Oil Trading Room: Smart Patterns Smart Renko Bar and Advanced Topics for Any Bar Type

The original Smart Patterns Trading System was based on the Ultimate Tick Bars alone. Later, technologies were also developed with the Smart Renko bars. In this addendum we will address several basic trading patterns that can be used with the Smart Renko Bars (and Ultimate Tick Bars [UTBs] where applicable) on the Smart Patterns Trading System, and Tools. Smart Renko bars are structured with fixed range while UTBs are not. Smart Renko bars work well in markets a good percentage of the time and are easier to read for many traders. UTBs are also excellent and are often superior in fast moving markets. Your self discovery is encouraged.

While there are any number of patterns we will discuss, the principals herein, once learned, will become fluent and will enable you to see patterns on charts most traders cannot even begin to imagine. You are encouraged to read this section many times at intervals of time and with each reading, you will likely get more insight. Learning in this way is well worth the effort and time. The patterns discussion below will be looked at more or less context free so as to learn and understand the patterns. The patterns are as follows:

**Terms**

1) Pivot Retags

2) Encompassing Patterns

3) Wave Counts

4) Type 2 Divergences (applies to both the Smart Momentum and Trapped Trader Oscillator)

5) "The Gift" Trade

6) The concept of open zones on a Smart Renko Chart.

7) The 5 tick rule

8) Range Expansion

9) Halfback (the importance of the 50% level)

10) Over Night Range

11) Initial Balance Ratios

**Pivot Retags**

If we look at the construction of the Smart Renko bars (as set up for 10 tick structure markets like Crude Oil, the Russell, Gold etc. See the Smart Renko manual for more information), we
will see there are two different types of bars on the chart. One is 10 ticks of range and the other is 5 ticks of range. When we look at the bar range as 10 or 5 ticks, we are looking only at the brick portion of the bar. Doing this makes seeing patterns easier than with other bar types (examples to follow). The 10 tick bars are called reversal bars and the 5 tick bars are called continuation bars. If the bar is going up, it will be green and if it is going down, it will be red.

When the market trends, you will see sequences of continuation bars. When it is choppy, you will see more reversal bars.

Markets tend to trace back into the zones or areas of prior reversal bars and can often reverse back again in these areas. A whole system of market structure understanding can be based on this concept. For example, we can define a trending market (up) where the price action keeps retracing back into prior reversal bars and then again goes higher repetitively. We will call this retagging (examples to follow), Pivot Retag or "Prt" for short. When we do this, we will only use the bricks of the bars and not the tails on the bars as previously mentioned. So, we will only look at the red and green portions of the bar. There is one exception that we call the 5 tick rule. The 5 tick rule says we will allow cycling or retagging patterns to be violated by as much as one continuation bar and still be valid. We can see all this illustrated in the image below.

Then, by comparing this image to the one below, we can see the magenta lines tracing back to the prior reversal bar (called a pivot retag or Prt).
Note some of these Prts go to different levels of the reversal bar that is returned to. There are four levels of Prt. Level 1 is where you simply touch the top of the prior reversal bar (see second to the left-most one above). The first one in the chart above is a level 3 Prt and goes all the way to the bottom (a double bottom). A level 2 goes to the middle of the previous reversal bar, and finally the level 4 exceeds the prior by one Continuation Bar (CB). All four cases are illustrated below.
Returning to our discussion of trend definition by Prts, we can see that no low going up has been violated by more than one CB. Thus we have an uptrend defined by Prts.

The following also shows the four levels of Prt for a market that is moving up (Thanks to Merrill for sharing this:)

You can go to a level higher and look for Prts that go back not to just an immediately prior one, but one further back. These can also be quite valid and your study and experimentation is
encouraged, but for the purposes of this discussion, and defining this Prt language, we will not take that on as it can become quite complex and can be used in conjunction with other forms of analysis as well. Just know, you can expand this language as you become more fluent in it through practice.

**Encompassing Patterns**

Another form we might see is called an *encompassing pattern*. This is where prior RBs (reversal bars) are engulfed by one run of CBs (continuation bars). This occurs at the end of the chart below indicated by the angular grey line (below). Note in this encompassing pattern 3 prior Reversal bars have been taken out / engulfed and this is indicated by the horizontal grey lines. This particular engulfing pattern violated 3 prior Reversal bars by 5 ticks (5 tick rule) or more.

