

SMC Master Structure – User Manual

MetaTrader 4 indicator • v1.0 • StructEdge

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What it is

SMC Master Structure is a complete Smart Money Concepts workspace for MetaTrader 4. It reads market structure, tracks liquidity and imbalance, scores setups for confluence, and keeps the whole picture organized on one chart – on any symbol and timeframe.

Everything is modular: each layer can be turned on or off, and the behaviors that matter are inputs you control. It is an analysis and charting tool – it does not place trades.

Requirements. MetaTrader 4, any broker, any symbol/timeframe. No DLLs, no external libraries, no internet connection required.

Install & first run

1. In MetaEditor or the terminal, open `File → Open Data Folder → MQL4 → Indicators`.
2. Copy `SMC_MasterStructure.ex4` there.
3. In MetaTrader, refresh the **Navigator** (right-click → Refresh). The indicator appears under **Indicators**.
4. Drag it onto a chart. In the dialog, on the **Common** tab enable **Allow DLL imports** is *not* needed (there are none); just click OK.
5. On first load the indicator builds structure over history. Give it a moment on very high bar counts.

Tip. The tool writes small settings/data files under `MQL4/Files/SMC_MasterStructure/` (e.g. the per-symbol ATR multiplier). This is normal and stays on your machine.

The workspace

Three things share the chart:

On-chart drawings

Structure labels (HH / HL / LH / LL), BoS and CHoCH lines, sweeps, FVG and Order Block boxes, the volume profile, Fibonacci and standard-deviation channels, Liquidity Engine signals, and the Strategy C entry zone.

Button row

A compact row of toggles (top-right by default) turns layers on and off live, including PROFILE, HIST, HVN, OB, FVG, SD, FIB, MTF, and the ATR+ / ATR- range controls. RESET re-snaps the analysis range to the latest structure.

