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BetEMACrossover6Atr Strategy Manual

Overview

The **BetEMACrossover6Atr** is a NinjaTrader 8 trading strategy designed to identify bullish and bearish trading opportunities based on Exponential Moving Average (EMA) crossovers, combined with additional technical indicators such as Average Directional Index (ADX), Average True Range (ATR), Bollinger Bands (BB), Relative Strength Index (RSI), and Directional Movement (DM). The strategy incorporates time-based trading windows, volume confirmation, and probability calculations to filter entries. It includes risk management features like stop-loss and profit targets, either based on ATR or fixed tick values, and supports email notifications and visual alerts. This strategy and algorithm are designed to use NinjaTrader's Strategy Analyzer for back testing!

How we set it up

This strategy employs a heuristic algorithm to predict the probability of the next bar being bullish or bearish, leveraging NinjaTrader's Strategy Analyzer for back-testing. The algorithm dynamically adjusts internal filters with each calculation, using basic filters as a starting point.

Chart Requirements

- **Recommended Chart Types:** Minute or tick-based charts.
- **Unsupported Chart Types:** All other bar and chart types should be avoided.

Setup and Back-testing

The Strategy Analyzer is used to back-test one week of historical data. The following parameters are optimized during back-testing:

- **Chart Time:** Adjust minute or tick intervals (e.g., 5 minutes to 4 minutes, 2000 ticks to 2500 ticks).
- **EMA Plot Periods:** Modify the periods of the Exponential Moving Average.
- **Min/Max ADX:** Set minimum and maximum Average Directional Index thresholds.
- **Min ATR:** Define minimum Average True Range.
- **Probability Threshold:** Set the minimum probability for trade entry.
- **Profit/Loss Targets:** Adjust target levels for profit and loss.

Optimization Approach

- Adjust one parameter at a time, prioritizing EMA plot periods and chart timing.
- Target the lowest drawdown and highest profit.
- Ensure the following performance metrics:
 - **Percent Profitable:** $\geq 45\%$.
 - **Profit-to-Loss Ratio:** $\geq 1.5:1$.

Market Cycle Considerations

- The strategy assumes the market cycle (recurring patterns) during the next trading day aligns with the back-tested period.
- If consecutive losses occur, it may indicate a shift in market cycles. Adjust the chart update time (e.g., from 5 minutes to 4 minutes or 2000 ticks to 2500 ticks) to adapt.

Notes

- The algorithm's dynamic nature simplifies the optimization process by automatically adjusting internal filters.
- Regularly monitor performance to ensure alignment with market conditions.
- Emailing may not be processed depending on what else the system is doing.
- The Max Profit and Max Loss looks at unrealized profit + total profit during an entry and will clamp and stop trading if the unrealized profit + total profit are equal or greater than the settings.
- The total P and L used for the strategy will reset on new session Bar 0.
- Data calculation is done on Price Change and does NOT require TICK REPLAY, do not enable it.
- Enable End of Session is only used for canceling all entries if the Broker does not support **TIF**. If you need to use this set it several minutes prior to intraday market close. This will reset when the time is less than the reset time or on new session.
- All timers use NinjaTrader's time setup, if you have chosen CME it will use CME time.
- The strategy uses ATR "Average True Range" to calculate profit and loss, for beginners and novices this may prove advantageous for you. You will not have to worry if you are getting the best targets the system will figure it out for you, just setup the range.
- The timers are sequential and must be operated 1 then 2 then 3 anything else will cause an error.

Vendor Information:

- **Name:** Bars Edge Trader
- **Strategy:** BetEMACrossover6Atr
- **Website:** www.barsedgetrader.com
- **Support:** support@barsedgetrader.com
- **Last Update:** June 5, 2025

Strategy Logic

The strategy operates by:

1. **EMA Crossover Detection:**
 - A bullish crossover occurs when the fast EMA (default 7-period) crosses above the slow EMA (default 14-period), and the price closes above the slow EMA.
 - A bearish crossover occurs when the fast EMA crosses below the slow EMA, and the price closes below the slow EMA.
2. **Filters:**
 - **ADX:** Ensures a moderate trend (ADX between low and high thresholds).
 - **ATR:** Confirms sufficient market volatility (ATR above a minimum threshold).
 - **Volume:** Requires above-average volume within the last three bars.
 - **Probability:** Calculates bullish/bearish probabilities using DM, BB, and RSI data, requiring a minimum probability threshold.
3. **Time Windows:**
 - Trading is restricted to three configurable time windows (Timer 1, Timer 2, Timer 3) to avoid low-volatility periods.
4. **Entry and Exit:**
 - Enters long or short positions based on crossover signals and filter conditions.
 - Sets stop-loss and profit targets using either ATR-based calculations or fixed tick values.
 - Exits positions based on stop-loss, profit targets, maximum profit/loss clamps, or end-of-session rules.
5. **Visual and Notification Features:**
 - Draws arrows for entries and shaded rectangles for active time windows.
 - Displays probability and indicator data on the chart.
 - Sends email notifications for entries and P&L updates.
 - Triggers sound alerts for crossovers.

Prerequisites

- **Platform:** NinjaTrader 8
- **License:** Vendor license required from Bars Edge Trader
- **Data:** Real-time or historical market data for the instrument.
- **Chart:** Compatible with price-based or tick-based charts (minimum 50 bars required to trade).
- **Indicators:** The strategy uses built-in NinjaTrader indicators (EMA, ADX, ATR, Bollinger Bands, RSI, DM).

Installation

1. **Import the Strategy:**
 - In NinjaTrader 8, go to **Tools > Import > NinjaScript Add-On.**
 - Select the strategy file (`BetEMACrossover6Atr.zip`) provided by Bars Edge Trader
 - Ensure the vendor license is activated via the NinjaTrader Control Center.
2. **Apply to Chart:**
 - Open a chart for your desired instrument.
 - Right-click the chart, select **Strategies**, and choose **BetEMACrossover6Atr.**
 - Configure the parameters (see Configuration section below) and enable the strategy.
3. **Verify Indicators:**
 - The strategy automatically adds Fast EMA, Slow EMA, ADX (optional), and ATR (optional) to the chart.
 - Ensure sufficient historical data (minimum 256 bars) is loaded for accurate calculations.

Configuration

The strategy provides extensive customization through the NinjaTrader Strategy Parameters window. Below are the key parameter groups and their default settings:

EMA Parameters

- **Fast EMA Period:** 7 (Period for the fast EMA).
- **Slow EMA Period:** 14 (Period for the slow EMA).
- **EMA Fast Color:** Blue (Color for the fast EMA plot).
- **EMA Slow Color:** CornflowerBlue (Color for the slow EMA plot).

ATR Filters

- **ATR Period:** 14 (Period for ATR calculation).
- **ATR Plot Color:** DarkCyan (Color for ATR plot).
- **Minimum ATR Threshold:** 3 (Minimum ATR value to allow trading).
- **Enable ATR on Chart:** False (Show ATR on the chart).

ADX Filters

- **ADX Period:** 14 (Period for ADX calculation).
- **ADX Threshold Low:** 10 (Minimum ADX for a moderate trend).
- **ADX Threshold High:** 65 (Maximum ADX for a moderate trend).
- **ADX Plot Color:** DarkCyan (Color for ADX plot).
- **ADX High Line Color:** Gold (Color for high ADX threshold line).
- **ADX Low Line Color:** Purple (Color for low ADX threshold line).
- **Enable ADX on Chart:** False (Show ADX on the chart).

Filters

- **Volume Lookback:** 20 (Period for volume SMA calculation).
- **Volume Multiplier:** 1.1 (Multiplier for above-average volume detection).

System Alert Parameters

- **Enable CrossAbove/Below Sound Alert:** True (Enable sound alerts for crossovers).
- **Alert Sound File:** \sounds\Alert1.wav (Path to alert sound file).
- **Alert Background Color:** Blue (Background color for alerts).
- **Alert Text Color:** White (Text color for alerts).

System Parameters Colors

- **Arrow Color Long:** Green (Color for long entry arrows).
- **Arrow Color Short:** Red (Color for short entry arrows).

System Parameters

- **Max Profit Clamp \$:** 500 (Maximum profit to stop the strategy).
- **Max Loss Clamp \$:** -500 (Maximum loss to stop the strategy).
- **End of Session Close All Entries:** 15:45 (Time to close all positions).
- **Enable End Of Session Time:** False (Enable end-of-session exit).
- **Email Address:** customer@winners.com (Email for notifications).
- **Enable Email on Entries & PnL:** False (Enable email notifications).

