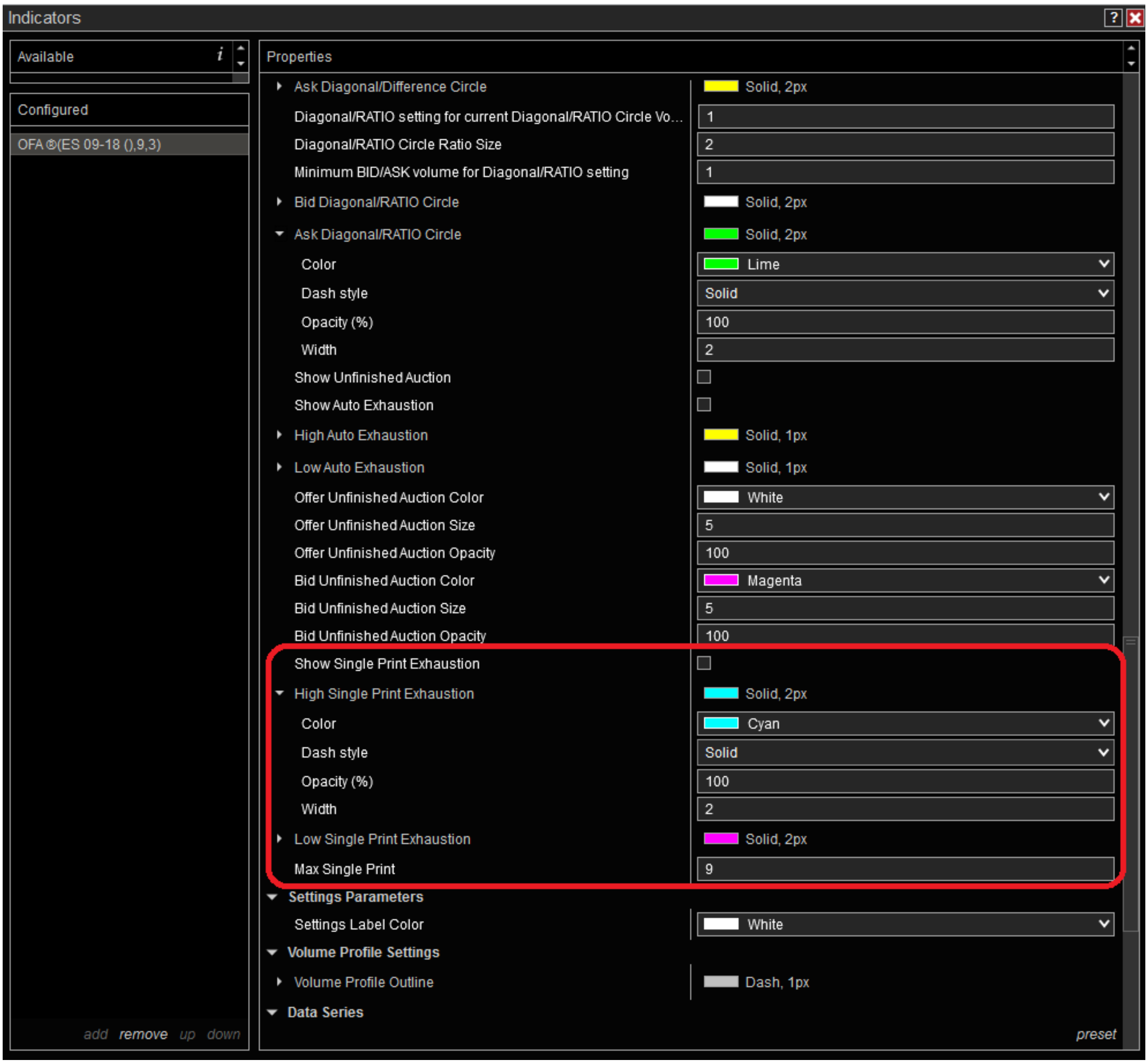
At the Highs will be marked on the ASK price and at the Lows will be marked on the Bid price. Only completed Auctions for the Bar are included in this filter calculation. This is where a 0 volume appears at the Bid at the High of a Bar and a 0 volume appears at the Ask at the Low of a Bar.

Additionally we can filter the Maximum value we want to see at the High or Low print.
By default the setting is 9 ; but if we only want to include markers where the maximim is 2 for example we adjust the dynamic control for this setting in order to set the filter.

Take some time to look over the contracts and instruments you trade to see which settings work best for the session traded. And do consider this will be a temporary exhaustion for the current order flow and when the price level is broken; ie not to be considered as solid/firm support or resistance. It can also convey information on the Auction process if we auction higher/lower. Start looking at Probe and Rotation OFA bars with this setting.



Parameter settings for the Single Print Exhaustion



The next feature to cover here is the term ***'Unfinished Auction'*** : sometimes called 'Unfinished business', and is used to describe when the extreme price for a period/bar (either High, Low or both) has both Buy AND Sell volume. This pattern is only visible on a print chart because you can see inside the bar.

An unfinished auction that occurs on the high tick looks like the example below. Notice there is both bid and ask volume at the extreme (high price).

So while at each price there is a battle between buyers and sellers, the unfinished auction pattern shows that buyers want to take the price higher but are being challenged by sellers.

With this pattern it has been typically found (thought not in all instances) that it creates a magnet/target for the market to retest. Whether it happens immediately or not and often later, price tends to come back and test or trade through where the unfinished auction pattern occurred.

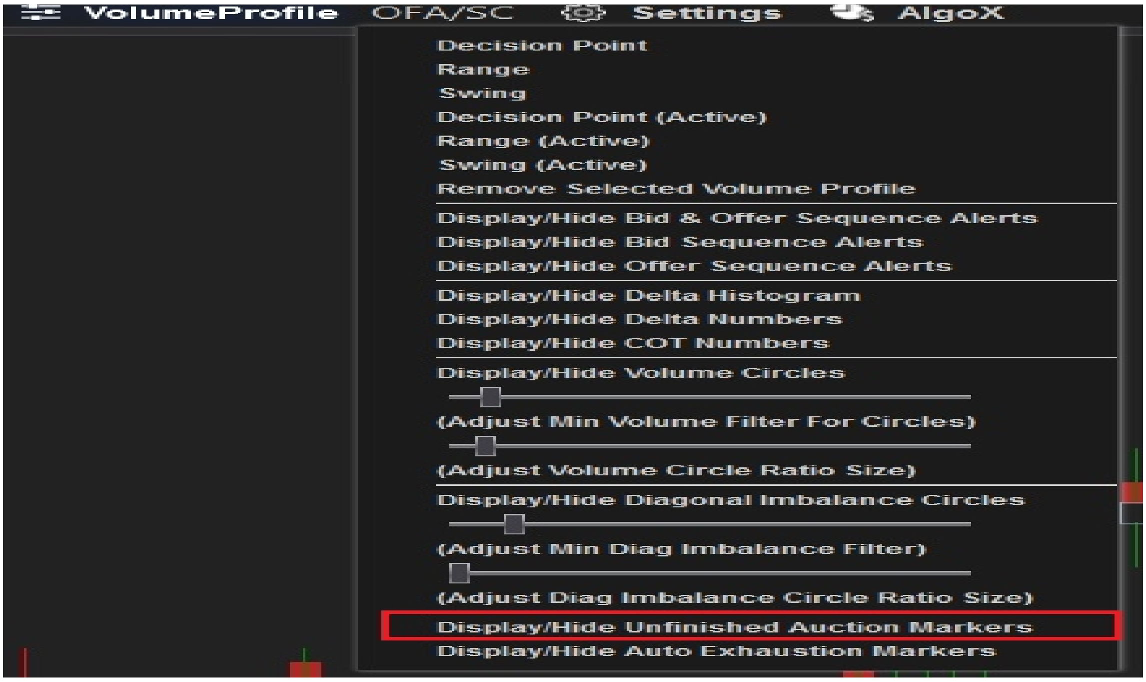
A 'completed auction' is when the unfinished auction has been satisfied; that being when the price of the unfinished auction trades again.

