DOCUMENTATION INDICATORS

NinjaTrader 8

Trader Algorítmico

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Trader algoritmico - Documentation

Indicators v10.4.0.0

This documentation is about the trader-algorithmic indicator package, to briefly explain what they consist of and how they work, without being the complete individual documentation of each indicator.

CHANGELOG 16-06-2024

- 1. Improved CPOC painting that sometimes painted longer lines than expected.
- 2. Added cluster mode to Volume Pro, which shows the point of maximum interest of each candle
- 3. Corrected manager error that the buttons were repeated when reloading the graphic and had to be clicked twice the first time they were pressed.
- 4. Added enable/disable chart trader button in the chart bar in trade manager
- 5. Added consistency to the VPOC percentage so that when we raise TF the percentage remains the same.
- 6. Including Jon Reversion Point, which marks points in which a return to the VWAP is probable.
- 7. Improved ATA painted (general bt painting and percentage display) at the request of J.B.
- 8. Updated VPOC, possibility of the percentage always changing, not only when the POC is touched, possibility of also seeing the historical percentages. To do this, put it in a new panel, change the color from VPOC to transparent and change the color from "%" to the preferred one. At the request of J.F.
- 9. Modified Info, now includes: PnL, pending orders, positions, net change in asset price and tick size.
- 10. Including Esperanzag indicator, which I use algorithmically for the DT/DB. Allowing you to dissect each price movement and show the accumulated volume, the retracement percentage and many more things.
- 11. Updated Liquidity Levels indicator to include other types of levels, at the request of A.
- 12. Included Time Pivots indicator (day, week, month)
- 13. Including use of templates and several TPs in the manager that can be activated/deactivated from the menu button, at the request of Aker.
- 14. Now, when we press some of the buttons on the manager's taskbar, it will turn red to know if it is disabled or activated.
- 15. Including templates with different trading styles: Aker project (Alex M, Antonio, Esperanza, Javi F, Joia, Jon)

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Advanced Tick Analyzer (ATA)

ATA is an indicator that analyzes volume and trading tape in real time, to show in real time the points in which traders are showing the most interest. It is one of our star indicators and changes the way anyone who uses it sees the market. This indicator has been developed in 3 parts, the first part (yellow) was discovered while developing the CPOC and is based on the point of greatest interest so far in the session, the second part (red) was developed while observing the tape. transactions, realizing that when there was a very large transaction the price moved and I wanted to observe what happened subsequently, the last part (white) was developed by a very typical event in US opening, where I saw that the price always moved in one direction, a lot of volume came out and it changed direction, so I wanted to study said inflection point.

ATA:



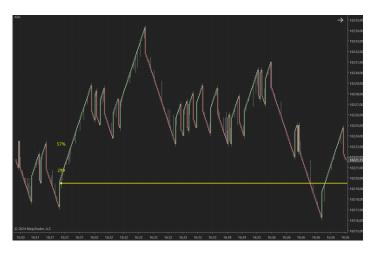
Yellow level: point of maximum interest

Red level: biggest strong hand of the session with direct entry (lmt/mkt)

White level: psychological point of high volume but not necessarily with the highest volume.

The text is the number of contracts, the percentage shows how big that exchange is compared to the exchanges that have occurred at that time in the last 365 days. The artificial intelligence can be disabled to save resources or if the percentage is not useful to us since we only want to see the level. ATA can be used on time charts from renko to M5, in the future I will add that it can be used with higher TFs.

Example in renko:



It has different options, such as:

Filter levels by percentage of importance, activate or deactivate types of levels or send instant messages with a photo to Telegram (activatable for each type of level).

Sometimes it can happen that we receive the photo milliseconds before the point of interest appears, there is no need to worry, this is because we have received the photo before the graph has had time to render the market activity. This has been done to reduce the reaction time of manual traders to the minimum possible, however it is not common.

Billiard Bands

Indicator that uses artificial intelligence to try to replicate the Basque trader Baiazuri's way of drawing price lines.

Screenshot configured for 5 levels (number selectable). It sends you an audio alert every time one of the levels is touched.



Bands

This indicator analyzes the bid/ask volume to detect inefficiencies and strong buying/selling pressures, showing the level in real time on the graph. This indicator has been developed based on the horizontal and diagonal bid/ask volume cluster levels, applying different mathematical formulas for quantitative analysis.



