F L O F M A T R I X

Fractal Liquidity & Order Flow Trading System

HTF MA INTEGRATION

&

FEATURE TOGGLE SYSTEM

Macro Regime Filtering | Synthetic MA POIs | Component Isolation for Backtesting

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PART A: HTF MOVING AVERAGE INTEGRATION

1. The Macro Regime Filter

The Macro Regime Filter adds higher-timeframe moving average awareness to your existing Daily/4H Trend Alignment criterion (the +2 points in Tier 1 of the Confluence Rubric). It does not add new scoring points. Instead, it modifies the weight of the existing criterion based on whether the broader institutional world agrees with your structural bias.

1.1 Which MAs and Why

Only two higher-timeframe moving averages are tracked:

MA	UPDATE FREQUENCY	WHY THIS ONE
Weekly 200 SMA	Once per week (Monday pre-session)	The most widely watched moving average by institutional portfolio managers, pension funds, and algorithmic trend-following systems globally. When price crosses this level, it triggers reallocation flows worth billions of dollars. Fund mandates frequently use it as a regime switch between risk-on and risk-off.
Monthly 200 SMA	Once per month (first trading day)	The deepest structural moving average available. It represents the average price over approximately 16 years of trading. Approaches to this level are rare (ES has only tested it a handful of times in the last two decades) but when they occur, the reaction is enormous. Acts as the ultimate mean-reversion anchor.

WHY NOT MORE MAs?

We intentionally exclude the Weekly 20 SMA, Monthly 20 SMA, Daily 200 SMA, and all hourly-timeframe MAs. The weekly/monthly 20 SMAs are too slow-moving to add meaningful intraday information beyond what the Daily/4H structural bias already provides. The daily 200 SMA is more relevant to swing traders. Hourly MAs are redundant with your existing 15-minute POI mapping, which is already more precise than any moving average on that timeframe. Two MAs. That is all.

1.2 How the Regime Filter Modifies the Rubric

The filter checks the position of current price relative to both MAs once per session (or once per week/month when the MA values update). It then adjusts the Tier 1 “Daily/4H Trend Alignment” criterion:

CONDITION	ALIGNMENT SCORE	RATIONALE
Daily/4H bias is BULLISH AND price is ABOVE Weekly 200 SMA AND price is ABOVE Monthly 200 SMA	**+2 (Full Weight)**	Full macro alignment. Your structural bias and the entire institutional regime agree. Maximum conviction.

Daily/4H bias is BULLISH AND price is ABOVE Weekly 200 SMA BUT price is BELOW Monthly 200 SMA	**+2 (Full Weight)**	Partial alignment. The monthly 200 SMA is rarely tested, so being below it is a major macro headwind. However, the weekly regime is still bullish. Full weight maintained but the bot logs a regime conflict warning.
Daily/4H bias is BULLISH BUT price is BELOW Weekly 200 SMA (Monthly 200 SMA position irrelevant)	**+1 (Reduced)**	Macro headwind. Your structural bias says up, but the institutional world is in risk-off mode. The +2 criterion is downgraded to +1. This makes it harder for trades to reach A+ grade, which reduces position sizing in bearish macro regimes.
Daily/4H bias is BEARISH AND price is BELOW Weekly 200 SMA AND price is BELOW Monthly 200 SMA	**+2 (Full Weight)**	Full macro alignment for shorts. Structural bias is bearish and the macro regime is risk-off. Maximum conviction on short trades.
Daily/4H bias is BEARISH BUT price is ABOVE Weekly 200 SMA (Monthly 200 SMA position irrelevant)	**+1 (Reduced)**	Macro headwind for shorts. Your structural bias says down, but the institutional world is still in risk-on mode. Criterion downgraded to +1.

1.3 Configuration Constants

CONSTANT	DEFAULT	NOTES
HTF_REGIME_FILTER_ENABLED	**true**	Master toggle for the regime filter. When false, Daily/4H Trend Alignment always scores at full +2 weight (original v1.0 behavior).
HTF_WEEKLY_200_SMA_PERIOD	200	Period for the weekly SMA. Use weekly closing prices.
HTF_MONTHLY_200_SMA_PERIOD	200	Period for the monthly SMA. Use monthly closing prices.
HTF_REGIME_EVAL_TIME	Pre-session	When the regime filter runs. Weekly MA updates Monday pre-session. Monthly MA updates first trading day of month. Price vs. MA comparison runs once per session at Killzone open.
HTF_REGIME_CONFLICT_LOG	**true**	Whether to log a warning when structural bias and macro regime disagree, even if the score is not downgraded.

