

20-day configuration study: which setup to run on Monday 9/28

Every setup was run over the same **20 trading days (8/27 - 9/24)** on the stocks the fixed scanner would have picked at 9:28, using the bot's own decision code, checked once per minute. Written 9/26.

How the test works (and its limits)

- **Data:** full-day 1-minute bars for each day's top 30 (current scanner with fixed data, and the new gap + daily ATR + RVOL ranking). Levels are the true premarket high, previous-day high, 20-day high, daily ATR and the 5-day reference.
- **Engine:** Stage 1, the trade plan, stop, giveback, stall exit, deterioration exit, re-entry rule and sizing all come from the live code (5 slots, 19% cap, 1% risk).
- **Limits, identical for every setup:** checks once per minute (the 18-second hold is waived); **no trade-flow imbalance** (needs tick data), so the imbalance exit and the context rule's imbalance check are skipped, and the above-open limit can only reach 4% (volume), not 5%; no spread check; hard stop checked against each bar's low; entries fill at the next minute's open.
- It's less exact than the tick replay, but it covers **3x more days** and treats every setup identically, so it is better for **choosing between** setups.

Results

Setup	Trades	Win %	Total	Days 1-10	Days 11-20	Worst day
A: live config	44	45 %	-\$98	-\$166	+\$68	-\$105
B: + low-ceiling rule	44	45 %	-\$98	-\$166	+\$68	-\$105
E: + recent-trend deterioration	44	45 %	-\$98	-\$166	+\$68	-\$105
F: + dead money	44	52 %	-\$49	-\$128	+\$79	-\$105
G: + 5-day levels	37	41 %	-\$96	-\$213	+\$118	-\$63
C: + above-open limit (your 3-5% rule)	21	48 %	+\$45	-\$135	+\$180	-\$63
J: + above-open limit + R:R ≥ 2	10	60 %	+\$103	-\$21	+\$123	-\$40
K: + above-open limit + no entries before 10:00	14	50 %	+\$75	-\$109	+\$184	-\$47
L: J + no entries before 10:00	5	80 %	+\$136	-\$9	+\$146	-\$22
M: L + pullbacks only	5	80 %	+\$136	-\$9	+\$146	-\$22
I: without real-level targets	26	50 %	+\$68	-\$25	+\$93	-\$31
H: without context rules	88	45 %	-\$169	-\$45	-\$124	-\$137
*New scanner ranking: * A / C / J / K / L / G / H	44 / 22 / 11 / 13 / 5 / 39 / 93		-\$94 / +\$103 / +\$86 / +\$97 / +\$110 / +\$1 / -\$378			

Patterns across 181 trades (the setups without context rules, for sample size)

What	Good	Bad
Setup	Pullbacks: about breakeven (147)	Breakouts: −\$532 (34, 35% winners)
Entry time	10:00-10:30: +\$230	9:30-10:00: −\$441 ; 11:30-13:00: −\$252
Above the open at entry	0-3%: +\$122	3-10%: −\$624
Above VWAP at entry	1-2%: +\$221	2-4%: −\$536
R:R at entry	≥ 2: about breakeven	1.5-2: −\$541
Volume pace	3-10× normal: +\$285	< 3× or > 10×: losing
Target	20-day high: +\$460 (64%)	previous-day high: −\$581
Exit	Giveback +\$1,665; stall exit +\$210 (90%)	hard stop −\$1,787; deterioration −\$624

What the study says

1. **Keep the context rules.** Removing them was the worst setup on both scanners.
2. **Your above-open limit works over 20 days.** Entries 3-10% above the open were the biggest losing group, and C beat A in **both** halves. This reverses the 6-day tick result, which was dominated by a few strong trend days.
3. **Raising the minimum R:R to 2** removes the worst R:R group (1.5-2, −\$541). J beat A in **both** halves by a wide margin, with the smallest first-half loss of any setup with a normal number of trades.
4. **No entries before 10:00** also helps, but combined with J (setup L) it leaves only **5 trades in 20 days**. That's too few to trust, and the bot would sit idle most days.
5. **The exits aren't the problem.** Giveback and the stall exit make the money; the losses are bad entries hitting the stop.
6. **Every setup lost in the first 10 days** (8/27-9/10) and made money in the last 10. Market conditions matter a lot. A market filter (no longs while small caps fall, from the 9/24 review) is worth building next.
7. **New scanner ranking:** better for A and C, slightly worse for J and L. Not a clear enough win to switch yet.

Recommendation for Monday 9/28 (needs your approval)

Setup J = the live config + the above-open limit + minimum R:R 2.0. It beat the live config in both halves of the 20 days, had the most consistent daily results with a usable number of trades, and both changes are one-line settings:

- `smart_engine.max_extension_from_open.enabled: true`
- `setup_plan.min_reward_risk: 2.0`

Expect far fewer trades: about 1 every 2 days in this test (the live bot may take a few more, since live data allows the 5% band with strong buying). Keep the current scanner. Leave the low-ceiling rule, dead money, recent-trend deterioration and 5-day levels off.

Caution: the patterns came from the same 20 days they were tested on, and J made only 10 trades, so this is the best-supported choice, not a proven one. Watch the first week's live results against this study.

Files: reports/open_window/bar_backtest.py, bar_data_build.py, results/*.json.