

# VOFA TPO CHART

## VSA-Integrated Market Profile Indicator

NinjaTrader 8 · Professional Edition

Complete User Documentation

### ★ What is VOFA TPO Chart?

VOFA TPO Chart is a next-generation Market Profile indicator for NinjaTrader 8 that fuses two powerful analytical disciplines — Market Profile (TPO analysis) and Volume Spread Analysis (VSA) — into a single unified view on your chart.

Every TPO period letter is colored by the VSA condition of that bar, turning the profile into a heatmap of institutional activity. Volume profiles, Value Area levels, POC lines, and their extensions are all dynamically colored based on the session's volume intensity — giving you instant context at a glance.

# 1. MARKET PROFILE — CORE CONCEPTS

Market Profile is a trading framework developed by J. Peter Steidlmayer and the Chicago Board of Trade. It organizes price and time data into a bell-shaped distribution that reveals how the market has distributed its activity across price levels during a given session. The VOFA TPO Chart builds its foundation on the following core Market Profile concepts:

## 1.1 TPO Letters (Time Price Opportunities)

Each 30-minute period within a trading session is assigned a unique letter of the alphabet — A for the first period, B for the second, and so on. Every price level visited during that period receives that letter printed on the profile. The resulting stack of letters at each price level shows how many time periods touched that price, visually communicating value and rejection.

In the VOFA TPO Chart, each letter is also colored by the VSA condition of the bar it belongs to. This means the profile does not just show time at price — it shows the quality of that time in terms of volume behavior.

## 1.2 Point of Control (POC)

The Point of Control is the price level with the most TPO letters — i.e., the price at which the market spent the most time during the session. It represents the fairest price agreed upon by buyers and sellers. The indicator displays both:

- TPO-based POC: the price with the highest count of TPO periods.
- Volume-based VPOC (Volume Point of Control): the price level where the highest volume of contracts were traded.

Both POC lines extend into future sessions as dotted reference lines. A return to POC levels after extended price movement represents a high-probability mean-reversion zone.

## 1.3 Value Area (VA) — High and Low

The Value Area is the price range containing approximately 70% of the session's TPO activity (or volume, depending on mode). It has two boundaries:

Level	Meaning
<b>VAH</b>	Value Area High — the upper boundary of accepted fair value. Price above VAH is rejected or tested from above.
<b>VAL</b>	Value Area Low — the lower boundary of accepted fair value. Price below VAL is rejected or tested from below.

The VOFA TPO Chart plots both TPO-based and Volume-based Value Area levels as distinct lines that extend forward in time — with the extension automatically terminating when price revisits the level. The color of these lines changes based on the session's overall volume intensity (see the VSA Color System section).

## 1.4 Single Prints

A Single Print is a price level touched by only one TPO letter in the middle of a profile (not at the extremes). Single prints represent fast, directional price movement where price moved through a level without spending meaningful time. They act as:

- Unfilled gaps in the profile — markets have a tendency to return and fill these.
- Potential reversal or continuation trigger zones when price returns.
- Evidence of strong directional conviction by one side of the market.

The indicator displays single prints as highlighted lines and can extend them forward in time until price revisits the level. A revisit of a single print combined with a VSA signal on that TPO letter is a strong setup clue.

### 1.5 Profile Shape and Distribution

The overall shape of the profile communicates the day's market structure:

Shape	Market Implication
<b>Bell Curve / Normal</b>	Balanced, two-sided market. Institutions accepted price in this range. Often forms inside value of a larger reference session.
<b>B-Shaped</b>	Double distribution — two separate value areas. Indicates a directional move mid-session with acceptance at the new level.
<b>P-Shaped</b>	Long tail at the bottom with a rounded top. Suggests a short-covering rally or accumulation. Bullish implication.
<b>b-Shaped</b>	Long tail at the top with a rounded bottom. Suggests distribution or selling. Bearish implication.
<b>Thin / Narrow</b>	Low TPO count, narrow range. Non-trending, low-conviction session or consolidation.

