

# Quant Imbalance Reader v1: User Guide

## SUMMARY :

- 1) The main concept used
- 2) General description
- 3) Text labels description
- 4) Tips and trading key setup

### 1) The main concept used

This new tool is particularly interesting if you are getting more and more familiar with the market orders flow concept and the tape reading. As you already know, there are two specific datas which we have to measure in order to anticipate the price action :

- Market orders flow (volume)  
and
- Limit orders flow (liquidity)

With this tool, you will have the two views of these two main stuffs (volume & liquidity), but we will put the point and focus mainly on the 'market orders flow activities'. Basically, it's based on the volume (market buyers and market sellers) which will enter and/or exit on/from the market. With this new tool, we will try to highlight some particular market orders flow events, in order to be able to recognize any specific volume imbalance and abnormal market orders activities

We are studying here more deeply the NATURE of the market order flow (of the volume).

The main goal here will be :

- Identify some key price area  
and
- Identify some key moment

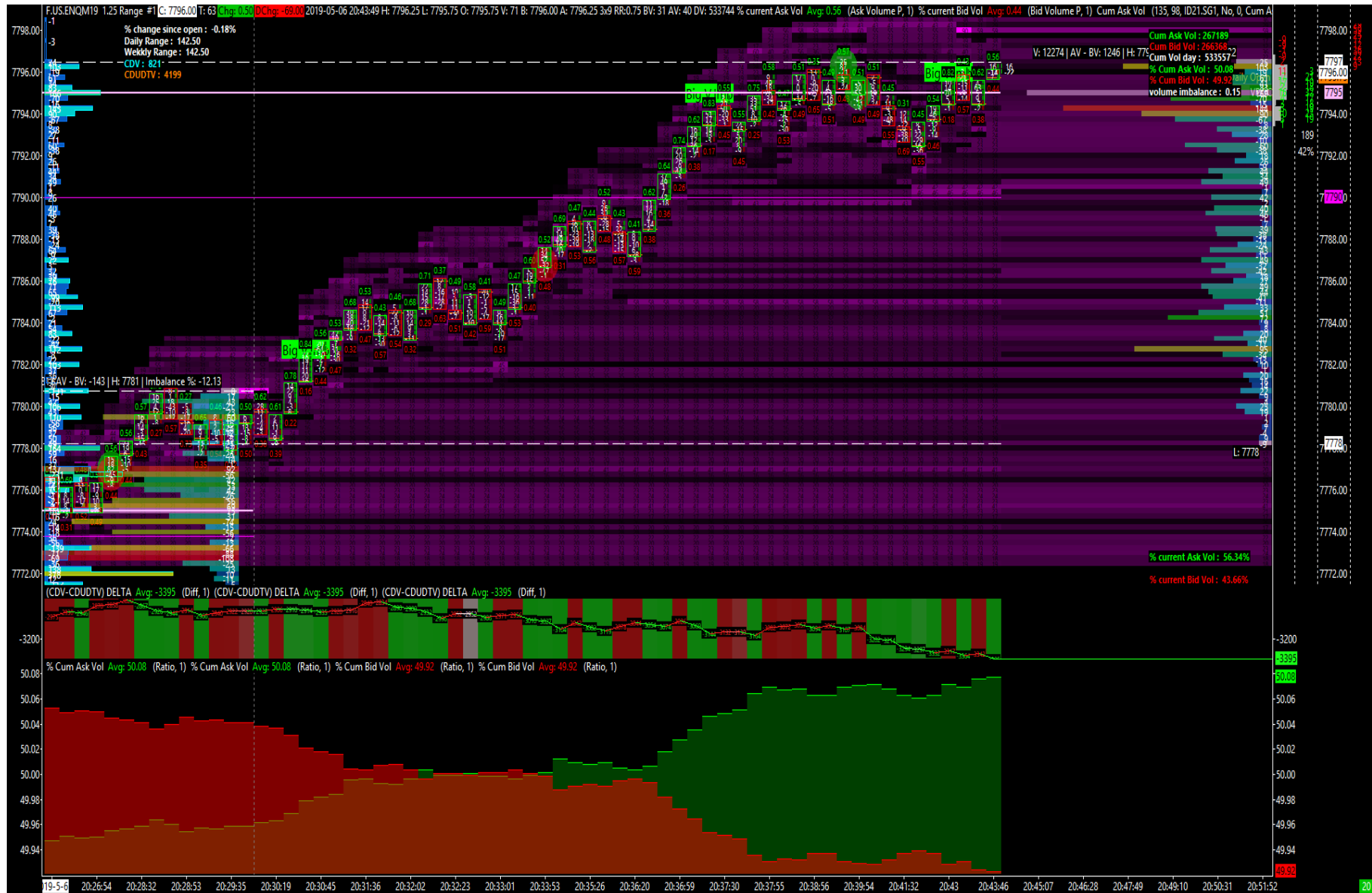
Where/when there will be a particularly intense volume imbalance detected, in order to :

