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NINJATRADER 8 INDICATOR · NINJASCRIPT, C#

Installation and Quick Start

How to import the Add-On into NinjaTrader 8, add the indicator to a chart, and read what it draws.

PRODUCT	Smart Liquidity Matrix for NinjaTrader 8
VERSION	1.0.0
DATE	November 2026
NINJATRADER	8.1.x Desktop, tested on 8.1.9.0
PACKAGE	`SmartLiquidityMatrix.zip`, compiled NinjaScript Add-On
SHA-256	`f0e11bc685ec44af74c53783d42c3d66157b6fafafdff9a99cbe4662154cc172`
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PRODUCT PAGE	https://kestutisbalciunas.com/ninjatrader/smart-liquidity-matrix/

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01

Installation

Requirements

- NinjaTrader 8.1.x Desktop for Windows (tested on 8.1.9.0). Not for NinjaTrader 8.0 or NinjaTrader Web.
- A data connection that delivers bars for the chart and for the other timeframes the indicator requests, daily bars included. The previous-period levels, the higher-timeframe row and the 1D, 1W and 1M scanner rows read NinjaTrader's daily, weekly and monthly series of the instrument, so a gap in those series shows on the chart (see the chapter on sessions, time and volume).
- No Order Flow+ features, no depth, no tick history. Volume is read only by the dashboard's Volume row and by the optional Live Confluence filter.

Import the Add-On package

1. Control Center > Tools > Import > NinjaScript Add-On.
2. Select `SmartLiquidityMatrix.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 at least a few hundred bars (any instrument, a 1 to 60 minute interval is a good first look), press Ctrl+I.
2. In the Available list find **Smart Liquidity Matrix**, click add, click OK. The first load requests 24 more data series of the same instrument, so it takes longer than a single-series indicator.
3. The NinjaScript Output window prints a line such as `Smart Liquidity Matrix v1.0.0 by Kestutis Balciunas: 4924 bars loaded, 24 of 24 secondary series, Calculate OnBarClose`.
4. The chart shows the dashboard, translucent order-block and fair-value-gap boxes, faint grey boxes for zones price has already closed through, `1D High`, `1D Low` and `EQ 50%` level lines near the right edge, and `BUY ***` or `SELL ***` plates where a signal printed. If the lowest dashboard rows are cut off, set **10 Dashboard > Text Size** to **Small**.

Uninstall / update

- Remove: Control Center > Tools > Remove NinjaScript Assembly > Smart Liquidity Matrix.
- 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.

02

Quick start

First chart

1. Add **Smart Liquidity Matrix** to a chart (Ctrl+I). Leave every setting at its default.
2. **On a small price panel, pick a smaller dashboard.** The dashboard has 30 rows. At the default **10 Dashboard > Text Size** of Normal it is about 615 pixels tall at 100 % Windows display scaling, plus an 8-pixel margin, so a 590-pixel price panel cuts off its last scanner rows. Set **Text Size** to **Small** (about 510 pixels). Large is about 780 pixels. The sizes grow with the display scaling.
3. Load enough history. The swings and zones on screen are built from the bars before them, and the indicator does not extend the chart's data: the Data Series setting **Days to load** decides. Aim for at least 5,000 bars where your feed allows it. The other timeframes load their own bars, independent of the chart's setting.
4. Signals are decided on closed bars. The forming bar is not calculated.

