F L O F   M A T R I X

Fractal Liquidity & Order Flow Trading System

MASTER REFERENCE

CONSOLIDATED SYSTEM SPECIFICATION

Every Toggle • Every Module • Every Gate • Every Profile • Every Constant

50 Feature Toggles	6 Asset Class Profiles
17 Modules	5 Options Strategies
8 Pre-Execution Gates	4-Layer Epistemic Engine
7 POI Types	3 Fill Pessimism Levels
17-Point Scoring Rubric	11 Safety Mechanisms

Consolidates:	**v1.0 through v3.5**
Classification:	**CONFIDENTIAL**

1. System at a Glance

COMPONENT	SUMMARY
Feature Toggles	50 (T01–T50). 42 universal + 4 asset-class-specific + 2 optimization + 2 advanced. Plus 2 deferred (T35 MBO Spoofing, T37 MBO Iceberg).
Modules	17 modules: M01–M12 (core), M13 SessionProfiler, M14 OptionsRouter, M15 CarryTradeModule, M16 PortfolioManager, plus LiquidationFeed (crypto-only).
Pre-Execution Gates	8 total. 3 structural (G1 Premium/Discount, G2 Inducement, G3 Chop Detector) + 5 portfolio (P1 Global Exposure, P2 Correlation Guard, P3 Daily Loss, P4 Consecutive Loss, P5 Profile Allocation).
POI Types	7: ORDER_BLOCK, FVG, LIQUIDITY_POOL, SYNTHETIC_MA, REJECTION_BLOCK, BREAKER_BLOCK, GAP_FVG.
Scoring	17-point rubric across 3 tiers. Tier 1: 10 pts (Structure + Order Flow). Tier 2: 4 pts (Velez MAs). Tier 3: 3 pts (VWAP + Liquidity). Grades: A+ (15–17), A (12–14), B (8–11), C (<8).
Asset Profiles	6: Futures (baseline), Forex Intraday (structure-only), Forex Carry (weekly), Crypto (liquidation-aware), Equities (gap-aware), Options (derivative routing).
Options Strategies	5: Buy Call, Buy Put, Bull Put Spread (sell), Bear Call Spread (sell), Iron Condor. All selling done as spreads only.
Epistemic Engine	4 layers: E01 Batch Runner, E02 Trade Logger (PostgreSQL + pgvector), E03 Knowledge Graph (Neo4j), E04 LLM RAG Interface (Claude API). Does not trade.
Safety Mechanisms	11: RiskOverlord (Nuclear Flatten), OCO Brackets, EOD Flatten (T49), GEX Gate, No-Naked-Sell Lock, Portfolio Manager (5 gates), VIX Risk-Off (carry), 0-DTE Time Cutoff, Human Approval Gate (Epistemic), MWP/Aggressive Limit (T11).
Backtesting	3 fill pessimism levels: Optimistic (screening), Standard (default), Conservative (final validation). Anti-overfitting: 70/30 in/out-of-sample split mandatory.