- Check if there are any interested following liquidity or following volume which are entering/exiting and reacting about these volume imbalance detected.

With this logic of work, when a particular volume imbalance is detected, we will check to analyse how :

- The next (the following) market orders flow will be impacted (influenced)
- The orderbook state (the liquidity state) will be impacted (limit orders add/cancellation)
- The market making behaviour (MM aggressivity) will be impacted. (behaviour change).

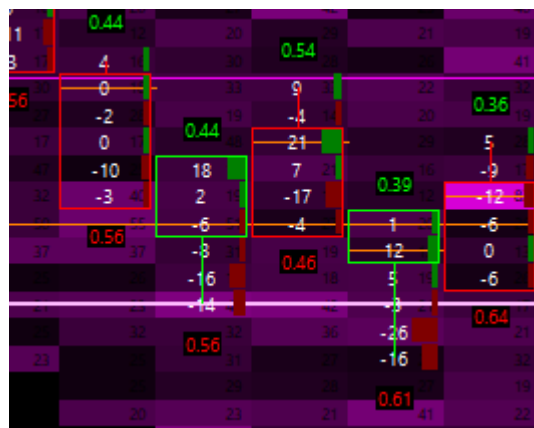
## 2) General description



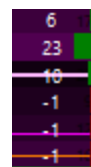
This [QUANT] Imbalance READER tool is constructed around three main regions which are :

a) 1<sup>st</sup> Region :

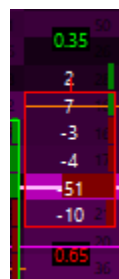
- The **Price Action** displayed in candle stick bar (red and green)



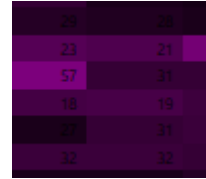
- The **Delta Volume Value** per price level in white quantities inside each candle stick bar



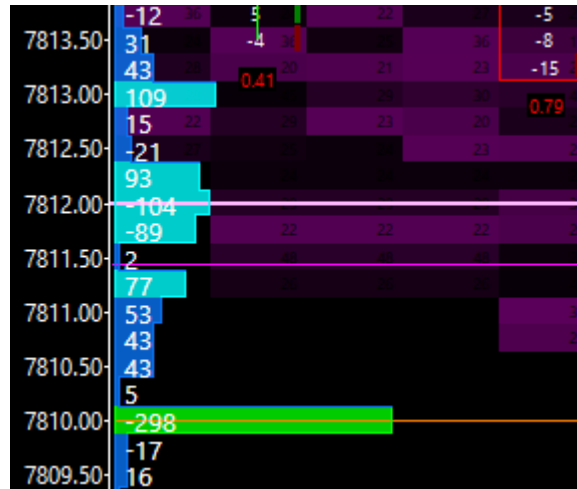
- The **Delta Volume Profile** displayed on each candle stick bar on the right side
- The **Current % of Ask Volume** (buy market orders) and **Bid Volume**(sell market orders) above / below each candle stick bar :
  - The green number above the candle stick bar is the percentage of buy market orders of the price bar.
  - The red number below the candle stick bar is the percentage of sell market orders of the price bar.



- A **purple DOM heatmap** with the limit orders quantity in black inside each price level of the DOM.



