

■ RooiKat Apex

The Complete Optimization Guide

How to configure, optimize, and deploy RooiKat Apex on MetaTrader 5 for maximum risk-adjusted performance

Inside This Guide:

- MT5 Strategy Tester setup from scratch
- Setting up the Custom fitness function correctly
- Recommended parameter ranges (gold and other pairs)
- Interpreting results: what to look for and what to ignore
- Risk settings for live accounts and prop firms
- Common mistakes that silently kill your backtest
- VPS setup checklist

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CHAPTER 1

Before You Optimize

The difference between traders who profit from optimization and those who don't comes down to understanding what optimization actually does.

■ New to this? Start here.

Optimization just means: testing lots of different setting combinations against past price data to find ones that would have worked well and consistently. Think of it like adjusting the recipe for a dish by trying small variations until you find the version people like best — except here, the 'taste tests' are thousands of simulated trades on historical data instead of real trades on your account. No trading or coding background is assumed anywhere in this guide.

What Optimization Is — and What It Isn't

Optimization finds the parameter combination that performed best on historical data. That's it. It does not predict the future. A strategy that returned 400% from 2020–2024 with a specific parameter set is not guaranteed to repeat those results going forward — especially if those parameters were cherry-picked from thousands of combinations.

The goal of optimization with RooiKat Apex is to find parameter regions that are **robust** — where performance is consistent across a range of values, not just a single lucky spike.

■■ Overfitting is the #1 killer

If you find a parameter set that shows 95%+ profit factor and near-zero drawdown on 2 years of data, be very suspicious. Real edge rarely looks that clean. You're likely looking at a curve-fitted result that will collapse the moment it hits live conditions.

Prerequisites

- **MetaTrader 5** installed with RooiKat Apex in your Expert Advisors folder
- **Hedging-mode account** — optimization runs will fail on netting accounts
- **Price history for your symbol** — download at least 3 years for meaningful results (Tools → History Center). Gold (XAUUSD) is used as the example throughout this guide, but the same process applies to any symbol.
- **Tick data quality** — set to 'Real ticks' or 'Open prices only' depending on your goal (see Chapter 2)
- **Sufficient RAM** — optimization with real ticks is CPU/RAM intensive; 8GB minimum, 16GB recommended

■ Download History First

Go to Tools → History Center in MT5, select your trading symbol (e.g. XAUUSD, EURUSD, or whichever pair you're testing), and download all available timeframes before running any backtest. Missing data causes gaps that silently distort results.

CHAPTER 2

MT5 Strategy Tester Setup

Getting the environment right before you run a single bar of data.

Opening Strategy Tester

Go to **View** → **Strategy Tester** (or press Ctrl+R). The Tester panel appears at the bottom of your MT5 terminal. You'll configure it in the Settings tab before running anything.

Critical Settings

Parameter	Recommended Range	Notes
Expert Advisor	RooiKat Apex	Select from the EA dropdown
Symbol	Your chosen symbol	e.g. XAUUSD (Gold), EURUSD, or any liquid pair — RooiKat Apex adapts to whichever you select
Timeframe	PERIOD_CURRENT	Match what you'll use in live trading
Date Range	3–5 years	Minimum 3 years — more data = more reliable
Modelling	Every tick based on real ticks	Most accurate; use 'Open prices only' for fast parameter sweeps
Deposit	Match your live account	Critical — lot sizing math depends on this
Currency	USD	Match your account currency
Leverage	Match your broker	Affects margin and position sizing
Optimization	Slow complete algorithm	Covers all combinations; use Genetic for large param spaces

■■ Modelling Mode Matters

'Every tick' gives the most accurate results but is 10–50x slower than 'Open prices only'. Use 'Open prices only' for initial parameter sweeps to find the interesting regions, then re-run with 'Every tick' on your shortlisted parameter sets to validate.

Broker Spread Settings

In the Settings tab, you can set a fixed spread or use current spread. Always test with a **realistic spread** for your broker and symbol. Spreads vary by symbol — for example, XAUUSD (Gold) often runs 15–35 points during London session, while major forex pairs are usually tighter. Check your broker's typical

spread for whichever symbol you're testing. Testing with an unrealistically tight spread and then trading on a wider live spread will make your live results significantly worse than your backtest.

CHAPTER 3

The Custom Fitness Function

This single setting is the most important change you will make. Most traders get it wrong.

