ApexRegimeEA — Strategy & User Guide

c. 2026, Forex-Station | MetaTrader 5 (MQL5) Standalone EA | Version 1.00 | XAUUSD

1. What ApexRegimeEA Does

ApexRegimeEA is a standalone single-file MetaTrader 5 Expert Advisor built around multi-timeframe market regime detection, 20/30-bar swing-box structure, multi-indicator momentum confirmation, and a 5-stage step-trailing profit ladder. Instead of applying one rigid trigger to every market condition, the EA evaluates live mid-candle price action across M5, M15, H1, H4, and D1 to match each setup to the current volatility and trend regime.

- **Files included:** ApexRegimeEA.mq5 (editable MQL5 source), ApexRegimeEA.ex5 (compiled MT5 binary), and ApexRegimeEA.set (MT5 input preset).
- **Primary market & charts:** Calibrated for XAUUSD (Gold) on M15 and M5, with automatic timeframe profile scaling.
- **One-trade safety by default:** Only one open position at a time per chart/magic number (inp_BlockNewOnActive = true), protected by broker Stop Loss, New-Day close, Max-Age expiry, TP1–TP5 trailing, and optional Profit Lock.

2. Quick-Start Installation in MetaTrader 5

- **Step 1 — Open MT5 Data Folder:** In MetaTrader 5, click File -> Open Data Folder.
- **Step 2 — Copy EA files:** Paste ApexRegimeEA.ex5 (and optionally ApexRegimeEA.mq5) into MQL5\Experts\.
- **Step 3 — Copy preset (.set):** Paste ApexRegimeEA.set into MQL5\Profiles\Tester\ (or anywhere convenient to load manually from the Inputs tab).
- **Step 4 — Refresh Navigator:** Right-click Expert Advisors in the MT5 Navigator panel and click Refresh.
- **Step 5 — Attach to Chart:** Open an XAUUSD M5 or M15 chart, drag ApexRegimeEA onto the chart, enable Allow Algo Trading in both the EA Common tab and top MT5 toolbar, and optionally click Load to apply ApexRegimeEA.set.
- **Step 6 — Verify Initialization:** Check the Experts tab in MT5 Terminal for: [OK] ApexRegimeEA v1.0 MID-CANDLE | XAUUSD ...

3. Automatic Timeframe Scaling

When attached to a chart, ResolveProfile() automatically adjusts EMA lengths, Wilder ATR/DMI periods, minimum bar cooldown between trades, and default trade expiry age:

Chart Timeframe	Chart EMAs	ATR / DMI Period	Balanced Cooldown	Default Max Age (inp_MaxAgeBars = 0)
<= M5 (e.g., M5)	13 / 34 / 89	14 / 14	4 bars (20 min)	48 bars (4 hours)
M15 / M30	21 / 55 / 144	18 / 18	3 bars (45 min on M15)	32 bars (8 hours on M15)
>= H1 (e.g., H1)	34 / 89 / 233	21 / 21	2 bars (2 hours on H1)	24 bars (24 hours)

Logic Mode effect: Logic Mode overrides cooldown and score strictness: Fast uses a 1-bar cooldown (min score 6.2) with 0.90x ATR SL factor; Balanced uses the table cooldown (min score 7.0) with 1.00x ATR SL factor; Strict enforces max(4, baseCooldown + 1) bars (min score 7.8) with 1.08x ATR SL factor.

4. Market Regimes & Trade Setups

4.1 Four-State Market Regime Classifier

Every tick updates Wilder RMA ATR & ADX on both the chart timeframe and H1, then classifies market structure into one of four states:

Regime	How It Is Detected	Role in Strategy
EXPANSION	ATR/Avg50 >= 1.45 and Wilder ADX >= AdxThresh - 0.5.	High volatility expansion; blocks mean-reversion Sweep Reclaims and favors momentum Breakouts.
TREND	Wilder ADX in [21.9..37.5], controlled ATR ratios, aligned EMAs, H1 Wilder ADX >= 18.5, H4 ADX <= 37.1.	Unlocks Pullback Continuation and Strong Trend Continuation, plus +0.85 to +1.40 setup score boosts.
TRANSITION	Wilder ADX >= inp_AdxThresh (19.0 default) or ATR/Avg50 >= 1.44 without full TREND alignment.	Directional transition; permits Breakout Retests and high-confluence Sweeps.
CHOP	Lower directional ADX (< inp_AdxThresh) and non-expanding ATR.	Range environment; favors Sweep Reclaim, deep Failed Break Reversal, and wick-rejection Pullbacks.