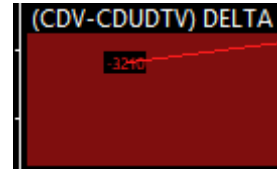
- A **daily volume profile** located on the left side of the chart which will cumulate each buy and sell market orders per price, since the open of the day session.



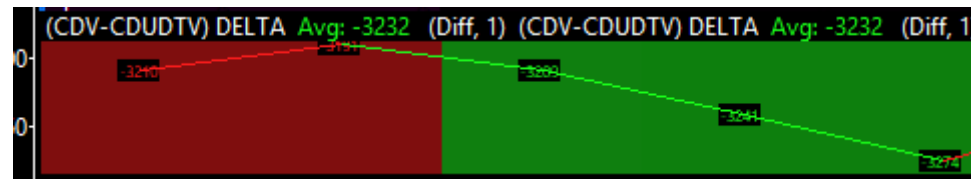
- A **periodic volume profile** located on the right side, which is printed for each 30 minutes period.
- The **HIGH/LOW price level** for each of these 30 minutes period in white dash line.
- The **daily HIGH and the daily LOW** (red and green line)
- The **previous daily HIGH** and the **previous daily LOW** (red and green line)

## b) 2<sup>nd</sup> Region :

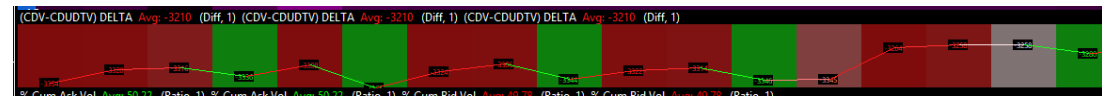
- The **(CDV-CDUDTV) DELTA value** : it's the difference between the CDV value, with the CDUDTV value. Basically it is used to compare the spread between the nature of the volume orderflow (with the CDV) and the way this orderflow is filled (with the CDUDTV). This home made delta value will strongly help us to define the market price manipulation.



- The **(CDV-CDUDTV) DELTA line** : it's showing the evolution (the action) of the (CDV-CDUDTV) delta. It's usually used to get the "trend" of this delta.
  - When this (CDV-CDUDTV) delta trend is positive (up), it means that the market making behaviour is more BEARISH.
  - When this (CDV-CDUDTV) delta trend is negative (down), it means that the market making behaviour is more BULLISH.



- The **(CDV-CDUDTV) DELTA heatmap** : it's an heatmap which is based on the (CDV-CDUDTV) delta trend. With this heatmap, you can simply watch and read the strenght of the (CDV-CDUDTV) delta trend.



### c) 3<sup>rd</sup> Region :

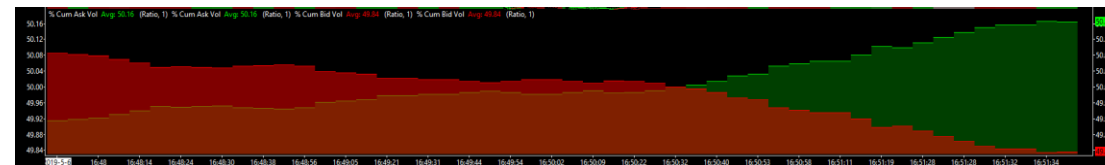
- The **Cumulative Ask Volume percentage** : it's a percentage value which is calculated to compare the amount of the total buy market orders volume cumulated since the open, with the amount of the total sell market orders volume cumulated since the open.
- The Cumulative Ask Volume percentage is calculated as well :  $\% \text{ Cum Ask Volume} = [(\text{Cum Ask Volume}) * 100] / \text{Cum Total Volume}$

**% Cum Ask Vol Avg: 50.16**

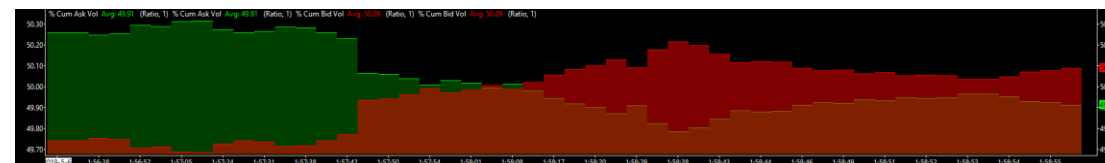
- The **Cumulative Bid Volume percentage** : it's a percentage value which is calculated to compare the amount of the total sell market order volume cumulated since the open, with the amount of the total buy market order volume cumulated since the open.
- The Cumulative Bid Volume percentage is calculated as well :  $\% \text{ Cum Bid Volume} = [(\text{Cum Bid Volume}) * 100] / \text{Cum Total Volume}$