Reading the chart

- **Order blocks**: each confirmed swing low creates a bullish block and each confirmed swing high a bearish one. The block is the high to low of the first down candle (bullish block) or up candle (bearish block) found looking back from the swing, across **OB Candle Scan Range** bars; if there is none, the swing bar itself. A tag reads `Bull OB` or `Bear OB`. Cyan is bullish, red is bearish. An active block runs to five bars past the last bar. At most **Bullish OB Count** and **Bearish OB Count** blocks stay active, 3 per side by default, and an older one is removed.
- **Fair value gaps**: a gap between a bar's low and the high two bars back (bullish, green) or a bar's high and the low two bars back (bearish, red). Dashed border. At most 3 per side stay active by default.
- **Faint grey boxes**: a zone a close has gone through, below a bullish zone or above a bearish one. It turns grey, stops at that bar, loses its tag and stays on the chart. It takes no further part in anything. The newest 501 boxes stay, active and grey together.
- **BUY and SELL**: a green `BUY ***` plate under the bar's low or a red `SELL ***` plate over its high, with a small triangle. The stars are always three: the score is fixed in the calculation and does not vary.
- **Trade levels**: with **Show SL/TP Levels** on, a signal draws a white solid ENTRY line, a red dashed SL line and two green dashed lines, TP1 and TP2, each running 30 bars from the signal bar, with a price tag just past the end. Only the newest signal's set exists, and it is removed when the signal state closes.
- **Liquidity sweeps**: a purple `Sweep` plate and a small cross. Upside: the bar's high went above the level and it closed back below. Downside is the mirror image. The level is an equal high or low on that bar, or the previous period's level.
- **Equal highs and lows**: when the last two swing highs (or lows) lie within 0.1 ATR of each other but are not exactly equal, a dotted line and a wide faint line carry the tag `EQH` (or `EQL`). They run from the older swing to five bars past the last bar and exist only while the newest bar's state holds them.
- **Previous-period levels**: `1D High` and `1D Low`, a solid line and a wide faint one from 30 bars back to five bars past the last bar. The tag prints **Previous Period TF** as you typed it. They come from NinjaTrader's own series for that timeframe: if the daily bars have a gap, these levels are the last ones before the gap (see the chapter on sessions, time and volume).
- **Equilibrium**: a grey dotted `EQ 50%` line halfway between the current swing high and swing low.

Tags past the last bar are pinned at the right edge, and step left of the dashboard when it would cover them. The price axis follows the bars, not the drawings, so a far stop or target can lie outside the panel: drag the price axis to see it.

What you will not see

No BoS or CHoCH line or label is ever drawn, and no candle is tinted. The structure-break events exist in the calculation and do not fire, in any edition of this product (0 events on the 4,923 bars of the verification run). So **Show Break of Structure**, **Show Change of Character**, their colours and **Max Structure Lines** have no visible effect, the dashboard's **Chart Trend** always reads NEUTRAL, and its HTF row reads `Divergent` beside an HTF reading. The signals, zones, sweeps and levels do not depend on them.

Minimum Confluence Score, **Signal Cooldown (bars)**, **Use HTF Trend Filter** and **HTF EMA Length** do not filter a signal by themselves. **Use HTF Trend Filter** selects the dashboard's HTF row, and **HTF EMA Length** sets the average behind that row, which the optional filters also read. The working filters are in **13 Signal Filters**, off by default.

Signal rules in one paragraph

A **BUY** prints when the signal state goes long on a closed bar. That needs EMA(20) above EMA(50), a bar that closed above its open, a low at or below the last 5-bar swing low plus 0.3 x ATR(14), a close above that swing low, and RSI(14) under 70. The state goes flat when the low touches its stop (that swing low minus 0.5 x ATR), the high touches its target (entry plus 2 x risk), or EMA(20) falls below EMA(50). A **SELL** is the mirror image, with RSI above 30. The exit is tested before the entry on each bar.

The drawn levels are not the levels that close the state. The lines are a risk picture at your settings. The state keeps its own:

	DRAWN ON THE CHART	WHAT CLOSES THE STATE
swing used	**Swing Length**	always 5
stop	swing minus **SL Padding** x ATR	swing minus 0.5 x ATR
targets	entry plus risk, and plus risk x **Risk:Reward Ratio**	entry plus 2 x risk

Risk is the distance from the entry to the drawn stop, at least 10 ticks. At the defaults (Swing Length 5, SL Padding 0.2, ratio 2.0) the stops differ, so a drawn line can be crossed while the dashboard still shows the trade, or the trade can close with its line untouched. The indicator does not mark a line as reached or count outcomes on the chart.

The dashboard

ROWS	WHAT THEY READ
header	product, instrument, chart period and version
MARKET	the newest price and its change from the session's daily open; the instrument type and currency
TREND ANALYSIS	Chart Trend (always NEUTRAL, see above); HTF: price against the higher-timeframe EMA; RSI (14); ATR (14) with its share of the price (Low, Normal, HIGH)
CONFLUENCE MAP	active order blocks and fair value gaps per side; equal levels; the newest bar's volume against its 20-bar average
ACTIVE SIGNAL	direction and bars since the signal; the entry with its open result in percent; the drawn stop, TP1 and TP2 with their distance in percent
SIGNAL SCANNER	`BUY`, `SELL` or `--` per timeframe: `1m` to `45m`, `1H` to `12H`, `1D`, `1W`, and `1M`, which is one month

Each scanner cell is the same state machine, run on that timeframe's own closed bars. `--` means flat, or a row that has not delivered yet: the state needs at least 50 closed bars of its timeframe. **Scanner Warm-up Marker** on shows a dot on a row that has delivered nothing yet. The scanner feeds no signal, no drawing and no alert. The footer's `Non-Repainting` refers to the signal path: signals are decided on closed bars. **Position** offers six places on the chart.