2. The Synthetic MA POI System

The Synthetic MA POI System addresses a specific blind spot in the existing POI mapper: situations where a major moving average has drifted to a price zone that contains no SMC structural level (no Order Block, no FVG, no liquidity pool), but where institutional algorithms and portfolio managers will still react to the MA presence. These are invisible to a pure SMC system. This module makes them visible.

2.1 When a Synthetic POI Is Created

The system runs a check during the weekly/monthly MA evaluation cycle. For each tracked HTF MA (Weekly 200 SMA and Monthly 200 SMA), it asks one question: does this MA fall within the boundaries of any existing mapped POI?

CONDITION	ACTION
MA is INSIDE an existing POI	No action needed. The existing POI already captures this zone. The Regime Filter handles the macro context. This is the common case — most of the time, major MAs overlap with existing structure.
MA is OUTSIDE all existing POIs	Create a Synthetic MA POI centered on the MA value. This POI has a defined width, limited confluence scoring, and special handling rules described below.

2.2 Synthetic POI Structure

A Synthetic MA POI is not a full Order Block. It is a lightweight watch zone with specific constraints:

PROPERTY	VALUE
Center Price	The current value of the Weekly or Monthly 200 SMA.
Zone Width	MA value ± (1.5 × Daily ATR). This creates a zone wide enough to capture the cluster of limit orders that institutional algorithms typically distribute around an MA level, rather than placing them at a single price.
POI Type	SYNTHETIC_MA (a new POI type distinct from ORDER_BLOCK, FVG, or LIQUIDITY_POOL). The bot tracks this type separately for logging and analysis.
Freshness	Always treated as FRESH until first tap. After price enters the zone and leaves, it is marked MITIGATED and never regenerated at the same price. A new Synthetic POI is only created if the MA value has moved significantly (more than 1 Daily ATR from the mitigated level).
Tier 1 Eligibility	YES, but with a mandatory constraint: the 2-minute 20 SMA must also be within the Synthetic POI zone at the time of the 1m CHOCH (i.e., the Velez 20 SMA Halt confluence from Tier 2 is REQUIRED, not optional). This ensures the bot only enters a Synthetic POI when both a major HTF MA and short-term momentum alignment are present. Without this requirement, the bot would be trading at a moving average with no structural justification, which is too weak.
Maximum Confluence Score	Synthetic MA POIs are capped at B grade (half risk) regardless of total score. They can never reach A or A+ grade. This is because the absence of traditional SMC structure (OB/FVG) means the trade has inherently lower structural

	conviction. The cap is a safety mechanism that prevents the bot from taking full-risk trades at levels with no institutional order footprint.
Proximity Halo	Uses the standard ATR-based Proximity Halo, same as regular POIs. No special treatment.

2.3 Velez 20 SMA Health Check for Runners

In addition to the two systems above, a lightweight monitoring feature is added to the runner management phase. This is not a new exit mechanism — it modifies the sensitivity of the existing Conditional Tape Failure exit.

ELEMENT	SPECIFICATION
Trigger	During the runner phase (after 50% profit taken, stop at breakeven), if price closes below the 2-minute 20 SMA for 3 consecutive candles while in a long position (or above for 3 consecutive candles in a short).
Action	The Conditional Tape Failure exit threshold is tightened. Normally, the bot exits if sell delta exceeds 80% while price is in the lower quadrant of the HVN. When the 20 SMA health check triggers, this threshold is reduced to 65% sell delta. This makes the bot more sensitive to genuine reversals when momentum is already weakening.
Reset	If price closes back above the 2-minute 20 SMA for 2 consecutive candles, the Tape Failure threshold returns to the normal 80%. The health check is a temporary sensitivity adjustment, not a permanent state change.
Override Rule	The RBI/GBI hold filter takes precedence. If an RBI/GBI pattern is detected (the counter-trend candle is ignored), the health check is suspended for that specific candle sequence because the RBI/GBI already confirms trend continuation.

