

SHADOWTRADERPRO PAIRS TRADER USER'S GUIDE

How to get maximum value from your Pairs Trader subscription:

Every issue of the *ShadowTraderPro Pairs Trader* has two main components, the *Pair of the Day* and the Pairs Trader Portfolio section. What follows is a detailed explanation of all of the components of each section, and some basic instruction on how to begin pairs trading.

PAIR OF THE DAY

The main section which spotlights a selected pair is made up of the statistics on the pair and the chart below it which shows graphics of the spread itself, along with lower studies that can help us to analyze the pair.

PAIR – These are the two stocks that have been selected as the pair. Pay close attention to their order. The order of a pair is structured exactly like a currency pair. For instance, if you are bullish on the Euro versus the dollar, then you would buy EUR/USD, whereby you are buying the Euro and shorting the US Dollar. If you are bearish on the Euro, then you would sell this same pair which means you are shorting the Euro and buying the US Dollar. A pair of equities in a pairs trade has the exact same properties. If you are bullish on Halliburton and bearish on Schlumberger, then you would trade HAL-SLB to the long side, and buy shares of HAL, and simultaneously short shares of SLB.

SECTOR – The market sector or industry group that both of the stocks in the pair belong to. When pairs trading, you generally want to select pairs that are comprised of two companies that are in the same line of business. Even without doing correlation calculations, you can easily see from just pulling up multiple charts of different stocks in the same industry that most of the charts tend to look very similar. The ideal pair would be one which has equal price, equal market capitalization, equal beta, equal volatility, etc. This will never happen, but the more similarities between the two stocks that you can identify, the better the chances that the pair will perform reliably after generating a signal.

SPREAD – The spread is the current difference between the prices of the two stocks. If KLAC is trading at \$24.73 and LLTC is trading at \$22.13, then the KLAC-LLTC spread is \$2.60.

CURRENT DISTANCE FROM MEAN – This is the amount in absolute terms that the spread has closed either over or under the mean. For example if the mean (simple 10ma daily) is at 4.30 and the spread closed at 4.62 then the distance from the mean would be 0.32. If the spread closed at 3.98, then the distance from the mean would also be 0.32.

CORRELATION – This is the cornerstone of every successful pairs trade. Essentially, correlation is a single number that describes the degree of relationship between two variables. In our case these two variables would be the closing prices of two stocks. It’s calculated like this:

$$r = \frac{N\sum xy - (\sum x)(\sum y)}{\sqrt{[N\sum x^2 - (\sum x)^2][N\sum y^2 - (\sum y)^2]}}$$

Where:

- N = number of pairs of scores
- $\sum xy$ = sum of the products of paired scores
- $\sum x$ = sum of x scores
- $\sum y$ = sum of y scores
- $\sum x^2$ = sum of squared x scores
- $\sum y^2$ = sum of squared y scores

You don't need to know any of this to trade pairs profitably (pewh!) ←

You DO need to know this... ↓

Correlation is always expressed as a number between -1 and +1, defining either positive or negative correlation. An easy way to think of this is that if stock A and stock B always went up and down the exact same amount in % terms, then they would have a positive correlation of 1.0. If stock A and stock B always moved inversely by the same amount, then they would have a negative correlation of -1.0. If the two stocks moved up and down completely randomly, then the correlation would be zero. Of course in the real world, things are never this cut and dry and the majority of all pairs fall somewhere between these two extremes. You’ll note that all stocks that are selected as *Pair of the Day*, will have a correlation over the last 60 days (the N variable in that big scary equation above) of +.80 or better. High, positive correlations of +.80 or better, are proving mathematically that the two stocks have a very consistent relationship which we can exploit when it temporarily diverges. How many trading days to use when measuring correlation is also a matter to consider. The chart shown in the newsletter only shows correlation as measured over the last 60 trading days, however a more accurate measure may be to take a look at multiple ranges of dates and see whether the correlations are all “in line”. You can easily add more lower studies to your tosCharts for 90, 120, 180 or whatever amount of days you would like and compare them accordingly. Ideally, you will want all of the correlation values to be similar. This will tell you that over different periods of time, the correlation between the two stocks is stable. It can also alert you to certain type of events that are statistically aberrant, where the stocks were highly correlated over long periods of time and then only recently within the last 60 trading days, the correlation value has fallen dramatically.

SPREAD RANGE – Here is where technical analysis comes into play. ShadowTrader analyzes the chart pattern of each pair’s spread and determines where the playable range is. This range may be an area of horizontal support or resistance (trading range), or in the case of a pair that may be slightly trending, an ascending or descending channel, the outer boundaries of which will define where opportunities may lie.

THE CHART



Every Pairs Trader issue contains a chart that looks exactly like the one above. Let's break down the different parts of the chart and analyze each one.

SPREAD – The chart window itself is a candlestick chart of the spread between the two stocks. Each bar does not represent the OHLC of one stock or the other, but rather the OHLC of the difference (spread) between their two respective prices. Since the pair entered is XLNX-ALTR, the spread is price of XLNX minus the price of ALTR. As you can see on the chart, the current value of the spread is \$0.28. If you punched in ALTR-XLNX into the platform, then obviously the current spread would be -\$0.28. The blue line that runs through the prices is a simple 10 period moving average. This 10ma is a good tool to use to see if a pair is becoming overextended or diverging too much. You want to initiate trades when the spread has moved away from the 10ma in expectation that it will soon snap back. The optimum setup is a spread with a 10ma that is going straight sideways. A 10ma that is trending in one direction or the other for weeks on end is probably a pair that has relatively low correlation and should be avoided. If you have a good eye for support and resistance and price channels, oftentimes the daily chart with the 10ma is all you will need to effectively trade a pair. The daily chart with the simple 10ma is what Pairs Trader generally uses for its analyses as the usual duration for our trades is 1-5 days.

CURRENT DISTANCE FROM THE MEAN – The distance from the mean indicator is just that. It tells us where the pair closed in relation to the mean (10 period simple moving average). The study that exists just below the chart has two lines, one red and one pink. These two lines plot the open and close of the distance from the mean each day. The red line is the open and the pink line is the close. In the same way that we look for overextension from the mean in the actual spread, we can use the distance from the mean indicator to show us where historically there are abnormally high or low distances from the mean. You can set alerts on these distances just like you would on the spread value itself, using the “Study Alerts” button that is under the MarketWatch tab.

The distance from the mean is not a study currently supported by TOS, so you will have to create new study and drop the code in yourself. The thinkscript for this is as follows: **There are detailed steps on how to enter the code with pictures on the next page...**

