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## Instruction (Manual) Document

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# Simple Explanation on Repainting, Recalculating, and Static Algorithm in Technical Analysis for the Financial Trading

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The technical analysis is a key to successful trading. Even if you are a fundamental trader, you will need to use technical analysis for the precise control of your entry and exit in your trading. If we count the usage of every technical analysis on the earth, nearly at least a half billion of traders will use technical analysis. The problem is that not everyone is using the technical analysis in the right manner. The purpose of this article is to clear the overly spread misunderstanding about what people called “Repainting technical indicators” in the community. At the beginning, I thought that it would be only matter for starters. Later, I met many forex traders claiming 3 to 5 years of trading experience. However, most of these traders still do not have much clue what is really the repainting indicator except small portion of traders among them. Search on google was disappointing too. Some articles poorly explained on the topic of the repainting. Some articles were almost uninformative to continue to read. Some articles were almost devastated many of excellent technical analysis by some

language of witch-hunting. Especially the affected technical analysis on those witch-hunting include:

- Market Profile (invented by J. Peter Stdidlmayer)
- Fractal indicator (invented by Bill Williams)
- Fourier transform and many other signal processing algorithm (invented by Joseph Fourier and many others)
- ZigZag indicator
- Fast moving average including many zero-lag or non-lag moving average family
- Harmonic Pattern (invented by H.M. Gartley, any many others later on)
- Other technical analysis algorithm

The above technical analysis and their algorithm are used by several millions of traders and scientists every day. If you are doubt, just google to look for the internet community using those technical analysis. If those technical analysis and their algorithms are repainting and bad, then why so many people are using them? Well, I think that this will remain as a myth to you until you can clear the misunderstanding about the repainting indicator.

### **What is really a repainting indicator?**

Firstly, what does the repainting means? In the Cambridge dictionary, “repaint” is a verb with a meaning “to paint something again”. In Collins dictionary, “repaint” have a meaning “to apply a new or fresh coat of paint”. The meaning of repainting is almost identical in both dictionary. The example provided by the Cambridge dictionary is:

“The white walls were **repainted** in pastel shades.”

Two examples provided by the Collins dictionary are:

“Now they kill the crew, **repaint** and rename the ship, change the flag and papers and steal the cargo, and any other cargo they can find.” (Robert Wilson, INSTRUMENTS OF DARKNESS, 2002)

“But before that - in just an hour or two - a squad of men from the RASC were going to arrive to **repaint** the interior of the hospital.” (Aldiss Brian, SOMEWHERE EAST OF LIFE, 2002)

You can tell that the term “repainting” is often used to remove or to hide old colours or patterns on the surface by applying new fresh coat of paint. Based on this, in the repainting indicator, the indicator lines or values are repainted every time so that old indicator lines or values can not be found any longer. Is this the case for the above technical analysis algorithm?

Simple answer is no. The above algorithms have nothing to do with repainting. Above technical analysis algorithms keep the old indicator lines or values as they are. Just the latest values can change. For example, in the case of the daily market profile, except today’s market profile, all the past market profile will remain the same. It does not matter how many days you go back to the past, all the past market profile will remain the same. Then why the latest value or indicator line can change? It is because the algorithm is doing recalculation while the latest price is updating in the last candle bar.

The repainting indicator will not keep any old indicator lines or old values since repainting will override all the past values to something new. Literally, the repainting indicator is the random indicator due to some serious bugs or internal logic problem inside the indicator. When the repainting happens, 9 out of 10, it is due to some irritating bugs inside the algorithm.

However, there is also human problem too about the repainting indicator. It is because people use the term “repainting” and “recalculating” interchangeably on the net. This is incorrect and false information. It might start with one or few trader who do not have much experience in trading at the beginning. However, I can tell that this misunderstanding was growing and spreading fast like virus on the net last few years.

