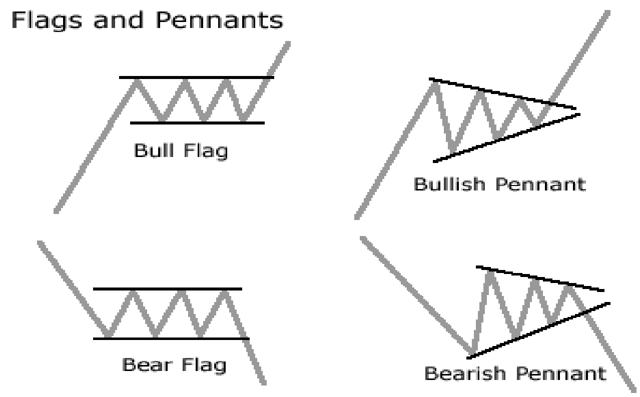
Flags and Pennants



Flags and Pennants are short-term continuation patterns that mark a small consolidation before the previous move resumes. These patterns are usually preceded by a sharp advance or decline with heavy volume, and mark a mid-point of the move.

1. Sharp Move: To be considered a continuation pattern, there should be evidence of a prior trend. Flags and pennants require evidence of a sharp advance or decline on heavy volume. These moves usually occur on heavy volume and can contain gaps. This move usually represents the first leg of a significant advance or decline and the flag/pennant is merely a pause.

2. Flagpole: The flagpole is the distance from the first resistance or support break to the high or low of the flag/pennant. The sharp advance (or decline) that forms the flagpole should break a trendline or resistance/support level. A line extending up from this break to the high of the flag/pennant forms the flagpole.

3. Flag: A flag is a small rectangle pattern that slopes against the previous trend. If the previous move was up, then the flag would slope down. If the move was down, then the flag would slope up. Because flags are usually too short in duration to actually have reaction highs and lows, the price action just needs to be contained within two parallel trendlines.

4. Pennant: A pennant is a small symmetrical triangle that begins wide and converges as the pattern matures (like a cone). The slope is usually neutral. Sometimes there will not be specific reaction highs and lows from which to draw the trendlines and the price action should just be contained within the converging trendlines.

5. Duration: Flags and pennants are short-term patterns that can last from 1 to 12 weeks. There is some debate on the timeframe and some consider 8 weeks to be pushing the limits for a reliable pattern. Ideally, these patterns will form between 1 and 4 weeks. Once a flag becomes more than 12 weeks old, it would be classified as a rectangle. A pennant more than 12 weeks old would turn into a symmetrical triangle. The reliability of patterns that fall between 8 and 12 weeks is debatable.

6. Break: For a bullish flag or pennant, a break above resistance signals that the previous advance has resumed. For a bearish flag or pennant, a break below support signals that the previous decline has resumed.

7. Volume: Volume should be heavy during the advance or decline that forms the flagpole. Heavy volume provides legitimacy for the sudden and sharp move that creates the flagpole. An expansion of volume on the resistance (support) break lends credence to the validity of the formation and the likelihood of continuation.

8. Targets: The length of the flagpole can be applied to the resistance break or support break of the flag/pennant to estimate the advance or decline.
Even though flags and pennants are common formations, identification guidelines should not be taken lightly. It is important that flags and pennants are preceded by a sharp advance or decline. Without a sharp move, the reliability of the formation becomes questionable and trading could carry added risk. Look for volume confirmation on the initial move, consolidation and resumption to augment the robustness of pattern identification.

Bull Flag Patterns (Continuation Pattern)

Bull flag is a sharp, strong volume rally on a positive fundamental development, several days of sideways to lower price action on much weaker volume followed by a second, sharp rally to new highs on strong volume.

The technical target is derived by adding the height of the flag pole to the eventual breakout level at point (e).

- Bull flag formations involve two distinct parts, a near vertical, high volume flag pole and a parallel, low volume consolidation comprised of four points and an upside breakout.
- The actual flag formation of a bull flag pattern must be less than 20 trading sessions in duration.
- Most flag patterns occur at the middle of the larger move higher for a stock.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

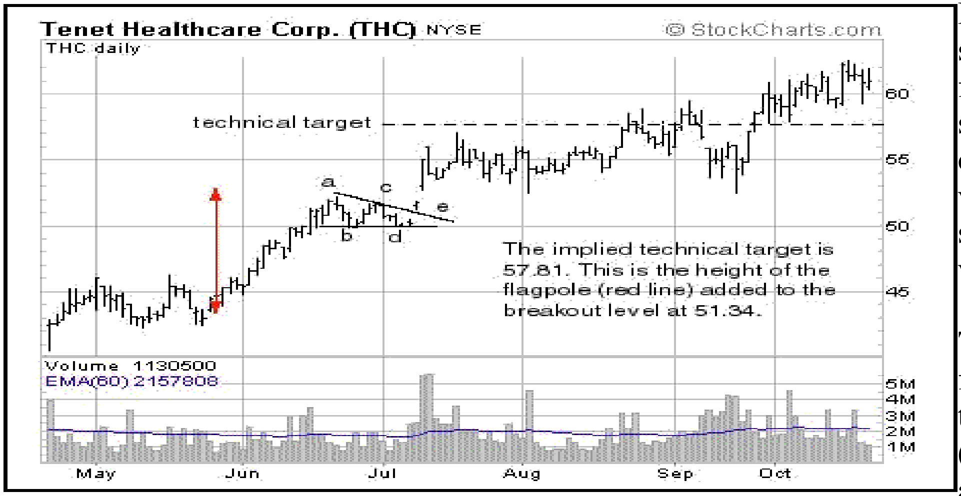
Bulls flags are favored among technical traders because they almost always lead to large and predicable price moves. Like all continuation patterns, bull flags represent little more than a brief lull in a larger move higher. Indeed, in many cases the flag pattern will actually take shape in the middle of the ultimate move higher. Bull flags occur because stocks rarely move higher in a straight line for an extended period, instead, the move higher is broken up by brief periods where traders "catch their breath".

The first part of the flag pattern is often called the flagpole or mast. During this phase the stock price skyrockets to a reaction high **(a)** on some positive fundamental development. Very often this will be the unveiling of a new product, a favorable legal resolution or positive earnings surprise but the change in price is near vertical as would be sellers are overwhelmed by new buyers caught-up in the euphoria of the moment. As the stock soars speculators that were smart enough to have purchased the stock at lower levels begin selling.

At this point the second phase or flag portion of the bull flag begins. Because the flow of news and investor sentiment is overwhelming positive, most of the stock sold by speculators is easily absorbed in the beginning but as time passes fewer investors seem willing to pay the current price. Slowly, the stock price begins to falter on dramatically reduced volume. The descent is slow because bullish sentiment is still very strong.

After several days of minor weakness, a rally begins and a minor low is set **(b)**. Sensing an opportune time to enter new positions buyers begin to return, pushing the stock very near the most recent high but because volume is light this rally is easily rebuffed and a slightly lower high **(c)** is established before the price turns lower. The new round of selling sends the stock modestly lower on reduced volume. After several more sessions the stock moves below the lows made at point **(a)** but volume contracts further. Just as it begins to look as though a real decline is underway there is a new positive fundamental development and the stock begins to move higher **(d)**. As the rally accelerates volume increases dramatically, buyers overwhelm those taking profits. Over the next 1-2 sessions the stock moves through the high set at point **(c)** and volume surges further. This triggers an upside breakout point **(e)**. The next session several Wall Street firms either make new "buy" recommendations or reiterate existing recommendations. The stock opens higher and goes on to make significant new highs in the weeks ahead.

Bullish Pennant (Continuation Pattern)



Bullish pennant is a sharp, strong volume rally on a positive fundamental development, several days of narrowing price consolidation on much weaker volume followed by a second, sharp rally to new highs on strong volume.

The technical target for a bull flag pattern is derived by adding the height of the flag pole or point **(a)** to the eventual breakout level at point **(e)**.

- Bullish pennants involve two distinct parts, a near vertical, high volume flag pole and a symmetrical, low volume triangular consolidation comprised of four points and an upside breakout.
- The triangular consolidation during the formation of the pennant is very much like a symmetrical triangle and this implies that traders feel comfortable with the current price.
- The actual pennant formation of a bullish pennant pattern must be less than 20 trading sessions in duration
- Most bullish pennant patterns occur at the middle of the larger move higher for a stock.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid

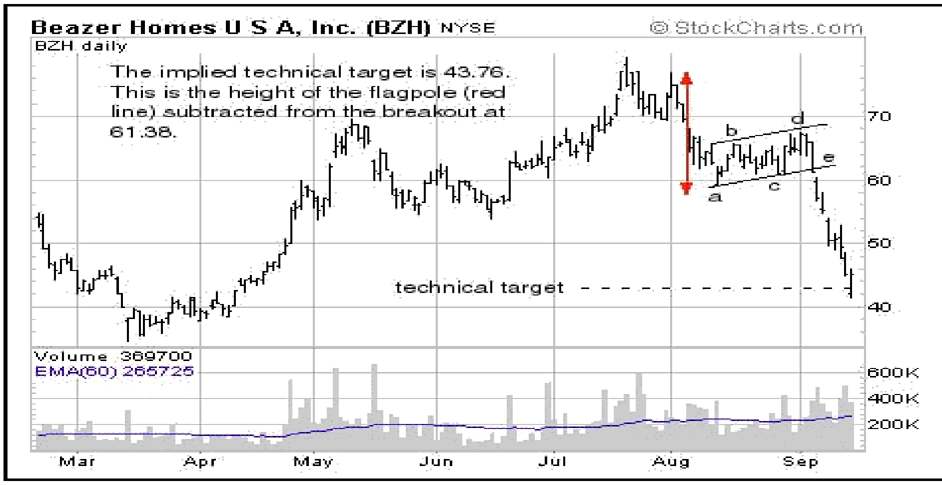
Bullish pennants are very close cousins to bull flags, in fact, there is only one major difference, the consolidation after the flag pole is triangular (pennant-shaped) as opposed to being parallel (flag-shaped). Like flags, pennants are favored among technical traders because they almost always lead to large and predicable price moves. Finally, like flags, pennants usually take shape at the mid point of a major move higher.

The first part of the pennant pattern is often called the flagpole or mast. During this phase the stock price skyrockets to a reaction high **(a)** on some positive fundamental development. Very often this will be the unveiling of a new product, a favorable legal resolution or a positive earnings surprise but the change in price is near vertical as would be sellers are overwhelmed by new buyers caught-up in the euphoria of the moment. As the stock soars speculators that were smart enough to have purchased the stock at lower levels begin selling.

At this point the second phase or pennant portion of the pattern begins. Because the flow of news and investor sentiment is overwhelming positive, most of the stock sold by speculators is easily absorbed in the beginning but as time passes fewer investors seem willing to pay the current price. Slowly, the stock price begins to falter on dramatically reduced volume. The descent is slow because bullish sentiment is still very strong and after several days of minor weakness, a brief rally begins and a minor low is set **(b)**.

S**ensing an opportune time** to enter new positions buyers begin to return, pushing the stock very near the most recent high but because volume is light this rally is easily rebuffed and a slightly lower high **(c)** is established before the price turns lower. The new round of selling sends the stock modestly lower on reduced volume. After several more sessions the stock approaches the lows made at point **(a)** but volume expands and a higher low is set at point **(d)**. This higher low establishes the parameters of a very small symmetrical triangle pattern. As the stock begins to move higher from point **(d)** volume increases dramatically, buyers overwhelm those taking profits. Over the next 1-2 sessions the stock moves through the high set at point (c) and volume surges further. This triggers an upside breakout point **(e)**. The next session several Wall Street firms either make new "buy" recommendations or reiterate existing recommendations. The stock opens higher and goes on to make significant new highs in the weeks ahead.

Bear Flag (Continuation Pattern)



Bear Flag is a sharp, strong volume decline on a negative fundamental development, several days of sideways to higher price action on much weaker volume followed by a second, sharp decline to new lows on strong volume.

The technical target for a bear flag pattern is derived by subtracting the height of the flag pole from the eventual breakout level at point **(e)**.

- Bear flag formations involve two distinct parts, a near vertical, high volume flag pole and a parallel, low volume consolidation comprised of four points and an upside breakout.
- The actual flag formation of a bear flag pattern must be less than 20 trading sessions in duration.
- Most bear flag patterns occur at the middle of the larger move lower for a stock.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Bear flags are favored among technical traders because they almost always lead to large and predicable price moves. Like all continuation patterns, bear flags represent little more than a brief lull in a larger move lower. Indeed, in many cases the flag pattern will actually take shape in the middle of the ultimate move lower. Like bull flags, bear flags occur because stocks rarely move in one direction for an extended period, instead, the move is broken up by brief periods where traders "catch their breath". These periods are flags and pennants.

The first part of the bear flag pattern is often called the flagpole or mast. During this phase the stock price collapses to a reaction low **(a)** following some negative fundamental development. Very often this will be downward guidance, an unfavorable legal resolution or negative earnings surprise but the change in price is near vertical as would be buyers are overwhelmed by frantic new sellers caught-up in the euphoria of the moment. As the stock collapses some speculators that were smart enough to have sold short stock at higher levels begin buying to cover short positions and some less informed investors actually begin bargain-hunting.

At this point the second phase or flag portion of the bear flag begins. Because the flow of news and investor sentiment is overwhelming negative, most of the stock bought by speculators is easily absorbed by nervous sellers in the beginning but as time passes selling pressures abate and slowly, the stock price begins to rise on dramatically reduced volume. It is bargain-hunting that pushes the stock off the lows but volume is so weak that the rally soon fizzles and the stock puts-in a short term top point **(b)**.

With bearish sentiment still rampant the next decline threatens to push the stock to fresh new lows but as the decline begins volume slows further and the bargain-hunters become more enthusiastic. As the stock approaches the reaction low price stabilizes and second short term bottom is established at slightly higher levels point **(c)**. Buoyed by the fact the stock did not make a relative new low bargain hunters once again begin buying the stock. This time the stock rallies slightly higher than point **(b)** but volume is even weaker and the rally soon fails **(d)**.

During the next 3-4 sessions the stock trades in a narrow range and volume slows dramatically before the stock begins to slide toward the lows established at point **(c)**. Over the next 1-2 sessions the stock moves through these lows, triggering a downside breakout **(e)**. Over the next session several Wall Street firms make negative comments or reduce earnings estimates and a new leg lower begins. The stock opens lower and goes on to make significant new lows in the weeks ahead.

Bearish Pennant (Continuation Pattern)

Bearish Pennant is a sharp, strong volume decline on a negative fundamental development, several days of narrowing price consolidation on much weaker volume followed by a second, sharp decline to new lows on strong volume.
The technical target for a bearish pennant pattern is derived by subtracting the height flag pole from the eventual breakout level at point **(e)**.

- Bearish pennant formations involve two distinct parts, a near vertical, high volume flag pole and a symmetrical, low volume triangular consolidation comprised of four points and a downside breakout.
- The triangular consolidation during the formation of the pennant is very much like a symmetrical triangle and this implies that traders feel comfortable with the current price.
- The actual flag formation of a bearish pennant pattern must be less than 20 trading sessions in duration.
- Most bearish pennant patterns occur at the middle of the larger move lower for a stock.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Bearish pennants are very close cousins to bear flags, in fact, there is only one major difference, the consolidation after the flag pole is triangular (pennant-shaped) as opposed to being parallel (flag-shaped). Like flags, pennants are favored among technical traders because they almost always lead to large and predicable price moves. Finally, like flags, pennants usually take shape at the mid point of a major move higher.

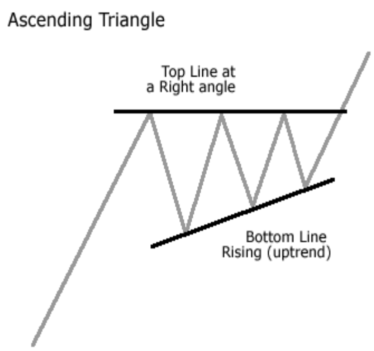
The first part of the bearish pennant pattern is often called the flagpole or mast. During this phase the stock price collapses to a reaction low **(a)** following some negative fundamental development. Very often this will be downward guidance, an unfavorable legal resolution or negative earnings surprise but the change in price is near vertical as would be buyers are overwhelmed by frantic new sellers caught-up in the euphoria of the moment. As the stock collapses some speculators that were smart enough to have sold short stock at higher levels begin buying to cover short positions and some less informed investors actually begin bargain-hunting.

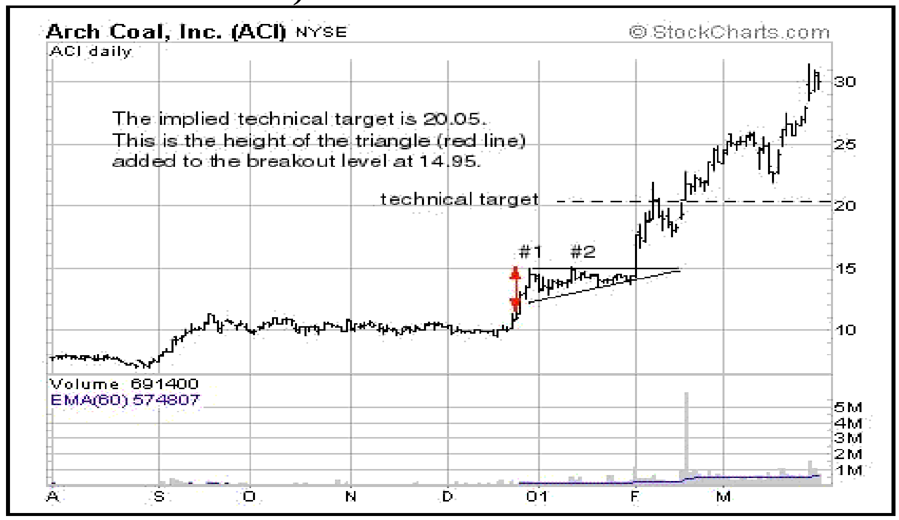
At this point the second phase or pennant portion of the bearish pennant begins. Because the flow of news and investor sentiment is overwhelming negative, most of the stock bought by speculators is easily absorbed by nervous sellers in the beginning but as time passes selling pressures abate and slowly, the stock price begins to rise on dramatically reduced volume. It is bargain-hunting that pushes the stock off the lows but volume is so weak that the rally soon fizzles and the stock puts-in a short term top point **(b)**.

With bearish sentiment still rampant the next decline threatens to push the stock to fresh new lows but as the decline begins volume slows further and the bargain-hunters become more enthusiastic. As the stock approaches the reaction low price stabilizes and second short term bottom is established at slightly higher levels point **(c)**. Buoyed by the fact the stock did not make a relative new low bargain hunters once again begin buying the stock. This time the stock rallies but fails to move beyond the highs established at point **(b)**.

This lower high establishes the parameters of a very small symmetrical triangle pattern and becomes point **(d)** in the bearish pennant pattern. During the next 3-4 sessions the stock trades in a narrow range and volume slows dramatically before the beginning to slide toward the lows established at point **(c)**. Over the next 1-2 sessions the stock moves through these lows, triggering a downside breakout **(e)**. The next session several Wall Street firms make negative comments or reduce earnings estimates and a new leg lower begins. The stock opens lower and goes on to make significant new lows in the weeks ahead.

