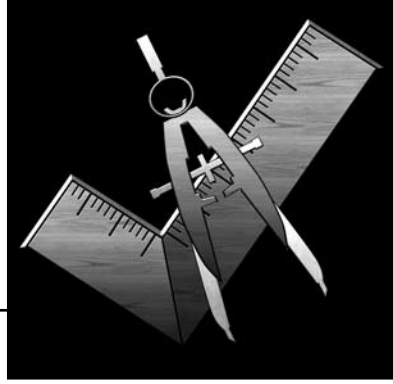


# Gecko Software

Track 'n Trade High Finance Manual

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# Introduction to Stocks

Basics of Stocks Trading

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## Introduction

This introduction was written to provide a basic understanding of the stock market and introduce the terms and concepts that you will encounter as you progress as an investor. This basic vocabulary and knowledge is vital because it is the foundation of your future understanding and success in the market. I was extremely honored when my friend and colleague, Lan Turner, invited me to write this portion of the Track 'n Trade High Finance manual. I hope you will find it to be a great asset. If this is your first introduction to the stock market, I want you to know how excited I am for you.

I am an investor with extensive experience in many markets. Stocks are the only investment I have found that allow you the flexibility to decide how you want to interact with the market. You can choose active and aggressive participation in the short term for quick money. You can take a very relaxed and passive approach in the long term for a safe investment. No matter which strategy you choose, Track 'n Trade will supply you with the tools and information you need to excel in the stock market.

Welcome to the tight-knit investing community that we have created for you as an investor. We are here to teach you how to get an edge on the market, helping you grow wealthy as a successful trader!

-Dr. Scott Brown, Ph.D.

### Equity Securities Defined

Equity security is the formal term for stock in a publicly traded company. When you hear the word “equity” it means ownership, which is what a share of stock represents. Similarly, bonds are always equated with the word “debt.” The word “security” references either stocks or bonds. It is defined as the evidence of ownership in the case of stocks, and evidence of debt in the case of bonds. Thus, stocks are an equity security while bonds are a debt security.

There are three types of stocks: common, preferred, or convertible. As the name says, common stock is the most common type of equity security. The term **common stock** is used for any equity security that has no special dividend rights and has the lowest priority claim in the event of bankruptcy. Owners of **preferred stock**, in contrast, usually receive preferred treatment when it comes to receiving dividends of cash payoffs in bankruptcy. There are also **convertible securities** that start as one type but can be converted into another if the investor desires. Most convertible securities are preferred stock or bonds that are convertible into common stock.

## Common Stock

Common stock represents a basic ownership claim in a corporation. Think of this as the investors who have put up investment capital to get things going, just like if you decided to invest in the creation of a business in the town or city that you live. Whoever starts the company can sell partial ownership of it in order to capitalize, or raise money for company growth.

The most important thing about common stock is that it represents a residual claim against the corporation's cash flows or assets. In other words, if the company goes bankrupt, shareholders have a legal right to repayment in bankruptcy court. However, common stockholders are last in line. All prior debts must be paid to the employees (wages), the government (taxes or judgments), short term creditors (banks), bondholders (long term lenders), and preferred shareholders (owners). The common stockholders get whatever is left, the residual value of the firm. Therefore, the value of common stock is directly related to the company's profits.

Legally, common stockholders enjoy limited liability, meaning that their losses are limited to the original amount of their investment when they bought their common stock. For example, the Bhopal Disaster of 1984 is considered to be the worst industrial disaster in history. It was caused by the accidental release of 40 tons of methyl isocyanate (MIC) from Union Carbide India Limited, a pesticide plant located in the heart of the city of Bhopal, India. The accident, in the early hours of December 3, 1984, produced heavier-than-air toxic MIC gas which rolled along the ground through the surrounding streets killing thousands outright. The gas also injured anywhere from 150,000 to 600,000 people, of whom at least 15,000 later died. Heads rolled at the corporate level in the aftermath, but none of the common or preferred shareholders stood to lose more than the initial investment they made when they purchased the company stock.

### Common Stock Dividends

A dividend is a portion of a company's profits that is paid to its stockholders. Common stock dividends are not guaranteed, and are often irregular or even non-existent. Dividends are always paid from the company's after-tax cash flows. Because dividend income is taxable for most investors, dividends are double taxed – once when the company pays the corporate income tax on its profits, and once more when the investors pay their personal income taxes. To avoid double taxation, some investors hold stocks in growth companies that reinvest their accumulated earnings instead of paying large cash dividends.

Companies will sometimes reinvest their accumulated earnings back into the business instead of paying out dividends. This allows the company to accumulate capital and grow faster than it otherwise might. As a firm's earnings grow, people expect its stock price to rise. If this happens, the stockholders can sell their stock and pay capital gains taxes on their profits. The Tax Reduction Act of 1997 set a lower tax rate on capital gains than on dividends. Taxes on capital gains are paid only upon the realization of the gain, meaning when it is sold. Investors can reduce their tax bills by delaying the sale of securities to postpone realization of capital gains.

## Voting Rights of Common Stockholders

Even though stockholders hold ownership of the corporation, they do not exercise control over the firm's day-to-day activities of doing business. They do, however, exercise control over the firm's operations indirectly by electing the board of directors. It is the task of the board of directors to monitor the management's activities on behalf of the shareholders. As a practical matter, most shareholders cannot actually vote in person, but instead by proxy where they vote by absentee ballot or endorse a representative.

## Preferred Stock

Like common stock, preferred stock represents ownership in a corporation. As the name implies, it receives preferential treatment over the common stock with respect to dividend payments and their claim to the firm's assets in the event of a bankruptcy. Preferred stockholders are entitled to the issue price of their stock plus the dividends they are owed. This is, of course, after the bondholders have been paid.

