SFE Night Scalper EA. Version 2.5. September 2017

The last version 2.5 comes with great improvements:

- changes in one of the setup algorithms result in more trades than previous versions.
- only launch one order for every 'wave' (instead up to three).
- launch the different 'waves' of the pair from one Chart.
- do not open any trades on Friday afternoon to avoid the weekend gap and bad spreads at the opening of a week.

With the current improvements, the expert is in a very advanced stage of development already.
With more trades than previous versions, the expert achieves a more sustained growth.
Opening only one trade / wave instead of three, the expert faces less critical DD.
With the capacity of launch multiple waves from one chart, the expert needs less charts and work for setup.

All the adjustments made lately, are in the direction to give to this expert, a long term vision, with the capacity of leave some default pairs and settings working along the years and gett good results. This can be achieved trying to find very general algorithms with the less necessary parameters, instead of fit to a lot of parameters to each pair and change them constantly.

This long term capacity is very uncommon in the major part of published 'night EAs', which needs always being controlled because the parameters or pairs used must be changed constantly. For this reason, is common view other EA of this kind with a lot of different accounts trying different configurations and putting on / off only the accounts and pairs which are doing well last weeks, but then is difficult have a real idea of the capacity of mid/long term growth of the expert.

As SFE user followers know, the SFE strategy in his EA is launch a wide selection of pairs under one account, and shows this account along the time, don't matter if last weeks / months the performance is good or not. This is the only way for the user to have an honest way to evaluate the capacity of the expert.

EXPERT GUIDE:

The strategy of the expert is open trades when the expert 'violate' the extremal levels of an internal channel, in the typical market hours where this kind of movements don't tend to success because the market don't have enough force, and hoping that pair will correct this movement.

This means that the most important setting of the expert, is define the **hours for open the trades**. Be careful when bactkest a long period. I found that the historical data downloaded in mt4 for do the backtest is different depending the broker, and some brokers don't have the open and closing hours of the sessions consistently along the years, I mean the current gmt of the broker can be different of the gmt of the historical data, and in the historical data, this gmt can change sometimes as well. I recommend do the backtest with ICMarkets, where I checked successfully that the data is coherent.

Other very important question then, is **find those pairs where the correlation between his currencies is high,** because this means that the movements will tend to correct more often. Is for this reason why the EURCHF pairs is one of the best.

Third important thing, is **the broker**, especially in this kind of expert which acts in the 'after market' hours, and there the differences between good and bad brokers are higher than during the normal session.

And the last important thing, is **avoid big news events related with one of the currencies of the pair**. This is difficult because needs a manual control and also because we can't backtest this condition. Then, maybe there are a lot of potential good pairs for trade in live if we made this manual control, but is difficult to

extract a conclusion because in the backtest we can find some big DD which made the pair not enough profitable.

Based on all this, and after use a higher interval for the last backtest, from 2009, the recommended pairs, and the recommended interval of hours, are shown in the next chart. Remember this hours are of a broker with a +2/+3(on DST) gmt. In brokers with other GMT, you must adapt the hours.

The pairs in green, are pairs which are showing can be profitable with any control and with the default settings. The pairs in orange, are potentially profitable if we made a manual control to avoid the critical days with big news events.

As I don't have time myself and my desire is don't give work to the users, I use the pairs in green in the SFE Night Scalper Signal, and they are my recommended pairs. In the future, I will try to check if the others can increase his profit factor if we control the news in some way, but this project is not started yet.

SFE Night Scalper Version 2.5 - 2017 09 23 ICMarkets or equal quality recommended recommended pairs (backtest 2009-2017) Hours for a GMT+2/GMT+3 broker (ICMarkets, Tickmill...)				
Pair	Timeframe	start	end	multipliers
AUDCAD	5	19	1	default
EURAUD	5	18	1	default
EURCAD	5	23	2	default
CHFJPY	5	23	1	default
EURCHF	5	20	2	default
GBPAUD	5	20	1	default
GBPCAD	5	22	2	default
GBPCHF	5	19	2	default
USDCHF	5	23	1	default
EURJPY	5	21	1	default
GBPJPY	5	21	1	default
GBPUSD	5	21	1	default
USDJPY	5	23	1	default
EURGBP	5	21	2	default
USDCAD	5	23	1	default
XAUUSD	5	23	1	default