4.2 Entry Setups & 0–10 Scoring System

Both BUY and SELL directions are evaluated mid-candle. Each valid setup receives a quantized score from 0.00 to 10.00 (graded A+ >= 8.50, A >= 7.50, B >= 6.50, C < 6.50) and only executes if it meets EffectiveMinScore():

Setup Name	Core Trigger Logic	MTF / Filter Confirmation
Breakout Retest	Price breaks above 30-bar high / below 30-bar low while touching/opening near the 20-bar box edge.	Bar[0] open & Bar[1] close near level, body >= inp_MinBody, D1 Open & Prev Close alignment, ADX/DI/RSI/MACD/M5 & H1 confirmation.
Sweep Reclaim	Forming bar wicks beyond 20-bar high/low (>= inp_WickReject) with Bar[1] inside box and snaps back inside.	Only in CHOP/TRANSITION; body <= 0.45 range, ADX <= 36.5, counter-DI pressure, H1 EMA filter, distance to EMA21 within cap.
Failed Break Reversal	Forming bar sweeps beyond 20-bar level with large rejection wick, then reverses against open.	Bar[0] & Bar[1] inside box, modest Bar[1] body, ADX >= 19.5 (CHOP requires deeper extension from EMA21).
Pullback Continuation	EMA21/55/144 aligned trend pulls back near EMA21 inside the 20-bar box and resumes.	TREND regime (with Bar[1] pullback & H1 confirmation) OR low-ADX CHOP wick rejection right through EMA21.
Strong Trend Cont.	High-momentum 30-bar breakout during aligned M15+H1 TREND.	Requires body >= 0.80 range, move >= 0.85x ATR, strong M15/H1 DI & RSI momentum, and EMA extension >= 2.5x ATR.

5. Risk Management, TP1–TP5 Ladder & Profit Lock

- **Position Sizing:** Uses fixed inp_LotSize (0.10 default), OR dynamic step lots if inp_UseAutoLot = true: floor(Balance / inp_AutoLotBalance) * inp_AutoLotStep, clamped to broker min/max/step limits.
- **Stop Loss (SL_HYBRID_MAX default):** Takes the wider of ATR Stop (ATR * 1.25 * logicFactor) and 20-bar Structure Stop (distance to swing high/low + 0.18 * ATR, or 2.05 * ATR on Breakouts/Strong Trends), clamped between MinSLAtr (0.45x) and MaxSLAtr (2.80x).
- **Dynamic 5-Tier TP Ladder (TP_DYNAMIC_LADDER):** Computes TP1..TP5 at multipliers [1.3, 2.1, 3.1, 4.4, 5.9] * setupBase * gradeMult * sessMult * SL (with dedicated [0.767..2.990] factors for Strong Trend; or fixed R-multiples if TP_FIXED_R is selected).
- **Automated Step-Trailing:** TP1 logs milestone; TP2 moves SL to Breakeven (Entry); TP3 trails SL to TP1; TP4 trails SL to TP2; TP5 closes full position ([WIN] TP ALL HIT).
- **Time Exits:** If inp_ClearOnNewDay = true, open positions close at day rollover; positions also expire after EffectiveMaxAge() bars.

IMPORTANT: Read This Before Running Default Profit Lock Live!

What Profit Lock does: With default settings (inp_MinProfitLockPts = 10.0, inp_ProfitRetracePC = 10.0), as soon as a Gold trade moves +$0.10 (10 points) in your favor, a tiny 10% pullback (~$0.01 to $0.03) immediately closes the position.

Why MT5 'Every tick' (Model 0) shows ~98% win rate: MT5's Every tick (Model 0) mode interpolates smooth synthetic ticks inside historical bars, letting almost every trade hit +$0.10 and lock small wins before reversing (+$13,193.80 on Q1 2026 M5; +$45,091.58 over 2025.01.16–2026.11.27 from $1,000). Real markets and 1-minute OHLC jumps gap right over a $0.02 trigger.