Ascending Triangle (Continuation Pattern)





Ascending and descending triangles are also referred to as "right-angle" triangles.
Generally, a triangle pattern is considered to be a continuation or consolidation pattern. Sometimes, however, the formation marks a reversal of a trend.
Symmetrical triangles are generally considered neutral, ascending triangles are bullish, and descending triangles are bearish. From a time perspective, triangles are usually considered to be intermediate patterns. Usually, it takes longer than a month to form a triangle. Seldom will a triangle last longer than three months. If a triangle pattern does take longer than three months to complete,the formation will take on major trend significance.

What does an ascending triangle look like?

Converging trendlines of support and resistance give all three patterns their distinctive shape. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the pattern look like an increasingly tight coil moving across the chart.
As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex," located at the right of the chart. The "base" of the triangle is the vertical line at the left of the chart which measures the vertical height of the pattern.
An ascending triangle - the "flat-top" triangle - also shows two converging trendlines. In this case, however, the lower trendline is rising and the upper trendline is horizontal. This pattern occurs because the lows are moving increasingly higher but the highs are maintaining a constant price level.

What are the details that I should pay attention to in an ascending triangle pattern?
1. Occurrence of a Breakout - Technical analysts pay close attention to how long the triangle takes to develop to its apex. The general rule, as explained by Murphy, is that price breakout clearly penetrate one of the trendlines - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the triangle. To take the measurement, begin by drawing the two converging trendlines. Measure the length of the triangle from its base to the apex. Next, plot the distance along the horizontal width of the pattern where the breakout should take place. If prices remain within the trendlines beyond the three-quarters point of the triangle, technical analysts will approach the triangle with caution.
2. Price Action - With its "flat-topped" shape, the ascending triangle indicates that buyers are more aggressive than sellers. The ascending triangle forms because of a supply of shares available at a fixed price. When the supply depletes, the shares quickly breakout from the flat-topped trendline and move higher.
3. Measuring the Triangle - To project the minimum short-term price objective of a triangle, an investor must wait until the price has broken through the trendline. When the price breaks through the trendline, the investor then knows whether the pattern is a consolidation or a reversal formation.
To calculate the minimum price objective, calculate the "height" of the formation at its widest part - the "base" of the triangle. The height is determined by projecting a vertical line from the first point of contact with the trendline on the left of the chart to the next point of contact with the opposite trendline. In other words, measure from the highest high point on one trendline to the lowest low point on the opposite trendline. Both these points will be located on the far left of the formation. Next, locate the "apex" of the triangle (the point where the trendlines converge). Take the result of the measurement of the height of the triangle and add it to the price marked by the apex of the triangle if an upside breakout occurs, or subtract it from the apex price if the triangle experiences a downside breakout.
4. Duration of the Triangle - As mentioned before, the triangle is a relatively short-term pattern. It may take up to one month to form and it usually forms in less than three months.

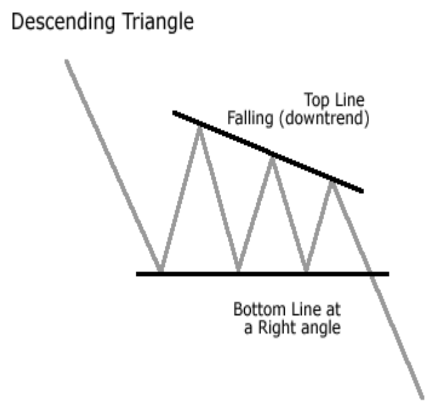
5. Forecasting Implications - The ascending triangle is considered to be bullish. Typically, that breakout should be accompanied by a noticeable surge in volume.
6. Shape of Ascending Triangle - Prices should rise to hit the upper trendline at least twice (two highs), then fall away. Prices should fall to the lower trendline at least twice (two lows), then rise. The horizontal top trendline need not be completely horizontal but it often is and, in any event, it should be close to horizontal.
7. Volume - Murphy advises that in the ascending triangle, volume tends to be slightly higher on bounces and lighter on dips.
8. Premature or False Breakouts - Because the pattern can be either a reversal or continuation pattern, investors are particularly susceptible to false moves or, at the very least, confused by them. In addition, because volume becomes so thin as the triangle formation progresses to the apex, it takes very little activity to bring about an erratic and false movement in price, taking the price outside of the trendlines.
To avoid taking an inadvisable position in a stock, some investors advise waiting a few days to determine whether the breakout is a valid one. Typically, a false move corrects itself within a week or so. The pattern immediately will be suspicious without an accompanying high volume breakout. If there's no pick up in volume around the breakout, investors should be wary.
Ascending triangle is rally to a new high followed by a pull back to an intermediate support level, a second rally to test the first peak followed by a second decline to a level higher than the intermediate term support level and finally a rally to fresh new highs on strong volume.
The technical target is derived by measuring the vertical height of the triangle and applying this length to the new breakout level.

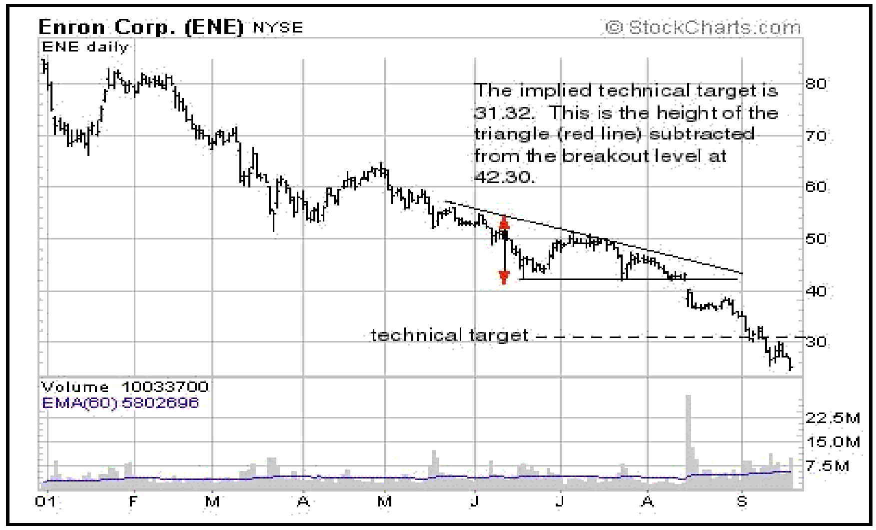
- Ascending triangles are among the most reliable of all technical patterns because both supply and demand are easily defined.
- The defining characteristic of ascending triangles is the pattern of rising lows and a series of equal highs. This combination of points can be connected to form a right angle triangle. If a stock violates any part of the triangle during its formation the pattern it should be considered void and trading positions should be abandoned.
- Triangles are about indecision and as such volume should slow noticeably as the pattern is being constructed. It is most important that volume surge as the stock rallies through the reaction high. This tells the technical trader that supply has been absorbed, short covering is rampant and the next leg of the bull phase is about to begin.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

This pattern typically occur after a stock has had a strong move higher due to a positive fundamental development. Investors come to believe that much higher stock prices are justified given the improved fundamental outlook but a large portion of investors that were smart enough to have bought the stock at much lower prices disagree. These "smart money" investors consider the extreme optimism as little more than an opportunity to liquidate positions. Using fundamental metrics, they set a price to sell their large blocks of stock and wait. In effect, they are beginning a distribution process based on their interpretation of fair value. The first step in the distribution process occurs after one particularly bullish fundamental development. The stock surges to a new high and Wall Street analysts begin pounding the table with new "buy" recommendations.

The increased volume is a perfect opportunity for the smart money to liquidate positions. They begin selling and the rally is stopped in its tracks creating a small top (**top #1**). As buyers realize that there is plenty of supply at this level prices begin to falter and in short order the stock trades back to a previous intermediate term support level. Because this low is the reaction to the previous rally to new highs, it is often called the reaction low. In this very limited sense, ascending triangles are very much like double and triple tops -- rising demand meets entrenched supply. In fact, because the fundamental news is so strong Wall Street analysts dismiss the weakness as simple profit taking and a new rally soon begins.
On strong volume the stock surges toward the recent high where it is once again rebuffed by aggressive sellers (**top #2**). It is at this point that speculators recognize a trend and they begin adding new short positions just beneath the recent high. This added selling pressure should push the stock significantly lower but bullish enthusiasm is rampant. The stock does move lower but the pull back is subdued, in fact, the stock does not reach the reaction low set in the aftermath of the first move to new highs.
Days later another positive development occurs and the stock begins moving toward the recent high on very strong volume. Speculators step-up and add to their short positions but the supply of stock from smart money investors is being satiated. It soon becomes clear that buyers are going to win this battle because sellers are running out of stock to sell. As the stock pierces what had been strong resistance a strange dynamic occurs, those traders that had been selling the stock short at the recent high are motivated to cover short positions to cut losses -- thereby creating increased demand for the stock at a time when supply has been severely curtailed. Against this backdrop ongoing bullish enthusiasm leads to a spectacular price breakout on strong volume. Very soon after the breakout several fundamental analysts make positive comments, aggravating the imbalance between supply and demand. Weeks later the stock surges to a substantial new high. In this rare instance smart money investors are trumped by ongoing bullish fervor and the level that had been resistance becomes important support.

Descending Triangle (Continuation Pattern)





Ascending and descending triangles are also referred to as "right-angle" triangles.
Generally, a triangle pattern is considered to be a continuation or consolidation pattern. Sometimes, however, the formation marks a reversal of a trend.
Descending triangles are generally considered bearish. From a time perspective, triangles are usually considered to be intermediate patterns. Usually, it takes longer than a month to form a triangle. Seldom will a triangle last longer than three months.

What does a descending triangle look like?
Converging trendlines of support and resistance gives this pattern its distinctive shape. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the pattern look like an increasingly tight coil moving across the chart.
A descending triangle, like the other two triangles, features two converging trendlines. In this "flat-bottom" triangle, the bottom trendline is horizontal and the top trendline slopes downward. The pattern illustrates lows occurring at a constant price level, with highs moving constantly lower.

What are the details that I should pay attention to in a descending triangle pattern?
1. Occurrence of a Breakout - Technical analysts pay close attention to how long the triangle takes to develop to its apex. The general rule is that prices should break out -and clearly penetrate one of the trendlines - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the triangle. To take the measurement, begin by drawing the two converging trendlines. Measure the length of the triangle from its base to the apex. Next, plot the distance along the horizontal width of the pattern where the breakout should take place. If prices remain within the trendlines beyond the three-quarters point of the triangle, technical analysts will approach the triangle with caution. Typically if prices don't breakout of the trendlines before that point, the triangle "begins to lose its potency" and prices will simply drift out beyond the apex with no surge in either direction.
2. Price Action - With its "flat-bottomed" shape, the descending triangle indicates that sellers are more aggressive than buyers. The pattern typically emerges when buyers feel that the stock is overvalued and decide that the fair value is at a specific lower level. These buyers are prepared to purchase the stock if it hits that specific price level. The floor does not hold because demand wanes - possibly buyers have run out of money or interest in the stock. Once the downside breakout occurs, the stock price continues to fall.
3. Measuring the Triangle - To project the minimum short-term price objective of a triangle, an investor must wait until the price has broken through the trendline. When the price breaks through the trendline, the investor then knows whether the pattern is a consolidation or a reversal formation.
To calculate the minimum price objective, calculate the "height" of the formation at its widest part - the "base" of the triangle. The height is equally determined by projecting a vertical line from the first point of contact with the trendline on the left of the chart to the next point of contact with the opposite trendline. In other words, measure from the highest high point on one trendline to the lowest low point on the opposite trendline. Both these points will be located on the far left of the formation. Next, locate the "apex" of the triangle (the point where the trendlines converge). Take the result of the measurement of the height of the triangle and add it to the price marked by the apex of the triangle if an upside breakout occurs and subtract it from the apex price if the triangle experiences a downside breakout.
4. Duration of the Triangle - As mentioned before, the triangle is a relatively short-term pattern. It may take up to one month to form and it usually forms in less than three months.
5. Forecasting Implications - The descending triangle is considered to be bearish. Bulkowski, however, warns that only

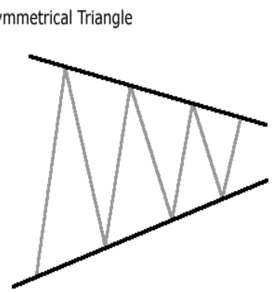
55% of developing descending triangles actually prove to be bearish. However, if investors wait for a valid breakout, then the success rate increases to 96%. Statistics compiled by Bulkowski show that descending triangles are less likely to hit their target prices than ascending ones. According to Edwards and Magee, volume confirmation is more important for ascending triangles than descending ones.
6. Shape of Descending Triangle - Prices should rise to hit the upper trendline at least twice (two highs), then fall away. Prices should fall to the lower trendline at least twice (two lows), then rise. The horizontal bottom trendline need not be completely horizontal but it often is and, in any event, it should be close to horizontal.
7. Volume - The descending triangle, volume tends to be slightly higher on dips and lighter on bounces.11
8. Premature or False Breakouts - Triangles are among the patterns most susceptible to this phenomenon. Because the pattern can be either a reversal or continuation pattern, investors are particularly susceptible to false moves or, at the very least, confused by them. In addition, because volume becomes so thin as the triangle formation progresses to the apex, it takes very little activity to bring about an erratic and false movement in price, taking the price outside of the trendlines.

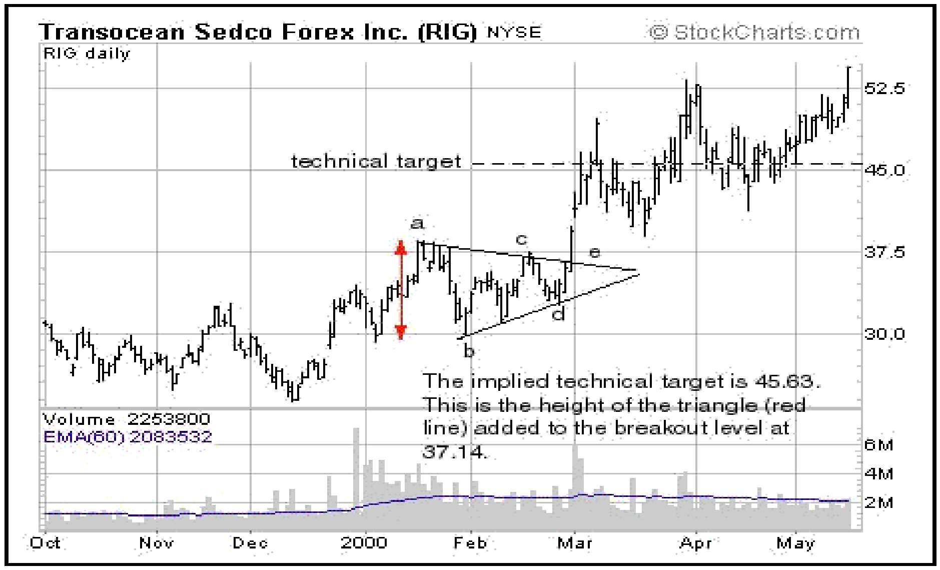
Descending Triangle is a decline to a new low on news followed by a kick back rally to an intermediate resistance level, a second decline to test the recent low followed by a second rally toward but not through intermediate resistance and finally a decline to fresh new lows on strong volume.
The technical target for a descending triangle is derived by measuring the vertical height of the triangle and applying this length to the new breakout level.

- Descending triangles are among the most reliable of all technical patterns because both supply and demand are easily defined.
- The defining characteristic of descending right angle triangles is the pattern of declining highs and a series of equal lows. This combination of points can be connected to form a right angle triangle. If a stock violates any part of the triangle during its formation the pattern it should be considered void and trading positions should be abandoned.
- Triangles are about indecision and as such volume should slow noticeably as the pattern is being constructed. It is most important that volume surge as the stock declines through the reaction low. This tells the technical trader that demand has been absorbed and the next leg of the bear phase is about to begin.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Descending Triangle is a mirror image of the Ascending Triangle. Like the ascending triangle, the pattern consists of a right angle triangle formation that follows a lengthy trending period. In the case of the descending triangle, the pattern takes shape after a period in which the stock in question has fallen from favor. This fall from grace may be the result of an earnings warning, product delay, lawsuit or negative guidance from management but it is fairly certain that the root of the price weakness is poorer fundamentals.
For weeks the stock trends lower with no bottom in sight. Wall Street analysts become extremely bearish and the stock looks like a lost cause but as a fresh new low is created, buyers suddenly emerge. In most cases this initial buying will come from serious long term investors (smart money) that feel the stock is reasonably priced. These investors have strong hands and all things being equal, they will hold the stock but they are not willing to pay prices in excess of what they feel to be fair value. In short, they look at the position as a work in progress, since the near term fundamental outlook is poor they see no need to "chase" the stock higher.
This initial round of buying by longer-term investors creates a short term bottom (**bottom #1**). As days pass some professional traders start to realize that there are strong bids for the stock at bottom#1 and the technical and emotional selling that had plagued the stock subsides. Slowly the stock begins to move higher. Although this advance may be aided by positive Wall Street analyst comments or more favorable news flows, volume remains exceptionally light. The stock continues to move higher until there is another negative fundamental development.
At that point sellers return and a reaction high is established. As we will see, this point is vital in the classification of this pattern. The continued negative fundamental news and poor sentiment for the stock lead to more aggressive selling and once again the stock drifts back to the bottom#1 level. Given the negative sentiment a decline through that level seems assured but longer-term buyers renew their efforts, volume increases and the stock holds the most recent lows, establishing bottom#2. With two solid bottoms (support) now in place a new group of buyers enter the picture.
Sensing that the buying is entrenched speculators begin to buy new positions in anticipation of a big move higher **--** the only problem is the longer-term buyers are not willing to chase the stock. As the price rallies, volume slows significantly, in fact, so slow is volume that the stock fails to move beyond the reaction high. Buyers relent and price begins to falter. Within a few days the stock is trading back near the level of bottom **#1** and **#2**. Speculators begin adding new long positions in anticipation of a rally but the selling continues. Just as longer-term buyers are getting ready to buy a new negative fundamental development occurs and the stock opens dramatically lower, falling well below the levels of bottom **#1** and **#2**.
This breakout leads speculators to panic and sell existing long positions for a loss. Longer-term investors are also forced to rethink their strategy in light of the news and some liquidation begins creating a huge imbalance between supply and demand. A new leg lower unfolds. Weeks later the stock trades significantly lower.

Symmetrical Triangle (Continuation Pattern)





Generally, a triangle pattern is considered to be a continuation or consolidation pattern. Sometimes, however, the formation marks a reversal of a trend.
Symmetrical triangles are generally considered neutral. From a time perspective, triangles are usually considered to be intermediate patterns. Usually, it takes longer than a month to form a triangle. Seldom will a triangle last longer than three months.