2. Complete Execution Chain

#	STAGE	DETAIL
1	HTF Bias	HTFStructureMapper (M03) determines macro direction from 15m/1H/4H/Daily/Weekly structure. 200 SMA overlay provides institutional trend context.
2	POI Mapping	POIMapper (M02) scans all 7 POI types on the 1m–15m timeframes. Tags each with freshness, hierarchy (Extreme/Decisional), Unicorn/Rejection status. Applies Gap-FVG detection (T44) for equities.
3	Gate G1	Premium/Discount Filter. Price must be in the correct zone relative to the macro range. Longs only in discount, shorts only in premium.
4	Gate G2	Inducement Verification. A visible liquidity sweep must have occurred above/below the POI, trapping counter-trend traders before the move.
5	Gate G3	Chop Detector (T42). If VA width < 1.5 × ATR AND abs(20 SMA slope) < 0.01, all directional trades blocked. If T50 is ON, routes Iron Condor instead.
6	Tier 1 Scoring	10 structural + order flow criteria scored. Minimum 7 required to proceed.
7	Tier 2 Scoring	4 Velez MA criteria: 20 SMA slope, Halt detection, Elephant Bar, 200 SMA alignment.
8	Tier 3 Scoring	3 VWAP + Liquidity criteria: VWAP SD confirmation, Flip/Sweep Zone, Liquidity Proximity.
9	Grade Assignment	A+ (15–17), A (12–14), B (8–11), C (<8). C = no trade. Options minimum = B.
10	Portfolio Gate P3	Daily Loss Circuit Breaker. If combined daily loss > 3%, ALL profiles shut down.
11	Portfolio Gate P4	Consecutive Loss Counter. After 3 consecutive losses, 30-minute cooldown.
12	Portfolio Gate P5	Profile Allocation. Each profile has a max share of global exposure (Futures 40%, Equities 30%, etc.).
13	Portfolio Gate P1	Global Gross Exposure. Total risk across all open positions ≤ 6% of equity.
14	Portfolio Gate P2	Correlation Guard. Max 2 concurrent positions from same correlation group.
15	Position Sizing	Grade-based: A+ = 2%, A = 1.5%, B = 1%. Dollar-risk for equities (T45). Contract-based for futures. Lot-based for forex.
16	Order Execution	MWP for futures (T11), Aggressive Limit for crypto/equities, OptionsRouter for options. OCO bracket placed immediately.
17	Trade Management	Phase 1 (Partial at target R). Phase 2 (Structural Node Trail). Phase 3 (Dynamic Climax Exit). Toxicity Exit (T48). EOD Flatten (T49).
18	RiskOverlord	Continuous monitoring. Nuclear Flatten on: daily drawdown breach, stale data timeout, position limit exceeded, exchange disconnect.

3. Complete Toggle Registry (T01–T50)

Every toggle, its layer, default state, dependency, and what happens when OFF. Toggles marked with * are deferred (not yet implemented).

3.1 Tier 1 — Structure & Order Flow

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T01	1m CHOCH Detection	Structure	ON	—	Market structure break on 1m. When OFF, no entries possible (root trigger).
T02	15m POI Mapping	Structure	ON	T01	Maps Order Blocks + FVGs on 15m. When OFF, only 1m POIs used.
T03	1H POI Context	Structure	ON	T02	Confirms 15m POIs against 1H structure. When OFF, 15m POIs unconfirmed.
T04	4H Premium/Discount	Structure	ON	T03	Identifies the 4H range for G1 gate. When OFF, G1 gate disabled.
T05	Liquidity Pool Mapping	Structure	ON	T01	Tracks equal highs/lows as sweep targets. When OFF, no sweep detection.
T06	FVG as Entry Refinement	Structure	ON	T01	Uses FVGs within OBs for precise entry. When OFF, entry at OB midpoint.
T07	Order Flow Confirmation	Order Flow	ON	T01	CVD divergence at POI. When OFF, structural-only entries (Forex default).
T08	Absorption Detection	Order Flow	ON	T07	Heavy selling + no displacement = passive buyer. When OFF, no absorption signal.
T09	Whale Block Detection	Order Flow	ON	T07	Large single prints on T&S. When OFF, no whale block identification.
T10	Killzone Enforcement	Session	ON	—	Restricts entries to defined sessions. When OFF, entries allowed anytime.

3.2 Tier 2 — Velez MA Layer

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T11	Fast Move Switch	Execution	ON	T07	MWP/Aggressive Limit entry on extreme tape speed. When OFF, standard limit entry only.
T12	Velez 20 SMA (2m)	Velez	ON	—	2-minute 20 SMA slope scoring. When OFF, all Tier 2 scoring disabled.
T13	Velez Halt Detection	Velez	ON	T12	3-bar narrowing range = momentum pause. When OFF, no halt detection.
T14	Velez Elephant Bars	Velez	ON	T12	Range ≥ 2× average = institutional move. When OFF, no elephant scoring.
T15	200 SMA Institutional	Velez	ON	—	Macro trend filter. When OFF, no 200 SMA alignment scoring.
T16	Velez Trail (20 SMA)	Management	ON	T12	Phase 2 trail via 2m 20 SMA. When OFF, fixed structural trail used.