Encompassing patterns indicate a change in scale of the market and often occur around key levels in the market such as market profile levels, or key support and resistance areas or HalfBack (discussed later) etc.
Pivot Retags will account in general for a large portion of overall market action and thus are highly tradable. When you fail to Prt, it is often a sign the market is trending strongly. Sometimes you can get successions of Prts going in a direction and then the market will break and the range will expand. We call these *waterfalls* for downward breaks and *geysers* for upward breaks. These patterns are particularly valuable when the market is pushing into an open area or open zone.

Open Zones can occur on various levels on a chart. For example, we can trade towards higher time frames zones using our Smart Zone indicator on the Zone chart (see the Zones manual for more information). For this would could use a 30 minute chart or a higher time frame zone chart. For example, we use the 3000 volume chart in Crude Oil. But, open zones also can be found on the Smart Renko chart itself. Take the following example to mind:
The break at 7:35 AM failed to Prt as it went out to new highs. So, when you fire the trade on the green background change you expect a good trend going higher. Earlier I said Prts will account for a substantial portion of overall market action. Failure to Prt can be indicative of strong trend and in the above example, it broke into an open zone above following Prt failures. Are there other ways we can catch such trades by other than just a failure? Yes, we can use the Type 2 (T2) pattern on the Smart Momentum and / or Trapped Trade Oscillator. A couple examples of this are shown below:
Before going on to some more examples of the T2 pattern we will cover basic WaveCounts as it is a more complete representation of measuring trend than simple Prts.

**WaveCounts**

When we analyzed Prts as a method of trend identification earlier, we did so without using highs as part of the measure in the uptrend. There is another way of course of identifying trend based on successive highs (for an uptrend). Of course for both Prts and WaveCounts it is the opposite for a downtrend. So for WaveCounts we look for prior highs to be broken to identify the up trend. Further, we label them ABCD as they progress until the pattern is broken. In this case, we will allow the tails of the bars to define the count. See below:
Note in the WaveCount scheme, we count to the I point, but J fails to occur. In fact, we actually cycle lower where the 5 tick rule occurs on the tail of the bar at 11:03. This would give us an ABCD down. Officially, at this point you have an ABCD WaveCount going down. For this, the ABCD is marked in silver below:
When you get this kind of count, you have a complex structure. Sometimes the structure can become very complex and it is best to stay away from the market when you cannot easily make a count unless you have been doing this for a long time and can see and identify more complex structures through experience and fluency. There is another way of doing WaveCounts and that is simply by background color. This works because the background color engine on the Smart Patterns System is based on order flow and price patterns over 1-3 bars or so. In this way, you can understand some complex structures more easily. Either way, the silver point D on the chart above is a grey area as you can derive the counts in various ways at that point. You could also choose to ignore the tail at D and the whole issue goes away. But, for the purposes of this discussion and if you are new to this kind of language, it may be best to stay away from complex structures and counts.

The silver point in D above is then a new A count going higher. The count from this perspective is shown below:
Note in the count above, the silver D / new A count, that the D point does not occur until several alternations higher. This is because in order to get the count to go to D, you must take out the B high to do it. Therefore, in this case, there is a complex count going higher from point C (about 11:17 AM) that would count out as ABCDEF on its way to the marked D. This is the first level of higher counts and it is a bullish count inside another bullish count. This kind of patterning is indeed bullish and doubly so. In this way, you can get more complicated counts and you will learn to see these in time with practice. A truly trending market; one that is on a mission will not generally grind its way like this and the counts will be simpler in general in true trends.

It was also mentioned earlier, you could simply use the background colors for WaveCounts where you are progressively alternating in a given direction without violating previous pivots in excess of the 5 Tick Rule. We will not give exact examples for this case, but you can loosen your counting in this manner and it can be of benefit often in resolving complicated counts or may just be more simple for your eye.

One last note on WaveCounting. As you gain skill in interpreting market price action and structure using these concepts it can help you to not over literalize the counts. WaveCounting is like a language and is therefore subject to some reasonable level of interpretation and flexibility within bounds not unlike having a conversation with someone in your native language and interpreting and/or looking for clues as to the real meaning of the communication. Further, the higher context or intent of the market will of course ultimately take precedence and a lot of good
trading can be done by identifying the sweet spot points of departure into open areas and or where reasonable levels of expected range expansion have not yet been hit. At this level, it all becomes simple with some practice.

