2018

MT4 EA DESIGN STRATEGY based on PZ TREND INDICATOR, WILLIAMS %R, PARABOLIC SAR & PZ Bands

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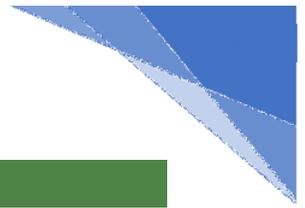
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EA DESIGN STRATEGY

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PZ TREND TRADING EA DESIGN STRATEGY

COMPONENTS

1. PZ Trend Indicator from Point Zero
2. Percent Williams
3. Parabolic SAR
4. PZ Bands

PLATFORM
Metatrader 4 ONLY running in VPS and Home PC mode in constant communication and redundancy mode.

ACCOUNT TYPES
The EA will work on both demo and live account funded in either Euro, GBP and USD and any chart including 4-and 5-digit quotes with non-standard symbol names (eg, EURUSDFXF) in any period.

STRATEGY

There are four major trends identified by the PZ Trend Trading indicator (referred from now on as PZ Trend) and can be identified as follows:

FIRST REQUIREMENT
When the EA is first placed on a chart,
Confirms: Parabolic SAR, Percent Williams Indicator and PZ Bands is present.
No ON/OFF button if not

ACTION
Issues alert to request the user place the missing indicators on the chart. When all indicators are present on the chart, EA draws an ON/OFF button
EA will not make any trade unless user activates ON button.

NEXT ACTION
Confirm stage of PZ Trend. Wait for alert from PZ Trend

OP_BUY_1; OP_BUY_2; OP_SELL_1; OP_SELL_2 TRADES
For OP_BUY_1, OP_BUY_2; EA make long stop +3pips trade of 2% of Account Balance (with reference to account currency and chart base currency) and trailing stop loss of 1 x ATR (A) where A is set according to the chart;

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For OP_SELL_1, OP_SELL_2; EA will make short stop -3 pips trade of 2% of Account Balance (with reference to account currency and chart base currency) and trailing stop loss of 1 x ATR (A) where A is set according to the chart;

CONFIRMATIONS:
1. Parabolic SAR is UNDER chart candlestick for a long and ABOVE for a short. TRADE ON COMPLETION OF FIRST SIGNAL
2. Williams %R is between 0 and -X for a long and -Y to -100 for a short (X AND Y ARE OPTIONS in EA)
3. Three Candlesticks do not consistently break the last layer of the PZ bands i.e. top band not broken for a long order and bottom band not broken for a short.

EXIT:
When 1 to 3 of confirmation above changes.

OP_BUY_3/OP_SELL_3 TRADES

The action of EA will be different for this alert.
For OP_BUY_3 or OP_SELL_3, EA make stop +3 pips trades to maximum 4 times.
See table for details of action to take each time.

ALERT NO.	CODE ISSUED	TRADE TO DO BY EA	TRAILING STOP LOSS
1st	OP_BUY_3	4% long stop trade +3pips	2 x ATR(A) Stop Loss
	OP_SELL_3	4% short stop trade-3pips	2 x ATR(A) Stop Loss
2nd	OP_BUY_3	3% long stop trade +3pips	1.5 x ATR(A) Stop Loss
	OP_SELL_3	3% short stop trade -3pips	1.5 x ATR(A) Stop Loss
3rd	OP_BUY_3	2% long stop trade +3pips	1 x ATR(A) Stop Loss
	OP_SELL_3	2% short stop trade -3pips	1 x ATR(A) Stop Loss
4th	OP_BUY_3	1% long stop trade +3pips	0.5 x ATR(A) Stop Loss
	OP_SELL_3	1% short stop trade -3pips	0.5 x ATR(A) Stop Loss

CONFIRMATION
The same confirmations as before holds.