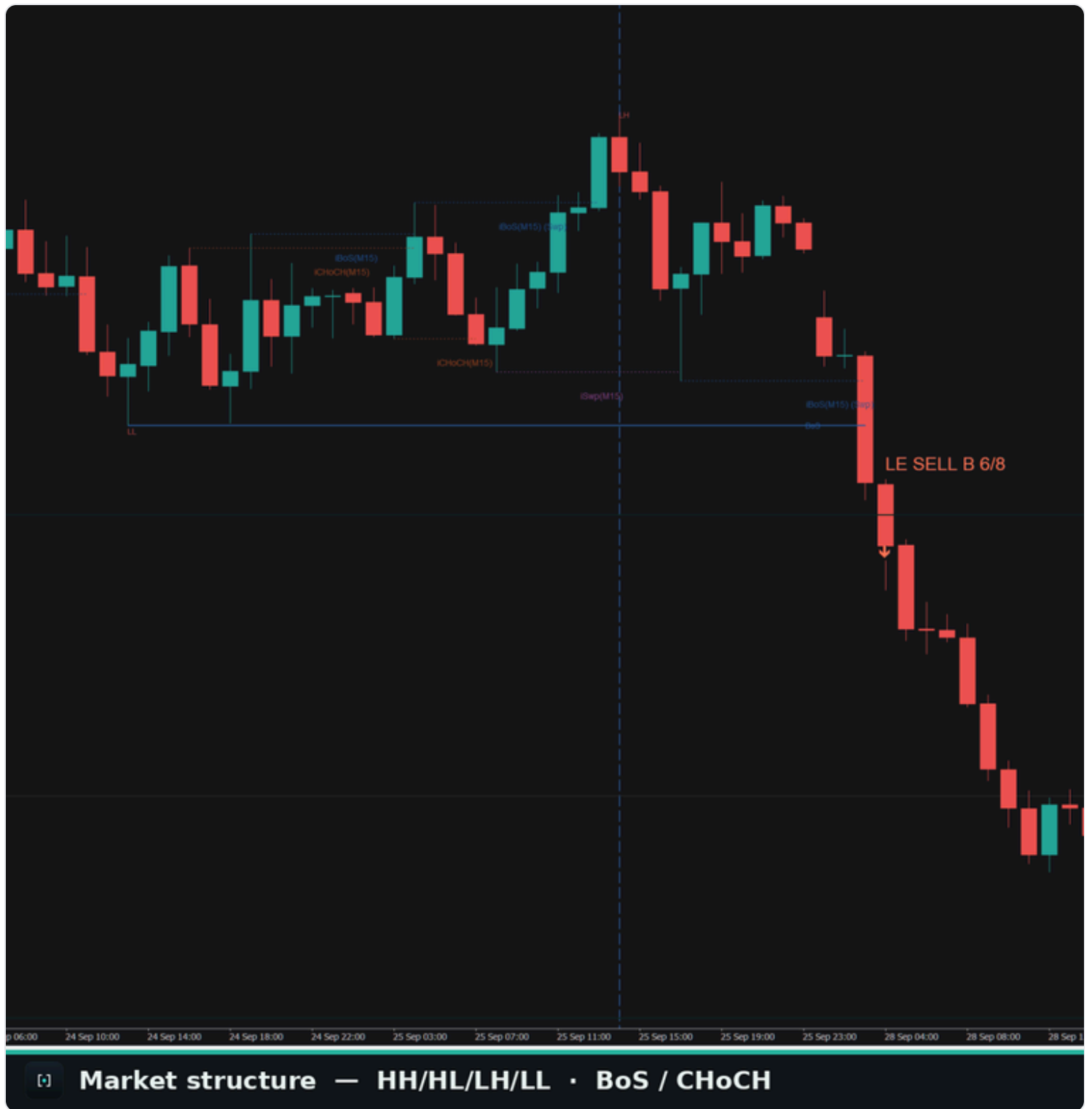
Panels

The **trend label** (top-left) shows the current-TF and higher-TF bias. The **AI Brief panel** summarizes the active symbol – alignment, structure, scenario and the Liquidity Engine state – and can scan a watchlist. The **LE info panel** explains the current Liquidity Engine setup.

Core concepts

TERM	MEANING
BoS	Break of Structure – price closes beyond the prior structural high/low, continuing the trend.
CHoCH	Change of Character – the first break against the prevailing structure; a potential reversal.
Sweep	A wick that takes liquidity beyond a prior high/low, then rejects.
FVG	Fair Value Gap – a 3-bar imbalance (price gap) that price often revisits.
OB	Order Block – the last opposing candle before an impulsive move.
HVN	High-Volume Node – a price where traded volume concentrated; natural support/resistance.
iCHoCH	A lower-timeframe CHoCH used as an entry confirmation inside a zone.

Market structure



Market structure - HH/HL/LH/LL, BoS / CHoCH / Sweep

The engine labels swings (HH / HL / LH / LL) and marks BoS and CHoCH as bars close. The active structural high and low are always shown, and the trend label reflects the current read.

Structure is judged on closed bars. Use ATR+ / ATR- to widen or tighten swing sensitivity per symbol and timeframe — the value is remembered per symbol/TF.

Liquidity Engine (A / B) & confluence score



The Liquidity Engine validates two setup families and scores each one before drawing a signal.

- **Strategy A – reversal:** Sweep → CHoCH → FVG, in the same direction, within the timing windows.
- **Strategy B – continuation:** BoS → FVG in the trend direction. (Off by default.)

A setup first passes a precondition gate (valid chain, matching direction, timing). It is then scored for **confluence** – higher-timeframe alignment, the strength of the sweep and the break, the size of the FVG, timing tightness and momentum. Only setups that reach your minimum score are drawn, each labelled with its $\text{score} = N/\text{max}$.

Risk mode

LE_Risk chooses the threshold. **Aggressive** uses `LE_MinScore_Aggressive` (default 4). **Conservative** uses `LE_MinScore_Conservative` (default 6) and additionally requires higher-timeframe alignment – no signal is drawn against the HTF trend.