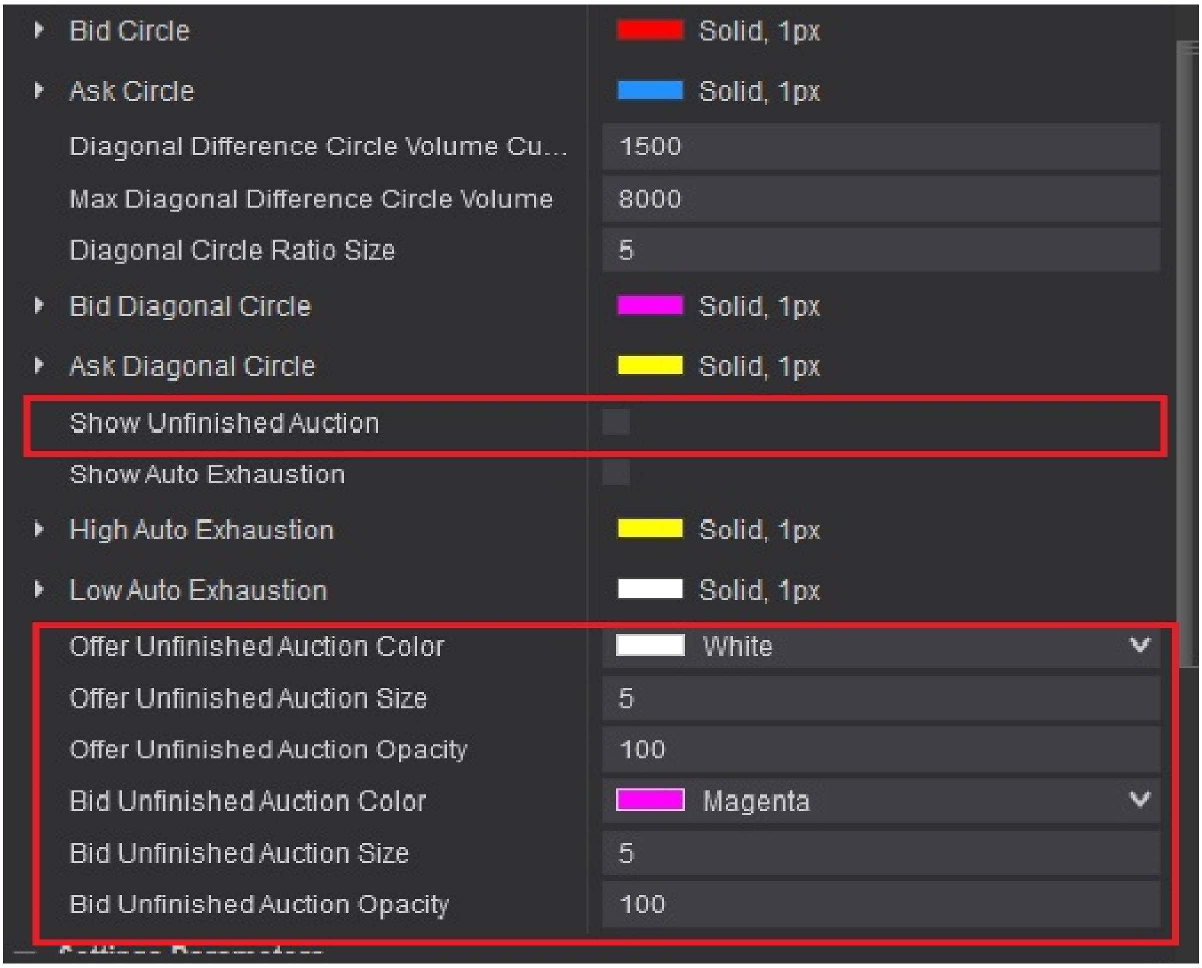
Suggested areas of application of the pattern are at Swing Highs or swing lows or at key levels you may be using.

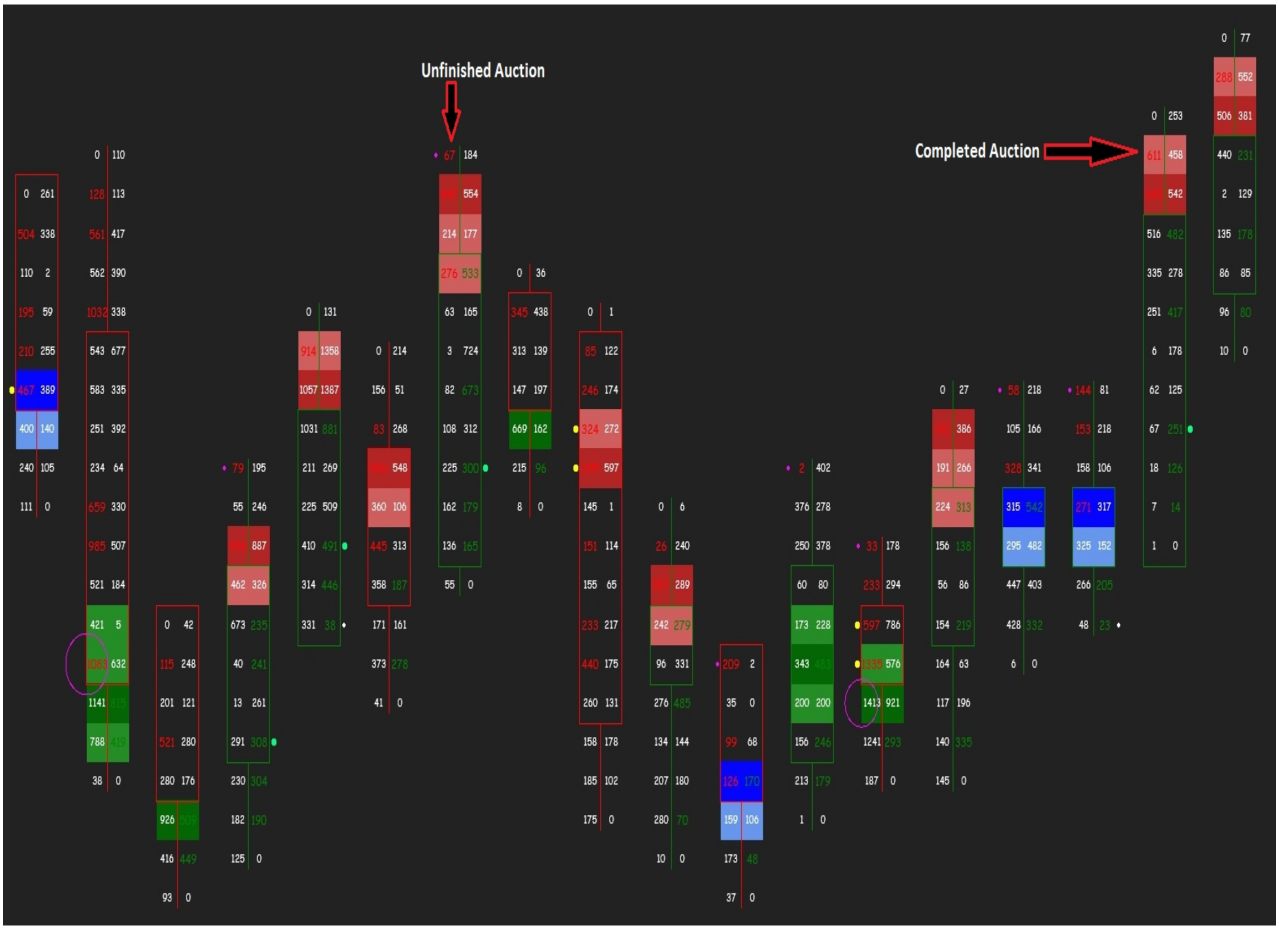
Different instruments with varying market liquidity will vary on the effectiveness of this pattern. The ES with higher liquidity would appear to be a good example of where to practice and explore this pattern and its occurrence. Another aspect to consider is which of the OFA bar types is being used on the chart; and it is suggested to start with the OFA Probe and Rotation bars since these are more aligned with the auction market process.

This pattern is detected in the print and is marked with a color dot (see the parameters section below) on the Bid & Ask side where it appears. When switched to Structure chart mode without the bid/ask volume numbers we can also see the color dot marker for users of the structure chart mode in their trading. The color, opacity and size of these dots are configurable in the parameter settings.

The VolumeProfile menu provides a convenience Display/Hide toggle to display these unfinished auction markers or hide them without the need to reload the indicator.

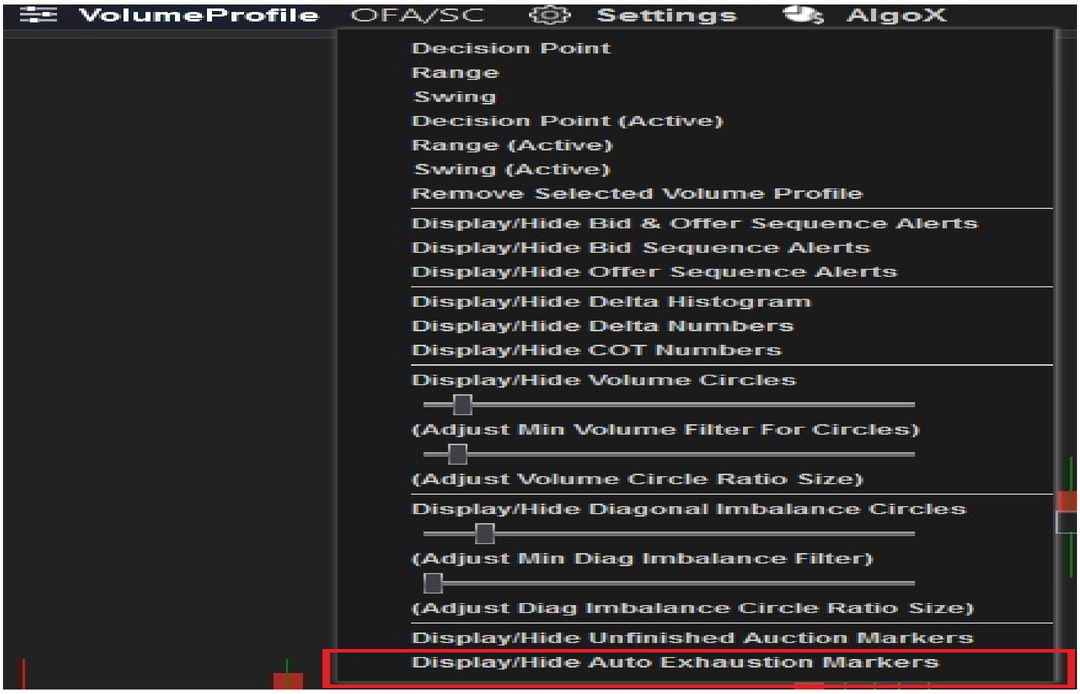



Bid Circle
Solid, 1px
Ask Circle
Solid, 1px
Diagonal Difference Circle Volume Cu...
1500
Max Diagonal Difference Circle Volume
8000
Diagonal Circle Ratio Size
5
Bid Diagonal Circle
Solid, 1px
Ask Diagonal Circle
Solid, 1px
Show Unfinished Auction
Show Auto Exhaustion
High Auto Exhaustion
Solid, 1px
Low Auto Exhaustion
Solid, 1px
Offer Unfinished Auction Color
White
Offer Unfinished Auction Size
5
Offer Unfinished Auction Opacity
100
Bid Unfinished Auction Color
Magenta
Bid Unfinished Auction Size
5
Bid Unfinished Auction Opacity
100

