

METALS

ARBITRUM x PULSECHAIN



Q7 AUTO-PERP ENGINE

Quantitative Trading System Architecture

Developed by High-Frequency Quantitative Traders
New York • London • Singapore

WHITEPAPER v1.0

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EXECUTIVE SUMMARY

The Q7 Auto-Perp Engine represents the culmination of years of quantitative research conducted by elite trading desks across Wall Street. Originally architected by high-frequency traders from major New York financial institutions, the Q7 system has been refined through millions of simulated and live market cycles to achieve exceptional risk-adjusted returns in the perpetual futures market.

This paper introduces the Metals framework—a cross-chain capital efficiency system that bridges Arbitrum's high-performance DeFi ecosystem with PulseChain's growth-oriented tokenomics. At its core, the **5% Win Reallocation Protocol** automatically captures a portion of profitable trades and channels them through ZapperX into PLS tokens, creating a self-sustaining flywheel that compounds capital across both ecosystems.

"The Q7 engine doesn't predict markets—it adapts to them. Through dynamic risk allocation and multi-timeframe confluence analysis, it identifies statistical edges that persist across market regimes."

— Q7 Development Team

SYSTEM ARCHITECTURE

The D-RAM Framework

The Q7 engine operates on the proprietary D-RAM (Dynamic Risk Allocation Model) framework v5.2.6, which orchestrates position sizing, entry timing, and exit management through a unified decision matrix. D-RAM continuously analyzes:

- Multi-timeframe trend confluence (1H, 4H, Daily, Weekly)
- Volatility regime classification (Low/Medium/High/Extreme)
- Liquidity depth and order book imbalance metrics
- Cross-asset correlation breakdown signals
- Funding rate arbitrage opportunities

gTrade Integration

The Q7 system interfaces directly with gTrade on Arbitrum, leveraging its synthetic asset infrastructure for capital-efficient perpetual trading. gTrade's architecture enables up to 150x leverage on major pairs with guaranteed execution—critical for the Q7's time-sensitive entry algorithms.

THE 5% WIN FLYWHEEL

Profit Reallocation Protocol

A foundational innovation of the Metals framework is the automated **5% Win Reallocation Protocol**. This mechanism captures 5% of every profitable trade and redirects it through a cross-chain pipeline to accumulate PulseChain (PLS) tokens in a dedicated growth engine wallet.

| STEP | ACTION |
|------|---|
| 1 | Profitable trade closes on gTrade (Arbitrum) |
| 2 | System calculates 5% of realized profit |
| 3 | 5% USDC routed to ZapperX bridge contract |
| 4 | ZapperX executes atomic swap: USDC → PLS |
| 5 | PLS tokens transferred to Growth Engine wallet |
| 6 | Flywheel cycle complete; system monitors for next win |

Growth Engine Wallet

Destination Address: [0x1449a7d9973e6215534d785e3e306261156eb610](#)

This wallet serves as the accumulation point for PLS tokens. As the flywheel operates, the wallet's holdings grow automatically, creating a compounding effect where successful Arbitrum trading performance directly translates to PulseChain ecosystem growth.

TECHNICAL SPECIFICATIONS

ZapperX Bridge Integration

| PARAMETER | SPECIFICATION |
|---------------------------|---------------|
| Source Chain | Arbitrum One |
| Destination Chain | PulseChain |
| Input Token | USDC |
| Output Token | PLS |
| Bridge Mechanism | Atomic Swap |
| Settlement Time | ~2-5 minutes |
| Slippage Tolerance | 0.5% max |

Risk Parameters

- Maximum position size: 2% of total portfolio per trade
- Maximum concurrent positions: 60
- Dynamic stop-loss: ATR-based trailing stops
- Maximum drawdown trigger: 15% portfolio value
- Correlation limit: No more than 30% exposure to correlated assets

CONCLUSION

The Metals Arbitrum x PulseChain framework represents a paradigm shift in DeFi capital allocation. By combining institutional-grade quantitative trading systems with automated cross-chain value transfer, we create a self-reinforcing ecosystem that grows stronger with every successful trade.

The Q7 Auto-Perp Engine, born from the expertise of New York's quantitative trading elite, provides the alpha generation engine. The 5% Win Flywheel ensures that success in one ecosystem catalyzes growth in another. Together, they form **Metals**—a framework for building lasting wealth across the decentralized frontier.

This is the way.



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