2.4 200 SMA Exit Watch Zone

When a runner is heading toward a macro liquidity target (Phase 3 of the take profit system), the bot checks whether the Weekly or Monthly 200 SMA falls within 1 Daily ATR of that target. If it does, the exhaustion detection threshold for the Climax Trigger is lowered: the bot triggers an exit on absorption alone, without requiring the full delta stall that is normally needed. The rationale is that when two independent forces (SMC liquidity target + universally watched 200 SMA) converge at the same zone, the probability of a strong reaction is high enough that waiting for the full climax sequence risks giving back profits.

CONSTANT	DEFAULT	NOTES
SYNTHETIC_POI_ENABLED	**true**	Master toggle for Synthetic MA POI generation.
SYNTHETIC_POI_ZONE_WIDTH_MULT	1.5	Daily ATR multiplier for zone width around the MA.
SYNTHETIC_POI_MAX_GRADE	B	Maximum allowed grade for Synthetic POI trades.
SYNTHETIC_POI_REQUIRE_20SMA	**true**	Whether the 2-minute 20 SMA Halt is required for entry.

RUNNER_20SMA_HEALTH_ENABLED	**true**	Toggle for the 20 SMA health check on runners.
RUNNER_20SMA_BREACH_COUNT	3	Consecutive closes below/above 20 SMA to trigger.
RUNNER_20SMA_RESET_COUNT	2	Consecutive closes back across 20 SMA to reset.
RUNNER_TIGHTENED_DELTA_THRESHOLD	0.65	Sell delta threshold when health check is active.
EXIT_200SMA_WATCHZONE_ENABLED	**true**	Toggle for 200 SMA exit watch zone convergence.
EXIT_200SMA_PROXIMITY_MULT	1.0	Daily ATR multiplier. 200 SMA within this distance of macro target activates the lowered exhaustion threshold.

PART B: FEATURE TOGGLE SYSTEM

3. Design Philosophy

Every non-trivial feature in the FLOF Matrix should be independently toggleable. This serves three purposes:

PURPOSE	EXPLANATION
Component Isolation	During backtesting, you need to measure whether each feature adds edge. If you cannot turn a feature off, you cannot measure its contribution. Toggle OFF the Elephant Bar criterion and run the same 1000-trade backtest. Did win rate drop? Did expectancy change? If not, the feature is noise and should be removed. If win rate drops 3%, the feature is adding real value. This is the scientific method applied to trading systems.
Graceful Degradation	If a feature depends on external data that becomes temporarily unavailable (for example, DataBento delivers corrupted volume data), the bot needs to continue operating without that feature rather than crashing or producing garbage. A toggle system lets you disable the affected feature while keeping everything else running normally.
Incremental Deployment	When deploying new features to a live trading system, you want to paper-trade with the feature ON while the production system runs with it OFF. Once the feature proves itself in paper trading, you flip the toggle in production. No code changes, no redeployment, no risk of introducing bugs.

CRITICAL ENGINEERING RULE

Feature toggles must have ZERO performance cost when OFF. The check must be a single boolean evaluation at the top of the feature's function. If the toggle is false, the function returns immediately without computing anything. Never compute first and then discard based on the toggle — that wastes CPU and introduces latency in a system where microseconds matter.

4. Master Toggle Registry

The following table lists every toggleable feature in the FLOF Matrix system, organized by the system layer it belongs to. Each toggle has a unique ID, a default state, and any dependency relationships. Dependencies mean that if the parent toggle is OFF, the child toggle is automatically forced OFF regardless of its own setting.

4.1 Layer 1: Market Structure & POI Mapping

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T01	**HTF Structure Mapper**	Structure	**ON**	— (root)	No Daily/4H bias. Trend Alignment always scores 0. System becomes timeframe-agnostic (15m POI only).
T02	**HTF Regime Filter**	Structure	**ON**	T01	Daily/4H Trend Alignment always awards full +2 when bias is aligned. No macro MA downgrade.
T03	**Synthetic MA POI**	Structure	**ON**	T02	Bot only trades at traditional SMC POIs (OB, FVG, liquidity pool). Moving averages in empty space are ignored.
T04	**15m POI Freshness Tracking**	Structure	**ON**	— (root)	All POIs treated as fresh. The +1 Fresh POI criterion always awards. May increase false entries at retested levels.
T05	**Liquidity Sweep Detection**	Structure	**ON**	— (root)	No sweep tracking. The +2 Major Liquidity Sweep criterion always scores 0. Significantly reduces A+ trade frequency.