What does a symmetrical triangle look like?
Converging trendlines of support and resistance gives the triangle pattern its distinctive shape. Buyers and sellers find themselves in a period where they are not sure where the market is headed. Their uncertainty is marked by their actions of buying and selling sooner, making the pattern look like an increasingly tight coil moving across the chart.
As the range between the peaks and troughs marking the progression of price narrows, the trendlines meet at the "apex," located at the right of the chart. The "base" of the triangle is the vertical line at the left of the chart which measures the vertical height of the pattern.

Why is the symmetrical triangle pattern important?
A symmetrical triangle pattern is relatively easy to identify. In addition, triangle patterns can be quite reliable to trade with very low failure rates. There is a caution concerning trading these patterns a triangle pattern can be either continuation or reversal patterns. Typically, they are continuation patterns. To achieve the reliability for which the triangle is well known, technical analysts advise waiting for a clear breakout of one of the trendlines defining the triangle.
Triangle patterns are usually susceptible to definite and dependable analysis, with the proviso that the investor must wait for a reliable, as opposed to a premature, breakout.

Is volume important in a symmetrical triangle pattern?
Volume is an important factor to consider when determining whether a formation is a true triangle. Typically, volume follows a reliable pattern: volume should diminish as the price swings back and forth between an increasingly narrow range of highs and lows. However, when breakout occurs, there should be a noticeable increase in volume. If this volume picture is not clear, investors should be cautious about whether the pattern is a true triangle.

What are the details that I should pay attention to in a symmetrical triangle pattern?
1. Occurrence of a Breakout - Technical analysts pay close attention to how long the triangle takes to develop to its apex. The general rule is that prices should break out - clearly penetrate one of the trendlines - somewhere between three-quarters and two-thirds of the horizontal width of the formation. The break out, in other words, should occur well before the pattern reaches the apex of the triangle.
To take the measurement, begin by drawing the two converging trendlines. Measure the length of the triangle from its base to the apex. Next, plot the distance along the horizontal width of the pattern where the breakout should take place. If prices remain within the trendlines beyond the three-quarters point of the triangle, technical analysts will approach the triangle with caution.
2. Price Action - Unlike ascending and descending triangles which give advance notice of their intentions, the symmetrical triangle tends to be a neutral pattern. The symmetrical triangle is generally a consolidation pattern. This means an investor can look to see the direction of the previous trend and make the basic assumption that the trend will continue. However, many experts advise investors that because the breakout direction could go either way that they wait until the breakout occurs before investing in or selling the stock.

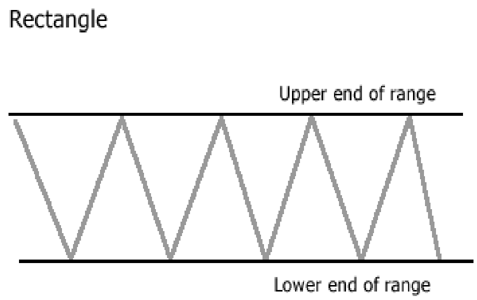
3.Measuring the Triangle - To project the minimum short-term price objective of a triangle, an investor must wait until the price has broken through the trendline. When the price breaks through the trendline, the investor then knows whether the pattern is a consolidation or a reversal formation.
To calculate the minimum price objective, calculate the "height" of the formation at its widest part - the "base" of the triangle. The height is equal determined by projecting a vertical line from the first point of contact with the trendline on the left of the chart to the next point of contact with the opposite trendline. In other words, measure from the highest high point on one trendline to the lowest low point on the opposite trendline. Both these points will be located on the far left of the formation. Next, locate the "apex" of the triangle (the point where the trendlines converge). Take the result of the measurement of the height of the triangle and add it to the price marked by the apex of the triangle if an upside breakout occurs and subtract it from the apex price if the triangle experiences a downside breakout.
5. Forecasting Implications - Once breakout occurs, the symmetrical triangle tends to be a reliable pattern.
6. Shape of Symmetrical Triangle - The pattern should display two highs and two lows, all touching the trendline - a minimum of four reversal points is necessary to draw the two converging trendlines.
7. Volume - Investors should see volume decreasing as the pattern progresses toward the apex of the triangle. At breakout, however, there should be a noticeable increase in volume.
8. Premature or False Breakouts - Triangles are among the patterns most susceptible to this phenomenon. Because the pattern can be either a reversal or continuation pattern, investors are particularly susceptible to false moves or, at the very least, confused by them. In addition, because volume becomes so thin as the triangle formation progresses to the apex, it takes very little activity to bring about an erratic and false movement in price, taking the price outside of the trendlines.

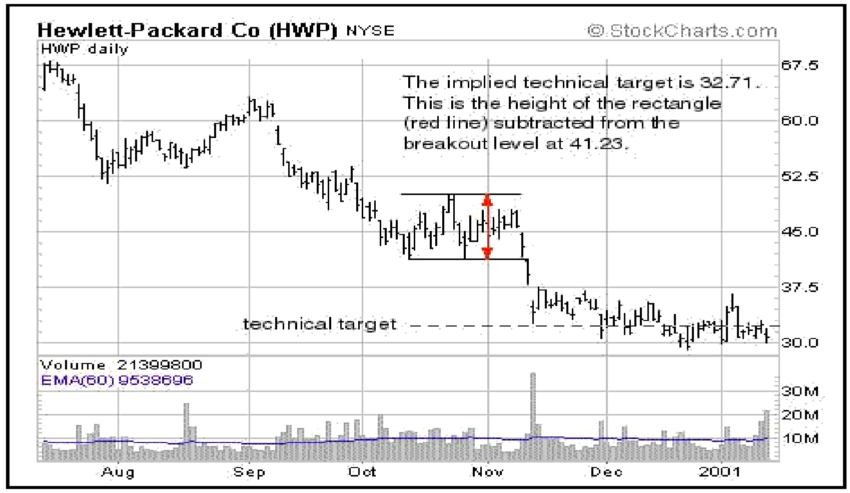
Symmetrical triangle is a rally to a relative new high, a pullback to an intermediate term support level, a second rally that does not exceed the recent high, a second decline that falls short of the intermediate term support level followed by a breakout on strong volume above the trend lines created by joining the new high and the secondary high.
Technical targets for symmetrical triangles are derived by adding the largest vertical height of the triangle to the ultimate breakout level.

- Symmetrical triangles are about growing consensus among traders so a breakout from the triangle means that one group of investors, (bulls or bears) have been forced to abandon everything they believed about price. This sudden imbalance between supply and demand always leads to a violent move in price.
- Generally, most issues will record a breakout (either higher or lower) about 2/3 through the pattern. If a stock moved all the way to the apex of the triangle the initial breakout is almost always false and should be avoided.
- Because supply and demand are in equilibrium within the triangle, volume should slow dramatically. Once a breakout has occurred, volume MUST increase significantly.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

Most consolidation patterns are about indecision -- traders are uncertain about the near term direction of the stock so they do nothing. Symmetrical triangles are different because when a stock falls into one of these patterns, traders actually behave as though they have reached a consensus regarding price - there is a uniform narrowing of price over time.
Symmetrical triangles usually develop after a stock has had a spectacular move. After reaching a relative new high price momentum may begin to fade modestly and the stock works lower. Because the fundamental news is so strong, Wall Street analysts will often dismiss this weakness as mere profit taking following a lengthy advance. The stock slips back to an intermediate term support level and price stabilizes.
At this point it is common for the stock to begin moving higher on a positive fundamental development. Perhaps the firm has raised guidance, announced a stock split or unveiled a new product but price slowly begins to move higher. There is one problem, volume is noticeably lighter than previous rallies. The price rally continues but falls short of the recent new high.
This secondary high will be an important point later in the formation of the pattern. After several days of strength, momentum once again fades and price begins to falter. Slowly the stock moves lower on no specific news and extremely light volume. Sensing that sellers may not have an appetite to continue selling buyers reappear and the stock stops short of the intermediate term support level. This secondary low completes the bottom parameter of a uniform or symmetrical triangle.
Over time the stock begins to trade in an increasingly narrow range characterized by a series of lower highs and higher lows. As time passes traders grow to believe that the current stock price accurately reflects the true value of the stock. Volatility and volume slow dramatically as the stock approaches the apex of the triangle. Then, abruptly there is a fundamental development that leads to a dramatic upside breakout.
Volume swells and Wall Street analysts begin making new "buy" recommendations and raising their price targets. As prices moves beyond the upper parameter created by joining the recent new high and secondary high some investors that had felt the stock was fairly priced at lower levels begin selling but their shares are quickly absorbed by buyers. In fact, the demand for the stock becomes so intense that price very quickly surges beyond the recent new high. Weeks later the stock moves significantly higher.

Rectangle Continuation





Rectangle is a rally to a relative new high, pullback to an intermediate support level, a second rally to test the new high, a second pullback to intermediate support, a third rally to test the new high level followed by an upside breakout on strong volume.
The technical target for a rectangle is derived by adding the point difference between top#1 and the reaction low to the new breakout level.

- Rectangles are continuation patterns and that means they typically represent little more than a brief period of consolidation in a strong trend. Although we have written about a rectangle in an uptrend, these patterns are just as likely to occur in downtrends.
- Rectangles are usually 4 - 6 weeks in duration and always feature very well-defined support and resistance levels characterized by horizontal lines.
- During the rectangle phase, supply and demand is said to be near equilibrium as buyers catch their breath and attempt to digest the most recent trending period.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

Rectangle may seem to be little more than another variation of the Double Top pattern but while the two technical formations do share some important characteristics, the Double Top is a reversal pattern while the rectangle is continuation pattern. Rectangles almost always take shape after a stock has been trending strongly and typical last 4 - 6 weeks in duration. Although the fundamental news that gave birth to the strong trend is still valid, investors need an opportunity to digest the recent move. The stock falls into a "holding pattern" delineated by near horizontal support and resistance zones.
During this phase both support and demand are roughly in equilibrium. Buyers may still like the stock but they are not willing to "chase" the price significantly higher. Thus they choose to take profits into strength to a certain level and become aggressive buyers on a pullback to a certain level. The pattern begins when a well-liked stock moves to a new high on strong volume. As the "story" of the stock becomes more widely accepted investors are willing to pay increasingly exorbitant prices but one day investors find the price is simply too high, the stock puts-in a top and prices begin to fall (**#1**).
This first top will normally be sufficient to force many of the more speculative investors from the stock. As they sell the price of the stock falls further but many investors will not sell regardless of how far the price falls because they refuse to take a loss. After several sessions (sometimes weeks) of poor price performance the stock will begin to stabilize (reaction low) then gradually move higher. In most cases this second advance will occur because of some fundamental factor like a positive fundamental development. As the stock rises volume slows and investors who bought at the first top get ready to exit positions into further strength.
This selling pressure creates a surge in volume and the stock soon retreats (**top #2**). As the second top is created, sentiment turns more bearish. Although the flow of news is still positive, pundits begin to talk about rich valuations and buyers step back. At this time speculators begin to add short positions, sensing that a larger decline is about to unfold. The stock works gradually lower and volume begins to accelerate. In short order the stock is once again testing the reaction low and sentiment is bearish but somehow, the stock manages to hold that key support level and work modestly higher on stronger volume.
A subtle rally begins but speculators continue to add short positions because sentiment remains poor. Days later a positive fundamental development occurs and the stock begins to move toward tops **#1** and **#2** on heavy volume. The

next session Wall Street analysts make positive comments and the stock surges through what had been key resistance at the old highs. Speculators begin to panic and their short covering during a period when supply of stock is limited leads to further gains. A new trending phase begins and the stock moves to substantial new highs in the weeks ahead.

A rectangle is a continuation pattern that forms as a trading range during a pause in the trend. The pattern is easily identifiable by two comparable highs and two comparable lows. The highs and lows can be connected to form two parallel lines that make up the top and bottom of a rectangle. Rectangles are sometimes referred to as trading ranges, consolidation zones or congestion areas.

There are many similarities between the rectangle and the symmetrical triangle. While both are usually continuation patterns, they can also mark trend significant tops and bottoms. As with the symmetrical triangle, the rectangle pattern is not complete until a breakout has occurred. Sometimes clues can be found, but the direction of the breakout is usually not determinable beforehand.

1. Trend: To qualify as a continuation pattern, a prior trend should exist. Ideally, the trend should be a few months old and not too mature. The more mature the trend, the less chance that the pattern marks a continuation.

2. 4 points: At least two equivalent reaction highs are required to form the upper resistance line and two equivalent reaction lows to form the lower support line. They do not have to be exactly equal, but should be within a reasonable proximity. Although not a prerequisite, it is preferable that the highs and lows alternate.

3. Volume: As opposed to the symmetrical triangle, rectangles do not exhibit standard volume patterns. Sometimes volume will decline as the pattern develops. Other times volume will gyrate as the prices bounce between support and resistance. Rarely will volume increase as the pattern matures. If volume declines, it is best to look for an expansion on the breakout for confirmation. If volume gyrates, it is best to assess which movements (advances to resistance or declines to support) are receiving the most volume. This type of volume assessment could offer an indication on the direction of the future breakout.

4. Duration: Rectangles can extend for a few weeks or many months. If the pattern is less than 3 weeks, it is usually considered a flag, also a continuation pattern. Ideally, rectangles will develop over a 3-month period. Generally, the longer the pattern, the more significant the breakout. A 3-month pattern might be expected to fulfill its breakout projection. However, a 6-month pattern might be expected to exceed its breakout target.

5. Breakout Direction: The direction of the next significant move can only be determined after the breakout has occurred. As with the symmetrical triangle, rectangles are neutral patterns that are dependent on the direction of the future breakout. Volume patterns can sometimes offer clues, but there is no confirmation until an actual break above resistance or break below support.

6. Breakout Confirmation: For a breakout to be considered valid, it should be on a closing basis. Some traders apply a filter to price (3%), time (3 days) or volume (expansion) for confirmation.

7. Return to Breakout: A basic tenet of technical analysis is that broken support turns into potential resistance and visa versa. After a break above resistance (below support), there is sometimes a return to test this newfound support level (resistance level). (For more detail, see this article on support and resistance.) A return to or near the original breakout level can offer a second chance to participate.

8. Target: The estimated move is found by measuring the height of the rectangle and applying it to the breakout. Rectangles represent a trading range that pits the bulls against the bears. As the price nears support, buyers step in and push the price higher. As the price nears resistance, bears take over and force the price lower. Nimble traders sometimes play these bounces by buying near support and selling near resistance. One group (bulls or bears) will exhaust itself and a winner will emerge when there is a breakout. Again, it is important to remember that rectangles have a neutral bias. Even though clues can sometimes be gleaned from volume patterns, the actual price action depicts a market in conflict. Only until the price breaks above resistance or below support will it be clear which group has won the battle.

Rising Wedge (Continuation Pattern)

Rising Wedge in a downtrend is a decline to a new low on strong volume, several weeks of narrowing, range-bound trade characterized by higher highs and higher lows with contracting volume, followed by a sharp break lower on strong volume.

Technical targets for rising wedges are derived by subtracting the height of the pattern from the eventual breakout level. The breakout level is the lower trend line of the triangle.

- Rising wedges can be either reversal or continuation patterns. When they occur in a downtrend they are always continuation patterns.
- Although the news that is pushing the stock higher may be bullish, weak volume is an indication that professionals are not buying, indeed, these investors are using strength to unwind existing long positions and/or establish new short positions.
- Rising wedge formations in downtrends are distributive in nature. The fact that price is rising but volume is declining is a good indication that the move higher is illegitimate.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Rising wedge formations in downtrends are very similar to other triangle patterns in that they are characterized by narrowing price ranges and slowing volume. Unlike symmetrical and right angle triangles, rising wedge formations in downtrends almost always result in large price declines. Many bearish technical patterns are about deception and this is particularly true for the rising wedge. Because this pattern features gradually higher stock prices many investors will jump to the incorrect conclusion that the stock is acting well from a technical perspective. This is false. Although prices continue to rise, every rally is more feeble than the last and it soon becomes clear that interest in owning the stock at higher prices is waning.

The first point in every rising wedge in a downtrend formation begins with a relative new low. This low is generally in response to a series of negative fundamental developments. The stock may have had an earnings warning, product delay or litigation setback but the story behind the price weakness is always legitimate and leads to a real change in the way the stock is perceived. What makes the pattern interesting is that like many reversal patterns, the decline to relative new lows actually leads to what appears to be aggressive buying by large investors. This turn of events creates a short term bottom **(a)**.

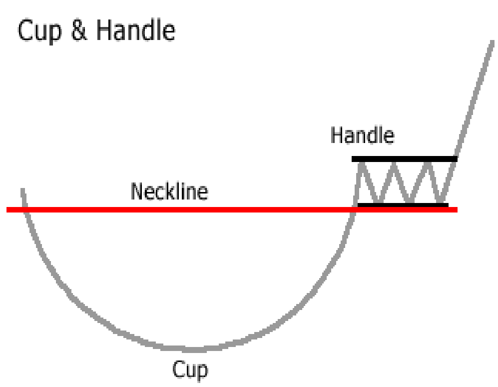
Encouraged by the show of strength at point **(a)**, selling pressures begin to wane and over the next several days the stock begins to move higher. Volume is light but it soon becomes clear the panic that lead to the recent relative new low has been replaced by more rational thinking. Wall Street brokers begin to make more positive comments and volume increases modestly. This increase in volume should lead to further gains but instead sellers step-up and what looks like a reaction high occurs, point **(b)**.

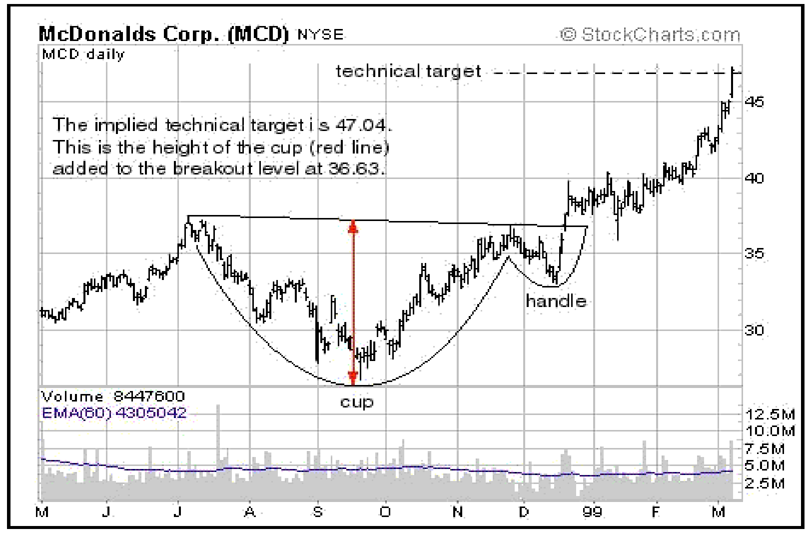
On continued light volume the stock drifts lower but to the great delight of those looking for a near term bottom, the move lower does not eclipse the lows set at point **(a)** and a new rally begins. This point, **(c)**, plays an important role in investor sentiment because it appears as though the stock is making a series of higher lows.

Speculators begin adding new long positions in anticipation of a much bigger rally -- and for a short time they are rewarded. Amid more optimistic comments from Wall Street analysts the stock rises beyond the level of point **(b)** but not high enough to create a parallelogram with the lows. This is a defining point in time because it sets the wedge formation characterized by a narrowing price range. After several additional sessions the stock stops rising and a new short term top becomes evident, point **(d)**.

