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NINJATRADER 8 INDICATOR · NINJASCRIPT, C#

User Guide

Sideways ranges found from swing highs and lows, a volume profile inside each range, deviation marks, a position tool on each confirmed breakout or breakdown, four alerts, and series a strategy can read.

PRODUCT	Supreme Range Profile Structure for NinjaTrader 8
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SHA-256	`3262cfbd12d907ae79867f5262254fa638152521e0d02e9b146b5b45c0b2434d`
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01

What it is

Chart indicator for NinjaTrader 8 Desktop (NinjaScript, C#) that finds sideways ranges from the chart's swing highs and lows. It shades each range with a two-colour gradient, builds a volume profile inside it with a point of control, marks failed moves out of it with a diamond, tints the candles while a range is active, and draws a position tool (an entry, a stop and three targets) on each confirmed breakout or breakdown. It has four alert conditions and six series a strategy can read.

It only draws and alerts: it never places, modifies or closes orders. A webhook is not part of this edition: the indicator makes no network call of its own.

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Installation

Requirements

- NinjaTrader 8.1.x Desktop for Windows (tested on 8.1.9.0). Not for NinjaTrader 8.0 or NinjaTrader Web.
- Any data connection that delivers bars with volume for the chart. Ranges, breaks and deviations come from prices alone; the volume profile and the point of control need volume. No Order Flow+ features, no depth, no tick history.

Import the Add-On package

1. Control Center > Tools > Import > NinjaScript Add-On.
2. Select `SupremeRangeProfileStructure.zip` and confirm. NinjaTrader compiles the assembly and reports that the import is complete.
3. No restart is needed. If a chart already had an older version, remove and re-add the indicator (a compile does not reload running instances).

Verify installation

1. Open a chart with several thousand bars (any instrument, a 1 to 60 minute interval is a good first look), press Ctrl+I.
2. In the Available list find **Supreme Range Profile Structure**, click add, click OK.
3. Where the market went sideways, the chart shows ranges shaded from the upper and lower edge towards the middle, with a volume profile at each range's right end and a line at the point of control. Ended ranges carry a `BREAKOUT ↑` or `BREAKDOWN ↓` tag and a position tool with the labels ENTRY, SL, TP1, TP2 and TP3. Failed moves out of a range show a diamond. Candles are tinted while a range is active. A trending stretch shows no range: that is by design.

Uninstall / update

- Remove: Control Center > Tools > Remove NinjaScript Assembly > Supreme Range Profile Structure.
- Update: import the new zip over the installed version (NinjaTrader replaces the assembly), then remove and re-add the indicator on every chart that uses it, or reload the workspace.

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Quick start

First chart

1. Add **Supreme Range Profile Structure** to a chart (Ctrl+I). Leave every setting at its default.
2. Load enough history. Where the history starts decides which swings are remembered and which range is found first, and the indicator does not extend the chart's data: the Data Series setting **Days to load** decides how many bars exist. **Bars To Calculate** (20,000) then takes that many of the newest bars, or all of them on a shorter chart.
3. A fresh breakout's position tool reaches past the last bar. Give the chart room with chart Properties > Right side margin to see the tool at its full width. With the default margin, **Pin Labels Inside Chart** keeps its labels inside the chart.

Reading the chart

- **The range**: a shaded band, the upper half in the Bearish colour and the lower half in the Bullish colour, strongest at the edges and clear in the middle. A completed range keeps a fainter version.
- **The edge lines**: the top edge in the Bearish colour, the bottom edge in the Bullish colour. While the range is active a line grows more solid with every touch.
- **The volume profile**: horizontal bars growing leftwards from the range's right end, grey while the range is active. The longer the bar, the more volume traded in that price row. Once the range ends the rows turn Bullish after a breakout, Bearish after a breakdown, and stay grey if the range expired.
- **The point of control**: a line across the range through the row with the most volume, in the chart's text colour.
- **The diamond**: a move that closed outside the range and then closed back inside. It sits at the move's extreme, on the bar that made it, not on the bar that came back. Bearish colour above the range, Bullish colour below it.
- **BREAKOUT ↑ / BREAKDOWN ↓**: the break tag on the broken edge, on the bar that confirmed the break.
- **The position tool**: from the break bar to **Position Width** (10) bars later. ENTRY sits at the broken edge, not at the break bar's close. SL sits at the opposite edge, so the stop distance is the range height. TP1, TP2 and TP3 lie beyond the entry at **TP1** (0.50), **TP2** (1.00) and **TP3** (2.00) times the range height. A reward box runs from the entry to TP3 and a risk box from the entry to the stop.
- **The levels are a plan, not a tracker**: they are drawn on the break bar and stay as they are. The indicator does not follow them or mark a target or the stop as reached. The labels show names, not prices.
- **Candles**: tinted while a range is active, from the Bullish colour at the bottom edge through the Profile colour in the middle to the Bearish colour at the top edge. A close above the top edge takes the full Bullish colour and a close below the bottom edge the full Bearish colour. Only the body's interior is tinted; the outline and the wick keep the chart's colours. The bar that ends a range keeps the chart's own colours.