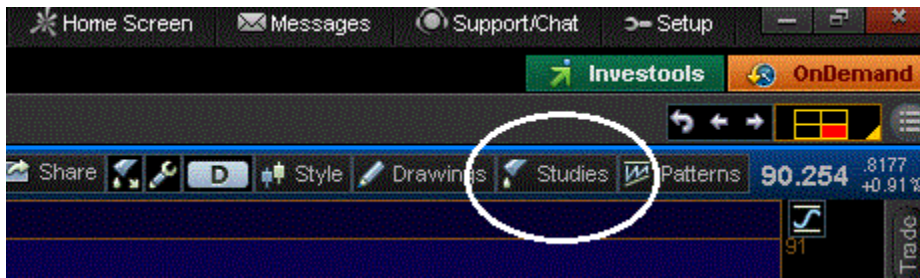
```
declare lower;
input Length=10;

def SMA = Average(Close, Length) ;
plot plot1 = (Open - SMA);
plot plot2 = (Close - SMA);

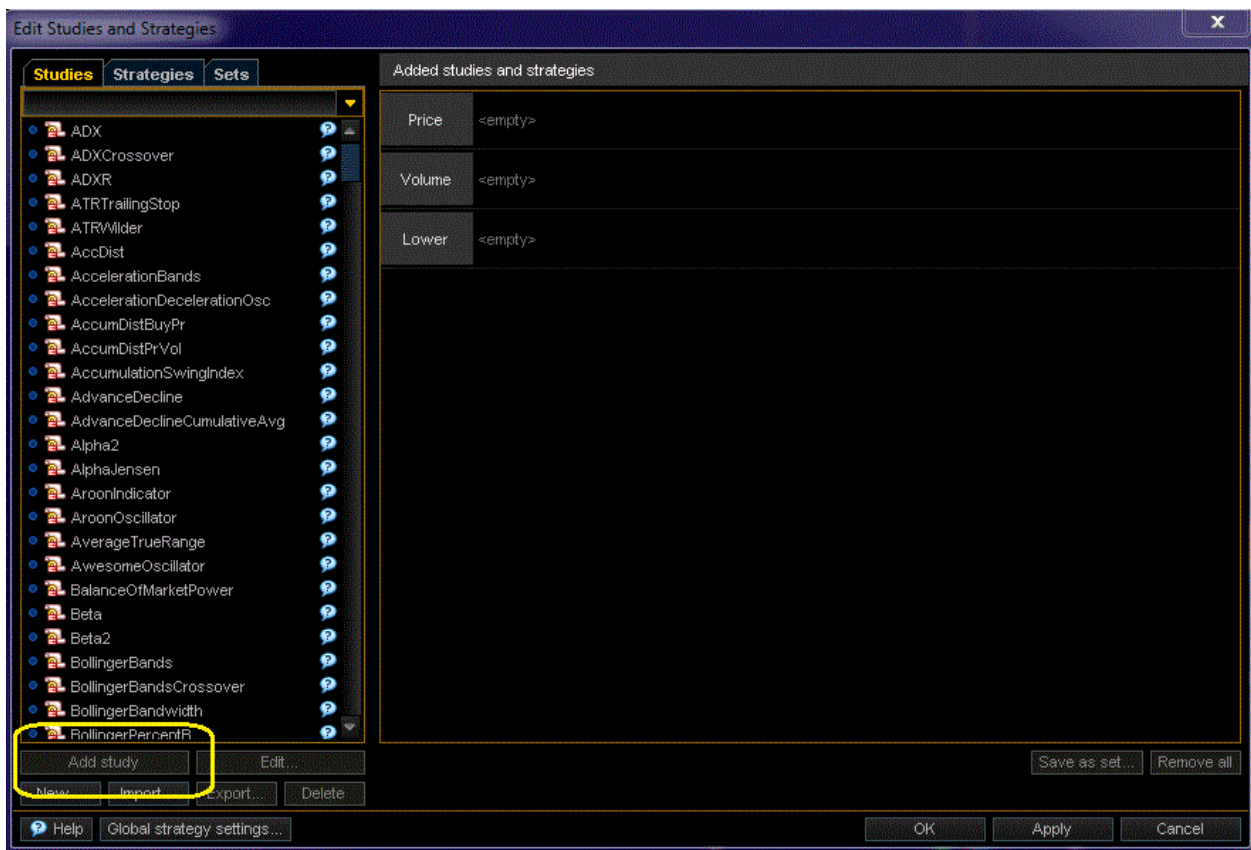
plot1.SetDefaultColor(getcolor(5));
plot2.SetDefaultColor(getcolor(2));

Plot zeroline = 0;
ZeroLine.SetDefaultColor(GetColor(1));
```

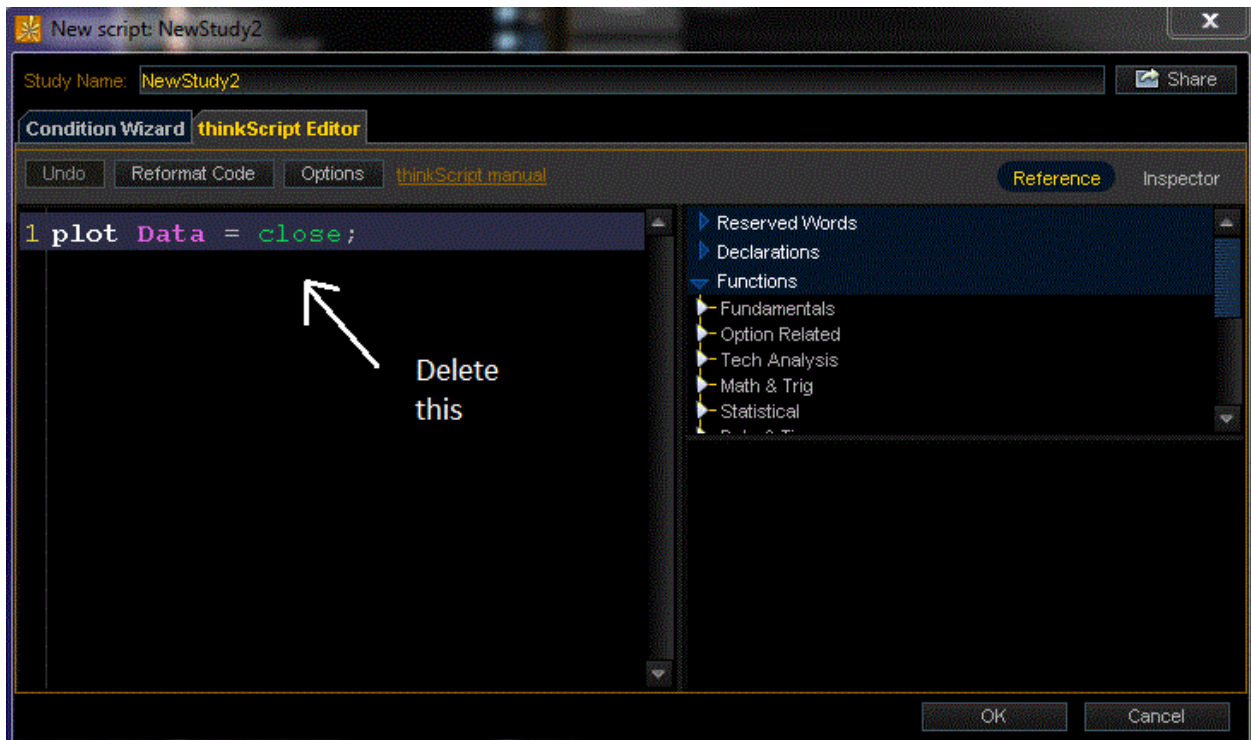
1. In any TOS Chart click on the studies button and open the studies window:



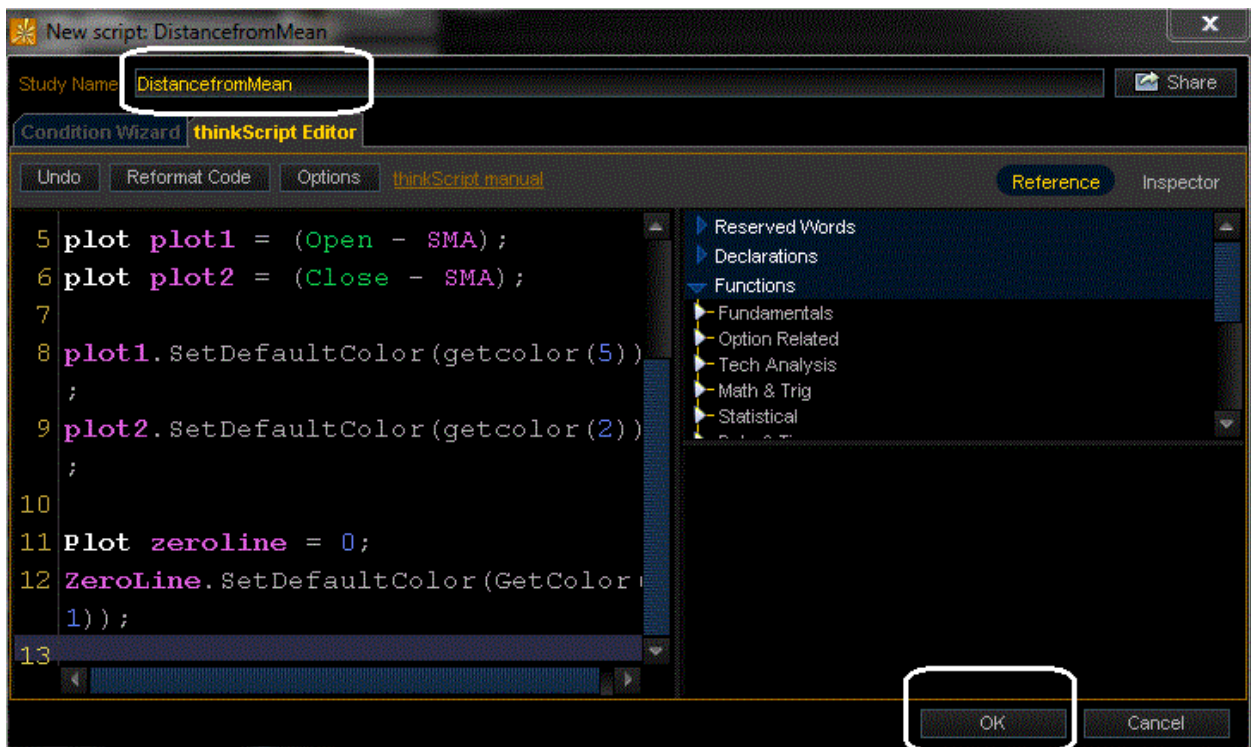
2. Once you have the studies window open, click "Add Study" in the lower left.