At this point a new, negative fundamental development occurs and the stock begins to decline. Speculators rush to close long positions to avoid losses but buyers are few. The imbalance between motivated sellers and willing buyers leads to a watershed decline. This situation is made worse by a series of negative comments from Wall Street analyst in the days ahead. Weeks later the stock declines to a new low.

Cup and Handle (Continuation Pattern)





Cup With Handle is a rally to a new high, a decline of 20 -50 percent over 8 - 12 weeks, a rally falling just short of the new high level, a second decline of 8 - 20 percent over 1 - 4 weeks followed by a breakout to fresh new highs on strong volume.

The technical target for a cup with handle pattern is derived by adding the height of the "cup" portion of the pattern to the eventual breakout from the "handle" portion of the pattern.

- Cup with handle patterns are very similar to double top patterns with the exception being that selling does accelerate after the formation of the second top, instead the stock consolidates and eventually pushes beyond overhead resistance on strong volume.
- Generally, most cup with handle patterns are completed over the course of 9 -16 weeks and involve two separate pullbacks of 20 - 50 percent (cup portion) and 8 -20 percent (handle portion).
- Upside breakout from the handle portion of the pattern should occur on strong volume. This increase in volume verifies that selling pressures have been satiated.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

Like most technical patterns, the Cup With Handle pattern is really little more than a variation of another technical pattern. In this case that pattern is the Double Top. The pattern begins after a well-liked stock rallies to a new high following a positive fundamental development. As the stock surges investors feel increasingly comfortable paying higher prices but there comes a point when the "story" of the stock fails to convert new believers. Slowly, the stock begins to drift lower as those seeking to lock-in profits outnumber those intrigued by the story. Although most of the fundamental news is still positive, many investors begin to question if the stock really is worth the prevailing market price and over time a substantial decline begins. This process creates an important technical peak **top #1**.

As the stock nears a twenty percent decline from the recent highs (this decline could reach fifty percent in bear markets) buyers begin to reassert themselves and the stock stabilizes and a reaction low occurs. From this point forward, the bias begins to tilt gradually higher. During this phase the stock may be the subject of positive Wall Street analyst comments, a new product announcement or legal victory. As the rally gains steam sentiment improves dramatically and new buyers begin to talk about certain new highs but those that purchased the stock at or near **top #1** get ready to sell. These investors may have been waiting as long at 12 weeks for an opportunity to sell their positions without incurring a loss and they are not dissuaded by all of the new found bullish talk.

Just short of the old highs at **top #1** aggressive selling begins on no specific news but in reality some investors that bought near **top #1** have already begun to sell. The stock begins to work significantly lower on increased volume creating a second, well defined top **- top #2**. This large U-shaped pattern may look like a typical double top but for the purposes of this pattern, it is called the cup.

Noting key resistance at top **#1** and top **#2**, speculators begin to initiate short positions. From a technical perspective, this is a very important part of the pattern. If the stock gains downside momentum and volume continues to increase, this could very easily become a double top but as the price works lower, volume slows, sellers seem to be losing the upper hand. At this point more positive fundamental news is released and the stock price rallies. With selling pressures satiated and the flow of fundamental news decidedly bullish volume increases dramatically and the stock works toward a fresh new high.

This very small U-shaped pullback is called the handle.

Speculators become frantic, they must cover short positions to cut losses but the supply of stock for sale has been significantly curtailed because investors that bought at top#1 have liquidated positions. The next session Wall Street analysts make positive comments and the stock surges to a new high on dramatically increased volume. Weeks later the stock trades at substantial new highs.

The Cup with Handle is a bullish continuation pattern that marks a consolidation period followed by a breakout.
As its name implies, there are two parts to the pattern: the cup and the handle. The cup forms after an advance and looks like a bowl or rounding bottom. As the cup is completed, a trading range develops on the right hand side and the handle is formed. A subsequent breakout from the handle's trading range signals a continuation of the prior advance.

1. Trend: To qualify as a continuation pattern, a prior trend should exist. Ideally, the trend should be a few months old and not too mature. The more mature the trend, the less chance that the pattern marks a continuation or the less upside potential.

2. Cup: The cup should be "U" shaped and resemble a bowl or rounding bottom. A "V" shaped bottom would be considered too sharp of a reversal to qualify. The softer "U" shape ensures that the cup is a consolidation pattern with valid support at the bottom of the "U". The perfect pattern would have equal highs on both sides of the cup, but this is not always the case.

3. Cup Depth: Ideally, the depth of the cup should retrace 1/3 or less of the previous advance. However, with volatile markets and over-reactions, the retracement could range from 1/3 to 1/2. In extreme situations, the maximum retracement could be 2/3.

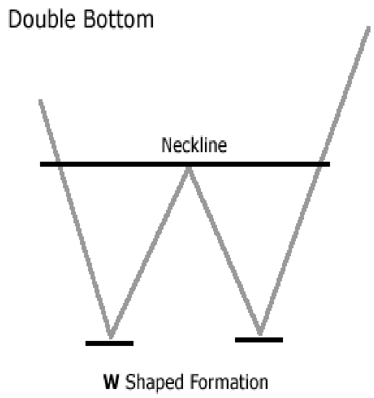
4. Handle: After the high forms on the right side of the cup, there is a pullback that forms the handle. Sometimes this handle resembles a flag or pennant that slopes downward, other times just a short pullback. The handle represents the final consolidation/pullback before the big breakout and can retrace up to 1/3 of the cup's advance, but usually not more. The smaller the retracement is, the more bullish the formation and significant the breakout. Sometimes it is prudent to wait for a break above the resistance line established by the highs of the cup.

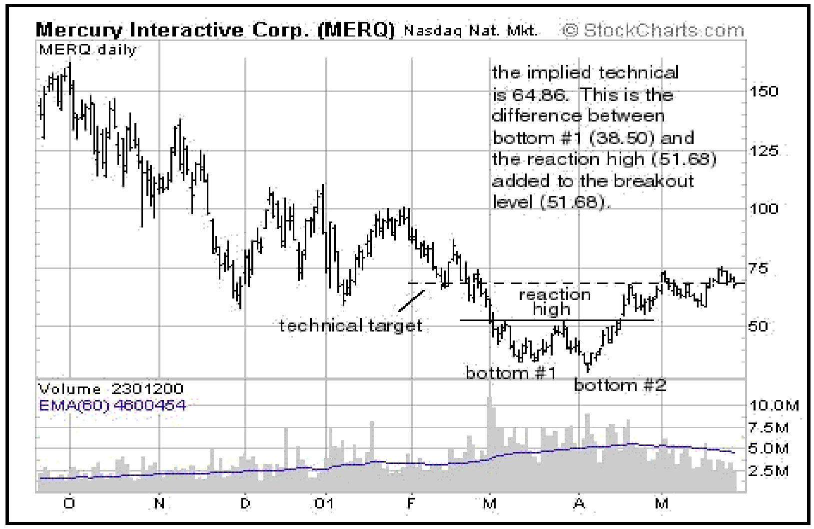
5. Duration: The cup can extend from 1 to 6 months, sometimes longer on weekly charts. The handle can be from 1 week to many weeks and ideally completes within 1-4 weeks.

6. Volume: There should be a substantial increase in volume on the breakout above the handle's resistance.

7. Target: The projected advance after breakout can be estimated by measuring the distance from the right peak of the cup to the bottom of the cup.
As with most chart patterns, it is more important to capture the essence of the pattern than the particulars. The cup is a bowl-shaped consolidation and the handle is a short pullback followed by a breakout with expanding volume. A cup retracement of 62% may not fit the pattern requirements, but a particular stock's pattern may still capture the essence of the Cup with Handle.

Double Bottom (Reversal Pattern)





Double Bottom formation is in many ways the mirror image of the Double Top. After an extended decline to new lows a stock puts-in a bottom on massive volume and a moderate rally ensues. After several sessions (sometimes weeks) the stock drifts back to test the first bottom but this time buying accelerates and another rally occurs.

Technical target is derived by adding the difference between bottom #1 and the reaction high to the new breakout level. After the second bottom has been created, the new breakout level is the reaction high. No double bottom formation is complete until the stock rallies through this level.

- For double bottoms volume must increase as the stock moves toward the first and second bottoms. In many cases, volume will actually be higher at the first bottom because this is where value-oriented investors first take positions.
- No double bottom pattern is truly valid until the stock moves through the reaction high.
- Upside breakouts through the reaction high often lead to small 2-3% advances followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.
- Technical targets are implied but they are by no means assured. Targets are guideposts only.

Double Tops are all about distribution, **Double Bottom** is about accumulation. After an extended decline characterized by aggressive short-selling and valuation concerns, value-oriented investors with longer-term time horizons begin to take positions in the stock. They understand that the only way to build a large position in a stock that they like is to do so when selling predominates. It is their willingness to buy the stock when all of the news is bad that creates a clear support level, the first bottom (**bottom #1**).

This first part of the pattern will normally be sufficient to force many professional short sellers (bears) to cover positions. This coupled with buying from longer-term value investors may be enough to rejuvenate investors that recently purchased the stock at higher levels -- they may even rationalize that the "market" is finally beginning to realize that the current weakness is without merit a few bullish speculators may be enticed to take new long positions. Unfortunately, after several sessions of positive price action buying pressures are exhausted and the stock once again begins to falter. The reaction to the decline that formed **bottom #1** is complete. Technical traders call this the **reaction high**.

Sensing easy profits, short sellers return and bullish speculators decide to take profits, modest selling becomes a route. As the stock approaches **bottom #1** volume remains light and in many cases the stock will actually fall through the previous low on very light volume.

It is at this point in time that pessimism is greatest, there seems to be no legitimate reason to continue holding the stock. Novice short sellers add new short positions and beleaguered bulls who purchased the stock at much higher levels begin to surrender in anticipation of a new leg lower. However the expected big decline never materializes, selling pressures have been exhausted and this is when professional short sellers realize the "jig is up".

It is the new buying by bearish investors to cover short positions to capture profits and the continued accumulation by longer-term investors that helps the stock stabilize. As a second bottom (**bottom #2**) begins to take shape the pace of short covering accelerates and a new group of bullish speculators take long positions, the rally explodes. On the chart two equal bottoms are created, the double bottom is in place. In many cases double bottoms lead to important rallies because a vital support level has been established.

Double bottom occurs when prices form two distinct lows on a chart. A double bottom is only complete, however, when prices rise above the high end of the point that formed the second low.
The double bottom is a reversal pattern of a downward trend in a stock's price. The double bottom marks a downtrend in the process of becoming an uptrend.
Double bottoms are often seen and are considered to be among the most common of the patterns. Because they seem to be so easy to identify, the double bottom should be approached with caution by the investor.
The double bottom is a "much misunderstood formation." Many investors assume that, because the double bottom is such a common pattern, it is consistently reliable. This is not the case. Bulkowski estimates the double bottom has a failure rate of 64%, which he terms surprisingly high. If an investor waits for a valid breakout, however, the failure rate declines to 3%.
The double bottom is a pattern, therefore, that requires close study for correct identification.

What are the details that I should pay attention to in the double bottom?

1. Downtrend Preceding Double Bottom
As mentioned previously, the double bottom is a reversal formation. It begins with prices in a downtrend. Bulkowski cautions that on their way down, prices should not drift below the left low of the pattern.

2. Time between Bottoms
Analysts pay close attention to the "size" of the pattern - the duration of the interval between the two lows. Generally, the longer the time between the two lows, the more important the pattern as a good reversal. Analysts suggest that investors should look for patterns where at least one month elapses between the bottoms. It is not unusual for a few months to pass between the dates of the two bottoms.

3. Increase from First Low
Some analysts argue the increase in price that occurs between the two bottoms should be consequential, amounting to approximately 20% of the price. Other analysts are not so definite or demanding concerning the price increase. For some, an increase of at least 10% is adequate.

4. Volume
As mentioned previously, volume tends to be heaviest during the first low, lighter on the second. It is common to see volume pick up again at the time of breakout.

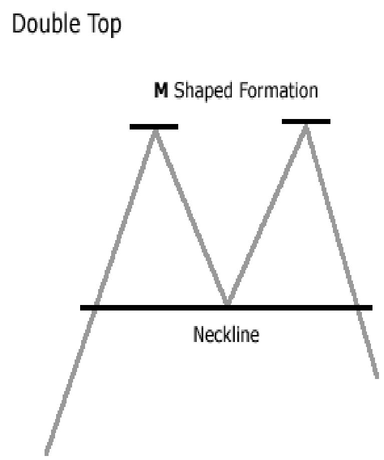
5. Decisive Breakout
It is a challenge for the analyst to determine whether the rise from the bottom is the indication of the development of a valid double bottom or simply a temporary setback in the progression of a continuing downtrend. Analysts, therefore, advise cautious investors to wait for the price to rise back up and break through the confirmation point before relying on the validity of the pattern. Many experts will maintain that an investor should wait for a decisive breakout, confirmed by high volume.

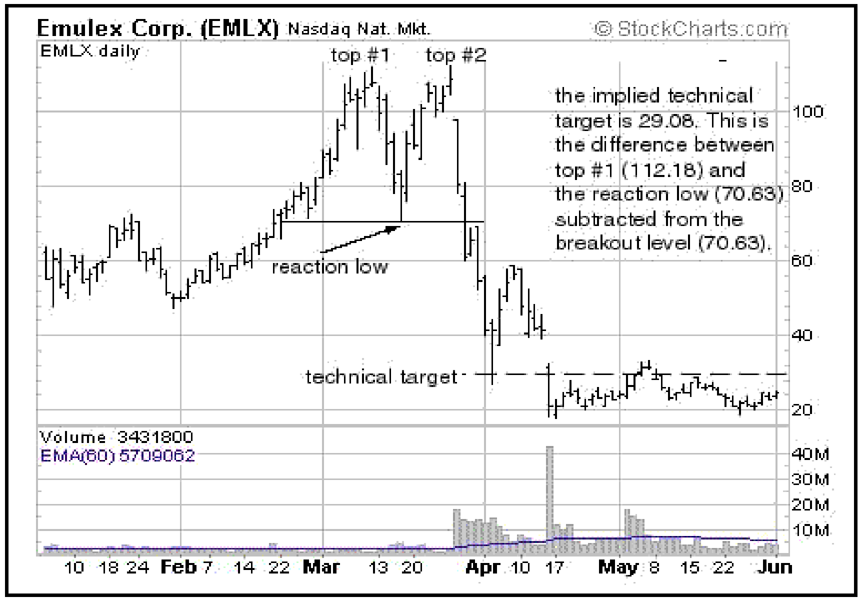
6. Pullback after Breakout
A pullback after the breakout is usual for a double bottom. Bulkowski estimates that in 68% of double bottom patterns, price will throwback to the breakout price.

Are there variations in the pattern that I should know about?

1. Two Lows at Different Levels
Sometimes the two lows comprising a double bottom are not at exactly the same price level. This does not necessarily render the pattern invalid. Analysts advise that if the second low varies in price from the first low by more than 3% or 4%, the pattern may not be a double bottom.

Double Top (Reversal Pattern)





Double Top formation is a distinct chart pattern characterized by a rally to a new high followed by a moderate pullback and a second rally to test the new high. As the stock rallies to make the second peak (top) sellers overwhelm buyers and the stock price collapses. Several weeks later the stock moves to test prior support levels.

The technical target for double tops is derived by subtracting the point difference between the top#1 and the reaction low from the breakout level. After the second top has been created, the breakout level is the reaction low. No double top formation is complete until the stock falls through this level.

- For a valid double top formation it is important that volume decline significantly as the stock moves toward a test of the first top and accelerate as price begins to decline.
- No double top is truly complete until a breakout below the reaction low occurs.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Getting caught in a stock at the high is never much fun but it happens. The double top pattern occurs because most investors that buy a stock "wrong" will refuse to exit until they can do so without suffering a loss. Double tops occur after extended rallies leading to new highs.

As the "story" of the stock becomes more widely accepted investors are willing to pay increasingly exorbitant prices but one day investors find the price is simply too high, the stock puts-in a top and prices begin to fall (**top #1**). This first top will normally be sufficient to force many of the more speculative investors from the stock. As they sell the price of the stock falls further but many investors will not sell regardless of how far the price falls because they refuse to take a loss.

After several sessions (sometimes weeks) of poor price performance the stock will begin to stabilize (reaction low) then gradually move higher. In most cases this advance will occur because of some fundamental factor like an upcoming analysts meeting, earnings report or stock split. As the stock rises volume slows and investors who bought at the first top get ready to exit positions into further strength.

As the stock approaches the prior high volume surges and new buyers begin to talk about bright fundamental prospects. It is at that moment that all of the investors who purchased positions at the prior high begin selling. Volume surges and the stock soon retreats (**top #2**). On the chart two equal peaks are created, the double top is in place. In many cases double top formations lead to important declines because two separate sets of investors have been disappointed at a particular level.

A double top occurs when prices form two distinct peaks on a chart. A double top is only complete, however, when prices decline below the lowest low - the "valley floor" - of the pattern.
The double top is a reversal pattern of an upward trend in a stock's price. The double top marks an uptrend in the process of becoming a downtrend.
Sometimes called an "M" formation because of the pattern it creates on the chart, the double top is one of the most frequently seen and common of the patterns. Because they seem to be so easy to identify, the double top should be approached with caution by the investor.
Bulkowski estimates the double top has a failure rate of 65%.3 If an investor waits for the breakout, however, the failure rate declines to 17%.

What are the details that I should pay attention to in the double top?

1. Uptrend Preceding Double Top
As mentioned previously, the double top is a reversal formation. It begins with prices in an uptrend. Analysts focus on specific characteristics of that uptrend when searching for a valid double top. The trend upwards should be fairly long and healthy. If the uptrend is short, the double top may not hold and the uptrend will continue.

2. Time between Tops
Analysts pay close attention to the "size" of the pattern - the duration of the interval between the two tops. Generally, the longer the time between the two tops, the more important the pattern as a good reversal. Analysts suggest that investors should look for patterns where at least one month elapses between the peaks. It is not unusual for a few months to pass between the dates of the two tops.

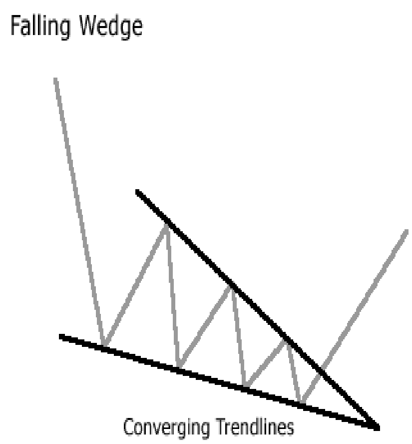
3. Decline from First Top
This element is even more significant to the validity of a double top than volume. He argues the decline in price that occurs between the two peaks should be consequential, amounting to approximately 20% of the price. The deeper the trough between the two tops, the better the performance of the pattern.

4. Volume
Volume tends to be heaviest during the first peak, lighter on the second. It is common to see volume pick up again at the time of breakout.