The rules in one paragraph

A **swing high** is a bar whose high no bar within **Swing Length** bars on either side exceeds; it is known **Swing Length** bars later. The newest **Swing Memory** swings are remembered, alternating, and two highs or two lows in a row merge into the more extreme one. While no range is active, a set of the newest swings is a **range** when it holds at least **Touches Per Edge** highs and as many lows, the highs lie within 2 x **Edge Stability ATR** x ATR of each other and the lows too, the height between the two averages lies between **Minimum Width ATR** and **Maximum Width ATR** times the ATR, and its oldest and newest swings are at least **Minimum Range Span** bars apart. The largest set that passes wins. A new swing within **Edge Stability ATR** x ATR of an edge moves that edge **Edge Adaptation** of the way towards it. A **break** is **Break Acceptance Closes** closes in a row beyond an edge by more than **Break Buffer ATR** x ATR; only closes count, never wicks. A **deviation** is a close beyond that buffer followed by a close back between the edges while the range is active. After a range ends, the swings are cleared and **New Range Cooldown** bars must pass.

Settings to try first

SETTING	WHAT IT CHANGES
Edge Stability ATR, **Minimum Width ATR**, **Maximum Width ATR**, **Minimum Range Span**, **Swing Length**	How many ranges are found. A higher stability, a wider width window, a lower span or a lower swing length find more; the opposite find fewer and larger ones. If the maximum width is below the minimum, the minimum is used as both limits.
Edge Adaptation	0 keeps the edges where they were found.
Break Buffer ATR, **Break Acceptance Closes**	How far and for how long price must close outside before a break counts.
Maximum Range Age	Above 0, a range that has been active that many bars ends without a break: no tag, no tool, no alert.
Profile Rows, **Profile Width %**	The profile's detail and length.
Equilibrium	A dotted line at the middle of each range.
Range Candle Colors, **Candle Transparency**	The candle tint.
Completed Ranges, **Deviation History**	How many ended ranges and diamonds stay. A diamond outlives its range.
Calculate (in the indicator's own properties)	OnBarClose moves on closed bars. OnEachTick or OnPriceChange also show the forming bar, where a range or an edge move can appear and go again before the bar closes.

Alerts

Four events, each behind its own switch in **08 Alerts**, all on by default. They are evaluated once per closed bar and only in realtime, never during the history pass, and never for a bar that closed more than two bar periods plus five seconds ago.

SWITCH	FIRES WHEN	MESSAGE STARTS
Alert: Range Breakout	a range breaks upward	`Supreme Range Profile Structure broke upward`
Alert: Range Breakdown	a range breaks downward	`Supreme Range Profile Structure broke downward`

SWITCH	FIRES WHEN	MESSAGE STARTS
Alert: Range High Deviation	a close above a range comes back inside	`Supreme Range Profile Structure deviated above the range and confirmed back inside`
Alert: Range Low Deviation	a close below a range comes back inside	`Supreme Range Profile Structure deviated below the range and confirmed back inside`

Each message ends with the instrument, for example `| <exchange>:MNQ`. `<exchange>` is the instrument's exchange as NinjaTrader names it; where it names none, that part starts at the colon. No alert exists for a new range, an edge touch, a range ending by **Maximum Range Age**, or price reaching a level of the position tool. The drawing switches do not silence an alert: **Range Deviations** off still alerts a deviation, and **Breakout Tag** and **Breakout Position Tool** off still alert a break. A move that becomes a break sends the break alert only.

CHANNEL	DEFAULT	WHAT ARRIVES
Alerts Log	always	one row per alert
Alert Log Line	on	the same line in the NinjaScript Output window
Alert Sound	off	the file named in **Alert Sound File**: a name inside NinjaTrader's sounds folder or a full path; blank plays `Alert2.wav`
Alert E-mail	off	an e-mail to **E-mail To**, through NinjaTrader's Mail share service (Tools > Options > Share)

The row and the Output line read `Range Breakout | Supreme Range Profile Structure broke upward | <exchange>:MNQ`. An e-mail has the subject `Supreme Range Profile Structure | Range Breakout` and the message as its body.

Test Alerts on Start (off) sends one test through these channels when the indicator goes live, for example `test | Supreme Range Profile Structure test alert | <exchange>:MNQ (5) @ 20123.25`. Applying the Indicators dialog recreates the instance, so every OK sends one more test while it is on.

A webhook is not part of this edition: the indicator makes no network call of its own.

The final bar of a session

A break or a diamond on a session's final bar appears after the reopen. NinjaTrader closes a bar when the next bar's first tick arrives, so on a closed market that last bar is calculated for good only at the first tick after the reopen. Its alert is raised only if the reopen comes within two bar periods plus five seconds of the bar's close; otherwise it draws with no alert.

