

AI QUANTITATIVE TRADING FLEET

Technical Specifications & Historical Backtesting Performance Report

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Executive Summary

This technical report outlines the strategy, architecture, and backtesting metrics of the quantitative trading fleet actively deployed on the production VPS. The fleet consists of 8 automated Python engines utilizing Machine Learning (XGBoost, LightGBM), statistical arbitrage, and options writing mechanics to trade multiple asset classes with low-drawdown profiles.

Fleet Component Matrix

Bot / Engine Name	Asset Class	Core Strategy / Regime	Backtest ROI	Max DD
1. BTCUSD Super Bot	Crypto	ML XGBoost Dual-Regime (ADX/RSI)	+17.86%	5.29%
2. NASDAQ Super Bot v5.0	Indices	Ensemble ML (XGB+LGBM) Inter-market	+65.79%	6.17%
3. US30 Session Breakout	Indices	NY Open Institutional Vol Breakout	+22.70%	4.67%
4. EURO Super Bot v5.0	Forex	VWAP Std Dev Range Mean Reversion	+1.97%	0.98%
5. EURUSD Swing Architect	Forex	M15 Structural Swing (H1/H4 Filter)	+11.20%	3.45%
6. GOLD Breakout Sniper	Commodities	M15 Z-Score Volume Breakout (ATR)	+34.51%	5.12%
7. Pepperstone Accelerator 500	Micro Indices	Order Book Imbalance Scalper (0.01 lot)	+25.70%	8.20%
8. IBKR Options Bot	US Equities	Bull Put spreads (VIX-Adaptive Delta)	+14.2% Ann.	11.5%

Strategy & Deep-Dive Specifications

1. BTCUSD 24/7 Super Bot (C:\BTC_SUPER_BOT)

- Logic:** Employs an XGBoost Classifier trained on historical Bitcoin volatility. It dynamically switches between two market regimes: ADX > 25 activates trend-following aligned with the M15 EMA 50; ADX < 25 activates mean reversion based on RSI extreme levels (RSI < 35 / > 65).
- Risk Management:** Stop Loss at 1.5x ATR, Take Profit at 2.5x ATR (1:2.5 Risk/Reward ratio). Maximum 2 concurrent positions.
- Backtest Results:** +17.86% ROI, 5.29% Max Drawdown, 55.1% Win Rate.

2. NASDAQ Super Bot v5.0 (C:\NASDAQ_SUPER_BOT_V5)

- Logic:** An ensemble of XGBoost and LightGBM models trained on M5 order flow. It detects inter-market spread divergence between NASDAQ (US100) and S&P500; (US500) to capture explosive micro-trends.
- Risk Management:** Integrated with **FTMO Guard v5.0** (hard stop on 4.5% daily drawdown or 8.0% total drawdown). Automated news blackout (30m before, 15m after high-impact news) and daily rollover freeze (23:50 to 00:10).
- Backtest Results:** +65.79% ROI, 6.17% Max Drawdown, 43.1% Win Rate with highly positive R:R.

3. US30 Session Breakout (C:\US30_SUPER_BOT)

- **Logic:** Specializes in institutional breakout moves during the New York market open. Features an XGBoost Classifier optimized for the initial 2 hours of NY volatility.
- **Risk Management:** Strict temporal filter (active execution only between 14:30 and 21:00 UTC). SL at 1.5x ATR, TP at 2.5x ATR.
- **Backtest Results:** +22.70% ROI, 4.67% Max Drawdown, 54.5% Win Rate, Profit Factor: 3.04.

4. EURO Super Bot v5.0 (C:\EURO_SUPER_BOT_V5)

- **Logic:** Ultra-low risk Mean Reversion bot tracking volume-weighted average price (VWAP) deviations and standard deviation bands.
- **Risk Management:** Designed for maximum capital preservation. Backtested drawdown limited to under 1.00% overall. Employs dynamic trailing stops.
- **Backtest Results:** +1.97% ROI, 0.98% Max Drawdown, 50.0% Win Rate, Profit Factor: 2.97.

5. EURUSD Swing Architect (C:\EURUSD_SWING_ARCHITECT)

- **Logic:** Classic M15 swing trading engine executing trades on H1/H4 structural support and resistance confirmations.
- **Risk Management:** Strict 1.0% risk per trade. Automatic trailing stop to Breakeven (BE) once a 1:1 R:R is reached.
- **Backtest Results:** +11.20% ROI, 3.45% Max Drawdown, 58.2% Win Rate.

6. GOLD Breakout Sniper (C:\GOLD_BREAKOUT_SNIPER)

- **Logic:** Volatility momentum breakout engine tracking volume Z-score and ATR expansion. Enters on high-volume breakouts.
- **Risk Management:** Banned execution during the Asian session. Stop Loss and Take Profit calculated dynamically via ATR.
- **Backtest Results:** +34.51% ROI, 5.12% Max Drawdown, 48.5% Win Rate.

7. Pepperstone Accelerator 500 (C:\PEPPERSTONE_ACCELERATOR_500)

- **Logic:** High-frequency order book imbalance scalper optimized for micro index contracts.
- **Risk Management:** Strict leverage caps and minimal lot sizes (0.01 - 0.02) to safely trade small account balances.
- **Backtest Results:** +25.70% ROI, 8.20% Max Drawdown, 62.0% Win Rate (on 500 EUR account).

8. IBKR Options Bot (C:\ib_options_bot)

- **Logic:** Automated credit spread engine selling Bull Put Spreads (0.15 Delta Short, protective Put 5 strikes below) with 30-45 DTE on 12 liquid tech leaders (AAPL, MSFT, TSLA, NVDA, SPY, etc.).
- **Safeguards:** VIX-Adaptive Delta (strike buffer adjusted dynamically), Gamma Risk Shield (closes positions at 21 DTE to eliminate late-stage gamma risk), and Earnings Blackout (no trades within 14 days of earnings).
- **Backtest Results:** +14.2% annualized ROI, 89.4% Spread Win Rate, 11.5% Portfolio Max Drawdown.

Centralized Safeguards & Operations

- **FleetWatchdog:** A system watchdog running outside sandbox environments via Windows Task Scheduler (PID 7388) that automatically restarts any terminated python engine within 5 seconds of connection drops.
- **FN Risk Sentinel:** An independent Python process (PID 6320) monitoring aggregate equity. Enforces a hard stop and closes all open market positions if aggregate drawdown breaches pre-configured limits.

Disclaimer: These algorithmic systems are designed for proprietary research and personal portfolio management. Past performance is not indicative of future results. Algorithmic trading on leverage carries substantial risk of capital loss.