4.2 Layer 2: Predator State Machine & Execution

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T06	**1m CHOCH Detection**	Execution	**ON**	— (root)	CRITICAL: Cannot enter trades without CHOCH. If off, bot enters on POI tap alone (dangerous, for research only).
T07	**Order Flow Confirmation**	Execution	**ON**	— (root)	No CVD divergence or footprint imbalance check. OF criterion scores 0. Entries based on structure only.
T08	**Absorption Detection**	Execution	**ON**	T07	Absorption (comparing T&S to L2) is skipped. CVD divergence

					alone is used for Order Flow scoring (+1 max instead of +2).
T09	**Whale Watch Filter**	Execution	**ON**	T07	Block trade filtering disabled. All trades treated equally regardless of size. May miss institutional block signals.
T10	**Killzone Time Gate**	Execution	**ON**	— (root)	Trades allowed at any time. Killzone timing criterion always scores 0. Bot trades 24/7 (crypto) or full session (ES).
T11	**Fast Move Switch**	Execution	**ON**	— (root)	Bot always waits for 1m CHOCH + candle close + limit at FVG. Never fires market orders on V-shapes. Safer but may miss fast reversals.

4.3 Layer 3: Velez Momentum Confluence (Tier 2 Rubric)

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T12	**20 SMA Halt Confluence**	Velez	**ON**	— (root)	The +1 20 SMA Halt criterion always scores 0. Also disables the mandatory 20 SMA requirement for Synthetic POI entries.
T13	**Flat 200 SMA Confluence**	Velez	**ON**	— (root)	The +1 Flat 200 SMA criterion always scores 0.
T14	**Elephant Bar Confirmation**	Velez	**ON**	— (root)	The +1 Elephant Bar criterion always scores 0.
T15	**20 SMA Micro-Trend**	Velez	**ON**	— (root)	The +1 20 SMA Micro-Trend criterion always scores 0.
T16	**ALL Velez Layers**	Velez	**ON**	— (master)	Shortcut: forces T12, T13, T14, T15 all OFF simultaneously. Reverts rubric to original 10-point v1.0 behavior.

4.4 Layer 4: Risk Management & Trade Management

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T17	**HVN/LVN Stop Placement**	Risk	**ON**	— (root)	Falls back to simple ATR-based stop (2x 1m ATR below entry). Loses volume profile intelligence for stop placement.
T18	**Conditional Tape Failure Exit**	Risk	**ON**	T07	No early dynamic exit. Bot relies exclusively on the hard OCO stop. Losses are always the full defined-R amount.
T19	**Structural Node Trail**	Risk	**ON**	— (root)	Runners use a fixed 2R trailing stop instead of dynamic BOS + LVN moat trail. Simpler but less adaptive.
T20	**RBI/GBI Hold Filter**	Risk	**ON**	T19	No candle-level hold signal for runners. Bot evaluates CHOCH logic on every counter-trend candle without pre-filtering.
T21	**20 SMA Health Check**	Risk	**ON**	T18, T19	No momentum-based sensitivity adjustment for Tape Failure exit. Threshold stays at 80% delta always.
T22	**200 SMA Exit Watch Zone**	Risk	**ON**	— (root)	Climax Trigger always requires full absorption + delta stall. No lowered threshold when 200 SMA converges with target.
T23	**Phase 1 Fixed Partial (50%)**	Risk	**ON**	— (root)	No partial profit taking. Full position rides to macro target or stop. Higher variance, potentially higher reward.

4.5 Layer 5: Safety & Circuit Breakers

ID	FEATURE	LAYER	DEFAULT	DEPENDS ON	WHAT HAPPENS WHEN OFF
T24	**OCO Bracket Enforcement**	Safety	**ON**	— (root)	NEVER DISABLE IN LIVE. Every entry must have an exchange-native OCO. Toggle exists for research only to measure OCO impact on P&L.
T25	**Anti-Spam Rate Limiter**	Safety	**ON**	— (root)	NEVER DISABLE IN LIVE. Rate limit: max 3 orders/60s, 10/hour. Without this, a bug could generate thousands of orders.
T26	**Fat Finger Position Limit**	Safety	**ON**	— (root)	NEVER DISABLE IN LIVE. Hard cap on position size. Without

					this, a single error could risk the entire account.
T27	**Daily Drawdown Circuit Breaker**	Safety	**ON**	— (root)	No daily loss limit. Bot continues trading after any number of losses. Extremely dangerous in live trading.
T28	**Stale Data Monitor**	Safety	**ON**	— (root)	NEVER DISABLE IN LIVE. No latency check on DataBento feed. Bot trades on potentially stale data.
T29	**Sudden Move Classifier**	Safety	**ON**	— (root)	No Type A/B/C detection. Bot treats all market conditions identically. No news shield, no cascade engagement, no shutdown protocol.
T30	**Cascade Position Override**	Safety	**ON**	T29	No 50% size reduction during Type B cascades. Full graded risk applied even in extreme volatility.