3.3 Stops, Volume Profile & Trade Management

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T17	HVN/LVN Moat Stop	Execution	ON	T07	Stop behind nearest LVN using micro VP. When OFF, ATR-based stop.
T18	Tape Failure Exit	Management	ON	T07	Exit on 80%+ sell delta at high velocity. When OFF, stop-only exit. Also hosts Toxicity sub-condition (T48).
T19	RBI/GBI Halt Filter	Management	ON	T12	Pause trail on Red/Green Bar Ignition. When OFF, trail runs continuously.

| T20 | **Dynamic Climax Exit** | Management | **ON** | T07 | Phase 3 exit on exhaustion: extreme velocity + reversal delta. When OFF, trail-only exit. |
| T21 | **20 SMA Health Check** | Management | **ON** | T12 | Abort runner if 20 SMA flattens. When OFF, runner held until structural trail. |

3.4 Risk & Infrastructure

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T22	Sudden Move Classifier	Risk	ON	—	Type A/B/C cascade detection + response. When OFF, treats all fast moves equally.
T23	Phase 1 Partial Exit	Management	ON	—	Partial profit at target R. When OFF, all-or-nothing exit.
T24	Exchange OCO Brackets	Safety	ON	—	Server-side stop-loss + take-profit. When OFF, software-managed stops (dangerous).
T25	Nuclear Flatten (RiskOverlord)	Safety	ON	—	Emergency position kill. CANNOT be disabled in live mode.
T26	Stale Data Timeout	Safety	ON	—	Exit all if data feed > 5 seconds stale. When OFF, bot continues on stale data.
T27	Daily Drawdown Breaker	Safety	ON	—	Per-profile daily loss limit. When OFF, no per-profile daily limit.
T28	Position Limit	Safety	ON	—	Max concurrent positions per profile. When OFF, unlimited positions.
T29	Schema Shifting	Data	ON	—	Automatic data tier switching. When OFF, always uses max schema (expensive).
T30	Session Data Severing	Data	ON	T10	Disconnects data feed outside Killzones. When OFF, data streams 24/7.

3.5 v3.0 Additions — Confluence & VWAP

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T31	Flip Zone Detection	Structure	ON	T02	Prior support-turned-resistance and vice versa. When OFF, no flip zone scoring.
T32	Sweep Zone Detection	Structure	ON	T05	Zones created by liquidity sweeps. When OFF, no sweep zone scoring.
T33	Proximity Halo	Structure	ON	T02	Dynamic radius around POIs for engagement detection. When OFF, fixed-radius.
T34	Multi-Timeframe Confluence	Structure	ON	T03	4H+1H+15m POI stacking bonus. When OFF, POIs scored independently.
T35*	MBO Spoofing Detection	Order Flow	OFF	T07	DEFERRED. Detects and filters spoofed L2 orders.
T36	Session VWAP Integration	VWAP	ON	—	Anchored VWAP + SD bands for Tier 3 scoring. When OFF, no VWAP scoring.
T37*	MBO Iceberg Detection	Order Flow	OFF	T07	DEFERRED. Detects hidden large orders refilling at same price.
T38	VP Entry Refinement	Execution	ON	T17	Micro Volume Profile narrows entry zone within POI. When OFF, entry at POI midpoint.

3.6 v3.1 Additions — POI Refinement

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T39	Extreme/Decisional OB Hierarchy	Structure	ON	T02	Classifies OBs as Extreme (at swing tip, higher value) or Decisional (mid-range). When OFF, all OBs equal.
T40	Unicorn Setup Detection	Structure	ON	T02	Breaker Block + FVG overlap. When OFF, no Unicorn identification.
T41	Rejection Block Mapping	Structure	ON	T01	Long-wick candle bodies as POIs. When OFF, only standard OBs and FVGs.
T42	Chop Detector Gate (G3)	Gate	ON	—	Blocks entries when VA narrow + SMA flat. When OFF, trades allowed in chop.