5. Decisive Breakout
The technical odds usually favor the continuation of the present trend. This means that it is perfectly normal market action for prices on an uptrend to peak at a resistance level a couple of times, retreat, and then resume that uptrend. It is a challenge for the analyst to determine whether the decline from a peak is the indication of the development of a valid double top or simply a temporary setback in the progression of a continuing uptrend.
Many experts maintain that an investor should wait for a decisive breakout, confirmed by high volume.

6. Pullback after Breakout
A pullback after the breakout is usual for a double top. Bulkowski argues that the higher the volume on the breakout, the higher the likelihood of a pullback. "When everyone sells their shares soon after a breakout, what is left is an unbalance of buying demand (since the sellers have all sold), so the price rises and pulls back to the confirmation point."

Falling Wedge (Bullish Reversal Pattern)



Falling wedge in a downtrend is a decline to a new low on strong volume, several weeks of range-bound trade characterized by lower lows and lower highs with contracting volume, followed by a sharp break higher on strong volume. It is important to note, unlike all other chart patterns, valid falling wedge patterns can be either continuation or reversal patterns.

Falling wedges in downtrends are usually part of larger reversal trends so the implications for the pattern are modest. Technical targets are derived by adding the height of pattern to the eventual breakout level. The breakout level will be determined by a trend line drawn from the area of initial consolidation through the reaction high.

- Falling wedges can be either reversal or continuation patterns. When they occur in downtrends they are always reversal patterns.
- Because falling wedges are generally just the starting points for larger reversal patterns, the implied technical targets are modest.
- Volume is key in falling wedge patterns in a downtrend. Volume should increase on the initial watershed decline but dwindle through the remainder of the pattern. As the breakout occurs volume should surge.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes above this level (now support) for any reason the pattern becomes invalid.

Like most distribution patterns, the Falling Wedge is mostly about deception. There is every reason to believe that the stock is merely consolidating before making a new leg lower but a massive rally ensues. Falling wedge patterns always begin when a darling stock has fallen from favor. The initial weakness may be due to an earnings warning, a product delay, lawsuit or any number of negative developments but the impact of this news is always sufficient to lead most stock holders to panic. The result is what technical traders call a watershed decline -- a near vertical drop in huge volume.

For many sessions after this drop the stock will usually meander in a narrow trading range as investors attempt to catch their breath Some investors that have been "spooked" by the big decline feel compelled to exit but their own tendencies will not allow them to sell a position for a loss -- so they simply stand aside and hope to sell the stock into strength. Others become so demoralized that they are willing to sell at any price, they just want to get out. Still others look at the recent decline and deluge of poor fundamental news as evidence that the stock is headed much lower and begin adding new short positions.

It is this latter group of investors that become most vulnerable in the falling wedge in a downtrend. It is important to note that the initial "spike" in volume in the formation of a falling wedge is always about longer-term investors building new positions into the weakness. Days later the stock moves to a new low but volume begins to wane and it becomes very clear that the stock is trying to find a happy balance between buyers and sellers, prices stabilize. Slowly, the stock begins to work higher but volume remains exceptionally light.

During this rally the fundamental news is generally quite sparse. As the stock reaches a plateau (reaction high) more negative fundamental news hits the wires and the stock begins to move lower yet again, pushing to a second new low. However this decline is accompanied by very light volume. Those that purchased the stock at higher prices and have not yet sold refuse to liquidate their positions despite the bad news. Days later the lack of new selling leads to price stabilization. Several days later volume begins to pick-up and price rallies. Analysts weigh-in with negative comments but the stock continues to move higher on increased volume. As the stock pushes through the reaction high short sellers panic and a large move higher ensues. Several weeks later the stock trades back to intermediate term resistance.

The falling wedge is a bullish pattern that begins wide at the top and contracts as prices move lower. This price action forms a cone that slopes down as the reaction highs and reaction lows converge. Falling wedges slope down and have a bullish bias. However, this bullish bias cannot be realized until a resistance breakout. The falling wedge can also fit into the continuation category. As a continuation pattern, the falling wedge will still slope down, but the slope will be against the prevailing uptrend. As a reversal pattern, the falling wedge slopes down and with the prevailing trend. Regardless of the type (reversal or continuation), falling wedges are regarded as bullish patterns.

1. Prior Trend: To qualify as a reversal pattern, there must be a prior trend to reverse. Ideally, the falling wedge will form after an extended downtrend and mark the final low. The pattern usually forms over a 3-6 month period and the preceding downtrend should be at least 3 months old.

2. Upper resistance line: It takes at least two reaction highs to form the upper resistance line, ideally three. Each reaction high should be lower than the previous highs.

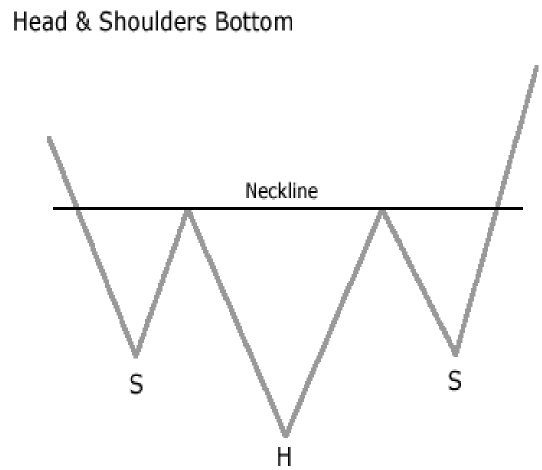
3. Lower support line: At least two reaction lows are required to form the lower support line. Each reaction low should be lower than the previous lows.

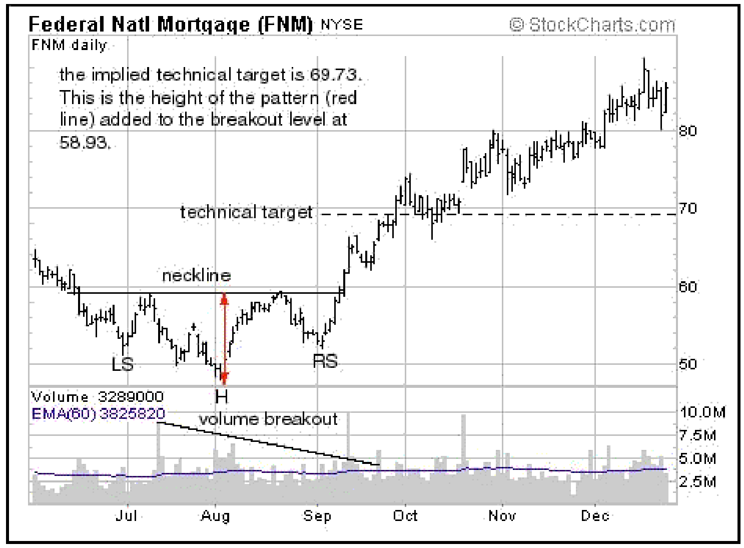
4. Contraction: The upper resistance line and lower support line converge to form a cone as the pattern matures. The reaction lows still penetrate the previous lows, but this penetration becomes shallower. Shallower lows indicate a decrease in selling pressure and create a lower support line with less negative slope than the upper resistance line.

5. Resistance Break: Bullish confirmation of the pattern does not come until the resistance line is broken in convincing fashion. It is sometimes prudent to wait for a break above the previous reaction high for further confirmation. Once resistance is broken, there can sometimes be a correction to test the newfound support level.

6. Volume: While volume is not particularly important on rising wedges, it is an essential ingredient to confirm a falling wedge breakout. Without an expansion of volume, the breakout will lack conviction and be vulnerable to failure. As with the rising wedge, the falling wedge can be one of the most difficult chart patterns to accurately recognize and trade. When lower highs and lower lows form, as in a falling wedge, a security remains in a downtrend. The falling wedge is designed to spot a decrease in downside momentum and alert technicians to a potential trend reversal. Even though selling pressure may be diminishing, demand does not win out until resistance is broken. As with most patterns, it is important to wait for a breakout and combine other aspects of technical analysis to confirm signals.

Head & Shoulders Bottom (Reversal Pattern)





Head and Shoulders bottom pattern is a decline to a new low and rally to intermediate resistance, a second decline to a lower low and rally to resistance followed by a modest third decline and rally through resistance.

The technical target for a head and shoulders bottom pattern is derived by adding the difference between the neckline and the lowest level achieved in the formation of the "head" to the new breakout level.

- Symmetry is Important. The most reliable head and shoulders top patterns are symmetrical, that is the left and right shoulders take shape over roughly the same number of days. Patterns with extended right shoulders should be avoided.
- It is important that volume decline on each successive phase of the head and shoulders bottom pattern and surge on the break above the neckline. The weak volume and declining price is a good indication that accumulation is at work.
- No pattern is truly complete until there is a breakout close above the neckline of the pattern.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.

Head and Shoulders patterns are among the most important of reversal patterns because they are both common and reliable. The head and shoulders bottom pattern consists of three declines and a breakout. This reversal pattern, sometimes called the inverted Head and Shoulders pattern, gets its name because it is the inverse of the head and shoulders top pattern. The "left shoulder" of a head and shoulders bottom pattern will always take shape after an extended decline to new lows. Against the backdrop of increasing unfavorable fundamental developments the stock sinks to one low after another, investors become decidedly bearish.

The first phase of the head and shoulders bottom pattern is usually the product of a particularly negative fundamental development. Although the stock is already well off its recent highs, this new negative development seems to be beyond the scope of most investors. The stock immediately sinks to a new low on very strong volume. Despite the bad news, the decline is short-lived because serious longer-term investors begin to establish positions. Just days later the imbalance between buyers and sellers leads to a brisk rally to an intermediate term resistance level. Technicians call this rally the **reaction high** because it is a reaction to the initial decline to new lows. This price action also completes the left shoulder of the pattern.

Because all of the fundamental news remains bearish, investors and analysts rationalize that the stock had simply fallen too far and days later the decline resumes. The stock falls to a new low but volume is substantially diminished, selling pressures are drying-up. The weak volume on the decline and the new lower prices encourages buyers, very soon a new rally develops and the stock once again moves toward the reaction high (overhead resistance level). This price action completes the head of the pattern. Once again sellers return amid poor fundamental news. This may be a negative corporate development or an analyst downgrade but the stock starts to drift lower for a third time.

As price falters, volume diminishes substantially again and buyers reassert themselves, forcing a rally back to the overhead resistance level. This price action completes the third a final phase of the pattern, the right shoulder. The negative comments from Wall Street analysts continue but this time buyers overwhelm sellers and the stock surges through resistance. Weeks later the stock rallies to longer-term resistance.

The head and shoulders bottom marks a reversal in a downward trend in a stock's price. While volume is important to a head and shoulders top, it is absolutely crucial to a head and shoulders bottom. An investor will be looking for increasing volumes at the point of breakout. This increased volume definitively marks the end of the pattern and the reversal of a downward trend in the price of a stock.

What does a classic head and shoulders bottom look like?

The first point,- the left shoulder, -occurs as the price of the stock in a falling market hits a new low and then rises in a minor recovery. The second point, -the head, happens when prices fall from the high of the left shoulder to an even lower level and then rise again. The third point, -the right shoulder, -occurs when prices fall again but don't hit the low of the head. Prices then rise again once they have hit the low of the right shoulder. The lows of the shoulders are definitely higher than that of the head and, in a classic formation, are often roughly equal to one another.
The neckline is a key element of this pattern. The neckline is formed by drawing a line connecting two high price points of the formation. The first high point occurs at the end of the left shoulder and beginning of the downtrend to the head. The second marks the end of the head and the beginning of the downturn to the right shoulder. The neckline usually points down in a head and shoulders bottom, but on rare occasions can slope up.
The pattern is complete when the resistance marked by the neckline is "broken." This occurs when the price of the stock, rising from the low point of the right shoulder moves up through the neckline. Many technical analysts only consider the neckline "broken" if the stock closes above the neckline.

What are the details that I should pay attention to in the head and shoulders bottom?

There are certain characteristics that experts like to see in the pattern.
1. Symmetry - In a classic head and shoulders bottom, the left and right shoulders hit their relative low points at approximately the same price and level. In addition, the shoulders are usually about the same distance from the head.

2. Volume - As mentioned earlier, it is critical to watch the volume sequence as this pattern develops.
· Volume will usually be highest on the left shoulder and lowest on the right.
· Investors, looking to ensure that volume increases in the direction of the trend, should ensure that a "burst" in volume occurs at the time the neckline is broken.

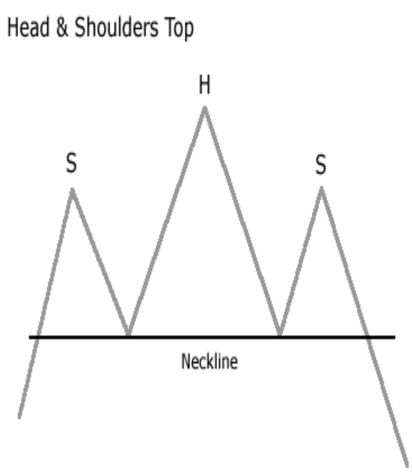
3. Duration of Pattern - A bottoming pattern is usually longer in duration and less volatile than a top. In addition, price swings are more marked in tops than in bottoms. According to Edwards and Magee, bottoms tend to be longer and flatter than tops. It is not unusual for a head and shoulders bottom to take several months to develop.

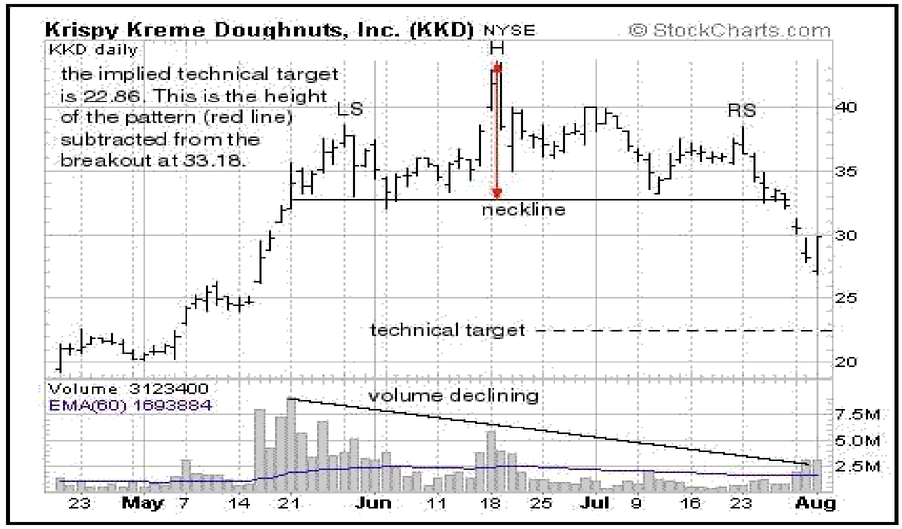
4. Need for a Downtrend - This is a reversal pattern which marks the transition from a downtrend to an uptrend.

5. Slope of the Neckline - In a well-formed pattern, the slope will not be too steep, but don't automatically discount a formation with a steep neckline. Some experts believe an upward sloping neckline is more bullish than a downward sloping one. Others say slope has little to do with the stock's degree of bullishness.

6. Decisive Neckline Break - As mentioned earlier, the pattern is not complete until the neckline is broken and the breakout or confirmation must occur with a convincing burst of trading activity.

Head & Shoulders Top (Reversal Pattern)





Head and Shoulders top pattern is a rally to a new high and weakness to intermediate support, a second rally to a higher high and decline to support, followed by a modest third rally and decline through support.

The technical target is derived by subtracting the difference between the highest level achieved in the formation of the "head" and the level of the "neckline" from the new breakout level.

- Symmetry is important. The most reliable head and shoulders top patterns are symmetrical, that is the left and right shoulders take shape over the roughly the same number of days. Patterns with extended right shoulders should be avoided.
- It is important that volume decline on each successive rally in the head and shoulders top pattern. The weak volume and rising price is a good indication that distribution is at work.
- No pattern is truly complete until there is a breakout close below the neckline of the pattern.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Head and Shoulders patterns are among the most important of reversal patterns because they are both common and reliable. The head and shoulder top pattern consists of three rallies and a breakout. The reversal pattern gets its name because the middle rally reaches the highest point while both the first and third rallies are approximately equal in height. The left shoulder of a head and shoulders top pattern will always take shape after an extended rally to new highs. Buyers seem willing to pay increasingly exorbitant prices because all of the fundamental data is perceived to be improved.

After one particularly bullish report the stock surges to a new high on strong volume as analysts pound the table with new "buy" recommendations but days later profit taking leads to a modest reactionary pullback (reaction low). Bullish investors and analysts rationalize that the weakness is just normal profit taking after a lengthy advance and they are partly correct -- the selling is profit taking but it is far from normal.

On this first pullback those investors that bought the stock at lower prices begin distributing their stock into the good news, they have made their money and they want out. As the stock declines buyers regroup and the torrid rally resumes. Because all of the fundamental news remains bullish, the next rally to new highs easily exceeds the first. The stock very quickly rallies to a fresh new high but there is just one problem, despite the barrage of positive corporate news and Wall Street cheer, volume declines relative to the initial rally.

As the stock continues to move higher selling by investors that purchased the stock at lower prices intensifies and it is not long before the imbalance between buyers and sellers causes a considerable decline. Rumors begin to swirl that institutions and insiders are selling. Days later the stock drifts back to test the reaction low and volume surges. This price action forms the head of the pattern. As the stock tests its reaction lows positive news hits the tape and buyers return.

A third rally begins amidst new "buy" recommendations from Wall Street analysts. Unfortunately, the third rally is even more feeble than the previous two moves higher. The stock does advance but volumes slows to a trickle and it becomes clear that the stock is being distributed. After several more sessions the stock begins to decline yet again and a move back to support at the reaction lows ensues. In keeping with the imagery of the pattern, this key support level is often called the neckline of the head and shoulder top pattern. The third decline to this level completes the right shoulder of the pattern. As the stock approaches support for a third time positive comments from Wall Street analysts continue but this time buyers are overwhelmed by sellers, volume expands and the stock collapses. Weeks later the stock trades back to longer-term support.

The head and shoulders top is an extremely popular pattern among investors because it's one of the most reliable of all formations. It also appears to be an easy one to spot. Novice investors often make the mistake of seeing Head and Shoulders everywhere. Seasoned technical analysts will tell you that it is tough to spot the real occurrences.
The head and shoulders top is a "reversal" pattern. The formation marks a reversal in an upward trend of the stock's price - an uptrend is in the process of becoming a downtrend.

What does a classic head and shoulders top look like?

The classic head and shoulders top looks like a human head with shoulders on either side of the head. A perfect example of the pattern has three sharp high points, created by three successive rallies in the price of the stock.

The first point - the left shoulder - occurs as the price of the stock in a rising market hits a high and then falls back. The second point - the head - happens when prices rise to an even higher high and then fall back again. The third point - the right shoulder - occurs when prices rise again but don't hit the high of the head. Prices then fall back again once they have hit the high of the right shoulder. The shoulders are definitely lower than the head and, in a classic formation, are often roughly equal to one another.
A key element of the pattern is the neckline. The neckline is formed by drawing a line connecting two low price points of the formation. The first low point occurs at the end of the left shoulder and the beginning of the uptrend to the head. The second marks the end of the head and the beginning of the upturn to the right shoulder. The neckline can be horizontal or it can slope up or down.
The pattern is complete when the support provided by the neckline is "broken." This occurs when the price of the stock, falling from the high point of the right shoulder, moves below the neckline. Technical analysts will often say that the pattern is not confirmed until the price closes below the neckline - it is not enough for it to trade below the neckline.

