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Introduction to Online Trading

The Internet revolution has been changing the fundamentals of our society. It shapes the way we communicate and the way we do business. It brings us closer and closer to vital sources of information. It provides us with means to directly interact with service-oriented computer systems tailored to our specific needs; therefore, we can serve ourselves better by making our own decisions. This prevailing shift of the business paradigm is reshaping the financial industry and transforming the way people invest.

In the following discussion, we will briefly explain how the Internet has been changing the way people trade stocks, and we will introduce some of the pros and cons of using online brokerage companies. Then we will look at some of the trading styles people practice and introduce an important trading technique that a lot of professional traders have been using with great success. Finally, you will learn how **Tradetrek.com** can help you apply these trading techniques online with trading tools that make online trading easy, fun, profitable, and understandable!

In the old days, because of the limitations of communications technology, Wall Street was the center for most of the Stock Exchange and Brokerage firms. Today, at this millennial transition, investors can use revolutionary Internet Client-Server technology to trade stocks nearly anywhere, anytime, independent of brokers' fees and service limitations.

This new access by the trading public to low-cost transactions and cutting-edge, real-time market information that formerly belonged only to brokers has opened up extraordinary new investment opportunities as well as a crucial need for state-of-the-art information. It is exactly these new-market investment services that **Tradetrek.com** specializes in satisfying.

Jumping In

Learning to use the new online trading tools provided by brokerage houses may take very little time. In only a couple of mouse clicks, you can make thousand-dollar transactions in a matter of seconds. Modern technology in hand, you have total control over the money you are investing, which really gives you the tools and confidence to beat the S&P Index!

There are a number of brokerage.coms out there, such as Ameritrade, DLJdirect, SureTrade, Datek, Charles Schwab, E-Trade, just to name a few. As a result of a price war between these companies, the commissions that these companies charge per trade have dropped significantly. For example, Datek charges \$9.99 per trade, Ameritrade \$8, and SureTrade only \$7.95. But you need to keep in mind that price is not the only factor in choosing a service. You also have to consider how frequently you trade, what other services you might be interested in, how reliable the trading system is, whether it is hard to log on when the market is active, and quite a few other variables. Below you'll find a link to a site you can use to compare some of the online brokerage firms:

<http://www.pathfinder.com/money/onlineinvesting/trading/compchart02.html>

In order to attract more users, many online brokers continually upgrade their systems to allow more log-ons simultaneously; they may also offer new value-added services such as company news releases, earning reports, and market commentary.

The Market Moment of Truth

Okay, then. Imagine that now you know exactly what to do: Buy a computer. Sign up with AOL. Find an online broker. Deposit an initial sum of money. Now you're in! And at the brink of your

first trading moment, your hands sweating, heart racing, you hear yourself asking, "Am I really ready?"

The Need to Know

Wait, then: you might not be quite ready. Not yet! Estimates show that more than 80% of all online investors lose money at the outset. While you know that a great number of portfolio holders have realized great profit--for some of them, even fortunes--you realize that to be a winner you first need to exercise prudent judgment to join that 20% who really are successful. Perhaps you haven't yet realized quite what you are facing now that you've gotten rid of the commission-swallowing middlemen (Wall Street brokers and expensive financial advisers). You are on your own. And sorting through hundreds of websites for stock tips, market updates, and company profiles, who wouldn't feel overwhelmed! Perhaps in this vast universe of digital feed, you realize more sharply than ever that you lack clear strategies for evaluating market possibilities of the thousands of stocks out there. You constantly hear stories of stocks that break the trading range, reach an all-time high, and then, before you have time to act, slide 30 points in two days. By the time you get the news you are too late to capitalize!

Information Tools Make All the Difference!

While you sense the promise and enjoy the excitement of modern technology, like so many others, you probably feel overwhelmed, frustrated, even lost at the prospect of putting your savings online, on the line. Certainly none of the skills crucial to sizing up the market are intuitive; therefore, in order to see what is really going on, and to become a successful investor, you are going to have to learn about the market's state-of-the-art trading techniques and strategies.

Investing Styles

Different people trade in different styles. There are long-term investors who buy stocks and hold for a year or two. Mid-term investors may buy and hold stocks from thirty days to six months. Short-term traders trade frequently, on a weekly basis. And finally, day traders buy and sell every day. Now, assuming you make good decisions, the more frequently you trade, the more profit you gain. But what style is right for you? Which stocks should you choose and how long should you hold them? Some investors like companies with strongest earnings. Those who like to invest in big blue-chip companies are not willing to bet on startups. Other players examine company financial statements and balance sheets, picking only those with low debt ratio, high cash flow, and high profit margin.

More sophisticated players (this brings us closer to **Tradetrek.com!**) behave differently. They scrutinize stock charts, looking for hidden trading signals that may reveal a major opportunity. They understand a cardinal element in how to make money in the stock market: Buy the right stock at the right time! Of course, this is more easily said than done. Capturing the right moment to buy and sell requires certain techniques called *technical analysis* (TA). To put it simply, **TA** is a set of techniques analysts use to spot revealing stock patterns in advance. The principles underlying *technical analysis* have proven successful in dealing with all financial markets. Applying these techniques in online trading, then, is essential to discovering a winning investment position, whether you are a long-term, mid-term, or short-term trader.

Technical Analysis is so important that almost no investor can trade successfully without it. Fortunately, **Tradetrek.com** has now come up with an innovative paradigm to put real-time TA tools online. Scientists at **Tradetrek** are now applying newly developed artificial intelligence, neural network, and pattern-recognition technologies to real-time technical analysis among hundreds of stocks. By taking advantage of **Tradetrek's** IntelliChart, you won't have to spend hours upon hours going through thousands of stocks in hopes of finding a sound and promising performance pattern. IntelliChart conducts real-time searches for more than a dozen TA patterns and presents you with the most profitable stocks among thousands of stocks being traded. Under

each chart, a detailed explanation generated automatically by Artificial Intelligence helps advise you on what course of trading action to take.

Tradetrek.com has developed this thoughtful tutorial, loaded with sensible trading tips, to help familiarize you with basic trading strategies. You'll also see how Tradetrek's revolutionary computer tools can help you sharpen your decisions to invest intelligently, so let's get started!

Stock Charts

Traders and investors always look at stock charts when they make trading decisions, because those charts contain essential information about the behavior of stock prices. Here are some familiar types of stock charts that facilitate our stock performance analysis.

Line Chart

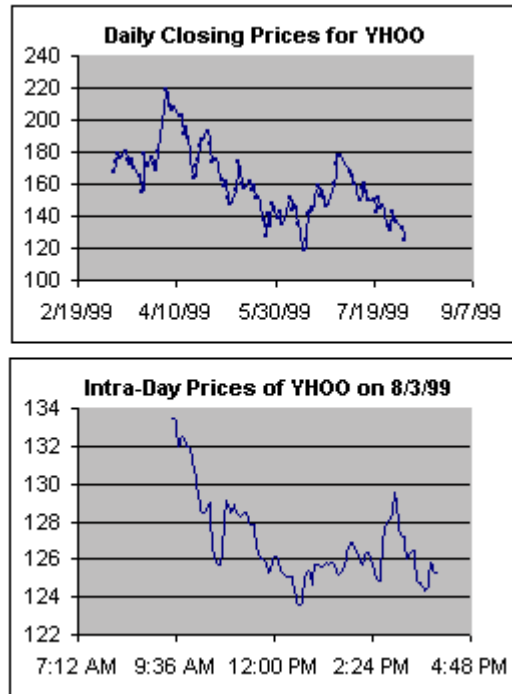


Figure 1. Line Chart of Stock Prices

A line chart is simply a line graph connecting stock prices at different times. Shown in Figure 1, examples of a daily chart and an intra-day chart:

Bar Chart

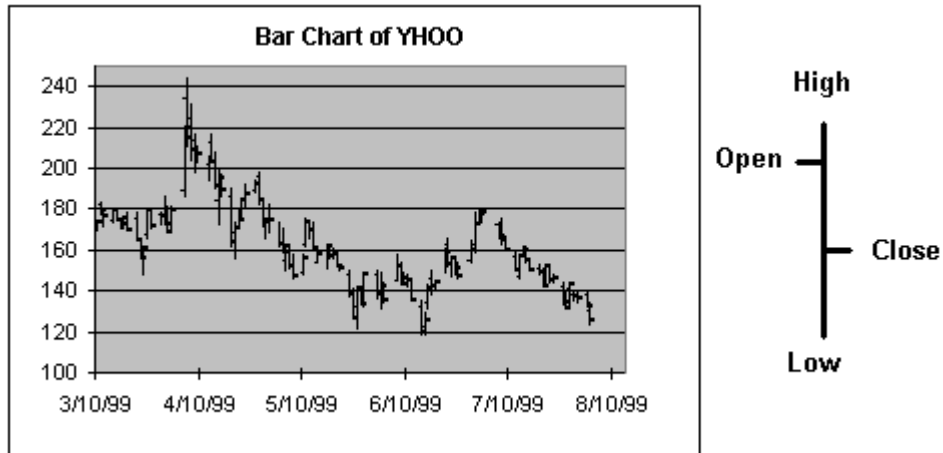


Figure 2. Bar chart of daily prices for YAHOO.

Figure 2 shows an example of a bar chart, displaying the daily open, high, low and close prices of YAHOO. One can see that, compared with the line chart, the bar chart reveals more information about the prices of a stock.

Candlestick Chart

Candlestick charts are very popular in Asia. Essentially, they contain the same information as bar charts. Figure 3 shows an example of a candlestick chart:

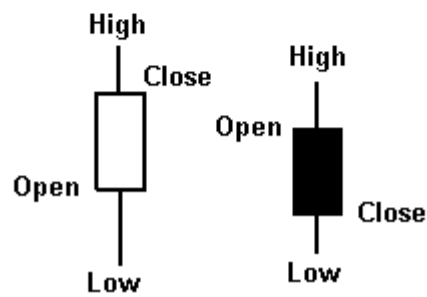
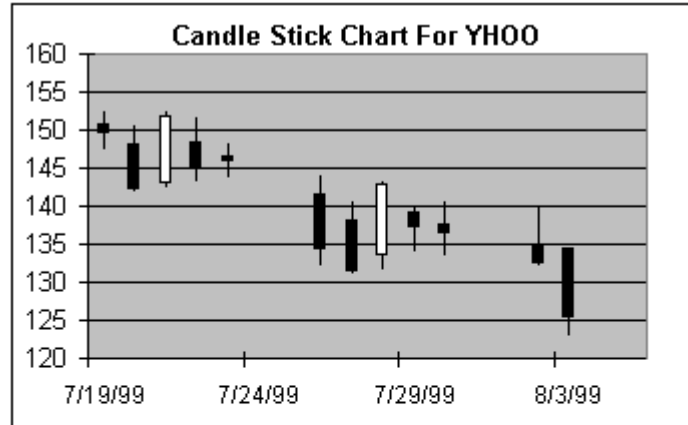


Figure 3. Candle Stick Chart

Reference Charts

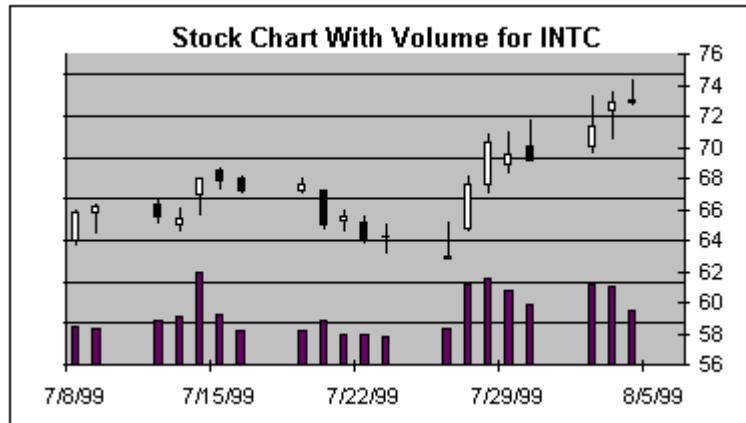


Figure 4. Daily price candlestick chart with daily volumes for Intel.

Besides price, trading volume is an important source of market information. The common practice is to plot stock prices together with volume bars or other technical indicators to be discussed in detail in the next section. These accompanying graphs are called "Reference Charts." Figure 4 shows a stock chart with daily volumes.

Technical Indicators

Over the years numerous technical indicators have been developed to describe stock performance, as well as to predict future price movements. In this section we introduce five of the most useful indicators and explain how they are calculated.

Moving Average

A stock price/time series can be seen as a representation of a longer-term trend on which is superimposed on a shorter-term, random fluctuating "noise." In order to obtain a clean trend signal, shorter-term noises can be filtered out by using moving averages. The formula for calculating the p -interval moving-average time series is given by

$$MA_p(i) = \frac{1}{p} \sum_{j=i-p}^i P(j)$$

Where,

$$P(i), \text{ for } i = 1, 2, \dots, n$$

is the stock price time series, and n is the number of periods.

The moving average defined above assigns equal weight to every point in the averaging interval; consequently, it may not emphasize the most recent price behavior. To overcome this, some people use the p -period exponential moving average:

$$EMA_p(i) = \frac{\sum_{j=-\infty}^i P(j)e^{-(i-j)/p}}{\sum_{j=-\infty}^i e^{-(i-j)/p}}$$

In reality, it is good enough to run the summation through $j=i-2p$, to $j=i$.

Bollinger Band

Sometimes stock prices appear to remain in a range for extended periods of time. A good way to describe this situation is to define a moving range around the stock prices. Some people use an upper boundary and a lower boundary to define the range; the upper boundary is calculated as a moving average of a chosen period plus 5% of the price, and the lower boundary is the moving average minus 5%. These boundaries have the drawback of being too narrow to accommodate price levels when volatility is high and too wide when volatility is low. A better solution, recommended by John Bollinger, defines the upper boundary as a chosen moving average plus twice the corresponding standard deviation, with the lower boundary as the moving average minus twice the standard deviation. The method is described below:

The Bollinger Band includes 3 lines: the upper band, lower band, and the centerline. The centerline is simply the moving average, and the upper and lower bands are, respectively, the center line plus/minus twice the standard deviation. For a p-period Bollinger band:

Center Line = p-period moving average

Upper Band = Center Line + 2xStdDev

Lower Band = Center Line - 2 x StdDev

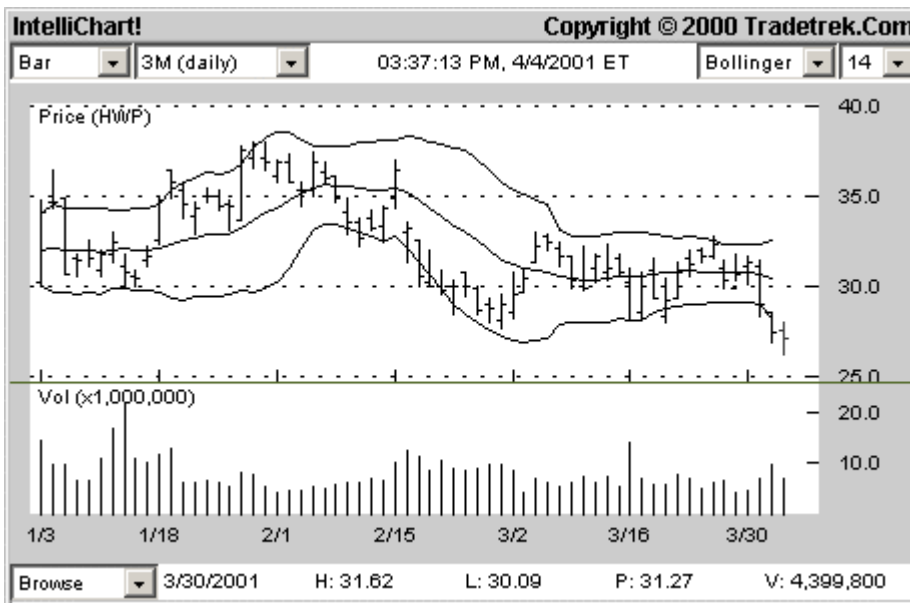


Figure 5. Bollinger Band

RSI

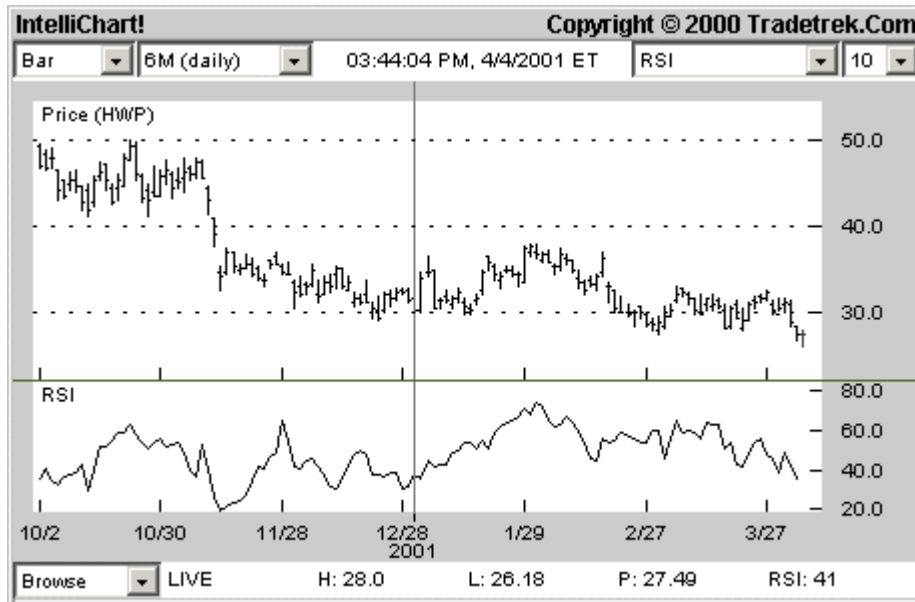


Figure 6. RSI

RSI stands for Relative Strength Indicator. In order to compute the p -period RSI, one first computes the p one-period changes.

$$\Delta_j = P(j) - P(j-1), \text{ for } j = i - p, i - p + 1, \dots, i$$

Then one computes the average of the up changes U and down changes D :

$$U = \text{Average}(\text{positive } \Delta_j), \quad D = \text{Average}(\text{negative } \Delta_j)$$

Then

$$RSI = 100\% \times \left(1 - \frac{1}{1 + \frac{U}{D}} \right)$$

We can see that, if the price goes up in every single period, one needs to rely on a small number such as 0.0001 to D to avoid dividing U by zero, so that $RSI=99.99\%$. If the price goes down in every period, $RSI=0$.

