

## TT at swings EA

### Overview

The proposed EA draws supply and demand rectangles at the highs and lows of former swings. The swings are identified using the standard zigzag indicator, on a standard setting. The rectangles are drawn by selecting the highest high and highest low in a group of candles and visa versa. There are a number of filters to remove unwanted trades.

See 'Swing\_rejection\_overview.mp4' for a video demo. (The video demonstrates the principle on MT4 but the EA should be developed in MQL5 for MT5)

The details are as follows...

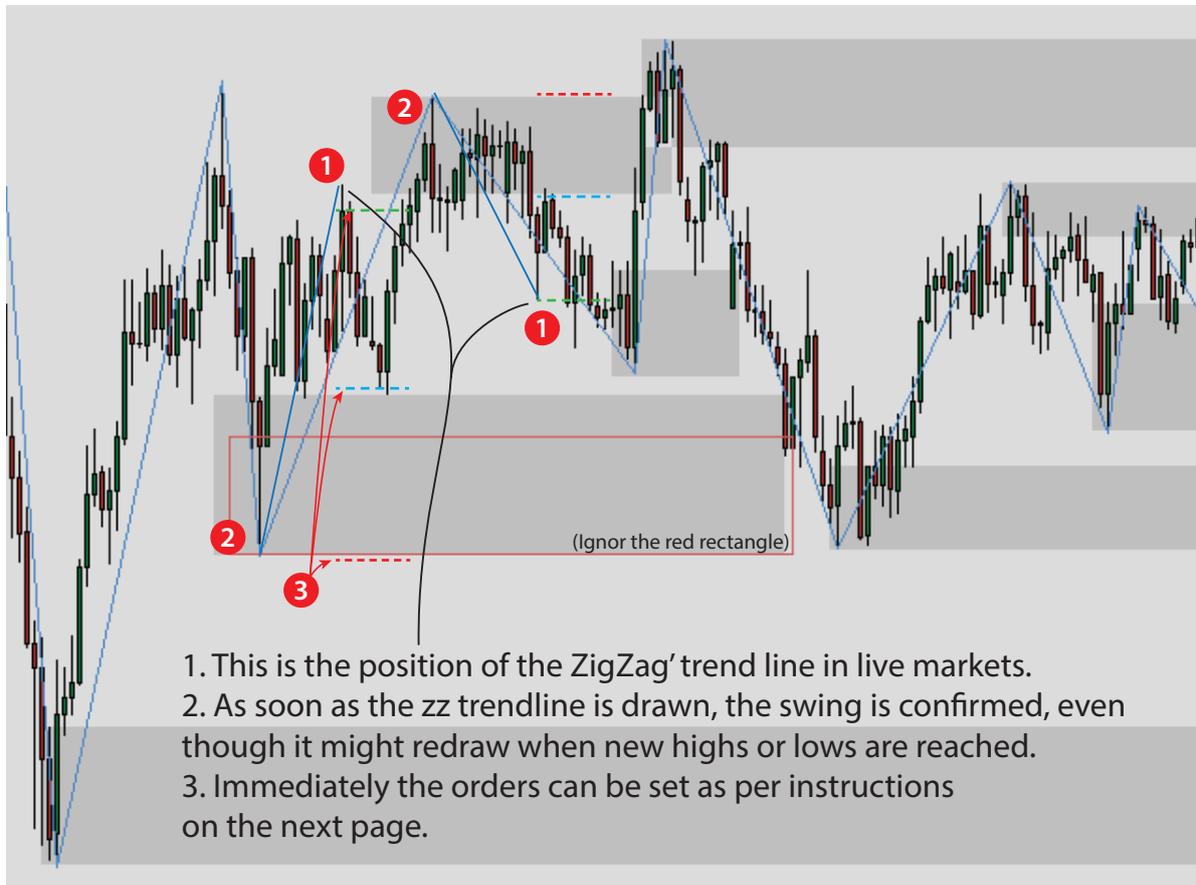
### Swings identified by standard ZigZag indicator.