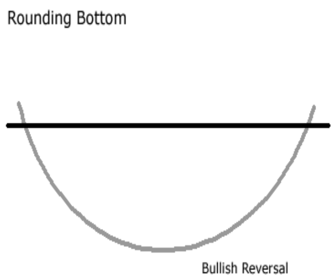
What are the details that I should pay attention to in the head and shoulders top?
1. Symmetry - The right and left shoulders should peak at approximately the same price level. In addition, the shoulders are often about the same distance from the head. In other words, there should be about the same amount of time between the development of the top of the left shoulder and the head as between the head and the top of the right shoulder. In the real world, the formation will seldom be perfectly symmetrical.
2. Volume -Volume should be highest on the left shoulder, lowest on the right shoulder and somewhere in between on the head. The real tip-off in this formation occurs when activity fails to rally on the right shoulder.
3. Duration of the Pattern - An average pattern takes at least three months from start to the breakout point when the neckline is broken. It is not uncommon, however, for a pattern to last up to six months. The duration of the pattern is sometimes called the "width" of the pattern.
4. Need for an Uptrend - This is a reversal pattern which marks the transition from an uptrend in prices to a downtrend. This means that the formation always begins during an uptrend of stock prices.
5. Slope of the Neckline - The neckline can slope up or down. The direction of the slope tends to predict the severity of the price decline. An upward sloping neckline is considered to be more bullish than a downward sloping one, which indicates a weaker situation with more drastic price declines.
6. Decisive Neckline Break - To be complete, the neckline must be decisively broken. If the support at the neckline holds - if price bounces around the neckline or fails to move below the neckline - this is a sign that the reversal pattern has failed. If the pattern fails to decisively break through the neckline, prices will often move higher as the rally continues.

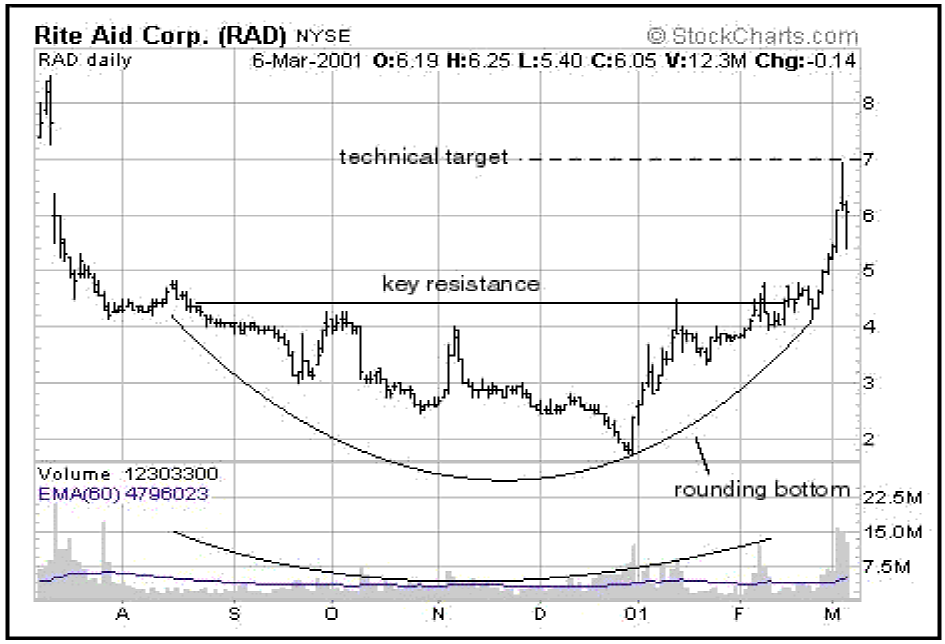
Are there variations in the pattern that I should know about?

There are a few notable variations.

Watch for the Drooping Shoulder
The drooping shoulder - where neckline has a downward slope - can often indicate a rapidly developing technical weakness. The droop happens because the stock price at the end of the head and the beginning of the right shoulder have dropped even lower than the previous low at the end of the left shoulder and the beginning of the head. Most experts agree that a downward slope has bearish implications for market weakness. Typically when the right shoulder is drooping, the trader will have to wait longer than usual for a decisive neck break.
Varying Width of Shoulders
The classic head and shoulders top is symmetrical. However, if the shoulders don't match in width, don't discount the pattern. According to Schabacker, it's common for one shoulder to take longer to form than the other.11 If the pattern decisively breaks the neckline, it's still a valid head and shoulders top.
Flat Shoulders
While the classic head and shoulders top is made up of three sharp upward points, these need not be present for the pattern to be valid. Sometimes, shoulders can be rounded.
Multiple Head and Shoulders Patterns
Many valid head and shoulders patterns are not as well defined as the classical head with a shoulder on either side. "Complex" formations can have more variations than the classical formation. It is not uncommon to see more than two shoulders and more than one head.

Rounding Bottom Reversal





Rounding Bottom is a decline to a new low on strong volume, several weeks of light trade with limited downward progress, several more weeks of light trade with a decided upward bias, followed by a sharp move higher on strong volume.

Rounding Bottoms generally do not lend well to price targets because the pattern is meandering. In most cases one can expect a decline back to the longer-term support level following a break below key support.

- Symmetry is important. The most reliable rounding bottom patterns do not stray from the confines of a tight semi-circle and usually resemble head and shoulders top patterns with two left shoulders, one head and two right shoulders. Obviously askew patterns should be avoided.
- It is important that volume decline on each successive move lower and begin to increase as the stock moves higher. The weak volume on declines and rising volume on rallies is a good indication that accumulation is at work.
- Upside breakouts often lead to small 2-3% rallies followed by an immediate test of the breakout level. If the stock falls below this level (now support) for any reason the pattern becomes invalid.

Like the Rounding Top pattern, the Rounding Bottom is often mistaken for its head and shoulders counterpart. This is because the rounding bottom has a lot of the same parts. Both the rounding bottom and head and shoulders bottom have a series of peaks and valleys and declining volume throughout the pattern. Of course the difference is that the rounding bottom has what appears to be multiple "shoulders".

Like the Rounding Top, Rounding Bottom patterns are almost deceptively simple in nature. They are all about the orderly transfer of shares from anxious sellers to serious, value minded longer-term investors. Through a series of peaks and valleys sellers are slowly (almost painfully so) removed. The first part of the pattern will always take shape after an extended decline to new lows. Against the backdrop of very negative fundamental news, sellers become anxious and willing to sell their shares for progressively lower prices. At some point a particularly negative news development such as an earnings warning, product delay or key executive departure hits the news wires and the stock slumps to a new low on huge volume. One by one Wall Street analysts rush to cut estimates and make disparaging comments and the free fall in price continues. But to the surprise of many, the selling is severe but oddly brief.

The reason for the stock strength is that longer-term investors are beginning to accumulate large positions for the longer-term. Days later the stock moves higher on good volume. This brief rally in price affords a new selling opportunity for those that did not exit ahead of the first major decline and the price action reverses creating a small resistance level (**reaction high**). Once again the stock moves lower, testing the most recent new low before buyers mysteriously step-in and support the stock.

A rallies ensues and a move back to the reaction high, now key resistance occurs. Normally this type of impressive price action would be enough to make sellers re-think their strategy but the fundamental news is terrible and just days later the stock is rocked by another negative development. This time the stock moves to a fresh new low but volume is noticeably less than the previous two declines.

After a few sessions meandering at the new lower levels, the stock begins to rebound on better volume on the first piece of good fundamental news in several weeks. The rally lasts for a few sessions but it is stopped dead in its tracks at the short term resistance level. Another decline begins on more bad news but it too is short-lived and a rally back to resistance occurs. This process is repeated one more time before sellers get the idea that perhaps the stock is not going to move significantly lower.

Anxiety levels grow for short sellers and longer-term holders that purchased the stock at higher levels begin to feel better about the stock. The idea is that if the stock is not declining amid the current stream of bad news it must be headed higher -- and they are unwittingly correct. In the days ahead more good fundamental news hits the news wires and the stock explodes higher. Weeks later the stock trades back to longer term resistance levels.

The rounding bottom is a long-term reversal pattern that is best suited for weekly charts. It is also referred to as a saucer bottom, and represents a long consolidation period that turns from a bearish bias to a bullish bias.

1. Prior Trend: In order to be a reversal pattern, there must be a prior trend to reverse. Ideally, the low of a rounding bottom will mark a new low or reaction low. In practice, there are occasions when the low is recorded many months earlier and the security trades flat before forming the pattern. When the rounding bottom does finally form, its low may not be the lowest low of the last few months.

2. Decline: The first portion of the rounding bottom is the decline that leads to the low of the pattern. This decline can take on different forms: some are quite jagged with a number of reaction highs and lows, while others trade lower in a more linear fashion.

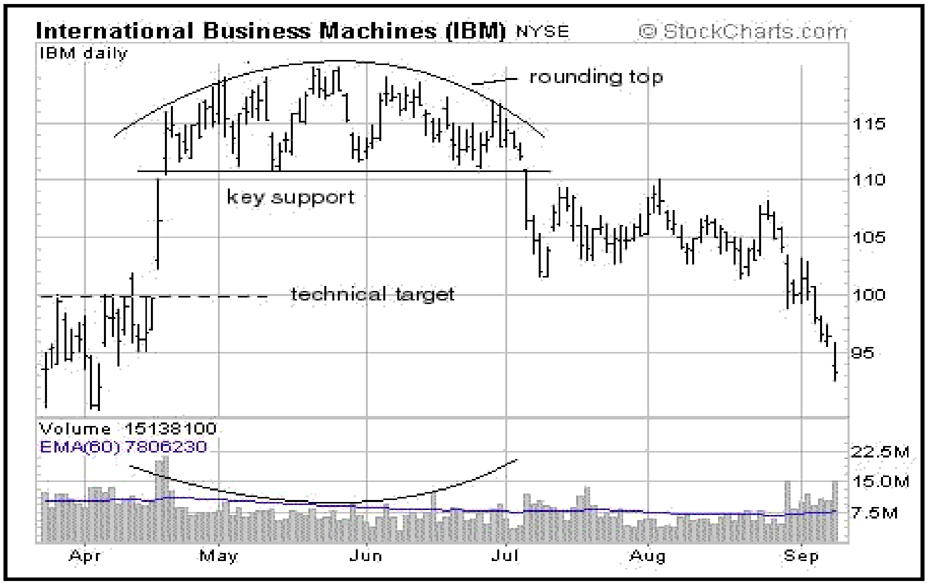
3. Low: The low of the rounding bottom can resemble a "V' bottom, but should not be too sharp and should take a few weeks to form. Because prices are in a long-term decline, the possibility of a selling climax exists that could create a lower spike.

4. Advance: The advance off of the lows forms the right half of the pattern and should take about the same amount of time as the prior decline. If the advance is too sharp, then the validity of a rounding bottom may be in question.

5. Breakout: Bullish confirmation comes when the pattern breaks above the reaction high that marked the beginning of the decline at the start of the pattern. As with most resistance breakouts, this level can become support. However, rounding bottoms represent long-term reversal and this new support level may not be that significant.

6. Volume: In an ideal pattern, volume levels will track the shape of the rounding bottom: high at the beginning of the decline, low at the end of the decline and rising during the advance. Volume levels are not too important on the decline, but there should be an increase in volume on the advance and preferably on the breakout.
A rounding bottom could be thought of as a head and shoulders bottom without readily identifiable shoulders. The head represents the low and is fairly central to the pattern. The volume patterns are similar and confirmation comes with a resistance breakout. While symmetry is preferable on the rounding bottom, the left and right side do not have to be equal in time or slope. The important thing is to capture the essence of the pattern.

Rounding Top Bearish Reversal



Rounding Top is a rally to a new high on strong volume, several weeks of light trade with limited upside progress, several more weeks of light trade with a decided downward bias, followed by a sharp move lower on strong volume.

Unlike Head and Shoulders top patterns, Rounding tops generally do not lend well to price targets because the pattern is meandering. In most cases one can expect a decline back to the longer-term support level following a break below key support.

- Symmetry is Important. The most reliable rounding top patterns do not stray from the confines of a tight semi-circle and usually resemble head and shoulders top patterns with two left shoulders, one head and two right shoulders. Obviously askew patterns should be avoided.
- It is important that volume decline on each successive rally in formation of the pattern. The weak volume and rising price is a good indication that distribution is at work.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

At first and maybe even second glance, rounding top patterns are going to look very familiar. This is because they have many of the same characteristics of head and shoulders top patterns. Often there will be a very clear "head", that is a rally to a new high in the middle of the pattern. Rounding top patterns differ from garden variety head and shoulders top patterns in that very often there are multiple "shoulders".

Rounding top patterns occur for many of the same reasons as do head and shoulders top patterns. The first part of the pattern will always take shape after an extended rally to new highs. The flow of fundamental news is usually positive and buyers seem willing to pay increasingly higher prices -- for a while. Following one positive development the stock rallies to a fresh new high on strong volume but to the surprise of bullish investors, sellers are more than willing to liquidate positions.

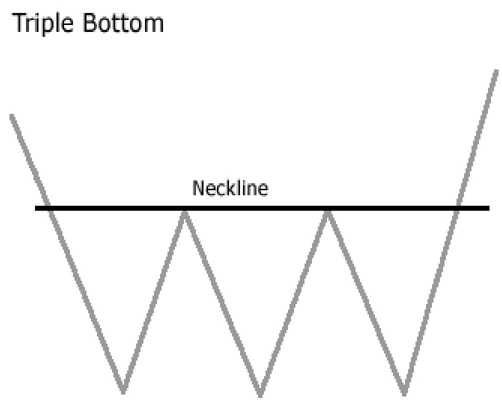
After a few sessions, the stock begins to move lower on increased volume. Investors and analysts will normally rationalize this development as simple profit taking but the rise in volume and weak price action is a clue, longer-term investors that bought at lower prices are selling, they are using good news to distribute stock. The rally to new highs and pullback to a nearby support level (reaction low) completes the first phase of the pattern.

Because the fundamental news remains positive, bullish investors soon return, sending the stock back to test the recent high but once again they are turned back by sellers and the stock drifts back to the reaction low (now key support). Roused by more positive commentary by either the company or Wall Street analysts buyers make another run at what has become overhead resistance and to their delight, the stock pushes to a new high. There is just one problem, volume is even more feeble than the previous two rallies and the move higher stalls.

Buyers are beginning to grow anxious because the fundamental news is positive and sentiment excellent yet sellers continue to exert downside price pressure. A new decline begins but the weakness ends as the stock approaches key support. Against the backdrop of more good news on the fundamental front, buyers make two further attempts to push the stock through resistance. During each attempt volume slows progressively and ultimately the stock slumps back to support.

At this point buyers have reached their limit, they begin to question everything -- yes, the fundamental data is currently strong but will that last? Five rallies have failed. It is at this point of weakness that the first piece of bad news is released. Suddenly all of the assumptions that lead the stock to new highs are called into question, those that had been supporting the stock panic and key support fails miserably. The stock gaps lower and a huge decline begins. Weeks later the stock trades back to longer-term support.

Triple Bottom Reversal



Triple Bottom formation is the mirror image of the Triple Top. After an extended decline to new lows a stock puts-in a bottom on massive volume and a moderate rally ensues. After several sessions (sometimes weeks) the stock drifts back to test the first bottom and once again buyers push the stock higher. This process is repeated a third time before buyers finally overwhelm sellers and the stock moves significantly higher.

The technical target for a triple bottom formation is derived by adding the difference between bottom #1and the reaction high to the new breakout level. After the third bottom has been created, the new breakout level is the peak achieved between bottoms #2 and #3. No double bottom formation is complete until the stock rallies through this level.

- For triple bottoms volume must increase as the stock moves toward the bottom of the pattern. Increased volume at the bottom of the pattern suggests that accumulation is taking place.
- No triple bottom pattern is truly valid until the stock moves above the peak established between bottoms #2 and #3.
- Upside breakouts through the reaction high often lead to small 2-3% advances followed by an immediate test of the breakout level. If the stock closes below this level (now support) for any reason the pattern becomes invalid.
- Technical targets are implied but they are by no means assured. Targets are guideposts only.

Whereas triple tops are all about distribution, the Triple Bottom is about accumulation. After an extended decline characterized by aggressive short-selling and valuation concerns, value-oriented investors with longer-term time horizons begin to take positions in the stock. They understand that the only way to build a large position in a stock that they like is to do so when selling predominates. It is their willingness to buy the stock when all of the news is bad that creates a clear support level, the first bottom (**bottom #1**). This presence of large buyers in the face of bad fundamental news will normally be sufficient to force many professional short sellers (bears) to cover positions. This coupled with buying from longer-term value investors may be enough to rejuvenate investors that recently purchased the stock at higher levels -- they may even rationalize that the "market" is finally beginning to realize that the current weakness is without merit and a few bullish speculators may be enticed to take new long positions.

Unfortunately, after several sessions of positive price action buying pressures are exhausted and the stock once again begins to falter. The positive price reaction to the decline that formed bottom#1 is complete. Technical traders call this the reaction high. Amid continued negative fundamental news, short sellers return and bullish speculators decide to take profits. What begins as modest selling quickly becomes a route. As the stock approaches **bottom #1** volumes remains light and in many cases the stock will actually fall through the previous low on very light volume.

It is at this point in time that pessimism is greatest, there seems to be no legitimate reason to continue holding the stock. Novice short sellers add new short positions and beleaguered bulls who purchased the stock at much higher levels begin to surrender in anticipation of a new leg lower. However the expected big decline does materialize because longer-term investors continue to buy the dips in price. A new rally begins as short sellers are forced to buy stock to cover short positions. As a second bottom (**bottom #2**) begins to take shape the pace of short covering accelerates and the stock quickly rallies toward the reaction high. Although the rally is sharp, volume remains light.

It is at this point that a new wave of bad news hits the stock price. Bearish investors feel vindicated and the stock slumps back toward bottoms **#1** and **#2**. It is at this point in time that pessimism is greatest, there seems to be no legitimate reason to continue holding the stock. New short sellers add short positions and beleaguered bulls that purchased the stock at much higher levels finally capitulate, volume swells but oddly, support at bottoms **#1** and **#2** holds. Professional short sellers start to sense that the "jig is up", the stock is not going down.

The price begins to stabilize and a third bottom (**bottom #3**) becomes apparent. Suddenly, the flow of news becomes less pessimistic, short sellers begin to panic and a massive rally ensues. The stock rallies through the peak set between bottoms **#2** and **#3**. On the chart three equal bottoms are created, the triple bottom is in place. In many cases triple bottoms lead to important rallies because a vital support level has been established at both the bottoms and the reaction high.