The line shows the level of the last pressure band as the price advances.

When one of these bands appears it indicates strong pressure in one direction. The color indicates whether this pressure has occurred in the ask or in the bid.

Candle POC

It plots a volume profile for each candle on the chart, and shows you the POC as a yellow line (configurable).



It can be used on any time series up to 23 hours, the example above is 1 minute. In a future version I will modify the way it is painted, not only to be able to be used in any timeframe, but also to be able to use it with any type of candle, all existing ones and those that are created.

Delta Divergence

It shows you the accumulated delta of the asset that we choose in any type of chart and changes the color of the candles to the color that you choose when there is a divergence between delta and price, it has greater reliability as we increase TF. Based on the "change hands" pattern of the trader Baitazuri.



Draw Alert

This indicator sends you an alert to the alert log and emits a sound when any line you have painted on the chart, whether horizontal or custom, is touched.



At all points that the line touches we will receive a sound alert.

Dynamic Support Resistance

Indicator that I use for algorithmic trading, it works very well as a dynamic resistance/support that chases the price, it is based on a mathematical formula of price and volume. It is displayed in green when buying is supported (which is not the same as buying immediately if it turns green), blue if the market is more likely to be in range, and red if selling is supported. Admitting purchases or sales means that, if this level is green, we will wait for an activation signal that we estimate to enter the market.



Esperanzag

It allows us to dissect the movements automatically to see: the volume accumulated in each movement, the percentage/price change/continuation/retracement ticks made with respect to the previous movement, as well as the number of candles/minutes/hours it has slow to complete the movement. It allows us to study double ceilings and floors (section). Sections that have a symmetry close to 100% are marked in yellow, and those movements that are in the maximum fake zone are marked in purple.



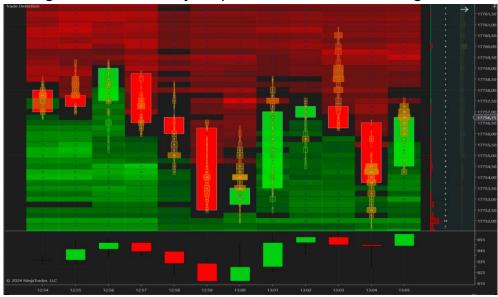
Options activated in this image: movement points, percentage and number of movement candles.

Heat Map

Requires level 2 futures data. Based on Ninjatrader's Market Depth indicator, it shows you pending limit orders on the chart, so you know how relevant a level will be before the price arrives. On the right it shows us the DOM in real time.



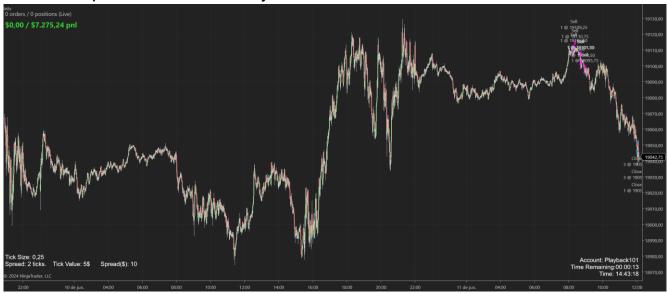
By zooming we can see the number of pending contracts at each level, we can change the colors. Any request do not hesitate to get in touch.



We can save the data in real time to load it later, by default it will load all orders, we have the filter available to exclude the smallest ones (10-20%).

Info

Indicator that shows the remaining time of the candle (if we work in time series), the spread in ticks and dollars, the selected account, the tick size of the instrument, pending orders, open positions and the tick size. Works on any chart. All options are individually activatable.



JoiaRenko

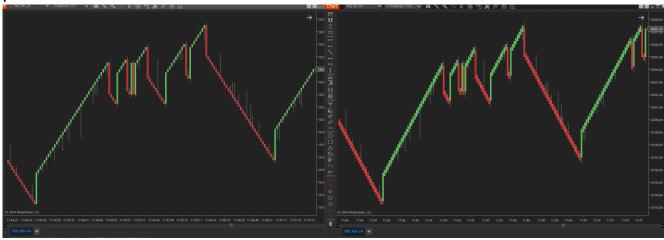
We have released some new candles, inspired by UniRenko, a version that in turn was inspired by Renko. Our version fixes the well-known false backtest and slippage problems that Unienko suffers from, as well as some general optimizations.