Now, if you can tell the difference between repainting and recalculating, then it is good. If not, still do not worry. We will tell you how to differentiate the repainting and recalculating indicators. The best way to differentiate between repainting and recalculating indicator is by asking this question “Does technical analysis algorithm keeps the old values (or old indicator lines) unchanged except the latest value?” Now consider the simple moving average with the

period of 10 as shown in Figure 1. The latest moving average value can change as the new price arrives. The rest of moving average value will stay the same. Likewise, in Figure 2, the latest fractal value can change as the new price arrives. However, except the first fractal, rest of fractals will not change. Likewise, in Figure 3, the first zigzag value can change as the new price arrives. However, except the first zigzag value, rest of zigzag will not change. The same goes for the market profile and other technical analysis algorithm.

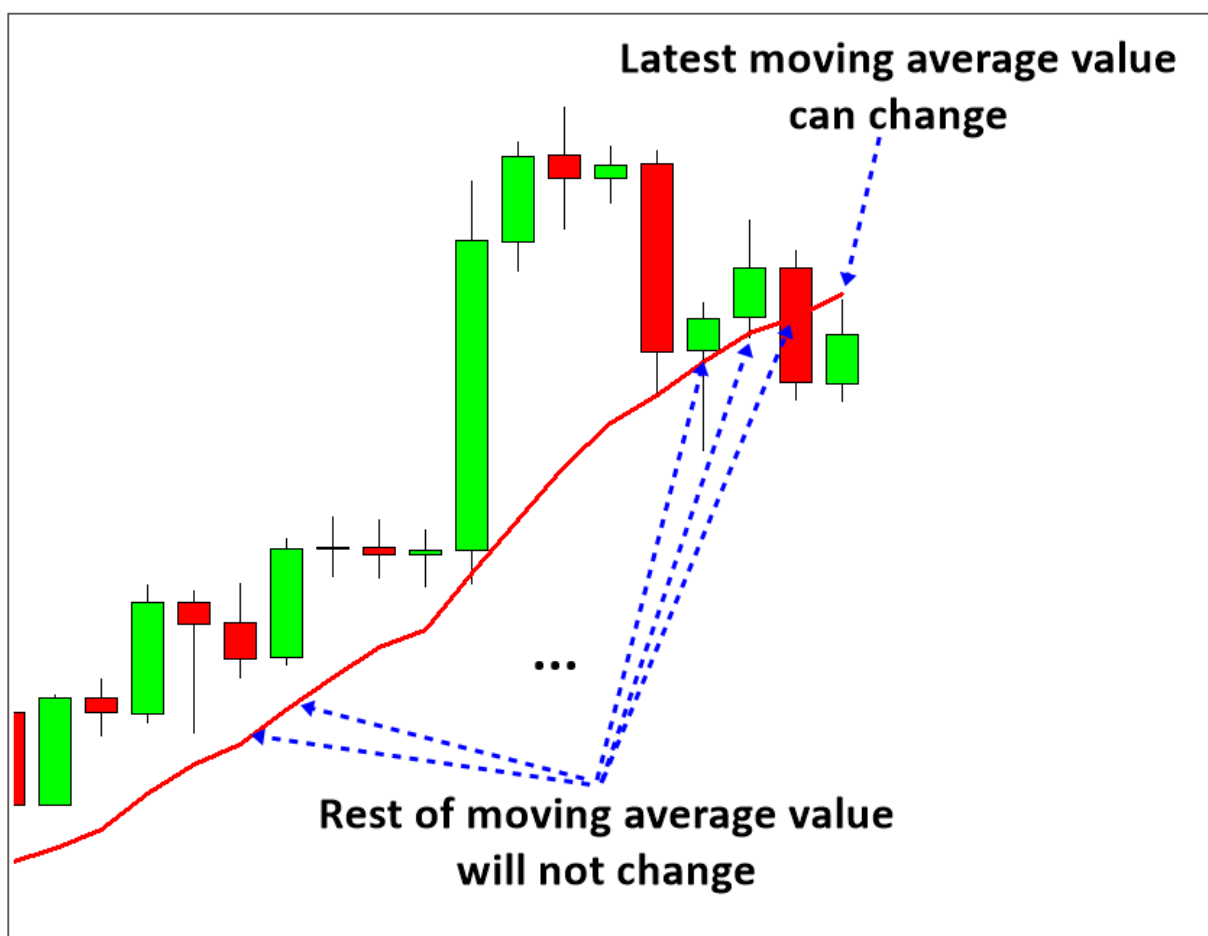


Figure 1: Simple Moving average with the period 10 in EURUSD.