- Settings (allow modification in inputs):
- Colour DodgerBlue

ZigZag 1.00

Variable	Value
ExtDepth	12
ExtDeviation	5
ExtBackstep	3

Once the zz indicator deviates 5% from the depth, the trend line is drawn. This confirms the low or high of the swing. Orders should be set at this point. (In other words, as soon as deviation is confirmed and the next zig or zag draws the orders are set).



1. This is the position of the ZigZag' trend line in live markets.
2. As soon as the zz trendline is drawn, the swing is confirmed, even though it might redraw when new highs or lows are reached.
3. Immediately the orders can be set as per instructions on the next page.

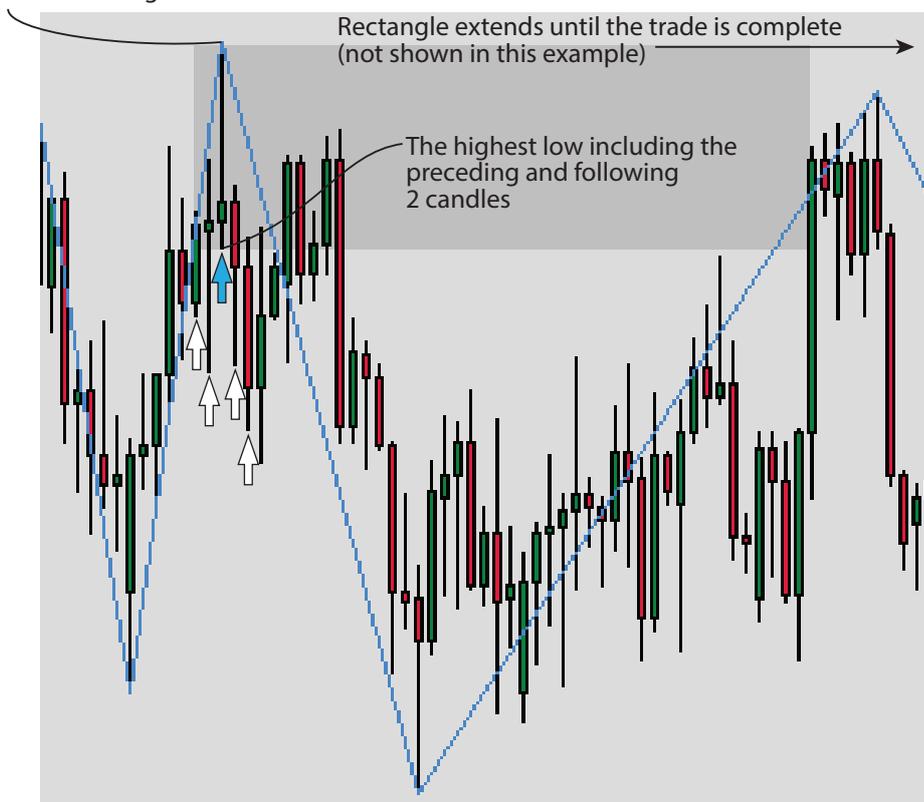
## Rectangles

The supply rectangles are drawn by identifying the highest high in the swing. Then looking at the 2 candles before and after, selecting the highest low. These points form the top and bottom of the rectangle.

