Divergence

as an Indicator

Indicators form an integral part of chart reading, along with chart patterns, trend lines, resistance / support levels etc. Technical analysts compare the indicators to the price movement to see if they move in synchronisation or if there are discrepancies present. However, since the calculations of these technical indicators are based on the price movement, they usually mirror the price movement. When the price rallies, the underlying momentum in the price causes the indicator to rally as well, and the same applies when the price starts falling. This is the reason why most indicators are found to be lagging. Very few indicators have characteristics that can be defined as leading, and one such characteristic is "Divergence" which is often considered an effective and leading indicator of price movement.

Divergences occur when there is a discrepancy between the price and a technical indicator. We can define it as the failure of the indicator to confirm the higher high or lower low of the price. This discrepancy or divergence is usually observed on the oscillator type of indicators, such as the RSI, MACD, CCI, Slow Stochastic etc.

In fact, these oscillators give their most valid signals when their readings diverge from the price.

The most common type is the Classic or Regular Divergence, which is a reversal pattern. The Regular Divergence is a separation between the price and the indicator, which warns of a possible short-term or medium-term change of trend.

It can be defined as follows:

- Higher highs in price and lower highs in the oscillator indicating a trend reversal from up to down. This is known as the Bearish Divergence.
- Lower lows in price and higher lows in the oscillator indicating a trend reversal from down to up. This is known as the Bullish Divergence.

The Regular Divergence indicates that the underlying momentum in the price may be decreasing and that a bottom or top could be near.

The Regular Divergence can be further classified into three types according to their levels of strength –

1. Divergence "Class A"

This is the strongest type of divergence, which in turn gives the best trading signals. The "Class A" divergences usually indicate a sharp and significant reversal of the trend:

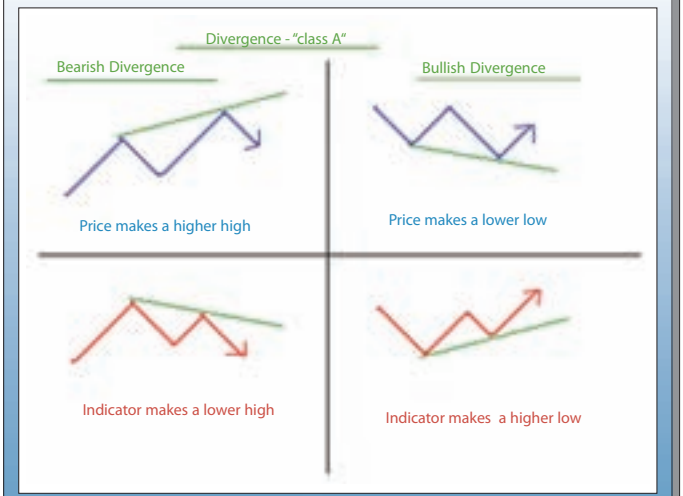
- Bearish Divergence "Class A" – occurs when the price makes a new high, and the oscillator / indicator makes a lower high. The important point for its identification is that the second (lower) high of the indicator does not have sufficient momentum to surpass its previous high. This becomes a very strong signal for a shift in price momentum.
- Bullish Divergence "Class A" – occurs when the price makes a new low, and the oscillator / indicator makes a higher low. The important point for its identification is that the second (lower) low of the indicator does not have sufficient momentum to surpass its previous low. This becomes a very strong signal for a shift in price momentum.

Figure 1 shows the characteristics of the Bearish and Bullish "Class A" Divergences.

2. Divergence "Class B"

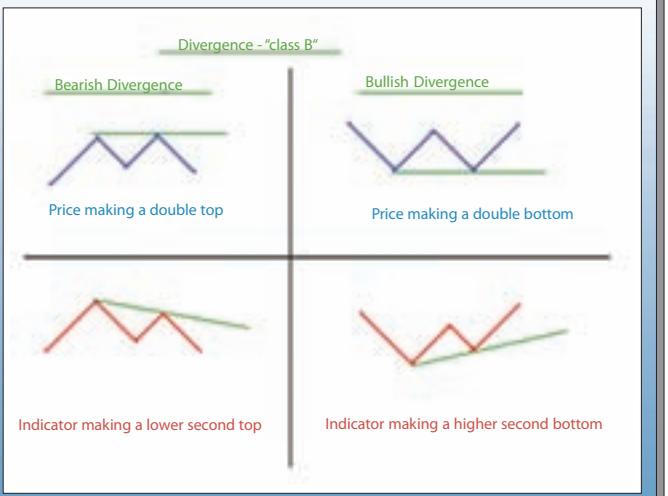
Though this type of Divergence forms with sufficient momentum, it is advisable to confirm it with another factor before entering a trade. It is a weaker type of divergence that signals a gradual reversal of the trend.