Using the values in a strategy or the Market Analyzer

Six hidden series are exposed: `ActiveRangeHigh` and `ActiveRangeLow` (no value while no range is active) and `RangeBreakout`, `RangeBreakdown`, `RangeHighDeviation` and `RangeLowDeviation` (1 on the closed bar of the event, 0 otherwise). Example: `if (SupremeRangeProfileStructure(...).RangeBreakout[0] > 0)`. With

`OnEachTick` or `OnPriceChange` the bar that just closed is `[1]`.

What it does not do

It places no orders and sends nothing over a network of its own. It draws what the bars show; it does not forecast where price goes next.

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Calculate mode and bar timing

- Default `Calculate.OnBarClose`: one engine commit per closed bar. The chart moves on closed bars. The only forming bar that is shown is the one still open when the chart loaded.
- `OnEachTick` / `OnPriceChange`: the closed bar is committed once, at the first tick of the next bar, and the forming bar is previewed at most four times a second. A preview works the bar out as if it closed now, draws the result and undoes the work. So before the bar closes a range can appear, an edge can move, the profile can grow and the candle can take a tint, and any of these can change or go if the bar ends differently.
- Breaks, their tags, the position tool, deviation marks, the end of a range by **Maximum Range Age** and every alert are decided on the closed bar in every mode, and do not change afterwards. The committed bars are the same in every mode.
- A swing is confirmed **Swing Length** bars after its own bar: that is a delay, and what it allows can only happen after the confirmation.
- **A break on a session's final bar appears after the reopen.** NinjaTrader closes a bar when the next bar's first tick arrives, so on a closed market the session's last bar stays uncommitted until the first tick after the reopen. Its alert is raised only if the reopen comes within two bar periods plus five seconds of that bar's close; otherwise the break draws with no alert.
- Historical pass: one call per closed bar. A still-forming last bar is previewed, not committed. The host walks the engine's count from the `Bars` series, so the historical to realtime transition can neither double-feed nor skip a bar.
- **Bars To Calculate** (20,000): the engine's first bar is the first of that many newest bars, fixed when the indicator loads. Bars before it are not calculated and carry no series values. A chart with fewer bars uses all it has.
- With `OnEachTick` / `OnPriceChange`, Tick Replay takes the same path as per-tick realtime.
- The indicator keeps calculating while its chart window is minimized (`IsSuspendedWhileInactive = false`), and an alert is raised only for a bar that closed within the last two bar periods plus five seconds, so a catch-up after a suspension or a reconnect does not replay old alerts. On tick, volume, range and other non-time bars that limit is at least five minutes.
- A bar's OPEN time is its NinjaTrader close time minus the bar period (a day or longer: the stamp's date; bars with no fixed period: the previous bar's stamp). Only the CSV dump reads it. The once-per-bar key of an alert is the bar index.
- The price axis follows the bars, not the drawings (`IsAutoScale = false`), so a far target can lie outside the panel.

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Outputs for strategies and the Market Analyzer

PLOT / SERIES	VALUES
`ActiveRangeHigh` (plot 0, hidden)	the active range's upper edge after the bar; no value while no range is active
`ActiveRangeLow` (plot 1, hidden)	the active range's lower edge after the bar; no value while no range is active
`RangeBreakout` (plot 2, hidden)	1 on the closed bar that confirms a break upward, 0 otherwise
`RangeBreakdown` (plot 3, hidden)	1 on the closed bar that confirms a break downward, 0 otherwise
`RangeHighDeviation` (plot 4, hidden)	1 on the closed bar that comes back inside after a close above the range, 0 otherwise
`RangeLowDeviation` (plot 5, hidden)	1 on the closed bar that comes back inside after a close below the range, 0 otherwise

The series are not drawn. They follow the calculation and not the drawing switches, so **Breakout Tag**, **Breakout Position Tool** or **Range Deviations** off leave them unchanged. They hold values from the first bar of **Bars To Calculate** on.

With `Calculate.OnBarClose`, `[0]` is the bar that just closed. With `OnEachTick` / `OnPriceChange`, the bar that just closed is `[1]`; on the forming bar the four events read 0 and the two edges are the forming bar's preview.

Example in a strategy: `var srps = SupremeRangeProfileStructure(...); if (srps.RangeBreakout[0] > 0) ...` (the accessor is generated by NinjaTrader on compile; every input except the 3 colours is one of its arguments). Set **Bars To Calculate** high enough to cover the bars the strategy runs on.

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Parameters

The 35 inputs in groups 01 to 06 keep the titles, order, defaults and ranges of the other editions (the group names carry a number prefix because NinjaTrader sorts groups alphabetically). Groups 07 Chart, 08 Alerts and 09 NinjaTrader hold the 14 platform settings: 49 parameters in total.