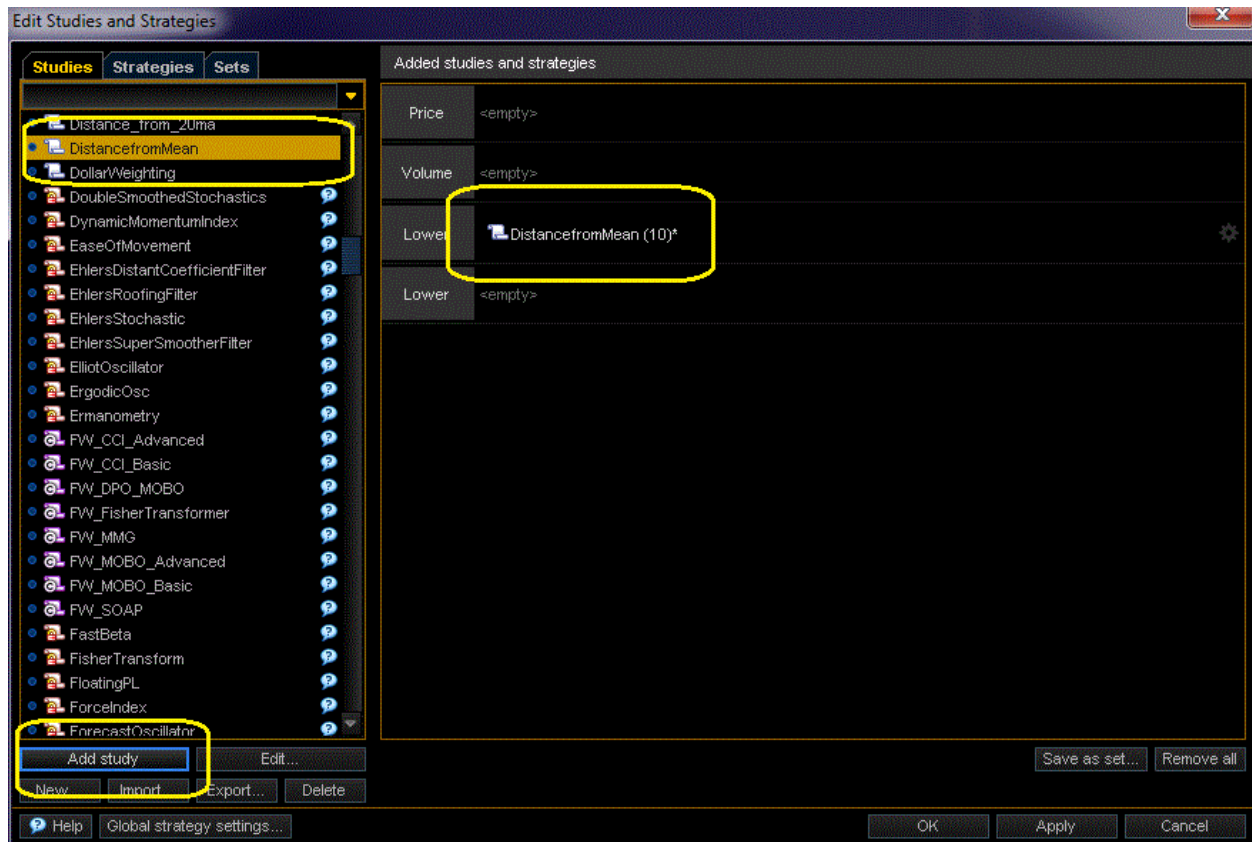
3. This will open the Edit Studies box. Once open, delete the line 1 that appears as a default.



4. Now paste the code from above into the box where you just deleted line 1. Give your new study a snappy name like "DistancefromMean" (or whatever you like). Then click the OK button at bottom.



5. You'll see your new study appear in the list of studies on the left in the Edit Studies box. Highlight it and select "Add Study" which will bring it over to the "Added Studies and Strategies" section on the right. The study is now in your chart!



SIXTY DAY CORRELATION – This is the lower study for the correlation, using the past 60 days as the number of periods. For every point in the chart, the correlation is being calculated for that particular time using the past 60 days of data.

TOS provides this study in the edit studies section. Click on “studies”, then “edit studies” and select “Pair Correlation” from the list.

If you wish, you can also create this lower study yourself using thinkscript as follows:

(follow instructions for Ratio above to open up thinkscript window)

Cut and paste the following into the box:

declare lower;

input Days = 60;

plot data = correlation(close(getsymbolPart(1)), close(getSymbolPart(2)), Days);

To experiment with different numbers of days, simply change the number in the input section from 60 to whatever you would like to see. Longer time periods should return smoother correlation lines. Since we are trading relatively short term, 60 days gives us a good idea of the recent level of correlation. We expect correlation to be stable at least for the past 60 trading sessions. The sample chart of JDAS-WIT above is an excellent example of good, positive correlation. Note how the correlation line has been flat since April and is pegged at around .96. This is an example of two stocks that are highly correlated and (at least for the time being) are holding that relationship. Given that, we would expect this to continue and would consider JDAS-WIT to be a solid candidate in our pairs universe.

RSI 2, 95, 5 – The same Wilder’s RSI used by many traders the world over with a subtle twist. The default RSI is usually 14 periods with overbought bands at 70 and oversold bands at 30. We’ve found this short-term RSI works better, especially for instruments like equity pairs which tend to trade range bound back and forth. Use this RSI the same way you would for an individual stock, shorting on overbought readings and buying on oversold readings. Try and find situations where extremely high (95+) or extremely low (-5) RSI2 readings correspond with resistance and support on the spread or ratio chart.

To change the RSI to RSI2, follow the instructions above for entering the studies section of the platform. Then move RSI Wilders from Available studies to Added studies and then change the Inputs on the Study properties below from 14, 70, 30 to 2, 95, and 5.

PAIRS TRADER PORTFOLIO

ShadowTrader will send out real-time pairs trade signals via MyTrade (under Tools tab on your tos platform) alerting subscribers that the Pairs Trader Portfolio has taken a trade. Let’s look at what a typical trade alert looks like:



ShadowTraderPro Pairs Trader - Short UPL-SWN



October 1, 2010

Pair: Ultra Petroleum - Southwestern Energy (UPL - SWN)
Action: Sell short UPL - Buy SWN
Shares: 118, 150
Weighting: dollar
Spread: 8.76
Stop: 11.00
Target: 7.50

We sold short UPL at 42.30
We bought SWN at 33.54

Trade Explanation: Shorted the UPL-SWN spread as discussed in today's Pair of the Day in the ShadowTraderPro Pairs Trader. We are putting the stop very loose and are looking to short a second layer in the \$10 area if the spread does not collapse immediately and spikes higher.

