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AUTOMATION WORKFLOW



The automation edge is not forecasting precision; it is reducing reaction latency and making execution rules explicit before markets shift from continuous repricing to gapped liquidity. Under fragility, execution style is part of the thesis: passive execution preserves price but risks information leakage; aggressive execution secures immediacy but pays spread elasticity.

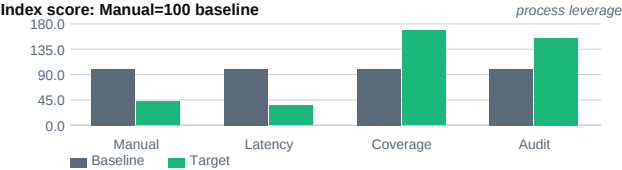
TRIGGER-CONDITION ENGINE

Signal	Trigger condition	Operational response
Rates vol	MOVE high + CPI/FOMC data window	Event gamma; payer-spread hedge
Liquidity	Spread/depth stress confirmed	Reduce clip; shift execution style
CAD squeeze	COT short + oil/BoC alignment	CAD crosses; avoid naked USD/CAD
Curve stress	2s10s speed + auction pressure	Conditional steepeners + convexity

EXECUTION SEQUENCING LOGIC

Step	Decision rule	Desk nuance
1 -- Confirm signal	Magnitude + speed + cross-asset context	Avoid single-indicator false positives
2 -- Check liquidity	Size + route from spread-depth state	Clip size follows depth, not conviction
3 -- Select expression	RV / options / crosses before delta	Preserve optionality under path risk
4 -- Learn + retune	Alert vs slippage vs realised vol	Retune thresholds and cooldown windows

FIG -- PROCESS IMPROVEMENT (BASELINE vs TARGET)



IMPLEMENTATION ROADMAP

Phase	Build scope	Output / milestone
Phase 1	Source map + prototype	Morning pack: rates/FX/vol/oil snapshot
Phase 2	Python + SQL pipeline	Auto-refresh signals; threshold calibration
Phase 3	Alert router + dashboard	Intraday escalation; desk notifications
Phase 4	Feedback + backtest loop	Threshold tuning; post-event P&L linkage

COMMERCIAL & WORKFLOW VALUE

Value lever	Institutional benefit
Monitoring leverage	Fewer manual screens; broader cross-asset coverage per head
Execution timing	Spread/depth alerts before liquidity windows deteriorate
Risk prioritisation	Ranked fragility signals focus desk attention and capital
Process discipline	Audit trail, threshold tuning and systematic post-event review

EXECUTION QUALITY METRICS: POST-TRADE FEEDBACK

Metric	Definition	Engine purpose
Slippage vs signal	Actual fill vs mid at alert time	Measures execution value of engine
Alert accuracy	Hit rate: signal to realised move	Guides threshold calibration cycles
Timing value	Latency: signal to execution	Core automation case for speed edge
Expression lift	Option vs delta post-event P&L	Validates expression-selection logic

STRATEGIC VALUE

The engine is useful only if it changes decisions: when to trade, how to express the view, how much to size, whether to seek immediacy, and when to monetise optionality or stand down. Convert fragmented monitoring into a governed decision engine that links market state, execution quality and post-trade learning.

MARKET-MICROSTRUCTURE PLAYBOOK

State	Engine action
Depth deterioration	Reduce clip; increase order slicing
Stop-loss cascade	Flag trigger levels; wait for follow-through confirmation
Gamma / expiry risk	Avoid false calm; own event optionality selectively
Correlation break	Shift from directional to relative-value expression

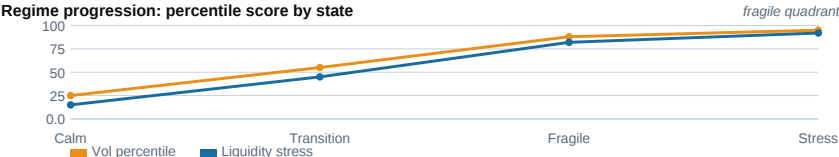
POSITIONING SQUEEZE MATRIX

Crowding	Catalyst	Preferred response
Short CAD	BoC meeting / oil move	CAD crosses; avoid naked USD/CAD shorts
Short vol	FOMC / CPI print	Own event gamma selectively ahead of catalyst
Long duration	CPI / supply auction	Payer hedge; reduce outright delta exposure
Risk-beta longs	USD / funding stress	Lower gross exposure; widen stop levels

LIQUIDITY & CATALYST HEATMAP (2=moderate, 4=high risk)

	Open	Data	Auction	Expiry
UST/GoC	2	4	4	3
USD/CAD	2	3	3	4
WTI	2	3	2	3
Rates vol	3	4	4	4

FIG -- REGIME MAP: VOL & LIQUIDITY STRESS



INTRADAY FRAGILITY WATCH WINDOWS

Window	Fragility driver	Execution implication
Open (8-9am ET)	Data lag + positioning reset	Elevated spread/depth; avoid large clips
Pre-data (30 min)	Gamma risk elevated	Reduce clip; own event optionality
Auction window	Supply + demand discovery	Concession risk; watch term-premium
Close / expiry	Systematic rebalancing flows	Correlation instability; model-flow risk