Recommended setup for beginners:

Attach the expert to the 8 charts of the pairs in green, in the timeframe 5. (Timeframes M15, M30, H1 can be used as well, but probably the M5 is the best timeframe and is the tf I use)
The only parameters that needs to be changed in this simple setup, are the hours to open the trades (1,2) and the size of the trades (3) in relation to the balance.
The hours in the parameter (1,2) are the posted in the previous chart. Remember to adapt this hours if your broker don’t have the same GMT as ICMarkets.

The parameter (3), I recommend put the next:
For an account in $: 400 on non GBP pairs, 500 on GBP pairs
For an account in €: 300 on non GBP pairs, 400 on GBP pairs

For other currencies, select an equivalent amount based on the $ recommendation.

If you run more expert in this account and don’t want to use all the balance for this expert, use the ‘Autolot_Balance_Percentage’ parameter and set the desired percentage.

Prueba | Parámetros de entrada | Optimización

Variable	Valor	Start	Paso	Stop
param_size	-------- ORDER SIZE PARAMETERS --------			
p11	Order size in lots. Used if the parameter 'FREE_BALANCE_FOR_EVERY_001_Lots' is zero.			
Fixed_Order_Size	0.1	0.1	0.0	0.0
p12	If you set here a value > 0, for example 1000, the size of the trade will be 0.01 lots for every 1000 of free margin.			
Free_Balance_For_Every_001_Lots 3	0.0	0.0	0.0	0.0
p13	Define the percentage of your account balance to assign (0-100.0).			
Autolot_Balance_Percentage	100.0	100.0	0.0	0.0
param_trade	-------- SPREAD CONTROL --------			
p21	The expert won't open orders above this spread. Put this value in pips.			
Max_Spread_pt	2.0	2.0	0.0	0.0
param_hours	-------- TRADING HOURS --------			
p31	At this hour (included) begins/ends the period for open new orders (value between 0 and 23).			
Start_Trade_Hour 1	23	21	0	0
End_Trade_Hour 2	1	1	0	0
param_trade1	-------- TRADE PARAMETERS (if 'use_waves'=false)--------			

With this setup, is enough to get a good mid/long term configuration and don't needs to control / change nothing. The results of the backtest for this selection are (using a fixed size of 0.10 lots and a spread of 2 pips):

TOTAL PROFIT	
$ 29050.91	
PROFIT IN PIPS	18481.6 PIPS
YEARLY AVG PROFIT	$ 3384.74
YEARLY AVG % RETURN	4.23 %
CAGR	3.5 %

# OF TRADES	SHARPE RATIO	PROFIT FACTOR	RETURN / DD RATIO	WINNING PERCENTAGE
8391	0	1.59	27.75	72.47 %
DRAWDOWN	**% DRAWDOWN**	**DAILY AVG PROFIT**	**MONTHLY AVG PROFIT**	**AVERAGE TRADE**
$ 1046.9	1.1 %	$ 13.13	$ 282.05	$ 15.26
ANNUAL % / MAX DD %	**R EXPECTANCY**	**R EXPECTANCY SCORE**	**STR QUALITY NUMBER**	**SQN SCORE**
3.18	0.16 R	158.02 R	12.48	16.31

STATS

Strategy

Wins / Losses Ratio	2.63	Payout Ratio (Avg Win/Loss)	0.6	Average # of Bars in Trade	0
AHPR	0	Z-Score	-21.48	Z-Probability	99.9 %
Expectancy	3.46	Deviation	$ 28.01	Exposure	0 %
Stagnation in Days	183	Stagnation in %	5.87 %		

Trades

		# of Wins	6081	# of Losses	2310	# of Cancelled/Expired	0
Gross Profit	$ 78536	Gross Loss	$ -49485.09	Average Win	$ 12.91	Average Loss	$ -21.42
Largest Win	$ 100.98	Largest Loss	$ -296.15	Max Consec Wins	37	Max Consec Losses	10
Avg Consec Wins	4.74	Avg Consec Loss	1.8	Avg # of Bars in Wins	0	Avg # of Bars in Losses	0