ShadowTraderPro

Those of you who are current subscribers to the *ShadowTraderPro Swing Trader* will immediately note some similarities and differences between the trade alerts that they are used to receiving in that service. Essentially the structure is the same, however **prices in the *Pairs Trader* alerts refer to the spread rather than the prices of the stocks.**

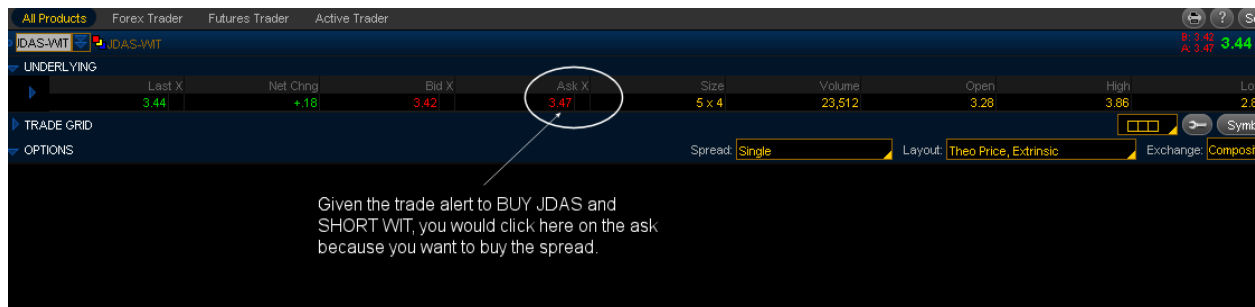
Unlike the *ShadowTraderPro Swing Trader* or *FX Trader*, entries in the *Pairs Trader* are always already showing our fill prices when sent out. Due to the nature of pairs trading which entails the simultaneous buying of one security and selling of another, it would be difficult to present the advisory with limit orders or buy and sell stops. Thus when you receive an alert, we are confirming that we are in the trade and if you choose to follow you should enter the pair as soon as possible. The beauty of pairs is that because you are entering both stocks in different directions, it's harder for the spread to run away from you too much and slippage should be negligible and in many cases non-existent as you may be able to easily enter the spread at a better price than ShadowTraderPro's entry.

It is recommended for people new to pairs trading that they enter both legs of the spread at market. The best way to do this is to click on the bid or ask of the spread itself in the trade tab of the thinkorswim platform and this will automatically populate both stocks in the direction you want in your ORDER ENTRY TOOLS. More advanced traders may wish to pull up charts of both stocks individually and try to enter each leg one at a time to try and get a better entry. While this can result in higher profits, it

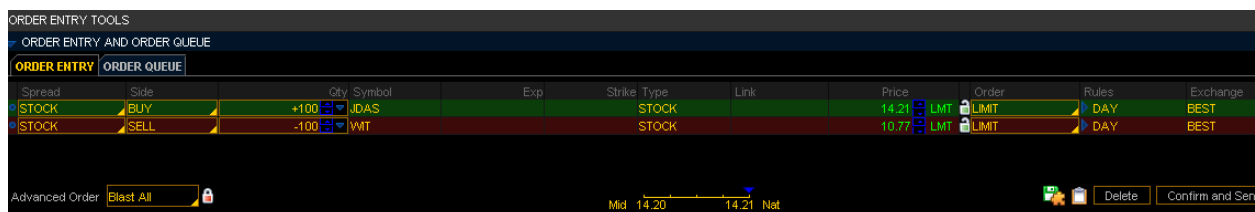
can also result in one leg of the pair “running away from you”. As with any trade, use your best judgment. In our experience, it is not necessary to “leg the spread” this way.

As discussed earlier, remember that an equity pair is very similar to a currency pair in terms of structure. Let’s walk through an example of setting up a live trade.

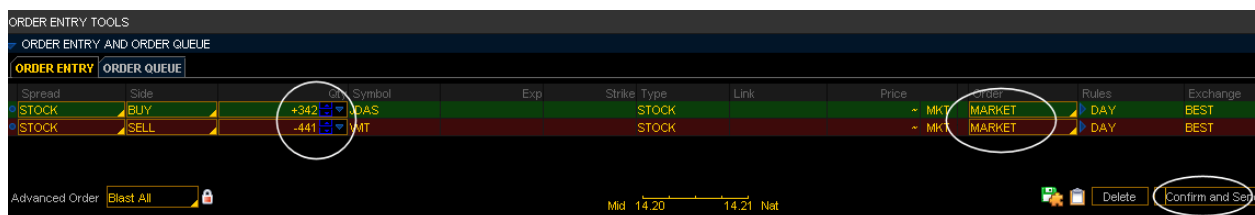
First, punch the pair into your trade tab with “all products” selected, in the same order as the trade alert. This will bring up the following screen:



If you wanted to buy JDAS and short WIT, then you would click on the ask, because JDAS is the first symbol of the pair as you entered it in the upper left corner. If you wanted to short JDAS and buy WIT, then you would click on the bid, again because JDAS is first and you would then be selling it. Clicking on the ask as above brings up both legs into your order entry like this:



Once they are in you need to change your order type to market and also adjust your share size to the exact size given in the trade alert, like this:



Just click on “Confirm and Send” like you do normally and thinkorswim will execute both orders simultaneously. Voila! (Pretty cool, huh?).

WHY THE WEIRD SHARE SIZES?

This is another very important part of pairs that cannot be overlooked. Much like volatility is so important to a successful options strategy, you will not have much success with pairs unless you pay attention to correlation and dollar neutrality.

The strange share sizes (as in the JDAS-WIT example above) are due to the trade being *dollar neutral* as opposed to *share neutral*. In a share neutral trade, you would short the same amount of WIT as you would buy of JDAS. If the stocks are very close to equal in price, then this may work but since this will occur very rarely, you will have to create positions that are dollar neutral in order to insulate yourself against market bias. Remember that effective pairs trade does not want to make a bet on the direction of the market either way. Rather it seeks to exploit a pricing inefficiency between two stocks that normally trade in tandem and have temporarily broken out of this relationship.

Share Neutral Example:

Stock A is trading at \$20

Stock B is trading at \$40

Buy 100 shares of stock A = \$2,000

Short 100 shares of stock B = (\$4,000)

Net Credit = \$2,000

Although this position is hedged with one short and one long, it is indeed biased to the downside and is bearish on the market.

Dollar Neutral Example:

Stock A is trading at \$20

Stock B is trading at \$40

Buy \$2,000 of stock A (100 shares)

Short \$2,000 of stock B (50 shares)

Net Credit/Debit = \$0.00

This position is hedged and also market neutral.

Scenario one:

Market goes up 10% and stock A is trading at \$22 and stock B is trading at \$44.

Share neutral position is down \$200 (+\$200 profit on stock A minus \$400 loss on stock B)

Dollar Neutral position is at break-even (\$0.00) (\$200 profit on stock A minus \$200 loss on stock B)

Scenario two:

Market goes down 10% and stock A is trading at \$18 and stock B is trading at \$36.

Share neutral position is up \$200 (-\$200 loss on stock A plus \$400 profit on stock B)

Dollar Neutral position is at break-even (\$0.00) (\$200 loss on stock A plus \$200 profit on Stock B)

As you can see in the above two examples, dollar neutrality removes market risk from the equation which is what we want. The profit (or loss) in a pairs trade should only come from a change in the value of the spread or ratio relative to its historical range and not from overall market bias or movement.

BETA WEIGHTING:

Another way to achieve neutrality is to use beta weighting which is slightly more complicated than dollar weighting but can be of good use to the pairs trader when analyzing pairs that have highly different levels of volatility. To beta weight your shares, you will need to know the beta of both stocks.

Beta is simply the volatility of a stock in comparison to the market as a whole. So if the S&P goes up 2%, the beta can tell me what my stock is expected to do. This is good to know in pairs because as we said we are trying to smooth out the market risk in the pair and let the returns of the pair be defined by the two stocks relationship to each other and not to the market. If the beta of HD is 0.641 and the beta of LOW is 0.969, and given a \$5,000 per leg starting point, the share size would be calculated like this:

1. Figure out combined position size ($5,000 + 5,000 = \$10,000$)
2. Add the two betas to get Total Beta ($0.641 + 0.969 = 1.610$)
3. Divide beta of first stock (HD) into total beta ($0.641 / 1.610 = 0.398$)
4. Multiply that figure by the total dollar size of the trade and give that amount to the OTHER stock ($0.398 * 10000 = \$3980$ for LOW, leaving \$6,020 left over to put into HD)

So in the example above you would buy 232 shares of HD and short 177 shares of LOW.