K/D

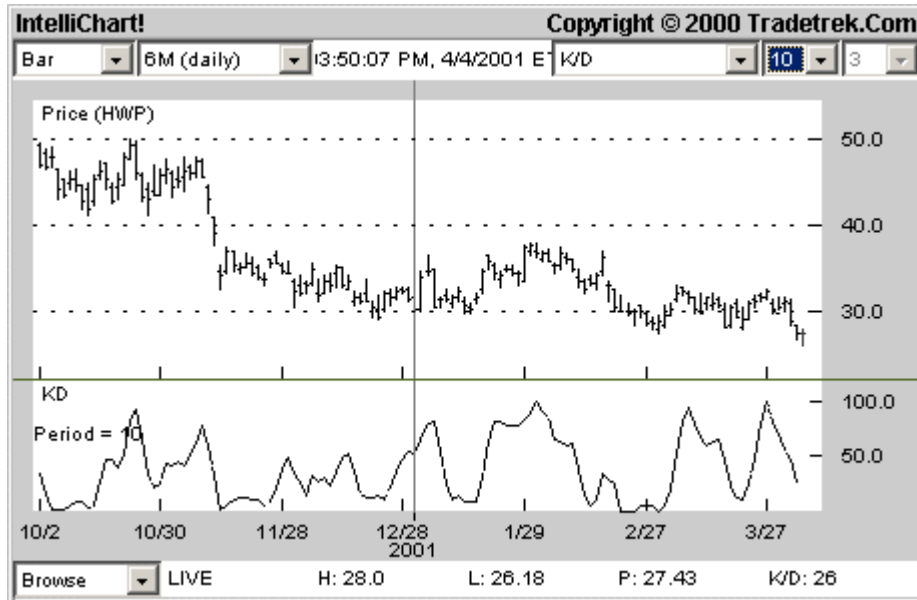


Figure 7. K/D

KD stands for two Stochastic indicators K and D . In order to compute the p -period K , one needs to compute the p -period high H_p and low L_p ,

$$H_p(i) = \text{Max}(P(j), j = i - p, i - p + 1, \dots, i)$$

$$L_p(i) = \text{Min}(P(j), j = i - p, i - p + 1, \dots, i)$$

then the fast Stochastic K is given by

$$K(i) = 100\% \times (P(i) - L_p(i)) / (H_p(i) - L_p(i))$$

The q -period slow Stochastic D is simply the q -period moving average of K . Many people simply refer to D by calling it KD .

MACD

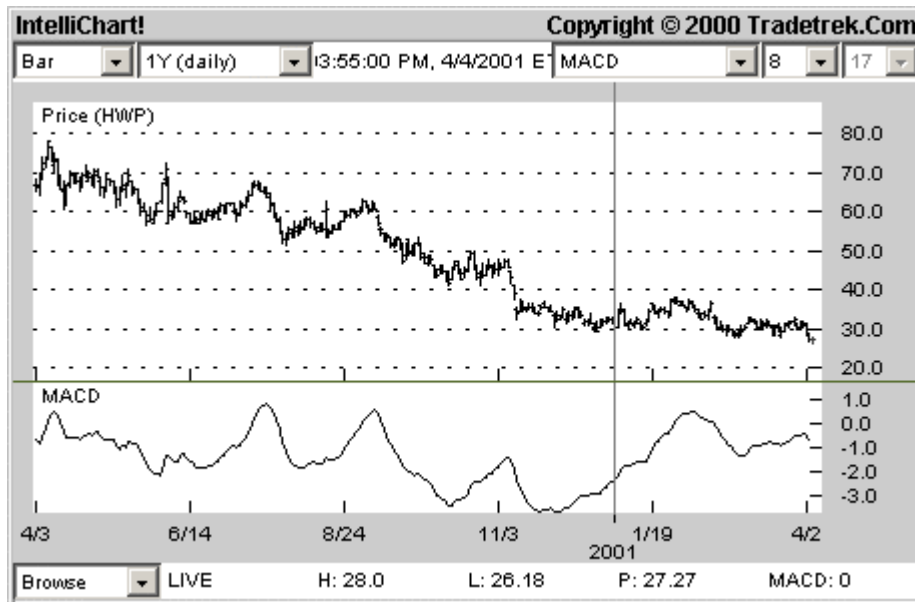


Figure 8. MACD

MACD stands for Moving Average Convergence and Divergence. It is simply the difference between a shorter period exponential moving average and a longer period exponential moving average. For example,

$$\text{MACD}(8, 17) = \text{EMA}(8) - \text{EMA}(17)$$

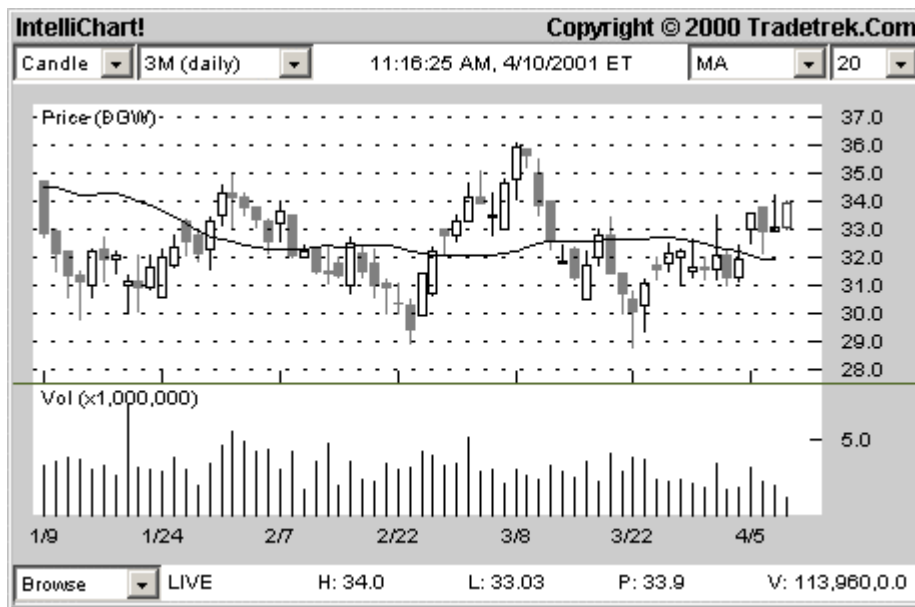
The MACD is often plotted together with a "Signal Line," the 9-day moving average of the MACD. A basic MACD signal is to buy when the 9-day signal line moves above the MACD line and to sell if it crosses below the MACD line.

Technical Trading Strategies

Technical analysts and traders believe that certain stock chart patterns and shapes provide signals of profitable trading opportunities. Many professional and amateur traders claim that they consistently make trading profits by following such signals. In this section, we introduce eight types of stock patterns and the corresponding trading strategies that, according to our extensive historical tests, give the investor a strategic trading advantage.

Moving Average Crosses

The evolution of stock prices over time can be seen as a shorter-term, random oscillation, on top of a longer-term trend. Most stocks show a rather "rhythmic" short-term oscillation with a typical cycle of about 14 to 25 days. If we believe that such a cycle does exist, we should bet that the stock price will continue to go through the moving average line after it is crossed, as seen in the following:



Analysis: Dow crosses above its own 20-day moving average. It may continue upward. Watch closely!

Figure 9. The stock crosses up through its 20-day Moving Average with a large momentum. A likely up pattern.

For a stock in an obvious long-term trend, the 50-day moving average line usually damps out most of the shorter-term oscillations; therefore, this can be used as a reliable "moving support line." A good trading strategy is to buy the stock if it is in an up trend and if the price bounces back up after it touches or lightly penetrates the 50-day moving average. The following figure presents such an example:



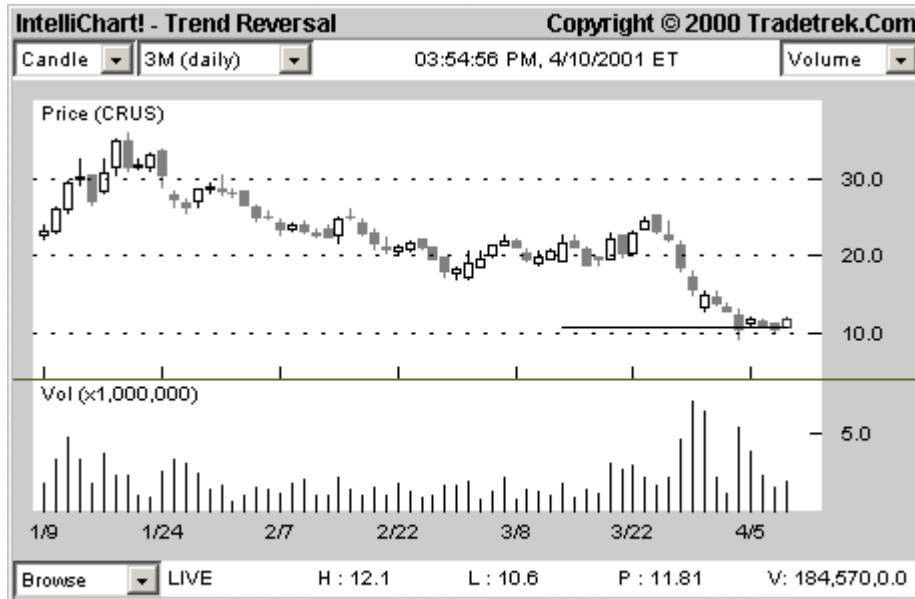
Analysis: MRK bounces back after hitting its 50-day moving average. A bearish signal.

Figure 10. The 50-day Moving Average is often used as a moving resistance line in a downtrend. Technical traders think that it is a strong sell signal of the stock price bounces back after reaching the resistance line.

The corresponding opposite trading strategy is to "[short](#)" the stock if it is in a down trend and if the prices drops back down after it touches or lightly penetrates the 50-day moving average.

Candle Stick Trend Reversal

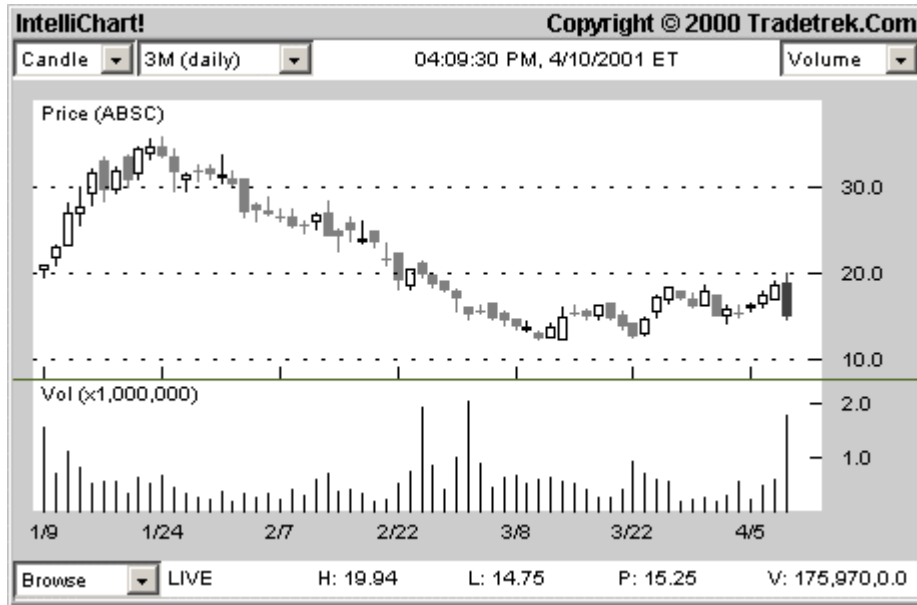
A candle stick chart is a good presentation of a stock's momentum. On a candlestick chart, one can easily see the secession of up days, down days and sudden changes in the stock pattern. The following figure is an example of what is sometimes called "First Sunny Day", a typical buy pattern.



Analysis: CRUS now shows a First Sunny Day pattern. Now it is at a good entry level and the optimal stop loss level is 10.6.

Figure 11. A Trend Reversal pattern. After a long, long decline, the stock suddenly goes up in significant magnitude. Furthermore, it closes much higher above its open. This "First Sunny Day" sends a short-term buy signal.

The trading strategy for a "First Sunny Day" pattern is to buy the stock and hold until it recovers the range lost by the recent secession of down days, or to cut losses if it drops back to the prior day's low. This pattern usually signals a very good profit-risk ratio.

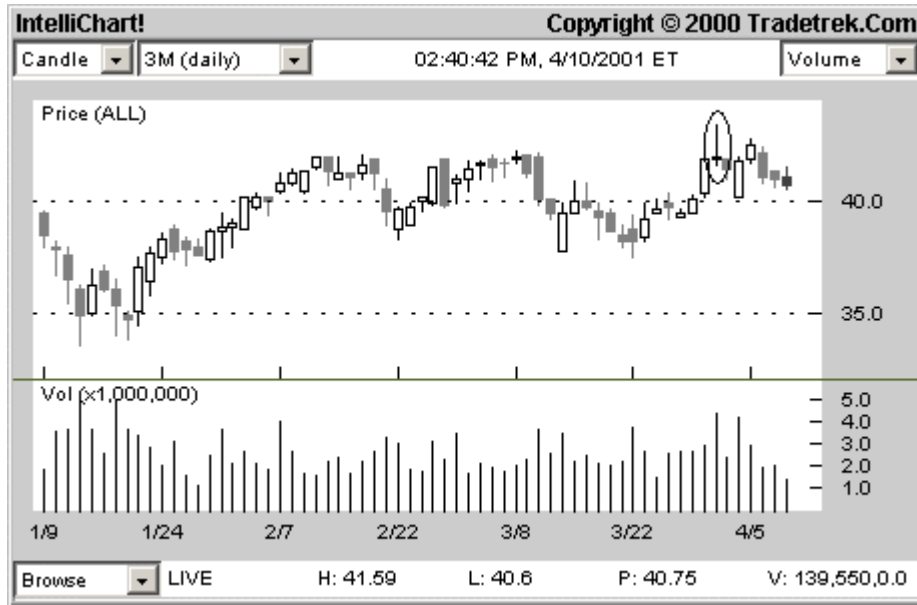


Analysis: ABSC now has become a sudden Cloudy Day. Now it is at a good short level and the optimal stop loss cover level is 19.75.

Figure 12. This is a short-term Trend-Reversal pattern. After a rise, the stock suddenly drops; its close is much lower than its open. This pattern hints that something has suddenly gone wrong with the stock. This so-called "Sudden Cloudy Day" pattern indicates one should sell the stock without delay.

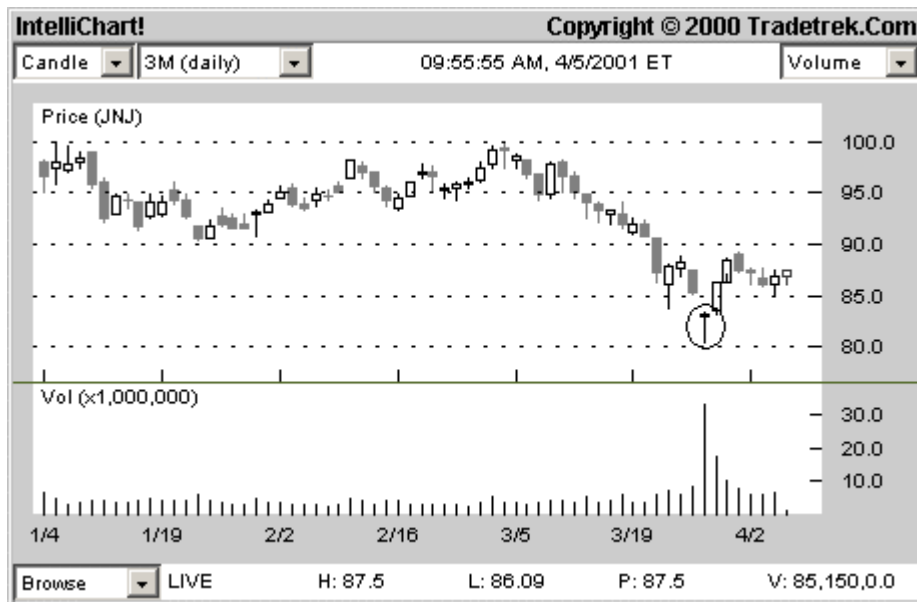
In this example of the, "Sudden Cloudy Day" pattern, the trading strategy is to [short](#) the stock and hold it until it retraces the recent secession of up days or to cut losses if it breaks the previous day's high.

For longer-term trend-reversal patterns, we often look for the "**Shooting Star**"; as shown in the example above. We also look for the "**T-Shape**" which signals a *bounce-back buy signal*.



Analysis: ABSC now has become a sudden Cloudy Day. Now it is at a good short level and the optimal stop loss cover level is 19.75.

Figure 13. The stock price soared considerably in the past few days. At present, it shoots up, as if exhausting all its energy. This Shooting Star pattern hints that the market has lost confidence in the further potential of the stock, indicating a likely downturn.

