

## Expected Profit / Loss Filter

**Risk / Reward** is a very important characteristic of a trade. Expected Profit / Loss is a true measurement of this characteristic. By definition Expected Profit / Loss of the trade is calculated as each potential Profit / Loss generated by this trade, weighted by the probability of it happening.

**Why do we need Expected Profit / Loss?** It helps us to calculate whether the trade we created has a statistically advantage.

Let's compare two trades for an example:

- In the first trade you can make \$100 and you can lose \$20.
- In a second one you can make \$20 and you can lose \$50.

**Which is the better trade?**

The novice trader will most likely say the first one, but a more experienced trader will ask a very important question, **"What are the Profit/Loss probabilities?"**

Now let's add some more information.

- The probability of making \$100 in the first trade is 5%. The probability of losing \$20 is 95%.
- For the second trade, the probability of making \$20 is 90% and probability of losing \$50 is 10%.

Expected Profit / Loss for the first trade would be  $(\$100 * 0.05) - (\$20 * 0.95) = -\$14$

Expected Profit / Loss for the second trade:  $(\$20 * 0.90) - (\$50 * 0.10) = \$13$

By comparing these two results even a novice trader can see that the second trade looks better.

But do not be confused with the results. It **ABSOLUTELY DOES NOT** mean that in the first trade you will lose \$14 and in a second one you will make \$13!

Expected Profit / Loss are very good criteria to compare two strategies, but it does not provide an absolute result. You may interpret it as the following: if you execute the same trades (with all the same conditions) multiple times, the overall (total) result would be:

- ❖ for the first trade - a loss of \$14 per contract
- ❖ for the second one - a profit of \$13 per contract.

The more times you execute these trades, the closer average results will be to -\$14 and \$13 per contract (respectively).

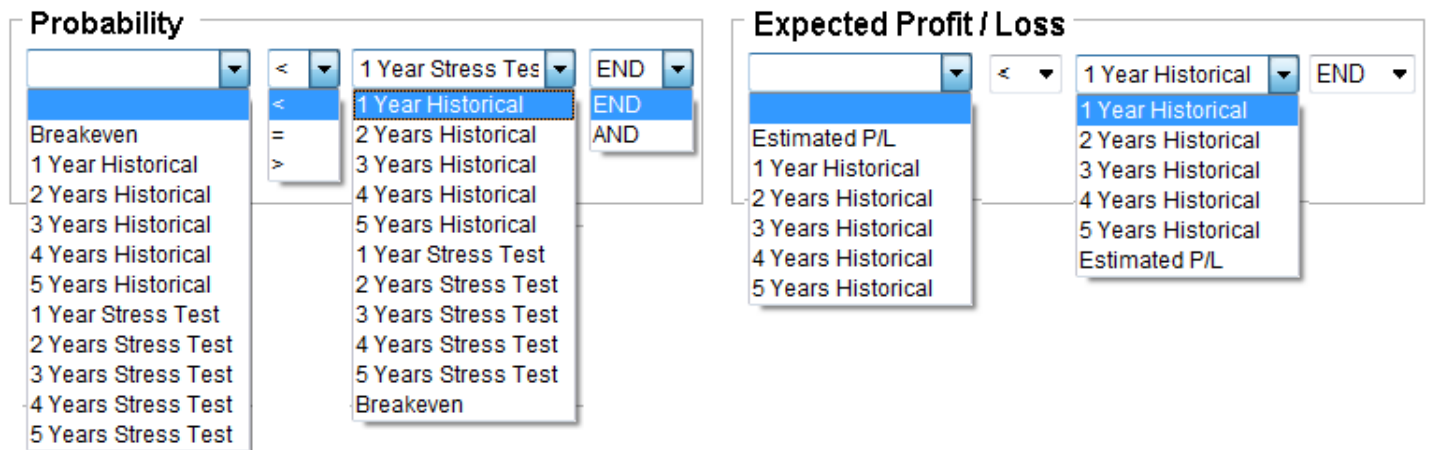
**Did you ever take a Statistics class in high school?** If you did, you know you can flip a coin 5 times and you might get the same result each time. But, if you flip it a 100 times the results should be pretty close to 50 heads and 50 tails. It's the same principle here.

In the Probability Filter chapter we have explained the advantage of using historical statistics of individual stocks vs. generic theoretical formulas. The same can be applied to the calculation of an Expected Profit/Loss value.

**Ez Trade Builder uses individually built statistical distributions of the stocks historical moves to calculate Historical Expected Profit / Loss value.**

### **Now let's get to the point of how you can use Ez Trade Builder to take advantage of Probability and Expected Profit / Loss Filters.**

On the screen shot below you can see the view of the Probability and Expected Profit / Loss Filters (to the right) and the choices that can be used to set-up filtering criteria.



All these choices, except the last drop-down window are self-explanatory. The purpose of the last drop-down window is to add more filtering criteria by selecting "AND". In this case an additional row will be displayed. To complete the filtering criteria the last row should end with "END". If you do not want to use this particular SET of filtering criteria just keep the first row as it is shown on the initial screen, with nothing selected in a first column and "END" in the last one.