**Type 2 Divergence Patterns (T2)**

T2s can occur in conjunction with Pivot Retags or not. For this reason (for the not case) these can often help you to get caught in strongly trending market situations where the Prt failed to manifest. You can also of course look for T2s that occur in conjunction with Prts and many excellent opportunities occur when this pattern sets up. The concepts for T2 also apply to the Trapped Trader Oscillator (TTO) shown in all the charts we have been discussing [RSI(SmartSuperCumulativeDelta)]. These are often best in markets that are more consolidative and can therefore be used to find entry opportunities on a shorter time horizon.

The T2 pattern has been discussed in other parts of this manual on the UTBars. For the Smart Renkos a setting of 8/24 is recommended instead of the 10/30 setting used on the UTB:

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Value</th>
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<tr>
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</tr>
<tr>
<td>MomLen2</td>
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</tr>
<tr>
<td>OBLevVal</td>
<td>0</td>
</tr>
<tr>
<td>OSLevVal</td>
<td>0</td>
</tr>
</tbody>
</table>

Below is a chart with T2s marked on both the TTO and the Smart Momentum (each of these being buy points with the background color changes):
One other concept that is important in using WaveCounts and T2s etc. is the concept of “Still in Effect.” A price pattern is still in effect until the wave pattern(s) as we have described herein has been violated. This means, for example, that the long signal at about 10:28 AM in the above chart is still in effect from the earlier TTO signal at point C proceeding it. This is true because the wave pattern has not been broken. This has implication for where you place stops and the scale you are trading in and consideration for your trade placement etc. It can often be best to try to get positioned early in a move and hold some through it, trying for the runner trade on a portion of your position. Doing this, you can get caught in fairly large trades especially if placed before the range expansion for the day has occurred.

"The Gift" Trade

The Gift Trade is a lazy man’s way of doing much of the above. For this, you simply use the trendline as shown below and don’t get as bogged down in WaveCounts etc. It is suggested that you can use this as a crutch as you learn to read market structures. WaveCounts can get out of sync with the trendLine however in various cases (Scale Changes and complex wave structures) and often good trades come out of these areas as traders get trapped on the wrong side of the structure.

To do the Gift, trade with the color of the Trend Line (Cyan for long, Red for short) and use the background color changes as triggers into the trade. You of course can also combine this with T2s but keep in mind a true T2 needs to be with the WaveCount (note the sell at about 9:17 AM is a 5 Tick Rule to the prior pivot on a complex wave 5 Tick Rule Gartley pattern taught elsewhere in this manual- beware of these kinds of structures going against the TrendLine).
The Gift Trade is often best utilized early in a cycling and held out. As a general rule, if the Smart Renko bars go through the TrendLine by 12 ticks or so, the color will change. Using this, you can anticipate.

By combining Smart Renkos with Pivot Retags, Type 2s, the 5 Tick Rule, Open Zones, "The Gift" and Range expansion concepts, a truly structured system for understanding market action is created that can be used in conjunction with or separate from the UTBs and Smart Patterns. The OilTradingRoom.com (OTR) uses and expands upon many of these kinds of concepts in a great community of successful traders. The OTR also has developed any number of statistical methods that help to identify range expansion opportunities, trade entry opportunities and best time to trade opportunities that go beyond materials given here and that adapt to market circumstances as conditions change. To learn more, visit the Oil Trading Room.

**Range Expansion**

Concepts with Range can be amongst the most important concepts you deal with in trading and it occurs at a level above where you are typically trading at. Ranges can be monitored on various charts such as the daily chart, 30 minute chart and several 30 minute bars into the future for example.

The most basic concept is to trade while reasonable potential for range expansion still exists. If the average or median range expected on a day chart is 100 ticks then, you will try to look for opportunity within the day's action where you have not expired that level. Why? Because smart
traders know that though there is potential for continued expansion beyond 100 ticks, it is not normal. So if you can get positioned early in the day for our current example while say, 40 ticks have been utilized, you know there is some reasonable potential to go another 60 ticks. This general principal is how you get caught in big trades.

On the 30 minute bars, you should have some reasonable idea of how much range each gives in general for the given time of day. For example, I might know that the last period of the day averages 80 ticks. This means there is good opportunity in this period and if the appropriate cycling is occurring, it can possibly be exploited with reasonable risk.

Looking out several 30 minute periods can also be good. For these, even mid day, there might be 60 or more ticks available over 2-3, 30 minute periods. By understanding where you are in this, you can identify substantial opportunity with known probabilities. For example, as of this writing, 34 out of the last 35 trading days moved over 100 ticks ($1000 per contract) off the open (97%). You can keep simple metrics like this in your mind for your benefit.