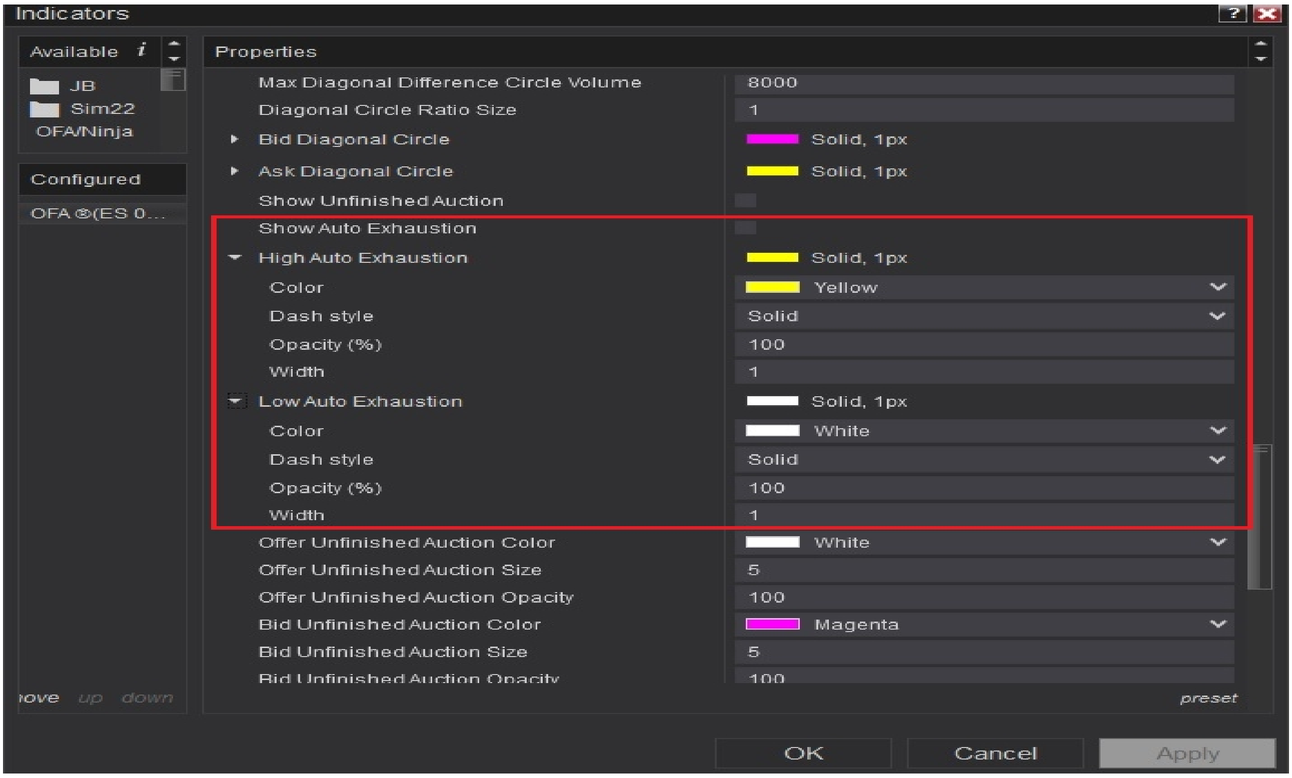

Unfinished Auction
Completed Auction

The next feature to cover here is the *'**Auto Exhaustion Marker**'*

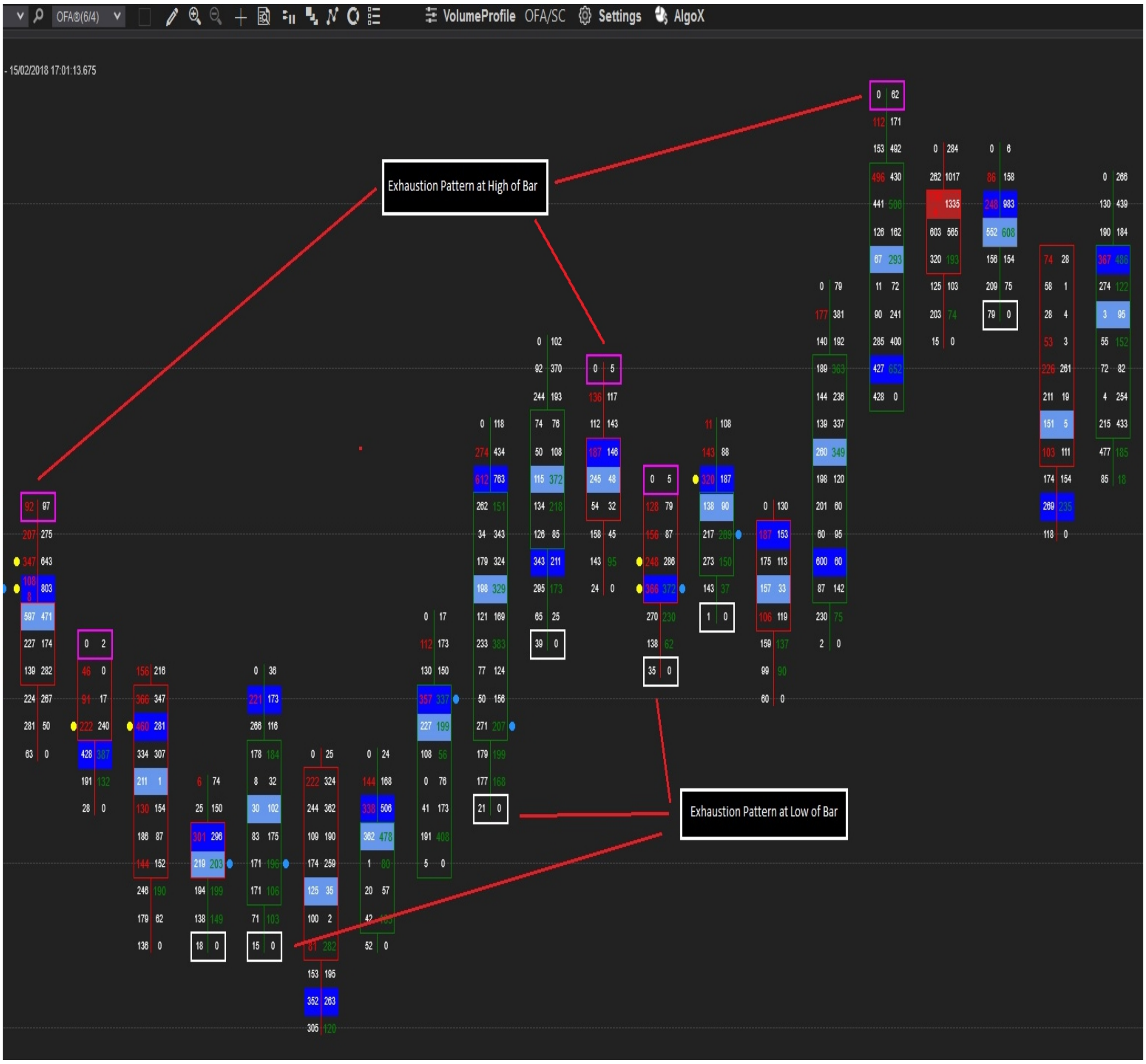
In addition to the OFA algorithms that analyze trading activity for complex patterns known as toxic order flow ; covered in the PrintMode&Settings document : An auto algorithm has been provided to detect exhaustion patterns at the High and Low of the bar period. These can be seen and turned on using the 'Display/Hide Auto Exhaustion Markers' shown below in the VolumeProfile Menu.



The color, opacity, width and style of these box/rectangle areas drawn at the High and Low when a pattern has been detected ; can be easily modified in the OFA parameters in the section highlighted below:

