

How to optimize Phoenix's settings

First of all make sure you have seen Hendricks manual on how to get 90% modeling quality. Without this, tests are useless!

Secondly, please remember this manual is 'a work in progress' so there will be errors in it. If you have any suggestions, better ways to go about things (I just learned optimization via trial and error so there are very likely other/better ways to do things!) or you spotted a mistake, please let me know!

Thirdly, please remember that optimizing will assist you in getting better settings during back testing, BUT IT IS IN NO WAY a guarantee for better results with a live account (as always in Forex...).

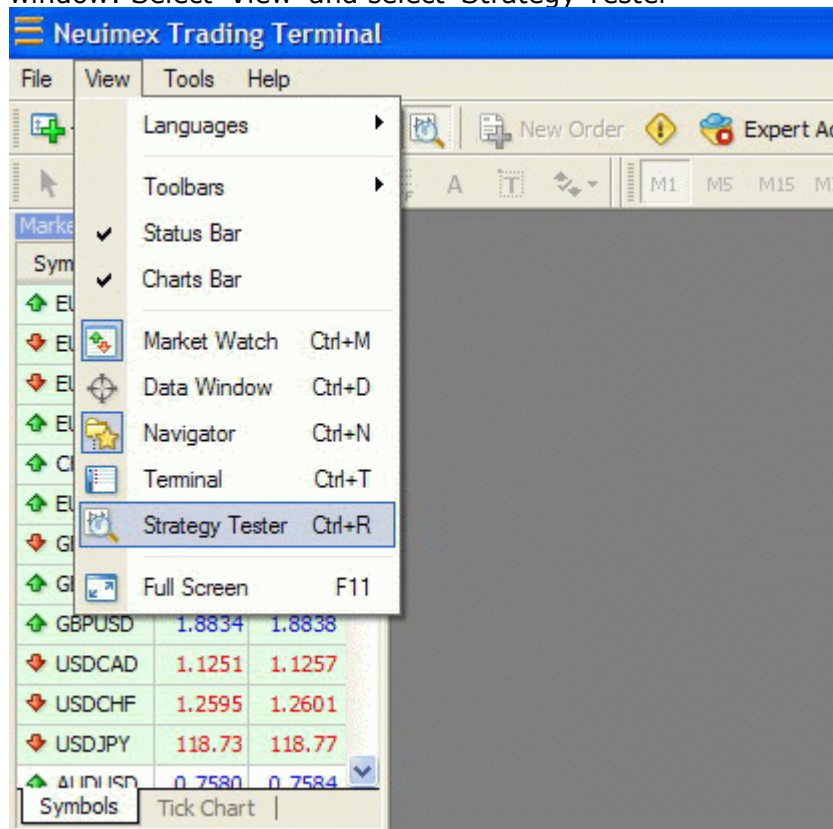
Finally, thanks to Hendrick of course! Without him there wouldn't be anything to optimize at all! ☺

Cheers,

VinceTheBeast

1)

To state the obvious (but just in case!). To get to the back testing/optimizing window: Select 'View' and select 'Strategy Tester'



2)

Choose the appropriate *Expert Advisor* from the dropdown menu

- 3)
Select the appropriate *Symbol* (making sure you have the most accurate data)
- 4)
Select *Model*: Every tick
- 5)
Tick the box "*Use date*" and select a half year of data
(For instance 2006.05.10-2006.11.10)
- 6)
Select M15 in the *Period* dropdown
- 7)
Set all settings to the original settings as can be found via MetaEditor:

-Open Phoenix_v5_6_03 in MetaEditor (right click on Phoenix_EA_v5_6_03 and select 'Modify' in the Navigator Window)



```
MetaEditor - [Phoenix_EA_v5_6_03.mq4]
File Edit View Tools Window Help
Compile Terminal

if(PrefSettings == true)
{
    if((Symbol() == "USDJPY") || (Symbol() == "USDJPYm"))
    {
        Mode2_OpenTrade_2 = 0;
        Mode2_TakeProfit = 50;
        Mode2_StopLoss = 60;

        Mode3_CloseTrade2_3 = 30;
        Mode3_TakeProfit = 100;
        Mode3_StopLoss = 55;

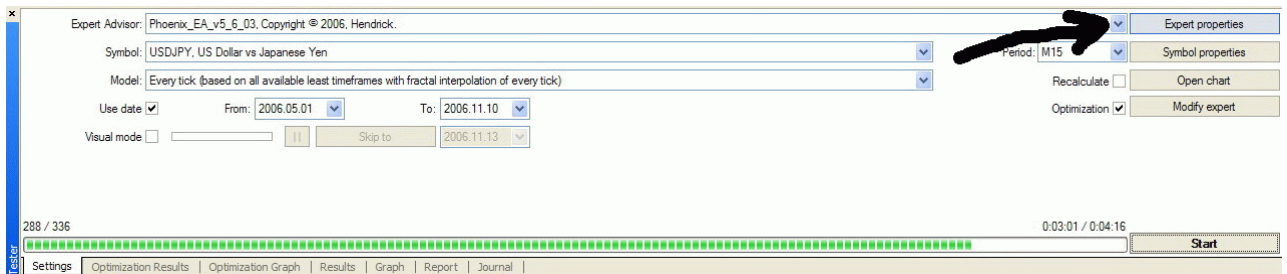
        Percent = 0.0032;
        EnvelopePeriod = 2;

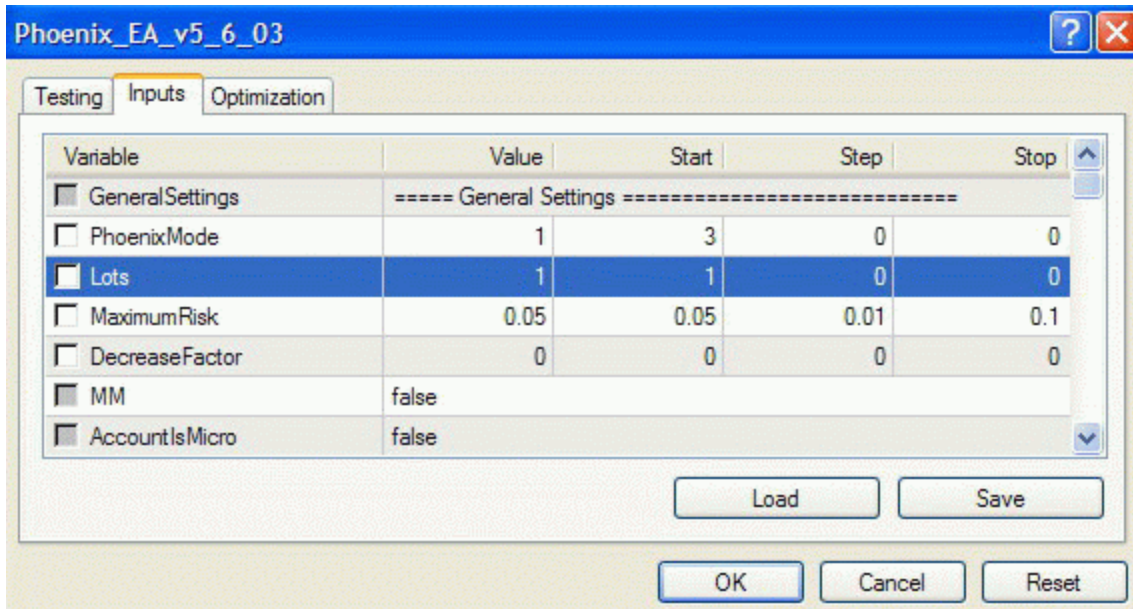
        TakeProfit = 42;
        StopLoss = 84;
        TrailingStop = 0;
        SMAPeriod = 2;
        SMA2Bars = 18;
        OSMAFast = 5;
        OSMASlow = 22;
        OSMASignal = 2;

        Fast_Period = 25;
        Slow_Period = 15;
        DVBuySell = 0.0029;
        DVStayOut = 0.024;
    }
}

For Help, press <F1> Ln 94, Col 3
```

Look at the settings and enter all those values EXACTLY into 'Expert properties' in the "Value" column (for now you can ignore the other columns)