Below is a sample of how these filtering criteria could be set-up. **This is in NO way a recommended filtering criteria, just a SAMPLE of how they can be set.**

Probability			
Breakeven	<	1 Year Historical	AND
Breakeven	<	5 Years Historical	AND
1 Year Historical	<	3 Years Historical	END

Expected Profit / Loss			
Estimated P/L	<	1 Year Historical	AND
Estimated P/L	<	5 Years Historical	AND
1 Year Historical	<	3 Years Historical	END

## Tips, not recommendations, on how to set filtering criteria.

Option prices for individual stock represent the options markets view on the future movements of the underlying. One of the main derivative parameter of the option prices is Implied Volatility. Implied Volatility is also major factor in the calculation of Theoretical Probability.

We have already established that the Ez Trade Builder method of calculating Probability is more accurate than a generic Theoretical one. This means that by using Ez Trade Builder one can get a competitive advantage over other market participants.

### How can one take advantage of this?

**By setting the filtering parameters for Probability and Expected Profit / Loss Filters to produce only trades, where Theoretical values would be less than ones calculated base on Historical or Stress Test Readings.**

The critical question is how far into history do you want to look to establish the statistical distribution?

The answer depends on your view on the market for the trade duration that you set in your search.

If you are not anticipating any changes in the market behavior during the selected period then you can select 250 or 500 of historical readings. You do not have to predict where market will go (Up or Down) in the period you are looking in. If it's trending in a certain price range for some time and you do not envision any major change you can select 250 or 500 historical readings.

If you think market will change its pattern from let's say a sideways trend to Bullish or Bearish market select 1000 or 1250 historical readings, this will give you a more diversified statistic.

If you want to **stress test** your choice, use Stress Test probability as it calculates probability based on magnitude of the move and not direction.

Let's take the following sample to illustrate this.

# EZ TRADE BUILDER

All Stocks ▾ Put Credit Spread ▾ Year 2010 ▾ Date 06/08 ▾ Stock Price From 0 To 1000

**Minimum Credit**

Spread Range 0 -- 3  Spread Range 8 -- 13

Spread Range 3 -- 8  Spread above 13

**Search Sequence**

Stress Test Prob. 1 Year ▾

**Probability**

Breakeven ▾ < ▾ 1 Year Stress Test ▾ END ▾

**Volatility**

Implied Volatility ▾ > ▾ 20 Days Stat. Vol. ▾ END ▾

**Expected Profit / Loss**

Estimated P/L ▾ < ▾ 1 Year Historical ▾ END ▾

**Volatility Percentile**

Hist. Days 400 ▾ Implied Volatility ▾ From 0 To 100

Hist. Days 400 ▾ 20 Days Stat. Vol. ▾ From 0 To 100

**Trade Search**

After clicking on the "Trade Search" button the following results will appear:

## EZ TRADE BUILDER

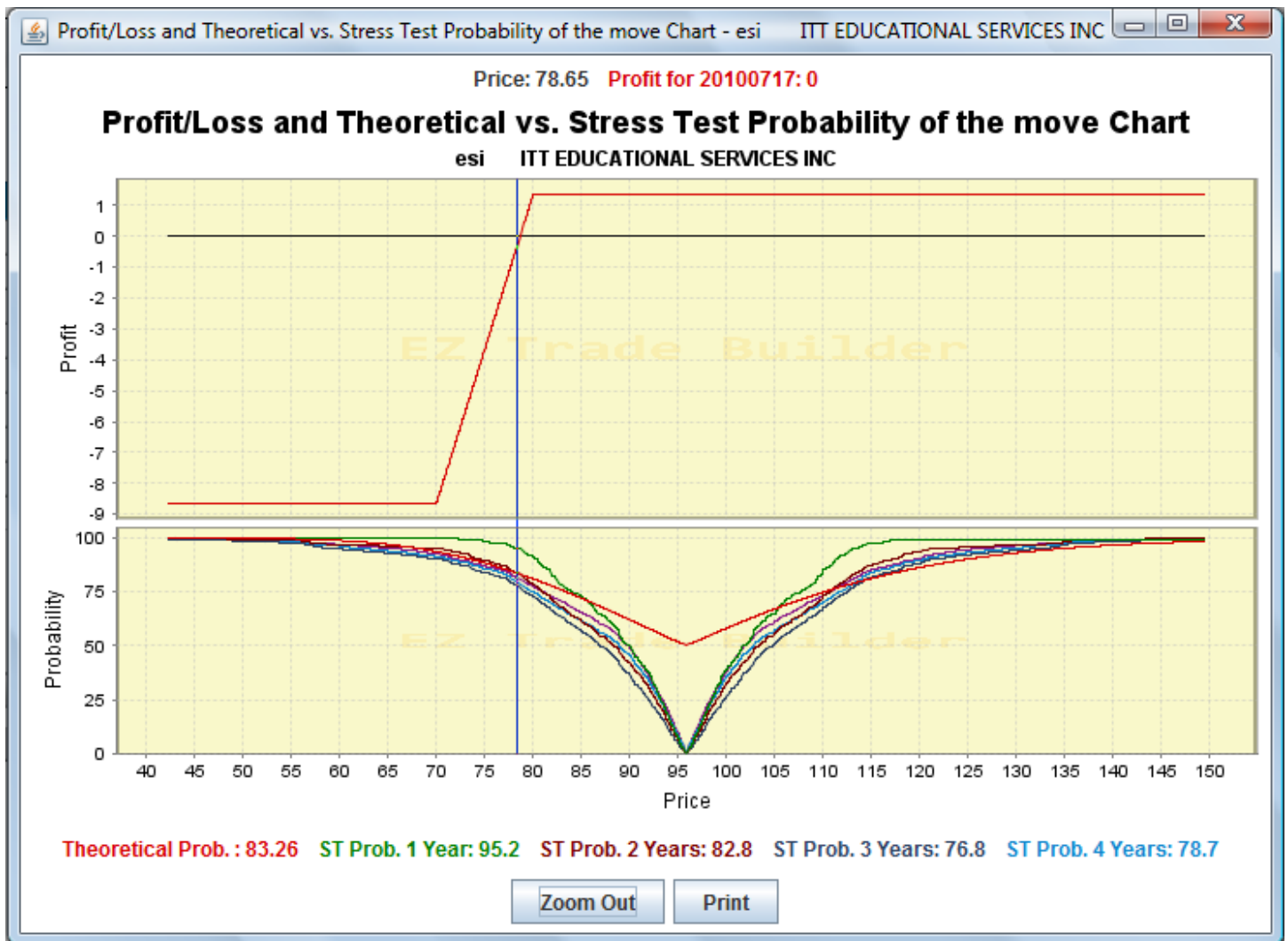
All Stocks ▾ Select Trading Strategy ▾ Year 2010 ▾ Date 06/08 ▾

Symbol	Company Name	Trade	Price	Credit	ST Prob 1 Year	Profit	
esi	ITT EDUCATIONAL SERVICES INC	Sell July 80 Put and Buy July 70 Put	95.84	1.35	95.2	1.35	<input checked="" type="radio"/>
ibm	INTERNATIONAL BUSINESS MACHS	Sell July 115 Put and Buy July 110 Put	123.72	0.56	88.4	0.56	<input type="radio"/>
rrc	RANGE RES CORP	Sell July 40 Put and Buy July 35 Put	46.95	0.6	87.6	0.60	<input type="radio"/>
cf	CF INDS HLDGS INC	Sell July 50 Put and Buy July 45 Put	58.56	0.6	86.8	0.60	<input type="radio"/>
eog	EOG RES INC	Sell July 90 Put and Buy July 85 Put	105.36	0.6	86.8	0.60	<input type="radio"/>
rimm	RESEARCH IN MOTION LTD	Sell July 50 Put and Buy July 45 Put	58.29	0.61	86.8	0.61	<input type="radio"/>
v	VISA INC	Sell July 65 Put and Buy July 60 Put	73.35	0.55	86.8	0.55	<input type="radio"/>
azo	AUTOZONE INC	Sell July 175 Put and Buy July 165 Put	188.89	1.2	86.4	1.20	<input type="radio"/>
schn	SCHNITZER STL INDS	Sell July 35 Put and Buy July 30 Put	41.52	0.55	85.2	0.55	<input type="radio"/>
rmbs	RAMBUS INC DEL	Sell July 17.5 Put and Buy July 15 Put	21.9	0.38	84.4	0.38	<input type="radio"/>

Select Report or Chart ▾ **Trade Search**

You can select any trade by clicking on a radio button in the last column. In our sample we will stay with a default selection of the first row trade.

Now let's take a look at Profit/Loss and Theoretical vs. Stress Test Probability of the move chart.



As can be seen from this chart generic Theoretical Probability of Profit is 83.26%. Stress Test Probability based on 1 year of historical readings is 95.2%. All other probabilities of a longer historical range are below generic Theoretical Probability.

If on June 8, 2010 you thought that the market would not go through a substantial correction in the following month, you should select this trade. The result of this trade can be seen on the following chart:



If you anticipated that some **major corrections** could happen and wanted to **“STRESS TEST”** your strategy, before taking it, you could have selected a longer period of historical readings, but in this case our ESI trade would not appear in the result table.

**Why is using Ez Trade Builder to get a statistical advantage vs. general public so important? Because we are not looking for the “Million Dollar Trade”. Ez Trade Builder allows us to consistently chip away at the markets, month after month. This is the most important concept the novice trader needs to understand. Trading options requires the right tools and the knowledge to use them.**

For more in-depth coverage please check information on our on-line Webinars or Mentoring programs.