As a comparative guide:

- If in UniRenko you use 1-1-10, in JoiaRenko you use 5-1
- If in UniRenko you use 4-4-40, in JoiaRenko 20-4

UniRenko has serious problems showing how a strategy really behaves in the market and this is independent of whether we put a +1 opening offset slippage, even so, the results have little to do with real time due to two small errors in their candle calculation formulas. We have corrected them and removed the candle opening offset, so that it is exactly the same as what the price is doing in real time.

There are other sellers who have also corrected these errors, such as Ninza, however, we are the first to offer them for free. If we compare them with UniRenko, we see that they are exactly the same, but... without the mentioned problems.



Left: JoiaRenko 5-1; Right: UniRenko 1-1-10

Bar code: 112

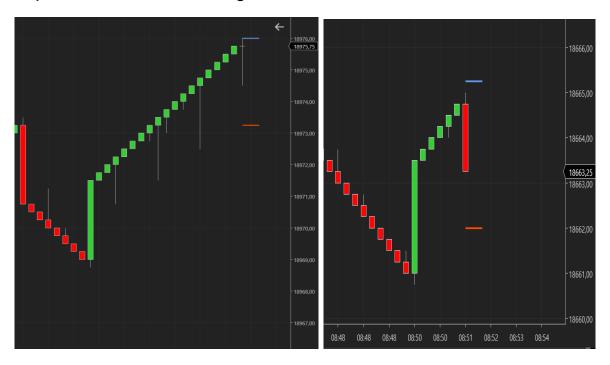
Example: AddDataSeries(new BarsPeriod { BarsPeriodType =

(BarsPeriodType)112, Value = 5, Value2 = 1});

JoiaRenkoPrice

It shows what the rotation price and the continuation price are on the JoiaRenko candles. It is not the opening price, since this version of renko always shows the real price, so the opening price of a candle and the closing price of the previous one are the same. It is 1 tick more for continuations and 1 tick less for rotations, so if we place a limit order at the marked level, we can be sure that it will enter on the next candle.

On the left I show what the opening would be like, so you can see why you have to put 1 more tick. To the right the indicator.



Liquidity Levels

It marks on the graph the levels at which the market will seek liquidity, possible reversal points and undoubtedly institutional trading points. It is used in algorithmic trading strategies to obtain partials in any type of system and manage the operation. It has not been done. It also shows Fair Value levels.



Máximo de Fake (MaxFO)

Indicator that shows the American pre-opening range (1 hour before the US opening) and based on that it plots the levels 1.27 and -0.27 on the chart, also called fake maximum and that the price usually hits without sinking if it plans to exit in the opposite direction. It works very well to detect and wait for incentives and join the first impulsive leg very soon. Based on a modification of the Asian box for Forex.



Opening Marker

Simply for when we work with unenko to be able to detect openings, it is nothing more than an indicator that draws a vertical line at the time we say. We use it for strategies in JoiaRenko, to be able to see and do visual backtesting quickly and easily.



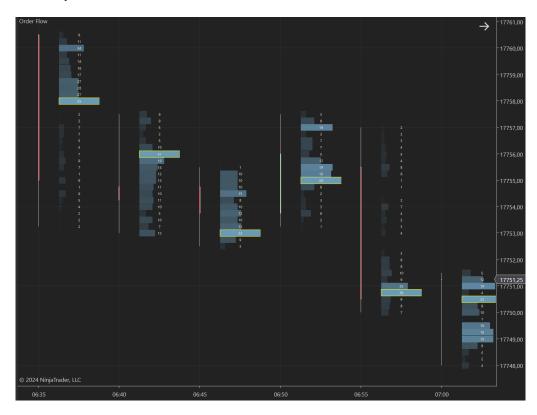
Order Flow

Shows the volume, delta and bid/ask exchange for each price tick on each candle. The type of volume to analyze is selectable by the user. It is based on NinjaTrader's Order Flow indicator.

