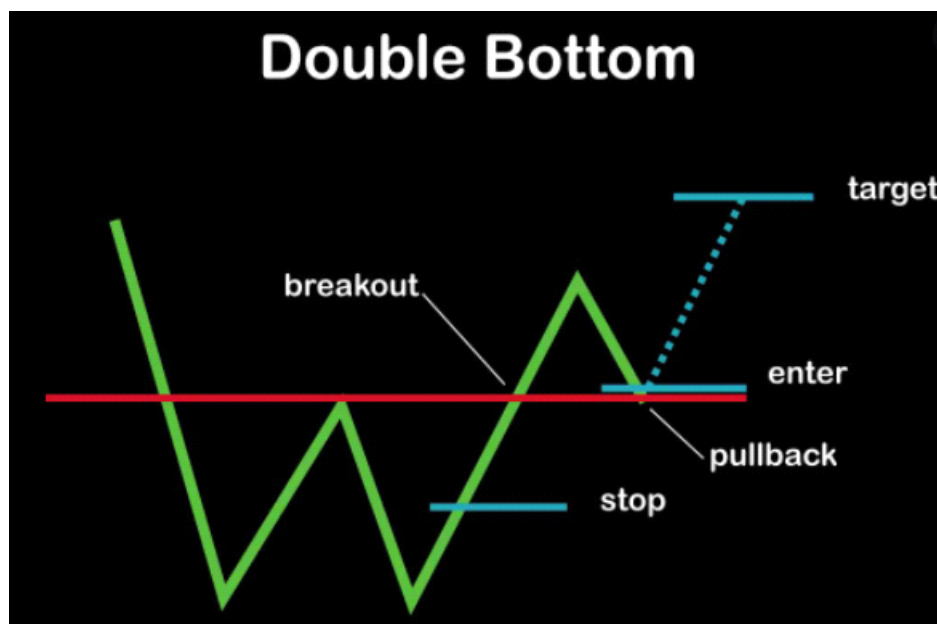


## CONFIRM W/M bottom/top W/M DETECTION with HFT CLUSTERS

### INTRODUCTION :

You have probably already heard about the famous W bottom and M top that we will find very often in general concepts of technical analysis and charisma!

It is a very basic concept from a technical point of view, that most retail traders will measure and detect simply with price formation (price action); according to a standard pattern, which will allow to detect these types of patterns, as follows:



This kind of thing can work, but if we follow the logic expressed on this drawing (found on google) just above, we will usually enter the trade buyer, either at the bullish break of the red line, or on the pullback on this red line. That is to say, after 50% of the upward movement is already done. This won't be very good in terms of timing, as well as in terms of risk reward, which will be at best 1:1 if we want to put a stop under both legs of the W.

Having said that, I don't want to criticize or spit in the soup as we say here in France! We have to admit that these famous W bottom and M top are very widespread as a pattern on the markets! I think that these patterns make total sense! and this even from a market making point of view! For a simple reason: this type of pattern potentially perfectly integrates the trap logic; with in particular, the presence of trapped volume in the second leg of the W bottom (sell orders trapped on the second leg of the W). This is pure market making logic for me. And it is probably thanks to these market orders trapped on the lowest leg (the second leg of the W bottom) that the market maker will find the necessary fuel to be able to raise prices and create the full extent of this second leg.

What I propose to you today is to be able to identify, measure, and detect the famous W bottom or M top, during their construction! And to be able to validate the veracity of the pattern, even before it is completely finished! The goal here is to enter a buyer trade near the bottom of the second leg of the W bottom, to improve the entry point, and to allow a more interesting risk reward.

## **THEORIES :**

To detect these famous W bottom and M top, we will focus on several important elements, which are invisible for a retail trader who will focus exclusively on the price action!

For the example of a W bottom, we are going to look for :

---> the presence of HFT alerts that are triggered at the purchase, before, during, and after either of the two legs of the W bottom.

---> the presence of a HFT cluster buyer that is triggered on one of the two legs

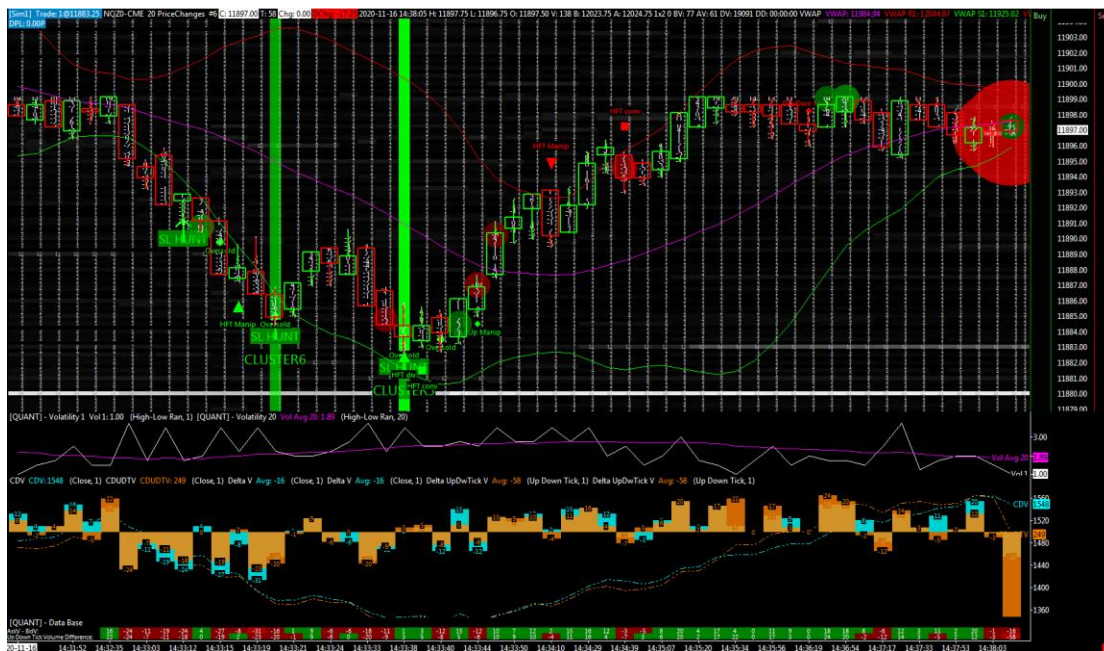
---> the presence of 2 different HFT buyer clusters, on each of the two legs