Note how the stock that has the higher beta gets the lower share size, regardless of what its share price is. HD is actually more expensive than LOW, however its beta is much lower, so it takes more shares (read: more dollars) for your position in it to move the same amount as LOW would in percentage terms.

HOW TO STRUCTURE YOUR PORTFOLIO TO HAVE THE SAME RISK/REWARD AS THE PAIRS TRADER PORTFOLIO

The ShadowTrader Pairs Trader Portfolio is based on a hypothetical starting balance of \$30,000. **Each position taken will always assume \$5,000 of capital apportioned to EACH leg of the trade.** The model assumes that standard 2:1 portfolio margining is in effect and has a maximum of 3 open trades at any given time. Buying power reduction on each trade will be very close to \$5,000 so total BP effect if you had three trades on at once should not be more than approximately \$15k at any time. Depending on your own account size, you should size your pairs accordingly by figuring out what percentage of \$30,000 your portfolio is or total amount you want to apportion to pairs trading, and adjust accordingly.

A BASIC GUIDELINE TO ANALYZING PAIRS FOR POSSIBLE TRADE

First, identify what type of chart you are looking at. Is it a trending pattern or does the chart look like "bar-code". Trending charts are traded directionally, just like individual stocks, while bar-code charts are traded for reversions to the mean. Generally speaking, the bar-code type of chart is a more "pure" pairs type of trade. The basic pattern of the chart shows us that although there is some tradable movement to the spread, one stock does not ever hold relative strength over the other long enough for the spread to trend. If the spread is trending, then one stock is showing extreme relative strength or weakness to the other and the pair should only be traded in the direction of that strength or weakness.

Determine support and resistance levels of past price action. Since we know that the shadows of the candles don't show the real spread movement, identify where the bodies of the candles end. Use the highs and lows of the bodies which denote the actual open and close of the spread value as your support and resistance levels.

When looking at the bodies, evaluate the historical spread extremes of the pair both by visually seeing support and resistance and also using the Distance From the Mean indicator. Some pairs seem to have a history of reverting to the mean when they reach certain levels. If a pattern can be detected, it may help in evaluating future buy and sell points. Sometimes patterns are better found on one side of the mean than the other. It's best to trade those pairs in the more predictable direction.

Finally, confirm your trade with the use of the "fast" 2 period RSI on the daily charts. Is there a relationship between the RSI and times when the pair begins to revert to the mean? Some pairs never reach the RSI 95/5 overbought / oversold levels. Other pairs reach them briefly (perhaps for one day) then revert. Other pairs will reach these levels for 3-4 days and then revert. The more technical indicators you can tie together before pulling the trigger, the better.

SOME COMMON PITFALLS OF PAIRS TRADING

---→Be aware of whether or not the **pair is trending a bit or not**. A pair that is trending will be a difficult trade to pull off unless you are in the direction of the trend. Go through as many pairs as you can on your tos platform to begin to learn how different chart patterns look in equity pairs. Ideally, you want there to be almost no slope to the 10 period simple moving average on a daily chart. If anything you want it to just roll around, a little up and then a little down. A pair that has a defined trend in either direction can often only be traded in that direction. So if you were watching pairs and you received a signal hitting the upper boundary of a channel that is ascending, you will have less odds of success than if you traded the pair to the upside off of the lower boundary of an ascending channel. The safest bet is to pass on pairs that are trending. A trending pair is generally indicative of decreasing correlation, and is really a bet more on one stock than the other.

---→Try not to enter a pairs trade too close to the open. In fact, use the open to your advantage to exit pairs profitably on strange moves that often occur within the first 5 minutes of trade and at no other time. A pair that is giving a signal right at the open can often be a false signal as one of the two stocks is gapping due to news or is trading off of some other imbalance, causing the spread to shoot out in one direction or the other. Again, use this to your advantage to possibly exit the pair for a larger profit than expected on a morning spike.

---→Always check the individual chart of each stock before trading the pair. If one of the stocks is breaking out of a technical pattern and the other is stuck in a range, this is probably the beginning of a decoupling in the pair and a decrease in correlation. You could easily get stuck short the break out stock and long the laggard which will result in a certain stop out. Ideally, the two individual charts should look basically the same. You should be able to overlay one on top of the other with minimal divergence. Remember, you are looking to exploit very small movements in the range over and over. Pairs Trading is not like swing trading where you are looking for sizeable moves. It is bite-sized profits that can be repeated over and over.

---→When checking out the individual charts of the two stocks, ask yourself if there is any material event that is causing the signal. Essentially, as stated above, the two charts should still look relatively the same and neither of the stocks should be gapping to create the signal. If you were for example, looking for a signal long on the lower boundary of a pair and the first stock in the pair gaps down hard, causing the spread to move aggressively below that lower boundary, then this is probably the beginning of a decoupling. Think of it this way.....Very similar to the old joke about being long stock that is going down. "Well, if you liked it at \$25, you should LOVE it at \$15!" It's exactly the same thing. If you were looking for a touch of \$2.27 at the low end of the range of a pair and on the first stock gapping down, the spread opens at \$1.84, this is not a good signal.

---→Always check earnings schedules before entering any pair. Nothing can move your pairs trade right into the toilet faster than one of your stocks gapping up or down against you. You do not want to be long or short any pairs trade with either of the stocks reporting earnings. Do not assume that because one gaps, the other will gap also "in sympathy". It might, and then again it might not.

HOW TO USE PRODIGIO TO AUTOMATE YOUR PAIRS TRADING

Prodigio, by TD Ameritrade/thinkorswim is a revolutionary and powerful trading application that allows users to create complex trading strategies using drag-n-drop icons, which can be back tested and also deployed in real-time, to be traded in a fully automated manner.

Prodigio is especially well suited for Pairs Trading, as the spread values often trade at desired levels for only moments at a time, therefore requiring extreme vigilance and agility on the part of the trader. With the automation capabilities of Prodigio, all of the work is done for you once strategies are deployed. Prodigio can effortlessly handle entry, target, and stop robotically (and with near-surgical precision!) without human interaction.

If you do not have Prodigio on your thinkorswim/TD platform, please send an email to : support@thinkorswim.com to request free access.

CREATING RULES AND STRATEGIES FOR PAIRS TRADING

Strategies in Prodigio are made up of rules. In order to automate Pairs Trading, you will need to create 3 rules and 2 strategies. The three rules are entry, target, and stop, and the two strategies are one strategy to buy one stock and another to short another stock. We suggest that you view Automating Pairs with Prodigio I and II at the links below. Cut and paste these into any browser to view the videos.

http://www.shadowtrader.net/videos/pairs_hour110407/pairs_hour110407.html

http://www.shadowtrader.net/videos/pairs_hour110414/pairs_hour110414.html

Step One, creating the rules:

Click on the Wizard Lab tab on your Prodigio platform and select Step 1 – Rule Builder. Drag and drop the following icons (nodes) to the palette at right.