GROUP	PARAMETER	TYPE	DEFAULT	RANGE	PROPERTY	NOTES
01 Swing Engine	Swing Length	int	5	2 to 30	`SwingLen`	Number of bars on each side required to confirm a swing high or low used to detect ranges.
01 Swing Engine	Swing Memory	int	10	4 to 20	`SwingMemory`	Number of recent alternating swing points stored and evaluated for range detection. Consecutive swings on the same side merge into the more extreme one.
01 Swing Engine	ATR Length	int	14	from 2	`AtrLen`	Number of bars used to calculate the Average True Range, used for range width limits, edge stability, and the break buffer.
02 Range Detection	Touches Per Edge	int	2	2 to 5	`MinTouches`	Minimum number of swing highs and swing lows each required to form a range.
02 Range Detection	Minimum Rotations	int	3	3 to 10	`MinRotations`	Minimum number of alternating swings between the range high and range low required before a range is confirmed.
02 Range Detection	Minimum Range Span	int	8	3 to 100	`MinRangeBars`	Minimum number of bars between the oldest and newest swing in a range candidate.
02 Range Detection	Edge Stability ATR	double	0.30	0.05 to 1.0	`ClusterATR`	Tolerance, as a multiple of ATR, for how tightly swings must cluster to form an edge. Also sets how close a new swing must be to an active edge to count as a touch.
02 Range Detection	Minimum Width ATR	double	1.0	0.25 to 5.0	`MinWidthATR`	Minimum and maximum range height, as multiples of ATR. Ranges outside these limits are ignored.
02 Range Detection	Maximum Width ATR	double	6.0	1.0 to 15.0	`MaxWidthATR`	Minimum and maximum range height, as multiples of ATR. Ranges outside these limits are ignored.
02 Range Detection	Edge Adaptation	double	0.20	0.0 to 0.50	`EdgeAdapt`	How far an active range edge shifts toward each new swing that touches it. A value of 0 keeps the edges fixed after detection.
02 Range Detection	Maximum Range Age	int	0	0 to 2000	`MaxRangeAge`	Maximum number of bars a range stays active before it is closed without a breakout. A value of 0 disables the limit.
03 Volume Profile	Range Volume Profile	bool	true		`ShowProfile`	Toggles visibility of the volume profile inside each range.
03 Volume Profile	Profile Rows	int	14	8 to 16	`ProfileBins`	Number of horizontal rows the range volume is distributed into. Higher values produce a more detailed profile.

GROUP	PARAMETER	TYPE	DEFAULT	RANGE	PROPERTY	NOTES
03 Volume Profile	Profile Width %	int	40	15 to 60	`ProfileWidth`	Width of the highest-volume profile row, as a percentage of the range's length in bars. Other rows scale relative to it.
03 Volume Profile	Point of Control	bool	true		`ShowPOC`	Toggles the line at the price row with the highest traded volume inside the range.
04 Breakout Structure	Break Buffer ATR	double	0.10	0.0 to 2.0	`BreakBuffer`	Distance beyond the range edge, as a multiple of ATR, that price must close to count as outside the range.
04 Breakout Structure	Break Acceptance Closes	int	2	1 to 5	`BreakCloses`	Number of consecutive closes beyond the break buffer required to confirm a breakout or breakdown.
04 Breakout Structure	Breakout Tag	bool	true		`ShowBreakLabel`	Toggles the BREAKOUT and BREAKDOWN labels on confirmed range breaks.
04 Breakout Structure	Range Deviations	bool	true		`ShowDeviations`	Toggles diamond markers at the extreme of moves that closed outside the range and then closed back inside.
04 Breakout Structure	Deviation History	int	30	5 to 100	`DeviationHistory`	Maximum number of deviation markers kept on the chart. The oldest marker is removed first.
05 Position Tool	Breakout Position Tool	bool	true		`ShowPosition`	Toggles the position tool drawn on each confirmed breakout, with entry at the broken edge and stop at the opposite edge.
05 Position Tool	Position Width	int	10	3 to 40	`PositionBars`	Number of bars the position tool extends forward from the breakout bar.
05 Position Tool	TP1	double	0.50	0.10 to 3.0	`Tp1Mult`	Take profit distances from entry, as multiples of the range height.
05 Position Tool	TP2	double	1.00	0.10 to 4.0	`Tp2Mult`	Take profit distances from entry, as multiples of the range height.
05 Position Tool	TP3	double	2.00	0.10 to 5.0	`Tp3Mult`	Take profit distances from entry, as multiples of the range height.
05 Position Tool	Position Labels	bool	true		`ShowPositionLabels`	Toggles the ENTRY, SL, TP1, TP2, and TP3 labels on the position tool.
06 Display	Gradient Smoothness	int	22	12 to 24	`GradientRows`	Number of layers used to draw the range gradient. Higher values produce a smoother fade.
06 Display	Completed Ranges	int	10	1 to 10	`HistoryCount`	Number of completed ranges kept on the chart. The oldest range is removed first.
06 Display	Range Candle Colors	bool	true		`PaintCandles`	Toggles candle coloring while a range is active. Candles shift from the bullish color near the range low to the bearish color near the range high, and take the full color once they close outside the range.
06 Display	Candle Transparency	int	10	0 to 70	`CandleTransparency`	Transparency applied to candles colored inside an active range.
06 Display	Equilibrium	bool	false		`ShowMidline`	Toggles the dotted line at the midpoint of each range.
06 Display	New Range Cooldown	int	4	0 to 50	`CooldownBars`	Number of bars to wait after a range resolves before a new range can be detected.
06 Display	Profile	colour	#A0A0A0		`RangeBrush`	Color used for the active range profile, the candle color at mid-range, and ranges that close without a breakout.
06 Display	Bullish	colour	#00FF66		`BullBrush`	Colors used for range edges, gradients, breakouts, deviations, and candles. Bullish applies to the lower half and upward breaks, Bearish to the upper half and downward breaks.