### Preferred Stock Dividends

A preferred stock's dividend is a payment made by the firm at regular intervals, similar to the interest payments on a bond. Most preferred stock is nonparticipating and cumulative. Preferred stock is nonparticipating in the sense that the preferred dividend remains constant regardless of any increase in the firm's earnings.

Firms can decide, however, not to pay the dividends on preferred stock right away. They will be paid in a later period, and are called *dividends in arrears*. The cumulative feature of preferred stock means that the company always owes these dividends to the preferred stockholders, and they accumulate over time. The firm must pay preferred dividends in arrears before a dividend on its common stock can be paid.

Some preferred stock is issued with *adjustable dividends*. Adjustable-rate preferred stock became popular in the early 1980s when interest rates were rapidly changing. The dividends of adjustable-rate preferred stocks adjust periodically to changing market interest rates.

### Voting Rights of Preferred Stockholders

Preferred stockholders do not have voting rights. Exceptions to this rule can occur when the corporation is in arrears on its preferred dividend payments, but this is rare.

### Convertible Securities

Convertible preferred stock can be converted to common stock at a predetermined ratio (such as two shares of common stock for each share of preferred stock). If the common stock rises in price, the holder can choose to convert the preferred shares into common shares. After conversion, preferred dividend payments are no longer received.

**Convertible bonds** are bonds that can be exchanged for shares of common stock. Before conversion it is corporate debt, thus the bond interest and principal payments are contractual obligations of the corporation. Most convertible bonds are *subordinated debentures*, meaning that they get paid after other bonds are paid, so investors who own convertible bonds have lower ranking claim against corporate profits than most other debt holders.

## Primary Markets

New issues of securities are called primary offerings. Stock purchases through primary offerings are called primary market transactions. The company uses the funds raised by the sale of securities in primary offerings to expand production, enter new markets, further research, or enhance other aspects of the firm's operations. After this, whenever the securities are bought or sold it is in the *secondary market*.

If the company has never before offered a particular type of security to the public it is called an unseasoned offering or **initial public offering (IPO)**. If they issue additional securities that are similar to those trading in the secondary market, it is known as a **seasoned offering**. For example, Wal-Mart "went public" in 1978 when it made its first IPO of common stock that immediately started trading on the New York Stock Exchange under the ticker symbol "WMT." This was an unseasoned offering at the time. When WMT issued more shares of the same common stock it was called a seasoned offering because it was just more of the same stock being released into the market.

A ticker symbol, also simply called a symbol, is a system of letters used to uniquely identify a stock or mutual fund. Symbols with up to three letters are used for stocks which are listed and traded on an exchange. Symbols with four letters are used for most Nasdaq stocks. Symbols with five letters are used for Nasdaq stocks with multiple issues of common stock. Symbols with five letters ending in X are used for mutual funds.

Companies raise money quickly when the stock prices rise because they can sell seasoned offerings to the public at a price higher than the unseasoned offering. They don't have to pay interest to bondholders or loan payments to banks when they raise money this way. Alternatively, as the company's stock drops, it becomes more expensive for the company to capitalize with equity and they have to use more debt, either bonds or bank financing. New issues of equity securities may be sold directly to investors by the issuing corporation, but are usually distributed by an investment banker in an underwritten offering, a private placement, a rights offering, or a shelf registration.

The most common distribution method is an *underwritten offering* in which the investment banker purchases the securities from the firm at a guaranteed amount and then resells the equity securities to public investors for a greater amount. The difference is called the *underwriter's spread*, which compensates the investment banker for the expenses and risks involved in the offering.

Also, some equity securities are distributed through private placements in which the investment banker acts only as the company's agent and receives a commission for placing equity securities with investors.

A company will occasionally place equity securities with its existing shareholders. In a rights offering, a company's existing stockholders are given the rights to purchase additional shares at a slightly below-market price in proportion to their current ownership in the company.

An important innovation in the sale of securities is shelf registration. Shelf registration permits a corporation to register a large quantity of securities and sell them over time, rather than all at once. The issuer is able to save time and money through a *single registration*. In addition, these securities can be brought to market with little notice, thereby providing the issuer with maximum flexibility in timing an issue to take advantage of favorable market conditions.

## Secondary Markets

Any trade of a security after its primary offering is called a *secondary market transaction*. When an investor buys 100 shares of IBM on the New York Stock Exchange, the proceeds of the sale do not go to IBM. They go to the investor who sold the shares.

From an investor's perspective, the function of a secondary market is to provide liquidity of their assets at fair prices. An asset is an item of value owned by an individual or corporation. **Liquidity** is the speed at which an asset such as stock, bonds, or real estate, can be converted into cash.

Liquidity is achieved if investors can trade large amounts of securities without affecting prices. Prices are said to be fair if they reflect the underlying value of the security correctly.

There are **three liquidity-related characteristics of a secondary market** that investors find desirable: *depth*, *breadth*, and *resiliency*. First, a secondary market is said to have depth if there are orders both above and below the price at which it is currently trading. When a security trades in a deep market, temporary imbalances of purchase or sale orders that would otherwise create substantial price changes are offset with corresponding orders. Second, a secondary market is said to have breadth if its orders give its market depth in a significant volume. The broader the market for a stock, the greater the potential for stabilization of temporary price changes that may arise from order imbalances. Third, a market is resilient if orders promptly respond to price changes.

There are **four types of secondary markets**: *direct search*, *brokered*, *dealer*, and *auction*. Each type differs according to the amount of price information investors have access to.