-two Single OHLC nodes – located in Source Data

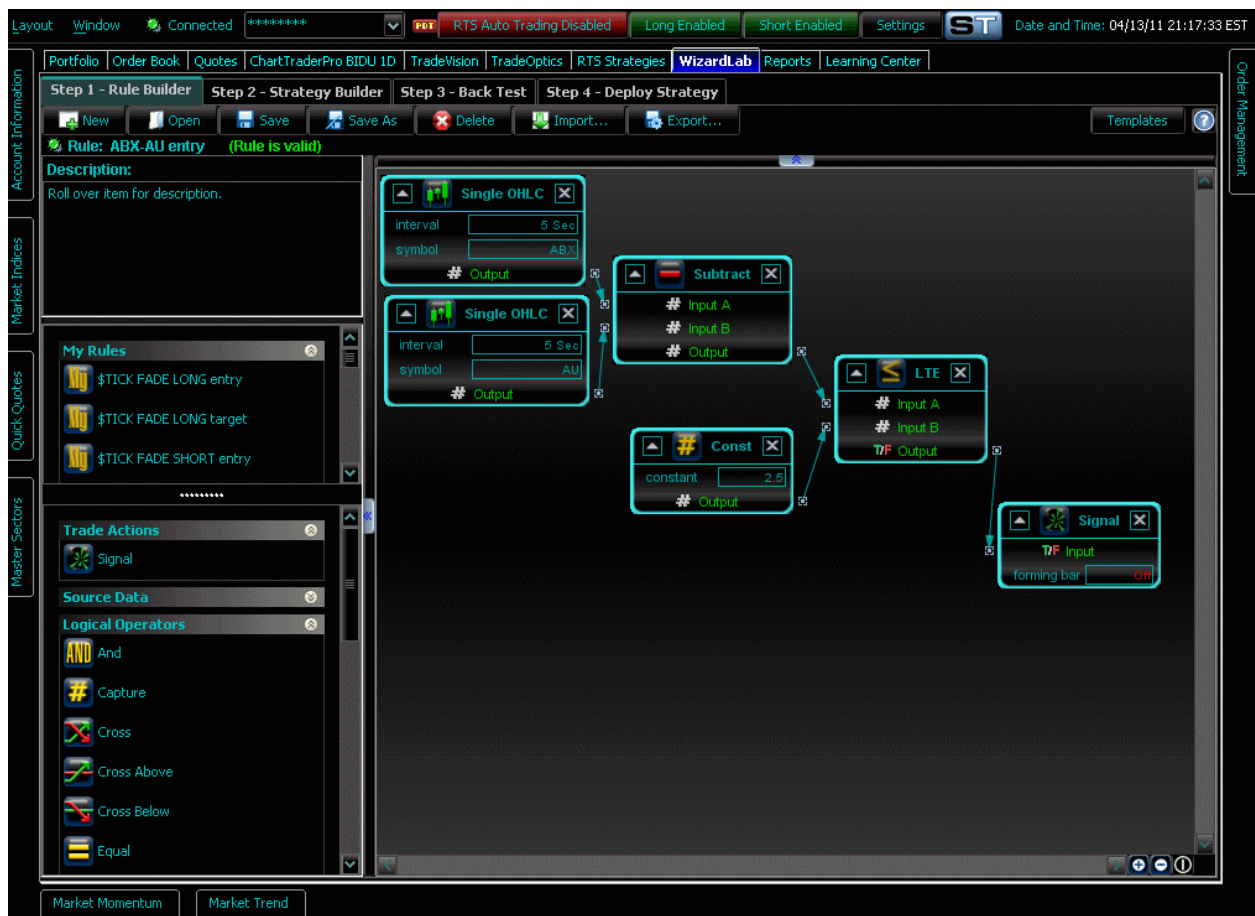
-Subtract – located in Math

-Constant – located in Source Data

-Less than or Equal to (or Greater Than or equal to) – located in Logical Operators

-Signal – located in Trade Actions

Your palette should look like this:



In the Single OHLC nodes enter the two stocks that comprise your pair. If the pair is ABX-AU, then put ABX on the top and AU on the bottom just to keep things simple.

In the Constant Node, enter in the price at which you want to enter the pair.

If your pair entry is a long (i.e.: you want to buy the first symbol and short the second), then you will need the “Less than or Equal To” node. If it’s a short, then you need the “Greater than or Equal To” node.

Connect all the nodes with the little connectors just clicking on output of one and pulling the arrow into the input of the next. If you have done everything properly, then it will say “Rule is Valid” in the upper left just like in the picture above.

Click the “save as” button and save your rule as ABX-AU entry

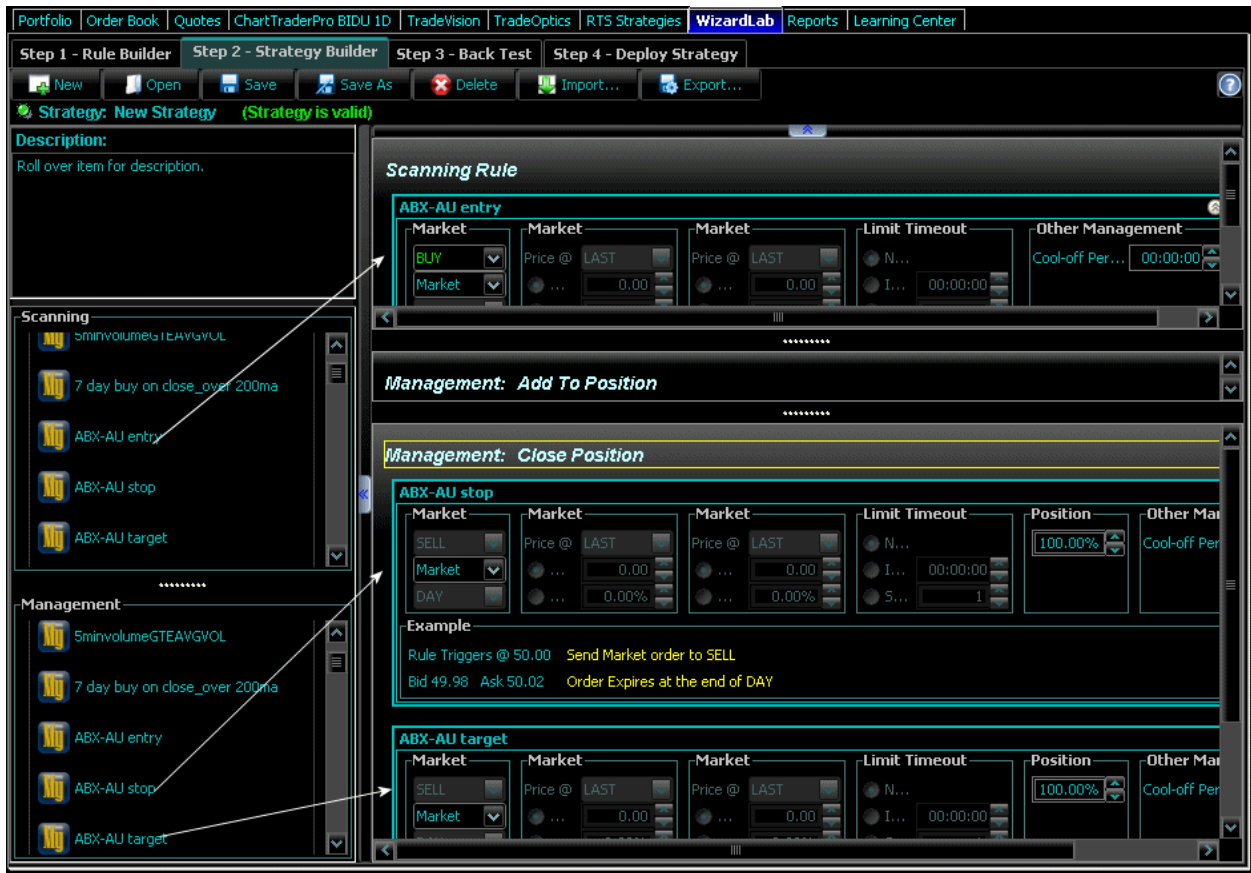
Repeat the above steps for your target and stop. Be aware that you will have to make changes to the logical operator and the constant so Prodigio can know where you want to exit at a profit or a stop loss.

If your entry was a long, then your target rule would be greater than or equal to some constant. If your entry was a short, then your target would be less than or equal to some constant. Save your target and stop rules in the same way that you did your entry.

You should now have three rules saved (entry, target and stop) and can move on to step 2 which is to create the two strategies you'll need in order to trade the pair.