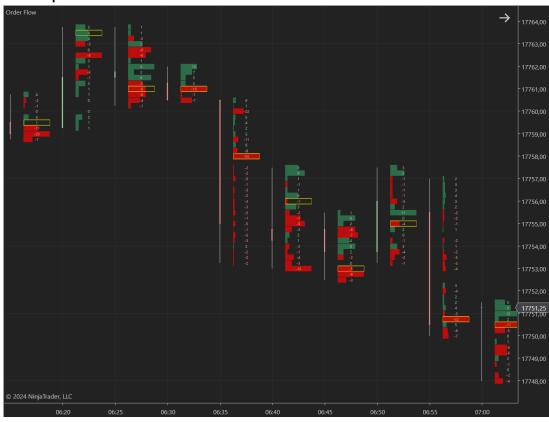
Example bid/ask:



Example volume:



Example delta:



Price Action Trail

It is not intended to be used as an indicator for technical analysis, it is created to be used as a trailing stop in algorithmic trading. If you add it to the graph it will mark two levels, one in red for sales and one in green for purchases. This trailing stop respects the price action, waiting for the price to retrace to change the level of the Trail stop, it has been developed based on the SCC pattern of the Spanish trader Aker.





In order for the price action to respect us we have to add the conditions to our systems that:

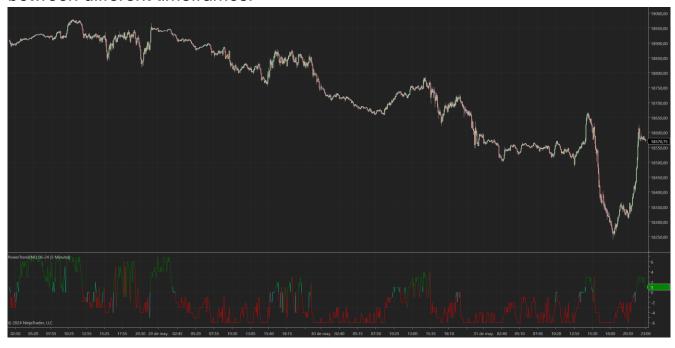
- 1. Trailing is applied only if the price is above trailing.
- 2. Trailing is only applied if the price is in our favor for more than X ticks.

Our operations manager incorporates this trailing under the name: PriceAction.

Adding it by itself to a chart for manual trading doesn't make much sense unless you want to have a reference of where to put your stop.

Power Trend

The Trend Filter indicator is a very reactive indicator that analyzes only very recent price data to determine the upcoming trend of an asset. This indicator (PowerTrend) gives us a more robust idea of the underlying trend of an asset, through multi-timeframe analysis, offering us a value between -7 and 7 indicating the number of TFs that are in an upward or downward trend, 0 implies that Multi-temporal analysis is not clear about the trend since it diverges between different timeframes.



PSC

Highlights Pin bars on the chart, but configurable by volume and price. How much body do we allow the candle to have? Where do we want them to leave the volume profile of said candle exactly (POC)? All this is configurable, to at a glance define our ideal conditions in any time frame for a continuation or reversal entry.

Screenshot (blue candles are my defined pinbars):



Tape Reconstructor

This indicator analyzes the trading tape looking for institutional buyers or sellers who place their orders little by little, but in reality have giant orders and reconstructs those positions by showing you the tick in which the order was executed. This is possible because the orders sent to the market have an ID (which always changes) but the first alphanumeric digits identify the order, so we can reconstruct the position (or partial position due to the order being larger) with which this strong hand has entered the market. It paints it as a point on the graph:



Tick Electrifier

Receive the data sooner. It looks like science fiction, but it's not. Gives a unique competitive advantage. It is 250ms earlier, but this difference can mean a few ticks, which in long-term futures is not negligible. Ninjatrader by default requests data every 250ms, with this indicator we can lower that value to.... 0! (The graph we use it on will consume more resources, depending on the refresh value we choose, since we will be requesting the data from the server many more times than NT8 does by default.) It is mandatory to use it in times of high volatility, if our trading style is scalping or if we use renko.