A triple bottom pattern displays three distinct minor lows at approximately the same price level. The triple bottom is considered to be a variation of the head and shoulders bottom. Like that pattern, the triple bottom is a reversal pattern. The only thing which differentiates a triple bottom from a head and shoulders bottom is the lack of a "head" between the two shoulders. The triple bottom illustrates a downtrend in the process of becoming an uptrend. It is, therefore, vital to the validity of the pattern that it commence with prices moving in a downtrend.

What does a triple bottom look like?
As illustrated above, the triple bottom pattern is composed of three sharp lows, all at about the same price level. Prices fall to a support level, rise, fall to that support level again, rise, and finally fall, returning to the support level for a third time before beginning an upward climb. In the classic triple bottom, the upward movement in the price marks the beginning of an uptrend.

What are the details that I should pay attention to in the triple bottom?

1. Duration of the Pattern

The average formation takes approximately four months to develop. The triple bottom is one of the longer patterns to develop.

2. Need for a Downtrend

The triple bottom is a reversal pattern. This means it is essential to the validity of the pattern that it begin with a downward trend in a stock's price.

3. Decisive Breakout
Because a triple bottom can be confused with many other patterns as it is developing, experts advise that investors wait for a valid breakout through the confirmation point before deciding whether the pattern is a true triple bottom.

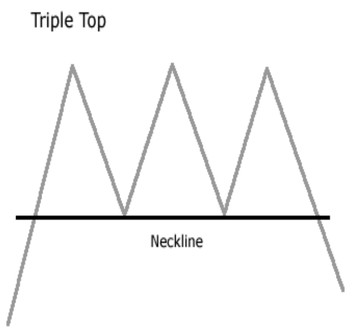
4. Volume

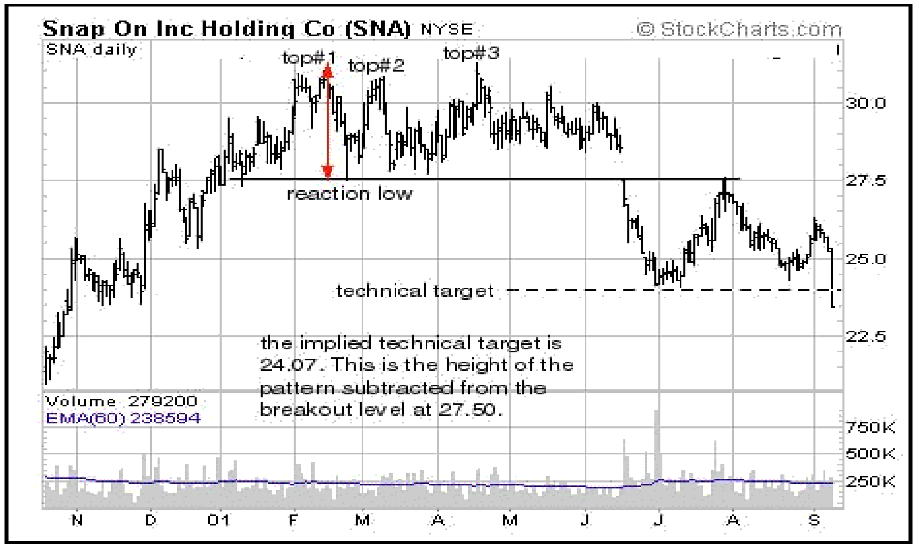
As discussed, it is typical to see volume diminish as the pattern progresses. This should change, however, when breakout occurs. A valid breakout should be accompanied by a burst in volume. Certain experts are less concerned by seeing a steadily diminishing trend in volume as the pattern progresses through its three lows.

5. Pullback after Breakout

It is very common in the triple bottom to see a pullback after the breakout. Bulkowski estimates that 70% of triple bottoms will throw back to the breakout price.

Triple Top Reversal Pattern





Triple Top is a pattern very similar to the Double Top -- only there are three distinctive tops rather than two. A triple top formation is a distinct chart pattern characterized by a rally to a new high followed by a moderate pullback and a second rally to test the new high. As the stock rallies to make the second peak (top) sellers overwhelm buyers and the stock price falters again This process is repeated a third time but buyers finally submit, support levels are broken and a massive decline ensues.

The technical target for Triple tops is derived by subtracting the point difference between the **top #1** and the reaction low from the breakout level. After the third top has been created, the breakout level is the low created between tops **#2** and **#3**. No triple top formation is complete until the stock falls through this point.

- For a valid triple top volume should decline on rallies toward tops **#2** and **#3** and increase into weakness. These volume trends confirm that distribution is taking place into strength.
- Although the lows made during the trough between tops **#2** and **#3** will often exceed the reaction low, such price action is not necessary during the formation of a triple top.
- No triple top is truly complete until the stock in question closes below the lows made during the trough between tops **#2** and **#3**.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Triple Tops occur largely for two reasons. First, those investors that purchased the stock "correctly" (at lower prices) use good news to liquidate their position. In this sense the triple top is a distribution pattern because smart buyers are distributing stock.

Second, those investors that purchased the stock "wrongly" on the good news refuse to exit their positions until they can do so without suffering a loss. Triple tops occur after extended rallies leading to new highs. As the "story" of the stock becomes more widely accepted investors are willing to pay increasingly exorbitant prices but at some point those investors that purchased the stock at lower levels feel the urge to take profits.

Normally, the bulk of these sellers will use a positive news event such as an earnings report, analyst upgrade or stock split announcement to begin unwinding long positions. This selling pressure on good news creates resistance, prices begin to fall (**top #1**). This first top will normally be sufficient to force many of the more speculative investors from the stock. As they sell the price of the stock falls further but many investors will not sell regardless of how far the price falls because they refuse to take a loss.

After several sessions of poor price performance the stock will begin to stabilize creating what technical traders call a reaction low because this move lower was a reaction to the news events of **top #1**. Slowly the stock begins to move higher. In most cases this advance will occur because the actual fundamental news remains positive. As the stock rises volume slows and investors that did not sell or bought at the first top get ready to exit positions into further strength.

As the stock approaches the prior high volume surges and new buyers begin to talk about the continued bright fundamental prospects -- it looks as though new highs are imminent. It is at that moment that all of the investors that want to sell existing positions begin selling. Volume surges and the stock soon retreats (**top #2**). On the chart two equal peaks are created and recent buyers begin to realize that resistance at these levels is formidable. Selling begins and the stock moves lower on increased volume as recent buyers panic.

In most cases the stock will actually fall through the reaction low, setting-up a perfect double top pattern but as this key support level is violated, selling does not intensify, in fact, a rally quickly ensues as short sellers begin to cover positions. Against the backdrop of more positive news and short covering the stock quickly moves toward the old high. Volume is light but there is continued talk of bright fundamental prospects and new highs. As the stock reaches the prior tops volume accelerates and a distinct third "top" is created (**top #3**).

The failure to move through formidable resistance helps to reinvigorate bearish investors and for the first time, the stock's valuation is questioned in the media. The stock price begins to plummet, recent buyers begin selling at any cost. The stock falls through the lows set at the trough between **top #2** and **top #3**. The triple top is complete. In many cases double top formations lead to important declines because two separate sets of buyers have been disappointed at distinct levels, the tops and the reaction lows. These levels become formidable resistance.

A triple top is considered to be a variation of the head and shoulders top. Often the only thing that differentiates a triple top from a head and shoulders top is the fact that the three peaks that make up the triple top are more or less at the same level. The head and shoulders top displays a higher peak - the "head" - between the two shoulders.

What does a triple top look like?

As shown below, the triple top pattern is comprised of three sharp peaks, all at the same level. A triple top occurs when prices are in an uptrend. Prices rise to a resistance level, retreat, return to the resistance level again, retreat, and finally, return to that resistance level for a third time before declining. In a classic triple top, the decline following the third peak marks the beginning of a downtrend.

What are the details that I should pay attention to in the triple top?

1. Duration of the Pattern

This pattern can take upwards of several months to form.The three highs do not need to be equally spaced from one another.

2. Need for an Uptrend

The triple top is a reversal pattern marking the transition period between an uptrend and a downtrend in prices. It is crucial to the existence of this pattern that it begin with an uptrend of stock prices.

3. Decisive Breakout
Investors are advised to wait for prices to make a definitive break below the confirmation point of a triple top pattern. If prices do not fall below the confirmation point after the third peak is reached, the pattern is not a triple top.

4. Volume

It is typical to see volume diminish as the pattern progresses. This should change, however, when breakout occurs. A valid breakout should be accompanied by a burst in volume.

5. Rally after Breakout
A high percentage of triple tops have rallies back to the point of the breakdown more often than not.

Are there variations in the pattern that I should know about?

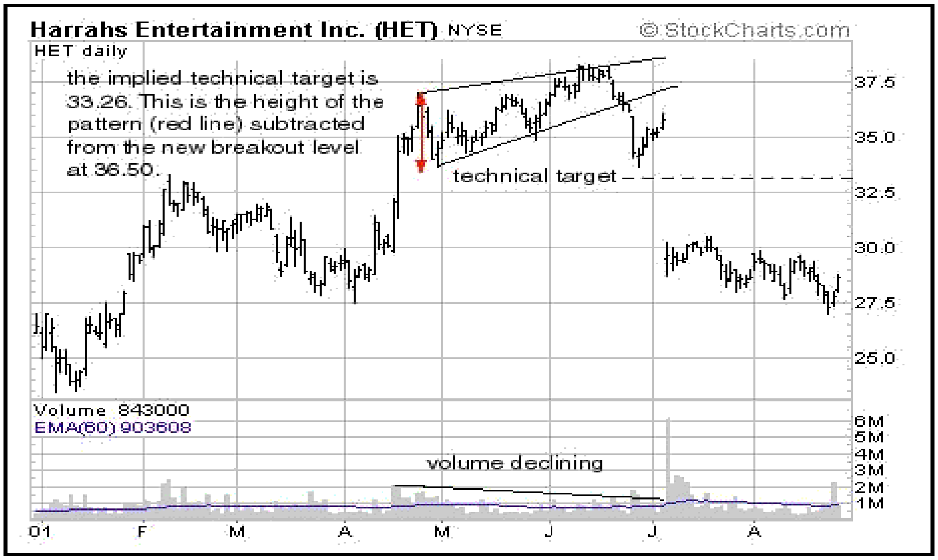
1. Hybrid Variation

There is a hybrid variation that appears to be a cross between a double and triple top. The middle peak is slightly lower than the left and right peaks. This is still a valid reversal pattern.

2. Fourth Peak

It is possible for the pattern to display a fourth peak before reversal occurs.

Rising Wedge Reversal



Rising Wedge in an uptrend is a rally to a new high on strong volume, several weeks of narrowing, range-bound trade characterized by higher highs and higher lows with contracting volume, followed by a sharp break lower on strong volume

Rising Wedges in uptrends are usually part of larger reversal trends so the implications for the pattern are modest. Technical targets are derived by subtracting the height of the pattern from the eventual breakout level. The breakout level is determined by drawing a trend line drawn from the area of initial consolidation through the reaction high.

- Rising wedges can be either reversal or continuation patterns. When they occur in an uptrend they are always reversal patterns.
- Because rising wedges are generally just the starting points for larger reversal patterns, the implied technical targets are modest.
- Volume is key in rising wedge patterns in uptrends. Volume should increase on the initial surge to new highs but dwindle through the remainder of the pattern. As the breakout occurs volume should surge.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Like all reversal patterns, the Rising Wedge in an uptrend is ultimately about deception. At first and perhaps even second glance, the stock may appear to be doing all of the right things, making a series of higher highs and higher lows. The flow of news is unanimously positive and Wall Street analysts fall over one another to raise estimates and price targets, yet in reality, the stock is being distributed from strong hands (longer-term investors) to weak hands (short-term speculators and less astute investors).

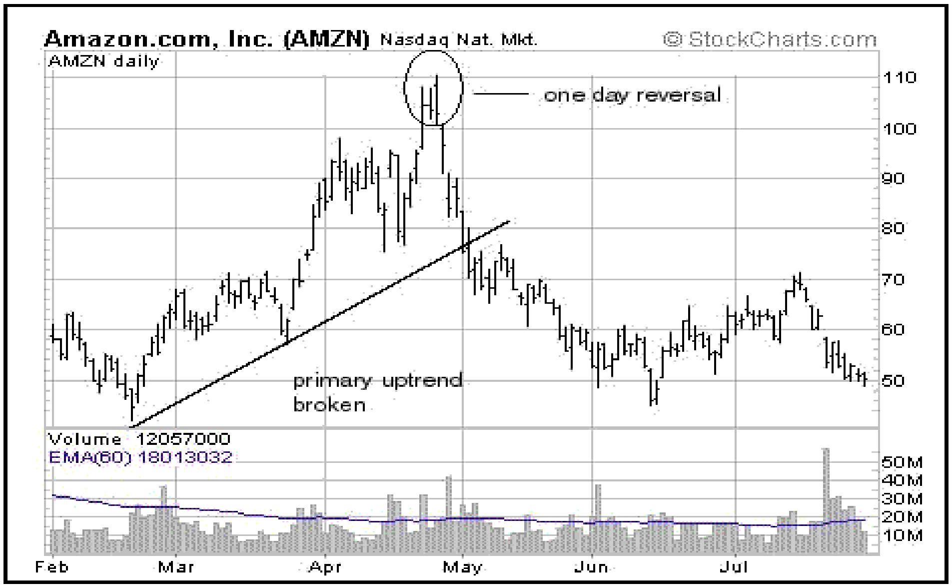
The pattern begins when a much loved stock moves to a new high after an extended advance on good volume. To be sure, momentum investing and all around euphoria contribute to the surge in stock price but by most accounts the fundamental outlook is solid. As the stock makes a new high something peculiar occurs. Instead of volume surging, it actually begins to contract and price falters, making a reaction low. Wall Street analysts conclude that the stock is merely having a well deserved short term consolidation after a lengthy advance and in the days ahead they reiterate "buy" ratings. Once again the stock surges to a new high but volume slows even further and very quickly price begins to fade.

At this time the news flow is excellent. The company may be raising guidance, unveiling new products, winning contracts and/or setting stock splits. In short, it is easy to be bullish -- especially when most investors share that sentiment. But beneath the surface something is happening, the stock is being distributed, longer-term investors are using every piece of good news to reduce positions.

As the stock falters for a second time the low achieved is well above the reaction low and the chart begins to take on the appearance of a wedge. After several sessions of consolidation more good news hits the news wires and the stock surges to yet another new high. As was the case during the previous two rallies, volume contracts. Then, abruptly price begins to falter. Wall Street analysts remain steadfast because there have been no fundamental developments to account for the weakness. Several firms reiterate "buy" ratings, advising clients to use the weakness to build positions but in reality, longer-term investors are continuing to sell. This time the new bullish talk has little impact and price begins to free fall.

The bullish talk and positive news flow continue but it is just a matter of time before the parameters of the wedge pattern are violated. Soon after, support at the reaction low is violated. Several days after the first negative news item hits the wires and speculators and recent investors begin to panic, price plummets. Several weeks later the stock trades back to intermediate term resistance.

One Day Reversal



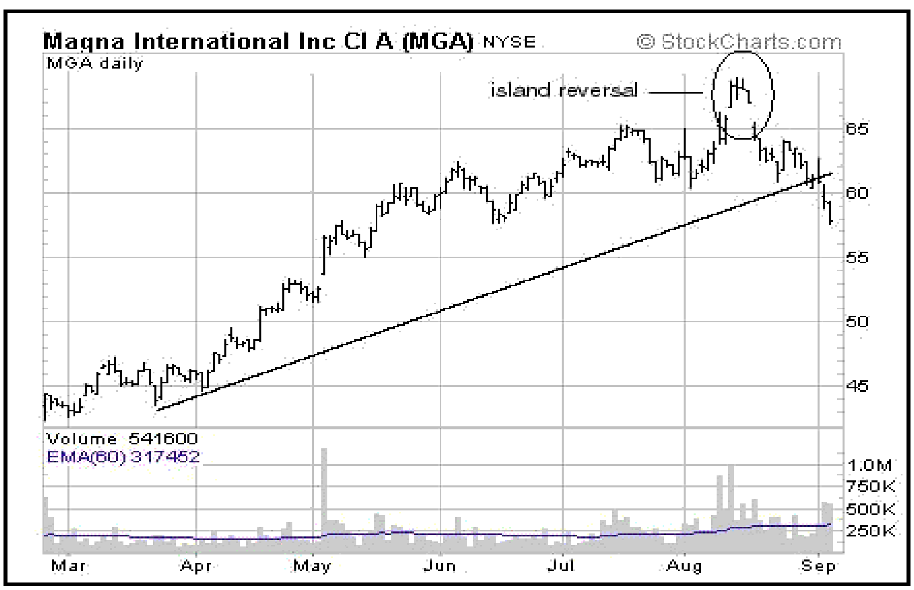
One Day reversal is the starting point for most reversal patterns. After an extended rally the stock gaps higher at the open to trade at a new high on a positive news announcement. As the session proceeds volume expands significantly but by the close the entire rally disappears and the stock closes lower.

One Day reversals are by definition one day events and as such technical targets are not implied but if you look at every major reversal pattern you will quickly see that it all began with a one day reversal.

- One day reversals occur because large investors choose to liquidate positions into strength so it is vital that volume accelerate as the stock begins to work lower.
- The stock must close on the day of the reversal at or very near the session lows.

One Day reversals occur because large investors need liquidity to close long positions. They understand that the best way to liquidate a large position is to sell into good news when liquidity is highest -- so they are willing sellers on a day when the stock is making a new high and everyone is saying good things. Investors and media wonder how such good news could have resulted in such poor price performance. Indeed, over the next several sessions analysts and traders rationalize that the selling was simply overdue given the strong rally leading into the news but every subsequent rally fails. Weeks later the stock is well off its recent highs.

Island Reversal Pattern



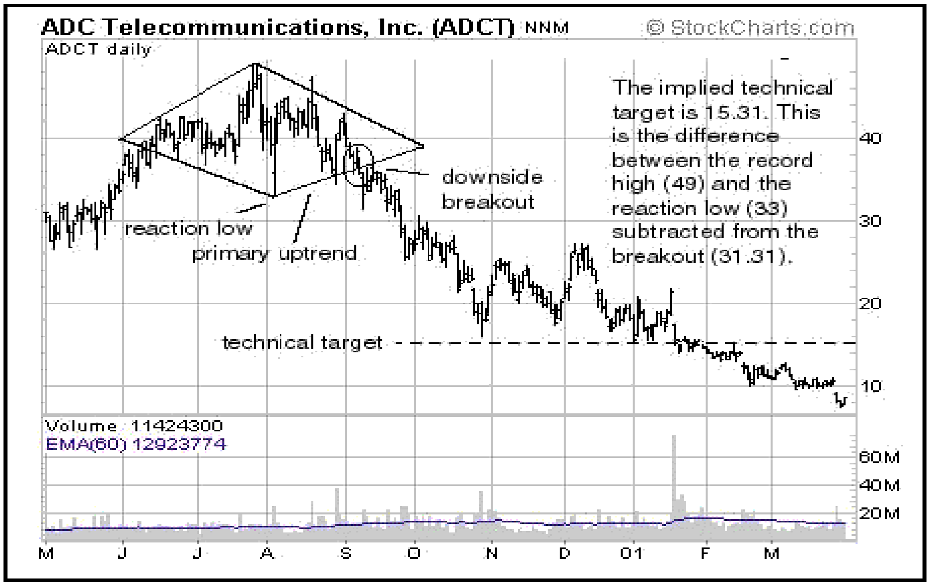
Island reversals are isolated data points separated by gaps. After an extended rally the stock "gaps" higher, that is, it proceeds to open outside of the most recent trading range. After trading in the new higher range for several sessions, a second gap occurs only this time the move is lower.