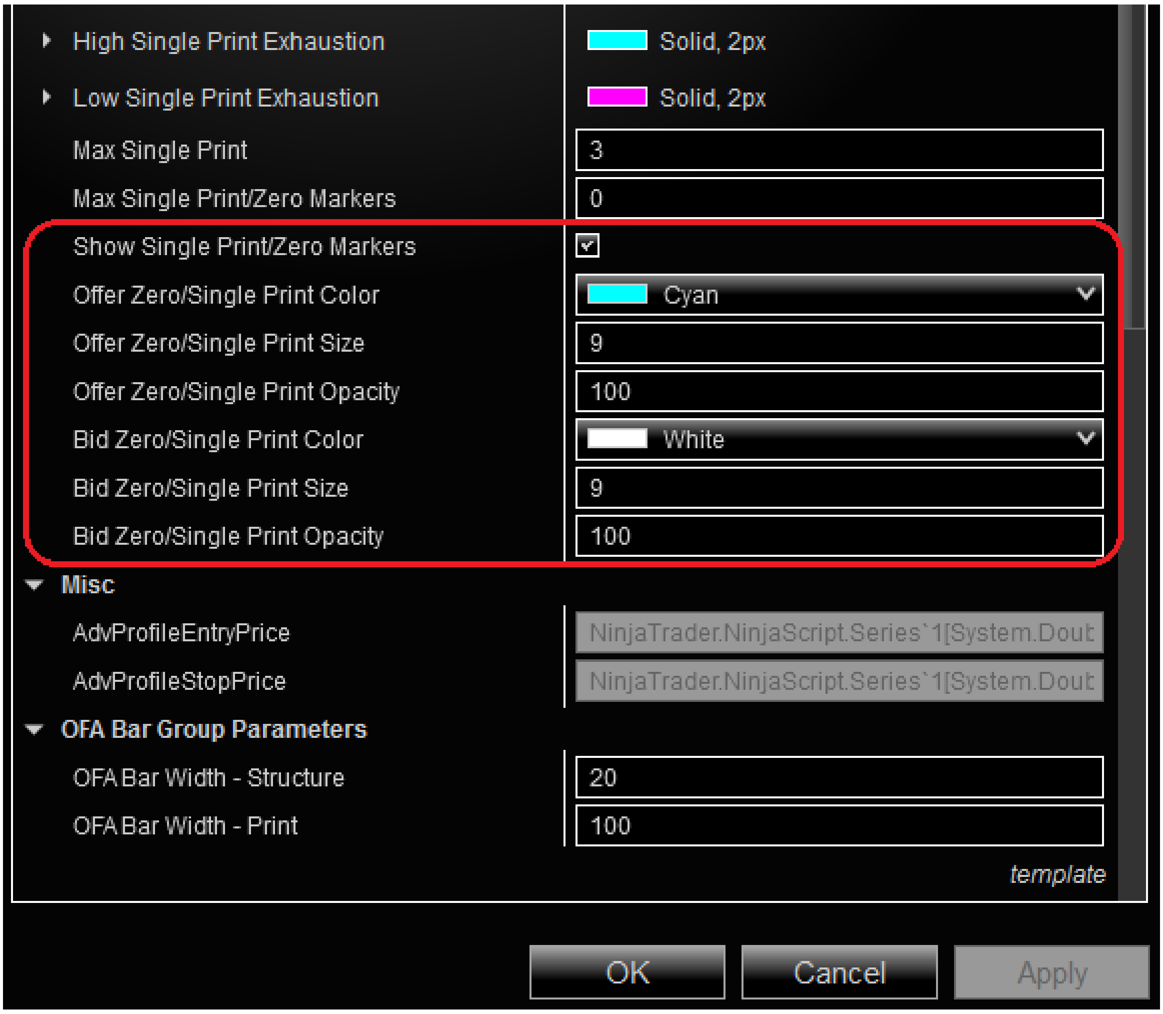


See example of the Exhaustion High & Exhaustion Low Algo Patterns in the Chart below :



New Features for February 2019 Version V1.10.7

New Slider control and Display/Hide option to show markers for the zeros in both the Print & Structure mode - this enables at a glance areas of stop/liquidity moves and reversals and price levels/zones of weakness ie 0 in the print - obviously for less liquid contracts more zeros will be visible. The slider control also enables numbers higher than **0 up to 20** to be filtered and included with the markers.
For users of the structure chart the Zero (or higher volume up to 20) markers enable quick visual feedback without referencing the Print chart – though this option is available and supported on the Print Mode also. You should still continue to Assess the stability of the current structure and get a sense of the current structure for your trade plan / Edge ; when using the zero marker / stop / liquidity run information. Are we at a key Price level ie 00 50 price level for the contract you are trading ? eg for CL 59.0 and 59.50 are key wholesale price levels. Does this (Zero marker bar(s) confirm a rejection of a price level/zone and indicate a shift in short/medium term trend bias ? Are we at a key time zone of the session – US cash open / Pit Open for CL :
The marker colors can be adjusted for Size and Opacity and Color for each of the Bid and Ask volumes.
See in the OFA Parameters below in the section below the High/Low Single Print Exhaustion markers section :



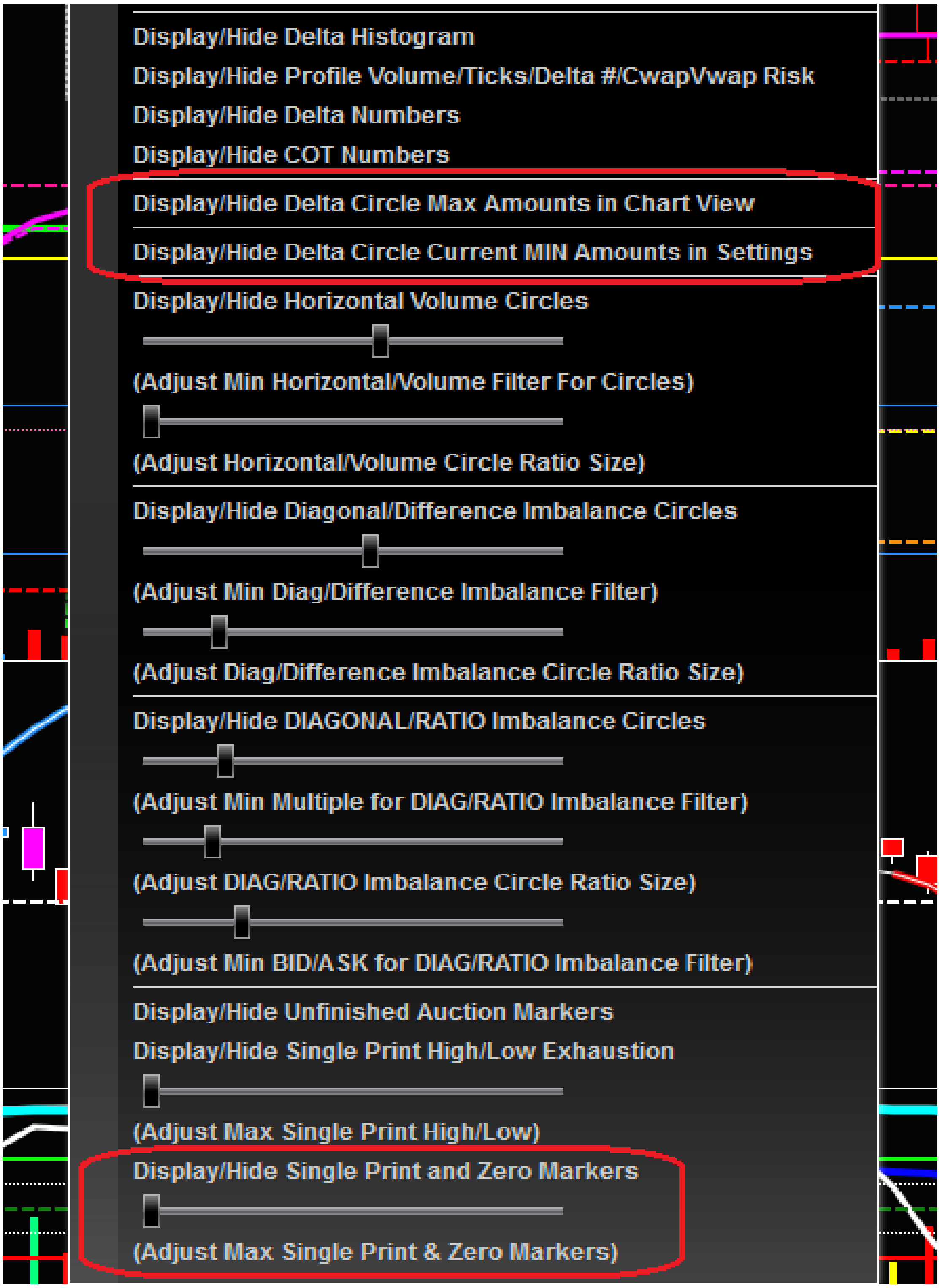
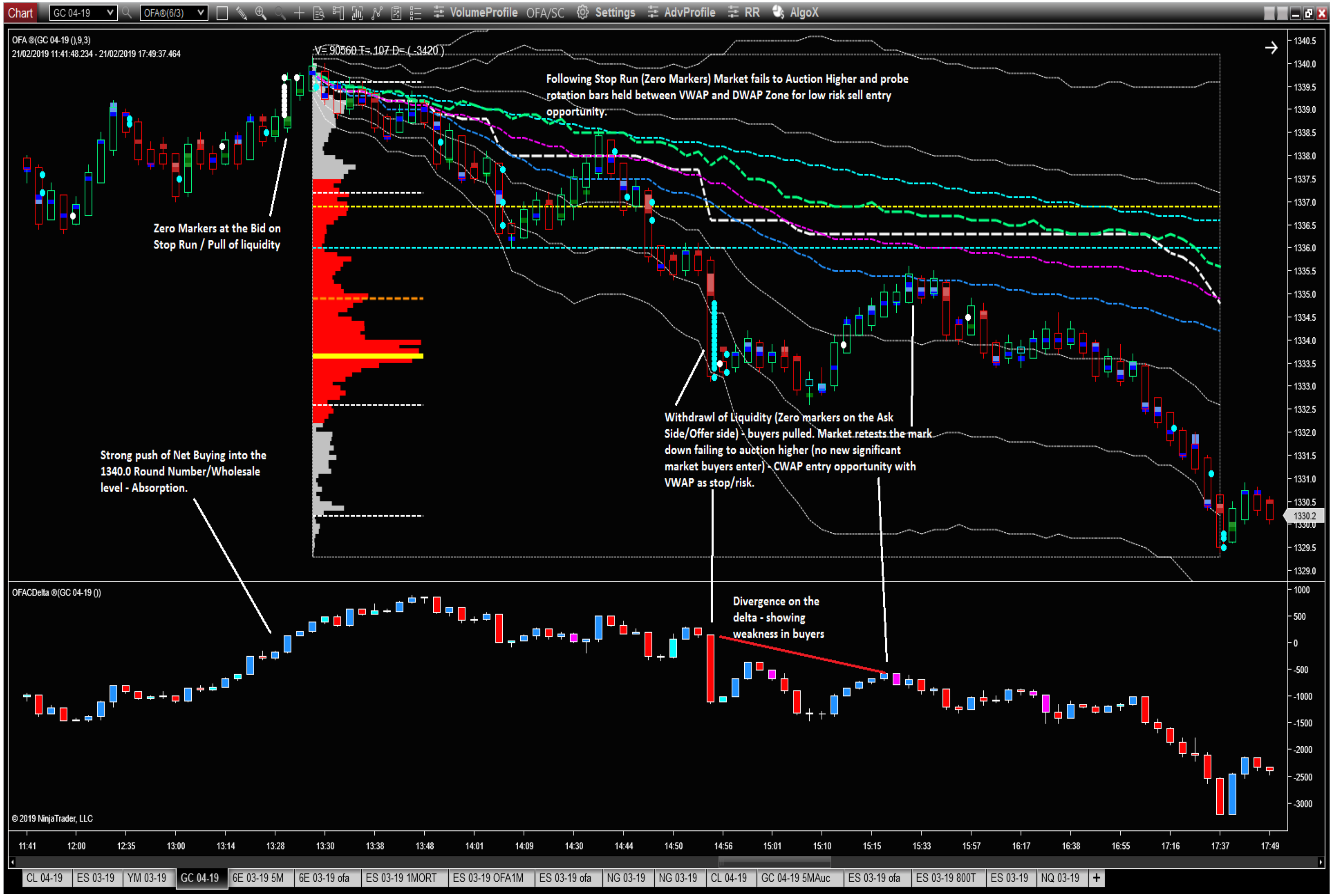


Fig (Menu A.1)

See the new slider control Display/Hide Single Print and Zero Markers above.