Step Two: Creating the two strategies

Click on Step 2 – Strategy Builder in your Wizard Lab



From the left pane, in the scanning section, drag your entry rule (ABX-AU entry) over to the Scanning Rule just like in the picture above. If this is a pair you want to get long of, then set the drop down to “BUY”.

Drag your target and stop rules from the **Management** section over to the Management: Close Position section. You'll note that whatever direction you chose on top with the drop down, the exit rules will automatically change to the opposite direction.

Click “Save as” and save your strategy as some name that will reference that this strategy is a buy. For example: STRATEGY – Pairs ABX-AU (buy)

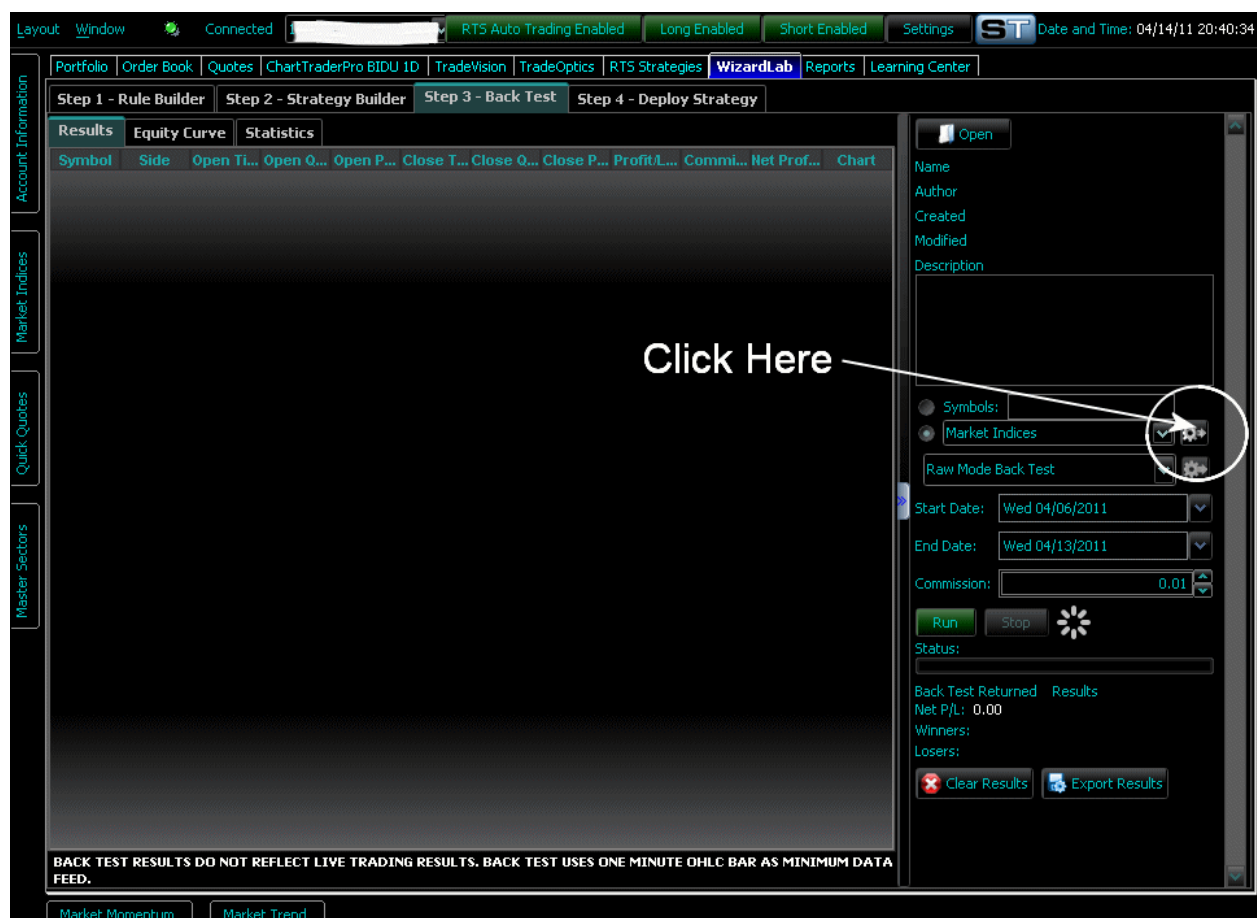
Once it's saved, simply go back to the top section and change the direction of the trade now using the drop down again and change to "SELL" or whatever is the opposite direction of the previous strategy. Again, click "Save As" and save as some name that will reference that this strategy is a sell. For example: STRATEGY – Pairs ABX-AU (sell)

Step Three: Creating the two watch lists

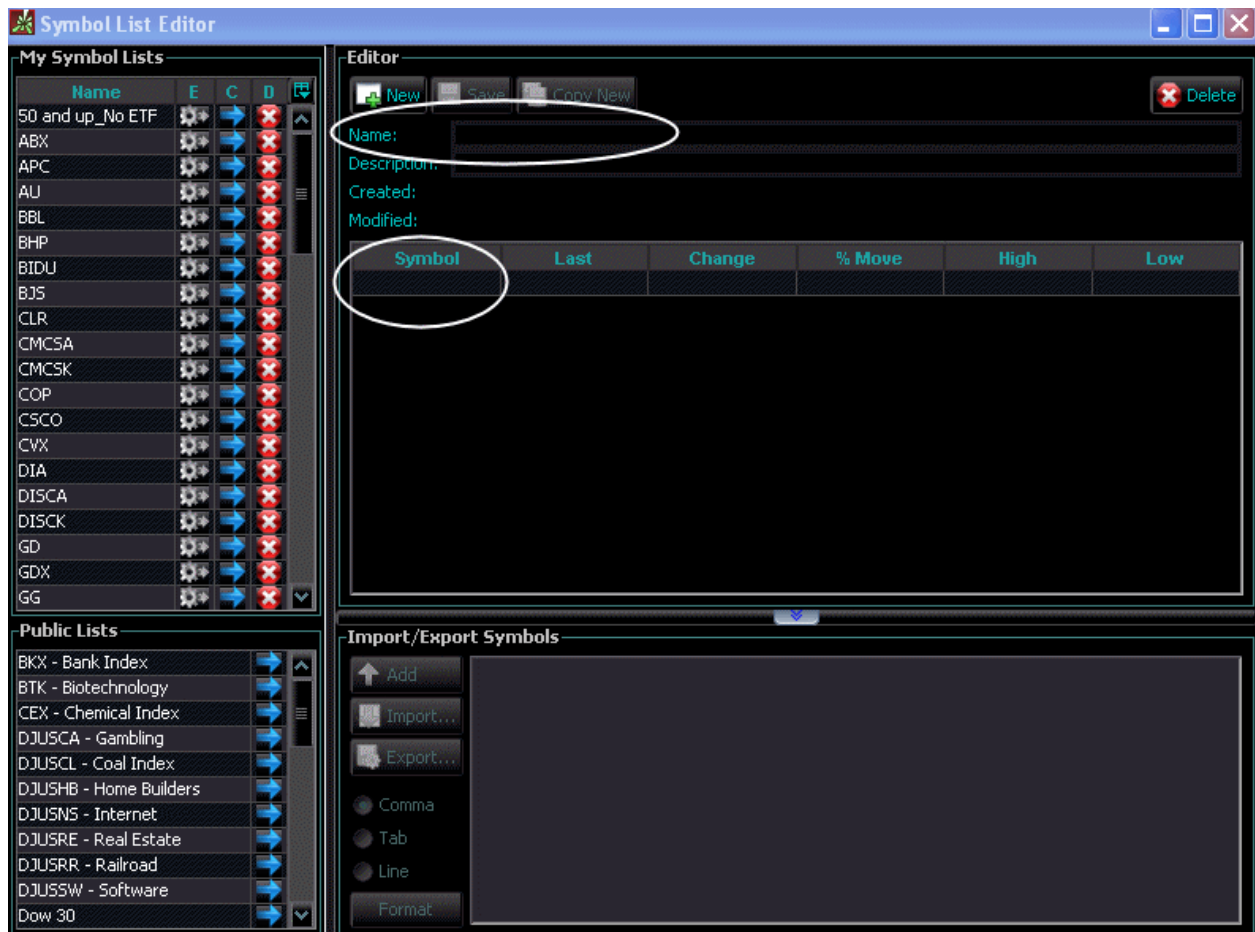
Remember, that in order for Prodigio to fire your pair, there needs to be two strategies running, one that is looking to buy one stock and the other that is looking to short the other stock. These two strategies need to be deployed on two separate watch lists. Each watch list will contain only one symbol.