Recommended settings for Live / Prop / Realistic Testing: Either set inp_MinProfitLockPts = 0 (disables micro-lock so trades follow the TP1–TP5 trailing ladder cleanly: +$2,111.00 / PF 1.06 on M5 Q1 2026; near-breakeven -$820.80 / PF 0.99 across full 2025.01.16–2026.11.27 on M5) OR widen it to realistic Gold levels such as inp_MinProfitLockPts = 200 to 350 ($2.00–$3.50 move) with inp_ProfitRetracePC = 25 to 35%.

6. Input Parameters Reference

Parameter	Default	Description
inp_LogicMode	Balanced (1)	Fast (0), Balanced (1), Strict (2) — scales cooldown, min score, and ATR SL factor.
inp_BlockNewOnActive	true	Prevents opening a second trade while an EA position is already open.
inp_MinScoreFast / Bal / Str	6.2 / 7.0 / 7.8	Minimum 0–10 confluence score required for Fast / Balanced / Strict mode.
inp_MinBody	0.42	Minimum |Close - Open| / (High - Low) body ratio for Breakout Retests.
inp_HugeCandleAtr	1.65	Blocks entries if live candle range exceeds (inp_HugeCandleAtr + 0.65) * ATR.
inp_MaxMeanDistAtr	1.85	Maximum distance (xATR) from EMA21 allowed for mean-reversion entries.

Parameter	Default	Description
inp_AdxThresh	19.0	Wilder ADX threshold separating CHOP from TRANSITION / TREND / EXPANSION.
inp_WickReject	1.15	Minimum rejection wick-to-body ratio for Sweep Reclaim & Failed Break.
inp_UseSession	true	Enables session window (07:00–17:00 server time) scaling for TP & scores.
inp_SLMode / inp_TPMode	Hybrid Max / Dyn Ladder	Stop Loss mode (ATR / Structure / Hybrid Max) and TP mode (Dynamic Ladder / Fixed R).
inp_SLAtrMult / StructBuffer	1.25 / 0.18	ATR stop multiplier and extra structure buffer around 20-bar high/low.
inp_MinSLAtr / MaxSLAtr	0.45 / 2.80	Lower and upper Stop Loss clamp in multiples of ATR.
inp_TP1R .. inp_TP5R	1.0, 2.0, 3.5, 4.2, 5.0	R-multiples used when inp_TPMode = Fixed R-Multiples.
inp_SameBarPriority	SL First (0)	Conservative SL-first vs optimistic TP-first check during manage loop.
inp_LotSize / UseAutoLot	0.10 / false	Fixed lot size, or step auto-lot based on Balance / AutoLotBalance * AutoLotStep.
inp_Slippage / Magic / Comm	30 / 20241201 / APEX	Max slippage in points, EA magic number, and trade comment prefix.
inp_ClearOnNewDay / MaxAge	true / 0	Close open trade on day rollover; max holding bars (0 = auto by timeframe profile).
inp_MinProfitLockPts / Retrace%	10.0 / 10.0	Profit lock trigger in points and pullback % to close (set 0 to disable; widen for live trading).
inp_DarkChart	true	Applies clean dark candle/background theme on live charts (skipped in Tester).

7. How to Run Strategy Tester Backtests ("Model 0" Explained)

In MetaTrader 5 logs, scripts, and this guide, Strategy Tester modeling modes are sometimes called Model 0–4. The MT5 screen displays text names instead of numbers — so when someone says "Model 0", choose Every tick in the Modeling dropdown:

MT5 Modeling Dropdown	Internal ID	What It Does
Every tick	Model 0	Generates simulated ticks inside each 1-minute bar. Used to reproduce the Q1 (+$13,193.80) and 2025–2026 (+$45,091.58) curves.
1 minute OHLC	Model 1	Uses only Open, High, Low, Close prices per 1-minute bar. Fast, harsh stress test with no synthetic intra-minute bounces.
Open prices only	Model 2	Evaluates bar opens only; inaccurate for ApexRegimeEA because entries and trailing run mid-candle.
Math calculations	Model 3	Runs mathematical formulas without price ticks (not used for standard chart EA backtesting).

MT5 Modeling Dropdown	Internal ID	What It Does
Every tick based on real ticks	Model 4	Uses genuine historical broker tick records. Most realistic offline test when your broker supplies 100% real ticks.