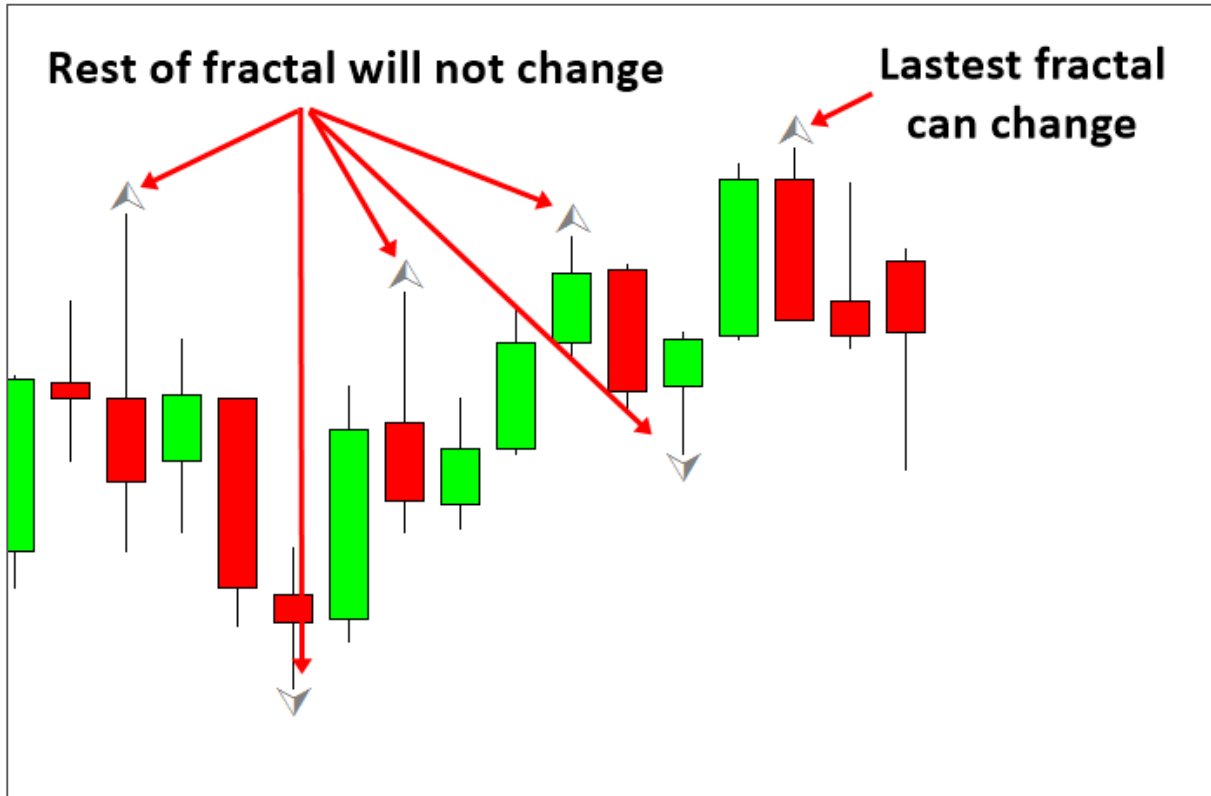


Figure 2: Fractal indicator in EURUSD.