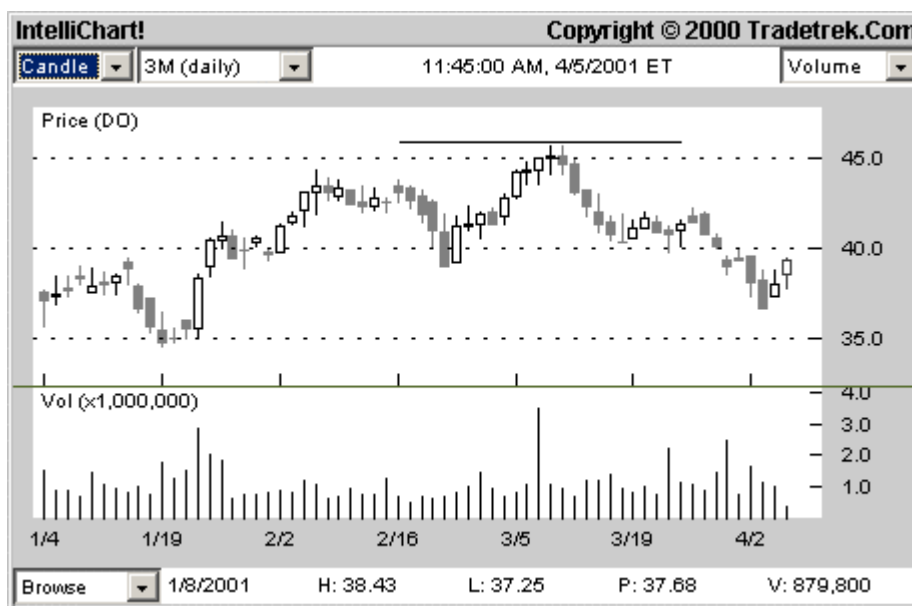


Analysis: JNJ now shows a typical T pattern, a likely up turn.

Figure 14. The stock price dropped over several days. Presently, it drops precipitously, then bounces back to close near the open, forming a "T" shape. This may indicate that the market finally has finally decided the stock has dropped enough, with many bullish traders and investors coming to the rescue.

"Head-and-Shoulders"

The "Head-and-Shoulders" pattern is believed to be one of the most reliable trend-reversal patterns. The figure below shows an example of a short-term Head-and-Shoulders pattern:



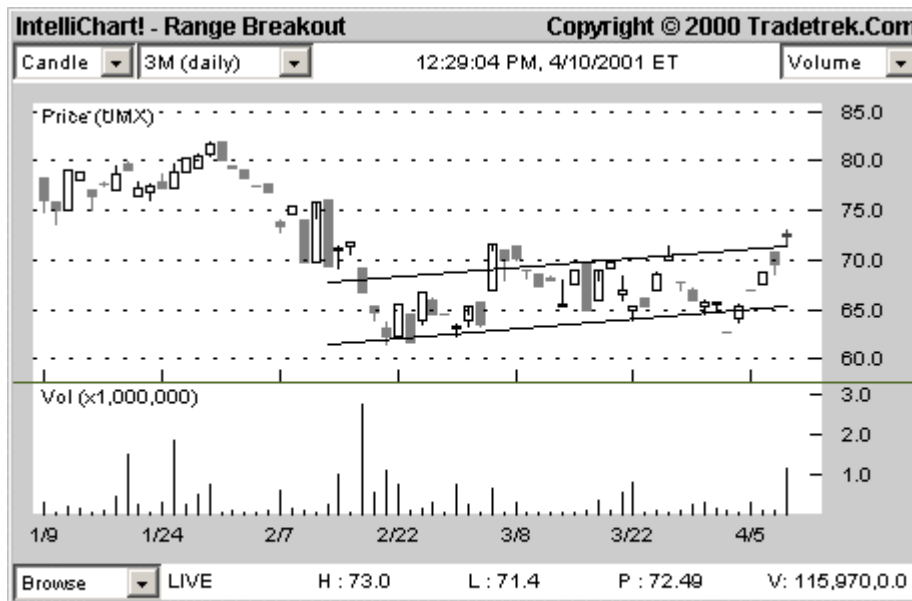
Analysis: DO shows a Head-And-Shoulders pattern in the past 30 days.

Figure 15. This is the famous "Head-and-Shoulders" formation, a sell signal.

The strategy indicated by the "Head-and-Shoulders" pattern is to short-sell the stock as the price drops down the second shoulder, especially if the volume also goes up. Then one can hold the position until the price drops all the way down to the level of significant supports and consolidation. This signal also indicates that one should cut loss if the price rises above the tip of the head. A less-risky stop-loss strategy is to cut losses if the price goes back up the top of the second shoulder.

Range Breakout

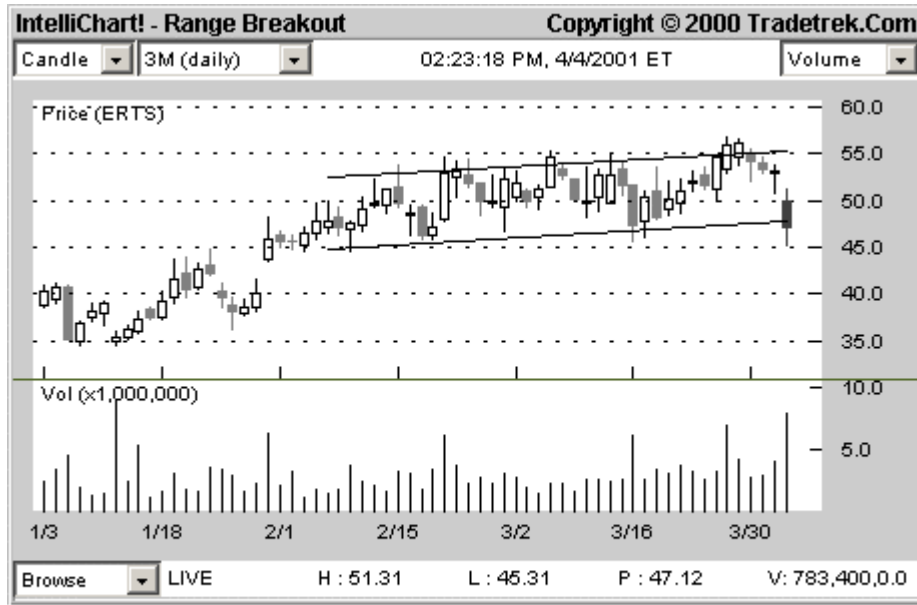
The figure below shows an example of a typical **Range Breakout** pattern.



Analysis: UMX shows a bullish Range Breakout with high volume. The optimal entry level is 72.12 with a stop loss at 71.27

Figure 16. A typical Range Breakout pattern, a strong buy signal. Note that the stock price breaks out of the trading range defined by the two range lines with large volume.

The trading strategy for a Range Breakout is just the opposite that of Head-and-Shoulders: it indicates a strategy of buying as the stock breaks the upper range line with larger-than-average volume, and continuing to hold until the stock has risen a distance comparable to the height of the range. If the price goes down instead, one should stop losses as it penetrates the upper range line.

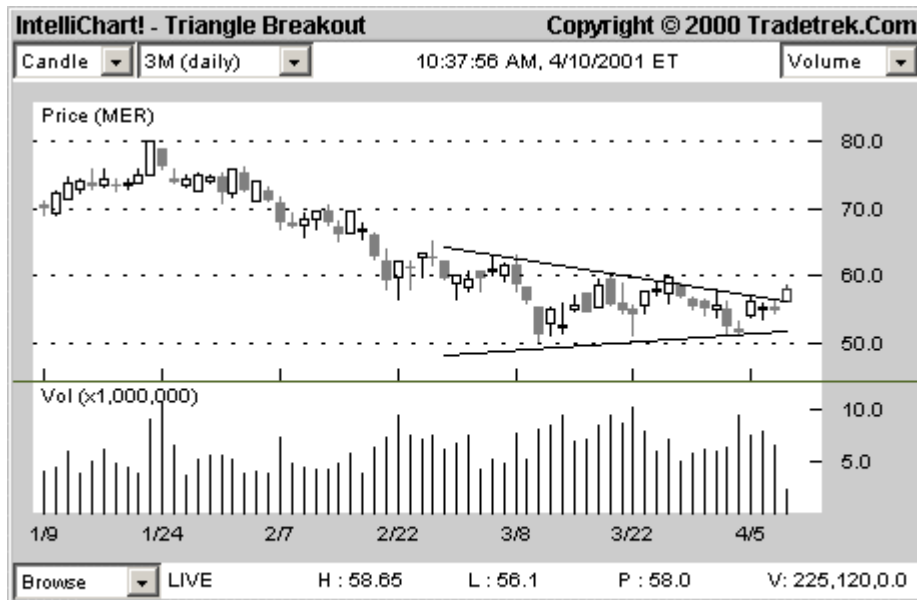


Analysis: ERTS shows a bearish Range Breakdown with high volume. The optimal short level is 47.24 with a stop loss cover at 51.43

Figure 17. This is a typical Range Breakdown with large volume, a strong sell signal.

The trading strategy for a Range Breakdown is just the opposite: sell as the stock breaks the lower range line with larger-than-average volume, and continue to hold until the stock has fallen a distance comparable to the height of the range. If the price goes up instead, one should stop losses as it penetrates the lower range line.

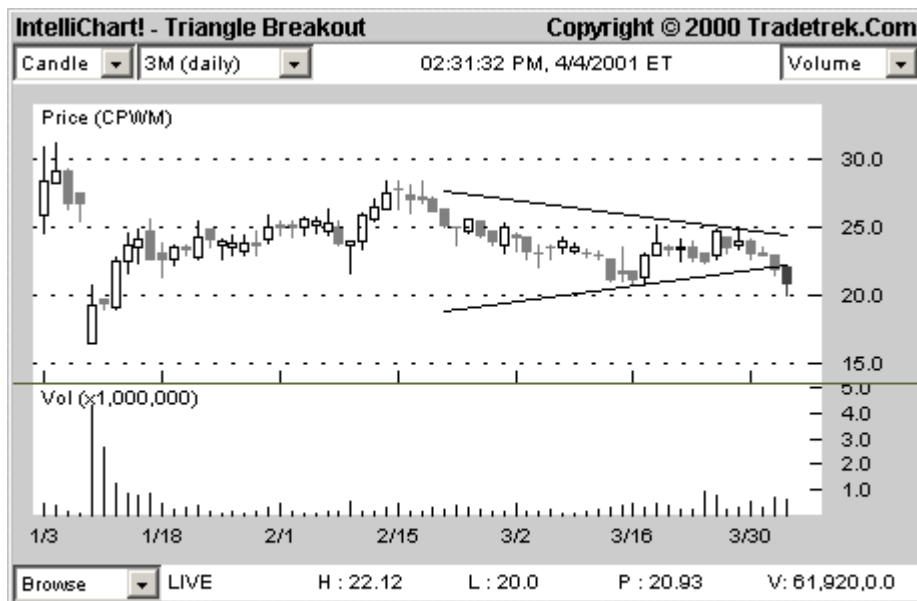
Triangle Breakout



Analysis: MER shows a Triangle Breakout with high volume. The optimal entry level is 56.68 with a stop loss at 55.97

Figure 18. Triangle Breakup

This is the famous **Triangle Breakup** pattern, a strong buy signal. In the past two months the stock price shown has consolidated with declining amplitude and volume. At present, it breaks out with high volume, signaling a possible new up trend.

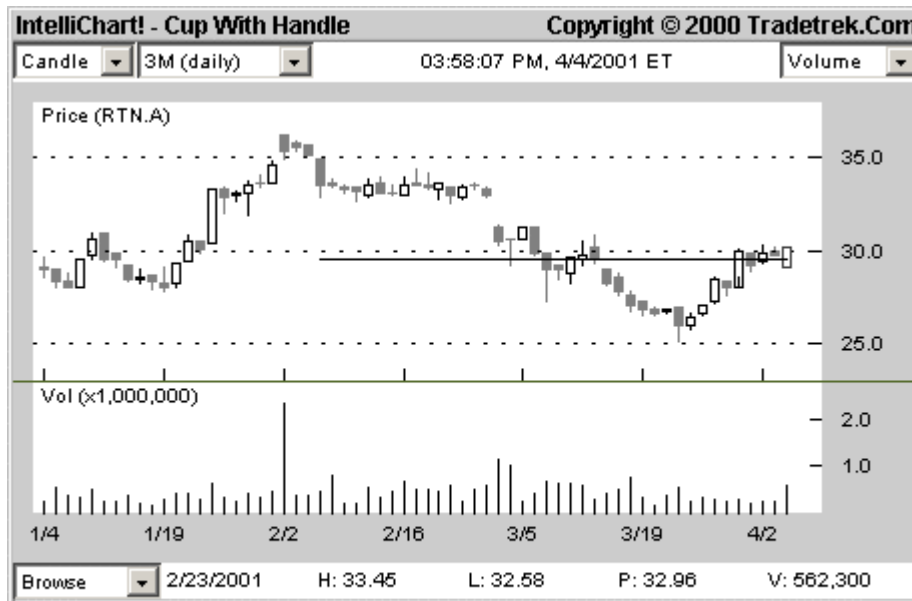


Analysis: CPWM shows a Triangle Breakdown with high volume. The optimal short level is 21.91 with a stop loss cover at 22.25

Figure 19. A typical **Triangle Breakdown pattern?** a strong sell signal.

"Cup-With-A-Handle"

According to **tradetrek's** extensive and rigorous historical tests, the **Cup-With-A-Handle** breakup pattern is the most reliable technical buy signal. The figure below shows a typical example:



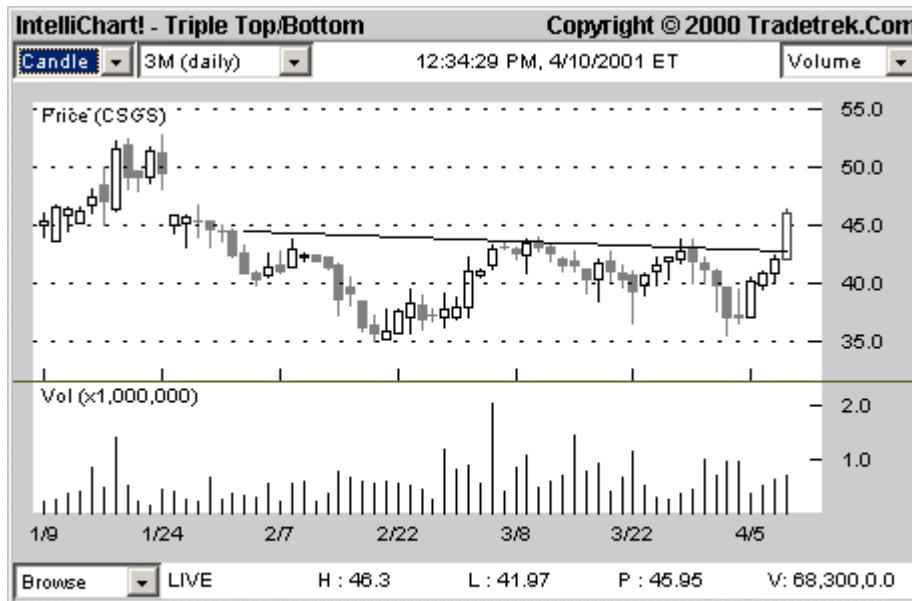
Analysis: RTN.A shows a bullish **Cup-With-A-Handle** breakup with large volume. The optimal entry level is 30.15 with a stop loss at 29.57.

*Figure 20. This is the typical **Cup-With-A-Handle** breakup pattern, a strong buy signal. According to statistics, stock prices rise 70% of the time after such a breakup.*

The strategy is to buy the stock as the price breaks up with larger than average volume, then cut losses if it drops back to the pre-breakup level. If it goes up as expected, this pattern calls for successively raising the stop levels, giving the trade a chance to capture most of the up potential. According to **Tradetrek's** extensive experience and historical testing, the opposite pattern of the **Cup-With-A-Handle** does not work nearly as well.