F1) Divergence "Class A"



This figure shows the characteristics of the Bearish and Bullish Divergences "Class A". The lines in blue depict the price action, and the red lines depict the oscillator movement.

F2) Divergence "Class B"



This figure shows the characteristics of the Bearish and Bullish Divergences "Class B". The lines in blue depict the price action, and the red lines depict the oscillator movement.

- Bearish Divergence "Class B" – occurs when the price makes a double top, and the oscillator / indicator makes a lower high. This implies that the price could have some momentum left to continue with the previous trend. This double top could be defined as an area of equilibrium where the bulls and bears have equal power. Hence, caution is needed to trade this setup.
- Bullish Divergence "Class B" – occurs when the price makes a double bottom, and the oscillator / indicator makes a higher low. This implies that the price could have some momentum left to continue with the previous trend. This double bottom could be defined as an area of equilibrium where the bulls and bears have equal power. Hence, caution is needed to trade this setup.

Figure 2 shows the characteristics of the Bearish and Bullish "Class B" Divergences.

3. Divergence "Class C"

This is the weakest type of divergence, which normally occurs in choppy market action, and should generally be ignored. We will define it, since we need to know what kind of divergence to avoid.

- Bearish Divergence "Class C" – occurs when the price makes a higher high, and the oscillator / indicator stops at the same area of the previous rally. In short, it is the indicator that makes a double top, signifying that the loss of the underlying momentum is not very strong.
- Bullish Divergence "Class C" – occurs when price makes a lower low, and the oscillator / indicator stops at the same area of the previous down thrust. In short, it is the indicator that makes a double bottom, signifying that the loss of the underlying momentum is not very strong.

Figure 3 shows the characteristics of the Bearish and Bullish "Class C" Divergences.

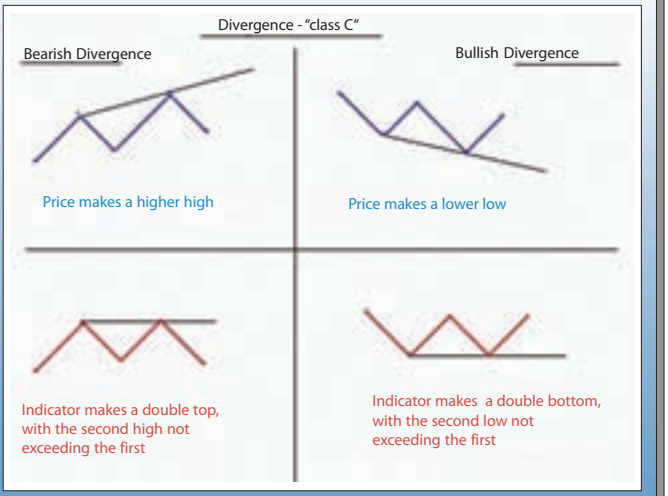
Figure 4 shows the typical chart example of a Bullish (Regular "Class A") and Bearish (Regular "Class A") Divergence, the result of which was a sharp and significant reversal in the price.

While the Regular Divergence is more commonly used, there is another type of divergence that is not used as regularly, but is far more effective. It is called a Hidden Divergence, which is also a discrepancy between the price and an indicator, except that this is a continuation pattern.

It can be defined as:

- Bearish Hidden Divergence - Lower highs in the price and higher highs in the oscillator indicating a confirmation of the price trend that is down.
- Bullish Hidden Divergence - Higher lows in the price and lower lows in the oscillator that indicates a confirmation of the price trend that is up.

F3) Divergence "Class C"



This figure shows the characteristics of the Bearish and Bullish Divergences "Class C". The lines in blue depict the price action, and the red lines depict the oscillator movement.

Figure 5 shows the characteristics of the Hidden Divergence.

Hidden Divergences are the opposite of Regular Divergences, but offer a greater potential since they pinpoint entries that are in the direction of the trend.

