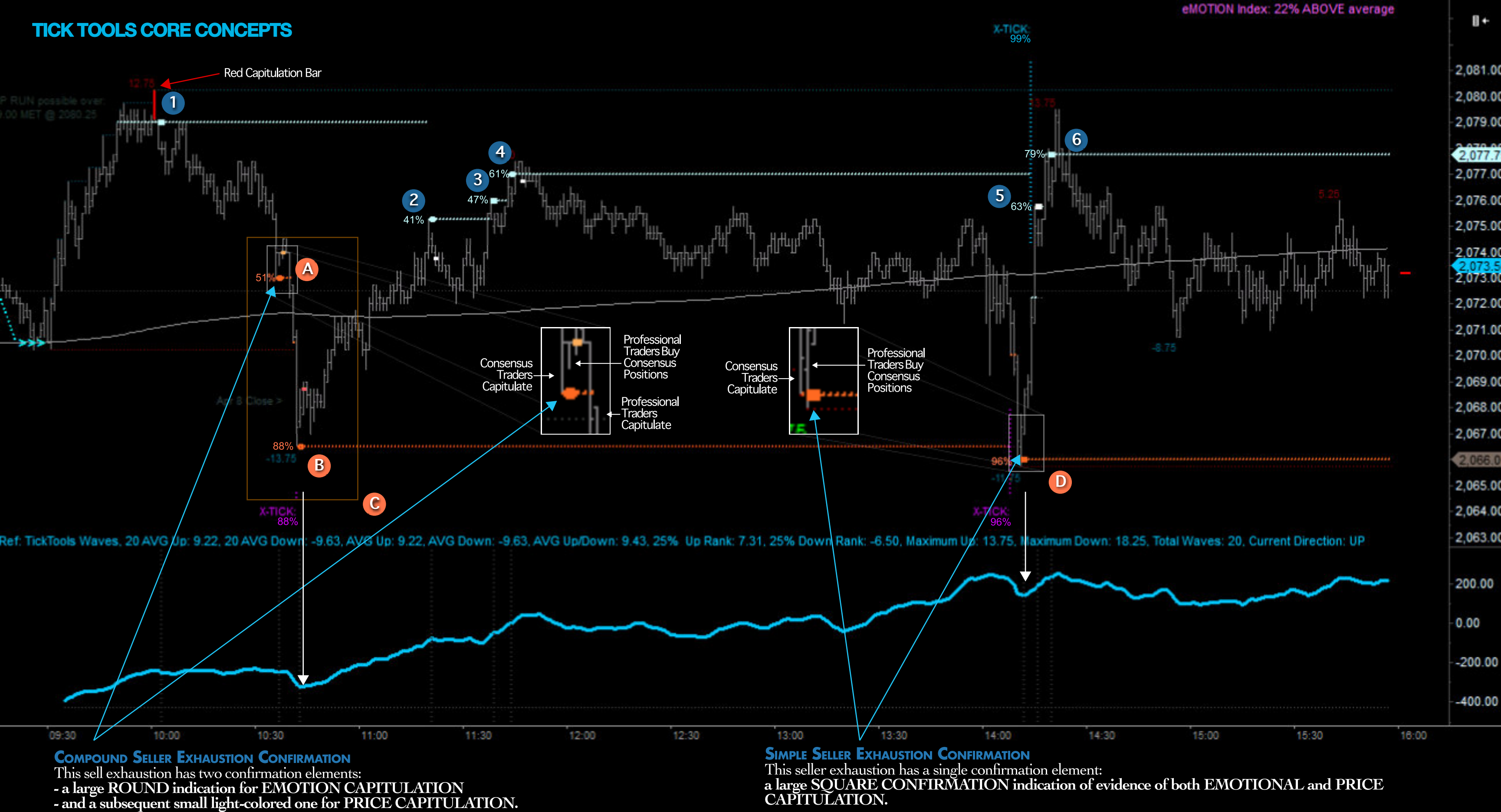


TICK TOOLS CORE CONCEPTS



X-TICK CORE CONCEPTS

One of the most powerful elements of Tick Tools its ability to speak to the nature of behavioral market events and their character in a fairly concrete manner. Lets examine what is transpiring at a seller and buyer exhaustion and why they can be so important. Moreover, why they can tell us something about the light switches in the markets that often flip sentiment as specific prices and places. What is occurring at all Tick Tools exhaustions is some form of CAPITULATION. It can be small or large. It can be fast or slow. It can be on small volume or large volume. Occasionally, traders can identify with some confidence when capitulation in the markets may be occurring but rarely with consistency, accuracy and/or perspective.

WHAT IS CAPITULATION?