EXIT:
When Williams %R enters -X-1 and +1 -Y and Parabolic SAR changes direction

OP_BUY_4 TRADES

For OP_BUY_4, EA will **make a market buy** of 2% of remaining account balance (with reference to account currency and chart base currency) and trailing stop loss of 0.5 x ATR (A) where A is set according to the chart.

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THIS TRADE IS ONLY FOR THREE candlesticks and is closed.

OP_SELL_4 TRADES:

OP_SELL_4, EA will **make a market short** of 2% of remaining account balance (with reference to account currency and chart base currency) and trailing stop loss of 0.5 x ATR (A) where A is set according to the chart;
THIS TRADE IS ONLY FOR THREE candlesticks and is closed.

CONFIRMATIONS:

The Williams %R will be between -X and -Y.

EXIT:

When candle 4 opens.

CODING INSTRUCTIONS

The coding for the indicator is to be done using the iCustom MT code:

```
//---- Step 1: Define constants in your EA
#define OP_BUY_1      4    // Bullish Trend Change (Blue 1)
#define OP_SELL_1     5    // Bearish Trend Change (Red 1)
#define OP_BUY_2      6    // Bullish Pullback (2)
#define OP_SELL_2     7    // Bearish Pullback (2)
#define OP_BUY_3      8    // Bullish Inside Bar Breakout (3)
#define OP_SELL_3     9    // Bearish Inside Bar Breakout (3)
#define OP_BUY_4      10   // Bullish Correction during Downtrend (blue dash)
#define OP_SELL_4     11   // Bearish Correction during Uptrend (red dash)
//---- Step 2: Read values from the signal buffer
int start()
{
// Read signal for this bar
double value = iCustom(Symbol(), Period(), "Marketpz-trend-trading", 10, 1);
// Do something
if(value == OP_BUY_1) { /* Your code for bullish trend */ }
if(value == OP_SELL_1){ /* Your code for bearish trend */ }
if(value == OP_BUY_2) { /* Your code for bullish pullback */ }
if(value == OP_SELL_2){ /* Your code for bearish pullback */ }
if(value == OP_BUY_3) { /* Your code for bullish inside bar breakout */ }
if(value == OP_SELL_3){ /* Your code for bearish inside bar breakout */ }
if(value == OP_BUY_4) { /* Your code for bullish correction */ }
if(value == OP_SELL_4){ /* Your code for bearish correction */ }
if(value == EMPTY_VALUE) { /* Your code if no signal */}
// Exit
return(0);
}
```

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VALIDATION

Where The indicator – PZ Trend is not issuing any alerts i.e. if(value == EMPTY_VALUE) { /* Your code if no signal */} use the opportunity to review current trades and read the Williams %R to see if any exits or entries should be taking place and if any of the candlesticks have exceeded the PZ Bands extreme layer.

ACCOUNT MANAGEMENT

All opened orders MUST NOT EXCEED 20% of account plus net floating profit where floating profit is calculated as the profit minus loss on ongoing trades (trades that have not closed)

This means that each pyramid order is counted from the maximum so if other trades open but the maximum has been reached, then the EA should evaluate all open trades and close that which is showing the lowest profit computed by profit/time open.

Once the lowest profit@time has been closed, then the EA can open another trade.

EA OPTIONS

To make the EA flexible, the following are better set as options

1. Calculation of how many values of ATR to take as stop loss i.e. ATR(**A**)
2. Calculation of how many ATR(A) it's going to use i.e. **B** x ATR(A)
3. Lot Size **P%** i.e. it could be 1% of account balance, 2% of account balance, 4% of account balance
4. Williams %R values for each chart must be set individually. E.g. GBPUSD can be -75 and -25 so **-X** could be -25 and **-Y** can be -75. Other currencies may change as it depends on volatility.
5. Maximum Risk at any one time should be 20% but this may change so set as an option
6. Trailing steps to be calculated as ATR(A)/20 OR 5% TRAILING STOPS
7. Take Profit is closing part/ % of the trade – say 50%

Thank you for your time in reading this document

END OF DOCUMENT