We can say it is a pattern that leads a trader into a prevailing trend, and hence gives a better profit potential. Figure 6 shows the typical chart example of a classic Bullish Hidden Divergence. It can be seen that the Hidden Divergence gives us an excellent confirmation of a continuing trend, and a perfect entry point.

Trading the Divergences and Planning the Trade

Identifying the divergences is one thing, but trading the setups is another. The trader has to have a proper entry, manage the trade and identify a correct exit point. It is only natural that when we take a trade, we tend to focus on potential profits rather than dwell on possible losses. We are usually so convinced that the trade will be profitable, that we tend to ignore the possible losses that would occur should the trade go wrong. However, in order to be successful traders this is an uppermost priority. Trading is all about management - yourself, your money, your attitude and your position. It is NOT about predictions, forecasts or OPINIONS.

Generally, most novice traders fail to have a plan. In other words, they fail at the first hurdle. To have discipline means to "execute your plan flawlessly". If you do not have a plan then how can you expect to have discipline? Traders who make money do so because they have a trading plan with an edge that incorporates effective money management. They then have the discipline to execute it flawlessly and to accept the money the market gives them. This is why the professionals say, "Plan your trade and trade your plan." In fact, this is a mantra a trader should print out and frame on the wall. Traders who carefully plan each trade have a much better chance of making money than those who do not. In fact, the simple act of drafting a plan can significantly increase the odds that your trade will be profitable.

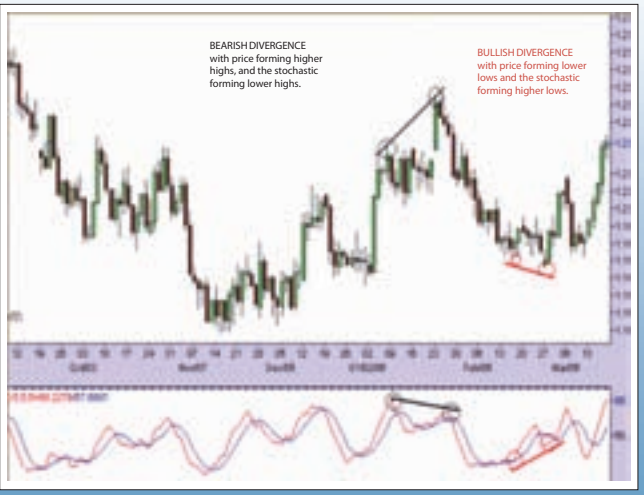
Therefore, we need to identify a setup, prepare a plan, and manage the trade according to the plan. The setup is to trade the Regular Divergence. The Regular Divergence, as we defined earlier, forms when the underlying momentum in the price starts to slow down. What we are doing is trying to anticipate a top or bottom that, by itself, is a very difficult proposition. However, since we have the divergence setup, we can be reasonably sure that the top or bottom is close at hand, and we prepare ourselves to get in the trade at the earliest after a confirmation. Now the catch is, however, that it can only be after confirmation. The disadvantage of this setup is that in a well-established trend, this divergence could well turn out to be a minor retracement of the trend. Price could make a series of divergences, which could mean nothing more than the price catching its breath before the actual change could show up. Therefore, taking a correct call on a regular divergence setup becomes a tricky affair, which is why it is said that identifying a top or bottom is like catching a falling knife.

To identify such situations correctly, we get some help from Bollinger Bands. Since the figures for volume in spot forex are not generally available, it has been observed that the Bollinger Bands are the best substitute for gauging the volatility of price. It is the change in volatility that precedes the divergence.

Now, we can also define divergence as the last thrust that the price would make in the direction of the prevailing trend with reduced momentum. We could call it the trend exhaustion or even a final running of stops in the market. This indication of the anticipated change is one unique characteristic about price (of any currency, commodity, equity etc.), which has been observed across all time frames. The price makes a last thrust in the direction of the prevailing trend before changing direction.