It's hard to show a screenshot of this, try it for yourself and you'll instantly see the difference. Example:



Time Pivots

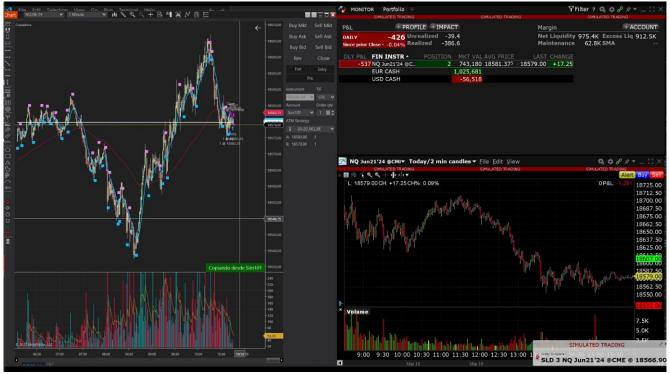
Shows the daily, weekly and monthly pivots, as well as the pivot point.



It can be used from the builder to build fake strategies.

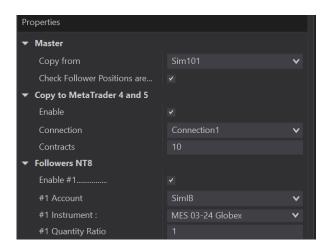
Trade Copier

Copy trades between different accounts connected to Ninjatrader, you can also copy to other NT8s (which can be located on any other computer or on the same one). You can also copy trades to interactive Brokers using TWS. Cross positions, open your position in MNQ even if you send the order in NQ, or in the asset you choose. You could be watching ES and open a position in MNQ in another account. Based on Bruno Meza and Replikanto.



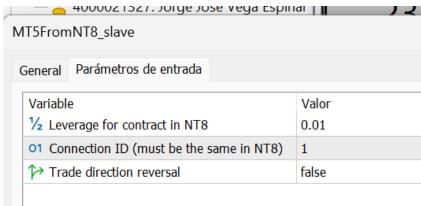
Finally, you also have the option to copy trades to MT4 and MT5 from any computer or virtual machine connected to the same network. In reality, it supports from any computer anywhere in the world, be it MT4, MT5 or NT8, but it requires knowing your network configuration very well and support for network configuration problems will not be offered. Signal providers could use this indicator to copy trades to accounts in any country.

The main menu has the following options:



Where we select the account from which we are going to copy and we select if we want to copy the trades to mt4 or mt5 and/or to ninjatrader.

The connector from metatrader 4 and 5 has the following options:



Where we select the lot to use for each contract that we put in the Ninjatrader configuration, the connection to use and if we want to open the trade in the same or opposite direction.

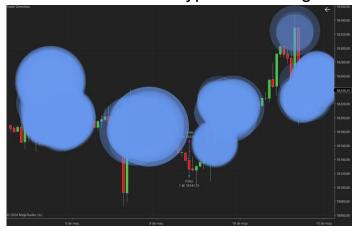
For other NT8 instances the NT8Receiver will be provided:



From where we can completely configure the way in which we want to execute the orders sent from the other computer in terms of the number of contracts and instrument, there is the option to automatically detect the instrument you are using and find the micro, in where the operation will open.

Trades Detection

Based on NinjaTrader's Trade Detector indicator, we can select whether we want to see big trades in a small amount of volume, delta or bid/ask time. The bad thing about high customization is that the user needs to correctly configure the software and filters, if we see the graph like this, we have selected a very small amount for the type of exchange we want to observe.



Raising the amount to an acceptable range for the asset and the type of exchange to be observed, we obtain (selected volume):



Example with delta:



Example with Bid/Ask (DOM):



Trade Manager

One of the jewels in the crown. We do not believe that there is another one like it because of the unique features it allows you.