The following 3 pages show some example illustrations of the Zero Markers.



Following Stop Run (Zero Markers) Market fails to Auction Higher and probe rotation bars held between VWAP and DWAP Zone for low risk sell entry opportunity.
Zero Markers at the Bid on Stop Run / Pull of liquidity
Strong push of Net Buying into the 1340.0 Round Number/Wholesale level - Absorption.
Withdrawl of Liquidity (Zero markers on the Ask Side/Offer side) - buyers pulled. Market retests the mark down failing to auction higher (no new significant market buyers enter) - CWAP entry opportunity with VWAP as stop/risk.
Divergence on the delta - showing weakness in buyers
OFACDelta ®(GC 04-19 ())
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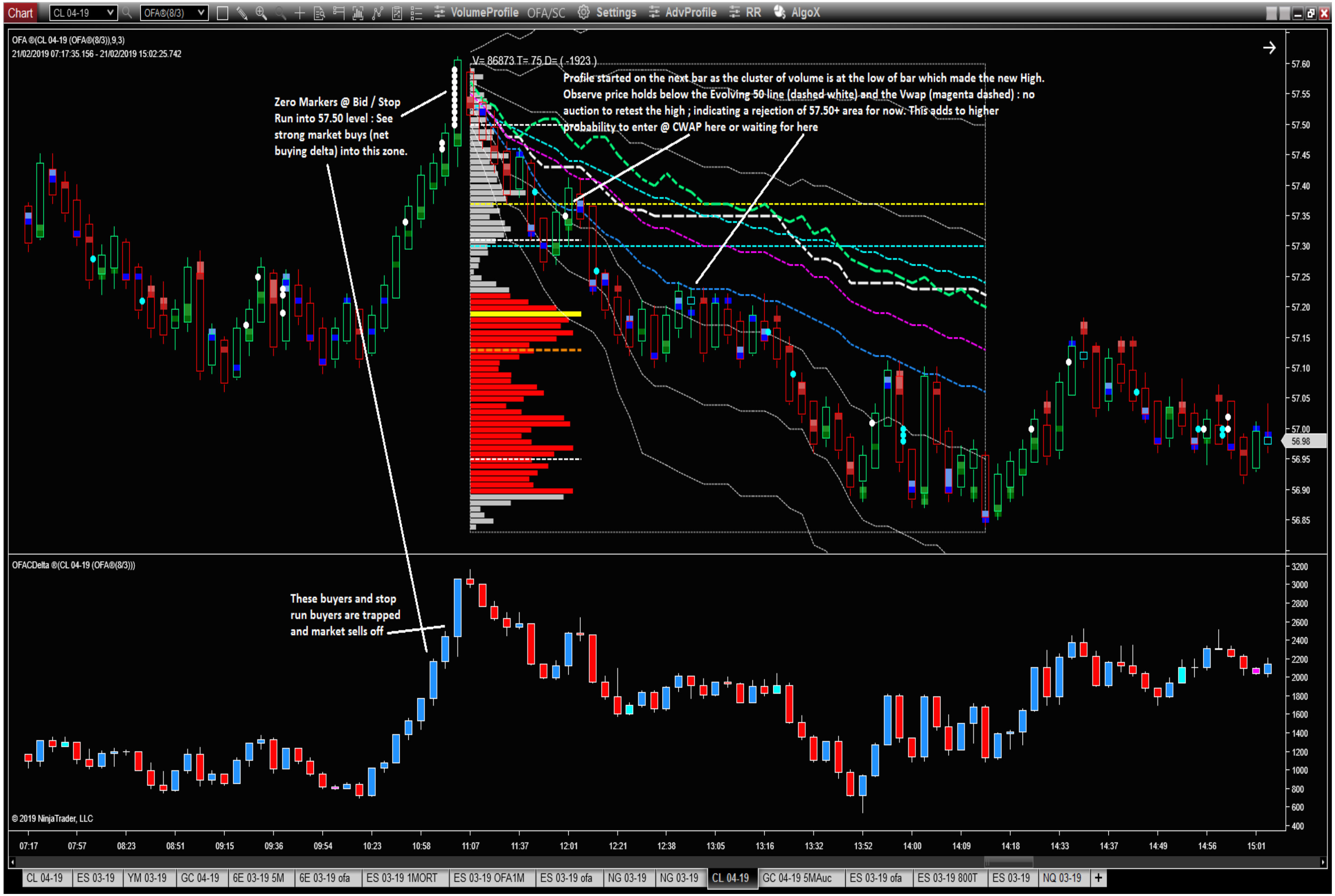
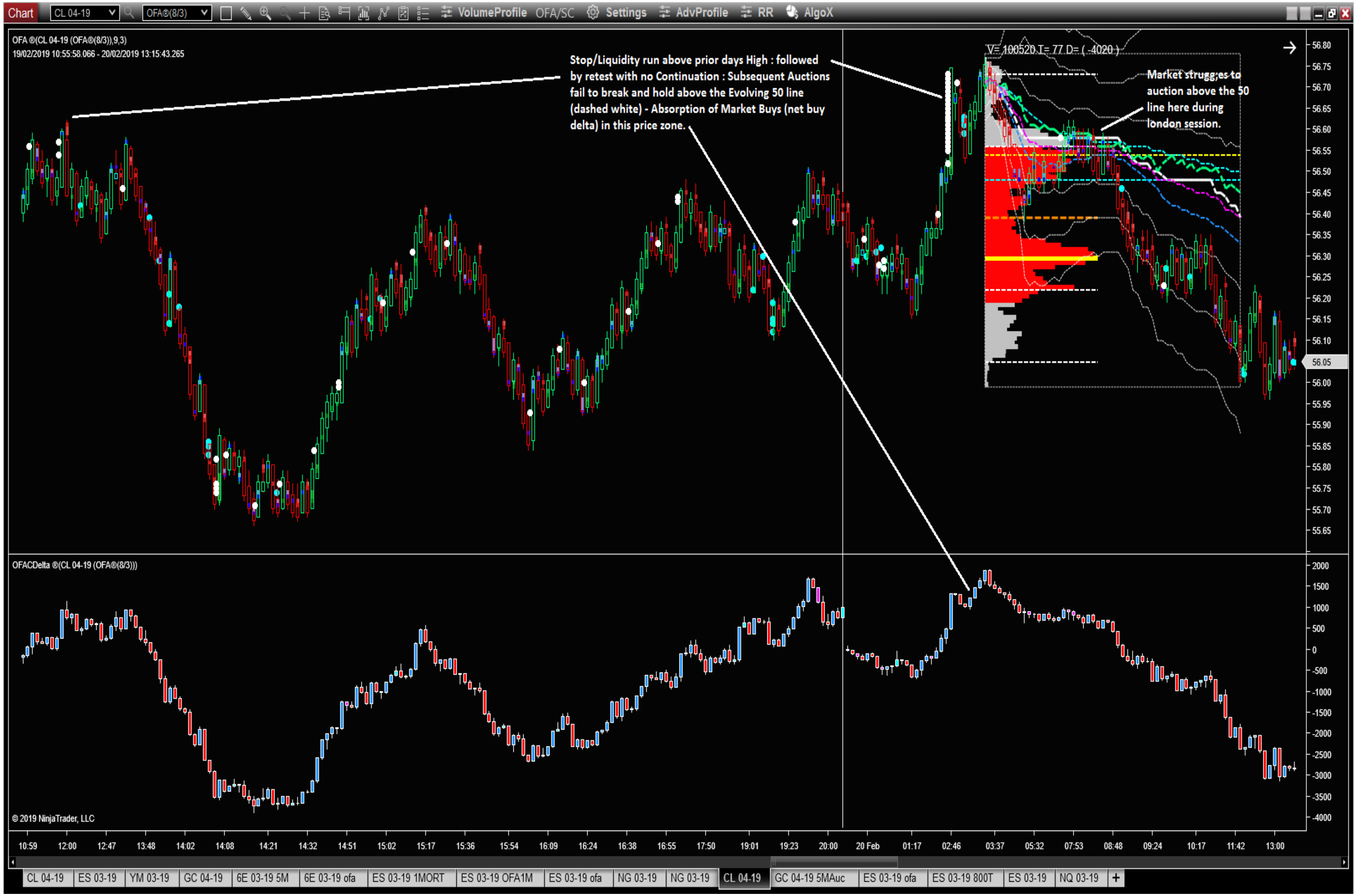


Zero Markers @ Bid / Stop Run into 57.50 level : See strong market buys (net buying delta) into this zone.
V= 86873 T= 75 D= (-1923)
Profile started on the next bar as the cluster of volume is at the low of bar which made the new High.
Observe price holds below the Evolving 50 line (dashed white) and the Vwap (magenta dashed) : no auction to retest the high ; indicating a rejection of 57.50+ area for now. This adds to higher probability to enter @ CWAP here or waiting for here
These buyers and stop run buyers are trapped and market sells off
OFA ®(CL 04-19 (OFA®(8/3)),9,3)
21/02/2019 07:17:35.156 - 21/02/2019 15:02:25.742
OFACDelta ®(CL 04-19 (OFA®(8/3)))
© 2019 NinjaTrader, LLC


Stop/Liquidity run above prior days High : followed by retest with no Continuation : Subsequent Auctions fail to break and hold above the Evolving 50 line (dashed white) - Absorption of Market Buys (net buy delta) in this price zone.
Market struggles to auction above the 50 line here during london session.
OFA ®(CL 04-19 (OFA®(8/3)),9,3)
19/02/2019 10:55:58.066 - 20/02/2019 13:15:43.265
OFACDelta ®(CL 04-19 (OFA®(8/3)))
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Next feature : Color coded Volume Numbers shown in the top right of the chart.