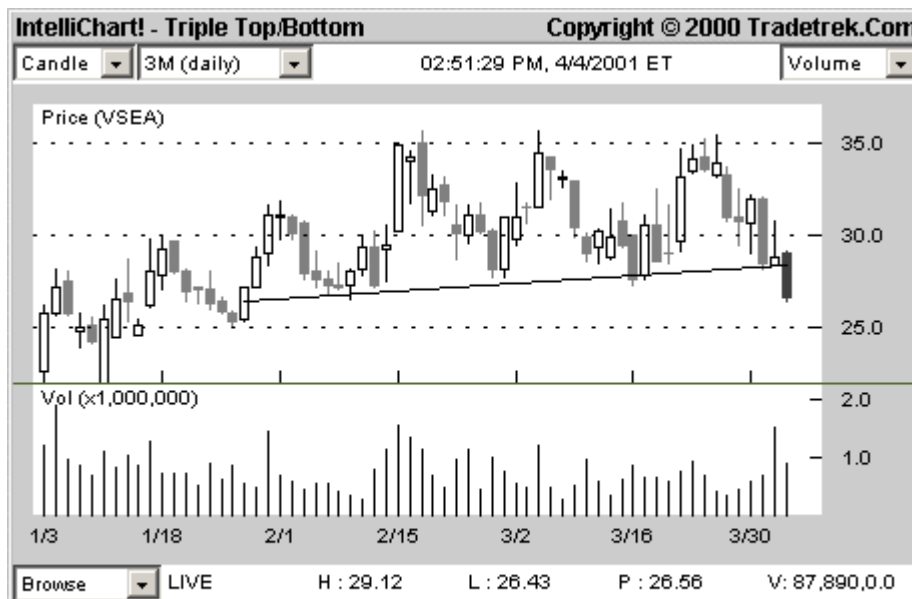
"Triple Top/Bottom"

Triple Top/Bottom patterns, which appear frequently in stock trading, are relatively easier to detect. Below are some typical Triple Top/Bottom patterns:



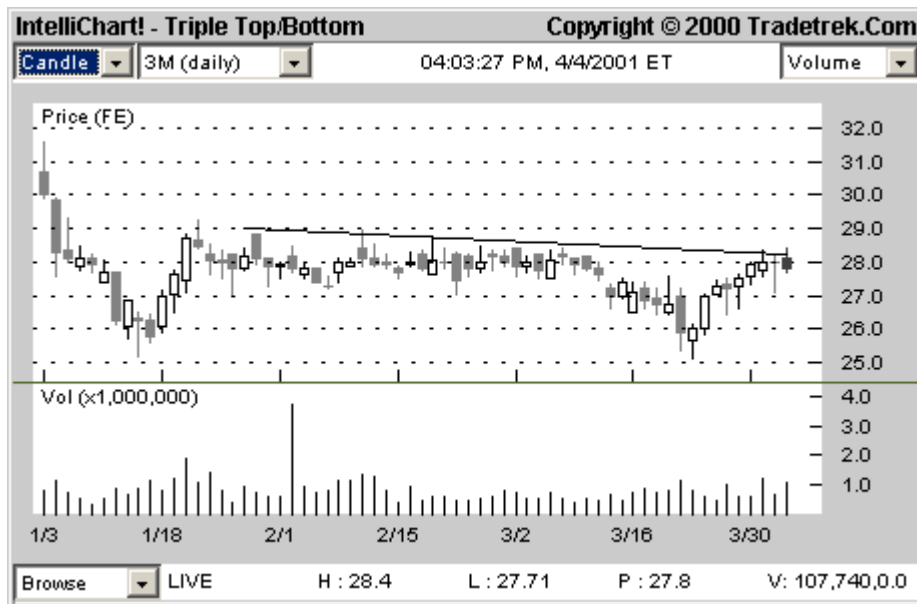
Analysis: CSGS shows a bullish Triple Top Breakout with high volume. The optimal entry level is 42.84 with a stop loss at 41.84

Figure 21. A break-through from an-up-trend Triple Top is a buy signal. Risk involved is low. One can sell the stock if it turns back and penetrate the line.



Analysis: VSEA shows a bearish Triple Bottom Breakdown with large volume. The optimal short level is 27.85 with a stop loss cover at 29.25

Figure 22. This is a **Triple Bottom** breakdown with large volume, a sell signal. Risk is small because one can cover the short position if the stock price turns back up to the line.

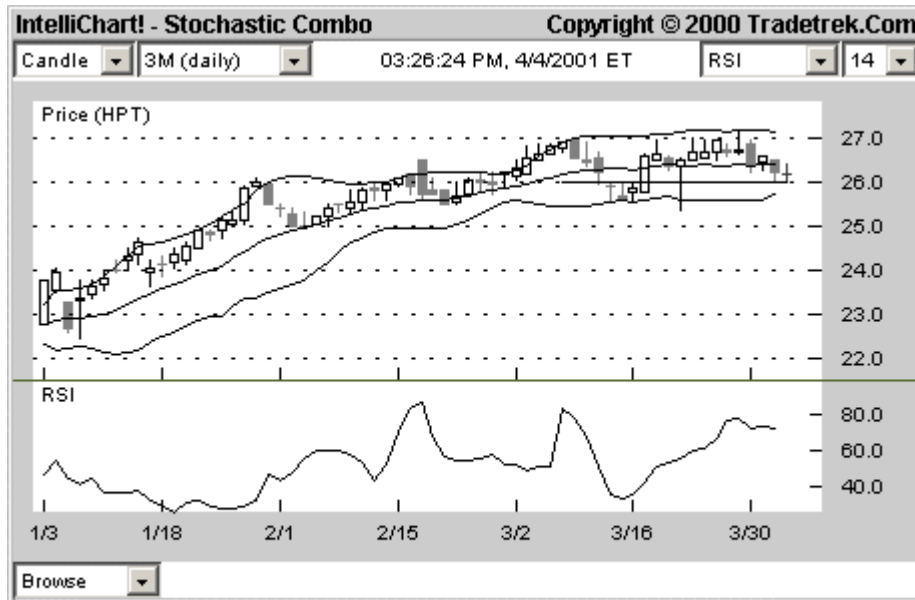


Analysis: FE shows a Triple Top bounce back, a bearish pattern. Now it is at a good short level with a stop-loss cover at 28.25 .

Figure 23. A bounce-back from **Triple Top**, a sell signal

Stochastic Combo

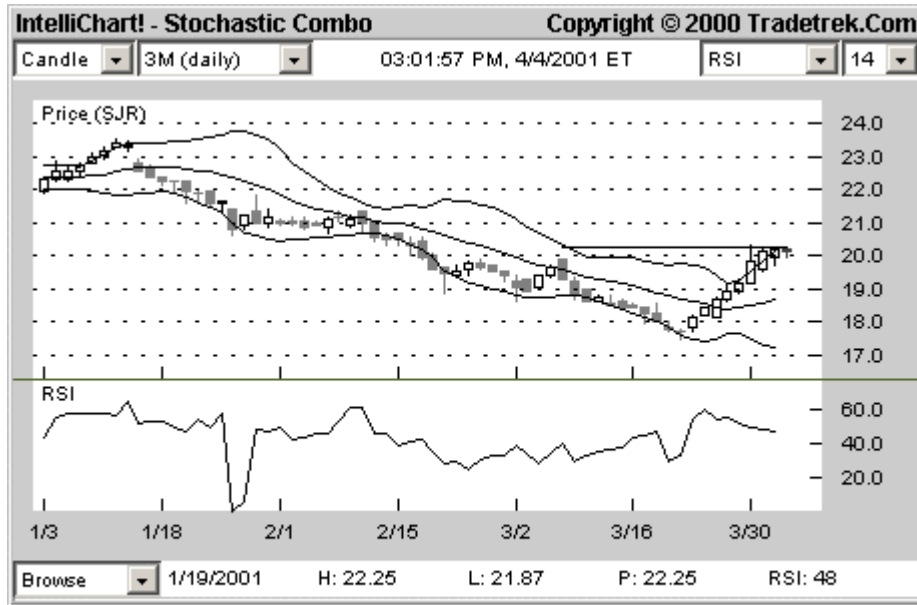
The **Stochastic Combo** trading strategy is based on the stock price satisfying a combination of conditions of the various technical indicators. For the buy signal, the stock will have to show a long-term up trend, the momentum indicators will have to indicate that the stock is oversold, the RSI will have to be low, and the price will have to be near the lower Bollinger Band, showing starting signs of bounce-back. The figure shows such an example:



Analysis: Our Stochastic Combo model thinks HPT is Oversold in an uptrend. The optimal entry level is 26.25 with a stop loss at 26.01

*Figure 24(a). This is a buy signal from our **Stochastic Combo** model. The stock is in an up trend and all the indicators (RSI, K/D, MACD and Bollinger Band) show that the stock is oversold. Furthermore, the stock at present has already turned up.*

For the sell signal, the stock will have to show a long-term down trend. Momentum indicators will have to signal that the stock is overbought, that the RSI is high, that the MACD is favorable, and that the price is close to the upper Bollinger Band, showing first signs of decline. All this is illustrated in the figure below:



Analysis: Our Stochastic Combo model thinks SJR is Overbought in a downtrend. The optimal short level is 20.09 with a stop loss cover at 20.25

Figure 24(b). This is a sell signal from our **Stochastic Combo** model.

The trading strategy is to ride on a general trend and at the same time enhance profits by capturing the likely short-term mean reversion. If the stock moves as expected, one should hold until the price penetrates the center Bollinger Band (a 14-to-20-day moving average), or even until the price nears the opposite Bollinger Band. If, however, the price moves in the wrong direction, one should cut losses shortly after it goes beyond the prior day's intra-day extreme.

Day Trading Strategies

Basic Principles of Day Trading

Rule #1: Never hold a position overnight.

Day traders trade frequently and, as a rule of thumb, always close all trading positions before the end of day. By doing so, traders significantly limit their risk exposure to after-market surprises. It also lets them start the next trading day worry free, with a fresh mind.

Rule #2: Only trade stocks with prices over \$10 dollars and average daily volume larger than 300,000 shares.

This rule makes sure that the bite from bid/ask spreads is limited and that the day trader can always get in or out of any trading positions.

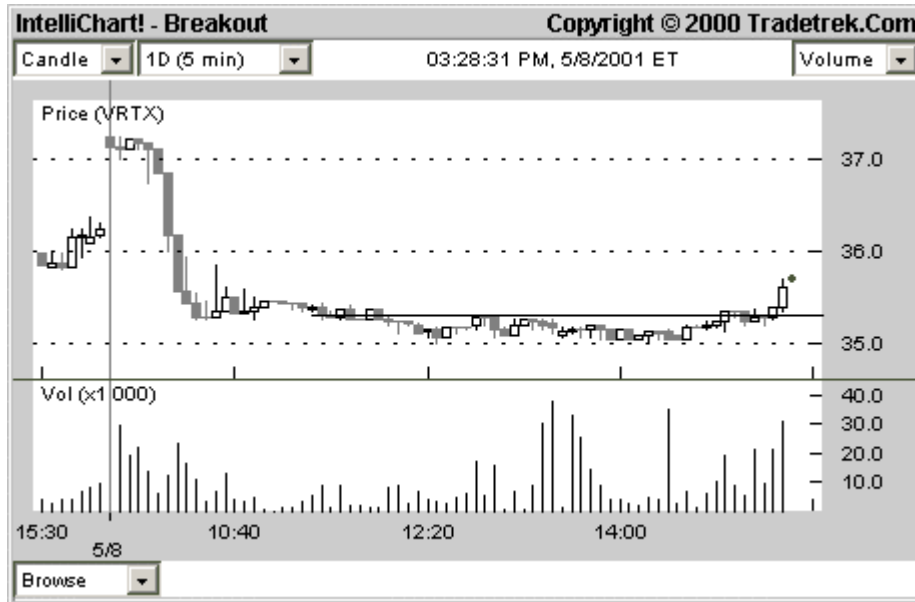
Rule #3: Cut loss promptly.

By sticking to this prudent caution, day traders can make sure to preserve trading capital and stay in the game until they develop a consistent and profitable trading system.

These 3 rules should never be compromised if one wants to become a successful day trader.

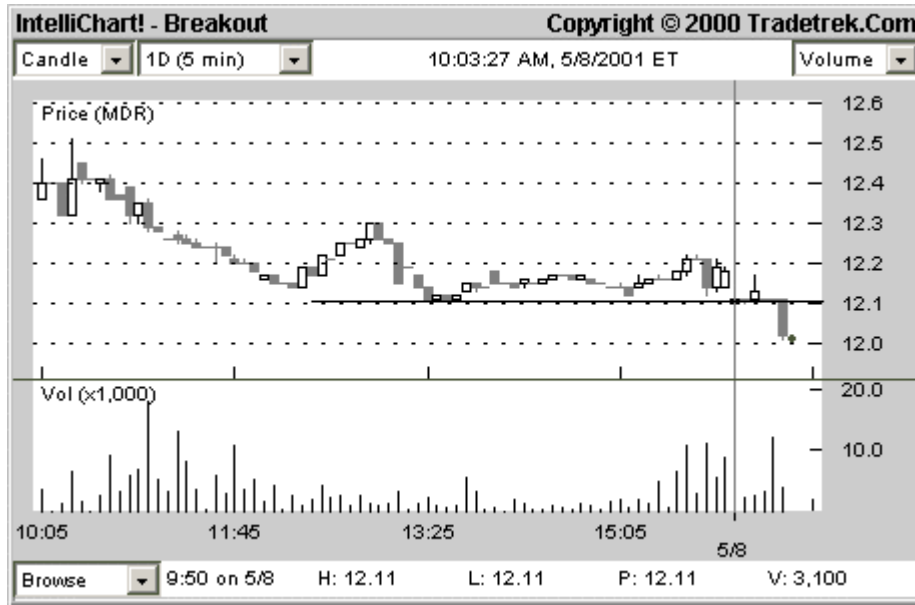
Strategy I: Breakouts

Breakout is one of the most effective and popular trading strategies. Experienced day traders do not buy or sell a stock before seeing indications that a stock may start a significant move. Then, monitoring a stock that has stayed in a narrow price range for some time (usually longer than 30 minutes or an hour), traders buy or sell the stock if it suddenly moves out of the range with significantly larger trading activities (larger volumes). The following charts are examples of breakouts picked by Tradetrek's "Day Trading Center:"



Analysis: VRTX shows a bullish BREAKOUT. The optimal entry level is 35.57, while the optimal stop-loss is at 35.21.

Figure 1. VRTX traded within a narrow range for about 3 hours until it breaks out with large volume at 14:35 pm. Tradetrek picks up this bullish signal, as it presents itself –no delay at 3:28 pm. The strategy is to buy the stock at a price near 35.57, right on the heels of the breakout. In order to protect the downside, the trader should enter a stop loss order, right after the buy order is confirmed, to sell stock at 35.21.



Analysis: MDR shows a bearish BREAKOUT. The optimal short level is 12.04, and the desirable stop-loss cover should be at 12.16.

Figure 2. MDR traded within a narrow range for about 2 hours until it breaks down with large volume at 9:20 am. Tradetrek picks up this bearish signal at 10:00am. The strategy is to short sell the stock at a price near 12.04 right after the break. To protect capital, traders should enter a stop loss cover order, right after the short sell order is confirmed, to buy the stock at 12.16.

By buying or selling the stock, then entering a stop loss order immediately afterwards, one will be stopped-out at a limited and controllable loss if a signal proves to be a false Breakout. Otherwise, one can wait until the stock price has stabilized at another trading range, then exiting at a profit. Again, of course, one should always remember Rule #1: always clear the position before the market closes.

Our computers at Tradetrek.com are constantly searching the entire market data-stream for Breakout trading opportunities, which we promptly display at Tradetrek's "Day Trading Center." We also provide, for the trader's reference, "optimal entry and cut-loss levels." These levels are derived from great numbers of historical back tests, such that traders who follow those rules would achieve optimal returns with minimum risks. Given the difficulty of calculating an optimal profit target, we do not provide one. There are, however, a few steps that a day trader can take to tailor an individual estimate. One useful reference is the average daily price range. In a single trading day, traders should not expect a profit much bigger than the size of the average daily price range. Following a breakout, if the trade is already making a profit comparable to the average daily price range, it is time to unwind the trade. Traders also choose to successively raise the stop loss level if the trade makes more and more money. In this way, they protect profits and keep the opportunities open for higher gains.

Strategy II: Gaps

Gap trading strategies, the favorites of seasoned day traders, are among the most profitable and reliable of tactics, even though Gap trading opportunities are rare. Experienced day traders are always on the lookout for Gap opportunities. Right after the opening bell, they start examining all stocks they can think of, hoping to come across a Gap signal by chance, and then, promptly jump into it to make a kill. Alas, they may not find such lucrative opportunities very often. But now, the good news is that Tradetrek Gold Service subscribers can easily capture such trading opportunities! Tradetrek.com computers are constantly, systematically searching the entire market for Gap trading opportunities. The instant that we detect one, we post them automatically in the "Day Trading Center," as fast as state-of-the-art intelligence is able (= fast!!) The following charts show a typical Gap-Up-Then-Drop-Back sell signal and a Gap-Down-Then-Come-Back buy signal.

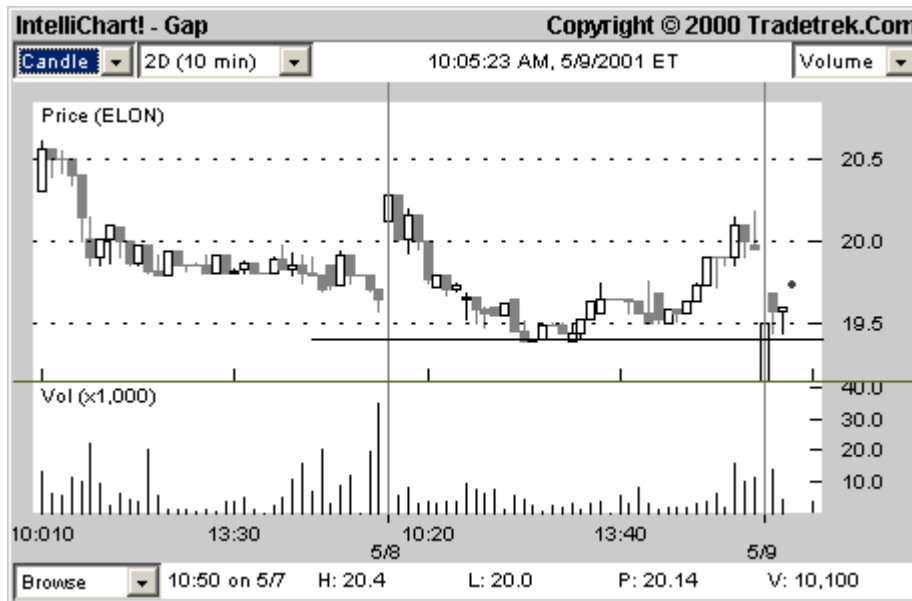


Analysis: ENTU shows a GAP-UP-THEN-DROP-BACK bearish signal. The optimal short level is 6.44 and the desirable stop-loss cover should be at 6.90.

Figure 3. ENTU opens at 6.6, higher than yesterday's high of 6.4. Then it drops back to a level close to yesterday's high, signaling a likely bearish turn. The strategy is to short the stock near 6.44 with a cut loss cover at 6.92, a level slightly higher than today's high of 6.9.

