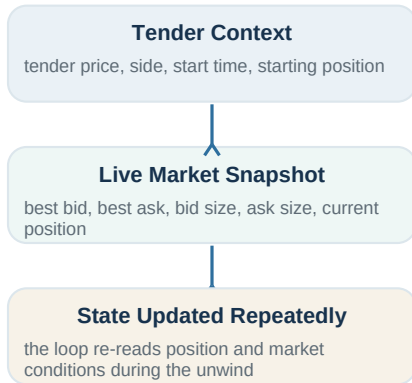


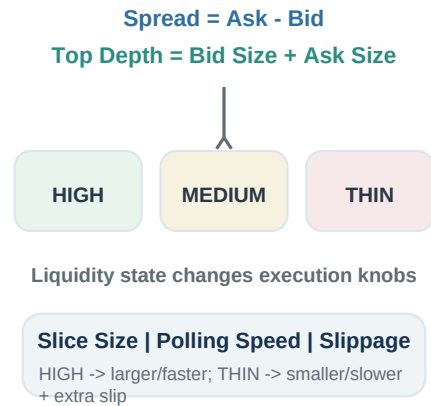
SwitchRule.py: Time-Dependent Risk Decision Architecture

How the strategy protects tender edge early, adapts to liquidity, and limits inventory exposure as time passes

1. Market + Tender State

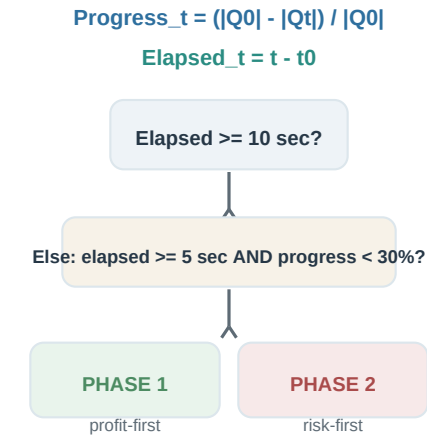


2. Liquidity Evaluation



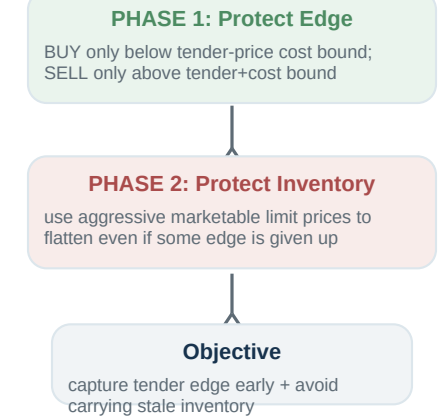
The second layer converts spread and visible depth into HIGH, MEDIUM, or THIN liquidity, which changes order size, polling frequency, and price aggressiveness.

3. Time-Dependent Risk Decision



The risk rule treats slow inventory reduction as rising urgency: stay profit-first early, but switch to risk-first after 10 seconds or after 5 seconds when less than 30% has been unwound.

4. PnL-Oriented Execution



The execution layer seeks PnL by harvesting the tender spread while conditions are favorable, then sacrificing some price protection when necessary to reduce the risk of a lingering position.

Why this can be successful in a crowded RITC trading space (mechanism / inference)

This is a plausible explanation of the observed performance; switchrule.py itself does not prove that crowding caused the PnL.

1. More executable liquidity

When many participants quote and trade, displayed depth can increase and spreads can tighten, creating more chances for Phase 1 orders to fill inside the profitable tender boundary.

2. Faster profitable unwinds

In HIGH liquidity the code increases child-order size and polls faster, so the strategy can reduce inventory quickly while favorable prices are still available.

3. Time rule limits crowding risk

If competition, adverse selection, or rapidly changing quotes prevent enough progress, the 5-second / 30% and 10-second rules force a switch toward flattening instead of waiting indefinitely.

4. Adaptive rather than static

Because liquidity and position are re-read during the unwind, the strategy can be aggressive when the market is deep and defensive when the book becomes thin, which helps balance edge capture against inventory exposure.

Key idea: profitable-first when liquidity cooperates; risk-first when time and remaining inventory indicate the opportunity is deteriorating.