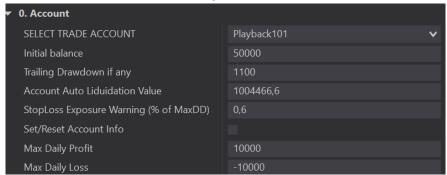
Between them:

- Trading plan for entry, does not allow you to execute orders if some of the conditions you select are not met.
- Exit trading plan, which automatically exits the position when any of the circumstances you select occur, such as the VPOC moving, there being a lot of market activity, a candle being much larger than usual, etc...
- Entry selectable by contracts or based on a percentage of the account, for the number of contracts the number of ticks you have selected in the manager's default stop is taken into account.
- Automatic exit and trading restriction when a certain daily loss/profit is reached.
- Drawdown lines, which show how much you would lose once you are in a position if the price reaches that level.
- Initial stop tracking, selectable between ticks, ema9, ema20, ema33, vwap, atr, MINMAX, and two other custom ones that I use in my algorithmic trading, called renko (for extreme scalping) and Price action, which is the one I use most often. slight.
- Settings pass automatically switch to break even.
- You can enter the market using the normal buttons or using a keyboard shortcut and clicking, which will place an order at the clicked level based on the selected configuration. (left shift buy/left alt sell), the manager behind manages the type of order based on whether the click has been made above or below the current price.
- Time or price stops, if the price touches a line that you have painted on the chart, it will use it as a stop loss or take profit.
- Change of trailing type after a certain profit. This allows us to manage our trades more aggressively/passively automatically once a certain profit is reached.

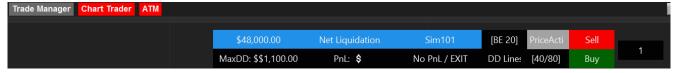
- Algorithmic report to telegram and email, with open trades, closed trades, realized profit and floating profit.

It has been quite a challenge to build this manager, since, as a general rule, you cannot open operations from an indicator, it has to be a strategy, but that limits us a lot when it comes to accessing information and making calculations, in addition, our The name is "algorithm-trader", and we had the clear intention that this would not only be a manager for manual traders, but would also give the possibility of carrying out any type of management in our strategies, either by programming or from the builder. ninjatrader. Well, we have achieved it.

Let's look at it in more depth, first we have the account parameters:



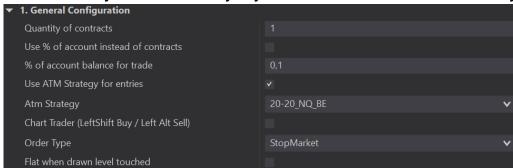
Here we have to define the account that we are going to use with the manager. If the account does not match the one selected in the chart panel, we will receive a warning, it will trade the selected account inside the indicator.



The other parameters are irrelevant to the normal operation of the manager, it is simply in case someone is using a funded account that has a trailing stop. When starting the manager for the first time, we check the reset info box and the information will fill itself in correctly and then it will be automatically deactivated. The only thing we have to configure is the DD that we have daily and the percentage of the stop from which we will receive a notice on the screen. If in StopLoss Exposure we set 0.6, and we have a DD of 1000 euros per day, when our stop loss exceeds 600 euros (1000*0.6) we will receive a warning on the screen that we are assuming more risk than we should. Then we have Max Daily profit/loss, which once reached, the open positions in that account will be closed and will not allow us to operate anymore (from the manager).

The next thing we have is the general configuration, where we can select the number of contracts by default (although they are quickly configurable from the interface). We can also decide to enter the market with a number of contracts that depends on the percentage of the account that we establish.

The following 3 options are recommended to be activated with caution, they are functions that make this manager unique in the world, but at the same time they could make you lose money if you do not understand how they work.



We have the option of using an ATM for all the entries made by the manager, activatable from the graph itself in case we want to have it configured but decide whether to use it or not quickly.

If we activate the chart trader option, we will save a lot of time when entering the market and we will have greater agility, since simply by pressing a key and clicking on the chart, we will place a limit order to enter. If you press shift this will be for purchases, while if you press alt, this will be for sales. The type of order will depend on whether you click above or below (stop or limit), it is not necessary to understand orders, the manager is in charge of managing the different types based on your interaction with it.

The type of order will decide how we enter the market, whether to market or in a limited way. It is recommended not to touch and leave it to the market if we do not deeply understand ninjatrader orders.

Finally, we have another peculiarity that makes this manager one of the best available for ninjatrader, and that is going flat when the price touches a level that we have painted, allowing us to put price-time stops without having to put a stop directly, or that a tp is made that depends on the time that the price consumes. Put quickly and simply, if we are in the market and we paint a trend line below the price and a horizontal line above (a kind of flag), our position will be closed when either of these lines is touched.