MONTHLY PERFORMANCE ($)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2017	179.01	112.19	-116.62	118.73	145.24	475.95	92.93	0	0	0	0	0	1007.43
2016	956.01	354.61	229.72	200.27	-58.67	1215.49	407.41	124.54	-135.26	517.48	1028.98	622.81	5463.39
2015	561.28	398.56	1115.82	396.89	-202.9	459.93	414.15	-200.49	350.25	-434.48	315.37	344.63	3519.01
2014	52.98	346.57	93.48	62.4	90.58	-108.36	92.97	113.87	-209.88	225.76	302.87	511.77	1575.01
2013	237.06	-321.27	205.34	199.79	-430.25	90.18	388.53	162.64	-249.08	4.33	-179.2	12.9	120.97
2012	-225.07	283.31	21.6	58.13	-73.54	467.53	263.54	84.38	18.89	4.11	227.02	202.88	1332.78
2011	70.52	366.16	587.71	96.31	280.69	405.28	177.83	147.54	125.17	687.81	332.39	136.14	3413.55
2010	368.39	430.45	252.23	-108.2	107.86	-264.7	378.68	368.94	478.82	717.58	849.15	393.62	3972.82
2009	1246.34	1547.97	1696.53	634.25	694.17	423.02	447.64	705.92	203.49	495.2	589.81	-38.39	8645.95

The correlation between the different pairs is very low, this is a very good feature of this expert:

Correlation based on **Profit/Loss** by **Hour**

Lower correlation < 0.4 MODERATE 0.4 - 0.7 MODERATE HIGH 0.7 - 1.0 HIGH **Higher correlation**
Better diversification ← → **Worse diversification**

	AUDCAD	CHFJPY	EURAUD	EURCAD	EURCHF	GBPAUD	GBPCAD	GBPCHF
AUDCAD		0.03	0.11	0.01	0.01	0.09	0	0.01
CHFJPY	0.03		0.02	0.04	0.06	0.01	-0.02	0.04
EURAUD	0.11	0.02		0	0.03	0.12	0	0.01
EURCAD	0.01	0.04	0		0	0	0.06	0.06
EURCHF	0.01	0.06	0.03	0		0.01	0.06	0.14
GBPAUD	0.09	0.01	0.12	0	0.01		0.07	0.04
GBPCAD	0	-0.02	0	0.06	0.06	0.07		0.12
GBPCHF	0.01	0.04	0.01	0.06	0.14	0.04	0.12	

What are the waves?

The ‘wave’ is the name I use for a set of values in the parameters. The parameters of the expert are:

channel_period. Period used to calculate the signal channel. Values between 20 and 200 are recommended.
channel_size. Relative size of the signal channel. Values between 0.5 and 1.5 are recommended.
sl_multiplier / tp_multiplier. Multiplier applied to the SL/TP distance. Values between 0.5 and 2.0 are recommended.

As the trades has relation with the limits of an internal channel, the period for calculate this channel changes the open levels, as well the multiplier of the limits of the channel.

And the sl and tp multipliers are easy to understand, applies a factor to the base sl and tp levels.

Then, for different parameters we will have different prices of entry, when we touch the channel period, more (but worse) or less (but better) trades when we touch the channel_size, and different sl / tp prices with the sl/tp multipliers.

In my signal in the mql5 market, I use 4 waves for each pair. The values of these 4 waves won’t be published, but don’t means that they are the best set of parameters, the reason for don’t publish the parameters is for not do all the users the same trades at the same levels, because for liquidity reason and for SL hunting reasons, this is not a good idea.

In the description, I posted the recommended ranges of values for the different parameters. The best to do, is find 3 or 4 different setups which, apart of be profitable, shows the lowest correlation possible. For see the correlation of the different setups, you can use a software like Strategy Quant Analyzer.

In the backtest, we can see the result of use different waves at the same time as well.