PHOENIXALGOS SECTOR ROTATION, VECTOR FLOW & CONTINUOUS VIDEO ENGINE

GICS 11 Relative Strength vs Personal Sleeves, Cross-Quadrant Alerts & Cloud Video Pipeline

Official Self-Help Documentation • Certified Technical Manual

1. Executive Summary & Dual Perspective Mandate

The PhoenixAlgos Sector Engine enforces a strict Dual Perspective Mandate: evaluating both Broader Market Macro Flow (GICS 11 ETFs: XLK, XLC, XLY, XLP, XLE, XLF, XLV, XLI, XLB, XLRE, XLU, plus XBI biotech and XME metals) and Personal Portfolio Sleeves (Portfolio Tech, Portfolio Biotech, etc.).

2. Phase-Space Velocity Vectors v = (ΔX, ΔY)

Sector momentum is modeled in a 2D phase space: X-coordinate measures 20-day relative strength vs SPY, and Y-coordinate measures 5-day rate-of-change momentum. Velocity vectors v = (ΔX, ΔY) reveal institutional accumulation before price peaks.

3. Four Cross-Quadrant Regimes

- Breakout Surge (0°–90°): Leading sectors accelerating with positive alpha.
- Topping Alert (90°–180°): Decelerating momentum while still in positive alpha.
- Breakdown (180°–270°): Laggards plunging with negative alpha and momentum.
- Reversal / Accumulation (270°–360°): Oversold sectors bottoming toward parity.

4. Continuous 3D Comet-Trail Video & Cloud Worker

Generates high-fps animated visuals (sector_rotation_trail.mp4/.gif). Personal portfolio sleeves are rendered as luminous golden stars (★). A headless Cloud Run worker renders videos on trading evenings at 8:00 PM ET, saving ~45 minutes of local CPU/GPU compute.