GROUP	PARAMETER	TYPE	DEFAULT	RANGE	PROPERTY	NOTES
06 Display	Bearish	colour	#FF0066		`BearBrush`	Colors used for range edges, gradients, breakouts, deviations, and candles. Bullish applies to the lower half and upward breaks, Bearish to the upper half and downward breaks.
07 Chart	Bars To Calculate	int	20000	500 to 200000	`BarsToCalculate`	How many of the newest bars the ranges are calculated over. Where history starts decides which swings are remembered and which range is found first, so this depth sets which ranges the chart shows. A chart with fewer bars uses all it has: Days to load in the Data Series dialog decides how many it has.
07 Chart	Pin Labels Inside Chart	bool	true		`PinLabelsInside`	A fresh breakout's position tool and its ENTRY, SL and TP labels reach past the last bar, beyond the space the chart leaves there. When the last bar is on screen, the space after it is compressed just enough for every label to stay inside the chart. Off draws them at the exact anchors.
08 Alerts	Alert: Range Breakout	bool	true		`AlertBreakout`	Delivers the upward break of a range. Every alert appears in the Alerts Log window.
08 Alerts	Alert: Range Breakdown	bool	true		`AlertBreakdown`	Delivers the downward break of a range.
08 Alerts	Alert: Range High Deviation	bool	true		`AlertHighDeviation`	Delivers a close above a range that has come back inside.
08 Alerts	Alert: Range Low Deviation	bool	true		`AlertLowDeviation`	Delivers a close below a range that has come back inside.
08 Alerts	Alert Log Line	bool	true		`AlertLogLine`	Writes each alert to the NinjaScript Output window.
08 Alerts	Alert Sound	bool	false		`AlertSound`	Plays a sound with each alert.
08 Alerts	Alert Sound File	string	"Alert2.wav"		`AlertSoundFile`	A file name inside the NinjaTrader sounds folder, for example Alert2.wav, or the full path to a .wav file. Blank plays Alert2.wav.
08 Alerts	Alert E-mail	bool	false		`AlertEmail`	Sends each alert by e-mail through the Mail share service configured in NinjaTrader (Tools > Options > Share).
08 Alerts	E-mail To	string	""		`EmailTo`	Recipient address for alert e-mails. Blank sends none.
08 Alerts	Test Alerts on Start	bool	false		`AlertTestOnStart`	Sends one test alert through every channel switched on when the indicator goes live, so the sound and the e-mail can be checked without waiting for a signal.
09 NinjaTrader	Debug Mode	bool	false		`DebugMode`	Writes diagnostics to srps_nt_debug.log in the NinjaTrader 8 folder.
09 NinjaTrader	Dump Bars + Outputs CSV	bool	false		`DebugDumpCsv`	Writes every committed bar with the engine outputs to srps_dump_<instrument>_<period>.csv (parity checks).

49 parameters.

07

Sessions, time and volume

Sessions

The indicator has no session logic of its own: every bar the chart delivers is fed to the engine in order, so the chart's Trading Hours template decides which bars exist. With an ETH template (for example `CME US Index Futures ETH`) the overnight bars take part in the swings, the ranges, the profile and the ATR; with an RTH template they do not. Both are valid, and the ranges differ, as they do for any indicator. A range across a session gap simply spans the bars on both sides.

The final bar of a session

A break or a diamond on a session's final bar appears after the reopen. NinjaTrader closes a bar when the next bar's first tick arrives, so on a closed market the last bar stays uncommitted until the first tick after the reopen. It is then calculated for good. Its alert is raised only if the reopen comes within two bar periods plus five seconds of that bar's close; otherwise it draws with no alert. The same applies to any later close on a quiet instrument: the bar is committed when the next tick starts a new bar.

