

## SR EA Strategy

At a confluence of key support and resistance levels there may be a bounce in price off these key levels. This is the underlying principle of this strategy such that we capture some pips off each bounce.

A Pivot Point Cluster (PPC) is a range which is a confluence of any 2 or more of the following occurring within pip\_range pips of each other:-

Daily pivot,R1,R2,R3,S1,S2,S3

Weekly pivot,R1,R2,R3,S1,S2,S3

Monthly pivot,R1,R2,R3,S1,S2,S3

Previous Day High, Low

Previous Week High, Low

Previous Month High, Low

Round Numbers. E.G. 5 digit pairs 1.51000, 1.63000. E.G. 2 digit pairs 1200.0, 1502.00

Fibonacci retracement of 38.22 / 50 / 61.8 on Daily, Weekly and Monthly timeframes

Fibonacci retracement of 38.22 / 50 / 61.8 of Yesterday candle, Last week candle and Last month candle

Fibonacci retracement of 38.22 / 50 / 61.8 of 30 Min, 1 Hour or 4 Hour candles

Manually drawn horizontal lines

SR indicator

SMA - 3 user defined values. E.G. 50,150 & 365

EMA - 3 user defined values

Fractals - The last high and low fractal from 30 Min, 1 Hour, 4 Hour or daily timeframes

An example would be Daily R1, Weekly S1 and Previous Monthly Low within 25 pips of each other. These 3 levels would form the PPC. The PPC is calculated as the average of these 3 values. E.G. Daily R1 = 1.2000, Weekly S1 = 1.2005, Previous Monthly Low = 1.2010 then  $PPC = (1.2000 + 1.2005 + 1.2010) / 3 = 1.2005$

At the start of each candle a full comparison of all of the PPC will be done to determine which PPC exist on the chart. The closest PPC found below Ask/Bid will be placed as a limit buy order. The closest PPC found above Ask/Bid will be placed as a limit sell order. There is a limitation with limit orders such that limit orders can only be placed STOPLEVEL pips away from the current price. This is broker dependent for each instrument. An example is FxPro for EUR/USD has STOPLEVEL=0.0040. A buy limit order can only be placed at price Ask - STOPLEVEL or lower, a sell limit order can only be placed at Bid + STOPLEVEL or higher.

Trade Exit

Option 1 - Leave SL in place, no further action.

Option 2 - Trail with a parabolic SAR

Option 3 - Exit on the close of a higher timeframe candle above/below the PPC

If the limit buy/sell order is not taken during the day then it will be removed at the end of the day. The next day will have new PPC calculated and limit orders placed when they have been found.

# EA Options

## === PP Cluster Range ===

### **pip\_range**

This is the range of the PPC measured in pips. For example, if pip\_range=20 then the maximum distance between the highest PPC and the lowest PPC will be 20 pips.

### **Min\_PP\_Levels**

This is the minimum number of PPC levels to be included in a PPC. For example, min\_PP\_Levels = 4, would mean we get a minimum of 4 members in the PPC.

## === Order 1 ===

### **SL1**

StopLoss for Order 1. Measured in Pips.

### **TP1**

Take Profit for Order 1. Measured in Pips.

### **Lots1**

Fixed number of lots for Order 1.

## === Order 2 ===

### **Order2 = True / False**

This is a switch to turn Order 2 on and off. Set to true to enable Order 2, set to false to disable Order 2.

### **SL2**

Stop Loss for Order 2. Measured in Pips.

### **TP2**

Take Profit for Order 2. Measured in Pips.

## **Lots2**

Fixed number of lots for Order 2.

## **=== Max Orders & Slippage ===**

### **MaxBuyOrders**

This is the maximum number of buy limit orders + current open buy orders allowed at any one time. For example, if MaxBuyOrders=2, then if 2 open buy orders were in progress, not other limit buy order would be allowed to be placed. If 1 buy order is open only 1 further limit order will be allowed to be placed.

### **MaxSellOrders**

This is the maximum number of sell limit orders + current open sell orders allowed at any one time. For example, if MaxSellOrders=2, then if 2 open sell orders were in progress, not other limit sell order would be allowed to be placed.