To facilitate setting the Volume filters for each of the three volume circle types : Horizontal Bid/Ask : Diagonal Difference Imbalance and Diagonal Ratio Imbalance : a dynamic display of the current settings of each (the current minimum set in the slider control) and the actual current Maximum value of each in the current chart view ; can be displayed using the two additional Display/Hide Volume Profile menu options.
In seeing the actual current maximum volume value of each of the circle types and these are color coded for the Bid or Ask : it helps you to track and guage where to set the current minimum (in the slider controls) ie if you wish to see more circles or less circles based on the current Maximum value for the chart bars in view. So as each trading session unfolds it gives you dynamic feedback of the size of each of the volume imbalances or in the case of the horizontal bid/ask volume : what the current maximum volume is at the bid or ask for the chart type on display ie OFA Probe Rotation or OFA Minute based, depending on your preference.

Color coded volume numbers in the top right of chart : these represent the current MAX/Highest value for each of the 3 types of Delta Volume Circles in the current chart view from left to right
The colors of each number will represent whether the Bid or Ask for each of the 3 types is more Dominant in the **current chart view**
The following abbreviations are used in the display in the top right region.

HV - Max Horizonatal Volume
DDV - Max Diagonal Difference Volume
DRV - Max Diagonal Ratio Volume

MHV - Current Minimum Horizontal Volume Setting
MDDV - Current Minimum Diagonal Difference Volume Setting
MDRV - Current Minimum Diagonal Ratio Setting

There are 2 Display/Hide menu options to show these settings on the chart at the start of the Delta Section in the Volume Profile Menu **– See in Figure Menu A.1 above before the charts in the preceding pages.** This shows the two additional Display/Hide options – when each of the three types of volume circle is being displayed, the associated Maximum number in the current chart view and the current minimum setting for the slide will show in the top right area.

Some illustrated chart examples in the following pages :

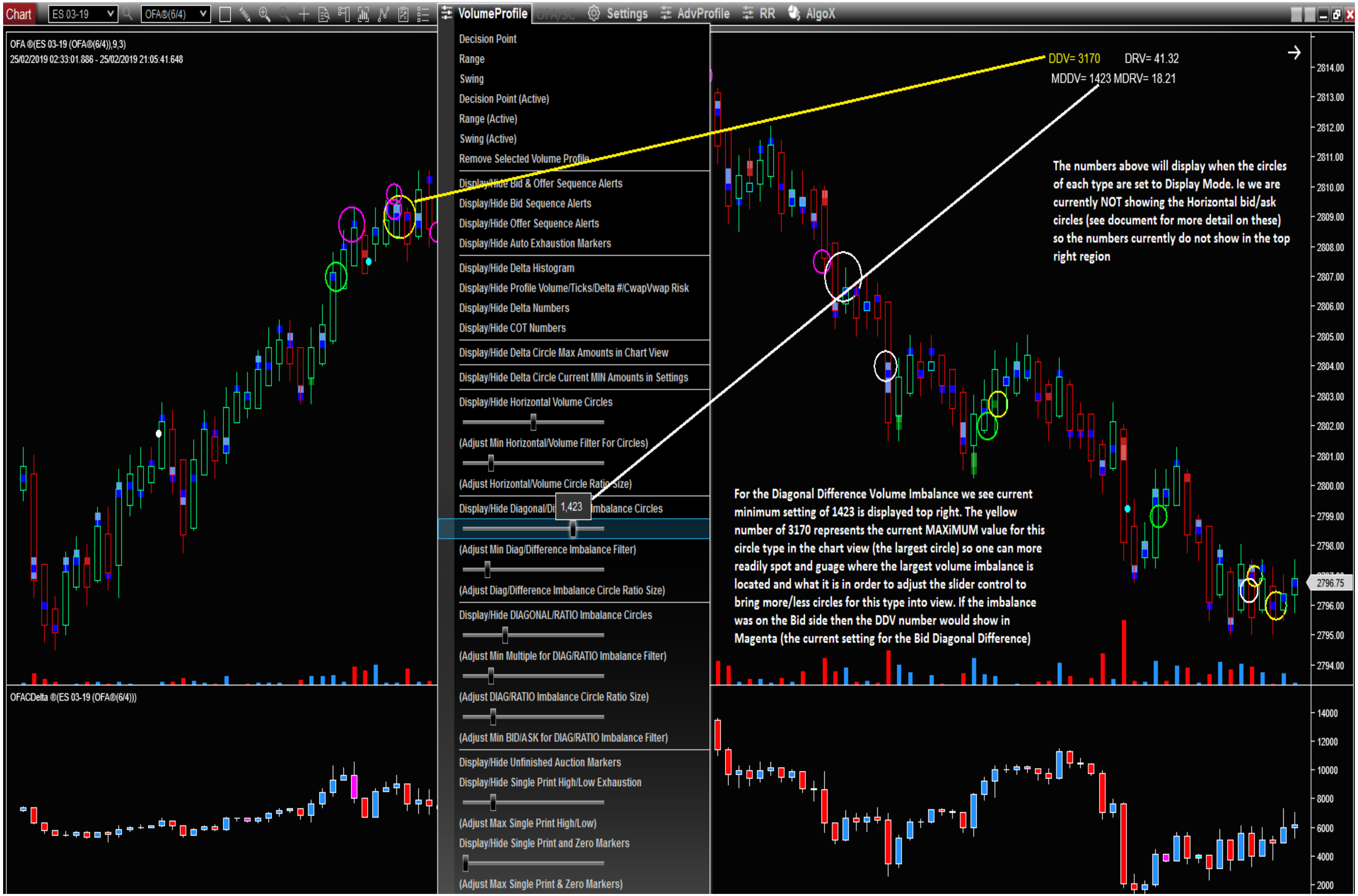
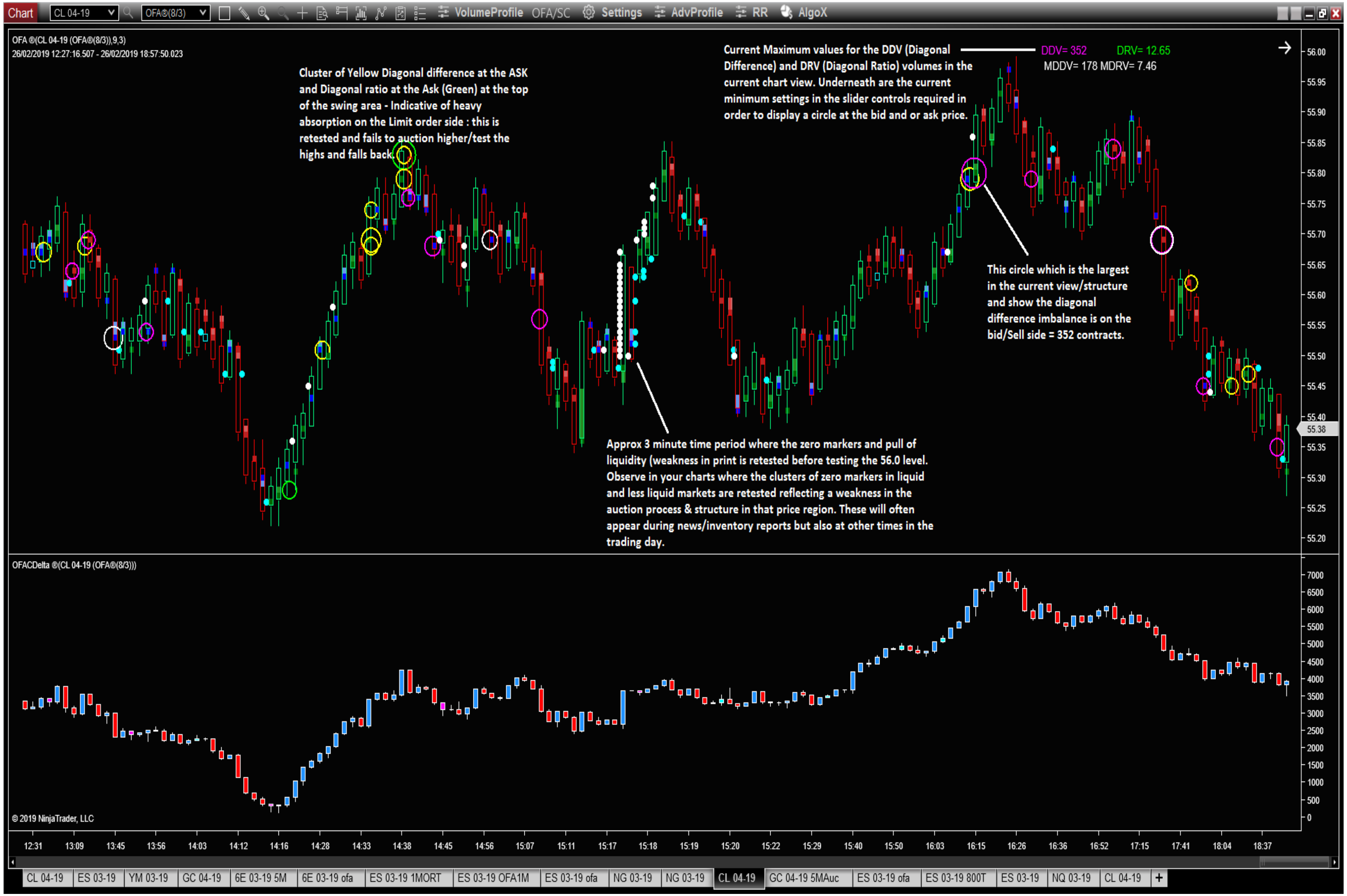


