**NinjaTrader 8 Trading Strategy - Project Specification V4**

**Project Overview**

This project involves developing a custom automated trading strategy for NinjaTrader 8 platform.

**Project Scope**

The project will include:

1. Converting required parts of indicators from Trading View to NinjaTrader 8
2. Implementing the scanning logic based on market structure
3. Developing entry and exit conditions as specified

**Technical Requirements**

**Indicators Required**

1. **BOS/CHOCH Indicator**
   * https://www.tradingview.com/script/ZpHqSrBK-Market-Structure-CHoCH-BOS-Fractal-LuxAlgo/
     1. Conversion of Lux Algo's similar functionality
   * Must be converted to NinjaTrader 8
2. **Fair Value Gap (FVG) Indicator**
   * https://www.tradingview.com/script/aZACDmTC-Super-OrderBlock-FVG-BoS-Tools-by-makuchaku-eFe/
     1. Makuchaku indicator
   * Must be converted to NinjaTrader 8
3. **Order Block Indicator**
   * https://www.tradingview.com/script/aZACDmTC-Super-OrderBlock-FVG-BoS-Tools-by-makuchaku-eFe/
     1. Makuchaku indicator
        1. Modify indicator to only allow for the bodies of the candles not the wicks.
           1. For bullish OBs: They're calculated from the body high (not the wick top)
           2. For bearish OBs: Use the body low (not the wick bottom)
   * Must be converted to NinjaTrader 8
4. **Fractals Indicator**
   * Use the TradingView indicator <https://www.tradingview.com/v/F2vLpcxJ/> just for fractals
     1. Fractal value must be changeable but default is 1.
   * Must be converted to NinjaTrader 8

**Scanning Logic**

**15-Minute Timeframe Analysis**

* Determine first directional bias based on the last Break of Structure before 8:30 AM New York
  + If last BOS/CHOCH is up (bullish) → Look for long opportunities
  + If last BOS/CHOCH is down (bearish) → Look for short opportunities
* If a new BOS/CHOCH forms, bias shifts to the latest one. For example, if before 8:30 the last signal was bullish, trades look for bullish. But if a new bearish BOS/CHOCH forms at 9:00, the trade direction switches to bearish.

**Trigger Conditions (Look at 15-Minute for these, if they occur then move to entry logic time frame)**

1. **FVG Condition**
   * Price must be within an FVG aligned with the bias direction
   * For bearish bias: Must be within a bearish FVG
   * Strategy stops looking for shorts if a candle closes through the FVG
   * Vice versa for longs
2. **Fractal High/Low Sweep Condition**
   * For bearish bias: If a recent fractal high is broken through (x bar look back to determine recent fractal highs to look at)
     1. When a high or low has been “hit” meaning price has gone through it, it is no longer considered a fractal high or low for us to use.
   * Look for shorts on 1-minute for the next X number of 15-minute bars (configurable parameter), but execution is on 1-minute timeframe (entry logic mentioned later in spec)
   * Vice versa for longs
3. **Order Block Condition**
   * For bearish bias: Order block must align with bearish BOS
   * Entry opportunity triggered when price closes through the body of the order block candle
   * Only look for trades within the next 15-minute candle (make this adjustable to allow for x amount of 15 minute bars) after the trigger on the 1 minute timeframe
   * Vice versa for longs
   * Toggle option to disable Order Block trades entirely

**Entry Logic (1-Minute Timeframe – Adjustable time frame as long as lower than 15 minute)**

1. **Swings**
   * Identify a swing low then right after it has to be swing high (swing high and lows (for bearish trades)
   * A FVG gap must appear within this swing low to swing high, if not then we won’t be looking for trades between that swing low to swing high.
   * If another swing low to high happens then we no longer look at the FVG from previous swing low to high if it appeared.
   * A screenshot of a graph

     AI-generated content may be incorrect.
2. **Gap Analysis**
   * For bearish trades (meaning bearish on the 15 minute): Look for bullish gaps
   * Entry trigger: Price closes below the bullish gap
   * Must be a singular gap within the swing low to swing high, meaning the only FVG gap
   * For bullish trades (meaning bullish on the 15 minute): Look for bearish gaps
   * Entry trigger: Price closes above the bearish gap
   * Invalidation criteria:
     + If another swing low to swing high occurs before the close below the gap
     + If price (including wick) goes below the swing low of the current swing low to swing high
3. **Entry Execution**
   * Enter on the next candle open after close below the bullish gap if bearish 15 minute
   * If bullish 15 minute enter on the next candle open after close above the bearish gap
   * Minimum 2 contracts required for position management
   * Time filter options to restrict trading to specific sessions (e.g., specific X time to X time)

**Exit Strategy**

1. **Stop Loss Placement**
   * 0.25 points above the FVG gap that was broken through
2. **Take Profit Management**
   * Close 50% of the position at 2R (risk-to-reward ratio)
   * Implement trailing stop for the remaining position
   * When price reaches 2R, move stop loss to break-even for remaining position
   * Trail by a specified number of points (e.g., 30 points/ticks)

**Deliverables**

1. Complete NinjaTrader 8 strategy source code
2. Three custom indicators converted for NinjaTrader 8
3. Documentation
4. Setup instructions