Gap-Up-Then-Drop-Back sell signal: Sometimes, because of market reaction to industry news, earning surprises, floor rumors, etc.) a stock price gaps up and opens higher than yesterday's intra-day high, but soon it drops back to lower than yesterday's high. This kind of gap-up move at market open is occasioned by solid economic influence, so the stock price does not collapse back. In other instances, though, the jump may be sparked by a small group's over-reaction, after which the price cannot hold ground at such a level, so that it quickly falls. The Gap-Up-Then-Drop-Back trading strategy is to short sell the stock when it drops back lower than yesterday's high. Usually the price will continue to quickly drop much further, at which point the trader soon makes a profit. The psychology behind this effective strategy is simple: when it's confirmed that even a good story can't drive the price up, investors should give up on the stock and buy other

more promising stocks. Therefore, not only will existing holders of the stock sell it: new buyers will be reluctant to touch it. Hence, the price will soon collapse.



Analysis: ELON shows a **GAP-DOWN-THEN-COME-BACK** bullish signal. The optimal entry point is 19.50, while the optimal stop-loss is at 18.95.

Figure 4. ELON opens at 19.5, lower than yesterday's low of 20. Then it comes back to a level close to yesterday's low, signaling a likely bullish turn. The strategy is to buy the stock near 19.50 with a cut loss at 18.95.

Gap-Down-Then-Come-Back buy signal: because of market reaction to negative signals-- bad news, earning surprises, industry rumors, etc.) the stock price gaps down and opens lower than yesterday's intra-day low, but soon it comes back higher than yesterday's low. Often times the gap-down move at market open may be triggered by reliable economic indicators, so the stock price won't come back. But when the jump is caused by a small group's over-reaction to unreliable news (often the case), the price may quickly recover. The Gap-Down-Then-Come-Back trading strategy is to buy the stock when it comes back higher than yesterday's low. Usually the price will continue to quickly rise much further; then, the smart trader will soon make a profit. The psychology behind this well-used strategy is simple: when it becomes clear that even a bad story can't keep the price down, investors gain even more confidence in the stock. Therefore, not only the existing holders of the stock hold on to it, but many new buyers are attracted as well, soon causing the price to rise.

For both gap trading strategies, we provide "the optimal entry and cut-loss levels" for the traders reference. These levels are derived from extensive historical back-test data, such that the traders who follow those rules would achieve optimal returns with minimum risks. But as we noted above for the Breakout chart, it is impossible to calculate an optimal profit target that suits all traders, so we do not provide one. Nonetheless, as suggested above, there are a few things that day traders can do: One useful reference is the average daily price range. In a single trading day, traders should not expect a profit much bigger than the size of the average daily price range. Following a Gap-Down-Then-Come-Back, if the trade is already making a profit comparable to the average daily price range, it is time to unwind the trade. Traders can also choose to successively raise the stop loss level if the trade makes more and more money. In this way, they protect profits and keep the opportunities open for more gains.

Strategy III: Flags

Even in a prolonged up-trend, a stock does not move up in a smooth and steady path: it usually moves up significantly, rests for a while in a continuation pattern, and then continues further up. "Flags" are typical continuation patterns. If one can identify a flag formation and locate a good entry level, one can often make a handsome profit without taking much risk.



Analysis: DBCC shows a bullish FLAG. The optimal entry level is 7.68 and the desirable stop-loss should be at 7.45.

Figure 5. DBCC breaks out strongly to 7.4 with large volume at the opening of 5/4/2001. This part forms the "pole" of the bullish flag. Then it temporarily runs out of steam and drops back to 7.7, a level still higher than the pre-breakout level of 7.4. The strategy is to buy the stock near 7.68 and hope to sell it at 8.2 or higher. It is important to enter a stop loss order to sell the stock at 7.45. This prevents a loss if it turns down to a level lower than the pre-breakout level.

In the above "Bullish Flag" figure, the stock price is in a general up trend and it breaks out with large volume on 02/20/2001. Then it drops back to a level that is a bit higher than the high of the pre-breakout range. Traders who missed the opportunity to buy the stock just at the time of the breakout on 02/20/2001 now have another chance to get in, because it is likely that many investors will buy the stock and drive its price up. The 02/20/2001 breakout can be seen as the "pole" of the flag. The optimal trading strategy is to buy the stock near the lower edge of the flag and sell it at the upper edge to make a profit. If the stock price, instead of going up, drops down below the high of the pre-breakout range, one must sell the stock immediately to cut loss.



Analysis: RCL shows a bearish FLAG pattern. The optimal short level is 20.25 with a stop-loss cover at 20.73.

Figure 6. RCL breaks down strongly to 20.5 with large volume right after the opening of 5/14/2001. This part forms the "pole" of the inverted bearish flag. Then it temporarily rises back to 20.4, a level still lower than the pre-break level of 20.5. The strategy is to short the stock near 20.25 and hope to buy it back at 18 or lower. It is important to enter a stop loss cover order to buy the stock at 20.73, so that one is protected if it comes back to a level higher than the pre-breakout level.

The bearish flag trading strategy is just the opposite of the Bullish flag. In the above "Bearish Flag" figure, the stock price is in a general down trend, breaking down with large volume on 02/16/2001. Then, it bounces back to a level still a bit lower than the low of the pre-breakout range. Traders who missed the opportunity to short the stock just after the breakout on 02/16/2001 now have another chance to do it, for this time it is likely that many traders will sell the stock, driving its price down. The breakout on 02/16/2001 can be seen as the "pole" of the inverted flag. Here, the optimal trading strategy is to short the stock near the higher edge of the inverted flag and cover it at the lower edge to make a profit. If the stock price, instead of going down, rises above the low of the pre-breakout range, one must buy the stock back immediately to cover loss.

As Tradetrek.com computers monitor the market data stream, we constantly search the entire market for Flag trading opportunities, which we immediately display at the "Day Trading Center." For both Flag Trading Strategies, we provide "the optimal entry and cut-loss levels" for the traders reference. The levels are derived based on a great number of historical back tests such that the traders who follow those rules would achieve optimal returns with minimum risks. Because it is very difficult to calculate an optimal profit target, we do not provide one. There are a few things that a day trader can do here. One useful reference is the average daily price range. In a single trading day, the trader should not expect a profit much bigger than the size of the average daily price range. If a bullish flag trade is already making a profit comparable to the average daily price range, it is time to unwind the trade. The upper edge (or the top of the "pole") is also a good exit point; the trader can buy the stock at the lower edge and sell it at the upper edge to make a profit. The trader can also choose to successively raise the stop loss level if the trade makes more and

more money. In this way, he can protect the profits and keep the opportunities open for more gains.

Strategy IV: Support and Resistance

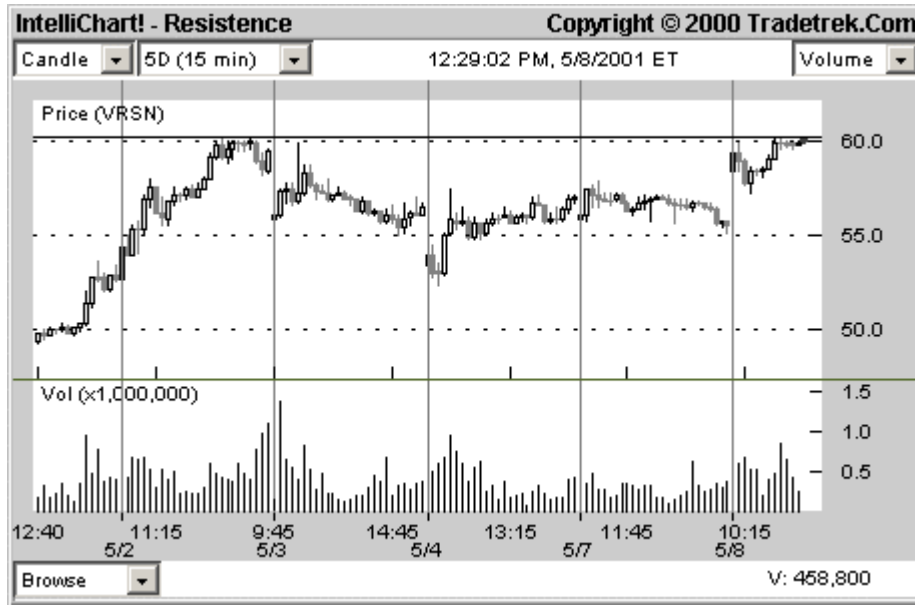
One of the most-common and best-known trading strategies is this: "Buy at the support level and sell at the resistance level." The significance of the support level can be understood this way: Imagine that on a given day, for some particular reason (or by sheer chance) a stock is traded very heavily at a certain price level. Also imagine that many traders remember this price level because they bought or sold the stock at this level. Next, suppose that the stock price first moves up away from this level and, later on, (for some reason or no reason) the stock price trades back again to the earlier level. Traders who previously bought the stock and sold it for a profit would likely buy it again at this level. Those who previously sold the stock at this level and missed the recent run-up would have a chance to buy it back. Such buying activities usually slow down the drop and may reverse the momentum. At least, the stock price may take a rest at this level before moving in a new direction. We can then say that the stock price has hit some "support level," by which we suppose that it most likely will not quickly drop through it. The sensible trading strategy is, of course, to buy the stock near this support level, monitor it closely, and sell it to cut losses if it falls meaningfully lower than the support level. If the support level does prevent the stock price from falling and it starts to bounce back, the trader can make a nice profit that is usually much larger (!) than the amount of loss incurred if the trade turned south and loss had to be cut.



Analysis: SLB is near a critical SUPPORT LEVEL. The optimal entry point is 60.90, while the optimal stop-loss is at 60.14. However, it becomes a bearish breakdown if the price drops below 60.14 with high volume.

Figure 7. In the previous 5 days SLB has consistently bounced back every time after it touched 61. There is a good chance that 61 is a significant support level. The strategy is to buy the stock near 60.90. As the buy order is confirmed, one should enter a stop loss order to sell the stock at 60.14.

"Resistance Level" is just the opposite. Here, the strategy is to short sell the stock near the resistance level, monitor it closely, and buy it to cut loss if it breaks meaningfully higher than the resistance level. If the resistance level indeed prevents the stock price from going up and it starts to bounce back down, the trader can make a nice (!) profit, usually much larger than the amount of loss he would incur if the trade turned against him (in which case, he would have to buy to cover).



Analysis: VRSN is near a critical RESISTANCE LEVEL. The optimal short level is 60.00 and the desirable stop-loss cover should be at 60.75. However, it becomes a bullish breakout if the price breaks 60.75 with high volume.

Figure 8. In the previous 5 days VRSN has consistently bounced back every time it touched 60.00. There's a good chance that 60.00 is a significant resistance level. The strategy is to short the stock near 60.00. As the short sell order is confirmed, one should enter a stop loss cover order to buy the stock at 60.75.

The computers at Tradetrek.com are constantly searching the entire market for support and resistance trading opportunities, and we promptly display them at the "Day Trading Center." For support and resistance trading strategies, we provide "the optimal entry and cut loss levels" for the traders reference. The levels are derived based on a great number of historical back tests such that the traders who follow those rules would achieve optimal returns with minimum risks. Because it is very difficult to calculate an optimal profit target, we do not provide one. There are a few things that a day trader can do here. One useful reference is the average daily price range. In a single trading day, the trader should not expect a profit much bigger than the size of the average daily price range. The other good reference is the trading range in the previous five days. If the trader buys the stock near the support level and the stocks bounces back to about 3/4 of the 5-day range above the support level, it is a good exit point. The trader can also choose to successively raise the stop loss level if the trade makes more and more money. In this way, he can protect the profits and keep the opportunities open for more gains.

Market Neutral Strategy

Market Neutral Strategies are especially suitable for today's highly volatile and uncertain market environment. In the next section, we introduce a *market-neutral relative value trading strategy* that consistently generates attractive returns at relatively low risk. According to our extensive statistical analyses and historical tests, this strategy can produce a yearly return of 60% +/- 17%. **Tradetrek's real-time trading system** can provide up-to-the-minute equity trading buy/sell signals. Our **Market-Neutral Pairtrade Model** on **Tradetrek.com** is a web-based version of this system. We call it **Smart Trader 60**.

Why does the strategy work?

The SMART TRADER 60 system has evolved from the well-known **correlation/convergence trading strategy** (also called *statistical arbitrage*), which is widely employed by major Wall Street firms, hedge funds, and sophisticated independent investors to make profits without taking significant directional risks. The strategy focuses on liquid price signals that are strongly correlated. The chart in Figure 26 explains the basic idea of *correlation/ convergence* trading.

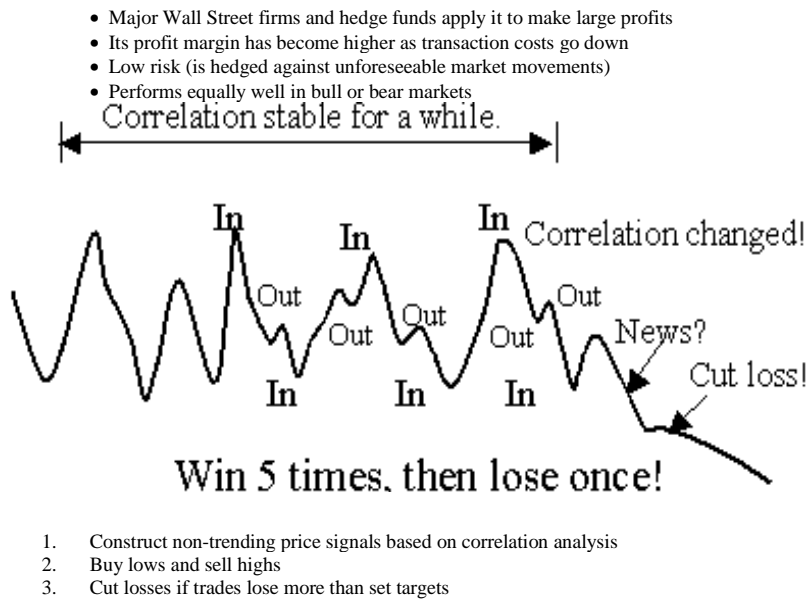


Figure 25(a). The conventional convergence trading and statistical arbitrage system.

Tradetrek.com's more-advanced **SMART TRADER 60** system is based on correlation analyses, pattern recognition, and stochastic control theory. By so combining these information patterns, we overcome a few of the main drawbacks that undercut conventional correlation/convergence trading strategies. For example, *Smart Trader 60* is smart enough to eliminate or reduce misleading fortuitous correlation; it can also dynamically detect drift predictors from stochastic price signals. As a result, it performs much more efficiently than conventional correlation/convergence trading systems.

Making a profit consistently by trading *individual stocks* is difficult: the main component of the price signal is memory-less and overwhelmingly large. It *is* easier to make profits by trading in

accord with the oscillating rhythmic component or the fluctuating elastic signal in the price differentials of *two or more stocks*. To overcome the distorting influence of the large random market signal, we structure a combination of trading positions *in a pair or a group of similar stocks* so that the random market-signal components of all the stocks in the overall trading position are *canceled out*. This leads to an oscillating and mean reverting price signal, which can be easily read for trading cues: **buy lows and sell highs**.

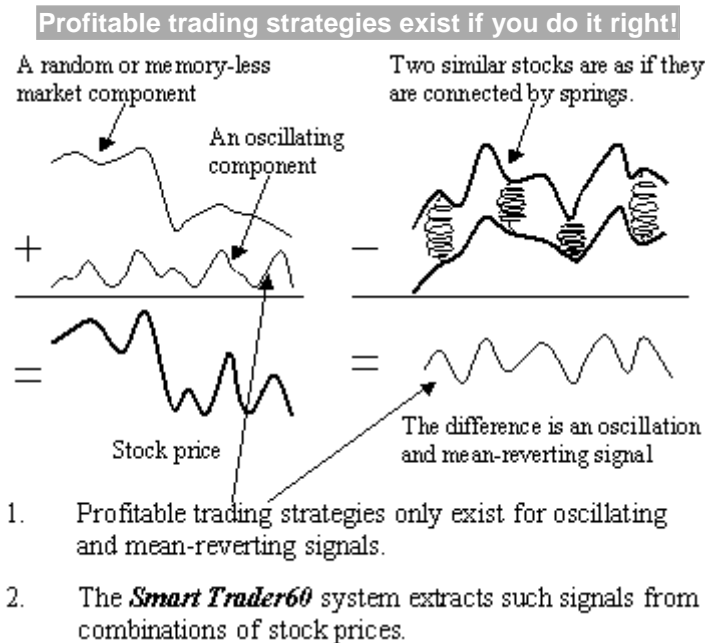
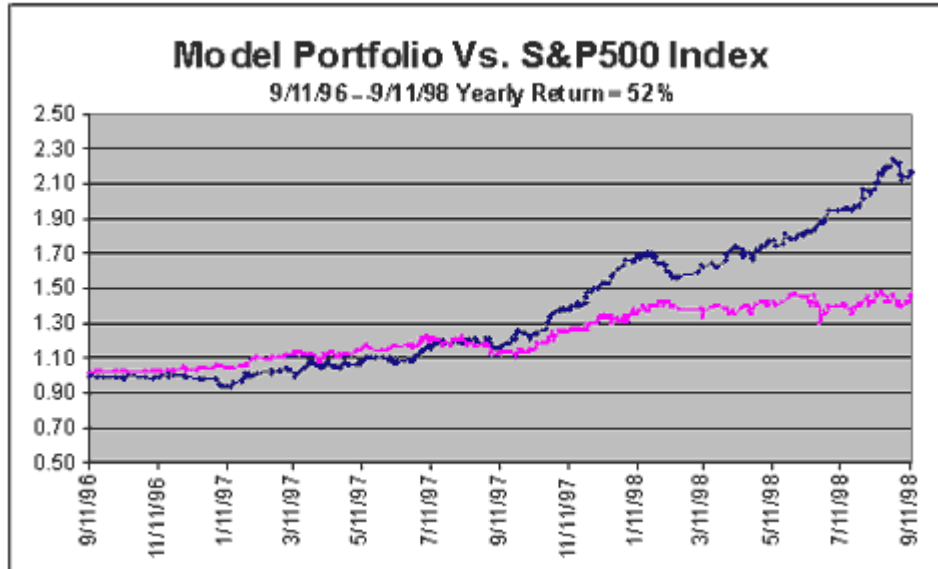
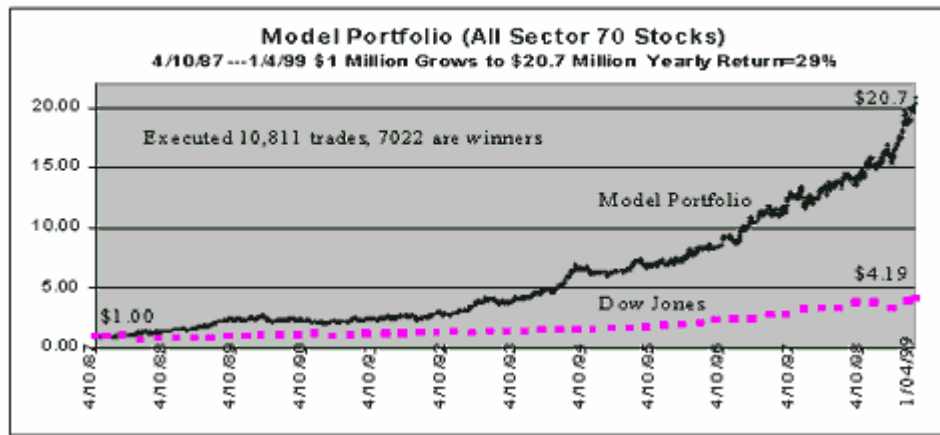


Figure 25(b). **Smart Trader 60** uses a combination of stock profiles such as taking long and [short](#) positions to eliminate the random, memory-less component; thus, we are left with oscillating and mean reverting signals that more reliably indicate profitable trades.