3.7 Multi-Asset & Advanced (v3.1+–v3.3)

ID	FEATURE	LAYER	DEF	DEP	DESCRIPTION / WHEN OFF
T43	Crypto Funding Rate Filter	Structure	OFF	—	When ON, extreme funding rates apply -1 penalty. Crypto profile only.
T44	Gap-as-FVG Detection	Structure	OFF	T01	Overnight gaps treated as FVGs. Equities/Options profiles only. Includes pre-market volume check.
T45	Dollar-Risk Position Sizing	Execution	OFF	—	Per-share $ risk instead of contract-based. Equities profile only.
T46	Options Chain Routing	Execution	OFF	—	Signals routed to OptionsRouter (M14) instead of direct execution. Options profile only.
T47	Dynamic Scale-Outs by Grade	Management	OFF	T23	A+ = 25% at 2R, A = 40% at 2R, B = 60% at 1.5R. When OFF, rigid 50% at 2R.
T48	Toxicity Exit (Dead Tape)	Management	ON	T18	Exits when tape velocity < 10% of avg for 5+ minutes. Disabled after Phase 1 (runner risk-free).
T49	Hard EOD Flatten	Safety	ON*	—	Market-exits everything at 3:55 PM EST. *ON for Equities/Options, OFF for others.
T50	Chop-to-Condor Routing	Execution	OFF	T42+T46	When chop detected, routes Iron Condor via OptionsRouter. Requires both T42 and T46 active.

4. Module Registry

ID	MODULE	RESPONSIBILITY
M01	SentinelFeed	Data ingestion from DataBento/exchanges. Schema shifting (ohlcv → trades+tbbo → mbp-10). Maintains 60-second Ring Buffer during Killzones. Stale data detection.
M02	POIMapper	Scans for all 7 POI types on 1m–15m. Tags freshness, hierarchy (T39), Unicorn (T40), Rejection (T41). Applies Gap-FVG (T44) for equities. Manages Proximity Halo (T33).
M03	HTFStructureMapper	Higher timeframe macro bias. 15m/1H/4H/Daily/Weekly BOS detection. Premium/Discount range (G1). 200 SMA overlay (T15).
M04	OrderFlowEngine	Processes trades+tbbo stream. CVD, delta, tape velocity, absorption detection (T08), whale blocks (T09). Populates all OF-dependent scoring.
M05	PredatorStateMachine	Three states: Scouting (passive monitoring) → Stalking (structural analysis, Halo breach) → Kill (POI tap, full OF analysis, entry decision).
M06	ConfluenceScorer	Evaluates all 3 tiers (13 criteria, 17 points). Applies gates G1/G2/G3. Assigns grade. Outputs TradeSignal.
M07	VolumeProfileEngine	Micro VP on 60-second Ring Buffer. HVN/LVN identification for stop placement (T17) and entry refinement (T38). Session VWAP (T36).
M08	ExecutionManager	Position sizing (grade-based %). Order type selection (MWP/Aggressive Limit/Limit). Submits orders. Places OCO brackets (T24).
M09	TradeManager	Phase 1 (partial exit), Phase 2 (structural trail + Velez trail T16), Phase 3 (climax exit T20). RBI/GBI halt (T19). 20 SMA health (T21). Tape failure (T18) + Toxicity (T48).
M10	RiskOverlord	Nuclear Flatten (T25). Daily drawdown (T27). Position limit (T28). Stale data timeout (T26). Cannot be disabled in live mode.
M11	ConfigManager	Loads TOML config hierarchy: base → asset_class → instrument. Validates dependency chains. Hot-reload in paper mode.
M12	SuddenMoveClassifier	Type A (news), Type B (liquidity cascade), Type C (flash crash). Response: buffer expansion, size reduction, or abstain.
M13	SessionProfiler	Per-session Value Area, Volume Profile, and VWAP calculation. Feeds G3 (Chop Detector). Tracks session opening range, initial balance.
M14	OptionsRouter	Contract selection (delta, DTE, liquidity filter). IV Crush protection (IVR gate). Spread building. Iron Condor construction (T50). GEX gate for selling.
M15	CarryTradeModule	Weekly-timeframe carry strategy. Separate state machine from Predator. Pair selection by swap rate, weekly trend filter (M03), VIX risk-off detector.
M16	PortfolioManager	5 portfolio gates (P1–P5). Position Ledger. Cross-asset exposure management. Correlation groups. Sits between ConfluenceScorer and ExecutionManager.
—	LiquidationFeed (Crypto)	Crypto-only. OI Delta (primary, 5-sec polling), Liquidation Event Stream (secondary, WebSocket), Funding Rate (tertiary, 8-hour). Feeds into ConfluenceScorer.