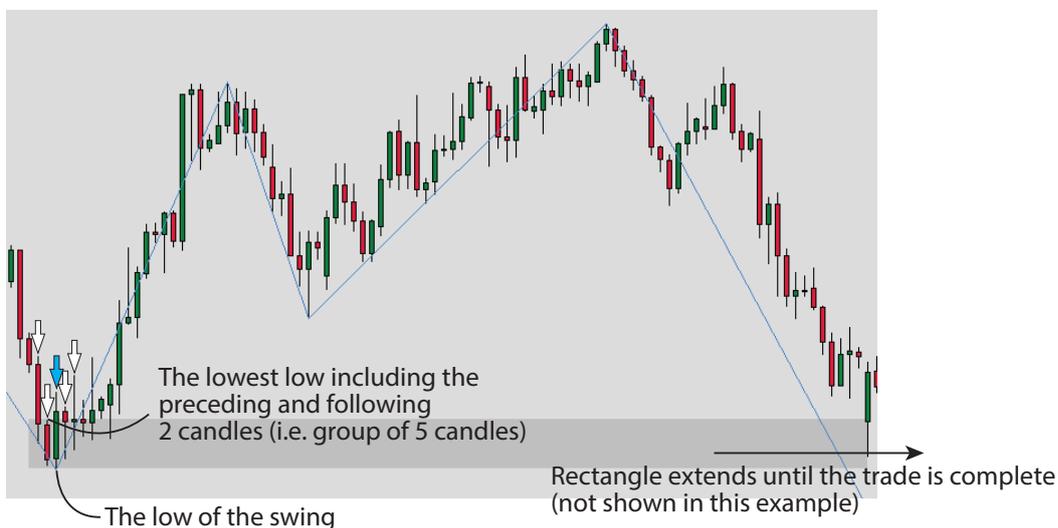
The rectangle is

- Coloured Silver
- In the background
- Not selected (but has the ability to be selected i.e. not disabled)
- Extends to the right until price hits either the stoploss or take profit - or 450 candles (The rectangles drawn in the examples don't show this)
- Inputs: Draw rectangle [True / False]

The high of the swing



The same for demand zones...



## Orders (Note that longs and shorts are treated differently)

First define the average spread. A 12 candle period will be fine but however you recommend. (Please explain the method you use to achieve this)

### Supply zones (Shorts)

**StopLoss:** The price at the top of the rectangle + 1.5 x average spread. (Variable in Inputs)

**Sell Limit Order (Entry):** The price at the bottom of the rectangle. Round the smallest decimal number down and minus 0.00011

- For markets that only have 3 or any number of decimal places (i.e. JPY pairs) could similar to the above be implemented? If not then just minus 4 pips off the price of the rectangle bottom.

### Take Profit:

1:1 Risk / Reward. Set Take Profit equally distant to the Stop Loss. So that the amount stand to loose on any trade is the same as the amount stand to profit. (Variable in Inputs).

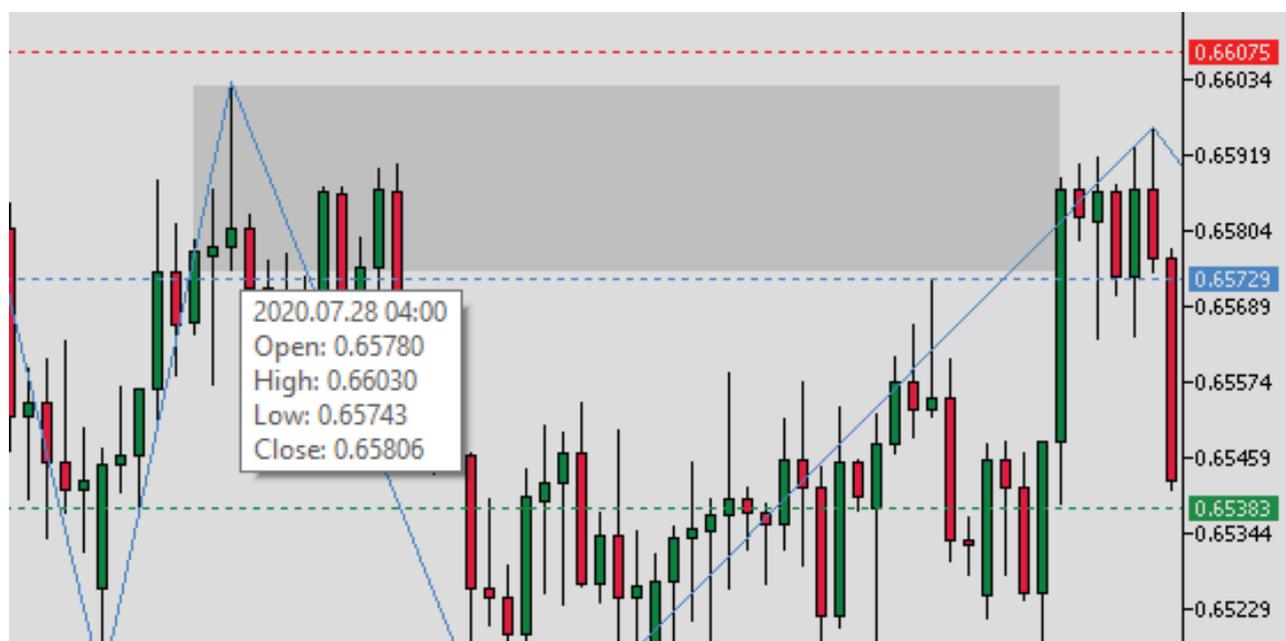
### Example AUDCHF:

For this example let us assume the average spread is 0.3 pips

**StopLoss:** The high and top of the rectangle is 0.66030 The spread is 0.00030 multiplied by 1.5 is 0.00045. So the StopLoss is at 0.66075

**Entry:** Candle low and bottom of rectangle is 0.65743. Round the last decimal down to arrive at 0.65740 then minus 0.00011. Therefore, set sell limit order at 0.65729

**Take Profit:** 1:1 Risk / Reward = 0.65383



## Demand zones (Longs)

**StopLoss:** The price at the bottom of the rectangle. Round the smallest decimal number down and minus 0.00011. If this won't work due to decimal places just minus 4 pips (Do not include spread).

**Buy limit order (Entry):** The price at the top of the rectangle. Round the smallest decimal number UP and add 1.5 x average spread.

### Take profit:

1:1 Risk / Reward. Set Take Profit equally distant to the stop loss. So that the amount stand to loose on any trade is the same as the amount stand to profit. (Variable in Inputs).

### Example USDJPY:

For this example let us assume the average spread is 0.004 pips

**StopLoss:** The low and bottom of the rectangle is 109.688 Minus 4 pips so 109.684

**Entry:** Within the 5 candle group, the lowest high and top of rectangle is 109.791. Round the smallest decimal number UP to arrive at 109.800 and add the spread which is 0.004 multiplied by 1.5 = 0.006. Therefore, set sell limit order at 109.806

**Take Profit:** 1:1 Risk / Reward = 109.928



### Both longs and shorts:

#### Risk allocation

2% of account balance loss if price moves to stop loss. (Variable in Inputs)

#### Trade management

If price moves 85% to target move SL to Entry location (break even). (Variable in Inputs)

## Filters

- On markets that close at the weekend (forex and Indices) - All open trades are closed on Friday at 9:30pm GMT. No further trades can be opened until market opens the following week. The EA might be applied to markets that never close, such as crypto currencies so needs to remain active 24/7 on these markets.

- If the supply or demand rectangle has been consumed (tested) greater than 50% depth between the time of the high/low and the time that the swing confirms (the ZZ TL is drawn), don't set orders (Inputs [TRUE/FALSE] and 50% retrace variable)

Example:

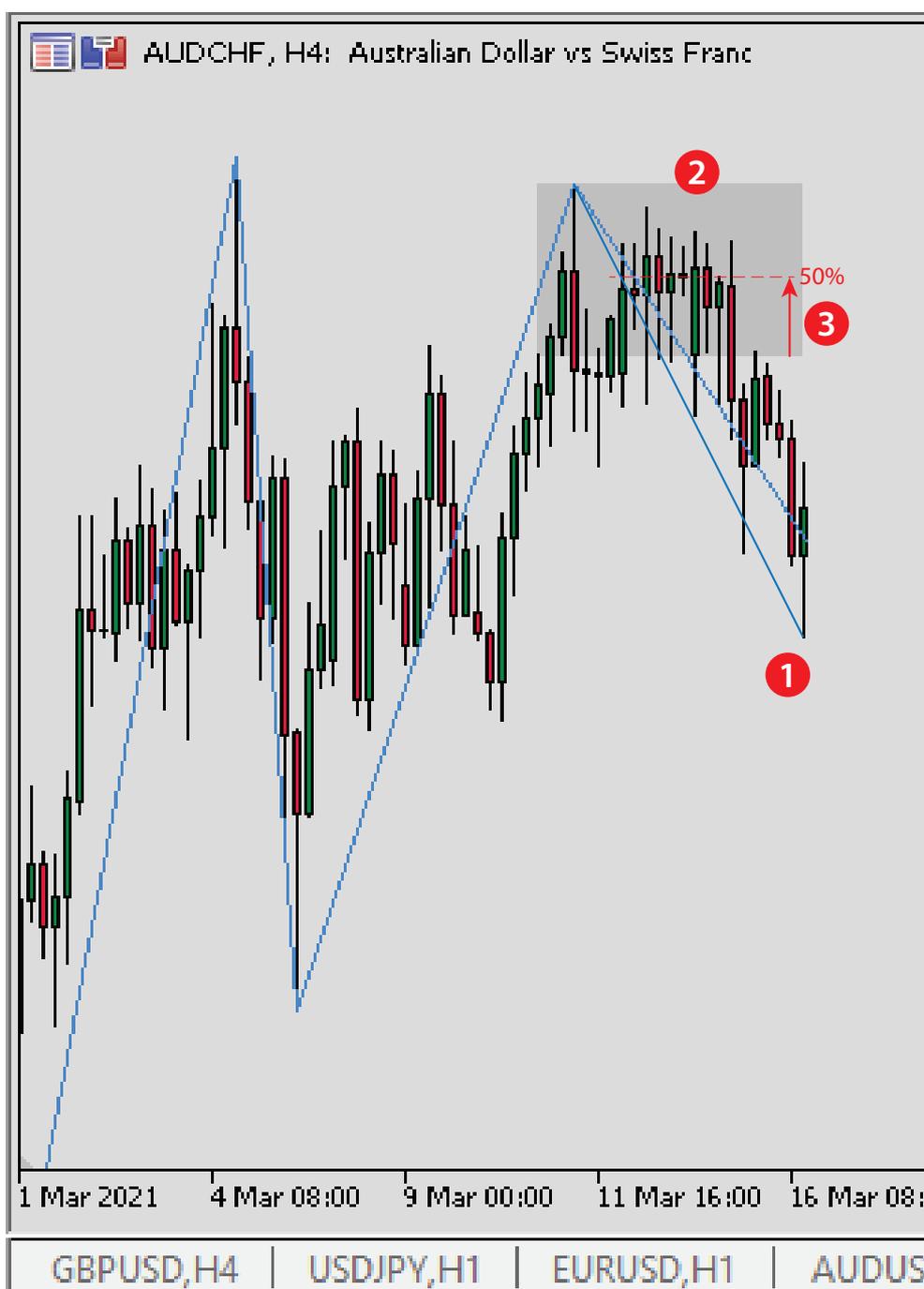
1. The Zag appears as price deviates >5% and so the swing is confirmed.

2. The rectangle is drawn

3. Between the time of the high of the swing and the moment the swing is confirmed by the zigzag trendline being drawn has price retraced >50% of the rectangle?