### Direct Search

The secondary market that offers you the least amount of price information is that in which the buyers and sellers have to search each other out directly. For this reason, this is called a **direct**

**search secondary market.** Because the full cost of locating and bargaining with a willing and capable trading partner is paid by an individual investor, there is only a small incentive to conduct a thorough search among all possible partners in the market for the best possible price. By the time a trade is agreed upon by the two investors, at least one of the participants could have gotten a better price if they were in contact with some other participant they never found. Stocks that trade in direct search markets are the ones people buy and sell so infrequently that a third party, such as a broker or a dealer, has no incentive to provide any kind of service to facilitate this trading. The common stock of smaller companies, especially small banks, trades in direct search markets. Buyers and sellers of those issues must rely on word-of-mouth communication to attract compatible trading partners. The relatively small number of trades makes it difficult to find an economical way of broadcasting quotations or transaction prices. Trades can occur at the same time at quite different prices, and these transactions are usually far from the best possible price.

### **Brokered**

When the trading of a specific stock becomes sufficiently heavy, brokers begin to offer specialized search services to market participants. For a fee, called a *brokerage commission*, brokers help find compatible trading partners and negotiate acceptable transaction prices for their clients.

Brokers are most likely to be involved when a lot of investors are in the market because it is more profitable for them. If a broker can fill two customer's orders at a cost less than twice the cost of the direct search that would otherwise be conducted by each of those customers, then brokers will offer their services. This is important because they can profitably acquire the business of both investors by charging a commission somewhat less than the cost of a direct search.

Since brokers are frequently in contact with many market participants on a continuing basis, they are likely to know what a "fair" price is for a transaction. Stock brokers arrange transactions closer to the best available price than is possible in a direct search market. Their extensive contacts provide them with a pool of price information that individual investors could not economically duplicate because of cost. By charging a commission less than the cost of direct search, they give investors an incentive to use the information the broker has.

Even though a brokered market is better than a direct search market, a brokered market cannot guarantee that orders will be executed promptly. Not knowing about the speed of execution creates price risk. While a broker is searching for a trading partner for a client, prices may change and the client may suffer a loss.

### **Dealer**

As the trading of a stock becomes even more active, some market participants may begin to maintain bid and offer quotations of their own. These traders become *dealers*. They buy and sell their own inventory at their own quoted prices. Dealer markets eliminate the need for

time consuming searches for trading partners, because investors know they can buy or sell immediately at the quotes given by a dealer.

Dealers often sell their stocks at a price greater than the bid price they pay. The difference between the two, *called the bid-ask spread*, compensates them for providing the liquidity of an immediately available market to occasional participants. This also pays for the risk that dealers incur when they position a security in their inventory. The **bid price** is the highest price that someone is willing to pay to buy shares of stock. This also means that this is the highest price you can expect to get for your shares of stock when selling them. It is always lower than the ask price. The **ask price** is the lowest price you can pay for a stock. This is because it is the lowest price any seller is offering their shares for.

Although dealer markets provide investors with the opportunity for an immediate execution of their orders, and although dealer markets can usually be searched more rapidly and cheaply than a direct search or brokered markets, they do have several disadvantages. No one can guarantee that the quotation of a particular dealer could be improved upon by contacting another dealer. This being the case, investors operating in dealer markets have to bear some cost of searching for the best price.

### Auction

Auction markets provide centralized procedures for the exposure of purchase and sale orders to all market participants simultaneously. In other words, an *auction market* is a place where anyone who wants to buy and sell can go to. This is important because auction markets virtually eliminate the expense of locating compatible partners and bargaining for a favorable price. The communication of price information in an auction market may be oral if all participants are physically located in the same place, or the information can be transmitted electronically.

### Over-The-Counter Trading and NASDAQ

Securities not sold on an organized exchange like the NYSE are traded **over-the-counter (OTC)**. A stock may not be listed on an organized exchange for several reasons, including lack of widespread investor interest, small issue size, or insufficient order flow. The OTC stock market is a dealer market. Since different OTC issues are not usually close substitutes for each other, a dealer with limited capital can make a profit with a relatively narrow range of stock inventory. As a result, there is a large number of small OTC dealers. They often concentrate their trading in particular industry groups or geographical areas. It is estimated that about 30,000 various types of equity securities are traded in the OTC market. However, only about 15,000 of these securities are actively traded.

When customers place a buy or sell order for a stock in the OTC market, a broker will contact other dealers who have that particular stock for sale and search out the best price. When satisfied,

he or she will complete the buy or sell transaction with that dealer and charge his or her customer the same price plus a commission for the brokerage services.

### Nasdaq

A major development of the OTC market occurred in 1971 when the National Association of Securities Dealers (NASD) introduced an automatic computer-based quotation system, called **NASDAQ**. The system offers continuous bid-and-ask prices for the most actively traded OTC stocks. NASDAQ's development accelerated the disclosure of price information, and it also fundamentally altered the structure of the OTC market.

There are three levels of access to the NASDAQ system. *Level 3* terminals are available only to dealers and allow them to enter bid and ask quotations for specific stocks into the system. These quotations, together with information identifying the stock and the dealer, appear within seconds on the terminals of other dealers and brokers. For this reason, the NASDAQ always has current prices. *Level 2* terminals display all the dealer bid and ask quotations for a given stock, but do not allow that quotation to be changed on the terminal. These terminals are available to brokers and institutions. *Level 1* terminals provide only the best bid and ask price (called the inside quote) for a stock. These terminals are used by stockbrokers when quoting prices to their customers.

This greatly increased the efficiency of a broker's search for the best bid-and-ask prices, reducing the amount of trading away from the best available prices.

