

Trendline Indicator - The Theory

The Trendline indicator is based upon a variation of the MACD - find definition of MACD here: <http://en.wikipedia.org/wiki/MACD>.

The MACD is by definition a Lagging Indicator and is not predictive by nature. However, the variation of MACD the Trendline is based on uses a Bollinger Band derived by the following equations...

```
// Calculate Macd and Bollinger Band...
BB_Macd = MACD( Close, FastLen, SlowLen ) ;
// Take the Exponential Weighted average of BB_Macd over 10 price bar lengths...
Avg = XAverage(BB_Macd,Length);
// Take the Standard Deviation of BB_Macd over 10 price bar lengths...
SDev = StdDev( BB_Macd, Length ) ;
// Calc the Bollinger Band, where StDv is 1...
Upper_Band = Avg + StDv * SDev ;
Lower_Band = Avg - StDv * SDev ;
Mid_Band = Avg ;
```

From the equation above, we derive two vital pieces of additional information, which make this variation of the MACD predictive for our use!

```
// Find the Delta between BB and MidBand...
Trendline = (BB_Macd - Mid_Band) ;

// Find the Absolute value of the difference between Upper and Lower Band...
Delta = AbsValue(Upper_Band - Lower_Band) ;
```

The **Trendline** is a value that varies from positive to negative and essentially mimics the price action, but will also diverge from the price action since it is derived from the MACD.

The **Delta** is a positive number that range from zero to any maximum. This Delta is a measure of how far away the MACD Bollinger Bands are from each other.

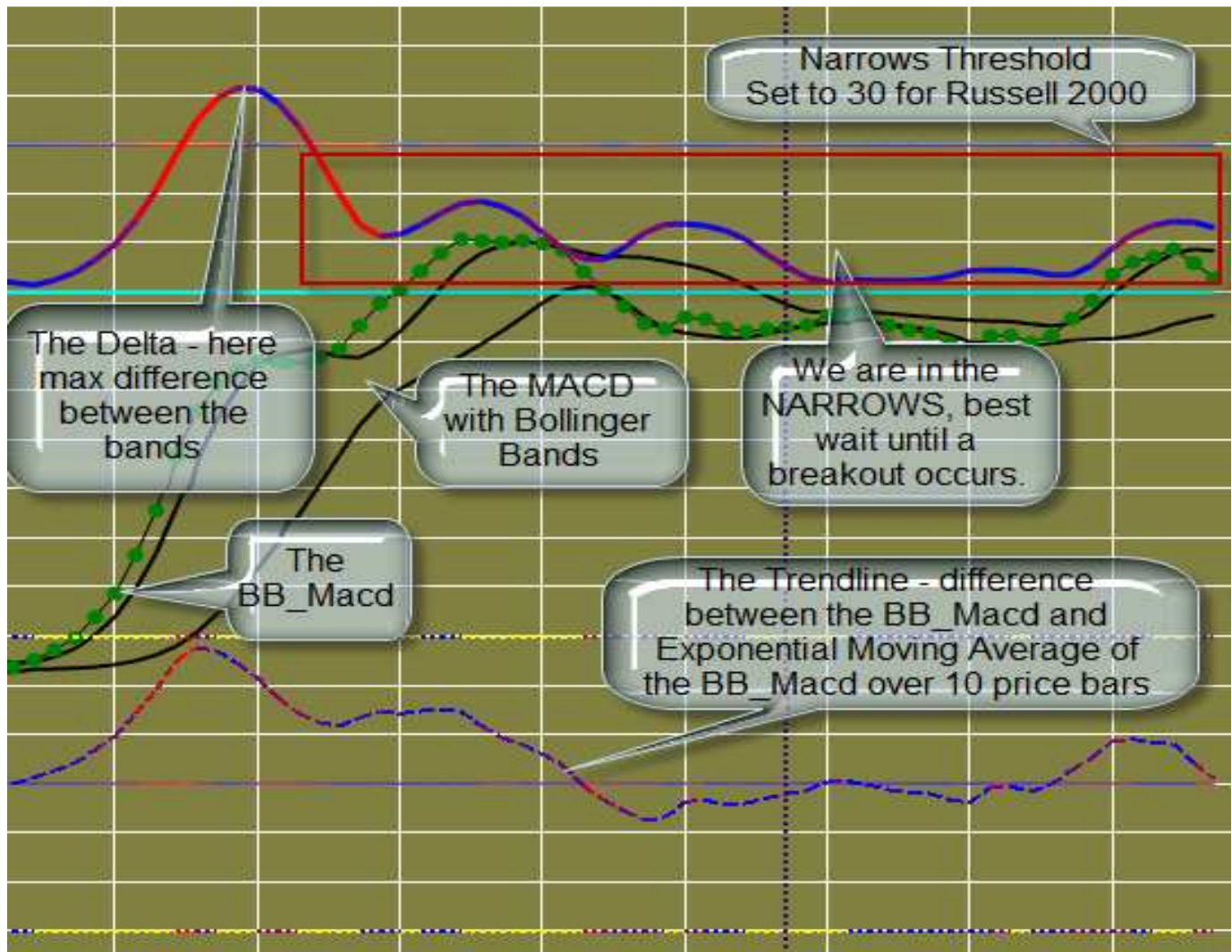
Why is this **Delta** a pivotal and amazingly important piece of information?