History

The swing memory, the cooldown, which range was found first and the list of completed ranges all depend on where the calculation starts. It starts at the first of the newest **Bars To Calculate** bars (20,000 by default), fixed when the indicator loads. The indicator does not extend the chart's data, so the Data Series setting **Days to load** decides how many bars exist, and a chart with fewer bars uses all it has. Two charts that loaded different amounts of history can show other ranges for a while from where the shorter one starts. Bars before the first calculated bar are not tinted and carry no series values.

Time stamps

NinjaTrader stamps a bar with its CLOSE time in the platform time zone. The bar's open time is reconstructed as close time minus the bar period; a day or longer uses the stamp's date, and bars with no fixed period use the previous bar's stamp. Only the CSV dump reads it. Everything drawn is positioned by bar index. Slots past the last bar, where a fresh position tool ends, are placed at the average bar spacing of the view.

Volume

Volume on a futures chart is real contract volume, so the profile shows exchange volume by price row. A bar's volume is shared across the rows its high-to-low span covers, in proportion to how much of each row it covers: the indicator works from bars, not from tick data, so it estimates where within a bar the volume traded. A bar with no range adds its volume to the one row holding its price, if that price lies inside the range. A bar that never trades inside the range adds nothing. When an edge moves, the profile is built again from the range's first bar, for at most 1,500 bars, so the rows always fit the current edges.

Volume shapes the profile and the point of control only. Swings, ranges, edges, breaks, deviations and the position tool come from open, high, low and close. On a feed with no volume those are unchanged, and the profile rows and the point of control are not drawn.

The cTrader edition feeds its broker's tick volume, so its profile on the same market differs from the one here.

Contract rollover

A continuous contract (merge policy `MergeBackAdjusted` or `MergeNonBackAdjusted` in the Data Series dialog) shows a price jump at the roll unless back-adjusted. Swings, edges and the ATR are built from prices, so a non-back-adjusted roll can end a range with a false break and inflate the ATR for a while; with back adjustment there is no jump. On a roll day the merged series can carry only one contract's volume. State the merge policy when comparing values across machines.

08

Compatibility

ITEM	STATUS
NinjaTrader version	8.1.x Desktop (tested 8.1.9.0). Not 8.0, not NinjaTrader Web or mobile.
Product type	Indicator, price panel overlay, single data series.
Instruments	Any instrument with bars: futures, micro futures, forex, stocks. The volume profile and the point of control need volume.
Bar types	Time-based (second, minute, day, week, month, year) fully. Tick, volume, range, Renko and other non-time bars run; on them the alert's age limit is at least five minutes.
Calculate modes	OnBarClose (default), OnEachTick, OnPriceChange. A bar is committed once, when it has closed, with the same result in every mode. OnEachTick and OnPriceChange also preview the forming bar, at most four times a second. With them, Tick Replay takes the per-tick path.
Session close	A break or a diamond on a session's final bar appears after the reopen, at the next bar's first tick. See the chapter on sessions, time and volume.
Multi-instance	Yes. Every instance paints its own surface, and every alert id carries the instrument, the period and an instance hash. Two instances that tint candles on one chart overwrite each other's tint.
Market Analyzer	Loads with no drawing; the six series are available as columns. Not advertised as a scanner.
Strategies	The six series can be referenced from a strategy. Every input except the colours is a `[NinjaScriptProperty]`.
Data requirements	Bars. On a feed without volume the ranges, breaks, deviations and the position tool are unchanged, and the profile rows and the point of control are not drawn.
Rendering	SharpDX in `OnRender` with DPI scaling and full resource cleanup on render-target change and termination. No draw objects. Candle colours through `BarBrushes`.
Dark and light charts	The point of control, the entry and stop lines, the equilibrium and the tags take the chart's own text and background colours, read when the indicator loads. After changing them, reload the chart (F5). The other colours are inputs.
Templates and workspaces	All settings serialize (colours through the standard brush serializer).
Minimized chart	Keeps calculating and alerting while its chart window is minimized (`IsSuspendedWhileInactive` off). A bar that closed more than two bar periods plus five seconds ago is not alerted, so a reconnect or a catch-up does not produce a burst of stale alerts.
Webhook	Not part of this edition. The indicator makes no network call of its own; e-mail goes through NinjaTrader's Mail share service.
Order handling	None. The indicator never touches orders, positions or accounts.