5. All 8 Pre-Execution Gates

ID	GATE	TYPE	PASS CONDITION
G1	Premium / Discount	Structural	Price is in the correct zone of the 4H macro range. Longs only in discount (below 50%), shorts only in premium (above 50%).
G2	Inducement Verification	Structural	A visible liquidity sweep has occurred on the opposite side of the POI, trapping counter-trend traders before the anticipated move.
G3	Chop Detector (T42)	Structural	Market is NOT in chop. VA width ≥ 1.5 × ATR OR abs(20 SMA slope) ≥ 0.01. If chop detected, directional trades blocked (T50 may route Iron Condor).
P1	Global Gross Exposure	Portfolio	(current_exposure + proposed_risk) / total_equity ≤ 6%. Prevents over-concentration across all profiles.
P2	Correlation Guard	Portfolio	Fewer than 2 active positions in the same correlation group (e.g., ES + SPY = Group A). Third position from same group rejected.
P3	Daily Loss Circuit Breaker	Portfolio	Combined daily P&L across ALL profiles > -3%. If breached, all profiles shut down for the day.
P4	Consecutive Loss Counter	Portfolio	Fewer than 3 consecutive losses. After 3 losses, 30-minute mandatory cooldown. Resets on any win.
P5	Profile Allocation Limit	Portfolio	Requesting profile's current exposure is below its allocation cap (Futures 40%, Equities 30%, Crypto 25%, Options Buy 20%, Options Sell 15%, Forex 20%, Carry 15%).

6. POI Type Registry

POI TYPE	DETECTION	CHARACTERISTICS
ORDER_BLOCK	Last opposite candle before BOS	Tagged Extreme (swing tip) or Decisional (mid-range) via T39. Extreme = +1 Tier 1 bonus. Fresh until mitigated (50% tap).
FVG	3-candle gap (no overlap)	Efficiency target. Must be within an OB for maximum value. Freshness tracked. Used for entry refinement (T06).
LIQUIDITY_POOL	Equal highs/lows (T05)	Sweep targets, not entry zones. When swept, the sweep creates entry conditions for nearby OBs/FVGs.
SYNTHETIC_MA	Velez 20/200 SMA levels (T12/T15)	Tier 2 POIs. Dynamic (move with time). Not scored in Tier 1. Used for trail reference (T16) and slope scoring.
REJECTION_BLOCK	Long-wick candles (T41)	Wick body = the zone. Prioritized in crypto (massive wicks common). Stop placed above/below wick tip + buffer.
BREAKER_BLOCK	Failed OB that gets broken	When OB fails and price breaks through, the OB "flips" to a Breaker. If overlapping an FVG = Unicorn (T40).
GAP_FVG	Overnight gap (T44)	Equities/Options only. Gap > 0.5 × Daily ATR. Pre-market volume check: if pre-market fills >70% of gap, disabled. VWAP confluence bonus.