No = set orders

Yes = don't set orders



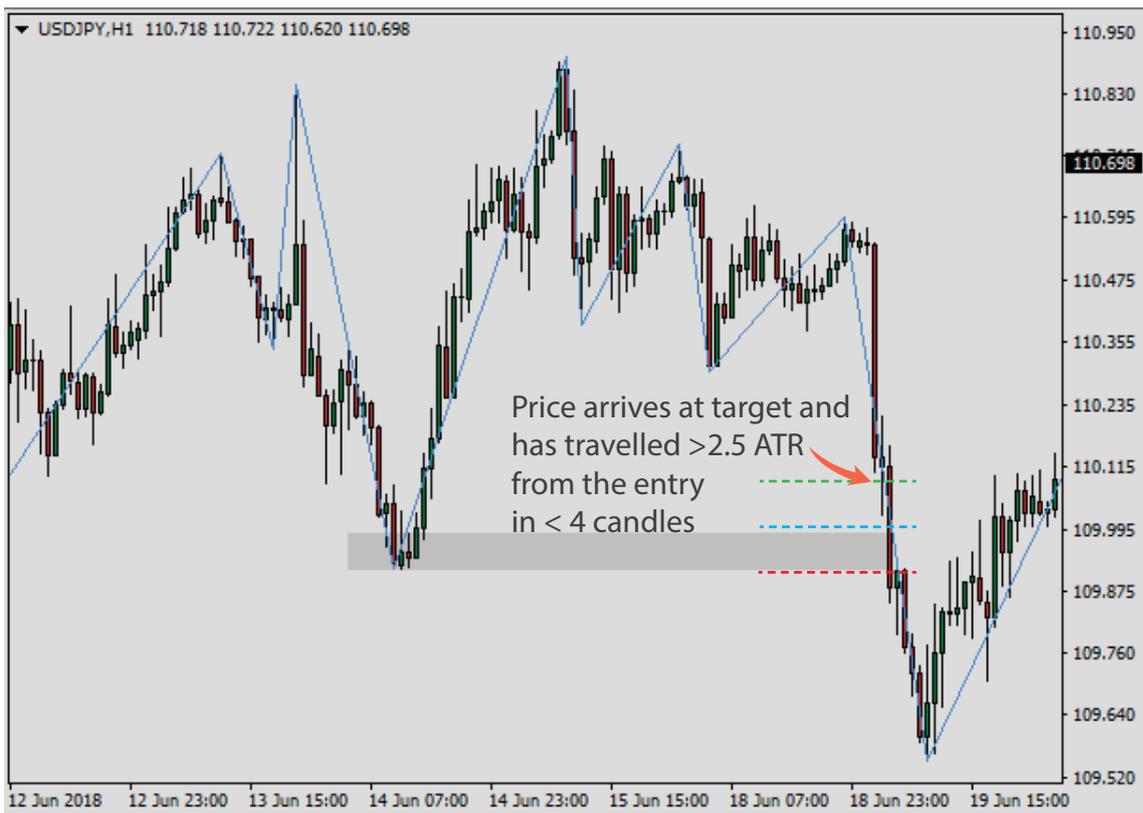
## Filters

- Time limit of 450 candles. Beyond that orders are cancelled. (Variable in inputs)
- If a rectangle has been traded and price has either hit the target or stoploss then it can't be traded again. Example:



- Orders are cancelled if there strength into the zone from a distance [TRUE/FALSE]  
Use indicator: ATR (period 1000), Closed bars only (Variable in inputs)  
- If price > 2.5 x ATR away from entry and price then hits the TARGET < 4 candles = cancel orders.

Example 1: Strength into the zone from a distance



## Example 2: Strength into the zone from a distance



### Please include:

- MagicNumber = 148744 ;  
Magic number for EA orders
- Ability to amend ZZ inputs
- //explanations within the code
- Provide the ability to test and optimize the different rules with [TRUE/FALSE] or variables in the Expert Properties / Inputs terminal.
- The EA will be used on commodities, indices, forex, including JPY and crypto pairs:  
Natural Gas (NG) format: 3.316  
JPY/USD format: 83.775  
FTSE format: 5933.5  
Note that the decimal place is located at a different place in each pair. Please make the EA so it can work on all markets no matter where the decimal is placed.  
The Broker I use 'IC Markets (SC)' is 5 decimal places.
- MT5 should correctly interact with orders that have been set by the EA and then modified manually by myself. (I.e. I may sometimes adjust the targets manually and MT5 should trigger orders in the revised positions).  
- I need to be able to delete orders of what I consider to be invalid trades, without them coming back live again.
- The EA will be used with multiple charts and time-frames simultaneously. Therefore low cpu and ram usage is important. Please take time to develop high quality code and quote on this understanding.