It is because of the following anecdotal information gathered from experienced traders who profitably use this variation of the MACD with Bollinger Bands...

“When the Bollinger Bands are narrow is when we make the money!”

It had been proven by experience that when the BB_MACD Bollinger Bands narrow we either have a trend change or a continuation of the current trend. The Delta gives us a visual tool of when possible trend changes will occur, which is plotted on the price bars as color changes on the Keltner mid-Band.

Trendline Indicator - The Parts



CAUTION: *We continue to receive insights into the usefulness of the Trendline Indicator.*

No Indicator is 100% reliable.

Trendline Indicator - What we have seen...



The Extremely Simplified Rules - Yes, it truly is this simple:

1. 144 Delta reaches Peak outside the Narrows threshold
2. Get Trend Alert - "144 - Uptrend Found!"
3. Wait patiently until the trendline enters the TrendLO threshold and enter for Up trend

You exit the Uptrend when the BB_Macd peaks out.

What is **KNOWN**, as fact, about the Delta and Trendline:

1. When the Delta is at a PEAK - trend change coming!
2. When the Delta is at a VALLEY - trend change had already occurred!
3. When the Delta does a PLATEAU - current trend continues!
4. When the Delta enters the NARROWS, a significant trend change may occur.
5. When the Delta is at a PEAK outside the NARROWS and Trendline is also at a PEAK, above the TrendHI threshold, you will have a downtrend (unless you have DIVERGENCE).
6. When the Delta is at a PEAK outside the NARROWS and Trendline is also at a VALLEY, below the TrendLO threshold, you will have an uptrend (unless you have DIVERGENCE).
7. When Delta is past its Peak (OffPeak) and going down to its Valley, price action will go sideways for sometime (5 to 8 bars), when the market really wants to go up. Less than 5 bars when the market wants to go down.
8. When Trendline is above TrendZERO, you are still in an uptrend.
9. When Trendline is below TrendZERO, you are still in a downtrend.
10. Safe Entries for Uptrends are made when the Delta pulls out of its Valley (Valley Pullout).
11. Safe Entries for Downtrends are made when the Delta is passed its Peak (OffPeak).

The Trading Strategies

The Trend Zero Crossing Strategy - <i>most favored</i>	PRO: - Easy to use, certain of market direction, defined entry and exit of positions.	CON: - will GIFT when the market is going sideways.
The Peak-Valley Strategy - <i>favored only pre-market, before 9:30am EST</i>	PRO: - Easy to use, certain of market direction, defined entry and exit of positions.	CON: - will GIFT when the market is going sideways.

Details in All its Glory - The Delta:



DELTA details: Used with the Peak-Valley Strategy

1. Peak of the DELTA, means a trend change is coming.
2. Valley of the DELTA, means a trend change had already occurred.
3. When Peak and Valley occur while IN THE NARROWS, the change in trend is occurring NOW.
4. When the DELTA has a FLAT Peak/Valley or goes to a PLATEAU, the trend continues in the same direction.
5. When the DELTA is BLUE shaded, it means that its rate of change is slow.
6. When the DELTA is RED shaded, it means that its rate of change is fast.
7. When the DELTA is coming off its Peak (OffPeak), we may have sideways price action.
8. Safe position entries are made OffPeak or when the Delta takes off from a Valley (Valley Takeoff).