**% Cum Bid Vol Avg: 49.84**

- The **Cumulative Ask Volume percentage** band in green : it's a line (band) which will illustrate the action of this Cumulative Ask Volume percentage.
- The **Cumulative Bid Volume percentage** band in red : it's a line (band) which will illustrate the action of this Cumulative Bid Volume percentage.
- When the volume imbalance percentage is more buyer, you will see the green band which is printing above the red band. It means that you have a volume imbalance which is more pressured on the BUY side of the tape.



- When the **volume imbalance percentage** is more seller, you will see the red band which is printed above the green band : it means that you have a volume imbalance which is more pressured on the SELL side of the tape.



### 3) Text labels description

**% change since open : 0.02%** : it's the **percentage** of the **price change**, which has been calculated **since** the **open** day (usually 00.00 AM CET on the GLOBEX session or 3.30 PM CET on the US session).

**Daily Range : 150.00** : it's the **range** of the **day session** displayed in 'points'. Here, on the e-mini Nasdaq100 index, it means 150 points (600 ticks).

**Weekly Range : 150.00** : it's the **range** of the **week** displayed here in "points". You can see it's the same value than the daily range (150 points ) because it's monday.

**CDV : 1999** : it's the **CDV value**. The famous **Cumulative Delta Volume** value which is displayed by "unit". A unit is one market order (one contract) which is showing the result of Buy market orders - Sell market orders cumulated. When it's positive, it means there are more buy market orders transacted than sell market orders transacted. When it's negative, it means there are more sell market orders transacted than buy market orders transacted.

**CDUDTV : 5878** : it's the **CDUDTV** value. The famous **Cumulative Delta Uptick Volume - DownTick Volume** and it's displayed by "unit". A unit is one market order (one contract) which is showing the result of the way these market orders have been filled. When it's positive, it means there are more market orders which have upticked the price higher than market orders which have downticked the price lower. When it's negative, it means there are more market orders which has downticked the price lower than market orders which has upticked the price higher.

**Cum Ask Vol : 308454** : it's the amount of buy market orders cumulated since the open of the day session (**Cumulative Ask Volume**).

**Cum Bid Vol : 306597** : it's the amount of sell market orders cumulated since the open of the day session (**Cumulative Bid Volume**).

**Cum Vol day : 616102** : it's the amount of buy market orders and sell market orders cumulated since the open of the day session (total **Cumulated Volume Day**).  
**Note** : Cumulative Ask Volume + Cumulative Bid Volume = Cumulative Volume Day.

**% Cum Ask Vol : 50.16** : it is the amount of the buy market orders cumulated since the open of the day session, but displayed in percentage of the total **Cumulated Ask Volume** since the open.

**% Cum Bid Vol : 49.84** : it's the amount of the sell market orders cumulated since the open of the day session, but displayed in percentage of the total **Cumulated Bid Volume** since the open.  
**Note** : % Cumulative Ask Volume + % Cumulative Bid Volume = 100 % Cumulative Volume

**volume imbalance : 0.31** : it's the **imbalance** degree of the **volume** orderflow. When this amount is positive, it means that the volume imbalance is more important on the buy side of the tape. When this amount is negative, it means that the volume imbalance is more important on the sell side of the tape.