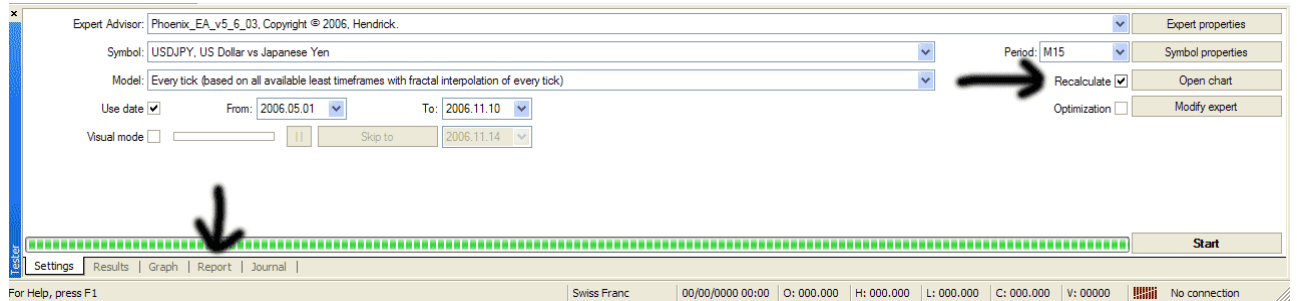
- Set PhoenixMode to 1 (or whichever mode you would like to optimize)
- Set mm to false

Once completed run 2 back tests (see next page) to check if the result in the 'Report' tab are the same with the option (in 'Expert properties')

One test with 'PrefSettings' set to **true**, one at **false**. If you've entered the settings correctly the results should be the same!

To run a back test tick the box "Recalculate" and leave the "Optimization" box empty.

The results can be analyzed in the "Report" tab



8)

Save these settings within 'Expert properties' (with the option "PrefSettings" set to 'false') once you are sure you've entered all values correctly.

I would call the file (but that's personal) something like

"phoenix_5.6_03_usdjpy_original.set"

-Make sure you save you newly found settings during optimizing once in a while. You really don't want to have to start all over again after hours and hours of testing...

To save your settings, again go to the 'Expert properties' and click save. I would call these new settings something like "phoenix_5.6_03_usdjpy_01.set". If you ever find even better setting save it as "phoenix_5.6_03_usdjpy_02.set" and so on...

OPTIMIZATION

Now the fun bit can begin! But before that, just a few thoughts about how I tend to go about it.

First of all, Hendrick did a brilliant job finding the settings in the first place! Believe me, they are very close, if not spot on, in most cases. What I'm trying to say is that it would be pointless to change the settings by a lot either above or below the set value (talking from experience...) Sure, the 'thinking outside the box' approach can help us find totally new settings so I wouldn't discourage this in total but for the purpose of this manual I think it is more useful to stay close to Hendricks settings.

What I tend to do (but I there are many ways to go about it..) is to start trying to *optimize the signals* before touching the TP and SL. Reason being is that I think the signals are the fundamentals of this EA. Once the signals are optimized we can *fine tune* the profits and max drawdown by having a go at the other settings. But that's just my 2 cents. Maybe going about it the other way around (so start with things like TP and SL) gives much better results... (please let me know if so!!!)

But by far the most important thing is that: **ALL SETTINGS MUST BE IN BALANCE** to have a chance of being successful!

To quote Hendrick:

"The combination of pair, TimeFrame, TP, SL and other settings are in "balance". If you change one of them without changing the other settings the balance will be gone and you will not get the results you want to have, So changing one of the settings means that you have to use your Strategy Tester to find another combination of settings to restore the balance again".

What I tend to do after changing one signal, adjust the other signals with one unit above and below, to find the extremities of the values. Explanations will follow later..

Another factor to think about is *NOT just to focus on the maximum Profit*. Sure it's nice to see your capital grow quick BUT if you see a Drawdown % of f.i. 30% or more, would you realistically put your money on it? I for one would not.

Here we go!

1)

Open the 'Expert properties' again. You will see the following columns: Start, Step, and Stop.

These values dictate the range of the optimizing tests we will be running.

Let's have a look at Signal 1 for the currency pair USDJPY:

Percent = 0.0032;

EnvelopePeriod = 2;

First click the box in front of those values (this will make the optimization only look/change those settings during these tests).