Island reversals usually occur at the start of larger technical patterns and as such, technical targets are not implied but these patterns usually lead to much lower prices.

- Island reversals are news driven and usually occur because conflicting news events occur within short time frames.
- Volume should accelerate on both the initial breakout and the subsequent failure for island reversal.
- Island reversals are "trend killers" and usually lead to the formation of large patterns that follow the trend.

After an extended rally the stock opens well above the most recent trading range following news. This break out from the previous consolidation pattern occurs on huge volume and appears legitimate but after several days the stock fails to move significantly higher. New buyers become anxious, sellers should have been removed with the most recent move through resistance, something is wrong. Days later there is fundamental news that contradicts the news that initiated the breakout and already anxious new buyers panic, the stock opens lower. Weeks later the stock is well off the recent highs.

Diamond Top Reversal



Diamond pattern is a rally to a new high and weakness to an intermediate support level, a second rally to a higher high and a sharp decline through support, followed by a modest third rally and a decline through longer-term trend.

Because diamonds are very large patterns, the technical implications are often extremely large. Technical targets are derived by subtracting the difference between the record high and the reaction low from the eventual breakout level. The breakout level will be determined by a trend line drawn from the reaction low to the first significant low on the right side of the pattern.

- Diamonds are complex reversal patterns because volume trends often suggest accumulation. Volume is heaviest at lows and upside breakouts but moves to new and relative highs are always characterized by one day reversals.
- Although the spike to the reaction low may be violent, the fact that stock holders are willing to surrender their stock at drastically lower prices without substantive fundamental news portends lower prices.
- Diamonds are large patterns and the technical implications are often dire. It is important to let the pattern reach completion. This means establishing short positions only after the downside breakout.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

At first glance, a diamond pattern may look like little more than head and shoulders top patterns with "crooked" necklines but this only tells half of the story. In reality diamond patterns are more like broadening top formations because they normally only reverse upward trends. In this sense, they are always about distribution.

The pattern begin when a very strong stock with stellar growth trends moves to a new high and consolidates after a lengthy advance. For several sessions the stock meanders in a narrow consolidation as pundits discuss the longer-term fundamental merits of the stock but eventually there is an upside breakout. In most cases, the cause of the upside breakout will be an analyst "preview" of an upcoming earnings report or positive comments from the company regarding new products or clients.

As the news breaks the stock surges to new highs on very strong volume. In fact, the upside breakout usually proves legitimate because the stock continues to move higher for several sessions. Then, abruptly the stock begins to fall. Volume is light and there is no corporate news to account for the weakness but as bullish investors rationalize that the stock is merely correcting some of the recent gains, many investors that bought the stock at lower prices are using the weakness to unwind long positions. The stock continues to drift lower on relatively light volume until there is a sector event that raises doubt about the most recent upside breakout.

Although all of the news from the stock in question has been positive investors understand that the current share price carries a great deal of risk because it has been priced for perfection. As selling continues volume accelerates and when the stock falls through the previous upside breakout level recent buyers panic leading to further weakness. Analysts continue to reiterate "buy" recommendations but within days the share price is devastated, moving far below even the most recent consolidation. As panic subsides steps are taken by the company to reassure investors that all is still well.

Very often press releases are issued or leading Wall Street analysts come to the defense of the stock, suggesting that it is a compelling value at current levels. All of this leads to a reaction low and slowly the stock begins to move higher. In the days ahead more positive corporate news is disseminated, suddenly investors are reinvigorated and the share price soars. Investors rationalize that the recent scare was a giant overreaction and the stock offers great opportunity but as the rally progresses volume is stubbornly average.

Finally, the company releases more good news and analysts pound the table with new buy recommendations but despite this the stock does not come close to reaching the recent new high. To make matters worse, on the day of the good news the stock opens higher but closes at or near its low on heavy volume. The increase in volume and weaker stock price suggests distribution, someone is selling into the good news. As the stock price falls puzzled analysts and investors wonder how the stock could be falling on such good news but investors that bought the stock at much lower prices continue to use every rally to sell. Days later the stock breaks sharply lower. Weeks later news is released suggesting that the fundamental outlook has deteriorated.

Broadening Top Bearish Reversal

Broadening Top is a rally to a new high, weakness to an intermediate support level, a second rally to a higher high on increased volume and decline through the intermediate support level, a third rally to a higher high on strong volume followed by a eventual collapse.

Because Broadening Tops are very large reversal patterns, the technical implications are usually extreme. The measured target is derived by subtracting the height of the pattern from the eventual breakout level.

- Unlike most consolidation patterns, broadening tops feature increasing wide ranges and greater volatility as time passes.
- Volume increases as the share prices rises. Normally this is bullish but rallies prove very short-lived and declines "take-out" previous support levels.
- Broadening formations are only found in topping formations because they are the product of unrealistic expectations on the part of bullish investors.
- Downside breakouts often lead to small 2-3% declines followed by an immediate test of the breakout level. If the stock closes above this level (now resistance) for any reason the pattern becomes invalid.

Whereas some technical patterns are characterized by consensus and a general lack of volatility, the same cannot be said about the broadening top. These patterns always feature indecision and extreme volatility. When one looks at the pattern the resemblance to a megaphone is striking. The stock makes a series of higher highs and lower lows. Normally as time passes and more information is disseminated, investors come to consensus and volatility slows but just the opposite is true of broadening tops.

There are distinct parts of every broadening top formation. The first of three small tops (**top #1**) occurs after a spectacular run to new high on increasing volume. Generally, this advance will be the result of better than expected earnings, a new product and/or a barrage of Wall Street recommendations. However, as the stock surges to new highs sellers also step-up selling efforts and it is not long before the stock settles back to a prior support level **(a)**.

After several sessions of slower trade more positive news pushes the stock to yet another new high on increased volume (**top #2**). The increased volume should be a sign that bullish consensus is building but once again the stock falters, falling to a relative new low **(b)** just days after making a new high. Although the news flow is still very positive, rumors begin to circulate that some institutions and insiders are beginning to liquidate positions.

It is at this time that there is a full scale defense of the stock by bullish investors. Wall Street firms make new recommendations with lofty price targets and once again, the stock begins to move higher. Although volume is strong, it is noticeably less than the prior rallies. The stock moves to third new high (**top #3**) in as many attempts. All of the news is positive. The company may be raising guidance, setting a stock split or talking about the outlook for new products. The prospects seem bright but even as the stock is making a new high, there is skepticism among some investors. Days later the stock begins to falter on increased volume but no specific news. Several days later the stock is collapsing and support at the most recent low is in jeopardy. There is news that a large shareholder has filed to sell stock, bullish investors panic. Weeks later the stock sinks back to the longer-term support level.

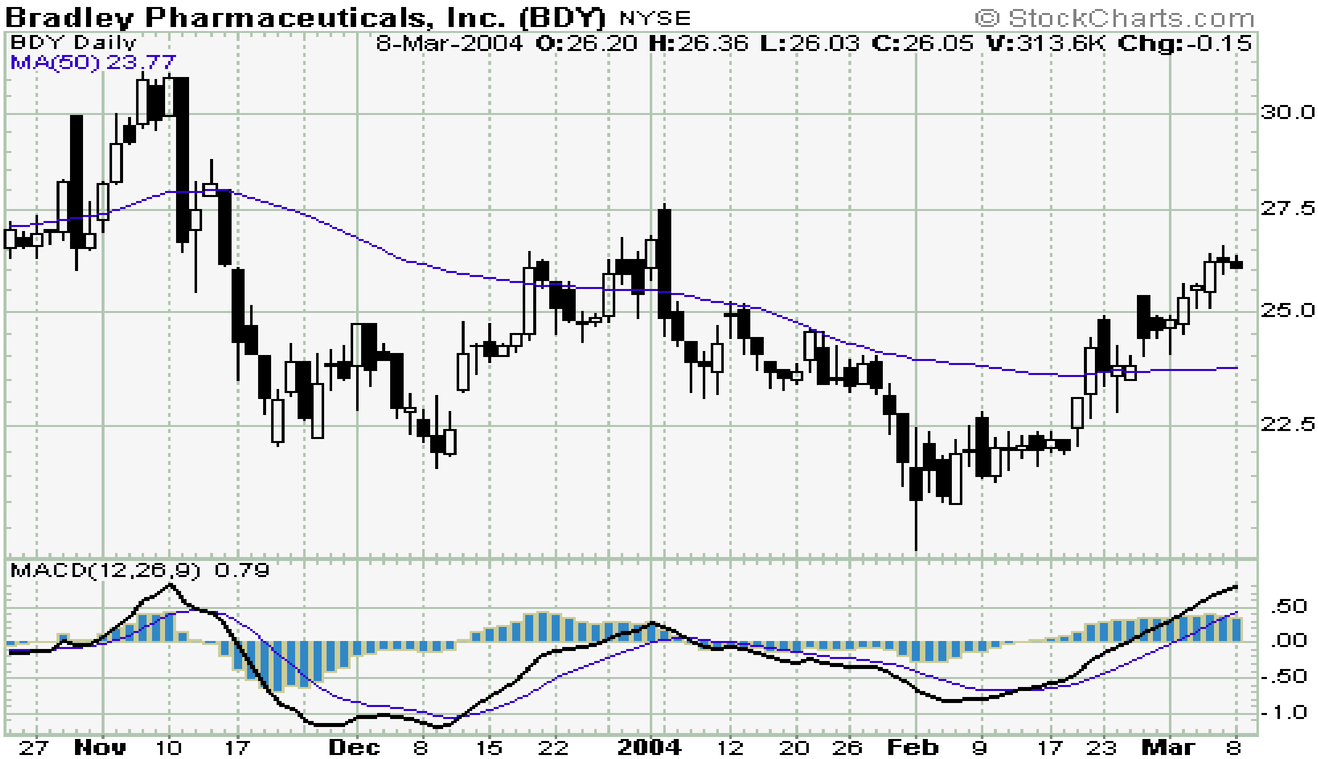
DMI (Directional Movement Indicator)

Directional Movement helps determine if a security is "trending." Developed by Welles Wilder and explained in his book, New Concepts in Technical Trading Systems, it can be used either as a system on its own or as a filter on a trend-following system.

Two lines are generated in a DMI study, +DI and -DI. The first line measures positive (upward) movement and the second number measures negative (downward) movement. A buy signal is given when the +DI line crosses over the - DI line while a sell signal is generated when the +DI line crosses below the - DI line.

In addition to these crossover rules, Wilder believes one should also follow the extreme point rule. When a crossover occurs, use the extreme price as the reverse point. For a short position, use the high made during the trading interval of the crossover. Reverse a long position using the low made during the trading interval of the crossover.

MACD (Moving Average Convergence/Divergence)



The MACD (Moving Average Convergence/Divergence) is a momentum indicator used to show the relationship between two moving averages. The MACD was developed by Systems and Forecasts publisher, Gerald Appel.

The MACD is simple and reliable. It uses moving averages to include trend-following characteristics. These lagging indicators are turned into a momentum oscillator and plotted as a line that moves above and below zero with no upper or lower limits. The MACD proves most effective in studying wide-swinging trading markets.

MACD (2-lines) shows the relationship between a 26-day and 12-day Exponential Moving Average with a 9-day Exponential Moving Average (the "signal" or "trigger") line plotted on top to show buy/sell opportunities.

Three popular ways to use the MACD are crossovers, overbought/oversold conditions and divergences.

- Crossovers:
The basic MACD trading rule is sell when the MACD falls below its signal line and buy when the MACD rises above it. It is also common to buy/sell when the MACD goes above/below zero.

- Overbought/Oversold Conditions:
The MACD is also can be used as an overbought/oversold indicator. If the shorter moving average pulls away dramatically from the longer moving average and the MACD rises it is likely that the security price is overextended and will soon return to more realistic levels.

- Divergences:
Expect the end a current trend may be near when the MACD diverges from the price of a security. A bearish divergence occurs when the MACD is making new lows while prices fail to match these lows. Likewise, a bullish divergence occurs when the MACD is making new highs while prices fail to follow suit. Both of these divergences are most significant when they occur at relatively overbought/oversold levels.

MACD Histogram
Signals from the MACD Indicator can tend to lag behind price movements. The MACD Histogram is an attempt to address this situation showing the divergence between the MACD and its reference line (the 9-day Exponential Moving Average) by normalizing the reference line to zero. As a result, the histogram signals can show trend changes well in advance of the normal MACD signal.

A buy signal is generated as the histogram crosses above the zero point. A sell signal is generated as the histogram crosses below zero.

Stochastic Momentum Index (Slow)

The Stochastic Momentum Index was developed by William Blau as introduced in the in the January 1993 issue of Technical Analysis of Stocks & Commodities. While similar to the Stochastic Oscillator, the SMI displays where the close is relative to the midpoint of the recent high/low range, as compared to the close relative to the recent high/low with the Stochastic Oscillator. This results is an oscillator that ranges between -100 and +100 and can be a bit less erratic than an equal period Stochastic Oscillator.

The oscillator is comprised of two lines, the SMI (blue) and the moving average of the SMI (red). When the close is greater than the midpoint of the range, the SMI will be positive. When the close is less than the midpoint of the range, it will be negative. The interpretation of the SMI is virtually identical to that of the Stochastic Oscillator. The most basic pattern to trade from is to buy when the SMI falls below -40 and then returns above it. Sell when the SMI rises above +40 and then falls back below that level. Another trading signal is buy when the SMI rises above the moving average, and sell when the SMI falls below the moving average.

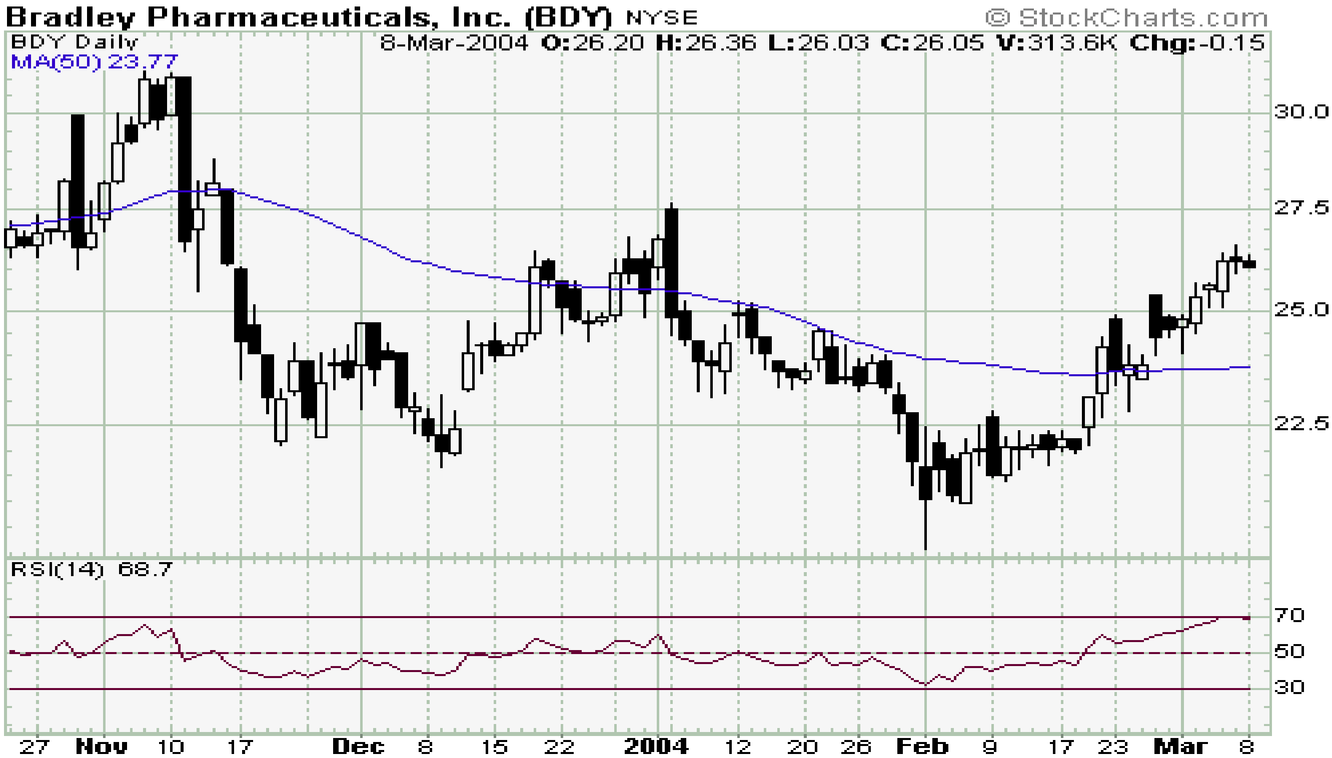
As always, before basing any trades on strict overbought / oversold levels it is recommended that one first qualify the trendiness of the market using an indicator such as R-Squared. If indicators suggest a non-trending market, then trades based on strict overbought/oversold levels should produce the best results.

The Slow Stochastic charts the daily stochastic as well as a five-day moving average of a 12-day interval. This smoothing of the Stochastic Oscillator is an attempt to reduce volatility and improve signal accuracy.

As with the other stochastic indicators, the signals to look for are oversold securities with values are less than 20 and overbought when greater than 80.

Stochastics work best in broad trading ranges, or in a mild trend with a slight upward or downward bias. The worst market for normal use of stochastics is a persistent trending market that has only minor corrections. It is possible to trade stochastics in a trend by ignoring the usual overbought and oversold levels and entering the market when the end of a reaction against the trend is signaled by a stochastic crossover from any level.

RSI (Relative Strength Index)



The Relative Strength Index (RSI) is an oscillator first introduced in 1978 by Welles Wilder in Commodities (now Futures) Magazine. The RSI compares the magnitude of a stock's recent gains to the magnitude of its recent losses on a scale from 0 to 100.

When using the RSI as an overbought/oversold indicator, Wilder recommended using levels of 70 or more as overbought and 30 and and below as oversold. Generally, if the RSI rises above 30 it is considered bullish for the underlying stock. Conversely, if the RSI falls below 70, it is a bearish signal.

Another method of analyzing the RSI is to look for a divergence. If the security is making a new highs and yet the RSI fails to surpass its previous high, this is an indication of an impending reversal. When the RSI then turns down and falls below its most recent trough, it is said to have completed a "failure swing." This serves as a confirmation of the impending reversal.

While the RSI is calculated using a fairly simple formula, it may be wise to refer to Wilder's New Concepts in Technical Trading Systems for a more complete discussion. The basic formula for the RSI is:

100 - [100 / { 1 + (U / D) }]

Where:
U = An average of upward price change
D = An average of downward price change