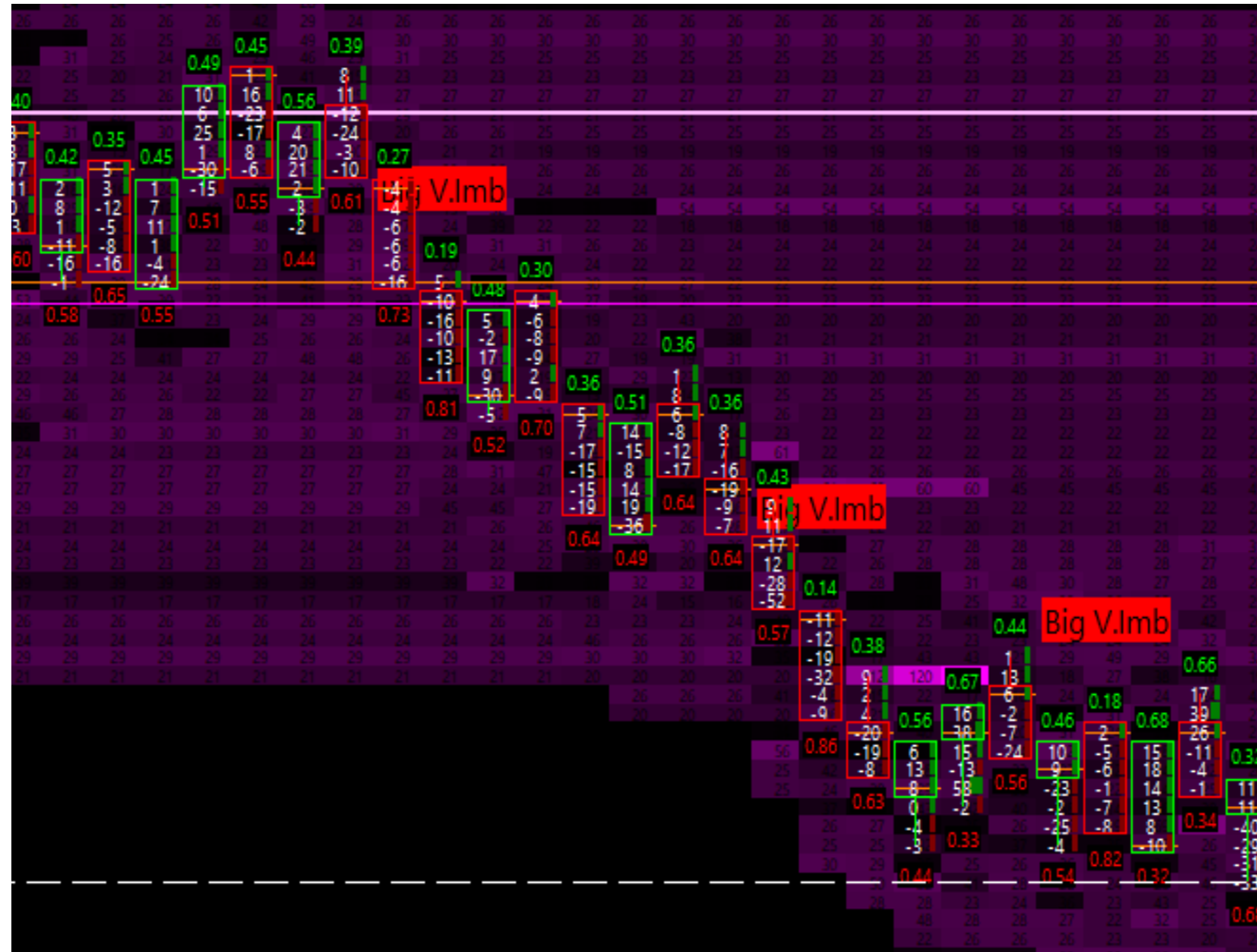
**% current Ask Vol : 48.57%** : it is the percentage of the buy market orders amount, compared to the total volume amount, but calculated for the current candle stick bar only

**% current Bid Vol : 48.71%** : it is the percentage of the sell market orders amount, compared to the total volume amount, but calculated for the current candle stick bar only  
**Note** : % current Ask Volume + % current Bid Volume = 100% Current Volume



