

Entry Rules v2 — Fixed Data vs Stream Data (2026-09-28)

Your question: for v2, what data is fixed and what data is filled from the stream? For example 14-day RVOL, 14-day volume, etc. should all be fixed information for reference.

Answer: yes — the rule is: **everything built from past days is calculated once and saved; only today's live numbers come from the stream.** Every check then compares the live numbers against the fixed ones.

1. Fixed reference data

Calculated once per stock at the scan (9:30, or when a rescan adds the stock), from the previous 14 sessions. It never changes during the day.

Data	Used for
14-day volume per minute — average volume for each minute of the day (390 values)	per-minute RVOL (bursts)
14-day cumulative volume by minute — average total volume by each minute	RVOL so far today
14-day opening volume — average 9:30 – 9:35 volume	opening RVOL
14-day move from the open by minute — average size of the move at each minute	noise area ("unusual move")
14-day support / resistance bands , 14-day high / low	room to resistance / support, position in range
Daily ATR (14), average daily volume (14), average daily range %	stock-type and liquidity filters, stops, spread vs ATR
Previous close, previous high / low; premarket high / low / volume	levels, gap
Multi-day context: yesterday's change, 5-day change, big winner before, days since news	stock type
News before the open	catalyst flag
14-day buy volume — estimated from minute bars now, true values once 14 days of live recording exist	buy volume vs normal
IWM / SPY: previous close, 14-day move profile	market regime

2. Fixed at the open

Set once, early in the day, then unchanged.

Data	Fixed at
Today's open price, gap %	9:30
Opening range (first-5-minute high / low), first candle green or red	9:35
Opening RVOL (9:30 – 9:35 vs 14-day)	9:35
The market's first-half-hour direction (IWM / SPY 9:30 – 10:00)	10:00

3. Live from the stream

Updated on every trade, quote or minute bar:

- Price, bid / ask, spread
- Every trade, labeled buy or sell → buy volume, sell volume

- 1-minute bars → this minute's volume, total volume so far, day high / low
- VWAP
- Higher lows / structure
- IWM / SPY now vs their open
- News during the day (checked every few minutes)

4. Comparisons at each check (live ÷ fixed)

Value	Calculation
RVOL so far	total volume so far ÷ 14-day average total by this minute
Per-minute RVOL	this minute's volume ÷ 14-day average for this minute
Opening RVOL	fixed at 9:35
Move vs normal	(price – open) ÷ 14-day average move by this minute
Room	distance to the nearest 14-day resistance / support band (% , ATR)
VWAP stretch	(price – VWAP) ÷ VWAP
Buy volume vs normal	buy volume ÷ its reference (today's own average now; 14-day later)
Spread vs ATR	spread ÷ daily ATR

5. How it will be built

- **One reference file per stock per day** — data/reference/<date>/<SYMBOL>.json — written at the scan. A stock added by a rescan gets its file when it is added.
- **The same code builds these files for all 22 test days**, so the simulator and the live bot use identical references — a test result means the same thing live.
- **Loading once is cheaper and more stable:** the live bot reads the file once per stock instead of recalculating 14 days of data at every check, and the reference can't drift during the day.

6. Test result that finished the same evening — the "too far" limit measured from VWAP

Setup J with its "too far above" limit measured from **VWAP (2%)** instead of the **open (3-5%)**, same days and settings, every signal taken, tick replay:

Version	Trades	Wins	Net
J as it runs live (open 3-5%)	9	4 (44%)	+\$21.46
J with VWAP 2%	15	8 (53%)	+\$48.87

Days with trades in the VWAP version: 8/27 4 trades +\$53.54 · 9/10 3 trades –\$8.27 · 9/15 2 trades +\$34.58 · 9/17 2 trades –\$27.38 · 9/21 3 trades –\$67.43 · 9/22 1 trade +\$63.83 (9/28 had no trades).

More trades, a higher share of winners and about \$27 more — promising but a small sample. It will be compared with the noise-area version in the full v2 tests.