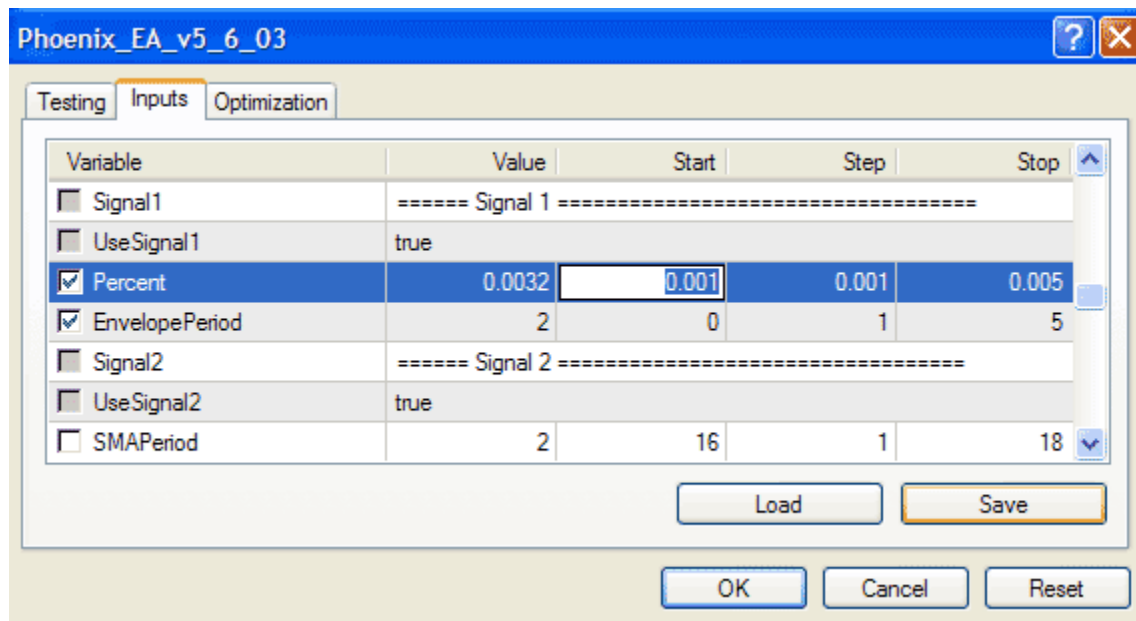
We see percent is set at 0.0032.

We could now begin by setting "Start" at 0.001 "Step" at 0.001 and "Stop" at 0.005.

In this example you will therefore test from 0.001 till 0.005 with steps of 0.001

(=0.001, 0.002, 0.003, 0.004, 0.005)

Let's do something similar to the EnvelopePeriod. Start @ 0, Step @ 1, Stop @ 5 (0, 1, 2, 3, 4, 5)



Now click OK

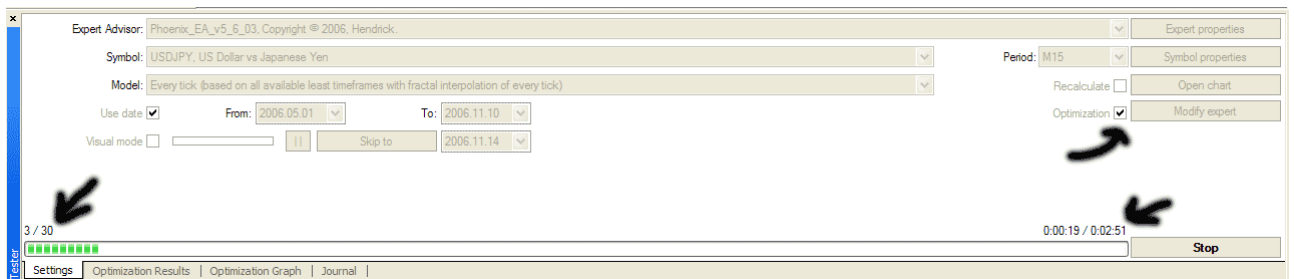
2)

To start a Optimization run just remove the tick @ "Recalculate" and put one in "Optimization"

Click Start!

Now you just have to **wait** (better get used to it because that will be the most important thing in optimizing)...

On the bottom left you will see something like 3/30 which means run 3 of 30 is completed. On the right you can see how long the test has run already and how long you still have to bite your nails.



3)

Once the tests are completed (30/30) we can analyze the results.

Open the "Optimization Results" tab. Click on 'Profit' to sort your results. Now at this stage it is important *not just to look at this profit*.

Example: there can be occasions where your top profit is showing 13.000 BUT with a Drawdown of 50%. There might be one just below this one @ 12.500 but with a maxDrawdown of just 8%. Guess which one I would prefer!??