The Tick Tools Definition of Capitulation is: **"Disorderly market executions containing chaotic "unmanaged market order position closing" or "position flipping". This can be further defined: "Events of market stress that are resolved via an unusually high number of Market Orders, Stop Market Orders at unusual velocity and diffuse/low quality price executions (high realized spreads for buyers vs sellers) on both sides of the order book"**

Tick Tools watches the market for this kind of activity and cross references each metric that defines its definition of capitulation with data in its databases and indexes of extreme trader behavior. When a sufficient amount of capitulatory behavior is identified, Tick Tools begins tracking the prices of the potentially capitulatory event. This is when the price tracking indication will appear on a Tick Tools chart. Subsequently, as a market begins to revert to orderly execution, capitulation will be deemed to be complete via one of several types of CONFIRMATION indications. We know of no other tool that knows how to do this type of analysis of trade tickets activity in real-time. This is the most unique and powerful core capability of Tick Tools.

If we now understand that each of the Tick Tools Buyer or Seller exhaustions are capitulatory in some form - we know a lot about the traders executing trades at these points and can watch for key subsequent behavior from participants. Professional traders (*an important strata of trader for Tick Tools*) prefer to operate when the market becomes disorderly & other participants are panicking. Therefore, they prefer to short highs where the consensus/retail market participants (*another class of trader in our space*) elect to stop out of short risk and they prefer to buy lows where the consensus/retail traders are reducing or closing long risk. Tick Tools knows this, and draws a line in the sand (*PriceTracking*). As professionals act at these capitulatory locations, the prices will become support or resistance and likely be defended. If price tracking levels are broken in a significant way then it is a strong clue that the most skilled traders are vacating or being evicted from their positions. At these points, capitulation/exhaustion may be able to be deemed to have been part of a larger directional momentum.

One of the most powerful concepts implemented by Tick Tools as a way to interact with this data is the stratification of measurements of this data: **Normal capitulation, Weak Capitulation and X-Treme Capitulation**. The difference between Weak and Normal capitulation is not very significant for the user though this distinction is very important for Tick Tools internally. Normal capitulation can be categorized as emotional market behavior that ranks in the top 70 percentile of emotional, exogenous and/or capitulatory behavior. For X-Ticks (X-Treme Capitulation) this must score in the top 18% percentile of all emotional behavior in the markets in the last 20+ years in the Tick Tools Database. This is extremely valuable data analysis that is not price dependent or reactive to latent analysis. **This analysis occurs instantly.**

The next core concept in Tick Tools is that each exhaustion or capitulation that appears for any day **MUST** be distinguished from the previous one, in most cases, in some aspect that makes it **more emotional and more significant than the previous**. So, in the BUY exhaustion examples labelled above each successive event **1 2 3 4 5 6** is more significant than the previous one. So, number 3 is generally much more significant than event number 1. Number 6 requires MUCH more market effort to trigger than exhaustions 2, 3, or 4. This is, the same rule on the seller events labelled **A B D**

This enables the ability to instinctually relate to market participation in an organic way and also sensibly/innately understandable manner for human consumption. It also allows this understanding to transmit very quickly. The other capability enabled by this type of convention is the ability to evaluate price behavior progress in a revolutionary way. For example, if the market has been rallying as in the above chart and then we get the strongest SELL EXHAUSTION or X-TICK of the day and participants at this event are unable to break below a previous seller or buyer event or make a lower swing low - demonstrates clearly that sellers pushed the hardest so far for the day but accomplished little price progress. INEFFICIENT PRICE REACTION vs EFFORT & EMOTIONAL ACTION. The same is valid in reverse. These types of examples will be detailed more in other slides.

Lastly, X-TICK's are among the most powerful feedback that can be gleaned from a market. Most often the level of capitulation occurring at an X-TICK is strong enough to spike put/call ratios and the VIX INDEX alike up or down. However, its the subsequent reaction or follow through that matters. Once these CAPITULATIONS confirm via their confirmation indications - support or resistance is created. If these levels are broken-out professionals taking the opposite side are being run over and take out. If they hold then professionals have committed and the levels will likely be significant stopping points. Impacts from X-TICK's are usually more significant than for an hour or two. Quite often they can be a pivot to a sign if it cant breakout or breakdown.

Another concept core to Tick Tools is successive events are ACCRETIVE (this is the reason that events are not displayed as top 10 percentile but rather 90%). When two successive events occur they can be added together and create a measure of aggregate emotional energy. Such as events **A** **B** on the chart above can be totaled to 139% & **2** **3** **4** can be totaled to 149% giving you an aggregate number of emotional energy expended over that time. When successive events occur they are referred to as “Sequential Exhaustions” and can be aggregated in this fashion - see the example at the box at **C** that encompasses two events - one of which is an X-Tick.