### Stock Exchanges

The **New York Stock Exchange (NYSE)**, the preeminent, biggest and most organized stock exchange in the United States, is an example of an *auction market*. Other regional stock exchanges in the United States include the **American Stock Exchange (AMEX)** in New York, the **Pacific Stock Exchange** in both San Francisco and Los Angeles, the **Chicago Stock Exchange**, the **Philadelphia Stock Exchange**, the **Boston Stock Exchange**, and the **Cincinnati Stock Exchange**. The NASDAQ and the NYSE account for the vast majority of stock trading. Regional exchanges account for little of the total stock trading volume in the United States.

All transactions in a stock listed on the NYSE and completed within that exchange occur at a unique place on the floor of the exchange, called a **post**. There are three major sources of active bids and offerings in an issue available at a post: (1) floor brokers executing customer stock orders, (2) limit price orders for stock left with the specialist for execution, and (3) the specialist in the stock buying and selling for his or her own account. Since trading is physically localized, the best available bid-and-offer quotes are very available. Competition and ease of communication among market participants at a post ensure the absence of bids above the lowest offer price or offerings below the highest bid for the stock.



## Types of Orders

Orders from the public are transmitted by internet, telephone, or telex from brokerage houses to brokers on the floor of the NYSE, who bring the orders to the appropriate posts for execution. Most of these orders are either *market orders* or *limit orders*.

A **market order** is an order to buy or sell at the best possible price available at the time the order reaches the post. The broker bringing a market order to a post might execute the order immediately upon his arrival, or he might hold back all or part of the order for a short time to see if he or she can get a better price than is currently available. He or she may also decide to quote a price on the transaction to reduce the amount of time he or she will have to wait until completing the trade.

A **limit order** is an order to buy or sell at a designated price or at any better price. Investors place limit orders when they want to buy or sell at a price well above or well below the bid-ask spread. A floor broker handling a limit order to buy at or below a stated price, or to sell at or above a stated price, will usually stand by the post with his order if the limit price on the order is near the current market bid-and-ask prices.

When a limit order is at a price that is not very close to the current market prices (the bid-and-ask), the broker handling the order knows it is unlikely the order will be executed anytime soon. For example, a bid or purchase order at \$50 on a stock currently trading at \$55 may not be satisfied for days, or even may never be satisfied. As an alternative to maintaining a physical presence at the post, the broker can enter the limit order on the order book maintained by the specialist. No trades can take place at a particular price unless all bids are above and all offerings are below it. In other words, the market has to move up through all of the sell limit orders in the book to hit your sell limit orders. Alternatively, the market has to move down through all other limit orders in the book between your limit order's price before it can be executed. Entering a limit order on a specialist's book is a great alternative to floor brokers who would otherwise have to maintain a physical presence at a post to keep a limit order active.

## Specialists

Specialists provide the third source of bids and offers in listed securities. On the NYSE, Specialists are members of the exchange who are both dealers and order clerks. Specialists have to maintain the price quotations at all times for the issue in which they specialize. Specialists also act as dealers, trading for their own account and at their own risk. NYSE specialists act as order clerks as well, maintaining the book of limit orders for the floor brokers.

Heavy trading volume ensures that there are always active bids and offerings available from either floor brokers or the limit order book. In these cases, the dealer function of the specialist is to be a source of liquidity so that your orders get filled quickly if trading is more sporadic

or infrequent. In these cases the obligation of the specialist to provide the liquidity service of immediate execution is vital. Indeed, if the prices of the purchase and sales orders on the specialist's book have a wide spread (which is common for infrequently traded stocks), the specialist may be the sole source of a market for immediate transaction.

### Global Stock Markets

Better communications and computer technology have reduced transaction costs, making it easier for other financial intermediaries to compete with securities firms. This has led to the emergence of a so-called “*national market*” system, online discount trading, 24-hour trading of equity securities, and the globalization of equity markets.

The Securities Act Amendment of 1975 mandated that the Securities and Exchange Commission (SEC), the primary regulator of U.S. financial markets, move toward creating a national market system. In its ideal form, a national market system would have a comprehensive method of recording and reporting transactions regardless of where they take place in the country. It would also be a system that allowed investors to get price information from any exchange instantaneously, and thus a way to buy or sell stock at the best price regardless of location. Progress has been made toward electronically linking the national exchanges, regional exchanges, and over-the-counter markets, but we are still many years away from a truly nationwide system.

There is competitive pressure to link international stock markets as well. Many U.S. firms are issuing stocks on overseas exchanges to take advantage of differences in tax laws, to increase their visibility and reputation, and to avoid flooding local stock markets. In 1986, the London Stock Exchange created a computer network similar to the NASDAQ system and permitted U.S. and Japanese investment firms to enter trades on the system. This development was important because it created a virtual 24-hour global trading environment, given time differences between New York, London, and Tokyo.

Stock exchanges in the United States are panicked about losing business to overseas stock markets. As a step toward increasing the global competitiveness of the U.S. financial markets, the SEC permitted after-hours trading on the NYSE. Before this, trading only took place between 9:30 AM and 4:00 PM Eastern time. The NYSE now has several after-hours trading sessions during which shares trade electronically at the day's closing price. The biggest beneficiaries of the NYSE's move toward globalization will be U.S. companies that expect to broaden the market for their securities.

### American Depository Receipts

Unfamiliar market practices, confusing tax legislation and insufficient shareholder communication often discourage investors from participating in foreign stock markets. Many foreign companies overcome these road blocks by means of **American Depository Receipts (ADR)**. An ADR is a dollar denominated claim issued by a bank representing ownership of

shares of a foreign company's stock held on deposit by U.S. investors. With over 1,600 ADRs from 63 countries trading in the United States, they are very popular with U.S. investors because they allow investors to diversify internationally.