We also have the definition of a default SL and TP, this does not mean that your positions will have this TP and SL, you simply leave a configuration as default that you can then apply in real time by simply clicking on an open position.



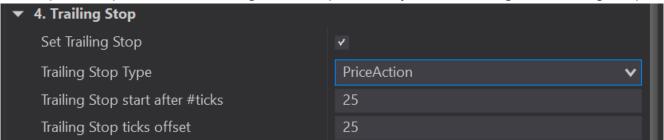
Important information: if we use the % account balance mode to enter the market, it is this number of ticks that will be taken to calculate the number of contracts.

Another basic section of any manager is the possibility of moving to BE



Here we define if we want to activate it by default and after how many ticks we want it to be activated.

An important part of the manager is the possibility of activating the trailing stop:



We enter the type of trailing that we want to apply, as well as after how many ticks it will start and the distance in ticks to leave with respect to the price. The trailing available are: Ticks, EMA9, EMA20, EMA33, VWAP, MinMax, ATR and two created by me, one for a very aggressive scalping called renko and another called Price action which is the one I use with my algorithmic trading strategies. Each one has to be responsible for the type of trailing they choose, they should not choose a trailing that is above the current price (if we buy) since it is the same as wanting to close the position.

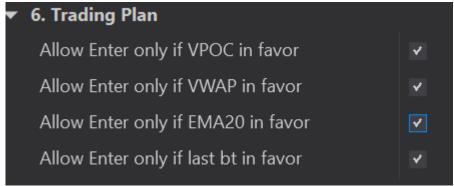
At the request of Jon B., the possibility of changing the type of trailing after a certain profit (\$500 for example), which we choose in the configuration, has

been added to the manager, so that we have full control at all times.



Trading entry plan

We define the conditions that we have to meet in order to open a market operation. If we select, for example, that the EMA20 has to be in favor, we can only open a buy position if the EMA20 is below and vice versa. The last option uses the ATA to determine if we have the last strong hand that has entered the market in favor of our entry or not. If it is activated and is not in favor, we will not be able to open the position.



Example receiving a message to the left of why we cannot open the operation:



exits

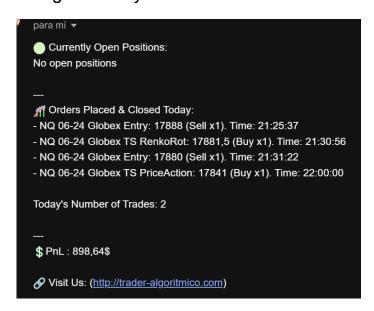
Just like the trading plan to enter the market, we have the same but for exits.



If we are inside the market and there is a much larger candle than usual or a strong hand enters the market or there is a climax or they move the POC for the day, our position will be closed (all activatable separately, as we see here).

Notifications

I have included this section in the manager because there may be traders who want to keep track of their operations. In the manager notifications we can activate reports to telegram and by email when we open and close a position and every X minutes while we have an open position. In my case I use it with algorithmic trading strategies, so that I can get to my email what each of them is doing each day and decide which ones to activate and which ones to deactivate.



Trend Filter

It is an indicator that uses moving averages of non-time series, these depend on the volatility of the price, so that we react much sooner to market changes. It is used in algorithmic trading strategies as a filter, you do not enter it just because the filter says buys or sells, you have to combine it with your own signal in most assets, except in BTC and some others, where It is a gold mine in itself if you have the capital to operate such assets. Idea created in collaboration with the trader J.F.



Volume Pro

A volume indicator (like that of ninjatrader) but improved, from where we can see examine the exchanges in the market not only in terms of volume, but also in terms of delta, bidask and cluster, always differentiated between purchases and sales (except in the volume and cluster, in which the color means whether the candle has closed bullish or bearish). Based on better volume, but greatly improved and expanded over time.



Image described in order: Delta, Volume, Cluster, Bid/Ask

Volume Profile Chart

Our first version of the volume profile for the entire chart is currently being replaced by Volume Profile Chart Pro in future versions, although it will still be available in the package for those who prefer simplicity.

It uses a floating mechanism to show you the profile of all the data you have loaded on that chart, this version only includes the volume, not the delta or bid/ask profile like the volume profile pro. Daily VP can be enabled/disabled from the indicator properties.