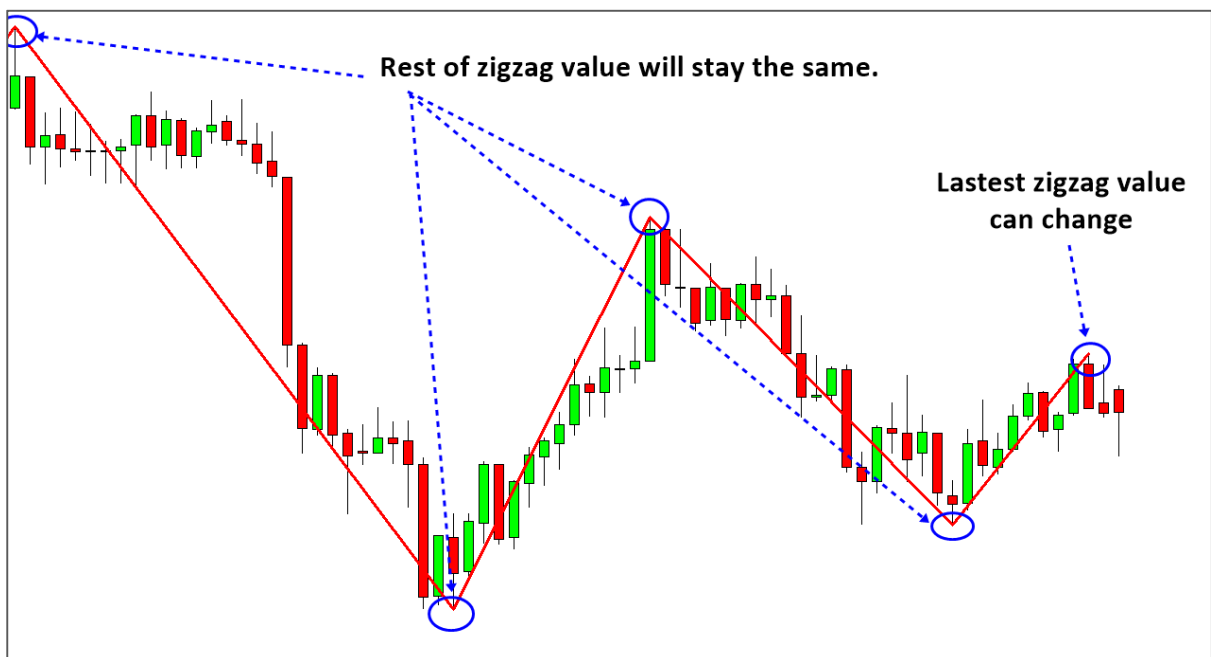


Figure 3: Zigzag indicator in EURUSD.