### 1.6 Previous Session Profiles

The VOFA TPO Chart can display multiple prior session profiles simultaneously on the chart. Each previous profile maintains its full structure — TPO letters, POC, VPOC, VAH, VAL — and fades slightly in opacity as sessions age. This gives you a layered view of where the market has built value over multiple days, helping you identify clustering of levels across sessions.

## 2. VOLUME SPREAD ANALYSIS (VSA) — CORE CONCEPTS

Volume Spread Analysis is an analytical methodology developed by Richard Wyckoff and later refined by Tom Williams. It studies the relationship between the price spread (range) of a bar, its closing position within that range, and the volume traded — in order to identify the footprints of professional money (institutions, market makers, and smart money).

The core premise of VSA is that price alone is incomplete. Volume is the engine; spread is the steering. When interpreted together, they reveal whether professionals are accumulating, distributing, testing the market, or simply absent. The VOFA TPO Chart integrates VSA analysis into every TPO period, so that the Market Profile also communicates the volume quality of each time period.

### 2.1 VSA Bar Classification

The indicator classifies each price bar according to VSA principles and assigns it a color that is used to paint the corresponding TPO letter in the profile. The classification categories are:

Color	VSA Condition & Meaning
BLUE / PURPLE	Strength Signal — High or Very High Volume on this period. Indicates significant professional participation. A wide spread up on high volume (climax buying or accumulation) or a reversal bar. These periods mark key institutional activity zones and are primary trade clue periods.
GRAY	Very Low Volume Activity
WHITE	Neutral / Background — Normal activity, no strong VSA signal. Used as the default when conditions are unclear.
PALE VIOLET	Effort Vs Result
YELLOW	Special high-significance bar — Rare VSA condition with exceptional characteristics such as a test bar or ultra-high-volume reversal.

### 2.2 VSA Integration in the TPO Profile

When the Color Mode is set to VSA, each TPO letter in the profile is painted with the color of its corresponding bar's VSA classification. This creates a color-coded profile that immediately communicates the following:

- Blue or Purple letter clusters indicate that institutional activity occurred at those price levels during those periods.
- A Blue or Purple TPO period combined with a VAH, VAL, or POC level nearby represents a high-probability reversal trade zone.
- Consecutive neutral (White) letters through a range indicate low-conviction movement — price was not defended by professionals.
- The current active letter always appears in White to clearly distinguish the live bar from historical VSA-classified letters.

★ **Key Insight — VSA Colors on the Profile**

Blue and Purple TPO letters are your primary attention signal. When price returns to a price range dominated by Blue/Purple letters — especially at Value Area boundaries or POC — it signals that professionals previously entered strongly at that zone. A revisit with confirming VSA on the new bar gives a high-probability reversal or continuation trade setup.

### 3. EFFORT VS. RESULT (EVR) — THE VSA REVERSAL SIGNAL

Effort vs. Result (EVR) is one of the most important concepts in VSA. It examines the relationship between the effort put in by the market (represented by volume) and the result achieved (represented by price spread and direction). A divergence between effort and result is a powerful early warning of an impending reversal or continuation failure.

#### 3.1 Understanding EVR

In a healthy trend, high volume should produce proportionally wide price movement in the direction of the trend. When this relationship breaks down, it reveals that the professionals who are the primary drivers of volume are no longer aligned with the trend. Two types of EVR divergence exist:

EVR Type	What It Means
<b>High Effort, Low Result (Churning)</b>	High volume but narrow spread and/or price closes in the middle or against the direction. The market is churning — professionals are absorbing the move and preparing for a reversal. This is a classic distribution (at tops) or accumulation (at bottoms) signal.
<b>Low Effort, Good Result (No Supply / No Demand)</b>	Low volume producing above-average price movement. On an upswing, this indicates No Supply — selling pressure has dried up, and the market can easily continue higher. On a downswing, it indicates No Demand — buyers have evaporated.