A sponsored ADR is one for which the issuing foreign company absorbs the legal and financial costs of creating and trading the security. An un-sponsored ADR is one in which the issuing firm is not involved with the issue at all and may even oppose it. Un-sponsored ADRs typically result from U.S. investor demand for shares of particular foreign companies.

## Regulation of Equity Markets

Trading in securities in the United States is regulated by several laws. The two major laws are the *Securities Act of 1933* and the *Securities Exchange Act of 1934*. The 1933 act requires full disclosure of relevant information relating to the issue of new stock in the primary market. This act requires full registration of an IPO and the issuance of a prospectus which details the recent financial history of the company, and is concerned only that the relevant facts are disclosed to investors. The 1934 act established the Securities and Exchange Commission (SEC) to administer the provisions of the 1933 act. It also extended the disclosure of the 1933 act by requiring firms with stocks traded on secondary exchanges to periodically release current financial information.

Under the 1934 act, the SEC has the authority to register and regulate securities exchanges, over-the-counter (OTC) trading, brokers, and dealers. The SEC is responsible for broad oversight of secondary markets. In addition, security trading is also subject to state laws.

## Equity Valuation Basics

Stock valuation is a tricky matter and a subject you must understand as a stock investor. To understand stock value you need to understand market capitalization, book value, fundamental analysis, and technical analysis.

**Market capitalization** is simply the total value of all outstanding shares of a company. To calculate the market capitalization, multiply the total number of shares outstanding of each class of common and preferred stock by its corresponding share price. Assume, for instance, that a company has 1,000,000 shares of common stock outstanding trading at \$15 per share and 2,000,000 shares of preferred stock trading at \$10 per share. The market capitalization of the company is as follows:

Market Capitalization:

$$(1,000,000 \text{ Shares})(\$15/\text{Share}) + (2,000,000 \text{ Shares})(\$10/\text{Share}) = \\ \$15,000,000 + \$20,000,000 = \\ \$35,000,000$$

**Book value** is the value of the company as shown on the firm's balance sheet. This is the value of everything the company owns less everything it owes. This number may not necessarily reflect the true value of the firm, but it is generally a fair indication.

**Fundamental analysis** focuses on the company's financial information, including the balance sheet, the income statement, and cash flow statement. The primary concept here is that increased earnings enhance the value of the firm. Since the shareholders are the owners of the firm, the idea is that increased corporate profits increase the share price of the company's stock.

**Technical analysis** attempts to predict the future direction of stock price movements based on three types of information: historical price, volume behavior, and market sentiment.

## Stock Market Indices

Stock market indices provide a useful tool to summarize the vast array of information generated by the continuous buying and selling of stocks. However, the use of market indices presents two problems. First, many different indices compete for attention. Second, indices differ in their composition and can give contradictory information regarding price movements of the stock market.

When constructing a stock market index, the base value and the starting date have to be selected. Only the relative changes in the index values are useful. For example, knowing only that a particular stock market index finished the year at a level of 354.7 is of no value. But if you also know that the same index finished the previous year at a level of 331.5, then you can calculate that the stock market, as measured by this particular index, rose approximately 7 percent over the past year.

The next decision is which stocks should be included in the index. There are three methods for deciding stock market composition: (1) the index can represent a stock exchange and include all the stocks traded on the exchange, (2) the organization producing the index can subjectively select the stocks to be included, or (3) the stocks to be included can be selected based on some objective measure such as market value. Often an index represents the performance of various industry segments such as industrial, transportation, or utilities.

Once the stocks to be included in an index are selected, the stocks must be combined in certain proportions to construct the index. Each stock, therefore, must be assigned some relative weight, usually by share price or market value of the company.

## Price-Weighted Indices

A price-weighted index is computed by summing the prices of the individual stocks in the index. Then the sum of the prices is divided by a divisor to yield the chosen base index value. Thereafter, as the stock prices change, the divisor remains constant.

For example, if the price per share of three stocks in a price-weighted index were \$20, \$10, and \$50 respectively, then the prices would sum to \$80. If the base index value is to be 100, then the initial divisor would be 0.8 because  $100 = 80/0.8$ . On the next trading day, say prices per share of the stocks change to \$25, \$10, and \$40. Now the new sum of share prices would be \$75 and the price weighted index value would be  $75/0.8 = 93.75$  or 6.25 percent lower.

### Market Value-Weighted Indices

A market value-weighted index is computed by calculating the total market value of the firms in the index and the total market value of those firms on the previous trading day. The percentage change in the total market value from one day to the next represents the change in the index.

For example, if the three stocks described in the example above had outstanding shares of 100 million, 200 million, and 10 million, then the total market value for the three stocks on the first day would be \$4.5 billion. The total market value on the second day would be \$4.9 billion, for an increase of 8.8 percent. If the market value-weighted index began with a base index value of 10 on the first day, then its value on the second day would be 10.88, or 8.8 percent higher.

### Dow Jones Averages

The most widely cited stock market index is the **Dow Jones Industrial Average (DJIA)** which was first published in 1896. The DJIA is a price-weighted index that originally consisted of 20 stocks with a divisor of 20; this means that the value of the index was simply the average price of the original 20 stocks. In 1928, the DJIA grew to encompass 30 of the largest U.S. industrial stocks and includes today such companies as Verizon, Dupont, and Merck.

### New York Stock Exchange Index

The New York Stock Exchange Index, published since 1966, includes all of the common and preferred stocks listed on the NYSE. In addition to the composite index, the NYSE stocks are divided into four sub-indices that track the performance of industrial, utility, finance, and transportation stocks. All the NYSE indices are **market-value weighted**.