----> stop losses that are triggered, and/or vendor volume trapped in the 1st and/or 2nd leg of the W bottom.

----> a large limit order placed just below the two legs, at the BID of the order book, which would eventually "support" all this construction of W bottom.

## **REAL CASE :**

Let's take here an almost "perfect", and almost caricatured, yet real example, which was recorded just yesterday! On the contract #emini #nasdaq100 #index of the #CME (16th november 2020) on a graph in "20 price change per bar" via the [QUANT] Volatility tool!



As you can see on this rather clear and pure graph, here the famous W bottom pattern, really jumps out! Indeed, even when the trade buyer enters the break line, we can benefit from almost 50% of the movement.

This will be of great interest to us here:

---> a CLUSTER HFT buyer on the first leg of the W: this is cluster 6! A mix of "SL HUNT" and "OVERSOLD" !

---> just before that, we also have a "HFT Manip" which is triggered at the purchase, as well as a "SL HUNT"; and this always with a price which is going down.

---> we also see a big limit order at the BID of the order book which is placed a few tick below the level of the first leg of the potential W bottom.

The most interesting comes next!

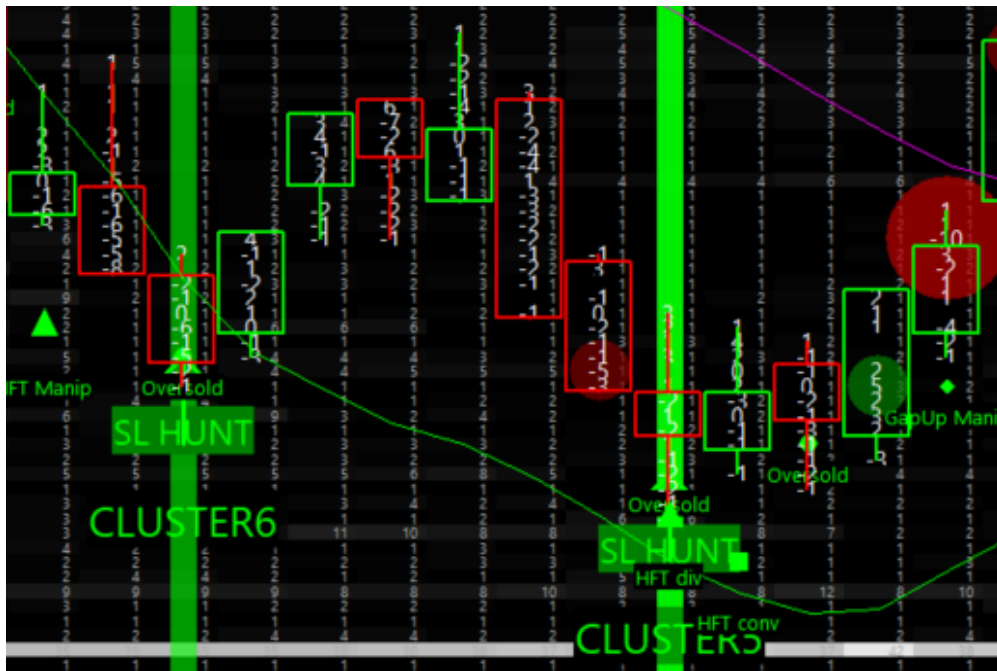
----> during the construction of the second leg of the W, we can see a triple HFT CLUSTER being built! Indeed, we have here, on one and the same price bar, a combination which is triple! "OVERSOLD" + "SL

HUNT" + "HFT Div" ! All of these are triggered on one and the same price bar! This price bar will be a nice low point!

----> the big BID bid limit order remains in place, even when the price approaches it! (sign of strength at the IDB of the book)

---> finally, we have a "HFT CONVERGENCE" alert and an "OVERSOLD" alert that triggers again, as well as another "GAP UP WITH MANIPULATION" alert that is also triggered just after the creation of the second leg of the W bottom.

**To summarize**, in a localized space of only 14 price bars (which corresponds to a time space of about 25 seconds); and this on a price amplitude of about 5 points (11888/11883); or 20 tick; we can see that we have 6 DIFFERENT HFT buyer alerts that will trigger one after the other, in this very short space/time! This means that at this moment, we had a pressure of HFT algorithms which were very dense at the purchase! (probably market making).



So it was only in these 25 seconds of trading that they were triggered:

---> HFT Manip (buy)

---> OVERSOLD

---> SL HUNT

---> HFT Div (buy)

---> HFT Conv (buy)

---> Gap Up With Manip

All this in a range of only 5 price points.

One will note again the HFT phenomenon of the triple CLUSTER, terribly effective in this example, which triggered on the exact low point of the prices! ("OVERSOLD" + "HFT DIV" + "SL HUNT")

