Guide #6: Coding & Automation Companion

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CODING & AUTOMATION GUIDE FOR TRADERS

Purpose

A practical guide to using basic coding, scripts, and automation to support your trading—not replace it. Focused on simple tools: logging, alerts, and AI review. No computer science degree required.

Goals

- Automate boring but critical tasks (logging, screenshots, alerts).
- Create simple TradingView and NinjaTrader tools to spot your setups.
- Feed clean data to AI “coaches” for review and improvement.

Core Tools

Charting and Alerts

- TradingView:
  - Pine Script for indicators and alerts.
  - Browser-based, easy to share charts and scripts.
- NinjaTrader:
  - Advanced trade execution and ATM strategies.
  - Custom indicators and strategy automation (C#/NinjaScript).

Data and Journaling

- Google Sheets or Excel:
  - Central trade log.
  - Easy CSV export.
- Notion or similar:
  - For detailed notes, screenshots, and links.

Automation Bridges

- Zapier or Make.com:

  - Connect TradingView alerts to Discord, email, Google Sheets, and more.
  - Trigger AI calls with new trade data.

AI Assistants

- Perplexity, ChatGPT, Gemini, Grok/X:
  - For log review and feedback.
  - For script explanation, troubleshooting, and idea generation.

Project 1: Simple Trading Log (No Code or Low Code)

Step 1: Create a Log Sheet

Columns:
- Date
- Time
- Instrument (NQ, ES, CL, GC, etc.)
- Setup (EMA, VWAP, ORB, Flag, etc.)
- Direction (Long/Short)
- Entry Price
- Stop Price
- Target Price(s)
- Exit Price
- Result (R multiple or PnL)
- Screenshot Link
- Notes
- Rule Followed? (Y/N)
- Emotion (Calm, FOMO, Tilt, etc.)

Step 2: Save Template

- Store on Google Drive or in Excel.
- Make a “Master Log” and duplicate weekly or monthly if needed.

Step 3: Connect to AI

- Periodically export as CSV.
- Upload CSV to your AI assistant.
- Ask questions like:
  - “What is my win rate by setup?”
  - “Do I overtrade any specific time of day?”
  - “Where am I breaking my rules the most?”

Project 2: TradingView EMA Cross Alert (Beginner Pine Script)

Idea

Create an alert when the fast EMA crosses the slow EMA so you never miss your basic trend signal.

Example Script (Pine Script v5)

- This is a simple template you can paste into TradingView and customize:

```
//@version=5
indicator("EMA Cross Alert", overlay=true)
fastLength = input.int(9, "Fast EMA Length")
slowLength = input.int(21, "Slow EMA Length")

fastEMA = ta.ema(close, fastLength)
slowEMA = ta.ema(close, slowLength)

plot(fastEMA, color=color.new(color.green, 0), title="Fast EMA")
plot(slowEMA, color=color.new(color.red, 0), title="Slow EMA")

bullCross = ta.crossover(fastEMA, slowEMA)
bearCross = ta.crossunder(fastEMA, slowEMA)

plotshape(bullCross, title="Bullish Cross", style=plot.shape.triangleup,
location=plot.location.belowbar, color=color.green, size=size.tiny)
plotshape(bearCross, title="Bearish Cross", style=plot.shape.triangledown,
location=plot.location.abovebar, color=color.red, size=size.tiny)

alertcondition(bullCross, title="Bullish EMA Cross", message="Bullish EMA cross detected.")
alertcondition(bearCross, title="Bearish EMA Cross", message="Bearish EMA cross detected.")
```

Usage

- Add this script to your chart.
- Create alerts on the EMA cross conditions.
- Send alerts to:
  - Email
  - App notifications
  - Webhooks (for Discord/Zapier)

Project 3: VWAP Retest Alert

Idea

Alert when price returns to VWAP after being extended away, signaling a potential mean reversion or continuation setup.

Basic Logic

- Use built-in VWAP in TradingView.
- Alert when:
  - Price has traded a certain distance away from VWAP.
  - Then returns to within a small threshold of VWAP.
- This reduces the need to stare at the screen all day.

Project 4: Automated Screenshots and Notes

Tools

- Snipping Tool, ShareX, Lightshot, or Snagit.
- Cloud sync (Google Drive, Dropbox, OneDrive).

Workflow

- After each trade:
  - Capture screenshot of chart with entry and exit.
  - Save with a standardized naming convention:
    - YYYY-MM-DD_instrument_setup_direction.png
  - Paste the link into the “Screenshot Link” column in your log.

Advanced: Use automation tools to:
- Automatically upload screenshot to a specific cloud folder.
- Copy link to clipboard.

Project 5: Zapier Flow for Alerts and Logs

Goal

Route alerts and data between platforms without manual effort.

Example Flow A: TradingView Alert to Discord

- Trigger:
  - Webhook from TradingView alert.
- Action:
  - Post message to Discord channel:
    - “EMA cross on NQ 5min – Bullish. Check chart.”

Example Flow B: Trading Log to AI Review

- Trigger:
  - New row added in Google Sheets (trade completed).
- Actions:
  - Append data to a master log.
  - Optional: Send summary to your AI assistant for insights at end of day.
  - Send you a daily recap email with key statistics.

Project 6: NinjaTrader ATM and Semi-Automation

Idea

Use ATM (Advanced Trade Management) strategies:
- Predefine:
  - Stop loss size.
  - Profit targets.
  - Trailing behavior.
- This enforces risk rules automatically on every trade.

Workflow

- Set up one or more ATM templates:
  - For scalps (tighter stops, smaller targets).
  - For swings (wider stops, larger targets).
- Attach ATM template to each order:
  - This reduces the chance of forgetting stops or targets.

Project 7: Python for Custom Tools (Optional)

If you are comfortable with basic Python, you can:

- Pull account history via broker APIs.
- Analyze:
  - Win rate.
  - Average R multiple.
  - Performance by setup or time of day.
- Create simple reports:
  - Daily or weekly summary in text or charts.

Example Skeleton

- This is conceptual (not tied to a specific broker API):

```
import pandas as pd

# Load trade history from CSV
df = pd.read_csv("trades.csv")

# Calculate win rate
win_rate = (df["Result"] > 0).mean()

# Calculate average R multiple
avg_r = df["R_multiple"].mean()

print(f"Win rate: {win_rate:.2%}")
print(f"Average R multiple: {avg_r:.2f}")
```

Ask your AI assistants to help you adapt scripts to specific APIs and data.

Best Practices for Coding & Automation

- Start simple: Automate one thing at a time.
- Never auto-trade money you have not thoroughly tested in simulation.
- Keep humans in control:
  - Automation suggests and tracks.
  - You decide on entries and exits.
- Version control:
  - Save versions of important scripts.
  - Comment your code for future you (and others).

AI as Your Coding Tutor

Use AI to:
- Explain what a script does in plain English.
- Fix syntax errors in Pine Script, Python, or C#.
- Suggest improvements:
  - “How can I avoid repainting signals?”
  - “How do I add alerts when multiple conditions line up?”

Example Prompt

“Here is my Pine script for an EMA crossover and VWAP test. Please review it for logic errors, explain what each section does in plain language, and suggest improvements for intraday futures trading.”

Summary

Coding and automation are force multipliers, not magic