How to use. Start in Conservative to see only high-confluence setups. Lower the minimum score, or switch to Aggressive, to see more (and noisier) signals. Tune the score sensitivity with the **LE Confluence Score** inputs (RSI, body/FVG size, timing).

Strategy C – pullback to value



Strategy C - iFVG + iCHoCH entry with SL / TP / RR

After a break, Strategy C projects the pullback zone and waits for a lower-timeframe confirmation inside it.

The flow is BoS → pull back into the Fib zone → an FVG forms in the zone → an **iCHoCH** (lower-TF CHoCH) confirms the entry. The tool draws the entry-zone box and references a structural stop and target. Conditions such as minimum pullback depth and a minimum risk:reward are inputs you set.

FVG & Order Blocks

Fair Value Gaps and Order Blocks are detected and kept current — active zones in their live color, mitigated zones dimmed. FVG is shown by default; Order Blocks are off by default (toggle with 0B). Colors are all configurable.

Volume Profile (Multi-HVN)



Multi-HVN Volume Profile - nodes + histogram

A volume profile over the selected range highlights the prices where activity concentrated. High-volume nodes are drawn as zones — natural support and resistance.

Toggle the whole profile with PROFILE, the histogram bars with HIST, and the HVN zones with HVN. The range follows the vertical range lines; drag them, or press RESET to snap back to the latest structure. Profile_Bins, HVN_Sensitivity and HVN_Min_Power control resolution and how strong a node must be.

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Multi-timeframe overlay



Lower-timeframe overlay - iBoS / iChoCH / iSwp

Higher- and lower-timeframe structure is projected onto the working chart, so bias and timing live in one place. Steps up/down from the current TF are configurable (TF_Steps_Up, TF_Steps_Down); toggle with MTF.

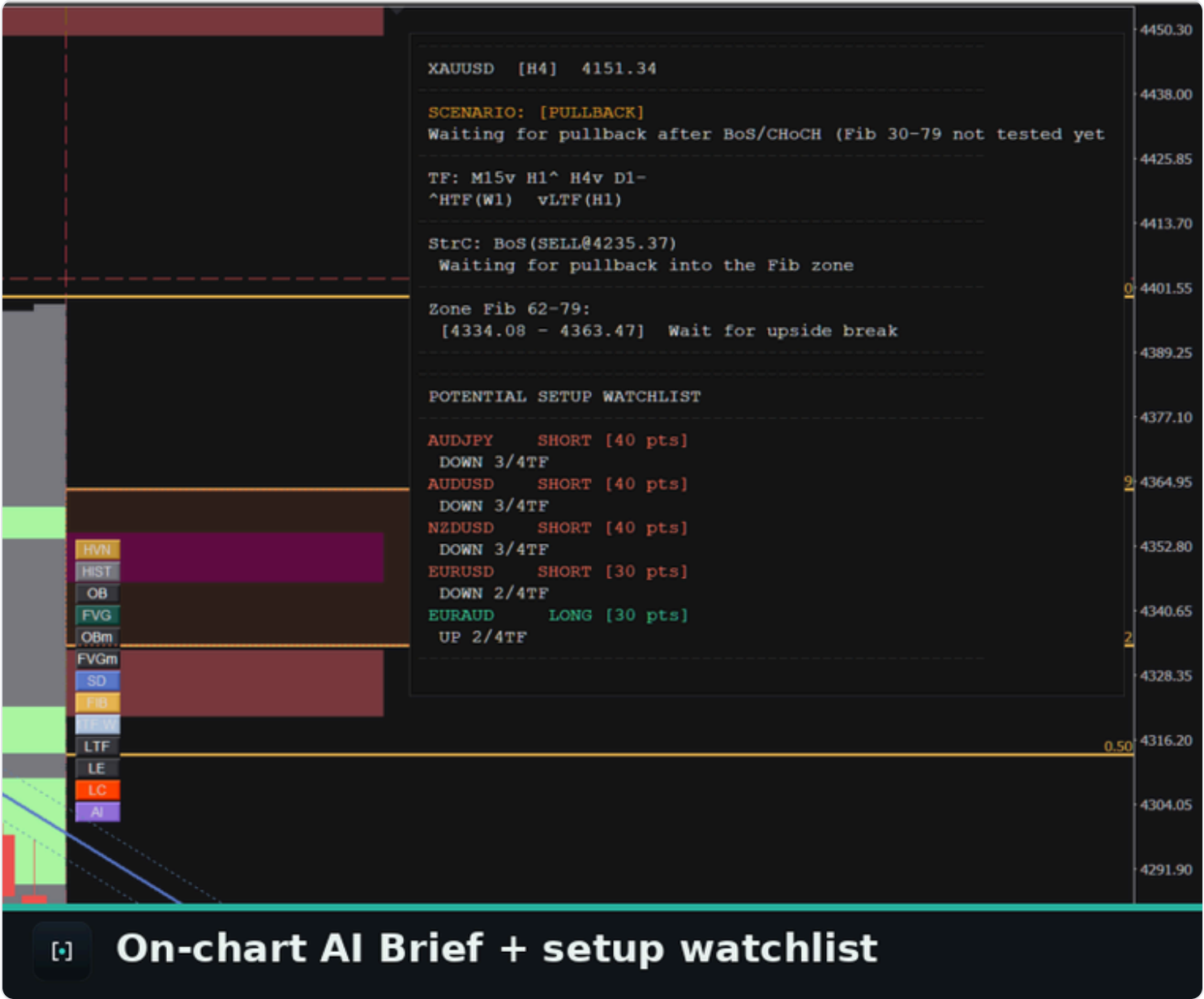
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Fibonacci & StdDev channel