Click-by-Click MT5 Steps to Run "Model 0" (Every Tick)

- **Step 1 — Open Strategy Tester:** In MetaTrader 5 press Ctrl+R (or click View -> Strategy Tester), then click the Single tile to run one test.
- **Step 2 — Configure Settings Tab:** Select Expert = ApexRegimeEA.ex5, Symbol = XAUUSD (or your broker's Gold symbol such as XAUUSDm/GOLD), Timeframe = M5, Date = Custom period (e.g., 2026.01.01–2026.03.31 or 2025.01.16–2026.11.28), Forward = No, Delays = Zero latency / No delay.
- **Step 3 — Set Modeling to Every tick (Model 0):** In the Modeling dropdown select **Every tick**.
- Set Deposit = 1000 USD, Leverage = 1:100, and Optimization = Disabled.
- **Step 4 — Verify Inputs Tab:** Click Inputs, right-click anywhere inside the table, and select Defaults (or click Load and pick ApexRegimeEA.set so inp_MinProfitLockPts = 10.0 and inp_ProfitRetracePC = 10.0).
- **Step 5 — Start & Compare:** Click the green Start button and view Graph / Backtest. Always compare against Every tick based on real ticks or 1 minute OHLC (with inp_MinProfitLockPts = 0) before trading live.

8. Verified Strategy Tester Benchmarks (XAUUSD)

Below are actual Strategy Tester runs verified on ApexRegimeEA.ex5 across Q1 2026 and the extended 22.5-month window (2025.01.16–2026.11.28, 99% history quality, 1:100 leverage, 0.10 lots):

Test Window & TF	MT5 Modeling / Preset	Trades	Win Rate	Net Profit	PF	Max Eq DD
M5 (2026.01.01–03.31) $1k	Every tick (Model 0) — Default	691	98.26%	+$13,193.80	13.19	2.40% ($209.70)
M5 (2026.01.01–03.31) $10k	1m OHLC (Model 1) — Default Lock	594	49.66%	-$9,651.50	0.37	96.52%
M5 (2026.01.01–03.31) $10k	1m OHLC (Model 1) — Lock=99999	411	45.01%	+$2,111.00	1.06	34.50%
M5 (2025.01.16–2026.11.27) $1k	Every tick (Model 0) — Default	5,450	95.54%	+$45,091.58	4.50	2.85% ($847.06)
M5 (2025.01.16–02.06*) $1k	1m OHLC (Model 1) — Default Lock	189	51.85%	-$716.90	0.32	71.89% ($723.90)

Test Window & TF	MT5 Modeling / Preset	Trades	Win Rate	Net Profit	PF	Max Eq DD
M5 (2025.01.16–07.14*) $10k	1m OHLC (Model 1) — Default Lock	1,415	51.38%	-$9,690.96	0.33	96.91% ($9,697.96)
M5 (2025.01.16–2026.11.27) $10k	1m OHLC (Model 1) — Lock=0	3,199	46.01%	-$820.80	0.99	67.80% ($11,571.98)
M15 (2025.01.16–2026.11.27) $10k	1m OHLC (Model 1) — Lock=0	1,550	47.23%	-$884.82	0.99	77.23% ($10,790.64)

*Under 1 minute OHLC (Model 1) with the tight Default Lock (10.0 pts), the $1,000 test stopped on 2025.02.06 and the $10,000 test stopped on 2025.07.14 due to free-margin exhaustion. In the Every tick (Model 0) 22.5-month run, net profit was +$13,187.14 in 2025 (2,866 trades) and +$31,904.44 in 2026 (2,584 trades).

Summary Recommendation for Friends

1. Demo / Forward Test First: Always test on a demo account with your broker's real spread & slippage before risking live capital.

2. Understand Every tick vs Real Ticks: To reproduce the synthetic Model 0 curves (+$13,193.80 over Q1 2026; + $45,091.58 over 2025–2026), MT5 Strategy Tester Modeling must be set to Every tick on $1,000 (1:100) using ApexRegimeEA.set. Before live trading, test on Every tick based on real ticks or 1 minute OHLC with inp_MinProfitLockPts = 0 (or 200+ points) and conservative lot sizing (0.01–0.05 per $1,000).