Settings to try first

SETTING	WHAT IT CHANGES
Text Size	Small, Normal or Large. See step 2 above.

SETTING	WHAT IT CHANGES
Swing Length	Chart swings, so the order blocks, the equal levels, the equilibrium and the drawn stop. Not the signals: the state keeps its own 5-bar swing.
Bullish / Bearish OB Count, **Bullish / Bearish FVG Count**	How many zones stay active per side. 0 creates none of that kind.
Label Position	Inside (at the block's middle), Outside (at the top of a bullish block, the bottom of a bearish one) or None.
Lite Mode	Thinner, fainter drawing: no wide faint lines, thinner borders.
Show SL/TP Levels	Hides the lines and tags only. The signals are unchanged.
Highlight Liquidity Sweeps	Off stops the sweep events themselves, so their alerts stop too, not only the drawing.
Previous Period TF	Minutes as a number (`60`, `240`), or `1D`, `2D`, `3D`, `1W`, `1M`. A value it does not recognise means one day.
Scanner Rows	Off adds only the series the levels need and leaves every row at `--`. Use it on a slow PC.
13 Signal Filters	A cooldown, a higher-timeframe filter and a score filter. A suppressed signal can print on a later bar while the state still holds. All off by default.

Alerts

Enable Alerts is the master switch and **Alert On** picks the events: `SignalsOnly` by default, `SignalsAndSweeps`, `SignalsAndStructure` or `All`. 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.

The messages:

- A BUY prints: `Smart Liquidity Matrix: BUY signal on MNQ 12-26 5 | Score: 3/5 | Price: 28746.25`
- A SELL prints: `Smart Liquidity Matrix: SELL signal on MNQ 12-26 5 | Score: 3/5 | Price: 28746.25`
- A bar sweeps above a level: `SLM: Upside liquidity sweep on MNQ 12-26 5`
- A bar sweeps below a level: `SLM: Downside liquidity sweep on MNQ 12-26 5`

The message carries the instrument, the chart period (`5`, `60`, `D`, `W`, `M`, `30S`, `500T`) and, for a signal, the bar's close. The structure events are selectable and do not fire (see above). **Webhook JSON Format** changes the Buy and Sell text to JSON with the same values plus the drawn stop and targets; it is the message only.

CHANNEL	DEFAULT	WHAT ARRIVES
Enable Log Alerts	on	one row in the Alerts Log and the same line in the NinjaScript Output window
Enable Sound Alerts	off	the file named in **Sound File** (default `Alert1.wav`): a name inside NinjaTrader's sounds folder or a full path; blank plays nothing
Enable E-mail Alerts	off	an e-mail to **E-mail To**, with **E-mail Subject** and the message as its body, through NinjaTrader's Mail share service (Tools > Options > Share)

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

The final bar of a session

A signal 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 and drawn 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 the signal prints with no alert.

Using the values in a strategy or the Market Analyzer

Eight hidden series are exposed: `Signal` (+1, -1, 0), `ActiveDirection` (+1, -1, 0), `ActiveStop`, `ActiveTp1`, `ActiveTp2`, `Sweep` (+1, -1, 0), `PreviousHigh` and `PreviousLow`. Example: `if (SmartLiquidityMatrix(...).Signal[0] > 0)`. With `OnEachTick` or `OnPriceChange` the bar that just closed is `[1]`. Neither use has been tested yet. The indicator adds secondary series, and NinjaTrader expects a calling strategy to add the same series.

What it does not do

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

03

Risk disclosure

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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.

Smart Liquidity Matrix is a technical analysis tool. It draws order blocks, fair value gaps, equal levels, liquidity sweeps, previous-period levels, signals and trade levels computed from closed bars; it does not place, modify or close orders and it gives no trade advice. The entry, stop and target lines are a risk picture at the chosen settings, and they are not the levels that close the signal state: the indicator does not report whether they are reached. The stars and the score on a signal are fixed values, not a measurement. Nothing in the software or its documentation is a promise of returns, win rates or funded-account success.

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