A Fibonacci set and a standard-deviation channel give pullback and extension context over the range. Levels, extra channels, styles and colors are all inputs. Toggle with FIB and SD.

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AI Brief panel & watchlist



On-chart AI Brief + potential-setup watchlist

The panel summarizes the active symbol: multi-timeframe alignment, structure, the current scenario (CONTINUATION / PULLBACK / REVERSAL / CONFLICT) and the Liquidity Engine state. It refreshes automatically on an interval you set.

Optionally it scans a **watchlist** of symbols (off by default) across four timeframes you choose. The watchlist and file features are off by default to keep the chart light; enable them only when you want them.

Live help assistant. A free online assistant at structedge.dev answers your questions about setups, inputs, signals and reading the chart in your own language, grounded in this manual.

AI-ready (optional). The brief is designed to work with AI: paired with the separate StructEdge companion EA, the panel can display AI-generated commentary on the active symbol and a potential-setup read across your watchlist. The indicator itself makes no internet or external connection – it only reads a local brief file the companion writes. Brief and scanner files are stored in an encrypted form.

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Alerts

Choose the events (BoS, CHoCH, Sweep, new FVG/OB, mitigations, HH/LL review, Liquidity Engine signal) and the channels (popup, push, email, sound). Push notifications require your MetaQuotes ID set in the terminal.

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Inputs reference

Grouped as they appear in the indicator's **Inputs** tab, with defaults. Only the key inputs are listed; every input has an inline description in the dialog.

Market Structure

INPUT	DEFAULT	WHAT IT DOES
ATR_Len	14	ATR period used for structure sensitivity.
MaxBars	2000	How many bars back to analyze.
ATR_Mult_Default	3.5	Swing sensitivity; the ATR+/ATR- buttons adjust it and remember per symbol/TF.

Liquidity Engine (A / B)

INPUT	DEFAULT	WHAT IT DOES
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LE_Enable	true	Master switch for the Liquidity Engine.
LE_Enable_A	true	Strategy A: Sweep → CHoCH → FVG (reversal).
LE_Enable_B	false	Strategy B: BoS → FVG (continuation).
LE_Risk	Conservative	Chooses the score threshold; Conservative also requires HTF alignment.
LE_MinScore_Aggressive	4	Minimum confluence score in Aggressive mode.
LE_MinScore_Conservative	6	Minimum confluence score in Conservative mode.
LE_MaxBars_SweepToChOCH	80	Timing window, sweep to CHoCH.
LE_MaxBars_ChOCHToFVG	80	Timing window, CHoCH/BoS to FVG.