SAFETY TOGGLES: LIVE TRADING LOCK

Toggles T24 through T28 are classified as SAFETY CRITICAL. They must NEVER be disabled in live trading or paper trading with real money. The toggle exists solely for backtesting research (e.g., measuring the P&L impact of the daily drawdown limit on historical data). The configuration system should enforce a LIVE_MODE flag that prevents these toggles from being set to OFF when LIVE_MODE is true. If someone attempts to disable a safety toggle in live mode, the system should refuse the change and log a critical alert.

5. Configuration File Structure

All toggles and their associated constants are stored in a single configuration file that is loaded at bot startup and can be hot-reloaded during paper trading (but NOT during live trading, where changes require a full restart for safety).

5.1 Recommended Format: TOML

TOML is recommended over JSON or YAML for the configuration file because it supports comments (critical for documenting why each toggle exists), sections (maps cleanly to the layer structure), and inline tables (for grouping related constants). Below is the skeletal structure:

```
[system]
live_mode = false          # CRITICAL: prevents safety toggle disabling
hot_reload = true          # Allow runtime config changes (paper only)

[toggles.structure]
T01_htf_structure_mapper      = true
T02_htf_regime_filter         = true
T03_synthetic_ma_poi           = true
T04_poi_freshness_tracking     = true
T05_liquidity_sweep_detection  = true

[toggles.execution]
T06_choch_detection            = true
T07_order_flow_confirmation    = true
T08_absorption_detection       = true
T09_whale_watch_filter         = true
T10_killzone_time_gate         = true
T11_fast_move_switch           = true

[toggles.velez]
T16_all_velez_layers           = true   # Master switch
T12_20sma_halt_confluence      = true
T13_flat_200sma_confluence     = true
T14_elephant_bar_confirmation  = true
T15_20sma_micro_trend          = true

[toggles.risk]
T17_hvn_lvn_stop_placement     = true
T18_conditional_tape_failure    = true
T19_structural_node_trail       = true
T20_rbi_gbi_hold_filter        = true
T21_20sma_health_check         = true
T22_200sma_exit_watch_zone     = true
T23_phase1_fixed_partial        = true

[toggles.safety]       # LOCKED when live_mode = true
T24_oco_bracket_enforcement    = true
T25_anti_spam_rate_limiter     = true
T26_fat_finger_position_limit  = true
```

```
T27_daily_drawdown_breaker     = true
T28_stale_data_monitor         = true
T29_sudden_move_classifier     = true
T30_cascade_position_override  = true

[constants.regime_filter]
weekly_200_sma_period  = 200
monthly_200_sma_period = 200

[constants.synthetic_poi]
zone_width_mult        = 1.5
max_grade              = "B"
require_20sma_halt     = true

[constants.runner_health]
breach_count           = 3
reset_count            = 2
tightened_delta        = 0.65

[constants.exit_watchzone]
proximity_mult         = 1.0

# ... (all other constants from Rubric v2 and
#      Sudden Move Policy go here)
```

6. Dependency Enforcement

When a parent toggle is turned OFF, all child toggles that depend on it are automatically forced OFF. This prevents impossible states (for example, Absorption Detection running without Order Flow Confirmation, which would produce meaningless results). The enforcement happens at configuration load time and is logged.

6.1 Dependency Tree

The following shows all parent-child relationships. An arrow means “child depends on parent.” If the parent is OFF, the child is forced OFF.