#### 3.2 EVR on the VOFA TPO Chart

Because the VSA engine classifies every bar, an EVR condition on a TPO period creates an immediately visible color-coded signal in the profile. When reading the profile:

- A TPO period letter that is Blue or Purple but is followed immediately by a period that fails to extend the move (another color letter at or near the same price) suggests churning — High Effort, No Result. This is an early warning of reversal.
- A sequence of Blue/Purple letters in a narrow vertical band (many periods clustered at the same prices) indicates that professionals are repeatedly defending a zone — a strong support or resistance with VSA confirmation.
- When price approaches a prior session's Blue/Purple letter zone from the current session and the current bar's VSA reading is also showing effort divergence, the EVR signal is confirmed across time frames — a powerful setup.

##### ★ How to Read EVR in Practice

Step 1: Identify a prior Blue or Purple TPO letter cluster in the profile of the previous session.

Step 2: Watch how price behaves when it revisits that price zone in the current session.

Step 3: Observe the current bar's VSA color as it enters the zone.

Step 4: If the current TPO period turns Blue or Purple AND price stalls or reverses — the EVR signal

is active. This is your early clue of reversal or continuation failure.

Step 5: Combine with Value Area boundaries (VAH/VAL) for maximum confluence.



## 4. THE VSA COLOR SYSTEM — COMPLETE VISUAL GUIDE

The VOFA TPO Chart uses a consistent and purposeful color language across all visual elements. Understanding the color system is essential to reading the indicator correctly at a glance.

### 4.1 Volume Profile Bar Colors

The filled volume bars displayed alongside the TPO letters are colored as follows:

Color	Trigger	Meaning
CYAN	Ultra High Volume Ratio	
BLUE	Very High Volume Ratio ( $\geq 1.4\times$ average)	
RED	Normal or Below-Average Volume	
YELLOW	VPOC (Volume POC)	
GRAY	Outside Value Area	

Note: The VAH, VAL, TPO-VAH, TPO-VAL, and POC extension lines all automatically adopt the same color as the session's volume profile (Cyan, Blue, or original user-set color) when a high-volume condition is detected. This means that when you see Cyan or Blue level lines extending forward — these are the most critical reference lines on your chart.

### 4.2 TPO Letter Colors (VSA Mode)

In VSA Color Mode, each TPO letter reflects the VSA condition of its bar period. The color families and their trade relevance are summarized below:

Color	VSA Condition	Trade Relevance
BLUE	Strong Volume / Strength	
PURPLE	Very Strong Volume	
ORANGE	Supply / Distribution	
PALE VIOLET	EVR	
YELLOW	Special / Ultra-High Volume	
Gray	Very Low Volume	

### 4.3 The Reversal Setup — Level Revisit with Special Color TPO

The single most powerful signal the VOFA TPO Chart generates is as follows:

**★ High-Probability Reversal Signal**

When price revisits a level that previously had a Blue or Purple TPO letter — particularly at a VAH, VAL, POC, or VPOC boundary — and the current bar's TPO period letter is also colored Blue, Purple, or any special VSA color (not neutral White), it signals a strong potential reversal trade.

The logic: Professionals entered strongly at that level before (Blue/Purple TPO in history). When price returns, the market tests whether those professionals are still active at that zone. If the current bar also shows institutional involvement (special VSA color on the current letter), it confirms that the zone is being defended or absorbed — a high-probability reversal setup.

## 5. INDICATOR SETTINGS — COMPLETE REFERENCE

All settings are accessible via the Indicators dialog in NinjaTrader 8. They are organized into logical groups for ease of configuration.