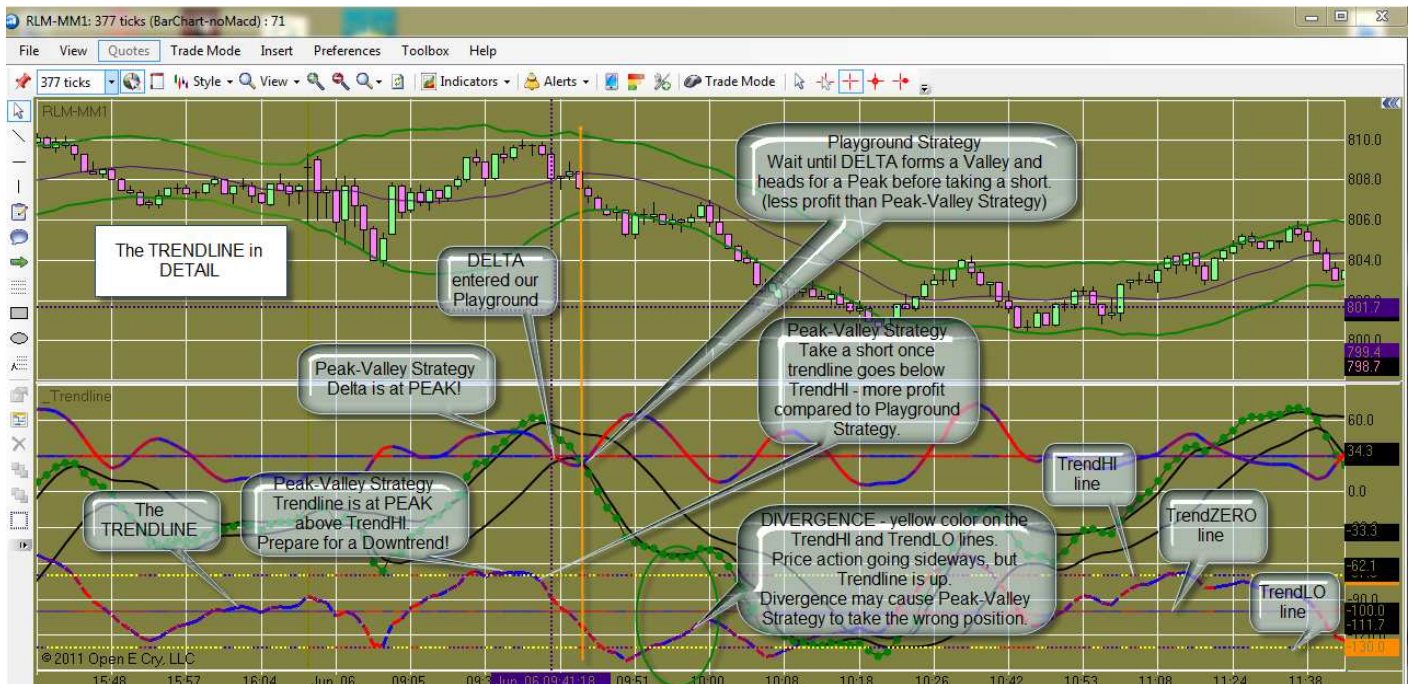
Details in All its Glory - The Narrows:



NARROWS details: Used only when using the Playground Strategy - The Trend Zero Crossing Strategy made this obsolete!

1. We think of the NARROWS as our private Playground.
2. Depending on the Timeframe we use as our Playground (the 144, 233, 377, 610, 987, 1597 or 4181); we get a Text Alert when the Delta enters the NARROWS. The Delta is our gatekeeper.
3. We only consider the market when it's in our Playground and ALL the LOTs (Low Order Timeframes) are also in the NARROWS.
4. Once LOTs are also in the Narrows and the Delta has formed a Valley and is going for a Peak; we look at the trendline and enter a position according to the trendline direction, after making sure the LOT trendlines also agree.

Details in All its Glory - The Trendline:



TRENDLINE details: Used in both the Peak-Valley and Playground Strategies - made obsolete by The Trend Zero Crossing Strategy!

1. The TRENDLINE gives us our direction of the price action. It lets us know whether to BUY (go long, up) or to SELL (go short, down) for our trading position.
2. For the Playground Strategy, we ONLY play once the market enters our Playground (DELTA is in the NARROWS) and ALL the other Low Order Timeframes (LOTs) are also IN THE NARROWS.
3. For the Peak-Valley Strategy, we ONLY play once we have Peak Delta and the TRENDLINE enters TrendHi from above (for a downtrend) or TrendLO from below (for an uptrend).
4. DIVERGENCE between the TRENDLINE and Price Action is shown graphically by coloring the TrendHi and TrendLO lines yellow. This means the Trendline may be going opposite the direction of the Keltner Average. This will not cause us to enter in the wrong direction using the Trend Zero Crossing Strategy.
5. When the TRENDLINE is BLUE shaded, it means that its rate of change is slow.
6. When the TRENDLINE is RED shaded, it means that its rate of change is faster.
7. When the TRENDLINE is above TrendZERO, you are still in an UPTREND.
8. When the TRENDLINE is below TrendZERO, you are still in a DOWNTREND.