System Profit Loss

- **Enable ATR Profit & Loss:** True (Use ATR-based stop-loss/profit targets).
- **Timer 1:**
 - **Order_Quantity Time ATR 1:** 1 (Order quantity for Timer 1).
 - **Stop Loss ATR Multiplier Time 1:** 1.5 (ATR multiplier for stop-loss).
 - **Profit Target ATR Multiplier Time 1:** 2.2 (ATR multiplier for profit target).
 - **Order_Quantity Timer 1:** 1 (Order quantity for non-ATR mode).
 - **Profit_Target Timer 1:** 50 ticks (Profit target in ticks).
 - **Stop_Loss_Target Timer 1:** 30 ticks (Stop-loss in ticks).
- **Timer 2:**
 - **Order_Quantity Time ATR 2:** 1 (Order quantity for Timer 2).
 - **Stop Loss ATR Multiplier Time 2:** 0.8 (ATR multiplier for stop-loss).
 - **Profit Target ATR Multiplier Time 2:** 1.2 (ATR multiplier for profit target).
 - **Order_Quantity Timer 2:** 1 (Order quantity for non-ATR mode).
 - **Profit_Target Timer 2:** 55 ticks (Profit target in ticks).
 - **Stop_Loss_Target Timer 2:** 35 ticks (Stop-loss in ticks).
- **Timer 3:**
 - **Order_Quantity Time ATR 3:** 1 (Order quantity for Timer 3).
 - **Stop Loss ATR Multiplier Time 3:** 0.9 (ATR multiplier for stop-loss).
 - **Profit Target ATR Multiplier Time 3:** 1.4 (ATR multiplier for profit target).
 - **Order_Quantity Timer 3:** 1 (Order quantity for non-ATR mode).
 - **Profit_Target Timer 3:** 60 ticks (Profit target in ticks).
 - **Stop_Loss_Target Timer 3:** 40 ticks (Stop-loss in ticks).

Timer Parameters

- **Timer 1:**
 - **Timer 1 Start:** 08:30 (Start time for Timer 1).
 - **Timer 1 End:** 10:30 (End time for Timer 1).
 - **Timer 1 Brush:** DodgerBlue (Color for Timer 1 shading).
 - **Timer 1 Brush Opacity:** 10 (Opacity for Timer 1 shading).
- **Timer 2:**
 - **Timer 2 Start:** 10:31 (Start time for Timer 2).
 - **Timer 2 End:** 13:00 (End time for Timer 2).
 - **Enable Timer 2:** True (Enable Timer 2).
 - **Timer 2 Brush:** ForestGreen (Color for Timer 2 shading).

- **Timer 2 Brush Opacity:** 10 (Opacity for Timer 2 shading).
- **Timer 3:**
 - **Timer 3 Start:** 13:01 (Start time for Timer 3).
 - **Timer 3 End:** 15:10 (End time for Timer 3).
 - **Enable Timer 3:** True (Enable Timer 3).
 - **Timer 3 Brush:** Crimson (Color for Timer 3 shading).
 - **Timer 3 Brush Opacity:** 10 (Opacity for Timer 3 shading).

Dynamic Parameters

- **DM Period:** 14 (Period for Directional Movement indicator).
- **Bollinger Bands Period:** 14 (Period for Bollinger Bands).
- **Bollinger Bands StdDev:** 2 (Standard deviation for Bollinger Bands).
- **RSI Period:** 14 (Period for RSI).
- **DI Threshold:** 10 (Threshold for DM indicator).
- **BB Breakout Threshold:** 0.1 (Threshold for Bollinger Bands breakout).
- **RSI Bullish Threshold:** 55 (RSI threshold for bullish signals).
- **RSI Bearish Threshold:** 45 (RSI threshold for bearish signals).
- **Probability Threshold:** 0.50 (Minimum probability for trade entry).
- **Lookback Period:** 200 (Lookback period for probability calculations).
- **Display Probability Data:**
 - **Bottom Right:** True (Show data in bottom-right corner).
 - **Top Right:** False (Show data in top-right corner).
 - **Top Left:** False (Show data in top-left corner).
 - **Bottom Left:** False (Show data in bottom-left corner).