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Troubleshooting

SYMPTOM	CAUSE AND FIX
Nothing on the chart	Check that the licence is active for your NinjaTrader login and that the indicator is in the Configured list (Ctrl+I). It paints in the price panel: with the indicator in its own panel it is not visible. A trending market rarely forms a range: load more bars or scroll back.
No active range	A range needs swing highs and lows that alternate and cluster: at least **Touches Per Edge** highs and as many lows, within the **Edge Stability ATR** tolerance, a height inside the width window and a span of at least **Minimum Range Span** bars. After a range ends the swings are cleared and **New Range Cooldown** bars must pass.
Too few or too many ranges	A higher **Edge Stability ATR**, a wider **Minimum Width ATR** to **Maximum Width ATR** window, a lower **Minimum Range Span** or a lower **Swing Length** find more. Keep the maximum width above the minimum: below it, the minimum is used as both limits and hardly any range qualifies.
A range appeared on the newest bar and went away	With OnEachTick or OnPriceChange the forming bar is previewed. A range or an edge move that holds only while the bar is open goes again if the bar closes differently. What a closed bar draws stays.
The edges of a range moved	**Edge Adaptation** moves an edge towards each swing that touches it. At 0 the edges stay where they were found.
Price closed outside but there is no break	A break needs **Break Acceptance Closes** closes in a row beyond the edge plus **Break Buffer ATR** x ATR. A close inside the buffer resets the count. Wicks never count. The newest, still-forming bar never shows a break.
No break on the last bar	The bar is still forming, or the session has ended. A break on a session's final bar appears after the reopen, at the next bar's first tick.
A diamond is not on the bar where price came back	By design. It marks the extreme of the failed move, on the bar that made it.
Price went outside and came back, but no diamond	A deviation needs a close beyond the edge plus the buffer, not just a wick, and a later close back between the edges while the range is active. A move that becomes a break gets no diamond. Check **Range Deviations**.
A diamond where no range is drawn	Diamonds outlive their range until **Deviation History** removes them.
A range ended with no break, in grey	**Maximum Range Age** is above 0.
Older ranges disappeared	**Completed Ranges** keeps the newest ten at most and removes the oldest with its profile, tag and position tool.
The position tool looks squeezed, and its labels sit over the last candles	A fresh tool reaches past the last bar. **Pin Labels Inside Chart** compresses the space after the last bar so every label stays inside the chart. Add room with chart Properties > Right side margin, or switch the pin off and scroll right.
Zoomed out, ENTRY covers the break tag	Both sit on the broken edge. Zoom in and they separate.
TP3 is off the panel	The price axis follows the bars, not the drawings. Drag the price axis to see it. The targets are multiples of the range height, reference levels and not predictions.
Some candles are not tinted	Only while a range is active, and only the body's interior. The bar that ends a range and the bars outside any range keep the chart's own colours, and so do bars before **Bars To Calculate**. **Range Candle Colors** switches the tint off.

SYMPTOM	CAUSE AND FIX
No profile rows and no point of control	The feed has no volume on these bars, or **Range Volume Profile** and **Point of Control** are off. The ranges themselves are not affected.
Lines or tags hard to read after changing the chart's colours	They take the chart's text and background colours, read when the indicator loads. Reload the chart (F5).
The picture differs between two charts	Where the history starts decides which range is found first. Compare charts with the same **Days to load**, **Bars To Calculate** and Trading Hours template.
It takes a moment to appear	Every bar in the window is calculated before the first drawing. A lower **Bars To Calculate** starts faster, but it can show other ranges.
Alerts do not fire	Alerts fire only in realtime, only for bars that close after the chart loaded, and only with the per-event switch on. No alert exists for a new range, an edge touch, an expiry or a level being reached. A bar that closed more than two bar periods plus five seconds ago is not alerted, and that includes a session's final bar after a long break.
The alert came one bar later than the move	An event belongs to a closed bar, and NinjaTrader closes a bar when the next bar's first tick arrives.
The alert text starts with a colon	NinjaTrader names no exchange for this instrument.
Sound not played	**Alert Sound** must be on. **Alert Sound File** is a name inside `<NinjaTrader 8 install>\sounds\` or a full path to a .wav file.
No e-mail	**Alert E-mail** must be on with **E-mail To** filled in, and the Mail share service configured under Tools > Options > Share.
Looking for a webhook	A webhook is not part of this edition. The indicator makes no network call of its own.
One more test alert after every change	**Test Alerts on Start** is on, and applying the dialog recreates the instance. Switch it off once the channels are checked.
Values differ from another platform on the same symbol	Bars and volume differ by feed and session template; compare on identical bars (see the chapter on how this edition was verified).
Text is tiny or huge	The label size is fixed and follows the Windows display scaling.
An error line names Supreme Range Profile Structure in the Log tab	Set **09 NinjaTrader > Debug Mode** on, reproduce it, and send `Documents\NinjaTrader 8\srps_nt_debug.log` with the chart interval, instrument and NinjaTrader version.
Everything is drawn twice	Two instances are configured (Ctrl+I, Configured list). Remove one.

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How this edition was verified

The verification has two stages, which measure different things and are reported separately. Stage 1 ran on forex, gold, index and crypto bars, stage 2 runs on NinjaTrader futures bars, so the two figures are never added together.

Stage 1: the engine

The platform-free engine that ships here is the same code as the cTrader edition's engine apart from its namespace and using lines. That engine was replayed bar by bar there on seven charts, with 58 input sweeps on EURUSD M5. Values and flags were compared exactly, with no tolerance, drawn objects field by field in creation order.