### **Slippage**

This is the maximum allowed slippage to occur for any buy or sell order.

## **=== PSAR Exit Current TF ===**

### **PSAR\_TF0\_Exit = True / False**

When set to TRUE, the orders in progress will have their StopLoss set to the previous value of Parabolic SAR on the timeframe the EA is on. This only gets activated when the parabolic SAR is moving in the same direction as the trade.

### **PSAR\_EXIT\_STEP\_TF0**

Step input parameter to Parabolic SAR

### **PSAR\_EXIT\_MAX\_TF0**

Max input parameter to Parabolic SAR

## **== Exit on Close of Candle Above/Below PPC ==**

### **Exit\_on\_Candle\_Close = True / False**

Buy: If a candle closes below the PPC then the trade will close

Sell: If a candle closes above the PPC then the trade will close

### **Exit\_on\_Candle\_Timeframe**

Timeframe of candle to use

## **=== Use MA Cross to trigger Market Order ===**

### **MA\_Trigger = True / False**

This changes the way the EA places orders. When set to True Limit orders are no longer placed and the EA will initiate a Market Order when certain conditions are met.

### **Buy Order**

If price is above the PPC and moving downwards towards the PPC a Buy Market order will be initiated when the following conditions are met:

1. The Open of the current bar is above the PPC
2. Ask <= PPC
3. The fast moving average has crossed above the slow moving average
4. The one hour candle has not closed below the PPC
5. There are no duplicate trades in progress

### **Sell Order**

If price is below the PPC and moving upwards towards the PPC a Sell Market order will be initiated when the following conditions are met:

1. The Open of the current bar is below the PPC
2. Bid >= PPC
3. The fast moving average has crossed below the slow moving average
4. The one hour candle has not closed above the PPC
5. There are no duplicate trades in progress

Only one PPC will be traded in any one day

### **MA\_Slow\_Length**

The slow length of the moving average

### **MA\_Fast\_Length**

The fast length of the moving average

## **MA\_Timeframe**

The timeframe of the moving average in minutes. See timeframes section for further details.

## **MA\_Mode = 0 or 1**

0 = Simple Moving Average

1 = Exponential Moving Average

## **MA\_Close = True / False**

When set to True the cross of the MA in the opposite direction will close the trade.  
When set to False no action is taken to close the trade.

## **=== Fibonacci ===**

### **Fib\_BarsBack**

When searching for Fibonacci levels this is the number of bars back the EA will search looking for highs and lows.

### **Fib\_Level\_1 = 0.382**

This is the fibonacci calculation for Fib\_Level\_1

### **Fib\_Level\_2 = 0.500**

This is the fibonacci calculation for Fib\_Level\_2

### **Fib\_Level\_3 = 0.618**

This is the fibonacci calculation for Fib\_Level\_3

### **Fib\_Daily = True / False**

When set to true then Fibonacci levels on the Daily timeframe for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high and low of the Fibonacci is calculated by looking for the highest and lowest bars on the daily timeframe going back Fib\_BarsBack bars.

### **Fib\_Weekly = True / False**

When set to true then Fibonacci levels on the Weekly timeframe for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high and low of the Fibonacci is calculated by looking for

the highest and lowest bars on the weekly timeframe going back Fib\_BarsBack bars.

### **Fib\_Monthly = True / False**

When set to true then Fibonacci levels on the Monthly timeframe for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high and low of the Fibonacci is calculated by looking for the highest and lowest bars on the monthly timeframe going back Fib\_BarsBack bars.

### **Fib\_Yesterday = True / False**

When set to true then Fibonacci levels for yesterdays daily bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of yesterdays daily bar and the low is the low of yesterdays bar.

### **Fib\_LastWeek = True / False**

When set to true then Fibonacci levels for the last weekly bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of the last weekly bar and the low is the low of last weeks bar.

### **Fib\_LastMonth = True / False**

When set to true then Fibonacci levels for the last monthly bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of the last monthly bar and the low is the low of last months bar.