The charts in Figure 27 explains how stock prices behave and provides guidelines for structuring profitable trades. **Smart Trader 60** is specifically designed to discern and highlight price signals that are oscillating and mean-reverting, so that profit-generating **Tradetrek** traders need only to buy lows and sell highs according to a given set of optimal entry and exit strategies.

Historical Test

Long Term Performance TEST (4/10/1987 --- 1/04/1999)



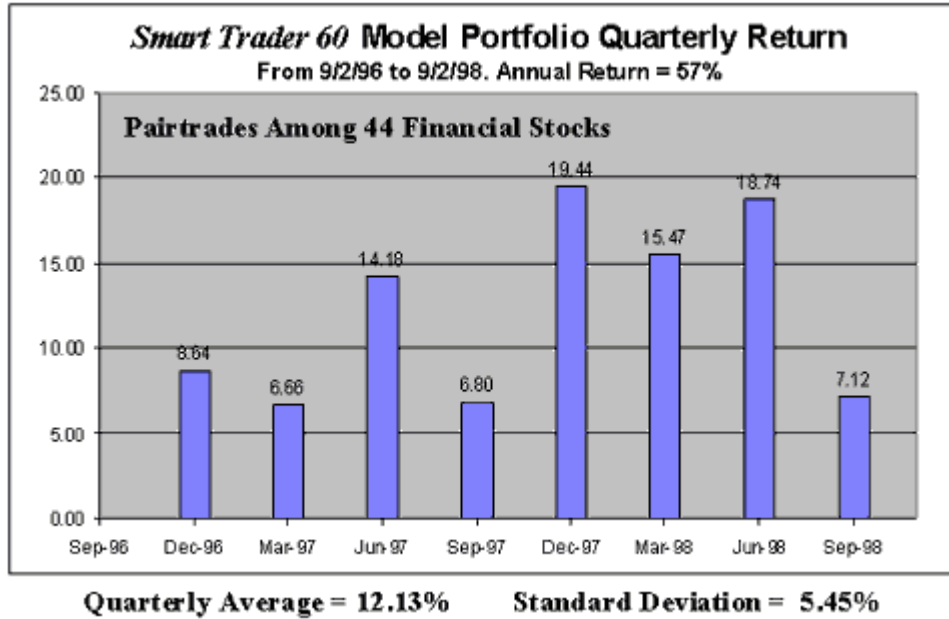
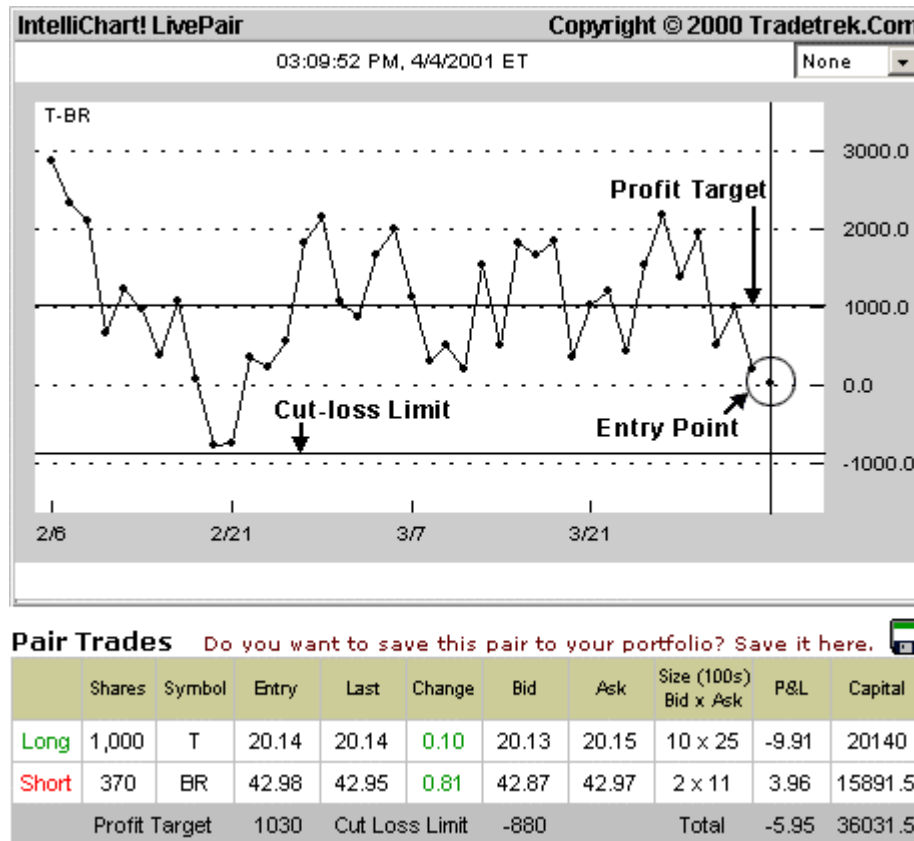


Figure 26. Performance of model portfolio using the **Smart Trader 60 System**.

At **Tradetrek.com**, we have run a portfolio by applying the **Pairtrade** strategies, using actual market prices, along with a bid/ask spread of 1/8. Investment results for a ten-year period extend from the pre-1987 crash to January 1999. Also presented here (Figure 28) are two more-recent years from 9/2/96 to 9/2/98:

Convergence Pairtrade

Tradetrek.com uses powerful computer programs to search the market every ten minutes for all possible *convergence Pairtrade* opportunities by using the **Smart Trader 60 System**:



We then post our findings *live* on the Internet. Each Pairtrade pick specifies the stocks to buy and stocks to [short](#) by an exact number of shares. Figure 27 shows an example of **Tradetrek.com's** *Convergence Pairtrade* Pick:

Figure 27. *Convergence pairtrade pick by Tradetrek.com*

This trade longs 1000 shares of T and shorts 370 shares of BR (Shares can be adjusted up or down proportionally in accord with current market prices.) Then, one should take the following steps:

- (1) Cut losses if the trade loses \$880.
- (2) Take profits if the trade makes \$4450 or more.
- (3) Get out of the trade if it makes half the target profit (\$2225) and then drops back to \$0.
- (4) Always get out after five days.

Rule number three of the Convergence Pairtrade model is that famous advice, "*Never Let a Winner Turn a Loser,*" a rule observed by most professional traders. According to **Tradetrek's** extensive historical tests and actual trading experience, these four strategies can go a long way in helping you optimize your profit potential and minimize your risk!

Divergence Pairtrade

Divergence Pairtrade is another *market-neutral* trading strategy often used by professional traders. The idea is to find two diverging stocks, one a relatively strong performer and the other a weak performer. Then one goes long on the strong stock and [short](#) on the weak stock, so that one realizes a profit as the two stocks continue to diverge while the long/short structure keeps the overall trading position hedged against uncertain market movements. In order to find such pairs of stronger/weaker stocks, **Tradetrek's** next-generation search engines study all possible combinations of stocks for those showing a smooth and steady trend over a reasonably long period of time. A pair is considered an attractive candidate if it shows a stable and strong diverging trend.

By using our proprietary Divergence Pairtrade system, **Tradetrek.com** searches the market every ten minutes for all possible *divergence pairtrade opportunities*, then posts them live on the Internet. Each Divergence Pairtrade Pick specifies the stock to buy and the stock to [short](#) by an exact number of shares. Figure 28 shows an example:

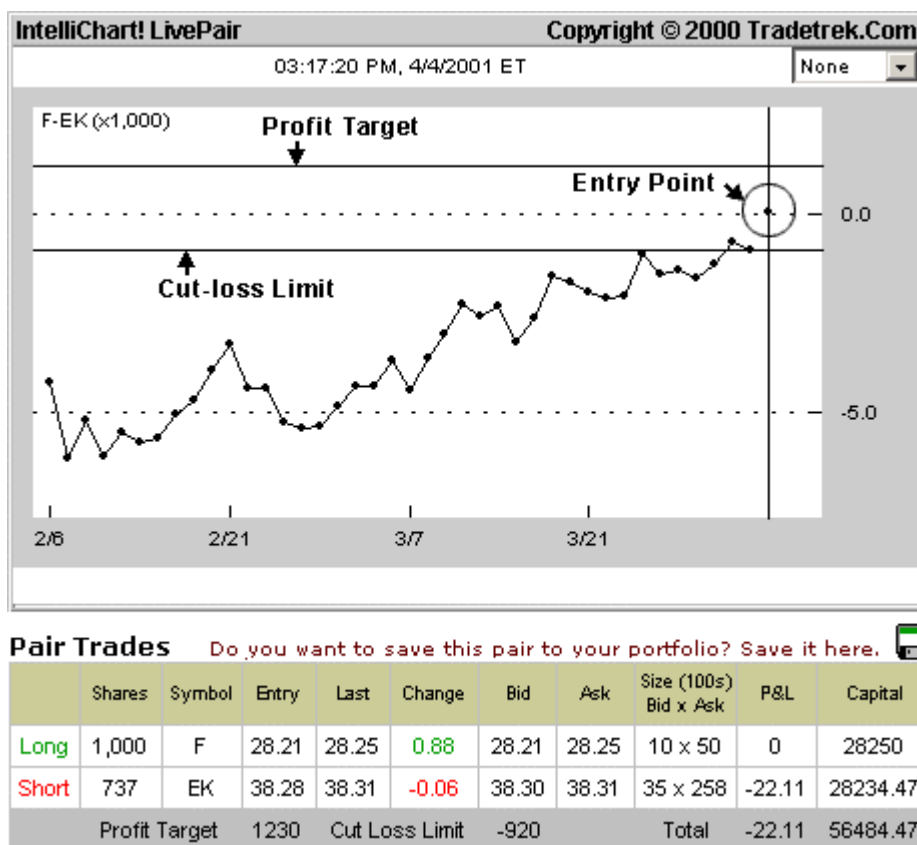


Figure 28. Divergence pairtrade pick by Tradetrek.com

The trade is to long 1000 shares of and shorts 737 shares of EK. (The shares can be adjusted up or down proportionally in accord with market prices. In this instance, one should takes these steps:

- (1) Cut losses if the trade loses \$920.

(2) Take profits or raise stop to protect profit if the trade makes \$1230 or more.

(3) Here too, get out of the trade if it makes half the target profit (\$615) and then drops back to \$0.

Rule Number Three for *Divergence Pairtrade* is once again the famous adage adhered to by professional traders, "Never Let a Winner Turn a Loser." **Tradetrek's** tests and experience consistently indicate that by using these three strategies, you will effectively optimize profit potential and minimize risk.

One can hold on to a *divergence pairtrade* as long as the two stocks continue to diverge, thus yielding a much-larger profit than that of a convergence pairtrade. We do, however, urge a note of caution: *one should not make any divergence trades by blindly following Tradetrek.com's picks.* The best way to exercise sensible trading judgment is to incorporate fundamental analysis of the two stocks into the pairtrade strategy. Divergence pairtrade is a combination of technical and fundamental trading strategies. **Tradetrek.com's** analysis covers the technical analysis validation of the divergence pair, but before executing a trade, *one should independently confirm that the long-side stock is a likely strong performer and that on the short side is a weaker or under performer.*

Artificial Intelligence Applied to Stock Trading

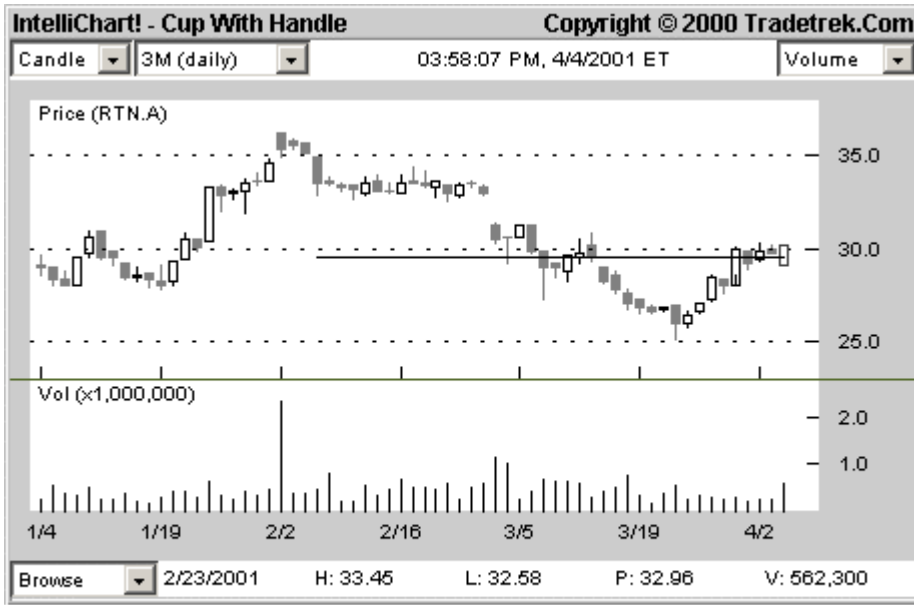
These days, most expert traders and investors draw stock charts, read stock quotes, and follow financial news on their computer screens. Market professionals also use various software for trading and investment analyses. Internet sites such as **Tradetrek.com** provide essential online tools for stock quotes, news, research, and simple technical analyses.

Average stock traders, professional or independent, sit at their screens during trading hours, monitoring financial news, examining stock charts, considering all possible trade opportunities. Investors may decide to buy or sell a stock based on a news tip, a grapevine rumor, or on the discovery of a stock showing a typical buy or sell technical pattern. Often they will sit before their screens for many hours without executing any trades, because good picks are hard to find, especially without a systematic search method!

Conventional trading software may let users search for stocks that meet a certain number of criteria, such as specifications of price, volume, and other indicators. However, those tools usually ask the users to input their own search criteria. Unfortunately, most users do not really know what conditions will lead to reliable trading signals. Worse still, because these search tools are too simplistic, they won't yield stocks with the desired pattern except by chance, no matter *what* search criteria they input.

Live Technical Stock Search

The remarkable news is that **Tradetrek.com** has designed much sharper investment instruments than undependable traditional ones! To find stocks displaying "ideal" chart patterns, we have pioneered a powerful set of pattern- recognition and pattern-search methodologies. Applying these methods and algorithms at five-minute intervals, **Tradetrek** runs a computer program that goes through all the liquid stocks traded on the NYSE, AMEX and NASDAQ markets to detect all the desired stock patterns. All the examples in the Technical Trading Strategy chapter were found by such **Tradetrek** stock searches run during actual trading hours. We present each stock found by using our *IntelliChart* on **Tradetrek's Trade Panel**. The *IntelliChart* shows stock charts in the various modes (*line chart, bar chart, candlestick chart*) using many popular indicators (volume, Bollinger Bands, K/D, RSI and MACD). *IntelliChart* also draws auxiliary lines (such as support lines, range lines, sides of triangles) and stop-loss lines. These lines enable our traders to recognize chart pattern and visually assess profit and risk potential. Figure 29 shows a Trade Panel example-- a typical *Cup-With-A-Handle* Breakout Trade, identified by the Tradetrek stock search engine.



Analysis: RTN.A shows a bullish Cup-With-A-Handle breakout with large volume. The optimal entry level is 30.15 with a stop loss at 29.57.

Figure 29 A typical Cup-With-A-Handle Breakout Trade found by Tradetrek Live Technical Stock-Search Engine

Live Stock Comments

Most investors and traders research target-stocks to find essential performance facts and significant background information; they also try to gain a firm grasp of stock behavior before making any buy or sell decisions. Financial services firms and brokerage houses happily provide their clients with costly research materials and analysis results. Some stock analysts periodically issue newsletter comments on popular stocks. Investors and traders often find those comments helpful because they neatly summarize basic facts and technical characteristics of stocks, providing company and industry profiles along with accounts of past performance; they may also estimate risk and corrections between stock prices and market sector performance. Using these data, investors can then assemble their own views of stock and company performance potential.