### Standard and Poor's Indices

The Standard and Poor's (S&P) 500 Index is a **value-weighted index** that consists of 500 of the largest U.S. stocks from various industries. The stocks included in the S&P 500 account for over 80 percent of all the stocks listed on the NYSE, although a few NASDAQ issues are also included. The index is computed on a continuous basis during the trading day. It is divided into two sub-indices that follow the performance of industrial and utilities companies.

**The S&P 400 MidCap Index** is market-value weighted and consists of 400 stocks with market values less than those of the stocks in the S&P 500. The S&P 400 MidCap index is useful for following the performance of medium-sized companies.

**The S&P 600 SmallCap Index** tracks 600 companies with market values less than those of the companies in its S&P 600 MidCap index. The S&P 1500 index includes all of the companies in the S&P 500, the MidCap 400, and the SmallCap 600.

### **NASDAQ Indices**

The NASDAQ Composite has been compiled since 1971. It consists of three categories of companies: industrial, banks, and insurance. All of the stocks traded through the NASDAQ are included. In 1984, the NASDAQ introduced two new indices, the NASDAQ/ NMS Composite index and the NASDAQ/ NMS Industrial Index. Both are weighted by **market capitalization**.

### **Mutual Funds**

If you don't want to actively buy and sell individual securities, you can invest in stocks, bonds, or other financial assets through a mutual fund. Mutual funds are simply a way of pooling together money of a large group of investors. The buy and sell decisions for the pool are made by fund managers who are paid for the service they provide.

Mutual funds provide indirect access to financial markets for individual investors; these funds are a form of financial intermediary. Mutual funds have a lot of power. They are now the largest type of financial intermediary in the United States, followed by commercial banks and life insurance companies.

As of the end of 2001, about 93 million Americans in 55 million households owned mutual funds, up from 5 million households in 1980. Investors contributed \$505 billion to mutual funds in 2001, and total mutual fund assets totaled \$7 trillion.

### **Open-End Versus Closed-End Mutual Funds**

There are two type of mutual funds, *open-end* and *closed-end*. Whenever you invest in a mutual fund, you do so by buying shares in the fund. However, how your shares are bought and sold depends on which type of fund you are considering.

With an **open-end fund**, the fund itself will sell new shares to anyone wishing to buy and will buy back shares from anyone who wants to sell. When an investor wants to buy open-end fund shares the fund simply issues the shares and then the fund manager invests the money received from the investor. When someone wants to sell open-end fund shares, the fund sells some of its assets and uses the cash to redeem the shares. As a result, with an open-end fund, the number of shares outstanding fluctuates over time.

In a **closed-end fund**, the number of shares is fixed and never changes. If you want to buy shares, you must buy them from another investor. Similarly, if you wish to sell shares that you own, you must sell them to another investor.

## Net Asset Value

A mutual fund's net asset value (NAV) is calculated by taking the total value of the assets held by the fund less any liabilities and then dividing by the number of outstanding shares. For example, suppose a mutual fund has \$105 million in assets and \$5 million in liabilities based on current market values and a total of 5 million shares outstanding. Based on the value of net assets held by the fund, \$100 million, each share has a value of \$20 (\$100 million / 5 million shares).

Shares in an open-end fund are always worth their net asset value. In contrast, because the shares of closed-end funds are bought and sold in the stock market, the share price is dictated by the market and may or may not be equal to the NAV.

## Mutual Fund Organization and Creation

A mutual fund is simply a corporation. Like a corporation, a mutual fund is owned by its shareholders. The shareholders elect a board of directors, and they are responsible for hiring managers to oversee the fund's operations. Every individual fund is a separate company owned by its shareholders.

Most mutual funds are created by investment advisory firms, which are businesses that specialize in managing mutual funds. Such firms have additional operations as discount brokerages or offer other financial services.

An investment advisory firm can create multiple funds. Over time, this process leads to a family of funds all managed by the same advisory firm. Each fund in the family will have its own fund manager, but the advisory firm will generally handle the record keeping, marketing, and much of the research that underlies the fund's investment decisions.

## Taxation of Investment Companies

As long as an advisory firm meets certain rules set by the Internal Revenue Service, it is treated as a “**regulated investment company**” for tax purposes. This is important because a regulated investment company does not pay taxes on its investment income. Mutual funds act as a “pass-through entity” in terms of tax law, funneling capital gains and losses to the shareholders in proportion to their investment.

## Types of Stock Mutual Funds

1. *Capital appreciation stock funds* seek maximum capital appreciation. They generally invest in companies that have, in the opinion of the fund manager, the best prospects for share price appreciation without regard to dividends or company size. Often this means investing in unproven companies or out-of-favor companies.