### **Fib\_M30 = True / False**

When set to true then Fibonacci levels for the previous 30 minute bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of the last 30 minutes bar and the low is the low of last 30 minute bar.

### **Fib\_H1 = True / False**

When set to true then Fibonacci levels for the previous 1 hour bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of the last 1 hour bar and the low is the low of last 1 hour bar.

### **Fib\_H4 = True / False**

When set to true then Fibonacci levels for the previous 4 hour bar for Fib\_Level\_1, Fib\_Level\_2 and Fib\_Level\_3 will be calculated and added to the list of levels to be considered for a PPC. The high is the high of the last 4 hour bar and the low is the

low of last 4 hour bar.

### **=== SMA1 ===**

**SMA1 = True / False**

When set to true the value of the Simple Moving Average will be added to the list of levels to be considered for a PPC.

**SMA1\_Length**

Length of the Simple Moving Average

**SMA1\_TF**

The timeframe in minutes of the Simple Moving Average. See timeframes section for further details.

### **=== SMA2 ===**

**SMA2 = True / False**

When set to true the value of the Simple Moving Average will be added to the list of levels to be considered for a PPC.

**SMA2\_Length**

Length of the Simple Moving Average

**SMA2\_TF**

The timeframe in minutes of the Simple Moving Average. See timeframes section for further details.

### **=== SMA3 ===**

**SMA3 = True / False**

When set to true the value of the Simple Moving Average will be added to the list of levels to be considered for a PPC.

**SMA3\_Length**

Lenth of the Simple Moving Average

### **SMA3\_TF**

The timeframe in minutes of the Simple Moving Average. See timeframes section for further details.

### **=== EMA1 ===**

#### **EMA1 = True / False**

When set to true the value of the Exponential Moving Average will be added to the list of levels to be considered for a PPC.

#### **EMA1\_Length**

Lenth of the Exponential Moving Average

### **EMA1\_TF**

The timeframe in minutes of the Exponential Moving Average. See timeframes section for further details.

### **=== EMA2 ===**

#### **EMA2 = True / False**

When set to true the value of the Exponential Moving Average will be added to the list of levels to be considered for a PPC.

#### **EMA2\_Length**

Lenth of the Exponential Moving Average

### **EMA2\_TF**

The timeframe in minutes of the Exponential Moving Average. See timeframes section for further details.

### **=== EMA3 ===**

#### **EMA3 = True / False**



When set to true the value of the Exponential Moving Average will be added to the list of levels to be considered for a PPC.

### **EMA3\_Length**

Length of the Exponential Moving Average

### **EMA3\_TF**

The timeframe in minutes of the Exponential Moving Average. See timeframes section for further details.

## **=== Fractals ===**

### **Fractal\_M30 = True / False**

When set to True the last high and low fractal from the 30 minute timeframe will be added to the list of levels to be considered for a PPC.

### **Fractal\_H1 = True / False**

When set to True the last high and low fractal from the 1 hour timeframe will be added to the list of levels to be considered for a PPC.

### **Fractal\_H4 = True / False**

When set to True the last high and low fractal from the 4 hour timeframe will be added to the list of levels to be considered for a PPC.

### **Fractal\_D1 = True / False**

When set to True the last high and low fractal from the daily timeframe will be added to the list of levels to be considered for a PPC.

## **== Draw All the Pivot Point Clusters ==**

### **DrawPPCAI = True / False**

All PPC clusters found will be drawn

### **DrawPPCAI\_Colour = MediumBlue**

Colour picker for DrawPPCAI

### **=== Draw only 2 of the Pivot Point Clusters ===**

**DrawPPCx2 = True / False**

Only draw the next two PPC which are immediately above and below the current price

**DrawPPCx1\_Colour = Green;**

Colour Picker

**DrawPPCx2\_Colour = Red;**

Colour Picker

**DrawPPC\_Line\_Width = 2;**

Set line width for PPC drawn

### **Timeframes**

Timeframes within the EA are input as the number of minutes. The following is a quick key to how they work:

1 minute = 1

5 minutes = 5

15 minutes = 15

30 minutes = 30

60 minutes = 60

4 Hour = 240

1 day = 1440

1 Week = 10080

1 Month = 43200

# Version History

## New Features / Fixes for v1.6

1. Each PPC will only be traded once a day
2. OrderDelete fix for occasional loops in trying to delete a non existent Ticket
3. Option to close a trade if a candle has closed above/below the PPC
4. Option to draw only the PPC above and below the current price. Only 2 lines will be displayed in user defined colours and line width.