Chart
ES 03-19
OFA®(6/4)
VolumeProfile
Settings
AdvProfile
RR
AlgoX
OFA ®(ES 03-19 (OFA®(6/4)),9,3)
25/02/2019 02:33:01.886 - 25/02/2019 21:05:41.648
Decision Point
Range
Swing
Decision Point (Active)
Range (Active)
Swing (Active)
Remove Selected Volume Profile
Display/Hide Bid & Offer Sequence Alerts
Display/Hide Bid Sequence Alerts
Display/Hide Offer Sequence Alerts
Display/Hide Auto Exhaustion Markers
Display/Hide Delta Histogram
Display/Hide Profile Volume/Ticks/Delta #/CwapVwap Risk
Display/Hide Delta Numbers
Display/Hide COT Numbers
Display/Hide Delta Circle Max Amounts in Chart View
Display/Hide Delta Circle Current MIN Amounts in Settings
Display/Hide Horizontal Volume Circles
(Adjust Min Horizontal/Volume Filter For Circles)
(Adjust Horizontal/Volume Circle Ratio Size)
Display/Hide Diagonal/Di 1,423 mbalance Circles
(Adjust Min Diag/Difference Imbalance Filter)
(Adjust Diag/Difference Imbalance Circle Ratio Size)
Display/Hide DIAGONAL/RATIO Imbalance Circles
(Adjust Min Multiple for DIAG/RATIO Imbalance Filter)
(Adjust DIAG/RATIO Imbalance Circle Ratio Size)
(Adjust Min BID/ASK for DIAG/RATIO Imbalance Filter)
Display/Hide Unfinished Auction Markers
Display/Hide Single Print High/Low Exhaustion
(Adjust Max Single Print High/Low)
Display/Hide Single Print and Zero Markers
(Adjust Max Single Print & Zero Markers)
OFACDelta ®(ES 03-19 (OFA®(6/4)))
DDV= 3170
DRV= 41.32
MDDV= 1423 MDRV= 18.21
The numbers above will display when the circles of each type are set to Display Mode. Ie we are currently NOT showing the Horizontal bid/ask circles (see document for more detail on these) so the numbers currently do not show in the top right region
For the Diagonal Difference Volume Imbalance we see current minimum setting of 1423 is displayed top right. The yellow number of 3170 represents the current MAXiMUM value for this circle type in the chart view (the largest circle) so one can more readily spot and guage where the largest volume imbalance is located and what it is in order to adjust the slider control to bring more/less circles for this type into view. If the imbalance was on the Bid side then the DDV number would show in Magenta (the current setting for the Bid Diagonal Difference)
2796.75


Cluster of Yellow Diagonal difference at the ASK and Diagonal ratio at the Ask (Green) at the top of the swing area - Indicative of heavy absorption on the Limit order side : this is retested and fails to auction higher/test the highs and falls back.
Current Maximum values for the DDV (Diagonal Difference) and DRV (Diagonal Ratio) volumes in the current chart view. Underneath are the current minimum settings in the slider controls required in order to display a circle at the bid and or ask price.
DDV= 352
DRV= 12.65
MDDV= 178 MDRV= 7.46
This circle which is the largest in the current view/structure and show the diagonal difference imbalance is on the bid/Sell side = 352 contracts.
Approx 3 minute time period where the zero markers and pull of liquidity (weakness in print is retested before testing the 56.0 level. Observe in your charts where the clusters of zero markers in liquid and less liquid markets are retested reflecting a weakness in the auction process & structure in that price region. These will often appear during news/inventory reports but also at other times in the trading day.
OFACDelta ®(CL 04-19 (OFA®(8/3)))
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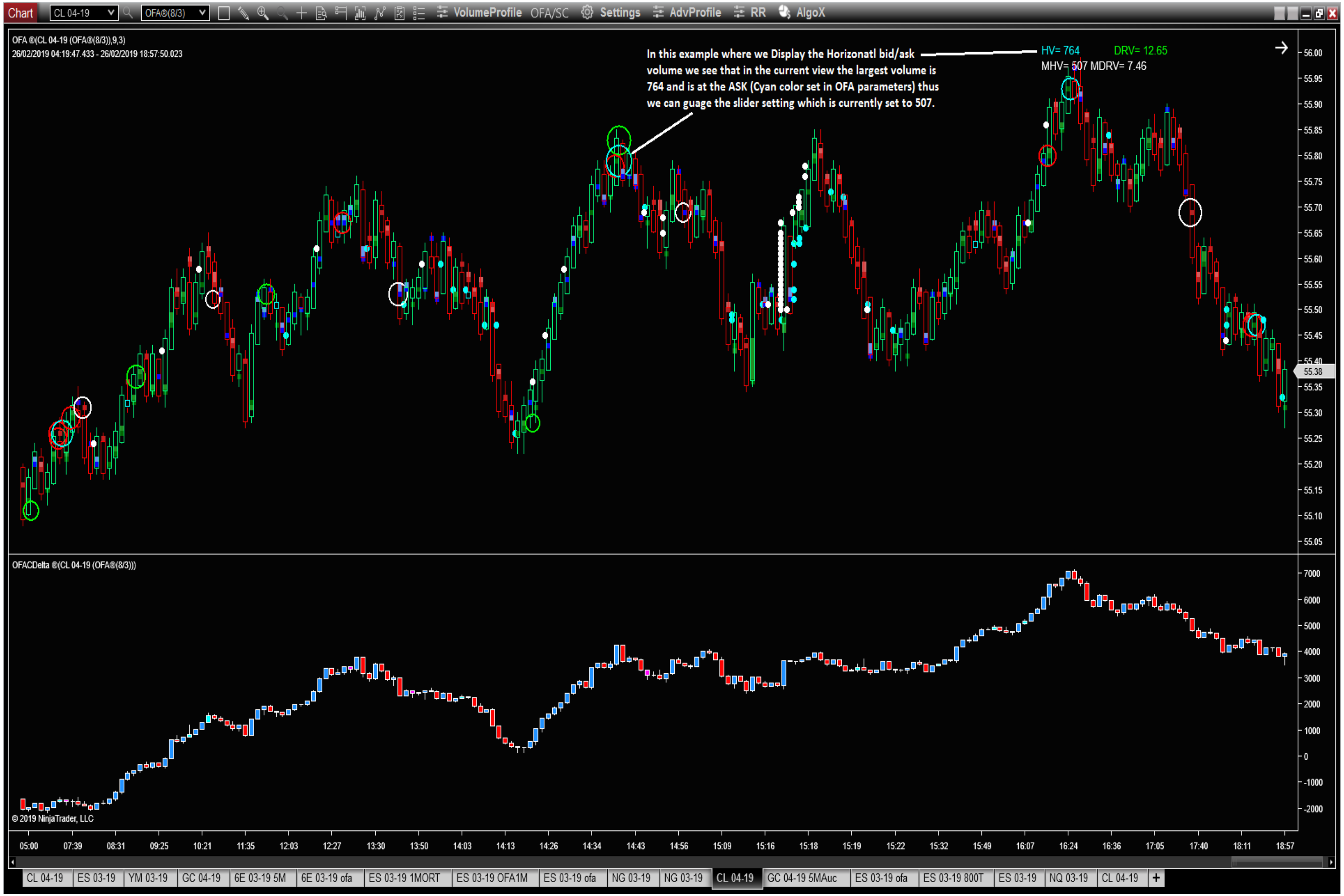
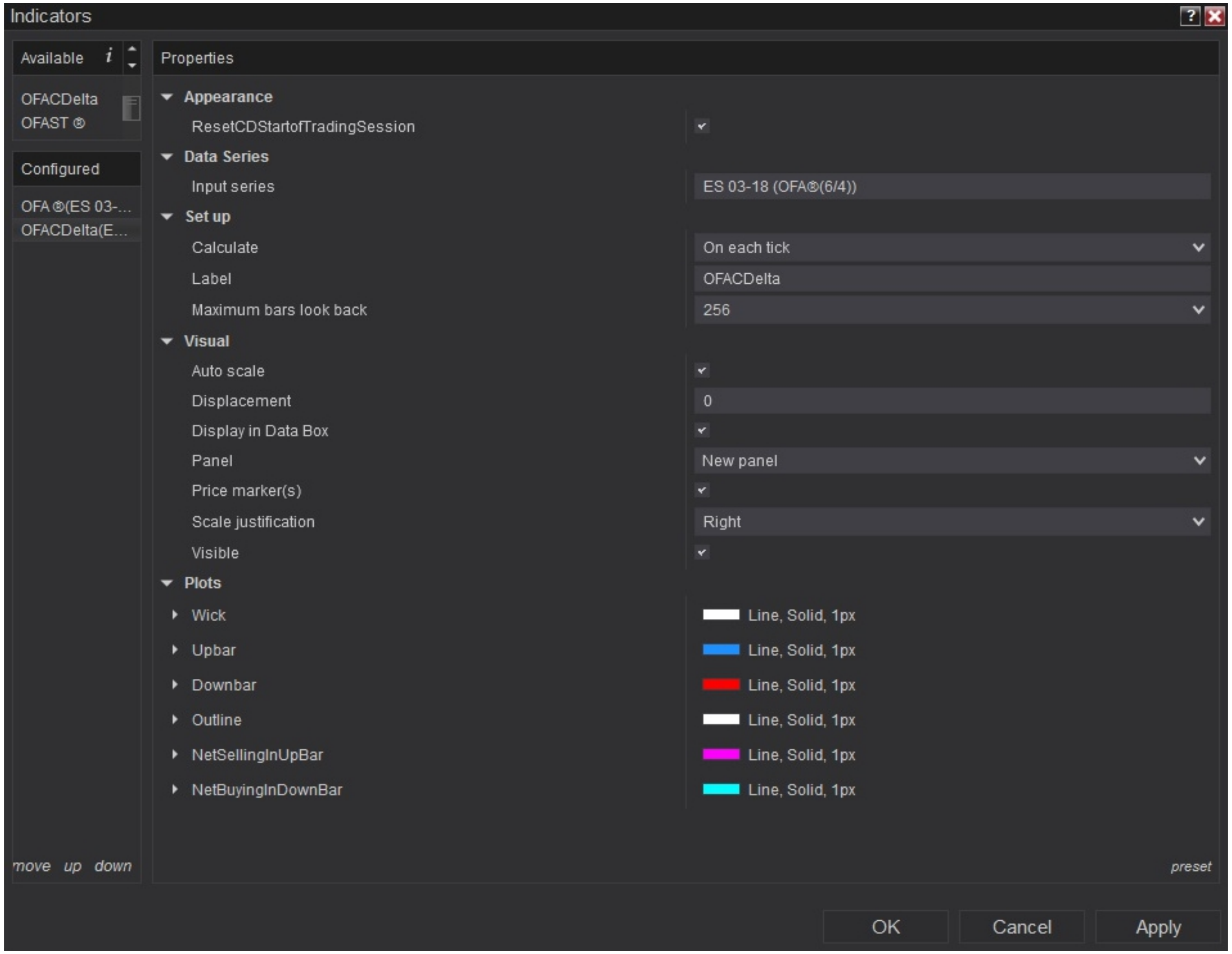