### 5.1 TPO Settings

Parameter	Default	Description
<b>Color Mode</b>	Multi-Color	Controls how TPO letters are colored. VSA mode enables the full VSA-integrated analysis described in this document.
<b>Show TPO Letters</b>	On	Enables or disables the display of TPO letters on the profile.
<b>TPO Color</b>	White	Default letter color when using Mono mode.
<b>Show VAH/VAL (TPO)</b>	On	Shows the Value Area High and Low lines calculated by TPO count.
<b>VAH/VAL Color (TPO)</b>	Blue	Color for the TPO-based Value Area lines. Overridden by session volume color in high-volume sessions.
<b>Bars Ahead TPO</b>	10	How many bars to the right the live profile extends beyond the last bar.
<b>Letter Spacing</b>	0.3	Controls horizontal spacing between adjacent TPO letters within a period.
<b>Show Single Prints</b>	On	Highlights price levels touched by only one TPO period (in the middle of the profile).
<b>Extend Single Prints</b>	On	Extends single print highlight lines forward until price revisits the level.
<b>Single Print Color</b>	Magenta	Color used for the single print highlight line.
<b>Show POC</b>	On	Shows the TPO-based Point of Control line.
<b>POC Color</b>	Dark Green	Color for the POC line. Overridden in high-volume sessions.

### 5.2 Volume Settings

Parameter	Default	Description
<b>Show Volume</b>	On	Displays the volume histogram bars alongside the TPO letters.
<b>Show VPOC</b>	On	Displays the Volume Point of Control line.
<b>VPOC Color</b>	Yellow	Color for the VPOC line.
<b>Show VAH/VAL (Volume)</b>	On	Shows the Value Area High and Low lines calculated by volume.

<b>VAH/VAL Color (Volume)</b>	Red	Color for volume-based Value Area lines. Overridden in high-volume sessions.
<b>High Volume Opacity</b>	90%	Opacity of the volume profile bars during high-volume sessions.
<b>Area of Volume</b>	70	Controls the horizontal width of the volume bar area on the chart.

### 5.3 General / Display Settings

Parameter	Default	Description
<b>Interval Minutes</b>	30	The time period length (in minutes) for each TPO letter. Default is 30 minutes per letter.
<b>Bucket Size (Ticks)</b>	15	Price resolution of the profile. Defines the vertical height of each row in ticks.
<b>Size of Letters</b>	12	Font size for TPO letter rendering.
<b>Area of Letters</b>	90	Controls the horizontal width allocated to the TPO letter display area.
<b>Show Previous Profiles</b>	On	Whether historical session profiles are drawn on the chart.
<b>Hide Bars</b>	On	Makes the underlying candlestick bars transparent so the profile is clearly visible.
<b>Split Profile Type</b>	No Split	Controls whether the profile splits each period into separate columns (useful when zoomed out to see fine structure).

## 6. HOW TO READ THE VOFA TPO CHART

### 6.1 Daily Routine — A Step-by-Step Approach

#### 1. Identify the Previous Session Profile Color

Was the prior session Cyan, Blue, or Red? Cyan and Blue sessions carry the most significant reference levels. Their VAH, VAL, POC, and VPOC lines are the most important levels on your chart for the current session.

#### 2. Map the Blue/Purple TPO Letter Zones

Scan the previous profile for concentrations of Blue and Purple letters. These are the zones of maximum institutional activity. Mark these price ranges as your primary areas of interest for the day.

#### 3. Watch Value Area Levels

When the current session's price approaches VAH, VAL, POC, or VPOC of a prior high-volume (Cyan/Blue) session, prepare for a potential reaction. These are your highest-probability trade zones.

#### 4. Wait for VSA Confirmation on the Current Letter

When price reaches a key level, observe the TPO letter color being painted for the current period. A Blue or Purple letter at a prior Blue/Purple zone confirms institutional involvement and triggers the reversal or continuation setup.

#### 5. Apply EVR Analysis

Observe whether the current bar's spread (range) is proportional to its volume. If the TPO period is Blue/Purple but price barely moves — that is a High Effort, Low Result (EVR) signal, indicating the move is being absorbed and a reversal is likely.