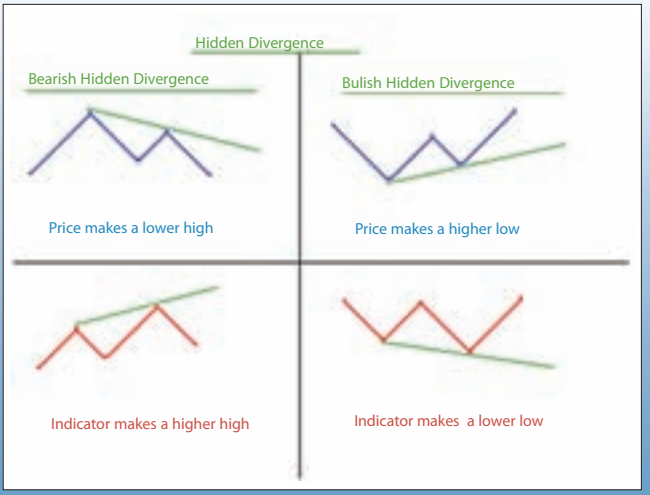
While this divergence indicates that a change of trend is at hand, it is very difficult to estimate when the change will occur. As we observed, this setup could turn out to be a minor retracement in a trend where the price has paused to catch its breath. Instead of the

F4) Regular Divergence Example



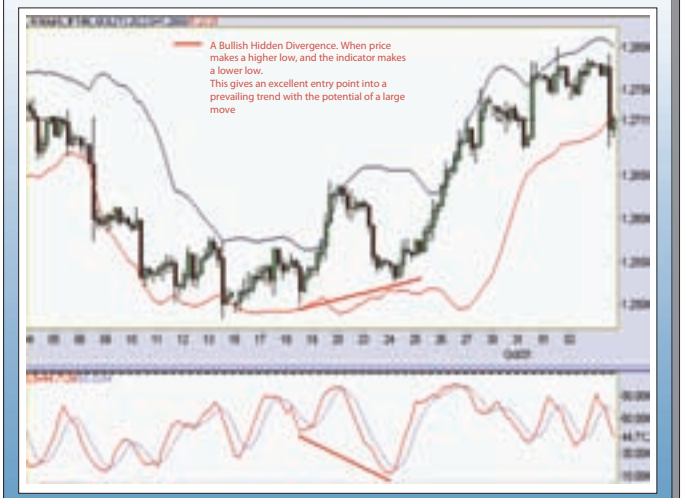
This figure shows the typical example of the Bearish and Bullish Regular Divergences. In both the divergences shown here, price formed the "Class A" type of divergence, resulting in a significant reversal.

F5) Hidden Divergence



This figure shows the characteristics of the Bearish and Bullish Hidden Divergences. The lines in blue depict the price action, and the red lines depict the oscillator movement.

F6) Hidden Divergence Example



This figure shows the typical example of a Bullish Hidden Divergence. This Hidden Divergence gives us an excellent confirmation of a continuation of the trend, and a perfect entry point.

F7) Bollinger Bands Divergence

This figure shows the divergence of the Bollinger Bands, thus confirming the divergence of the oscillator (the RSI in this case).

trend changing direction, as anticipated, it might just continue in the same direction leaving the trader at the short end of the stick. What we ideally need is a signal, which will give us an indication of the time of this change in trend.

The Bollinger Bands developed by John Bollinger have the unique characteristics that we need for this purpose. These bands show a distinct advantage over other indicators or oscillators, as it shows when the trend change takes effect. By observing the divergence formed within the bands, we can anticipate the change of trend.

In its basic form, the Bollinger Bands provide a relative definition of a currency being overbought or oversold. However, its characteristics make it ideal for predicting a reversal of trend. We can briefly define the characteristics of the Bollinger Bands as follows:

- 85% of the price action is contained within the bands and hence it gives a very good indication of the price being overbought or oversold in that time frame.
- The widening of the bands shows increasing volatility, and the narrowing of the bands shows decreasing volatility.
- A move that originates at one band tends to go all the way to the other band. This observation is useful when projecting price targets.
- Bottoms and tops made outside the bands followed by bottoms and tops made inside the bands, respectively, could be a strong indication of a reversal in the trend.
- When the price approaches the upper or lower bands, there is usually a reversal or a strong continuation. If there is a reversal, we want to identify it correctly and get in early. We have to be cautious about a reversal because when prices move outside the bands, a continuation of the current trend is implied with the price 'walking' the bands.