LE Confluence Score

INPUT	DEFAULT	WHAT IT DOES
LE_Score_RSI_Enable	true	Include an RSI confirmation factor.
LE_Score_RSI_Period	14	RSI period.
LE_Score_RSI_0B / 0S	70 / 30	Overbought / oversold levels for the RSI factor.
LE_Score_Body_ATR	0.50	Break candle body must be at least this × ATR to score.
LE_Score_FVG_ATR	0.30	FVG size must be at least this × ATR to score.
LE_Score_Timing_Frac	0.50	Steps within this fraction of the window count as tight timing.

Strategy C

INPUT	DEFAULT	WHAT IT DOES
LE_C_Enable	true	Enable the pullback strategy.
LE_C_Fib_Lo / Hi	0.62 / 0.79	Pullback zone Fib band.
LE_C_Fib_MinDepth	0.50	Minimum pullback depth before a setup is valid.
LE_C_MinRR	3.0	Minimum risk:reward for a recommendation.
LE_C_SL_ATR_Mult	1.0	Stop-loss distance in ATR beyond the structure.
LE_C_Show_Zone	true	Draw the entry-zone box (opacity via LE_C_Zone_Alpha).

Volume Profile (Multi-HVN)

INPUT	DEFAULT	WHAT IT DOES
Profile_Bins	500	Price resolution of the profile.
HVN_Sensitivity	20	How isolated a peak must be to count as a node.
HVN_Min_Power	0.3	Minimum relative strength (0..1) for a node.

Multi-Timeframe Overlay

INPUT	DEFAULT	WHAT IT DOES
Enable_MTF_Module	true	Compute HTF/LTF structure.
TF_Steps_Up / Down	2 / 1	How many timeframes up/down to project.
Use_M30	false	Include M30 in the timeframe chain.

AI Brief Panel

INPUT	DEFAULT	WHAT IT DOES
AI_Brief_Enable	true	Show the on-chart brief panel.
AI_AutoRefresh_Secs	300	Panel refresh interval.
AI_Watchlist_Enable	false	Scan a list of symbols (opt-in).
AI_Brief_FileExport / AI_CSV_Export_Enable	false	Write the brief / CSV data to files (opt-in; encrypted in the release build).
AI_TF1 .. TF4	M15/H1/H4/D1	The four timeframes the watchlist scans.

Other groups – Interface / Buttons, On-Screen Info, Fair Value Gap, Order Block, Fibonacci & StdDev, Structure colors, Alerts – are mostly appearance and on/off toggles with sensible defaults.

Suggested workflow

1. Set the trend context from the trend label and the MTF overlay.
2. Watch structure: is the last event a BoS (continuation) or a CHoCH (possible reversal)?
3. Let the Liquidity Engine score the setup. In Conservative mode, act only on setups aligned with the HTF.

4. For pullback entries, wait for the Strategy C zone and its iCHoCH confirmation.
 5. Use HVN zones and FVG/OB for stop and target reference. Manage your own risk.
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FAQ

Does it repaint?

Structure, breaks and imbalances are evaluated on closed bars. As with all structure tools, the most recent, still-forming bar can change until it closes.

Which symbols and timeframes?

Any. Adjust swing sensitivity per symbol/TF with ATR+/ATR-.

It feels heavy on my terminal.

The heaviest optional features — watchlist scan, file/CSV export — are off by default. Reduce MaxBars and profile resolution if needed, and keep unused layers toggled off.

Does it trade or send my data anywhere?

No. It is an on-chart analysis tool with no trading and no network use.

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Disclaimer & support

This indicator is an analysis and charting tool for educational use. It does not place trades and does not promise profits. Trading involves risk; the past behavior of any pattern does not guarantee future results. Test on a demo account and use your own risk management.

Support: via the product page on the MQL5 Market. © StructEdge.