2. *Growth stock funds* seek capital appreciation, but tend to invest in large, more established companies. These funds may be somewhat less volatile as a result. Dividends are an important consideration for the mutual fund manager in purchasing a stock.
3. *Growth and income funds* seek capital appreciation, but at least part of their focus is on dividend-paying companies.
4. *Equity income stock funds* focus almost exclusively on stocks with relatively high dividend yields, thereby maximizing the current income on the stock portfolio. The dividend yield is the anticipated dividend divided by the present price of a share of stock.
5. *Small company stock funds* focus on stocks in small companies. “Small” refers to the total market value of the stock. Small stocks have historically performed very well, at least over the long run, hence the demand for funds that specialize in such stocks. With small-company mutual funds, what constitutes small covers a wide range from perhaps \$10 million up to \$1 billion or so in total market value, and some funds specialize in smaller companies than others. Since most small companies don’t pay dividends, these funds necessarily emphasize capital appreciation.
6. *Mid-cap stock funds* specialize in stocks that are too small to be in the S&P 500 index but too large to be considered small stocks. Hence, the stocks these mutual funds specialize in are considered to be middle sized stocks or medium sized by market capitalization.
7. *Global stock funds* have substantial international holdings but also maintain significant investments in U.S. stocks.
8. *International stock funds* are similar to global funds, but focus most on foreign securities.
9. *Index stock funds* simply hold the stocks that make up a particular index in the same proportions as the index. The most important index funds are the S&P 500 indexed stock mutual funds which are intended to track the performance of the S&P 500. By their nature, index funds are passively managed and trade only as a necessary to match the index. Such funds are appealing in part because they are generally characterized as low turnover and low operating expenses.
10. *Social conscience stock funds* are a relatively new creation. They invest only in companies whose products, policies, or politics are viewed as socially desirable. The specific social objectives range from environmental issues to personnel policies. Of course, general agreement on what is socially desirable or responsible is hard to find.
11. *Tax-managed stock funds* are managed with high regard for the tax liabilities of mutual fund shareholders. Tax-managed stock mutual funds try to hold down turnover to minimize realized capital gains, and they try to match realized gains with realized losses. Fund shareholders have largely escaped taxes as a result.



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## Exchange Traded Funds

Exchange traded funds (ETF) are a recent financial innovation. When you purchase an ETF, you are buying the same combination of stocks on a given index. For example, the best known ETF is **Standard and Poor's Depository Receipt (SPDR)**, pronounced "spider," which is based on the S&P 500 index.

What makes an ETF different from an index fund is that it can be traded in the open markets, leaving the possibility for arbitrage. **Arbitrage** is an activity that involves simultaneously buying and selling a security to take advantage of a price difference in two markets. In plain language, if a company's stock is selling for \$12 on the NYSE and \$9 on the AMEX, then arbitrageurs will buy the stock on the AMEX and sell the same stock on the NYSE for as much as they can and as fast as they can. The increased buying on the AMEX will cause the price to rise on the exchange while on the other hand the increased selling on the NYSE will cause the price on that exchange to fall until the price is the same on each exchange. In finance we say that arbitrage keeps prices in line by forcing price convergence or one-price for the same asset such as a stock. This is also known as *the law of one price*.

## Hedge Funds

Hedge funds are a special type of investment company. They are like mutual funds in that a fund manager invests a pool of money for investors and takes his fee off the top. However, unlike mutual funds, hedge funds are not required to register with the SEC. They are only lightly regulated and are generally free to pursue almost any investment style they wish.

Hedge funds are also not required to maintain any degree of diversification or liquidity. They don't have to redeem shares on demand, and they have little in the way of disclosure requirements. The reason that hedge funds avoid many of the restrictions placed on mutual funds is that they only accept "financially sophisticated" investors. They do not offer their securities for sale to the public. Some types of hedge funds are limited to no more than 100 investors.

Hedge funds typically have a special fee structure, where, in addition to a general management fee of one to two percent of fund assets, the manager is paid a special performance fee. A modest fee structure might be one that charges an annual management fee of one percent of the fund's assets plus twenty percent of any profits realized; however, more elaborate fee structures are common.

Whether large or small, each fund develops its own investment style or niche. For example, a hedge fund may focus on a particular sector or global region. Alternatively, a hedge fund may pursue a particular investment strategy, like the market neutral strategy, in which the fund maintains a portfolio approximately equally split between long and short positions. By being long in some securities and short in others, the portfolio is hedged against market risk and said to be market neutral.

**Short** is a term meaning short selling. This is the sale of a security made by an investor who does not own the security. The short sale is made in expectation of a decline in the price of a security, which would allow the investor to then purchase the shares at a lower price in order to deliver the securities earlier sold short.

## Stock Options

Options are securities that make it possible to invest in stocks without actually owning the shares. Options on stock are bought to speculate on price movement. Stock options are themselves securities and can be traded in financial markets. An option to buy a stock is known as a **call option** or just a call. Options to sell securities are known as **put options** or just puts.

Options are the most important example of a class of financial assets known as *derivative securities*. A derivative is so named because it derives its value from the price of another underlying security, in this case the optioned stock.

Investors are interested in stock options because they provide *speculative leverage*, a term applied to any technique that amplifies the return on an investment. An option's leverage comes from the fact that the return on the investment can be many times larger than the return on the underlying stock.

### Writing an Option

There are two parties to a contract, a buyer and a seller. The first person to sell an option contract is the person who creates it by agreeing to sell the stock at the strike price. He or she is said to write an option and is called the **option writer**.

Once the option is written, the option contract becomes a security and the writer sells it to the first option buyer, who may sell the contract to someone else later on. No matter how many times the option is sold, the writer remains bound by the contract to sell or buy the underlying stock to the current option owner at the specified price.

Options are written either covered or naked. With a **covered option**, the writer owns the underlying stock at the time the option is written. Someone who writes a **naked option** doesn't own the underlying stock at the time he or she writes the option and therefore faces more risk.

### Intrinsic Value of an Option

If a stock's current price is below the strike price in the case of a call, or above the strike price in the case of a put, we say that the option is "*out of the money*" because the option contract buyer could not make any money exercising the contract. If the stock's price is above the strike price in the case of a call, or below the strike price in the case of a put, we say that the option is "*in the money*" because the option contract buyer could make money exercising the contract.