Chart
CL 04-19
OFA®(8/3)
VolumeProfile
OFA/SC
Settings
AdvProfile
RR
AlgoX
OFA ®(CL 04-19 (OFA®(8/3)),9,3)
26/02/2019 04:19:47.433 - 26/02/2019 18:57:50.023
In this example where we Display the Horizonatl bid/ask volume we see that in the current view the largest volume is 764 and is at the ASK (Cyan color set in OFA parameters) thus we can guage the slider setting which is currently set to 507.
HV= 764
DRV= 12.65
MHV= 507 MDRV= 7.46
OFACDelta ®(CL 04-19 (OFA®(8/3)))
© 2019 NinjaTrader, LLC
CL 04-19
ES 03-19
YM 03-19
GC 04-19
6E 03-19 5M
6E 03-19 ofa
ES 03-19 1MORT
ES 03-19 OFA1M
ES 03-19 ofa
NG 03-19
NG 03-19
CL 04-19
GC 04-19 5MAuc
ES 03-19 ofa
ES 03-19 800T
ES 03-19
NQ 03-19
CL 04-19

Cumulative Delta Indicator

Important the Core OFA for N8 must be installed & authenticated prior to adding this indicator to an OFA chart. The indicator **OFACDelta** can be found in the indicator list. The following screenshot illustrates the main parameters of this indicator.



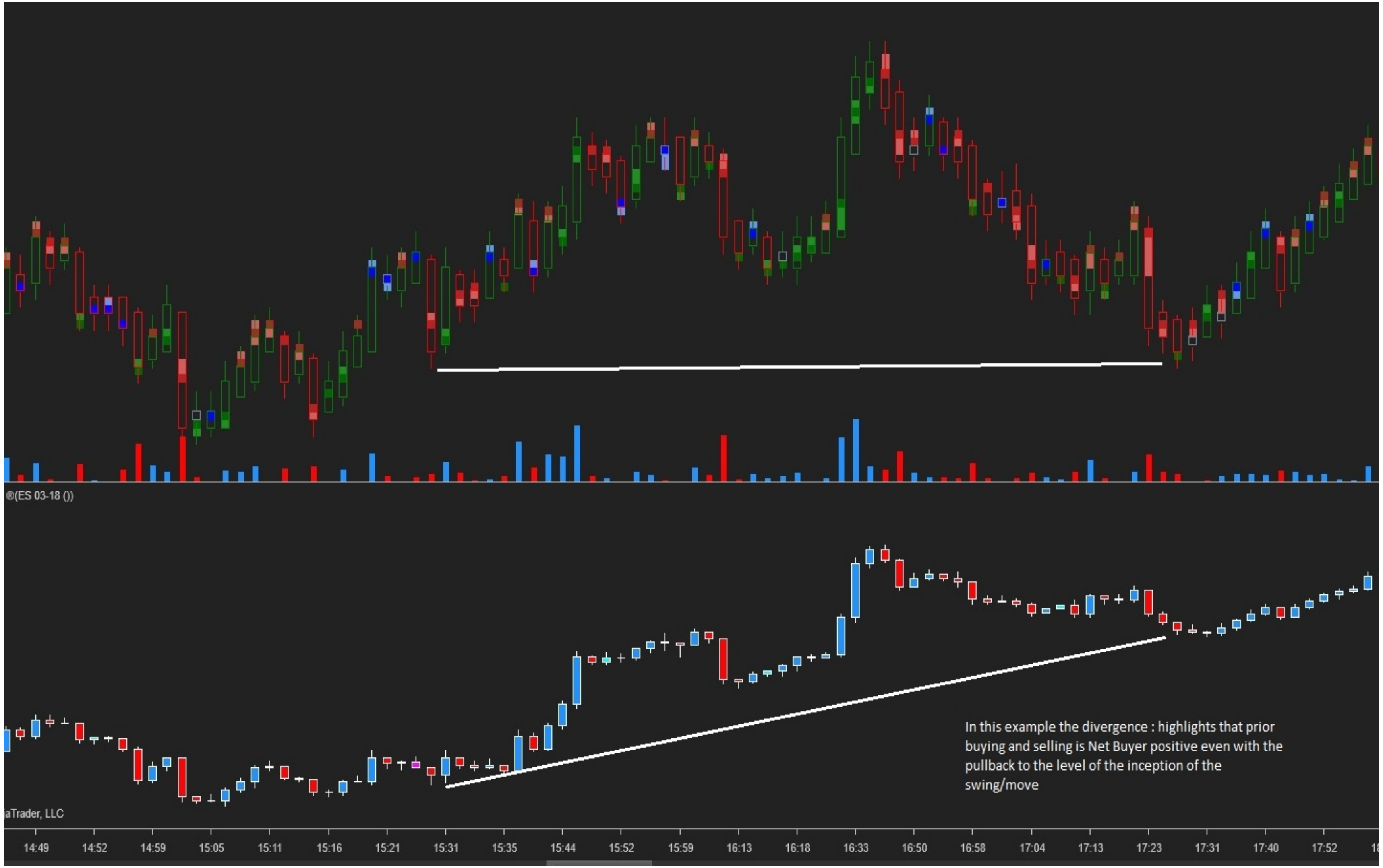
Parameters :

ResetCDStartofTradingSession : when enabled will reset the volume to 0 for the next session. Disabled/false the cumulative volume will not be reset to zero for each session.

Plot Colors :

Wick
UpBar
DownBar
Outline
NetSellingInUpBar : this color setting will be used when the Net volume is selling for an Up Bar.
NetBuyingInDownBar : this color setting will be used when the Net volume is buying for a Dn Bar.

The following screenshots depict and illustrate some examples of this in use :


®(ES 03-18 ())
jaTrader, LLC
14:49
14:52
14:59
15:05
15:11
15:16
15:21
15:31
15:35
15:44
15:52
15:59
16:13
16:18
16:33
16:50
16:58
17:04
17:13
17:23
17:31
17:40
17:52
In this example the divergence : highlights that prior buying and selling is Net Buyer positive even with the pullback to the level of the inception of the swing/move


Diagonal Imbalance transition zone is retested before continuation.
14:59
15:05
15:11
15:16
15:21
15:31
15:35
15:44
15:52
15:59
16:13
16:18
16:33
16:50
16:58
17:04
17:13
17:23
17:31
17:40
17:52
18:06

In the second screen from the last page the addition of the ***Diagonal Imbalance Circles*** : highlights a transition zone of volume that is subsequently retested before continuation : so we have 2 elements and views of volume to support our trade plan & other elements of our trade entry decision process.
As with any indicator it is important to not use in isolation as a buy/sell trigger ; but rather as an element of your trade analysis/trade plan ; thus used in context.
In many instances the flow and direction of the cumulative delta will follow price action. Depending on the characteristics of the contract/instrument being traded eg. CL/ES/NQ/YM/6E etc different divergence patterns can emerge.

OFACDelta Additional Parameter (version update)

OFACDelta has an additional parameter setting to allow display of the delta as Continuous or Non Continuous : the Non Continuous setting means the delta will be displayed as wicked candles for each bar's delta. See graphic below :


Additional parameter setting which enables the delta to be displayed as wicked candles as per continuous but this is for each bar only - set along the zero line
Indicators
Properties
Appearance
ContinuousCumulativeDelta
ResetCDStartofTradingSession
Data Series
Setup
Calculate
Label
Maximum bars look back
Visual
Auto scale
Displacement
Display in Data Box
Panel
Price marker(s)
Scale justification
Visible
Plots
OK
Cancel
Apply
VolumeProfile
Settings
AlgoX