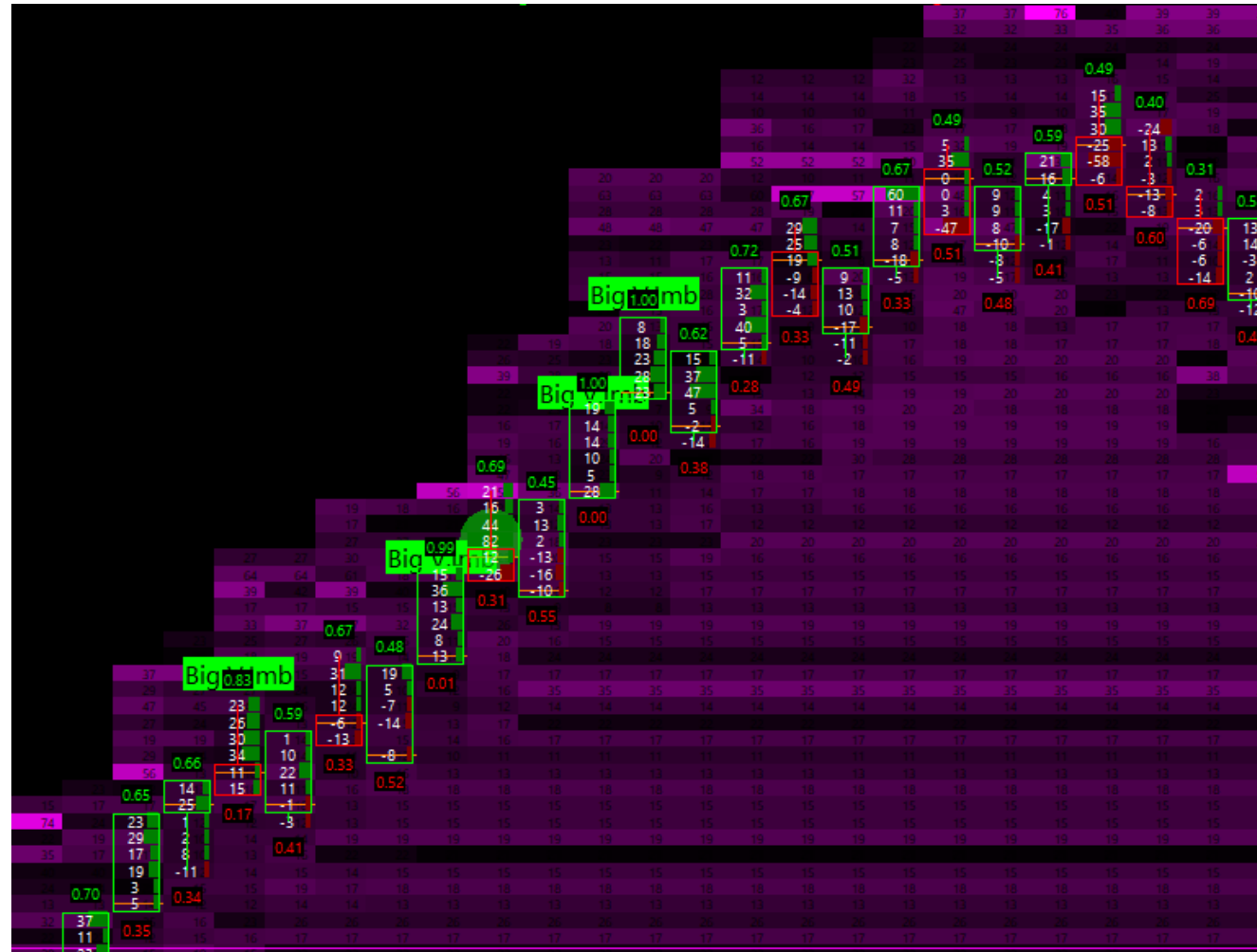
# Big V.Imb

: it's an automated alert which is triggered when there is a strong volume imbalance registered on the current candle stick price bar. This alert is initially set to 80%. You can modify it as you desire if needed, and that, depending on the instrument you work on. When this alert is reached, it means there are more than 79% of the volume transacted, which is SELL volume. (strong sell volume imbalance)



# Big V.Imb

: it's an automated alert which is triggered when there is a strong volume imbalance registered on the current candle stick price bar. This alert is initially set to 80%. You can modify it as you desire if needed, and that depending on the instrument you are trading on. When this alert is reached, it means there are more than 79% of the volume transacted, which is BUY volume. (strong buy volume imbalance)