Usage

1. **Enable the Strategy:**
 - After configuring parameters, enable the strategy on the chart.
 - The strategy will start processing bars once the minimum required bars (50) are available.
2. **Monitor Visual Cues:**
 - **Entry Arrows:** Green arrows for long entries, red arrows for short entries.
 - **Time Windows:** Shaded rectangles indicate active trading windows (Timer 1: DodgerBlue, Timer 2: ForestGreen, Timer 3: Crimson).
 - **Data Display:** Probability, ADX, and ATR values are shown in the selected chart corner (e.g., bottom-right).
3. **Alerts and Notifications:**
 - Sound alerts play for EMA crossovers (if enabled).
 - Email notifications are sent for entries and P&L updates (if enabled).
4. **Risk Management:**
 - The strategy exits positions if the unrealized P&L exceeds the max profit (\$500) or max loss (-\$500).
 - Positions are closed at the end-of-session time (15:45) if enabled.
5. **Back-testing:**
 - Use NinjaTrader's Strategy Analyzer to back-test the strategy with historical data.
 - Ensure sufficient lookback (256 bars) for accurate probability calculations.

Error Handling

The strategy includes error checks to prevent misconfiguration:

- **Timer Overlap:** If Timer 1, 2, or 3 periods overlap, they are reset to default values, and an error message is displayed on the chart.
- **Multiple Data Displays:** Only one probability data display location can be enabled at a time. If multiple are selected, all are disabled, and an error message is shown.
- **Insufficient Bars:** The strategy skips processing until sufficient bars are available for EMA, ADX, ATR, and probability calculations.

Best Practices

- **Test in Simulation:** Run the strategy in NinjaTrader's Market Replay or Sim101 account to evaluate performance before live trading.
- **Optimize Parameters:** Use the Strategy Analyzer to optimize EMA periods, ATR multipliers, and probability thresholds for your instrument.
- **Monitor Alerts:** Pay attention to sound alerts and chart messages for crossovers and P&L events.
- **Adjust Time Windows:** Align timers with high-volatility periods for your market (e.g., US equity market open).

- **Check Email Setup:** Ensure NinjaTrader's email settings are configured correctly for notifications. To use email, you must configure it in NinjaTrader Setup.

Troubleshooting

- **Strategy Not Trading:**
 - Verify that the chart has at least 50 bars.
 - Check if the current time is within an active timer window.
 - Ensure ATR, ADX, volume, and probability conditions are met.
- **No Alerts:**
 - Confirm that `EnableAlert` is set to `True` and the alert sound file exists.
- **Email Issues:**
 - Check NinjaTrader's email configuration and ensure `Bet6EMAEnableEmailEntries` is enabled.
- **Error Messages:**
 - Review chart messages for timer overlap or data display errors and adjust parameters accordingly.

Support

For issues or questions, contact:

- **Email:** support@barsedgetrader.com
- **Website:** www.barsedgetrader.com

Disclaimer

The **BetEMACrossover6Atr** strategy is provided for educational and informational purposes only. It does not constitute financial advice. Always **back test** and validate the strategy's performance before using it in live trading. Trading involves significant risk, and past performance is not indicative of future results.

Here are some basic settings to help you get started, we suggest always back testing!

BET EMA Cross ATR 6 setup
guide

	ES-MES	NQ-MNQ	GC-MGC
Data Series Type	MIN	MIN	MIN
Data Series Value	5 min	5 min	3 min

In strategy analyzer adjust the yellow bands first

Fast EMA Period	7	7	7
Slow EMA Period	14	14	14
ATR Period	14	14	14
Minimum ATR Threshold	3	3	0.75
ADX Period	14	14	14
ADX Threshold High	65	65	65
ADX Threshold Low	10	10	10

ATR Profit Loss

Leave all current settings for standards
adjust on Strategy Analyzer testing

DM Period	14	14	14
Bollinger Bands Period	14	14	14
Bollinger Bands StdDev	2	2	2
RSI Period	14	14	14
DI Threshold	10	10	10
BB Breakout Threshold	0.1	0.1	0.1
RSI Bullish Threshold	55	55	55
RSI Bearish Threshold	45	45	45
Probability Threshold	0.5	0.5	0.5
Lookback Period	200	200	200