These kinds of concepts can be expanded into various other ideas. For example, we could rank the ranges to identify which periods of the week might be the best to trade (or the worst). The table below ranks the period of the week in Crude Oil (and is part of the Oil Trading Room Service):

<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th></th>
<th>Tuesday</th>
<th></th>
<th>Wednesday</th>
<th></th>
<th>Thursday</th>
<th></th>
<th>Friday</th>
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<tbody>
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<td>Rank</td>
<td>Period</td>
<td>Median</td>
<td>Rank</td>
<td>Period</td>
<td>Median</td>
<td>Rank</td>
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<td>Median</td>
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<td>0.6</td>
<td>15</td>
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<td>0.5</td>
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</tr>
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<td>B</td>
<td>0.6</td>
<td>16</td>
<td>B</td>
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<td>24</td>
<td>B</td>
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<td>0.44</td>
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<td>C</td>
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</tr>
<tr>
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<td>D</td>
<td>0.58</td>
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<td>D</td>
<td>0.99</td>
<td>2</td>
<td>D</td>
<td>0.66</td>
</tr>
<tr>
<td>E</td>
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<tr>
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<tr>
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<tr>
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<td>7</td>
<td>K</td>
<td>0.56</td>
</tr>
</tbody>
</table>

The green areas have more opportunity by ranking and the red ones have less. This means it is generally easier to trade during the green periods (A-K periods represent each 30 minute period of a traditional pit session). This table can reduce trading stress and keep you out of hot water.

Another way of organizing range conceptually is the Three Period Probability Walk. This one looks out three 30 minute periods:
For the B period and the next 2, 30 minute bars beyond it, a range of 77 ticks is average (RngAvg column). This table also lays out probabilities for bar sequences. B is the first extreme of BCD 86% of the time. C is in the middle of BCD 72% of the time and D is the other extreme 77% of the time. These kinds of statistics can be used to walk forward and predict the ongoing price action with known probabilities. The Prior1% and Prior2% columns tell us the probability that the current interval will take out the extreme of the previous period. For example, B will take out the extreme of A 72% of the time and it will take out both A and -1, 63% of the time. Using each of these features in combination creates an adapting trading system that "Walks" through the day with known probabilities. By picking higher probabilities and by doing it in conjunction with cycling methods taught in these training materials, you can really boost your trading success. The Three Period Probability Walk is part of the Oil Trading Room Service and is taught and interpreted in there on an ongoing basis.
Another range related concept that is of significant value is the session midpoint or "halfback." This level is a key point that is often defended and should not be discounted. As of this writing for example in Crude Oil, the overnight midpoint is not crossed during the day session 73% of the time on a 30 minute closing basis. By the time D period has ended, there is only a 10% chance of crossing it on a closing basis. This is a statistic worth its weight in black gold. You can easily mark these levels out on your chart using a Fibonacci tool with the level set to 50% of the range. Simply take the high and low of the session and mark it at the beginning of the day. A free tool for this for the day session is also available on request for members of the Oil Trading Room where it is interpreted on an ongoing basis.

Another level that is often defended is the day session halfback. Watch for cycling away from this line and away from the zone created by the overnight halfback and the day session halfback. Some of the best trading opportunity exists for this case.

Also keep an eye on the weekly halfback level.

The overnight range in many markets is hit during the day session with a very high probability. For example, in Crude Oil as of this writing, this level is hit each day with a probability of >95%. Often these levels are substantial distance away and it is an excellent target area for trading early in the day.

Once the first hour of the day session is over, the Smart Support and Resistance chart indicator will print two levels for you one is cyan and the other red dashed lines. At first these levels will appear in the margin. Then as the day progresses, they will be dotted lines (see below):
As of this writing in Crude Oil, the Cyan level is hit on better than 80% of days. The Red line is hit < 47% of days. The market will close for the day through the dotted red line only 23% of the time. These general stats can give you a solid idea what smart traders are thinking about in terms of initiating new positions for more range expansion ad where things might be stacking against probabilities for further price movement. Enjoy these benefits!

By combining these concepts with the other methods taught in this manual, you can find excellent opportunity and understand where in the bigger context it is occurring. From this viewpoint, trading is like solving an ongoing puzzle. With the right tools, it's fun and profitable.