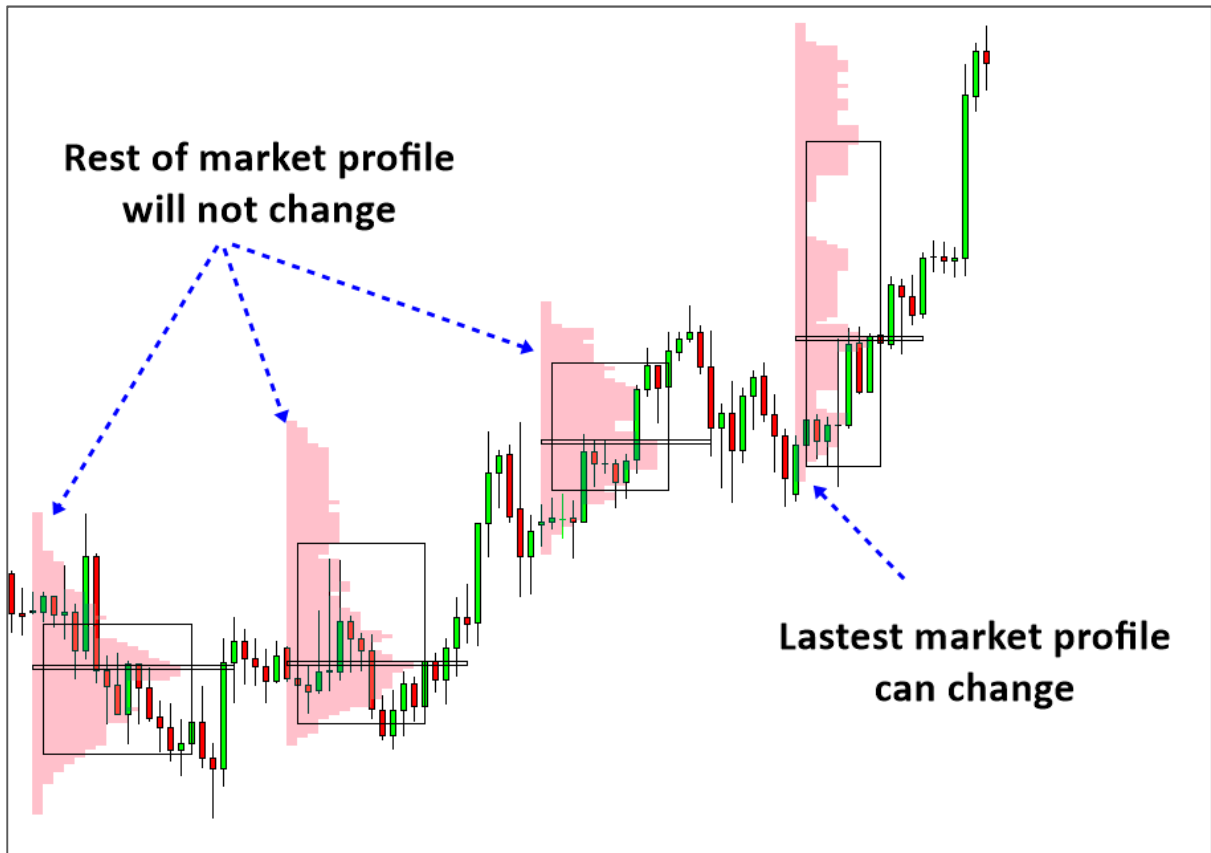


Figure 4: Market profile indicator on EURUSD.

### Why not avoiding recalculating?

Now one might ask. Can we avoid recalculating? Well, yes you can avoid the recalculating simply by not calculating your algorithm over the last candle bar or by not generating the last value of the indicator. This is called a static algorithm because they are not responsive to the latest price value. For example, simply imagine that if the indicator calculates your moving average values except the first candle bar, then you will get the static moving average indicator. Such a moving average indicator will not have any responsiveness to the new price arrivals. It is static. You can achieve the same by just using open price of the candle bar. Likewise, if you calculate the fractals from the second candle bar, then you will get the static fractal indicator too. For the fractal indicator, you cannot use open price because you need



either high or low price of the candle bar. For some technical analysis algorithm, just ignoring the latest candle bar is not sufficient to turn the indicator to static. Some indicators like zig zag or market profile requires certain length of data to calculate one indicator value. In that case, you can simply skip to generate latest value and generate from the second values. For example, if you skip today's market profile and generate the market profile from yesterday, then you will have the static market profile too. Likewise, you can generate your zigzag from second value too skipping to generate the first zigzag value. If your indicator or pattern detection scanner is using the zigzag indicator, you can also turn them into static one by using the zigzag values from second one (i.e. using the static zig zag).

With the static algorithm or static indicator, you can avoid recalculating. Well sounds easy and wonderful. However, you will experience a serious problem soon. The problem is that you are the only one looking at the lagging information whereas all the other traders are working with the decent latest information for more profits. For example, if you are looking at yesterday's market profile alone, then you will not able to find what is happening today. All disciplined trader will work with yesterday's market profile as well as today's market profile. Likewise, if you detect harmonic patterns with the statics zigzag indicator, then you can only detect the patterns after many candle bars. In Figure 5, you can tell that you do not have any advantage of using the static zigzag indicator to detect harmonic patterns. Especially using the static zigzag indicator, your Reward/Risk ratio will be very poor. You can only detect the harmonic pattern after the price has moved too much in the direction using the static zigzag indicator. Recalculating zigzag indicator will report the appearance of harmonic pattern way faster than the static zigzag indicator. With recalculating zigzag indicator, you have a much better opportunity to enter the market while the sufficient profit is left for you. So do you still prefer the static indicator? Well the choice is entirely up to you.