PARENT (IF OFF →)		CHILD (FORCED OFF)	REASON
T01 HTF Structure Mapper	→	T02 HTF Regime Filter	Cannot filter by macro MA without HTF data.
T02 HTF Regime Filter	→	T03 Synthetic MA POI	Synthetic POIs need MA values from the regime system.
T07 Order Flow Confirm.	→	T08 Absorption Detection	Absorption is a sub-component of Order Flow.
T07 Order Flow Confirm.	→	T09 Whale Watch Filter	Whale watching needs the T&S tape from OF module.
T07 Order Flow Confirm.	→	T18 Conditional Tape Failure	Tape failure exit needs live delta data from OF.
T16 ALL Velez Layers	→	T12, T13, T14, T15	Master switch for all four Velez criteria.
T19 Structural Node Trail	→	T20 RBI/GBI Hold Filter	RBI/GBI is a sub-filter within the trail system.
T18 + T19 (both)	→	T21 20 SMA Health Check	Health check modifies Tape Failure threshold within the trail.
T29 Sudden Move Classifier	→	T30 Cascade Position Override	Cannot override cascade sizing without classification.

7. Recommended Backtesting Profiles

Rather than toggling features one at a time (which creates a combinatorial explosion), the following pre-defined profiles are recommended. Each profile answers a specific research question. Start with the Baseline, then run each profile against the same historical data set and compare results.

PROFILE	TOGGLES CHANGED	RESEARCH QUESTION	EXPECTED INSIGHT
Baseline	**All ON (default)**	What is the full system performance?	Establishes the benchmark. All future profiles are compared against this.
Vanilla SMC	T07, T08, T09, T16 OFF	How much edge does Order Flow add over pure SMC?	Measures the value of the entire Order Flow layer. If Vanilla SMC performs comparably, the OF infrastructure is not worth the DataBento cost.
No Velez	T16 OFF	Do the Velez layers actually add edge?	Compares 14-point rubric vs. original 10-point. If win rate and expectancy are similar, the Velez layers are cosmetic.
No Regime	T02 OFF	Does the HTF MA Regime Filter improve results?	Measures whether downgrading trend alignment in bearish macro regimes reduces drawdown without killing returns.
Simple Stops	T17, T18, T19 OFF	How much value does the volume profile stop system add?	Falls back to simple ATR stops and fixed trailing. Measures whether HVN/LVN intelligence is worth the complexity.
No Partials	T23 OFF	Is taking 50% at 2R optimal or should we let it ride?	Compares the partial-profit approach vs. full-position-to-target. Higher variance but potentially higher expectancy per trade.
Structure Only	T07, T08, T09, T10, T11, T16, T17, T18, T19 OFF	What is the raw edge of the SMC structure alone?	The most stripped-down version. Pure POI mapping + CHOCH entry + ATR stop. If this is profitable on its own, the structural foundation is sound.
Single Feature	One feature OFF at a time	Which single feature contributes most?	Run 30 individual tests, each with exactly one toggle OFF. Rank features by their impact on system expectancy. This identifies which features to prioritize in code quality and which might be candidates for removal.

BACKTESTING DISCIPLINE

Every profile must be tested against the SAME historical data set, over the SAME date range, with the SAME seed for any randomized elements (slippage simulation, etc.). Results should be logged with the full toggle configuration so they are reproducible. The minimum dataset should be 1000 trades per profile to reach statistical significance. Profiles with fewer than 500 trades should be flagged as inconclusive.

7.1 Metrics to Compare Across Profiles

METRIC	WHY IT MATTERS
Win Rate	Percentage of trades that are profitable. A feature that drops win rate by 5% but increases average win size may still be net positive. Never evaluate win rate in isolation.
Expectancy (per trade)	(Win Rate × Avg Win) − (Loss Rate × Avg Loss). This is the single most important metric. A positive expectancy means the system makes money over time.
Profit Factor	Gross Profits / Gross Losses. A profit factor above 1.5 is good. Above 2.0 is excellent. Below 1.0 means the system loses money.
Max Drawdown	The largest peak-to-trough decline. Critical for determining whether the system is psychologically and financially survivable. A system with high expectancy but 40% max drawdown is dangerous.
Sharpe Ratio	Risk-adjusted return. Accounts for volatility of returns. A Sharpe above 1.0 is acceptable for intraday systems. Above 2.0 is exceptional.
Trade Frequency	Number of trades per week/month. A feature that doubles expectancy but reduces trade frequency by 80% may produce lower total profit. Frequency and expectancy must be evaluated together.

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

FLOF Matrix — HTF MA Integration & Feature Toggle System v1.0

This document should be read in conjunction with the Confluence Grading Rubric v2.0 and the Sudden Move Policy. All toggle IDs and configuration constants defined herein must be implemented in the central configuration file before any backtesting begins.