Clean, simple, effective and efficient, although not the fastest when loading if we have tick replay activated.

Volume Profile Pro

Based on Ninjatrader's Volume Profile indicator, but with many more options. Profiles (volume, delta, bidask or any combination of these) for any type of chart, automatically or manually, with custom intervals and ranges.

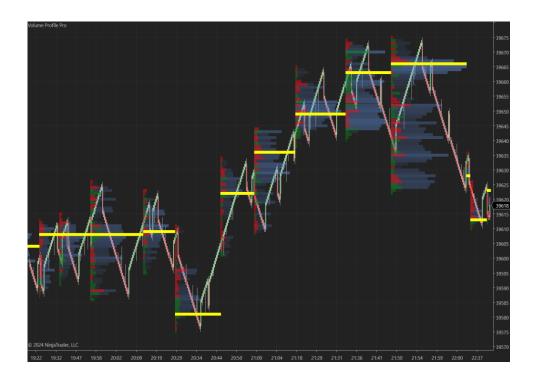




In this update we have managed (being one of the first in the world) to mix the temporal with the non-temporal. Now the minutes, hours and other profiles also work in renko, unenko or any other type of series, even if they are not temporary.

Example unirenko volume+delta 15 minutes:

If the graph is not a time series and it warns us that there is not enough data to load the VP when we use time frames, for example using 15m, try using 30 or 60m. If not, you can use a fixed number of bars.



We can also create a volume profile of the range that we choose by holding down the Ctrl key (left), dragging and clicking on the end point.

VPOC

The VPOC is a standard indicator that has been with us for a long time and where it is difficult for one to stand out over the other, since it is a closed formula that does not allow any type of modification.

That is why, to offer the same but much more at the same time, we have incorporated real-time data analysis and artificial intelligence to our VPOC, which will analyze in milliseconds all the ticks that have occurred in the last year to determine the amount of volume that there is at that horizontal level for whatever time it is, compared to thousands of horizontal levels that there may have been at that time during the last year. A percentage is also shown that indicates the amount of volume that that POC has accumulated, so that we can know how relevant it will be and operate accordingly. This percentage has been optimized for 00:00 Madrid. If it is changed, it loses relevance.

To make it a little better, we have incorporated the possibility for the user to choose the time at which the POC starts, since many users prefer it to start at 00:00 US.

We give the option not only to see the daily POC but we also have weekly and monthly POC. As well as showing the previous POCs during the next days/weeks/months depending on the type of POC chosen, these will be shown as a green dashed line.

As a final added touch, we have incorporated sound alerts every time the VPOC changes price, as well as telegram alerts. If when the alert arrives on Telegram you see a line where it shouldn't be, don't be scared, it is simply that you have received the photo before the graph has had time to update, since the delay from when the event happens until you receive the photo is less than 1 second and sometimes the graph is just updating the POC when you have already received the message.



When we receive a message like this to telegram "VPOC moved to 18197.5" and, when we open the message we see the line in a strange way, like in the photo above, it is because of what was mentioned above, you should not worry, the telegram level is well and in your graph the line is perfect, it is simply that it did not have time to update when you received the photo, then it will be perfect, as we see here, for example:



VWAP

Also a very simple indicator, very useful and widely used today by all types of traders. Our VWAP has options to select the start time (in case the mode is daily). The different VWAPs that can be selected are: daily, weekly and monthly. It also includes 1 and 2 standard deviations, implemented in 2023 inspired by the trader TraderCasas, who uses the second standard deviation to trade futures in certain instruments in which it works really well.



WhereTo

Select 3 assets and this indicator will show them to you, updating them at each tick and normalizing them, so that at times of high volatility you can see which one is doing better or worse and you can decide where to enter quickly. We use it in the "Arbitrator" strategy, which, when the difference between two specific assets is greater than a range, buys one and sells another with a number of contracts that makes both positions equal.

It has rebalancing at key times, regardless of where you are in the world, to be able to observe, when there is greater volatility, which asset is performing better than another. It was created based on the observation in US opening that NQ and YM diverged and many times we entered where it should not, with this indicator we instantly know where to enter.



Shows below on the left which one is the strongest.

White -> YM

Red -> NQ

Yellow -> ES