CHART	RUNS	VALUE CELLS	DRAWN-OBJECT FIELDS	MISMATCHES
EURUSD M5, defaults and 58 input sweeps	224	99,591,564	228,578	0
EURUSD M15	5	2,861,430	4,352	0
EURUSD H1	5	3,291,852	4,338	0
XAUUSD M5	5	2,850,390	4,303	0
US Dollar Index H1	5	3,265,356	4,282	0
BTCUSDT M15	5	2,841,144	4,380	0
USDCUSDT M5	5	2,762,070	4,380	0
total	**254**	**117,463,806**	**254,613**	**0**

Stage 2: NinjaTrader host vs the engine on identical NinjaTrader bars (2 November 2026)

With **Dump Bars + Outputs CSV** on, the indicator writes every committed bar (time, open, high, low, close, volume) together with the engine outputs as the host saw them: the candle colour, the active range's edges, the four alert flags, the ATR and the pivots, the range state, the break and deviation counters, the find-range result, the drawn-object counts, the profile rows with their rendered width and alpha, the point of control, and the swing memory. The same bars are replayed through a build of the identical engine outside NinjaTrader, with no host in between, and every column is compared.

RUN	BARS	SERIES	CELLS	MISMATCHES
MNQ 1 Minute, historical load, NinjaTrader 8.1.9.0, default inputs	4,923	121	595,683	0

Bar times matched on every row, and the replay reads its prices from the same file. On this run the engine found 22 ranges and produced 9 breakouts, 13 breakdowns, 2 high deviations and 6 low deviations, on the same bars on both sides.

Live run, 2 Nov 2026: MNQ 1 Minute with Calculate set to OnEachTick, across the switch from history to live bars, with about 20 bars closing live: 4,213 bars, 121 series, 509,773 cells, 0 mismatches, 0 bar-identity mismatches.

What stage 2 proves: on a historical load and across the switch to live bars the host feeds the engine one closed bar per chart bar, in order, and the engine's outputs inside NinjaTrader equal a replay outside it. What it does not cover: this chart held fewer bars than **Bars To Calculate**, so the calculation started at its first bar; how the surface paints is checked on a chart, not by this diff; and none of this says anything about future performance.

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Licensing

License model

The product is distributed as a compiled NinjaScript Add-On and licensed through NinjaTrader's user-based Vendor Licensing (NinjaTrader 8.1.5.0 or later). A licence is tied to the customer's NinjaTrader account login, not to a machine: the same login works on every installation of NinjaTrader Desktop the customer uses, and no Machine ID has to be sent to the vendor. Licences are created in the NinjaTrader Ecosystem Vendor Dashboard against the customer's NinjaTrader account email address, with a licence type and an expiry date.

The indicator carries the `VendorLicense(productId)` call in its constructor, with the Product ID of its add-on in the Vendor Dashboard. NinjaTrader verifies the licence whenever the indicator is used.

No free trial

The product is sold as a paid licence only; no free trial is offered. A licence is issued to the buyer's NinjaTrader account email after payment, normally within a few hours.

Activation and transfer

Nothing to activate: log in to NinjaTrader with the licensed account. A new PC needs no transfer. NinjaTrader allows two simultaneous market-data sessions per account, which is what prevents a licence from being shared.

Behavior without a valid licence

NinjaTrader shows its own licence notice (invalid or expired) and stops calling the indicator's calculation and plot methods: the indicator draws nothing and raises no alerts, while its settings still load. It never places orders (it has no order code) and exposes no proprietary data. A licensing-server outage is handled by NinjaTrader's verification (it retries against a secondary server) and must never crash the chart.

Licensing is a practical access-control layer, not a guarantee against copying.

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Support

Questions go through the contact page at https://kestutisbalciunas.com/contact/ with the NinjaTrader version, the instrument and the chart interval. For an error, switch **09 NinjaTrader > Debug Mode** on, reproduce it once and attach `srps_nt_debug.log` from the `Documents/NinjaTrader 8` folder; switch Debug Mode off afterwards.

The product page, with the documentation and the change log, is https://kestutisbalciunas.com/ninjatrader/supreme-range-profile-structure/. Updates and refunds follow the terms on that page.

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Risk disclosure

Trading involves substantial risk. Past, simulated, and backtested performance is not necessarily indicative of future results.

Futures, foreign currency and options trading contains substantial risk and is not for every investor. An investor could potentially lose all or more than the initial investment. Risk capital is money that can be lost without jeopardizing one's financial security or lifestyle. Only risk capital should be used for trading and only those with sufficient risk capital should consider trading.

Supreme Range Profile Structure is a technical analysis tool. It draws ranges, a volume profile, deviation marks and a position tool computed from bars; it does not place, modify or close orders and it gives no trade advice. The entry, stop and target lines are reference levels drawn from the range height when a break is confirmed: they are not predictions, and the indicator does not follow them or report whether they are reached. The volume profile estimates where volume traded within each bar. Nothing in the software or its documentation is a promise of returns, win rates or funded-account success.

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