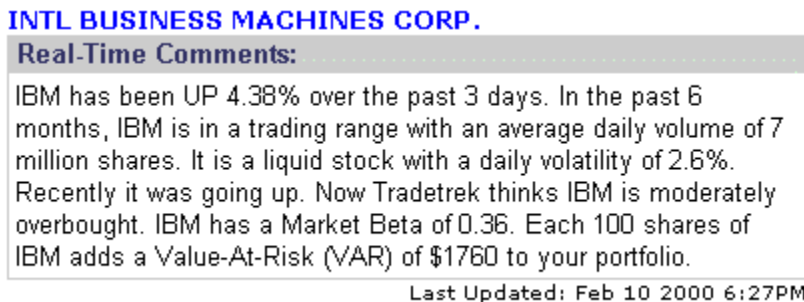


Figure 30. An example of our Artificial Intelligence Live Stock Commentary

However, professional investors and independent traders alike still face two major inconveniences: first, summaries and newsletter comments are unavailable for most stocks, and second, even when they are available, these comments are often badly out of date soon after they are released.

The amazing news on this score is that **Tradetrek Live Stock Comment** engine overcomes such drawbacks by providing traders with consistent and reliable real-time stock summaries and comments for all stocks! Just as the modern public has witnessed IBM's Big Blue outmaster the masters of chess, the trading world is now beginning to comprehend the potential of Artificial Intelligence in trading applications. To provide the most consistent and incisive stock assessments for all stocks in real time, **Tradetrek.com** has recently pioneered its breakthrough invention, the **Artificial Intelligence Live Stock Commentary Engine (AILSCE)**. Figure 30 shows an example of live stock commentary provided by AILSCE on the Internet. The following is a description of the system:

1. **Tradetrek** has assembled a powerful stock database for historical and real-time data.

Tradetrek.com has built a powerful stock database to support AILSCE. By intercepting real-time data via S&P's Comstock satellite transmissions, **Tradetrek** stores in its database the daily and intra-day prices and volumes of stocks traded on the NYSE, AMEX and NASDAQ exchanges, as well as other fundamental data on all stocks. We have also stored the major indexes and market-sector indexes in our database.

2. AILSCE retrieves basic quotes and fundamental data for the first part of **Tradetrek** stock commentary.
3. AILSCE analyzes stock price and volume history to generate the liquidity and volatility/risk comments.
4. AILSCE computes stocks' past performance, along with short-term and long-term trends.

5. AILSCE evaluates stocks' past return/risk ratios in comparison with larger market trends and with the target stock's own market sector.
6. AILSCE analyzes the relationship of stocks with the whole-market and market- sector indexes; it then computes the betas and correlation coefficients.
7. AILSCE computes all of the stock's important technical indicators to see if the stock is overbought or oversold.
8. AILSCE runs the *Intelligent Stock Chart Pattern Search* program to see if the stock matches any of the typical technical patterns.
9. AILSCE runs the Artificial Neural Network Stock Prediction Engine to predict the next five-day price movements. It also assesses stock predictability by checking the ratio of the directionality of the predicted prices against the width of the prediction error bands.
10. Finally, AILSCE combines all the above analyses to issue **Tradetrek** users a complete commentary in plain English (or other human languages).

Neural Network Forecast: Tradetrek Neuro-Predictor

Numerous hard statistical and scientific studies have indicated that the stock market, as well as other financial markets, are, like other complex natural phenomena, to a certain degree predictable by means of newly developing methods and tools.

Movements of the stock prices, as well as price movements of other financial instruments, generally present a deterministic trend, on which are superimposed some "noise" signals, in turn composed of truly random and chaotic signals. deterministic trends can be detected and assessed by some maximum-likelihood methods. Although a truly random signal, often represented by a Brownian motion, is unpredictable, it *can* be estimated by its mean and standard deviation. The chaotic signal, seemingly random but with deterministic nature, proves predictable to some degree by means of several analysis techniques, among which the **Artificial Neural Network** (ANN) techniques have proven most effective over the widest range of predictive variables.

[What is Artificial Neural Network, and what is Tradetrek Neuro-Predictor™?](#)

The Artificial Neural Network (ANN) is an important branch of Artificial Intelligence. Motivated in its design by the human nervous system, ANN mimics the human nervous system in its operations. At this extraordinary interface between natural human systems and created electronic ones, ANN is capable of learning by training to generalize from special cases--just like human beings can! ANN's (supervised) simplified training and prediction process can be illustrated by the following steps. The crucial pre-processing and validation stages are discussed separately.

The simplified ANN (supervised) training and prediction process can be illustrated by the following steps—The crucial pre-processing and validation are discussed separately.

Stage One:

Collect the training set, which includes the input data for the ANN to "see" and the known target data for ANN to learn to output. For stock price predictions, for example, the training set and target data would naturally be historical stock prices. A vector of 100 consecutive historical stock prices, for instance, can constitute training data and with the 101st stock price as a target datum.

Stage Two:

Feed the input data to ANN; compare ANN output with the known target, and adjust ANN's internal parameters (weights and biases) so that ANN output and the known target are close to one another more precisely, so that a certain error function is minimized.

Step Three:

Feed ANN some future input data (not seen by ANN); if ANN is well trained and if the input data are predictable, then ANN will give accurate predictions.

Artificial Neural Networks: Proven?

ANN can be trained to adapt to and solve many complicated problems, such as adaptive noise filtering, pattern recognition, and speech processing by voice recognition. ANN noise-filters are now widely used in telephone systems to reduce echo noise and in airplanes to reduce engine noise interference with the pilot's voice signal in communication instruments. [More examples of

successful applications of ANN can be found in a report by DARPA (Defense Advanced Research Project Agency)]

The **Tradetrek™ Neuro-Predictor™** is essentially an Artificial Neural Network trained for adaptive prediction of stock prices. During the prediction process, the Tradetrek™ Neuro-Predictor™ determines whether a particular stock is predictable with the accuracy required for a statistically significant prediction. This is accomplished, essentially, by comparing the ANN validation error against stock price fluctuations. We know that stocks with larger chaotic components and smaller truly random components tend to be more predictable than others. In addition to predicting stock prices, the **Tradetrek™ Neuro-Predictor™** also marks the upper and lower error bounds at a given confidence level, typically 80%. In other words, the odds that the actual stock prices will fall outside these bounds are only 20%!

The **Tradetrek™ Neuro-Predictor™** has managed to yield prediction refinements well beyond those of other systems by employing a pipelined recurrent ANN architecture (best for time-series prediction) and an adaptive supervised training procedure. More specifically, **Tradetrek's** ANN has been developed to incorporate the strengths of those artificial neural networks successfully used by leading research and industry leaders. ANN pre-processing is based on the Nobel Prize-winning Black-Scholes log-normal stock price model. Efficient computation algorithms have also been developed to realize **Tradetrek's** breakthrough in making real-time predictions.

Fundamental Analysis

Fundamental Analysis is an interactive valuation calculator that provides six-month price targets for stocks specified by users. It has been developed with the prevailing valuation methodologies utilized by leading Wall Street firms. This valuation is based on combined data from over a dozen fundamental variables that significantly influence stock prices, including interest-rate and cash-flow information. While some of the parameters are set by **Tradetrek's** historical data, traders can customize the analysis by modifying five important underlying variables: long-bond rate, inflation rate, P/E, sales per share, and a one-year Dow Jones Industrials (DJI) outlook, a leading measure of market sentiment.

To use this model, the user first types a symbol in the upper-left corner of the **Tradetrek** textbox. Hitting 'Go' loads the five modifiable parameters are loaded from database. Once the user changes the parameters and hits the 'Calculate' button, a six-month target price will be generated, along with an opinion on the value of the stock compared against the S&P 500 index.

Risk Management

The main difference between an amateur and a professional trader is that the latter always tries to understand and control portfolio risks. Before entering into any trade, good traders first think about how much risk to take and how much risk exposure comes with a particular trade selection. Only then do they allow themselves to think about how much profit they stand to make. Prudent investors always cut down their position and exposure if they determine that a portfolio carries too much risk. They calculate this all-important estimation by employing **Risk Management**, that set of methods and procedures taken to estimate, quantify, and control risk for the purpose of achieving optimal investment results.

Performance Benchmark, Beta, Correlation, Volatility (σ) and Return/Risk Ratio

If an investor bought a stock at \$100 and sold it six months later at \$116, then he would realize a profit of \$16. His annualized return would be 32%. No doubt, this is a good investment result. *Is this a better or worse investment compared with others?* Without systematic analysis, we cannot tell: to properly evaluate investment performance, we need to consider the return, the risks involved, and how the outcome compares with other possible investments. Usually, the Standard & Poor's 500 index is used as a performance benchmark, for it is a good representation of the entire US equity market. By this yardstick, an investment is considered good if it outperforms the benchmark on a risk-adjusted basis.

In order to quantify risks and measure risk-adjusted performance, financial analysts apply the concepts and measurements of market beta, correlation, volatility, and return/risk ratio.

Beta: β

Beta is defined as the linear regression slope of a stock portfolio (or a single stock), the benchmark over a specified period of time. For example, one can compute the β of IBM stock with respect to the S&P 500 index over the past six months. One first calculates the time series of the daily percent change of IBM stock prices and the daily percent change of the S&P 500 index; then, one computes the linear regression slope of the two time series. This serves as the measure of a portfolio's risk relative to the market; the meaning is straightforward: *on average, if the index moves 1 percent, then the stock moves Beta percent.*

Correlation: ρ

Correlation is defined as the linear regression correlation coefficient of a stock portfolio (or a single stock) and the performance benchmark over a certain period of time. For example, one can compute the ρ of IBM stock with respect to the S&P 500 index over the past six months by first calculating the time series of the daily percent change of IBM stock prices and the daily percent change of the S&P 500 index. Then, one computes the linear regression correlation coefficient of the two time series. *The meaning of this complicated idea can be simply put: if the index moves up, ρ percent of the time the stock also moves up.*

Volatility: σ

The volatility of a stock (or of a stock portfolio) is defined as the standard deviation of daily percent changes of the stock (portfolio) price. For trading applications, daily volatility is a very useful measure of risk: *σ percent of the time, stock price moves up or down σ percent in a day.* It

is important to know the difference between this daily volatility and the annualized volatility, which is used in stock-option and derivatives valuation:

$$\sigma_{\text{annualised}} = \sqrt{\text{Days in a year}} \sigma$$

Return/Risk Ratio

The Return/Risk Ratio, α , is defined as R/σ . Generally speaking, the higher the ratio, the better the performance. If we plot the return R against σ for many different kinds of investments, we get a chart like that presented in Figure 31:

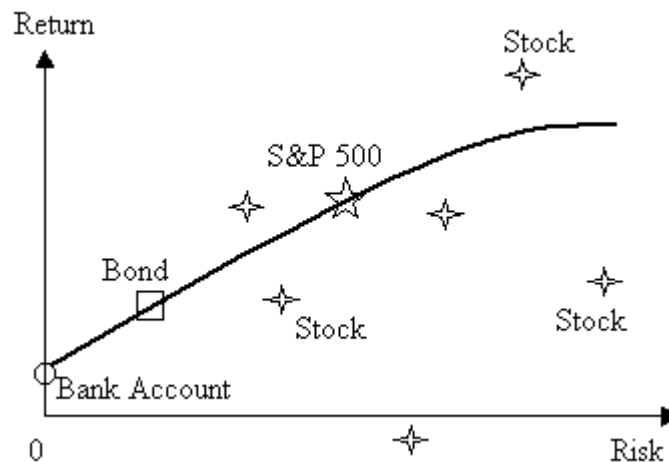


Figure 31 Risk/Return relationship. The line is the so-called "Efficient Market Frontier". Investments that appear above the frontier are considered good.

Zero-Risk Investment might be likened to a bank account that earns risk-free interest. At the other extreme, some individual stocks are extremely risky, leading to a great variation in the range of potential return or loss. In examining many different kinds of investments over long term periods (say ten years), a graphic representation would appear like a cloud with a rather clear upper boundary. This boundary is the so-called "**Efficient Market Frontier**." If an investment lies on the efficient frontier, it is considered "optimal" or "advantageous. According to academic theory, it is not possible to make fruitful investments on stock that plots consistently above the frontier. This is to say that, as a consistent strategy, one must take more risk in order to obtain higher return.

VAR (Value At Risk)

Another Risk-Management concept is **VAR**, nowadays becoming increasingly popular. Most leading investment and trading houses use VAR as one of their main risk measures in routine risk-management operations. VAR is an **absolute risk** measure for your portfolio, in units of dollars per day. **Tradetrek** uses the daily 95% confidence VAR definition: this formulation assumes that *in a single trading day, there is a 95% probability that the portfolio will not lose more than VAR*. For example, if the VAR value is \$800, then you can assume that it is 95% certain that the portfolio will not lose more than \$800 in one day. Understanding the statistical meaning of VAR is important: a small VAR number does *not guarantee* that one *cannot* lose more than VAR; it only says that, *most likely*--with 95% confidence--one will not lose more than VAR in ONE day.

The calculation of VAR requires the study of the price time series of all the stocks in a portfolio. VAR depends on many factors, such the volatility of each stock, the correlation among all the stocks, and the stability of their historical relationships. By applying our sophisticated proprietary models and efficient computation algorithms, **Tradetrek** can calculate VAR on a real-time basis and provide this essential Risk-Management tool to **Tradetrek** users in a clear and comprehensible format!

Hedging

One often hears phrases like "hedge the trade," "hedge the position," "hedge my portfolio." **Hedging** means the specific actions one takes to reduce or "neutralize" risks, for example, like the efforts one might take to a flower or vegetable garden by surrounding it with a hedge. Hedging entails three steps: First, *analyze your portfolio* to identify and quantify risks and their sources, Second, in accord with a **risk-management system** such as **Tradetrek's Portfolio Panel**, *add, remove, and adjust holdings* so that the risks are reduced or neutralized. Third, *execute the trades* necessary to implement your new portfolio. Sometimes **hedging** is as simple as selling part of the riskiest stocks in your portfolio, or adding a less-volatile stock to it.

Single Trade Risk Management

Single-trade risk management can be summarized by these fundamental principles:

- Know how much you are willing to lose before you execute trades.
- See if the stock is **sufficiently liquid** (active) should you wish to buy or sell promptly.
- Determine the **cut-loss level** before trading.
- Determine your profit target (**take-profit-level**).
- Buy the stock only at an acceptable price level. Use a **limit order** when you buy a stock.
- Immediately after the trade has been confirmed, enter the **stop-loss-at-market order** at your predetermined stop-loss level.
- If the trade starts to win significantly, raise the stop level so that your Winner Will Never Become a Loser.
- Take profit promptly as the trade reaches your profit target.

The risk management process has to begin **before** one begins a trade. Most important, one must know beforehand *how much one is willing to lose*, along with *how much one can lose* in a planned trade. For example, in buying a stock, one should first consider potential loss, study the stock by read news briefs, use **Tradetrek** charts and tools to analyze it, and decide if the stop-loss level is reasonable and acceptable. Only then can one properly determine the number of shares to buy. One should also check the liquidity of the stock, for if the stock does not provide liquidity enough to permit quick sale, one cannot be sure of closing the trade as the risk management plan requires. Immediately after a trade is confirmed, enter the *stop-loss order* to the risk. We've observed how often professional traders say, "Never Let a Winner Turn a Loser," a fundamental principle in risk management. As soon as the trade moves in your favor--say you've made a profit that is eight times the typical bid/ask spread of the stock--you should enter an adjusted stop-loss order to replace the original. That way, the trade will not be a loser if the stock turns back.

Portfolio Risk Management

If you actively manage the risk of each trade in your portfolio according to this single-trade risk management method, your whole-portfolio risk will be well under control. After all, a portfolio is just the aggregate of all your individual single trades. However, it is also important to manage your overall risk at the portfolio level. The following is a list of key points for managing portfolio risk:

- Know your overall risk tolerance before building up the portfolio.
- Determine your overall cut-loss level. Usually your portfolio should not lose more than 10% of your capital.
- Diversify your investment in at least three or more different stocks.
- Actively manage the risk of every individual trade.
- Know your overall risk and where the risk comes from: Use **Tradetrek's Portfolio Panel** to evaluate your risks.
- Act quickly when you see your risk limits exceeded.
- Close out the entire portfolio if it loses to your overall stop-loss level.
- Stay in the game.

This last point, "Stay in the game," is most important in trading and investing. It means that cutting losses before they are too big enables one to remain active. By always recognizing risk limits in a trade by cutting losses when a stock is down 2%, then even if one loses ten times in a row, one still retains 80% of one's capital and can remain in the trading game. As the experienced manager of a major Wall Street trading department once said,

I saw people come and go. Most new traders lose money and leave. Some make very little money or lose small money in the first few years. Then they start to make more money as they survive on the trading floor. Your ability to make money grows exponentially if you can stay in the game.

The risk-management strategies we've looked at provide the crucial means of surviving and growing in today's market by applying the same rational controls that keep long-experienced traders ahead!

Trading Screens on the Internet

Let's take a look at how professional Wall Street traders make trades and at what types of tools they use. Do they have any secret weapons? Special advantages? The answer is yes and no. True, they all have at their fingertips their lists of securities (stocks, bonds, ...) and their real-time prices, news, charts and software that use "models" to analyze stocks in real time. And above all, they have the ability to quickly and surely execute a trade at the touch of a button. For some professional traders, a trade may only last a few seconds, so it is crucial for them to have quotes, charts, analysis and profit/loss data in real time, all on the same screen. Knowing all this, we can still say, "No, they have no secret weapon," because their tools are now available to anyone with a computer and modem. Also true, individual investors today already have the most powerful tool of all---online trading! No longer must investors route all their buy and sell orders through the intermediary broker. Not long ago, though, individual investors really did lack that essential tool that gave institutional investors an insurmountable advantage: the single monitor that combined all essential trading information elements. Today, **Tradetrek** has filled the gap: The **Tradetrek Trade Panel** satisfies the independent investor's need for a complete internet trading screen. Designed along the lines of typical trading screens used by professional Wall Street traders, **Tradetrek** combines news, charts, quotes, market-watch updates, profit/loss monitor, analysis/strategy, and soon, **execution** (now being developed by **Tradetrek**) all on a single screen. Armed with the Trade Panel, users can trade like pros, no longer having to jump to one place for analysis, to another for news and comments, and to yet another for trades.