7. Confluence Scoring Rubric (17 Points)

7.1 Tier 1 — Structure + Order Flow (10 Points)

PTS	CRITERION	TOGGLE	SCORING CONDITION
+2	1m CHOCH Confirmation	T01	Break of structure on 1-minute timeframe in trade direction. Required.
+2	15m POI Alignment	T02	Price is within a mapped 15m POI (OB, FVG, or Rejection Block).
+1	Fresh POI (First Touch)	T02	POI has never been tested before. First touch = highest value.
+1	Extreme OB Bonus	T39	POI is classified as Extreme (at swing tip) rather than Decisional (mid-range). Only applies to Order Blocks.
+2	Liquidity Sweep Confirmation	T05	Equal highs/lows swept before price enters the POI. In crypto: auto-confirmed when OI Delta ≤ -2%.
+1	Order Flow Confirmation	T07	CVD divergence at the POI. Aggressive selling (buying) while price holds = institutional activity.
+1	Absorption Confirmed	T08	Heavy aggressive volume + zero price displacement for ≥ 3 seconds. Passive institutional buyer detected.

7.2 Tier 2 — Velez MA Layer (4 Points)

PTS	CRITERION	TOGGLE	SCORING CONDITION
+1	20 SMA Slope Alignment	T12	2-minute 20 SMA slope matches trade direction. Positive slope = long, negative = short.
+1	Halt Not Active	T13	3-bar narrowing range NOT detected (momentum is flowing, not paused).
+1	Elephant Bar Presence	T14	Recent candle range ≥ 2× average. Confirms institutional commitment.
+1	200 SMA Alignment	T15	Trade direction aligns with position relative to 200 SMA. Price above = long bias, below = short bias.

7.3 Tier 3 — VWAP & Liquidity (3 Points)

PTS	CRITERION	TOGGLE	SCORING CONDITION
+1	VWAP SD Confirmation	T36	POI aligns with VWAP ± 1-2 SD band. Confluence of structural + volume-weighted level.
+1	Flip/Sweep Zone Active	T31/T32	POI coincides with a Flip Zone (support/resistance reversal) or Sweep Zone (post-liquidity-grab).
+1	Liquidity Proximity	T05	Major liquidity pool exists within 2R of entry in the trade direction (fuel for the move).

7.4 Grade Thresholds

GRADE	RANGE	ACTION	SIZING
A+	15–17	Full entry	2.0% risk. If T47 ON: 25% partial at 2R, 75% runner. Options: 0.70 delta, full DTE.
A	12–14	Full entry	1.5% risk. If T47 ON: 40% partial at 2R, 60% runner. Options: 0.65 delta.
B	8–11	Reduced entry	1.0% risk. If T47 ON: 60% partial at 1.5R, 40% runner. Options: 0.55 delta. Minimum for options.
C	<8	NO TRADE	Signal logged but not executed. Insufficient confluence.

8. Asset Class Profile Summary

PROFILE	DATA	KEY TOGGLES OFF	KEY ON	SESSIONS	UNIQUE FEATURES
Futures (ES/NQ)	DataBento CME	None (baseline)	All	NY AM/PM	Zero overrides from base. Full OF + VP. 100% centralized volume. MWP for T11.
Forex Intraday	Broker API	T07,T08,T09, T17,T18,T36, T38,T42	Structure only	London, LN/NY overlap	No centralized volume. All OF toggles OFF. ATR stops. Adjusted gate thresholds (Tier 1 ≥ 6).
Forex Carry	Broker API	Predator bypassed	M03, M15	Weekly	Separate state machine (M15). Swap-rate driven. VIX risk-off detector. Max 3x leverage (1x for EM).
Crypto (BTC/ETH)	Free WebSocket	T37 (spoofing)	All OF, T43	24/7 (UTC sessions)	LiquidationFeed (OI Delta primary). Wider stops (0.75× ATR). Whale threshold = 5 BTC. Free data.
Equities (SPY/AAPL)	DataBento SIP	None specific	T44,T45,T49	NY AM/PM	SIP consolidated volume (16+ exchanges). Gap-FVG (T44) + pre-market check. Dollar-risk sizing (T45). EOD Flatten (T49).
Options	SIP + Chain API	T17 for options	T44,T46,T49	NY AM/PM	Analysis on underlying, execution on options. IVR gate. 5 strategies. GEX gate for selling. Min grade B.