4)

Once you found the settings for signal 1, you think are best in this run, you can right click on this particular pass you found to be best and select "Set Input Parameters". This will copy those settings (look at the most right column called "Inputs") directly into the "Expert properties".

| Pass | Profit | Total trades | Profit factor | Expected Payoff | Drawdown \$ | Draw |
|------|----------|--------------|---------------|-----------------|-------------|------|
| 14 | 22152.64 | 116 | 2.68 | 190.97 | 2144.86 | |
| 13 | 22152.64 | 116 | | | 2144.86 | |
| 12 | 22152.64 | 116 | | | 2144.86 | |
| 11 | 22152.64 | 116 | | | 2144.86 | |
| 22 | 19229.68 | 114 | | | 2144.86 | |
| 21 | 19229.68 | 114 | | | 2144.86 | |
| 28 | 18199.76 | 111 | | | 2144.86 | |
| 27 | 18199.76 | 111 | | | 2144.86 | |
| 26 | 18199.69 | 111 | | | 2144.86 | |
| 18 | 17920.36 | 113 | | | 2176.16 | |
| 17 | 17861.41 | 110 | | | 2176.16 | |

Set input parameters for Testing | Swiss Franc

Saves a lot of time (wish I found this option earlier...) and prevents you from entering wrong values manually.

An important check now is to have a look at the values in the 'Expert properties'. If you find for instance the best setting for Percent to be @ 0.005 this means it is sort of at the max of your test (Stop). Meaning: the best value might just as well be around 0.006. So in that case you should run the tests again but than with a higher "Stop" value.

5)

Let's say we found the combination: Percent=0.002 and EnvelopePeriod=2 gives the best results. Those will be copied into the settings with step 4.

The next step I would take is the following:

realistically it will be too much of a coincidence if 0.002 is the exact best setting! It could be somewhere in between 0.0015 and 0.0025...

So, another test to run with "Start" @ 0.0015, the "Step" this time must be smaller @ 0.0001, "Stop" @ 0.0025.

Bored yet? ;-)

By doing it this way you sort of start big in step 1 and then fine tune it with the above step.

After completing this you've found the best setting (*for now...*) for signal 1.

6)

Let's move on to signal 2. (Make sure you remove the ticks in front of signal 1 before you proceed).

Go to signal 2 and go through the steps as described for signal 1 again.

7)

As discussed before all settings must be in balance so once you've found the best setting for signal 2; I would tick the boxes of signal 1 again with values one unit below and *one unit* above the value you found in step 4. Same for values in signal 2.

This way you can check the best values are indeed in between the "Start" and "Stop" values for *both signals combined*. If the new best settings is not in between those values you will have to widen your range again....

8)

Continue with just signal 3 and once you found those settings, go through the above steps again.. It could mean the tests start to take hours and hours so a bit of user 'discretion' can be used in these cases...

You could as well do all the individual signals one after another first and then after having done them all individually, do the combined tests. But I have found in the past you MIGHT miss out on some nice combinations... So that's up to you!

9)

Now you've found the best settings for your signals. We can move on to the TP, SL and all other money/time related settings.

I would start with a BIG range and then make it smaller, so start with:

| | | | |
|-----|---------|---------|----------|
| TP: | Start=0 | Step=10 | Stop=100 |
| SL: | Start=0 | Step=10 | Stop=100 |

If you now find TP=50 and SL=40 to be the best. Next step will be (yes you probably guessed it already):

| | | | |
|-----|----------|--------|---------|
| TP: | Start=45 | Step=1 | Stop=55 |
| SL: | Start=35 | Step=1 | Stop=45 |

10)

You could also have a go at testing the "TrailingStop", "CloseAfterHours" and "BreakEvenAfterPips"

11)

At one point will have tested and tweaked all possible values. Make sure you save them!

12)

Finally you can move on to testing Mode 2 (if you would like to use this mode). Just set "PhoenixMode" to 2.

Just to make sure there is no misunderstanding here:
you CAN now optimize all settings again APART from the values below:
====Phoenix Mode 3 (Three trades at once)=====

You WILL have to have a look the settings under
====Phoenix Mode 1 (Classic)=====

This is because Phoenix in mode 2 will use all those too!

Hope you did find this manual useful and please let me know were I could improve it please!