#### 4) Tips and trading key setup :

##### A) First main setup : "FADE the double consecutive Big Imbalance alert"

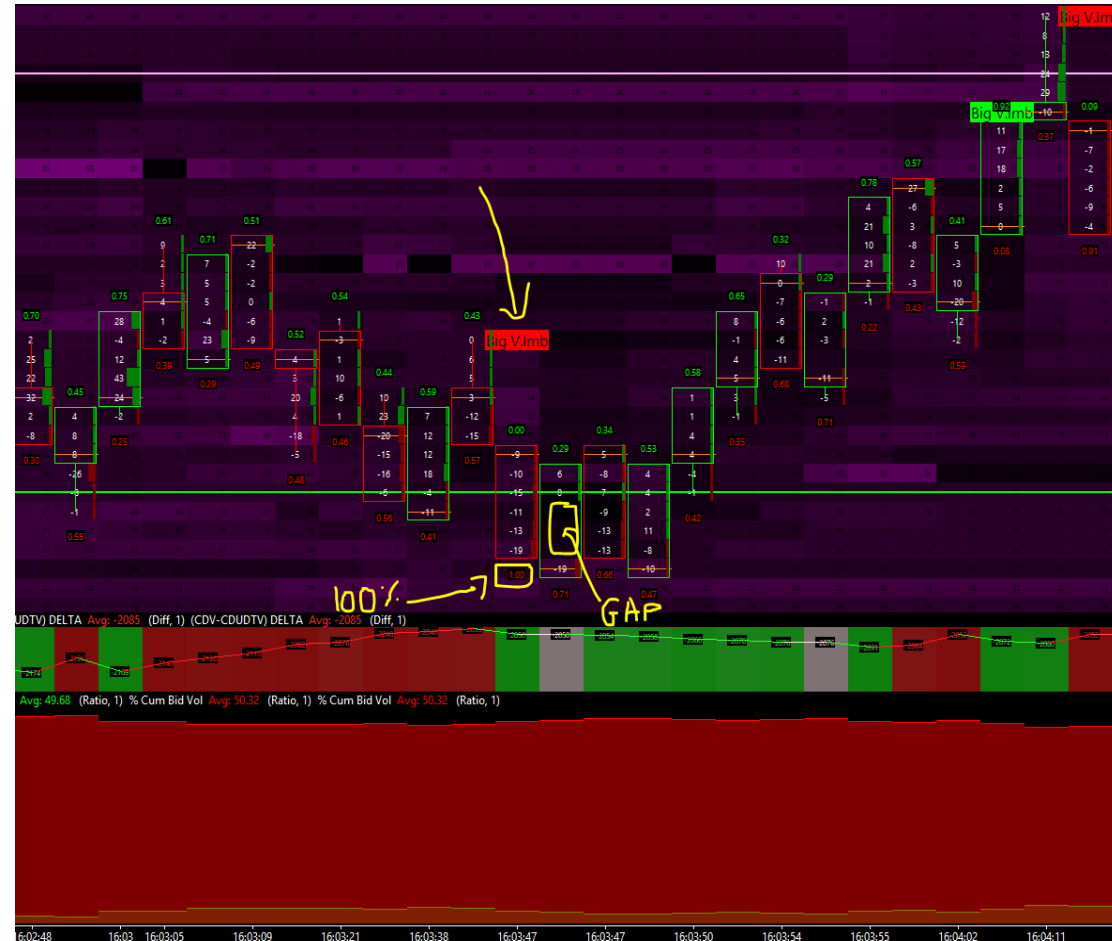


Here you have a confluence of many different sell signals which are all pointing on the same direction :

- The double Big Volume Imbalance triggered on the buy side on two consecutive candlestick price bars
- A large offer size just printed on the orderbook for 42 contracts shown which indicate a potential sell interest on the orderbook.
- A market making behaviour which is becoming clearly bearish. We can see a proper sell momentum on the (CDV-CDUDTV) delta heatmap, and that in total divergence with the price action which is growing up.
- A "sell volume imbalance" cumulated since the open. On the third region, we can clearly see that the volume imbalance is mainly located on the sell side.

As you can see here now, we have a convergence of 4 different signals which are all pointing on the same direction, which are all displaying a same and unique logic. It's one of the market making manipulation that we can often see among many others.