It is the last two characteristics that help us predict the trend change by forming the Bollinger Bands Divergence**.** The Bollinger Bands Divergence forms when the price makes a reversal pattern and the bands form a support/resistance to the price after the regular divergence has formed. This may sound a little confusing, but in reality, it is very easy to identify. This simply means that in case of a Bullish Regular Divergence (where the price has made a lower low and the oscillator has made a higher low):

- There is a down-close bar that closes outside the lower band, followed by an up-close bar that closes inside the lower band.
- The lower band subsequently forms a support to the price.

The second point is usually a natural follow-up to the first point and would occur almost all the time. We are again emphasising the point that the Bollinger Band Divergence occurs after the Regular Divergence is formed by the oscillator.

This happens because the last thrust of the price would spike out of the band, and since 85% of the price action is contained inside the bands, any abnormal move would cause the price to revert back to its mean. This is happening at the critical juncture of the change in momentum, so this is the confirming factor that we are looking for.

Therefore, once a Regular Divergence has been identified on the oscillator, we simply look for a divergence on the Bollinger Bands to give us a confirmation.

Let us look at Figure 7 to help us understand the concept.

We can unfold the price action in this example, which created the divergence as:

- Initially the price has a close outside the band, followed by a close within the band. As mentioned above this is a typical characteristic of the Bollinger Bands that signal reversals.
- However, the oscillator has not given any indication of divergence, and we can anticipate a final thrust in the prevailing trend, for the price to form a divergence. (Remember, the unique characteristic about price action – the price makes a last thrust in the direction of the prevailing trend before changing direction.)
- When the divergence is observed on the oscillator (the RSI in this case) the indicator / oscillator (the RSI) does not tell us when the price will reverse, but the Bollinger Bands do.

F8) Regular Divergence Trade Setup

This figure shows the entire sequence of a typical Bullish Regular Divergence trade. It is a step by step depiction of the trade from the entry to the stop and exit, as well as money management.

- The next reversal pattern that takes place at the lower band signals the change in direction.
- In this example we can observe that we had a bar closing down outside the lower band, followed by a bar closing up inside the band. The lower band subsequently formed a support area for the price.
- Finally, this takes place after the divergence is formed by the RSI, which is our confirmation for the entry of a long trade.

Now that we have the concept, let us plan our trade and define our rules – (for a Bullish Divergence; reverse the rules for a Bearish Divergence)

Setup – The formation of the Regular Divergence.

Identifying the setup – With a combination of two indicators – the Slow Stochastic (or any oscillator) and the Bollinger Bands.

Entry – When the price forms the reversal pattern at the lower band, and the lower band forms a support to the price action.

Stop – Below the lowest low of the bar that forms the divergence. (This is the price bar that makes the new low, with the oscillator forming the higher low.) In effect, we are placing our stop below the lower band, which is technically a safe stop. Since this setup gives us a high probability of reversal, we can afford to risk smaller amounts of capital, which subsequently increases our Risk-to-Reward ratio.

Exit – When the price reaches the upper band (the Bollinger Bands characteristic for projecting price targets) or when it forms a Bearish Divergence on the upper band, indicating a loss of momentum.

Managing the trade – We will assume that the trader is entering this setup with 3 lots. Having multiple lots in a trade gives us the flexibility to move our stops, and scale out at different levels, thus protecting our capital.

See Figure 8 for a Regular Divergence trade setup. This chart example shows the setup of a Regular Divergence, and the entire sequence of the trade is depicted step by step.

Setup – We identified a divergence when the price made a lower low, and the Slow Stochastic made a higher low (1).

Entry – We waited for confirmation from the Bollinger Bands when the price completed the last thrust, and found support on the lower band. This was the confirmation for a long entry (2).

Ideally, the correct entry would be to place a limit buy order above the high of the divergence bar (the bar where the price made the lower low and the indicator made the higher low) (3).

Stop – We place our stop below the low of the divergence bar (4). After being filled in, the price made a retracement down, but not to the stop level.

Managing the trade – (assuming that we entered the trade with 3 lots)

Since we had a "Class A" Divergence, we can anticipate a sharp reversal of the price and a volatile move to the upside. The price confirmed the up move, and immediately reached the upper band…our initial target. Here, we first close one lot and move our stop to the entry level (5).

At this stage, we have locked in a small profit and reduced our risk to zero. Even though we are anticipating a further move, if there is a sudden reversal of price down (or if we have misread the price action) we will definitely leave the trade with a small profit. The price subsequently walked the upper band and when it made a small retracement, we closed the second lot with another safe profit (6).

