2018

MT4 PZ TREND EA; TERMS OF REFERENCE

Put togethr from various sources by:

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EA DESIGN T. O. R

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PZ TREND TRADING EA TERMS OF REFERENCE

Terms of Reference Clauses

EA COMPONENTS
EA to work taking inputs from ONLY these four indicators and no other.
1. PZ Trend Indicator from Point Zero
2. Percent Williams Indicator
3. Parabolic SAR from MT4
4. PZ Bands – a commercial indicator

PLATFORM
Metatrader 4 ONLY running in VPS and Home PC

PURPOSE
The EA is to create stop orders when the PZ trade Trend indicator issues relevant alerts and the alert is confirmed based on the strategy.

POSITION VOLUME
The position volume is calculated as a percentage of the current balance: Lot = Balance/Margin Required ***** Lot Percent / 100 where:
Balance = current account balance;
Margin Required - the margin required to open a position with a size of 1 lot;
Lot Percent - an input parameter (the percentage for the calculation of the lot).
This calculation needs to be applied to the currency I am trading in e.g. My account denominated in USD but trading USDJPY.
To get the value of 1% of my account, a calculation has to be carried out to translate the account currency to the instrument currency.

EXAMPLE CALCULATIONS:
Currency Example

USDJPY RV 1D 2*****15ATR
 Assume you had a €10,000 account how many should you trade?
 You cannot answer unless we know the volatility, from the below chart we see it
 15ATR = 0.4737
 RV = 2*****15ATR = 0.9474
 This tells us USDJPY has been moving on average 0.9474 in value per day relative to its current price below at 79.622
 Our pip location/increment of movement is 0.01 [please note you do not count fractional

pips i.e. third or fifth decimal places]

⬚ So we convert our 0.9474 into pips by dividing it by 0.01 = 94.7425

⬚ So now we know RV = 2*15 ATR = 94.74 pips

⬚ RV = €100 [10,000 at 1%]

⬚ Convert to currency of instrument i.e. quote i.e. jpy[need to usd EURJPY rate – 105.40]

⬚ RV = €100 = 105.4*100= 10,540

⬚ We then divide our monetary exposure by the pip distance for our stop to give is our pip
value

⬚ Pip Value = 10,540/94.74 = 111.2518

⬚ Trade size = Pip Value/Pip Location

⬚ T = 111.2518/0.01 = 11,125.18

⬚ So we need to buy 11,125.18 unit of USDJPY which will give us pip value of 111.2518 to have
a 94.74 pip stop with $131.38/€100 exposure

⬚ In order to place your trade you will need to know what one lot is set at in units traded

⬚ For USDJPY with AVAFX using MT4 it is 100,000

⬚ We divide the 11,125 unit by 100,000 to get the input required for MT4

⬚ 11,125/100,000 = 0.111252 = 0.11

⬚ We must then round this to the second decimal place

⬚ Trade Size = 0.11 in MT4

Examples for shares

Google RV 1D 2*15ATR [PTO for Chart]

⬚ Assume you had a €10,000 account how many should you trade?

⬚ You cannot answer unless we know the volatility, from the below chart we see it

⬚ 15ATR = 8.0413

⬚ RV = 2*15ATR = 16.0826

⬚ This tells us Google has been moving more than $8 in value per day on average

⬚ Our pip location is 0.01, so we convert our $16.0826 into pips by dividing it by 0.01 = 1608.26

⬚ So now we know RV = 2*15 ATR = 1608.26 pips

⬚ RV = €100

⬚ Convert to currency of instrument i.e. usd, fx rate 1.3138

⬚ RV = $131.38

⬚ We then divide our monetary exposure by the pip distance for our stop to give is our pip
value

⬚ Pip Value = 131.38/1608.26= 0.081691

⬚ Trade size = Pip Value/Pip Location

⬚ T = 0.081691/0.01 = 8.1269077

⬚ So we need to buy 8.1269077 shares to have an 1608.26 pip stop with €100/$131.38 exposure

⬚ We cannot trade fractional shares so we will trade 8

⬚ If trading through MT4 you need to know what one lot is set at in number of shares

⦁ For our purposes let us assume it is 100
⦁ We divide the 8 shares by 100 to get the input required for MT4
⦁ 8/100 = 0.08…

DISPLAY

The result of these calculations should be displayed on the top right side of the chart but it is better left as an option so I can amend the position in case another indicator or EA is using the position.

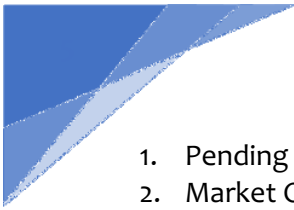## OTHER THINGS TO THINK ABOUT

1. The EA should have a START/STOP button.
2. It should only start after I click START.
3. When I change accounts, the EA should notify me and stop until a new START is clicked. This can be remotely activated.
4. As the EA will be run from a VPS and home PC, there should be regular or constant communication to enable redundancy i.e. if there is a problem with the Home PC, then the VPS takes over. This functionality already exists in MT4.
5. I should be able to save a set file of the options chosen in the operation of the EA.
6. All trading operations/calculations must be as accurate as possible
7. Please test before delivering.
8. In the case of a critical error, the EA must let me the user know (through a message on the screen, push notification, email, Skype or via SMS – these options are already on MT4).

THINK ABOUT THIS

1. Please minimise errors on the EA.
2. EA should be able to restart automatically.
3. If the EA cannot set pending or stop orders, then track market and set when market reaches +3 or -3 pips. Then make market order.
4. If a market price open position cannot be done within 3 attempts, increase slippage
5. When you calculate lot size, remember additions and withdrawals to balance.
6. The Expert Advisor should work fine with different brokers with different instruments and different rules.
7. The EA should create log files that capture every event and if possible regular saving of screen-shots of the charts as they may become very useful in analysing a problem or dispute later on.
8. If the EA cannot constantly monitor the work of the EA on the VPS, then implement hourly (or 4 hourly and daily) reporting about the current state of account and trade situation.
9. The notifications of critical errors must be present in any case so I can be able to correct any situation by using mobile version of MT4

TRADE TYPES

Two types of trades.

EA DESIGN T. O. R

1. Pending Orders
2. Market Orders

ORDER TYPES
The EA will trade any type of instrument available on the market including but not limited to: Currencies, Shares, Funds, Bonds and Commodities.

STOP LOSSES
All stop losses are trailing stop losses of 5% steps

EXAMPLE EA SETTING
======= TRADING SETTINGS =======
Trading Direction = Both

======== SESSION SETTINGS =======
Trade Asian=true
Trade Europe=true
Trade America=true

======== POSITION MANAGEMENT =======
Safeguard In Pips=5
Trailing Step= 1 x ATR(A)/20
Stop Loss = Based on multiples of the formula 1xATR(A)
Take Profit= 1xATR(A)/20x5

======== MONEY MANAGEMENT =======
Money Management Mode=Yes
Risk Percent=2.0%
Lot Size= 2%
Total Risk at any time = 20%

======= EA SETTINGS =======
Custom Comment=PZ Trade Trend EA
Magic Number=XXXXXX

See this article for more control requirements: https://www.mql5.com/en/articles/235

END