Tradebot v1.0.3 — Detailed Guide

What's New in v1.0.3

- **Graceful Ctrl+C** (idempotent): clean exit sequence
  Final reconcile… → Session P&L logged: … → Exiting bot…

- **Reconcile cadence**: startup sweep (default **48h**), mid-session sweep every **90 minutes** (configurable), and a short **2h final tail** on shutdown.

- **AutoTune (startup)**: regime-aware parameter nudges with safe bounds; autotune_preview_only supported.

- **Optional** elapsed AutoTune refresh: one-time retune after **4h** of runtime (off by default).

Note: For local organization you may keep a Version 1.0.3/ folder. Entirely up to you. On GitHub, the **current code lives at the repo root** for a simple Quickstart.

Quickstart (Powershell)

run from the repo root

Put your API keys in APIkeys.env at the repo root (do NOT commit this file)

python main.py

APIkeys.env (root)

COINBASE_API_KEY=your_key_here

COINBASE_API_SECRET="your_secret_here"

PORTFOLIO_ID=optional

Tip: You can set a custom path via ENV_PATH.

Upgrade from v1.0.2 (what changed)

- Drop in **new/updated files** at the root:

    o   bot/autotune.py (new in v1.0.3)

    o   bot/tradebot.py (updated)

    o   main.py (updated for graceful shutdown + reconcile cadence)

- Added **new config knobs** in bot/config.py (see "Key Settings").

How It Works (strategy overview)

- **Captain + Advisors**: EMA sets directional bias; RSI & MACD can veto entries/exits.

- **Warm-up**: ~200 × 5-minute candles (+ small buffer) to stabilize EMA/RSI/MACD before acting.

- **Execution**: maker-limit first, controlled reprice, per-product cooldowns, daily spend caps.

AutoTune (v1.0.3)

- **When**: runs **once at startup** by default. (Optional **elapsed** one-time retune after 4h runtime. In main.py,

```
# === Optional: elapsed-time AutoTune refresh (one-time) ===========

AUTOTUNE_ELAPSED_REFRESH_ENABLED = True        # set to True to enable

AUTOTUNE_ELAPSED_REFRESH_HOURS = 4             # hours of runtime before retune

# =================================================================
```

- **Inputs**:

    o Market snapshot (default **18h** candle lookback).

    o Your **.state/trades.csv** (maker/taker %, slippage, fees, pnl proxy).

- **Adjusts** (bounded):

    o confirm_candles, ema_deadband_bps, per_product_cooldown_s

    o RSI/MACD gates within conservative ranges

    o Per-product **maker offsets** with tiny nudges (±1 bps per run) within floors/ceilings

Start with autotune_preview_only=true for a first run to get feel for it; flip to false after you review proposed changes.

Reconcile Cadence (v1.0.3)

- **Startup reconcile** (default **48h**): catches fills while the bot was offline.

- **Mid-session reconcile**: **every 90 minutes** by default (toggle/adjust in config).

- **Final tail reconcile**: **2h** sweep on shutdown to catch late fills so P&L is accurate.

Run Lifecycle & Logs

At start

- AutoTune logs regime and proposed/applied tweaks.

- Warm-up backfills ~200 recent 5-min candles per product.

- Startup reconcile logs: "Gathering trade data from past 48 hours…"

During session

- Signals on 5-minute candle closes (respecting confirm_candles and cooldowns).

- Mid-session reconcile logs every ~90 minutes.

On Ctrl+C

Final reconcile…

Session P&L logged: this run $… | lifetime $… | runtime …

Exiting bot…

Key Settings (defaults shown):

Setting	File	Default	Purpose
lookback_hours	bot/config.py	48	Startup reconcile horizon
mid_reconcile_enabled	bot/config.py	True	Toggle mid-session reconcile
mid_reconcile_interval_minutes	bot/config.py	90	Mid-session sweep cadence
FINAL_RECONCILE_LOOKBACK_HOURS	main.py	2	Short EOD sweep on shutdown
autotune_enabled	bot/config.py	True	Enable autotune at startup
autotune_preview_only	bot/config.py	True	Log proposals without applying
autotune_lookback_hours	bot/config.py	18	Market window for autotune
(optional) elapsed autotune	main.py	off	One-time retune after 4h runtime

Files & Data (repo root)

- **Runtime state**: .state\ (git-ignored)

    - trades.csv – per-fill KPIs: fees, liquidity (maker/taker), slippage (abs/bps), intent price, hold time, pnl

    - trade_log.txt – session footer (P&L line at shutdown)

- **Env**: APIkeys.env at the repo root for local runs (git-ignored). An example file may be provided for reference; never commit real keys.

Troubleshooting

- **"No position held" on SELL** after a fresh BUY: mid-session reconcile usually clears it; ensure it's enabled.

- **AutoTune made no changes**: you're likely in autotune_preview_only=true; set false to apply.

- **Too chatty reconcile**: increase mid_reconcile_interval_minutes or disable mid-reconcile (final tail still runs).

- **Instant order at startup**: backfilled candles already met criteria—expected.

Recommended Day Plan (8am–4pm ET most active)

1. Start ~8am: **startup AutoTune**, warm-up, **startup reconcile 48h**.

2. Let it run: **mid-reconcile every 90 minutes**.

3. (Optional) Enable **one** elapsed AutoTune retune at **4h** runtime.

4. Ctrl+C at ~4pm: **final 2h tail** reconcile → P&L → exit.

Release Safety Notes

- Paper trade or tiny size first; set daily spend caps conservatively.

- Keep APIkeys.env and .state/ untracked; root .gitignore uses recursive patterns to protect secrets/state.

- Tag releases (e.g., v1.0.3) so users can pin to a known good snapshot.