As per our rules, this retracement could lead to a Bearish Reversal, and we want to play it safe and protect our profits. (At this stage, one could again move the stop higher to reduce the risk. However, it is a personal call since a sudden retracement or spike down could take out the stop.) We should leave the third lot active in order to catch any further profit, but in this case, we closed it after noticing the strong reversal.

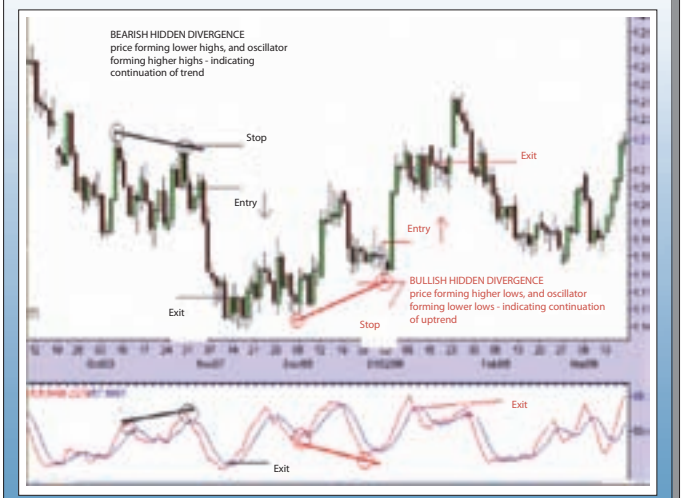
Trading the Hidden Divergence

Contrary to a Regular Divergence, the setup for a Bullish Hidden Divergence calls for higher lows in price and lower lows in the oscillator. This would indicate a continuation of the trend to the upside. The advantage is that this setup gives the trader an exact entry point into a continuing trend, which is a far better proposition than "catching a falling knife." The trader is following the Golden Rule – "The trend is your friend." Trading the Hidden Divergence is a much better proposition since we are trading with the trend and we can define our entries, exits and stops clearly.

In case of a Bullish Hidden Divergence, we first identify the two divergence bars (the higher low pivot bars) which create the lower lows in the oscillator. We place our entry orders above the high of the second pivot bar (the second bar which has the higher low), and our stops beneath the low of the same bar. We exit the trade, when the stochastic has reached the overbought level, and the stochastic lines have crossed in the downward direction. The same money management rules would apply here. As mentioned before, trading with multiple lots give us the flexibility to lock in our profits, and manage our trades more efficiently. For a Bearish Hidden Divergence we simply reverse the rules.

For an example of a Hidden Divergence trade setup, we will use the previous example in Figure 4 and identify the Hidden Divergences

F9) Hidden Divergence Trade Setup



This figure shows the typical Bearish and Bullish Hidden Divergence trade setups. The precise entries, stops and exits have been marked.

with the exact entries and exits. This we will label as Figure 9 – Hidden Divergence Trade Setup. In the Bullish Hidden Divergence on the right side of the chart, we enter the trade on the break of the high of the second divergence (pivot) bar, and we have our stop below the low of the same bar. However, for the exit, we use the characteristics of the low stochastic to time our exits. We exit this trade when the stochastic has reached the overbought area, and the stochastic lines cross downward in this area. One of the characteristics of the stochastic indicator is that, when the %R and %D lines cross in the oversold or overbought zones, it is a strong indication of a reversal. Hence, we exit the trade when this condition is observed. The money management rules will be similar to the ones we laid down for the previous Regular Divergence setup. After we observe the initial large movement, the first bar that gets us into the profit zone immediately, we close one lot and move our stop to the entry level. We close the second lot when the stochastic gives the indication of reversal. In accordance with our rules, we will let the third lot run and allow the price to stop us out. In this case, the price did make a last thrust up, thus allowing us a larger profit.

Both the Regular and Hidden Divergences occur quite frequently across all time frames. What we have done is devised a strategy that incorporates all the aspects of a trade, thus leaving nothing to emotional or knee-jerk reactions. If one has the patience to wait for a divergence pattern to develop, and has the discipline to take trades only on these divergence setups (especially the Hidden Divergence) and follows the rules one could increase the equity curve considerably.

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