9. Safety Mechanism Registry

#	MECHANISM	TYPE	SPECIFICATION
1	**RiskOverlord / Nuclear Flatten**	Post-Execution	Emergency kill switch. Flattens everything on: daily drawdown breach, stale data >5s, position limit exceeded, exchange disconnect. Cannot be disabled in live mode.
2	**Exchange OCO Brackets (T24)**	Infrastructure	Server-side stop + take-profit. Survives bot crashes, network failures, power outages.
3	**Portfolio Manager (M16)**	Pre-Execution	5 portfolio gates. Prevents cross-asset over-concentration, correlated bets, runaway daily losses.
4	**EOD Flatten (T49)**	Scheduled	3:55 PM EST hard close for Equities/Options. Prevents overnight gap exposure.
5	**GEX Gate**	Pre-Execution	Blocks options selling when dealer GEX is negative (amplified moves). Mandatory for 0-DTE selling.
6	**No-Naked-Sell Lock**	Code-Level	OptionsRouter sell functions always construct spreads with protective wings. No naked selling ever.
7	**VIX Risk-Off Detector**	Carry Trade	VIX > 25: block new carry entries. VIX > 35: close all carry positions immediately.
8	**0-DTE Time Cutoff**	Scheduled	No new 0-DTE positions after 2 PM EST. All 0-DTE closed by 3:30 PM. Max 3% equity allocation.
9	**Human Approval Gate**	Epistemic	LLM recommendations go to pending_recommendations table. Human must review and approve. No autonomous config changes.
10	**MWP / Aggressive Limit (T11)**	Execution	No raw Market Orders. Futures: CME Market with Protection (3-tick collar). Crypto/Equities: Aggressive Limit with 2-second timeout.
11	**Anti-Overfitting Guard**	Epistemic	70/30 in/out-of-sample split. 3-level fill pessimism. No Knowledge Graph entry without Level 3 out-of-sample confirmation.

10. Document Lineage

VER	DOCUMENT	SCOPE
v1.0	Engineering Specification	12 modules, Predator State Machine, 14-point rubric, HVN/LVN stops, Sudden Move Policy, Ring Buffer, CVD + Tape Speed.
v2.0	HTF MA Integration + Toggles	Velez 20/200 SMA, Tier 2 scoring, 30 feature toggles (T01–T30), TOML configuration architecture.
v3.0	Confluence Grading Rubric v3.0	Premium/Discount gate, Inducement gate, Flip/Sweep Zones, Session VWAP, Tier 3, 17-point rubric, T31–T38.
v3.1	POI Refinement + Chop Protection	Extreme/Decisional OBs, Unicorn Setup, Rejection Blocks, Chop Detector, T39–T42.
v3.1+	Multi-Asset Profile System	5 asset class profiles (Futures/Forex/Crypto/Equities/Options), LiquidationFeed, OptionsRouter, Gap-FVG, T43–T46.
v3.2	External Review Fixes	Schema shifting paradox fix, MWP/Aggressive Limit, absorption formalization, IV Crush protection, OI Delta, T47–T48.
v3.3	Advanced Capabilities	EOD Flatten (T49), Chop-to-Condor (T50), Options Selling Framework (spreads, GEX gate, 0-DTE), Carry Trade Module (M15).
v3.4	Portfolio Manager (M16)	5 portfolio gates (P1–P5), Position Ledger, Correlation Guard, Pessimistic Fill Engine, hot-path performance rules.
v3.5	Epistemic Engine Blueprint	4-layer AI: Batch Runner, Trade Logger (PostgreSQL + pgvector), Knowledge Graph (Neo4j), LLM RAG Interface (Claude API). Dynamic TOML profiling.
REF	**Master Reference (this document)**	Consolidation of v1.0–v3.5. Every toggle, module, gate, profile, POI type, scoring criterion, safety mechanism in one place.

E N D   O F   D O C U M E N T

FLOF Matrix — Master Consolidated Reference

This document supersedes all prior documents as the single source of truth for system architecture.