■■ CRITICAL — Read This First

RooiKat Apex contains a custom OnTester() fitness function built to score results on risk-adjusted returns — not raw profit. This function ONLY executes when the optimization criterion is set to 'Custom max'. If you optimize by 'Profit Factor max' or any other built-in criterion, OnTester() is completely ignored and you will get misleading, unreliable optimization results.

How to Enable Custom Max

1. Open Strategy Tester (Ctrl+R)
2. Go to the **Settings** tab
3. Find the **Optimization** dropdown (bottom of the settings panel)
4. Change it from 'Profit Factor max' to '**Custom max**'
5. Confirm the setting is saved before running

■ How to Verify It's Working

After an optimization run, open the Optimization Results tab. If OnTester() is executing correctly, the 'Result' column will show values that do NOT look like profit numbers (e.g., not 1250.00 or 3.44). You'll see the custom fitness score — a composite risk-adjusted number. If the Result column shows standard profit figures, Custom max was not active.

What the Custom Fitness Scores

The OnTester() function in RooiKat Apex weighs the following factors to produce a single composite score. Higher score = better risk-adjusted outcome:

- **Profit factor** — gross profit divided by gross loss
- **Recovery factor** — net profit divided by max drawdown
- **Drawdown penalty** — heavy penalty applied when drawdown exceeds 15%
- **Win rate weighting** — consistent win rates are rewarded over high-variance streaks
- **Trade count floor** — runs with too few trades are penalised (not statistically meaningful)

CHAPTER 4

Parameter Ranges & Optimization Pass

What to optimize, what ranges to use, and how to structure your passes.

Two-Pass Optimization Strategy

Running one massive optimization across all parameters simultaneously is inefficient and produces worse results. Use a two-pass approach:

Pass 1 (Wide Sweep): Use 'Open prices only'. Set wide ranges with large steps. Goal is to identify which parameter regions perform well — not to find the exact best value. Pass 2 (Fine Tune): Use 'Every tick'. Narrow the ranges around the best regions from Pass 1 with smaller steps. This is your final validated result.

Core Parameters — Recommended Ranges

Parameter	Recommended Range	Notes
Indicator Weights (Core1–Core10_Weight)	0.5 to 2.0 Step: 0.5	Controls each indicator's voting influence. Start by optimizing the top 3–4 weights and keeping others at 1.0
Entry Confidence Threshold	55 to 80 Step: 5	Minimum regime score to open a trade. Higher = fewer but higher quality entries
DCA ATR Multiplier	0.8 to 2.5 Step: 0.3	Controls spacing between DCA legs. Wider spacing = more room but deeper drawdown per leg
Max DCA Legs	2 to 6 Step: 1	More legs = more recovery power but higher margin requirement
TP ATR Multiplier	1.0 to 3.5 Step: 0.5	Take profit distance in ATR multiples. Too tight = low reward/risk; too wide = low win rate
Soft Stop ATR Multiplier	2.0 to 5.0 Step: 0.5	Basket-level soft stop. Must be wider than your DCA spacing to avoid stopping out before legs fill
Lot Size Base (% risk)	0.5 to 2.0 Step: 0.25	Starting risk per trade as account %. Keep below 1% for conservative accounts
Confidence Scale Factor	0.5 to 2.0 Step: 0.25	How aggressively lot size scales with confidence score. Higher = bigger position on strong signals

■ ■ Don't Optimize Everything at Once

Optimizing all 8 parameters simultaneously creates millions of combinations and takes days. Group related parameters (e.g., entry logic first, then position sizing, then stops) and optimize each group separately. Freeze well-performing values before moving to the next group.

CHAPTER 5

Reading Your Results

What a good optimization result looks like — and the red flags that signal curve-fitting.

The Optimization Results Tab

After the run completes, click the **Optimization Results** tab. Sort by the Result column (your custom fitness score). Before selecting a parameter set, look at the 3D graph — look for a smooth plateau, not a sharp isolated spike.

What Good Results Look Like

Parameter	Recommended Range	Notes
Profit Factor	> 1.4	Minimum threshold. Below 1.3 is not worth pursuing.
Recovery Factor	> 2.0	Net profit / max drawdown. Higher is better.
Max Drawdown	< 20%	Ideally under 15% for live trading comfort.
Win Rate	45–65%	DCA strategies can profit with lower win rates due to basket management.
Trade Count	> 150 trades	Fewer trades = less statistical confidence in the result.
Consecutive Losses	< 8	Long losing streaks stress your psychology and margin.