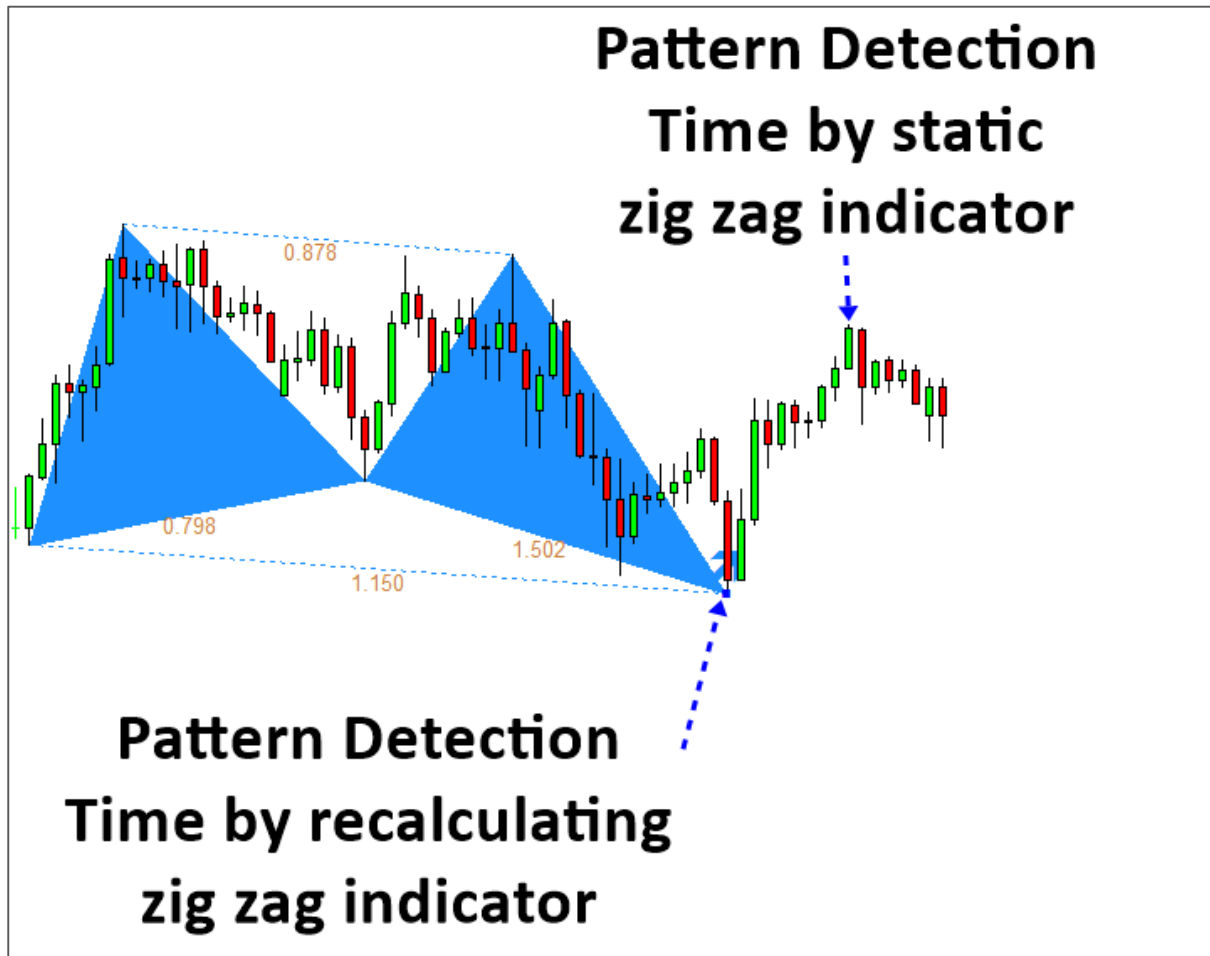


Figure 5: Harmonic Pattern Detection timing using recalculating zigzag indicator and static zigzag indicator.