### 6.2 Profile-Level Reading Quick Reference

What You See	What It Means / What to Do
<b>Cyan session profile</b>	Exceptional volume session. Its VAH/VAL/POC are the most significant levels. Cyan lines extending forward = institutional reference.
<b>Blue session profile</b>	High volume session. Strong Value Area. Blue extension lines = major reference levels.
<b>Blue/Purple TPO letters in cluster</b>	Heavy institutional activity at those prices. A key trade zone. Watch for revisit setups.
<b>Price revisits Blue/Purple TPO zone + new Blue/Purple letter</b>	REVERSAL TRADE SIGNAL — High-probability setup. Confirm with price action.
<b>Cyan/Blue VAH line is revisited</b>	Price is testing a high-volume Value Area boundary. Strong potential reaction zone.
<b>Single Print line hit</b>	Market returning to fill the single print gap. Potential acceleration or rejection.
<b>Many White TPO letters in a zone</b>	Low institutional conviction at that price. More easily breached. Weaker support/resistance.

## 7. INSTALLATION & SETUP GUIDE

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### 7.1 System Requirements

- NinjaTrader 8 (latest version recommended)
- Licensed copy of the VOFA TPO Chart indicator from Paratrade
- A market data feed with volume data (required for VSA and volume profile features)
- Tick-by-tick or second-by-second data feed recommended for real-time accuracy

### 7.2 Installation Steps

6. Download the indicator file (.cs) from your Paratrade customer portal.
7. In NinjaTrader 8, go to Tools → Edit NinjaScript → Indicator → right-click and select "Import NinjaScript".
8. Select the downloaded .cs file and confirm the import.
9. Open a chart and add the indicator: right-click the chart → Indicators → search for VOFATPOChart.
10. Set the Color Mode to "VSA" to enable the full VSA-integrated analysis.
11. Enable "Hide Bars" for a clean profile display without underlying candles.

### 7.3 Recommended Chart Settings

- Timeframe: The indicator works on any timeframe but is best used on 5-minute or 30-minute charts as the primary analysis view.
- Interval Minutes: Set to match your preferred TPO period. The standard Market Profile uses 30 minutes. For faster markets or smaller sessions, 15 minutes can be used.
- Bucket Size: Set to 1–5 ticks for futures, or to an appropriate pip value for forex. Smaller bucket size gives more granular profile resolution.
- Show Previous Profiles: Enable to see the last several sessions for context and level mapping.

## 8. FREQUENTLY ASKED QUESTIONS

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### Why are some TPO letters Blue and others White?

TPO letters are colored based on the VSA classification of their bar period. Blue and Purple letters indicate that the indicator's internal VSA engine detected high or significant volume activity during that period. White letters indicate a neutral, background volume condition with no strong signal.

### What is the difference between Cyan and Blue session profiles?

Both indicate above-average volume sessions. Cyan indicates a Very High Volume session where volume was at least 2× the 20-session average — the highest category. Blue indicates a High Volume session at 1.4× the average or above. Cyan sessions represent exceptional institutional activity and their levels carry the highest reference weight.

### Why do the VAH/VAL lines change color depending on the session?

The indicator automatically overrides the user-defined VAH/VAL color with the session's volume profile color when a High or Very High volume condition is detected. This means that if a session was classified as High Volume (Blue), its VAH, VAL, and POC extension lines also appear in Blue forward into the chart — visually communicating that these are premium reference levels, not ordinary levels.

### How does the 'Other Time Frame Trade' (OTF) signal work?

When the volume profile turns Cyan or Blue, it signifies that traders from a higher time frame (OTF traders — institutions, large funds, market makers) have entered the market significantly during that session. Their value area levels become the reference for where they are likely to defend their positions — making these levels primary trade zones when price revisits them.

### What is the split profile feature?

The Split Profile feature separates each TPO letter into its own column rather than stacking multiple letters horizontally at the same price. This is particularly useful when zoomed out — the profile becomes more readable as a waterfall of individual period columns rather than a compressed stack.

### Can I use the indicator on any market or instrument?

Yes. The VOFA TPO Chart works on any instrument available in NinjaTrader 8 with volume data — futures, forex, stocks, options, crypto. The VSA engine adapts to the volume characteristics of each market using the 20-session rolling average as its baseline.

#### ★ Support

For technical support, installation issues, or trading methodology questions, please contact Paratrade through your customer portal or the website support channel.

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