Red Flags — Reject These Results

- **Isolated spike on the 3D graph** — performance collapses on either side of the best value. This is curve-fitting.
- **Profit Factor above 3.0 on any single symbol** — almost always overfit. Real market edge rarely looks this clean over 3+ years.
- **Max drawdown under 3%** with high profit — the test period likely didn't include a meaningful adverse move.
- **Under 80 trades in 3 years** — not enough data to draw statistical conclusions.
- **All profit in one 6-month period** — check the equity curve for consistency across the full date range.

■ Always Check the Equity Curve

Click any result row in the Optimization Results tab and then switch to the Graph tab. A healthy equity curve climbs consistently with manageable pullbacks. A curve that flatlines for 18 months and then spikes in the last 6 means the strategy only worked recently.

CHAPTER 6

Risk Settings for Live Trading

Configuration recommendations for personal accounts. Prop firm settings are covered in Chapter 7.

Starting Conservative

The first 30 days on a live account are a validation phase, not a profit phase. The goal is to confirm that your backtest results translate to live conditions with your specific broker. Start smaller than you think you need to.

Recommended Starting Settings

Parameter	Recommended Range	Notes
Risk Per Trade	0.5–1%	Start at 0.5%. Scale up only after 60+ live trades confirm edge.
Max DCA Legs (Live)	3	Restrict to 3 legs for the first month. Expand to full setting after validation.
Daily Loss Limit	2–3%	If account drops 2–3% in a day, EA stops. Reset only after reviewing the session.
Total Drawdown Limit	8–12%	Hard stop on the account. Forces a manual review before re-enabling.
Equity Floor	85–90% of starting balance	Absolute floor. EA ceases all activity if breached.
Consecutive Loss Pause	4–5 losses	Pauses after 4 consecutive losses. Resumes after manual reset.
Session Filter	London + NY	Start with the two most liquid sessions before enabling Asian.
Spread Filter	Off (initially)	Enable if your broker has wide spreads during news events.

■ Scale Up Methodically

Double your risk only after: (1) 60+ live trades at the current risk level, (2) live drawdown stayed within 60% of your backtest drawdown, and (3) profit factor over those 60 trades is above 1.3. If any condition fails, stay at current risk or reduce further.

CHAPTER 7

Prop Firm Configuration

Running RooiKat Apex on a funded account requires precise kill switch calibration.

■■ Forward Test First — Always

Before running RooiKat Apex on any funded/prop firm account, run it on a demo account with the exact same kill switch settings as your prop firm rules for a minimum of 4 weeks. DCA basket drawdown during adverse moves can breach prop firm limits before the basket recovers. Know this behaviour before it costs you a challenge fee.

Common Prop Firm Rules → Apex Settings

Parameter	Recommended Range	Notes
Daily Loss Limit (5%)	Set Daily Loss Limit to 4%	Keep a 1% buffer below the firm's limit to account for swap and spread costs.
Max Drawdown (10%)	Set Total Drawdown Limit to 8%	2% buffer handles intra-day basket drawdown before a leg closes.
Equity Floor (90%)	Set Equity Floor to 91%	Give yourself a 1% cushion above the prop firm's hard floor.
No news trading rule	Enable News Filter	Set filter to block trades 30 min before/after high-impact events.
Max open positions	Set Max DCA Legs accordingly	If prop firm limits to 3 positions, set Max DCA Legs to 2 (plus 1 for base entry).
No overnight holding	Enable session filter	Close all positions before session end if firm requires flat overnight.

Disabling Prop Guards for Backtesting

When optimizing, disable the prop firm guards (set drawdown limits to 0 or very high, disable equity floor). This allows the optimizer to see the strategy's full range of behaviour without the guards terminating runs prematurely. Once you've identified the best parameter set, re-enable the guards and run a final validation backtest.

CHAPTER 8

VPS Deployment Checklist

Going from backtest to 24/7 live trading in one session.

Why a VPS Is Non-Negotiable

RooiKat Apex trades the London open (typically 3–4am SAST), the New York open, and optionally the Asian session. Running it on your PC means missed trades every time your computer sleeps, updates, or loses internet. A VPS solves all of this.