Tradetrek's convenient **Portfolio Panel** is our "Trade Panel for Multiple Stocks." Based on multiple-security Wall Street trading screens, it combines news, charts, quotes, market watch, and profit/loss monitors not just for individual stocks but for the whole portfolio, in addition to its portfolio risk-management capabilities. At a click of your mouse, you can plot the chart of a selected stock or of a whole portfolio. And, the future gets even brighter: in trading seasons to come, **Tradetrek** will even be adding whole-portfolio execution capability, allowing traders to add or close out a subset or the entire portfolio at a single click.

The trading future really is here now, then: armed with the **Trade Panel and Portfolio Panel**, anyone can trade like a Wall Street professional. No longer must we endure confusing, hurried searches to this site or that for missing pieces of the puzzle. With **Tradetrek.com's Panel**, we can capture real-time information at peak-opportunity potential!

Execution Skill

Given the avalanche of books on trading and investment, how strange that it should be impossible to find one devoting a single chapter to trade execution! Certainly, this area is most important for frequent traders, because good or bad execution can make all the difference in transaction outcomes! Below, you'll find some helpful tips on *Execution Skills*.

Traders' Torment: Bid/Ask Spread

During trading hours, at any moment, bid and ask prices for any actively traded stocks are posted by market makers. The prices can be seen on most trading screens. You can find them, for example, on Tradetrek.com's *Gold Version* of our **Trade Panel and Portfolio Panel**. "**Bid price**" is the price that somebody will pay for a stock at a given moment, while "**ask price**" is the price at which someone is willing to sell a stock. **Bid/ask prices** are always posted together with their corresponding bid and offered shares, often called **bid/ask sizes**. We can see in the figure below, for example, that the bid price for IBM is $120 \frac{3}{8}$, the ask price is $120 \frac{1}{2}$, the bid size is 1000, and the ask size is 1200.

Ticker	Bid Price	Ask Price	Size (Bid x Ask)
IBM	$120 \frac{3}{8}$	$120 \frac{1}{2}$	1000 x 1200

These quotes mean that someone is willing to buy 1000 shares of IBM at $120 \frac{3}{8}$ and that another person is willing to sell 1200 shares at $120 \frac{1}{2}$. The difference between the bid and ask prices is called the **bid/ask spread**. In the example, the bid/ask spread is $\frac{1}{8}$. No trades will be done unless the buyer and the seller both agree on a price for a certain number of shares.

Bid/ask spread represents the cost to the party trading a stock in addition, to trading commissions. If the transaction is made online, the commission is a small fixed cost, usually about \$10 per trade. In today's very liquid and dynamic market environment, stocks are usually traded at a bid/ask-spread cost of $\frac{1}{8}$ of a dollar or even lower. Of course, one should avoid trading illiquid stocks that consistently show bid/ask spreads higher than $\frac{1}{8}$. Suppose a frequent trader can always trade stocks at bid/ask spreads of $\frac{1}{8}$. How much impact will the bid/ask spread cost have on his trading performance? Let's suppose that he trades typical blue-chip stocks with prices of 50, and that, on average, his trades last for two days. Since there are about 250 trading days in a year, he trades 125 times a year. The total bid/ask spread cost will then add up to $125 \times \frac{1}{8} = 15.625$, or 31.25% of his capital each year, a number that doubles if he uses the typical 50% margin! If the trader still manages to make a profit, he makes it only after overcoming this 31.25% handicap, plus trading commissions. You can easily see, then, that bid/ask spread is the trader's formidable enemy and everlasting torment.

Demand/Supply at a Glance: Bid/Ask Sizes

As previously mentioned, bid/ask prices are always posted with corresponding bid and ask sizes, which serve as measures of the strength and depth of the bid/ask prices. They tell us about the supply/demand pressures on a stock at a given moment. We can summarize important Bid/Ask size concerns as follows:

- A large bid size indicates a strong demand for the stock.
- A large ask size shows that there's a large supply of the stock.
- If the bid size is significantly larger than the ask size, then the demand for the stock is larger than the supply of the stock; therefore, the stock price is likely to go up.
- If the ask size is significantly larger than the bid size, then the supply of the stock is larger than the demand for the stock; therefore, the stock price is likely to drop.

Because bid/ask prices and sizes change quickly in real-time, supply and demand also change quickly in real-time. Experienced traders always pay very close attention to the bid/ask sizes of a stock to monitor the supply-demand dynamic. Short-term traders usually buy a stock only when the demand is higher and sell a stock if demand suddenly becomes lower relative to supply.

One effective and widely used short-term trading strategy based on supply and demand is the following:

- Place a limit order to buy a stock at the middle $((bid+ask)/2)$ when you see that the ask size is small and the bid size is much larger (this strategy does not work if the stock price is quickly declining).
- Place a limit order to [short](#) sell a stock at the middle $((bid+ask)/2)$ when you see the bid size is small and the ask size is much larger (this strategy does not work if the stock price is quickly advancing).

Example:

In a relatively quiet trading period, suppose that you suddenly notice the following:

Ticker	Bid Price	Ask Price	Size (Bid x Ask)
YHOO	124 1/2	125	1400 x 200

You can place a limit order to buy 200 shares of YHOO at 124 3/4.

Now suppose you see

Ticker	Bid Price	Ask Price	Size (Bid x Ask)
YHOO	124 1/2	125	300 x 2800

You could place a limit order to [short](#) sell 200 shares of YHOO at 124 3/4. Most likely you'll get into the trade and the momentum will soon help you make a small profit. Then you can set a stop loss order at your entry price level to protect yourself from losing the trade.

Limit, Market and Stop Orders

To buy or sell a stock, one can enter a few different types of orders to best serve one's trading goals. The following short description uses orders for 800 shares of YHOO to illustrate some common ordering variants:

- **Limit Order--** *to buy 800 shares of YHOO at 125: buy 800 shares YHOO at 125 or better (lower price).* Sometimes one gets a series of partial trades (partially filled orders) at different prices all equal to 125 or better. If the market price of YHOO moves up before the order can be executed, one may lose the opportunity and never get the trade done.
- **Market Order--** *to buy 800 shares of YHOO: buy 800 shares of YHOO now at whatever prevailing market price.* Usually one gets the stock at the ask price of the moment when the order reaches the exchange. Sometimes, one gets a series of partial trades at (partially filled orders) different prices, with different shares adding up to 800 shares. With such a market order, one always gets 800 shares of YHOO, although there is a risk of getting them at a considerably higher price.
- **Limit Order--** *to sell YHOO at 125 1/8: sell YHOO at 125 1/8 or better (higher price).* Sometimes one may get a series of partial trades (partially filled orders) at different prices all equal to 125, for example, or better. If the market price of YHOO moves down before the order can be executed, it is possible to lose the opportunity and never get the trade done at all.
- **Market Order--** *to sell YHOO: sell YHOO now at whatever prevailing market price.* Usually one will get the stock at the ask price of the moment when the order reaches the exchange. Sometimes, one gets a series of partial trades (partially filled orders) at different prices, the shares of which add up to 800. With such a market order, one can always sell 800 shares of YHOO, although there is a risk of selling them at lower prices.
- **Stop Market Order--** *to sell 800 YHOO at 122: sell 800 YHOO at the market price if the bid price hits 122.*
- **Stop Limit Order--** *to sell 800 YHOO at 122 stop and 121 1/2 limit: sell 800 YHOO at 121 1/2 or better (higher) price if the bid price hits 122.*
- **Stop Market Order--** *to buy 800 YHOO at 128: buy 800 YHOO at market price if the ask price hits 128.*
- **Stop Limit Order--** *to buy 800 YHOO at 128 stop and 129 1/2 limit: buy 800 YHOO at 129 1/2 or a better (lower) price if the ask price hits 128.*

1/16 Makes all the Difference

Good execution means getting a trade done at the best price once the decision to do the trade has been made. The key to good execution has everything to do with overcoming or reducing the adverse impact of the bid/ask spread. As we pointed out before, the typical bid/ask spread of 1/8 will take away about 30% of the capital from a frequent trader who trades 125 times a year. Currently, many stocks trade at bid/ask spreads of 1/16 or even lower. Online traders can often get trades done at this advantageous bid/ask spread cost of 1/16.

Experienced traders who consistently use the right tools to analyze the market and individual stocks can usually make good trading decisions that give them an insider's edge. According to our extensive historical tests, consistently applying good trading strategies such as those offered by **Tradetrek.com** (recall the explanations above of *Triangle Break Out*, *Cup-With-A-Handle*, and *Market Neutral Pairtrades*), can generate a return of 30% to 80% a year, before bid/ask spread costs. In reality, due to all kinds of uncertainties and inconsistent application of trading rules, it is difficult for most traders to gain an edge that consistently translates into a 30% return per year on trading capital before taking into account bid/ask spread costs. Recall that such 30% gains cannot even cover transaction costs. This explains why, in many cases, traders lose money. However, *by reducing the bid/ask spread cost to 1/16* in every trade, the trader can then cut the 30% per-year transaction costs down to 15%, turning a losing year into a winning year! You can see, then, that reducing the bid/ask spread to 1/16 can really make all the difference between gaining and losing portfolio value.

How can we consistently get the bid/ask spread down to 1/16? Here are some trading tips:

- Avoid trading stocks with prices lower than \$10.
- Only trade liquid stocks that almost always trade at 1/8 bid/ask spread or better.
- When you buy a stock, always use Limit Order and set the limit price equal to the bid price, or the bid price plus 1/16.
- When you [short](#) sell a stock, always use Limit Order and set the limit price equal to the ask price, or the ask price minus 1/16.
- When you sell your existing stock, use Limit Order to sell it at the bid price, or at bid price plus 1/16 to increase the chance of getting the trade done.
- When you buy a stock to cover your existing short position, use Limit Order to buy it at the ask price, or at ask price minus 1/16 to increase the chance of getting the trade done.
- For all stop loss orders, use Stop Market Orders with stop prices equal to your cut-loss level.

Be sure to try our [Live Portfolio Monitor Demo!](#)

Trading and Investing

"After one full year of online day trading, I've come to an important conclusion: it is not as profitable as investing for the longer term, at least for me. After carefully analyzing my hundreds of trades and my monthly statements, it was apparent that several "buys" and "Holds" (IOMG, AMER, etc.) this spring accounted for the bulk of my profits, while the day trades whittled away at those gains, slowly but surely."

--Jeff Schatz, from a note for Motley Fools.

Perhaps there are thousands who have had the same experience in day trading but who haven't drawn quite the same conclusion. In the discussion below, you'll find out about some crucial differences between "trading" and "investing," and about why **Tradetrek.com's** Technical Analysis is so important as a strategic information engine helps make the difference between a gain and a loss.

Often when people talk about investing, they think of putting money into a company stock and holding it for a long time until they realize a significant gain. From this view, put simply, investing is to "buy and hold." In reality, people also use the term "invest" to describe mid-term and long-term stock acquisition. Mid and long-term investors will study stock fundamentals such as a company's quarterly earnings report, a company's relative strength in its industry sector, new product lines, technological innovation, or new management teams or strategies. They also look at stock charts and use basic technical analysis combined with overall stock market timing to determine an entry point. Then, having done all this, they may sit back without worrying too much about short-term market fluctuation, secure in their assessment of company performance prospects and in the reliability of their own research conclusions.

In another kind of trading, short-term traders attempt to buy low and sell high, not focusing as much on company fundamentals as long-term investors tend to do. Besides buying and selling, short-term traders can also "short a stock" (sell high, buy low) if they think the stock is going to go down in the near future. Thus, short-term traders may seem to care very little about conventional indicators. What they do care about is market volatility, the rising and falling of stock values, for the more ups and downs a stock has, the more money they believe they can make, getting in and out fast to take a quick (and potentially significant) profit. That is why they love Internet stocks so much!

Now, even though we've drawn a distinction between investing and trading, they do have much in common. In the Internet age, everything moves faster. Market cycles are shorter. Many stocks are now technology driven, due to the strong influence of e-commerce on business development. New technology deployments can trigger success or failure in whole market sectors; therefore, long-term investors too must now focus on a closer time-horizon, alert to ways of minimizing risk from powerful short-term changes. These market transformations also means that for short-term traders to decrease their own balance-sheet volatility, they need knowledge not just of rumored trends but of company fundamentals and big-picture market variables.

Whether you are focusing on long-term investing goals or on short-term profit, one kind of information is critical: **Buy/Sell Points**. As described in Section One ("**Introduction to Online Investing**"), **technical analysis** plays a crucial role in assessing trading opportunities. At **Tradetrek.com**, we believe that both long-term investors and short-term traders should use **technical analysis** as a critical tool in determining trading decisions and strategy. In the recent past, without essential evaluation tools conveniently at hand, Technical Analysis was tedious, complicated, and time consuming, only for specialists. Now, **Tradetrek's** innovative search engine applies proprietary mathematical algorithms and neural networks to stock prices and volumes, enabling you to accurately spot promising signals, assess risk, and test trading strategies historically. This is the age when you can leave the forbidding technical work to **Tradetrek's** stock search engine while you enjoy the fun of trading and investing!

How to be a Successful Investor

By now, you've probably worked through **Tradetrek's** series of online trading tutorials. We've demystified some basic trading stratagems, and shown you how simple it is to use **Tradetrek's** professional investment tools.

Our final comment conveys a few words of advice about how to make the wisest use of **Tradetrek** tools, now that you have glimpsed what extraordinary access you now command to market instruments that not along ago were the special advantage of only the professional few.

How can you become a successful investor? Trade smart. Trade with PRIDE (Personalized Real-time Intelligent Dynamic Education). You'll find that your new trading skills and strategies, along with **Tradetrek's Live Technical Stock-Search Engine** will distinguish you from the rest, enabling you to intelligently increase your odds of become richer quicker.

You often hear traders say that it is easier to trade professionally with a company's capital than to trade on their own time with their own money. This shows how traders actually tend to be more disciplined when dealing professionally with a company's money than they are when dealing with the loss and gain of their own money in the market. To be a successful trader, you need that professional calm!

One successful investor who made millions defined stock trading as a challenging game of strategy and discipline. The stock market is vastly complex and dynamic, so that you need to exercise strict discipline, clear judgment, do your homework, and set firm goals and limits. Sometimes the most important work you can do is exercising patience, confidence, and discipline. You need to stay calm, keeping your mind clear and focused. You can't blindly bet that the stock price will go up or go down. You need to be well informed and make buy or sell decisions based on facts and logics. You need to understand what your risk is (Risk Assessment), what the probability of winning is, how much damage you can incur if events go badly south! Know your risk exposure first, then think about profit potential.

In investing, intuition also plays an important role. Good intuition derives from experience and good psychological habits. When you begin to win, you can't think of yourself as a winner yet because if you lose caution and become greedy, you can lose your gain in an instant. More importantly, if you should happen to lose, you can't let yourself conclude that a single loss makes you a loser: it won't, so long as you keep to your strategy, like a professional, and cut losses promptly. If you vainly cherish your hope that a stock will bounce back up after a setback, you may end up losing more than 50% of your money, when otherwise you could easily have closed off your position at 10% loss. Losing money can be very upsetting, but you need to be consistent and not quit the game easily. Learn to use a loss as a lesson, just as professional traders do, and determine why you lost. In this way, you maximize your chance of becoming a better investor. You should keep records of your trades, noting decision strategy and variables. Be systematic, just like a photography student who makes notes about each exposure to learn from mistakes. Talk with your friends and listen closely to trading tips, but in the end, you have to make your own judgments. Believe in yourself. If your next pick ends up being wrong, that may mean you haven't yet done sufficient homework on that stock.

Independent Research is the most important thing to do before any trade. By doing your own research, you complete a definite set of steps that will guide you toward a successful outcome. First of all, set your goals: Do you want to trade long-term (from one year to many years), mid-term (two months to a year), or short-term (every week, even every day)? Once you've set them, stay with your plan.

After you've set your goal, you'll need to concentrate on specific industry sectors. By diversifying in a couple of different sectors you avoid putting all your eggs into a single basket. Within each sector, choose stocks you want to invest in. Ask yourself questions such as, why do I want to buy in this stock? Is it because its rating of strength relative to that of the industry is very high? Does it have leading-edge products or technologies that I believe are going to fly? Or does the stock follow the technical patterns very well? In other words, does the stock chart conform to a reliable and understandable model? Positive responses to these questions can help you feel comfortable in placing a stock on your list of candidates.

Once you've narrowed the field, how do you identify a good price level at which to buy or sell? Not only do you need to recognize and follow market timing overall; you also have to catch the timing of the individual stock. This is where Technical Analysis comes into play. **Tradetrek.com's Live Technical Stock-Search Engine** will help you find profitable opportunities. By going continuously through 13,000 stocks in real-time, **Tradetrek's Stock-Search Engine** uses proprietary Patent-Pending pattern recognition technology to capture significant buy/sell signals. To help **Tradetrek** users who are unfamiliar with decoding these signals, we also provide Artificial Intelligence Live Stock Commentary to help you interpret implications of stock-trend signals and decide what trading actions they warrant.

Finally, how can you distinguish your market performance from that of the rest of the traders? Trade smart. Invest intelligently. Use **Tradetrek** tools for cutting-edge market intelligence. Instead of spending long hours scanning hundreds of stock charts for a candidate, let **Tradetrek** computers do the hard work. By letting **Tradetrek** help you make a more efficient, more powerful scrutiny of market information, by using **Tradetrek's** education tools to help you invest more intelligently, you are really on your way to becoming a successful, street-savvy investor!