Click on Step 3 – Backrest

Inside of this section find this little gearbox:



That will bring up the Symbol List Editor



In the editor (above) click on New and then put the first symbol of the pair into the Name line.

Then click on Symbol and put the symbol there.

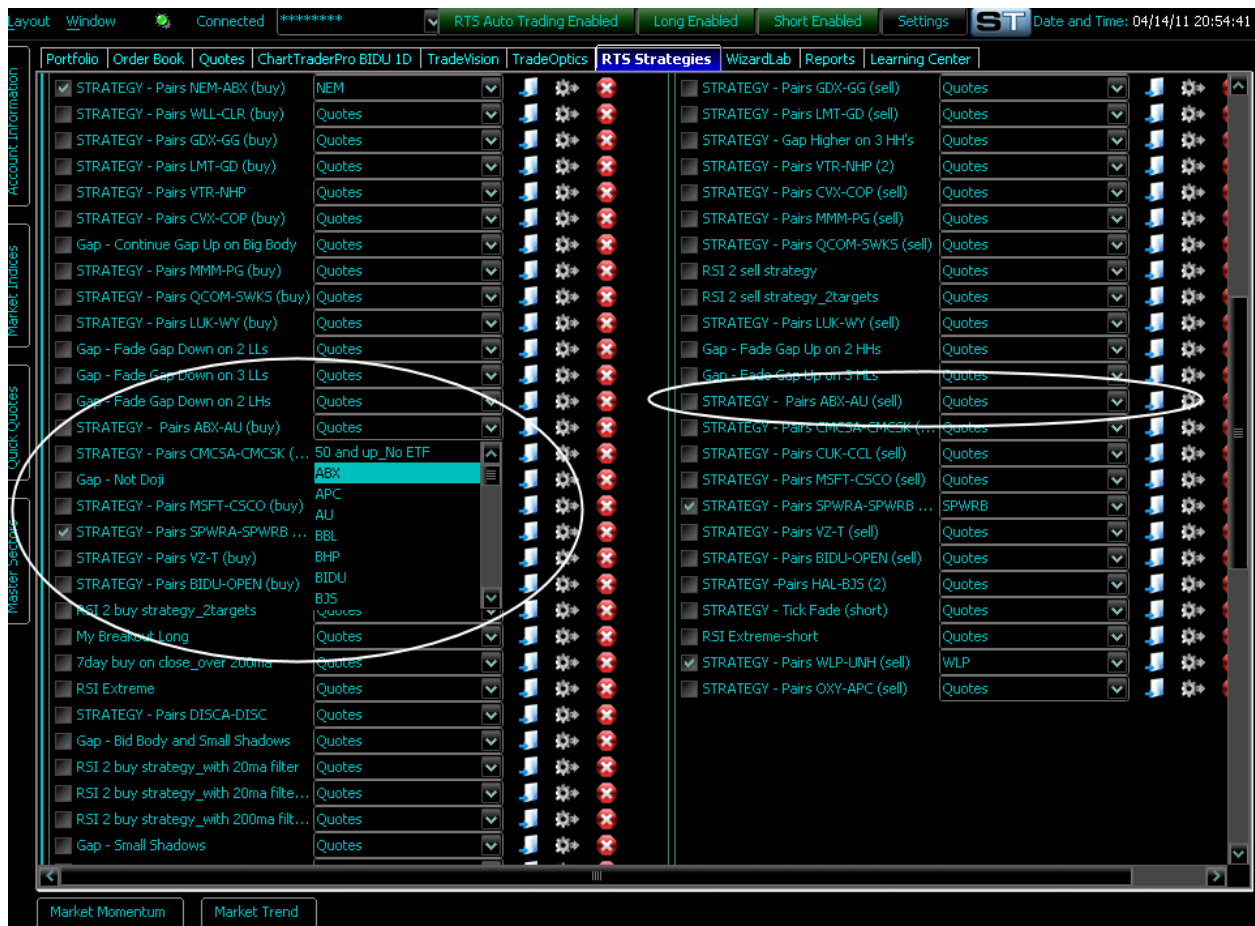
Click Save

You have now created a watch list with one of the symbols of the pair in it.

Click New and repeat the above process to create and save a watch list for the other symbol of the pair.

Step Four: Deploying your Strategy

Click on Step 4 – Deploy Strategy and click on “Deploy to RTS Strategies”. This will bring up the screen below which has long strategies listed on left (those that have BUY in the scanning rule) and short strategies on the right (those that have SELL in the scanning rule).



Click the check boxes next to your two strategies and this will turn them on to Auto Trade. Make sure that the big button at the top center “RTS Auto Trading Enabled” is green. If it’s red, then no new strategies will fire.

In the drop down to the right of your strategy, select the proper watch list that you want to fire that strategy on. In our ABX-AU example we want to buy the pair, thus buying ABX and shorting AU. Hence in the left column (buy strategies), we would turn that strategy on with the check box and also select ABX from the dropdown. In the right column (sell strategies), we would turn it on with the checkbox and select AU from the drop down. When the rules of the strategy are met, the strategy on the left will fire on whatever stock you want to buy and the strategy on the right will fire on whatever stock you want to sell.

These are all the steps needed to create and trade pairs automatically. You should make the following changes as well to your settings in Prodigio:



-Disable your drawdown settings because in Pairs Trading you do not want one of the legs of your pair to get stopped out due to a Position Drawdown.

-Set your Per Trade Allocation to “Fixed Dollar of Buying Power Deployed” and using the spinner at right, put in the amount of capital that you want to trade on each leg of the pair. This will give you dollar weighting, as discussed on pages 8-9 above.

-Disable all the Trade Filters as these are not necessary since you have defined the watch list that your pairs will trade on.

**Note as of this writing, Prodigio does not have separate settings for separate strategies, thus any changes you make to this Settings box will affect ALL of your strategies currently running. The changes recommended above apply only to pairs trading.

IMPORTING STRATEGIES FROM THE NEWSLETTER

In every issue of the *ShadowTraderPro Pairs Trader*, there is a section called Pending Trades. Right click on all the files there and select “save target as” and save these files locally to your computer either on your desktop or a Documents file where you know you can find them.

In Prodigio, go to Step 2 - Strategy Builder and click on the Import button which is at the top between Delete and Export. Select your strategy and click Open. A confirmation box will pop up telling you that the strategy was imported. It now resides on your system in Prodigio.



****Note**** The Strategies you import contain all their necessary rules and strategies. They do not contain the watch lists for each individual stock of the pair. You will still need to create your two separate watch lists as in the instructions above.

Check off the strategies in the RTS Strategies tab and select the appropriate watch list(s) to have the pair trade automatically.

WHAT TO DO WHEN PAIRS TRADER ISSUES AN ADVISORY TO MOVE STOP OR TARGET?

- Open up the target or stop rule in question from Step 1 – Rule Builder in Wizard Lab
- Make the desired change to the constant
- Click save. This will save the rule and give you a warning that you have changed a rule and will tell you which strategies are affected.
- Your strategies will automatically undeploy from the RTS Strategies section. Go into the RTS Strategies section and recheck the boxes for the two strategies.

IF I DON'T TURN ON THE RTS AUTO TRADING ENABLED BUTTON WILL MY TARGET AND STOP STILL FIRE ON A PAIR THAT I AM CURRENTLY IN?

YES! Once you are in any automated trade using Prodigio, the target and stop are always working behind the scenes whether you enable this button or even turn on your platform at all. However, without turning on this button, any new strategies which have not fired yet, will not fire.

Good Trading to you.....

ShadowTrader.net

If you have further questions, email to pairstrader@shadowtrader.net