**How Harmonic Pattern Plus and Price Breakout Pattern Scanner help you to achieve the best performance for your trading?**

Our Harmonic Pattern Plus (and Harmonic Pattern Scenario Planner) and Price Breakout Pattern Scanner uses the recalculating algorithm to find the latest pattern faster. When the pattern is detected, you will still have an opportunity to enter for the sufficiently good reward/risk ratio for your trading. Yes, they can change if new high or new low price arrive to the market. However, we provide the locking feature to help your trading. This means that you can pin down the pattern in your chart. Once you pin down the pattern in your chart, you

do not have to worry about to lose the pattern in your chart because they will stay in your chart forever. To do so, simply click on the “Lock” button in your chart.

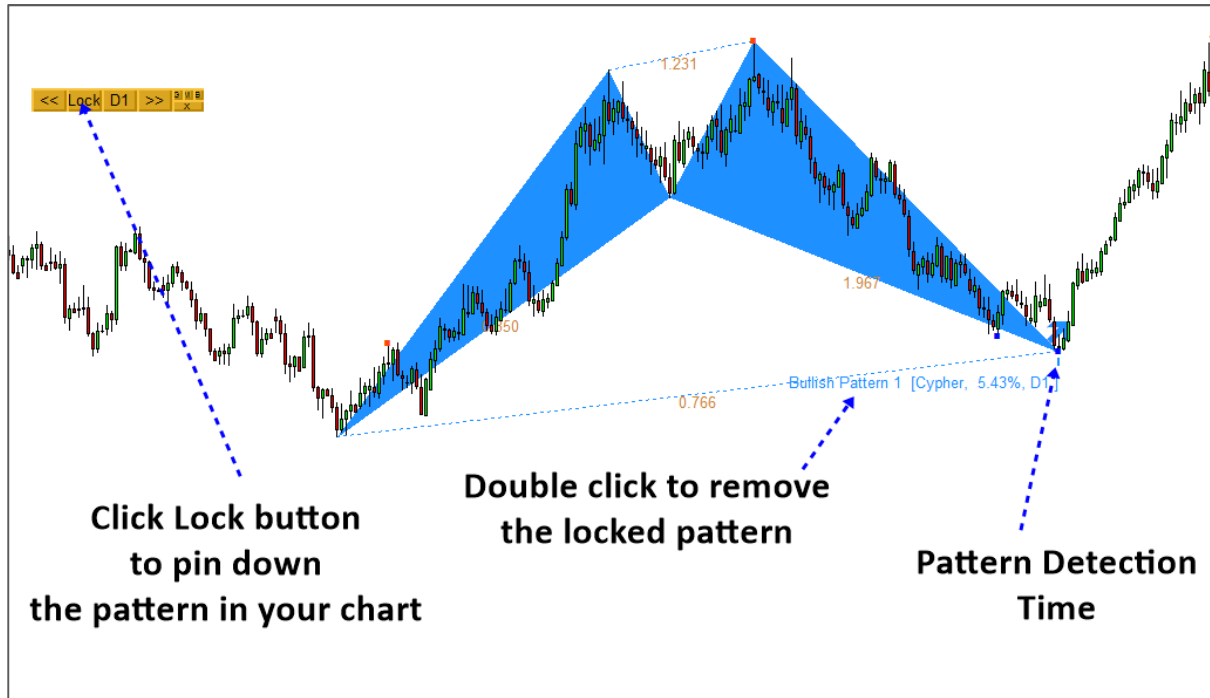


Figure 6: Harmonic Pattern Plus (Harmonic Pattern Scenario Planner) locking feature.



Figure 7: Price Breakout Pattern Scanner locking feature.

Link to Harmonic Pattern Plus (Harmonic Pattern Scenario Planner) and Price Breakout Pattern Scanners.

- <http://algotrading-investment.com/portfolio-item/harmonic-pattern-plus/>
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