## New Features / Fixes for v1.5

1. Fibonacci levels for 30 min, 1 hour, 4 hour
2. MA to assist Market Order open/close of trade
3. Fractals for 30M, 1 hour, 4 hour and daily
4. Pending orders now get deleted at the end of the day

## New Features for v1.3

1. SR indicator added to EA. The SR indicator MUST be called SR and added to the chart. It will take values from the timeframe of the current chart only. It will use abbreviation SR in the trade comments if used.

2. On/Off switches

```
Daily_High=true;  
Daily_Low=true;  
Daily_Close=true;
```

Thes are for Yesterday High,Low and Close only.

```
Weekly_High=true;  
Weekly_Low=true;  
Weekly_Close=true;
```

Thes are for Last Week High,Low and Close only.

```
Monthly_High=true;  
Monthly_Low=true;  
Monthly_Close=true;
```

Thes are for Last Month High,Low and Close only.

```
Daily_PP_R1_S1_R2_S2_R3_S3 = true;  
Weekly_PP_R1_S1_R2_S2_R3_S3 = true;  
Monthly_PP_R1_S1_R2_S2_R3_S3 = true;
```

```
Round_Numbers = true;  
Fibonacci = true;
```

SR\_Indicator = true;

The values from the SR indicator are used.

3. Delete pending orders at close of Daily bar
4. Calculate new orders at open of daily bar
5. Add fib levels. Daily, Weekly, Monthly TF at levels 38.2/50/61.8

Fib\_BarsBack = 50

This is the number of bars back it will check to find a previous high and low. When it has found the high and low it will then calculate the retracement levels. Indicator Fibos\_v5 can be used to double check the calculations. Just make sure you use the same bars back in this value as the indicator. You do not need this indicator attached to your chart for this to work.

Fib\_Level\_1 = 0.382

Fib\_Level\_2 = 0.500

Fib\_Level\_3 = 0.618

You can change these Fib levels to any value you want. If for example you only wanted 50% retracement then you would set them as follows:

Fib\_Level\_1 = 0.500

Fib\_Level\_2 = 0.500

Fib\_Level\_3 = 0.500

Daily, Weekly and Monthly timeframes to calculate fib levels.

Fib\_Daily = true;

Fib\_Weekly = true;

Fib\_Monthly = true

They will have abbreviations

DF1 - Daily Fibonacci Level 1

DF2 - Daily Fibonacci Level 2

DF3 - Daily Fibonacci Level 3

WF1 - Weekly Fibonacci Level 1

WF2 - Weekly Fibonacci Level 2

WF3 - Weekly Fibonacci Level 3

MF1 - Monthly Fibonacci Level 1

MF2 - Monthly Fibonacci Level 2

MF3 - Monthly Fibonacci Level 3

7. Only allow 1 buy and 1 sell limit orders closest to Ask/Bid
8. Manual drawn horizontal line to act as an additional level to the EA.

To enable this feature set the following to true:

```
Manual_Drawn_SR = true;
```

You can add up to 2 horizontal lines and then modify the name to the values in the following user definable names:

```
Manual_SR1_Name="Manual SR1";  
Manual_SR2_Name="Manual SR2";
```

Using the above you would add a horizontal line to the chart, change the horizontal line properties Name = Manual SR1. At the close of the next bar this would then be used to calculate S/R cluster values. If used then it will have the abbreviation MAN1 or MAN2 in the trade comments.

You can verify this works OK by setting all switches to false, set Min\_PP\_Levels=2 and then add two horizontal lines close to each other on the chart. A limit order will then get placed at the close of the current bar.