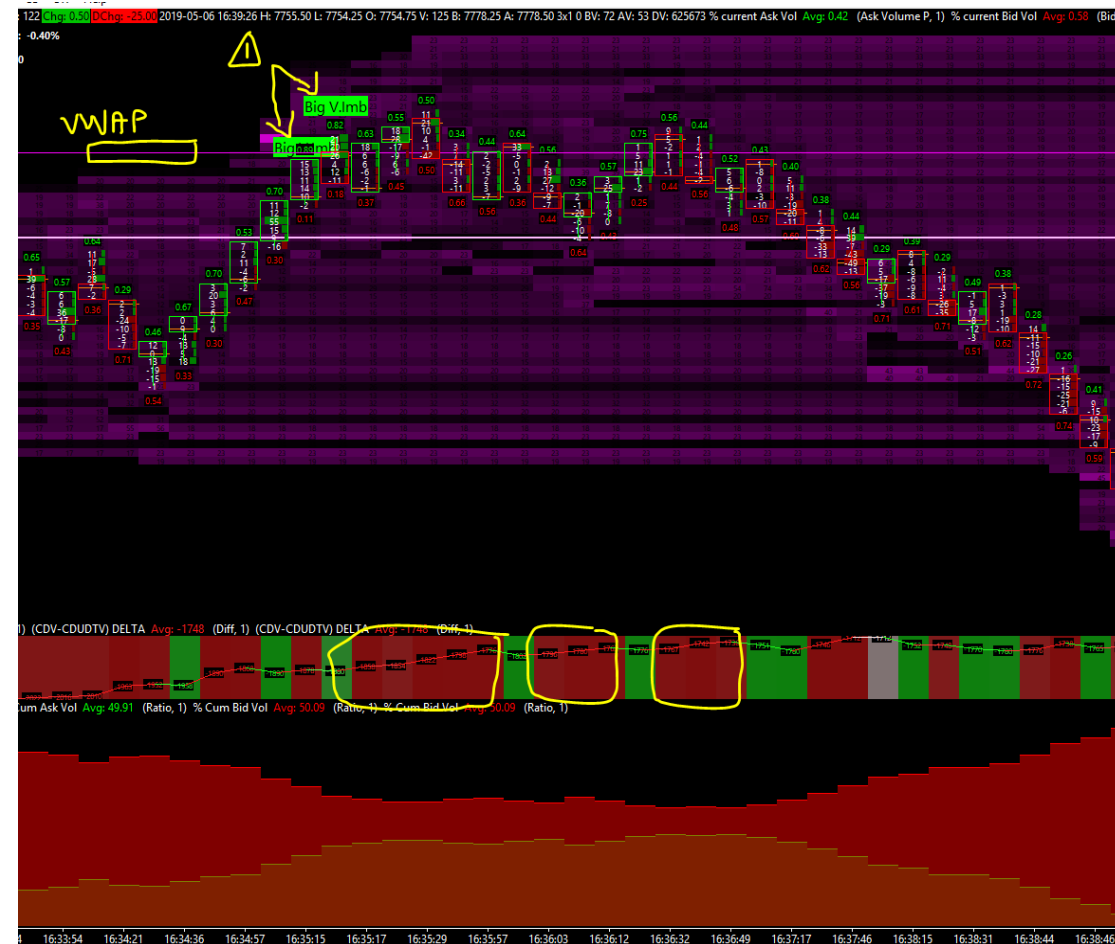
## B) second main setup : "Fade the 100% volume imbalance alert when it is followed by a GAP"



Here you have a confluence of many different buy signals which are all pointing on the same direction :

- The Big Volume Imbalance alert triggered on the sell side
- A 100% volume Imbalance triggered on the sell side
- A GAP let into the next candle stick price bar
- A market making behaviour which is turning bullish on the (CDV-CDUDTV) delta heatmap

### C) Third main setup : "the double Big Volume Imbalance triggered on VWAP area"



Here you have a confluence of many different sell signals which are all pointing on the same direction :

- Double "Big Volume imbalance" alert triggered consecutively triggered on the VWAP price area
- A bearish market making momentum (region 2)
- A market orders flow imbalance more active on the sell side since the open (region 4)