VPS Requirements

Parameter	Recommended Range	Notes
OS	Windows Server 2019 or 2022	MT5 runs best on Windows
RAM	4GB minimum / 8GB recommended	2GB for MT5 + overhead
CPU	2 vCPUs minimum	4 vCPUs if running multiple charts
Storage	60GB SSD	Tick data history takes space
Location	Closest to your broker's server	Lower latency = faster order execution
Uptime SLA	99.9%+	Anything less risks missed trades during key sessions
Monthly cost	\$10–\$30 USD	MQL5 VPS, Vultr, Contabo, or similar

Deployment Checklist

- Install MetaTrader 5 on the VPS and log in to your broker account
- Download the full price history for your chosen symbol (Tools → History Center)
- Copy RooiKat Apex from MT5 Marketplace under Tools → Market → My Products
- Open a chart for your chosen symbol at your chosen timeframe
- Drag RooiKat Apex onto the chart and configure your settings
- Enable AutoTrading (green play button in MT5 toolbar)
- Confirm the EA smiley face is visible in the top-right of the chart
- Leave the chart running — do not close MT5
- Set Windows power settings to 'High Performance' and disable sleep mode

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- Check in after the first London session to confirm trades are executing

CHAPTER 9

Common Mistakes

The errors that silently destroy optimization runs — and how to avoid every one of them.

X Using 'Profit Factor max' instead of 'Custom max'

OnTester() doesn't execute. You're optimizing on raw P&L; with no risk weighting. Results will be overfit and misleading. Always use Custom max.

X Optimizing on less than 2 years of data

Short data sets don't include full market cycles — bull runs, corrections, sideways periods, high volatility events. Your 'winning' parameters may only work in one specific regime.

X Not downloading tick history before running

Missing data creates phantom gaps that cause the tester to skip entire periods. Always download the full price history for your chosen symbol before any optimization run.

X Cherry-picking the single best result

The highest-scoring result from any optimization is almost always overfit. Look for parameter clusters where multiple nearby combinations all perform well. That is genuine robust edge.

X Testing with unrealistic spreads

Optimizing with 5-point spreads and trading live on a 30-point spread broker will make every result look worse than expected. Always match the spread to your live broker's actual conditions.

X Not disabling prop guards during optimization

If your daily loss limit is 2%, the optimizer terminates every run that hits 2% drawdown before parameter differences have time to express themselves. Disable risk guards for optimization runs; re-enable for final validation.

X Enabling all 10 indicator weights in one pass

Too many free variables = exponential combination count + guaranteed overfitting. Fix 6–7 weights at 1.0, optimize 3–4 at a time. Rotate groups systematically.

X Skipping forward testing

Your optimized parameters were tuned on historical data. Forward testing on a demo for 4+ weeks on out-of-sample data is the only honest validation before going live.

Ready to put these settings to work?

Get RooiKat Apex on the MT5 Marketplace and start your first optimization run today.

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Glossary

Every technical term in this guide, explained simply

This guide assumes you already know your way around MT5's basics. If a term below feels new, this is the fast reference — no need to read it top to bottom.

Backtest	Running an EA against historical price data to see how it would have performed, without risking real money.
Optimization	Running many backtests automatically across a range of parameter values to find combinations that perform well.
Strategy Tester	MT5's built-in tool for running backtests and optimizations (View → Strategy Tester, or Ctrl+R).
Fitness function / OnTester()	The formula that scores each optimization run so results can be ranked. RooiKat Apex uses a custom risk-adjusted one instead of MT5's default raw-profit scoring.
Parameter	A setting inside the EA — for example, how wide a stop-loss is, or how many DCA legs are allowed.
Profit Factor	Gross profit divided by gross loss. Above 1.0 means the strategy made more than it lost; higher is generally better, but see Chapter 5 for what's suspiciously high.
Recovery Factor	Net profit divided by maximum drawdown — a measure of how efficiently profit was made relative to the pain endured to get it.
Drawdown	How far account equity has fallen from its most recent peak, usually shown as a percentage.
Overfitting / Curve-fitting	When a parameter set is tuned so precisely to past data that it captures random noise rather than real market behaviour — it looks great in testing and fails live.
Tick data	The record of every individual price change. 'Every tick' modelling is the most accurate but slowest backtest mode.
Spread	The gap between a symbol's buy and sell price — an implicit cost on every trade.
Equity curve	A graph of account balance over time. A healthy one climbs steadily; a suspicious one flatlines then spikes.

Kill switch

An automatic rule that halts trading when a risk limit — daily loss, total drawdown, equity floor — is breached.

VPS (Virtual Private Server)

A remote always-on computer that runs MT5 continuously, so trades execute even when your own PC is off.

Forward test

Running a strategy on new, unseen data going forward in time (typically on a demo account) as a final check before going live.