In general, the option's intrinsic value is the difference between the underlying stock's price and the option's strike price. Investors are willing to pay premiums over intrinsic value for stock options because of the chance that they will earn even more profit. **Option premium** is the difference between the intrinsic value of the option and the option's price. The exact amount of a particular option's premium above intrinsic value depends on the stock's volatility, the time until expiration, and the attitude of the market about the underlying company.

## Option Expiration

It's important to keep in mind that options are exercisable over only a limited period at the end of which they expire and become worthless. That makes option investing very risky. For example, if an option is purchased "out of the money" and the option never gets "in the money," the option expires, worthless. The buyer loses the entire price paid for it.

If an option is purchased at a price that includes a positive intrinsic value and the underlying stock goes down in value, the option buyer's loss at expiration is the time premium paid plus the decrease in intrinsic value. As its expiration date approaches, any option's time premium shrinks to virtually nothing. Notice that anyone owning an option with a positive intrinsic value just before expiration must act quickly to avoid losing value.

## Warrants

It's important to note that the options discussed up until now are strictly bought and sold in the secondary market. That is, they're traded between investors, and the companies don't get involved. Specifically, companies don't get any money when the options are written or exercised.

**Warrants** are similar to call options but are issued by the underlying companies themselves. When a warrant is exercised, the company issues new stock in return for the specified price. Warrants are therefore primary market instruments. Warrants are like call options in that they give their owners the right to buy stock at a designated price over a specified time period. They differ from stock options in that the time period is much longer, typically several years.

Warrants are usually issued in conjunction with other financing instruments as "sweeteners" to make the primary security more attractive. For example, suppose a company wants to borrow, but isn't in good financial condition, so lenders have rejected its bonds. They may be induced to buy the company's bonds if the firm attaches one or more warrants to each bond giving the holder the right to buy a share at \$50 within the next five years. The warrants provide incentives to buy the bonds if people think the stock is likely to go over \$50 before five years have passed. If bond holders do exercise the warrants then the company will receive additional cash as they issue new shares that are sold to fulfill the warrants.

Warrants can generally be detached and sold independently at a market value of their own. This effectively reduces the price of the bonds and increases their yield to the investor. Alternatively,

bondholders can keep the warrants and exercise them for a quick gain if the stock's price rises above \$50. Notice that if the warrants are exercised, the company receives an equity infusion based on a price of \$50 rather than the higher market price. The bonds are unaffected by the exercise of the warrants.

### **Employee Stock Options**

For many years, American companies have given certain employees stock options as part of their compensation. Companies like paying with options because they don't cost anything when issued. Since employees who receive options get lower salaries, the practice improves the company's financial statements by lowering payroll costs. Beyond that, supporters maintain that the employees will be more motivated to act in the best interest of the company, since the value of their options are directly tied to market price.

# Introduction to Forex

Basics of Forex Trading

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2



## Introduction

Traders buy and sell currencies with the hope of making a profit when the value of the currencies changes in their favor, whether from market news or events that take place in the world. The forex market is the largest market in the world with daily reported volume of over 1.8 trillion, making it one of the most exciting markets for trading.

### Market Hours

The spot FX market is unique to any other market in the world, as trading is available 24-hours a day. Somewhere around the world, a financial center is open for business, and banks and other institutions exchange currencies every hour of the day and night with generally only minor gaps on the weekend. Essentially, foreign exchange markets follow the sun around the world, giving traders the flexibility of determining their trading day.

### How an FX Trade Works

In this market you may buy or sell currencies. The objective is to earn a profit from your position. Placing a trade in the foreign exchange market is simple: the mechanics of a trade are virtually identical to those found in other markets, so the transition for many traders is often seamless.

Example of an FX Trade		
Trader's Action	Euros	US Dollar
A trader purchases 10,000 euros in the beginning of 2001 when the EUR/USD rate was .9600.	+10,000	-9,600
In May of 2003 the trader exchanges his 10,000 euro back into US dollar at the market rate of 1.1800.	-10,000	+11,800
In this example, the trader earned a gross profit of \$2,200.	0	+2,200

## Quoting Conventions

Currencies are quoted in pairs, such as EUR/USD or USD/JPY. The first listed currency is known as the base currency, while the second is called the counter or quote currency. The base currency is the "basis" for the buy or the sell. For example, if you BUY EUR/USD you have bought euros (simultaneously sold dollars). You would do so in expectation that the euro will appreciate (go up) relative to the US dollar.

Currency Abbreviations	
Symbol	Definition
EUR	Euro
GBP	Great British pound
USD	US Dollar
CHF	Swiss Franc
AUD	Australian Dollar
CAD	Canadian Dollar
JPY	Japanese Yen

### EUR/USD

*In this example, euro is the base currency and thus the “basis” for the buy/sell.*

If you believe that the US economy will continue to weaken and this will hurt the US dollar, you would execute a BUY EUR/USD order. By doing so, you have bought euros in the expectation that they will appreciate versus the US dollar. If you believe that the US economy is strong and the euro will weaken against the US dollar you would execute a SELL EUR/USD order. By doing so, you have sold euros in the expectation that they will depreciate versus the US dollar.

### USD/JPY

*In this example, the US dollar is the base currency and thus the “basis” for the buy/sell.*

If you think that the Japanese government is going to weaken the yen in order to help its export industry, you would execute a BUY USD/JPY order. By doing so, you have bought US dollars in the expectation that they will appreciate versus the Japanese yen. If you believe that Japanese investors are pulling money out of US financial markets and repatriating funds back to Japan, and this will hurt the US dollar, you would execute a SELL USD/JPY order. By doing so, you have sold US dollars in the expectation that they will depreciate against the Japanese yen.

### GBP/USD

*In this example, the GBP is the base currency and thus the “basis” for the buy/sell.*

If you think the British economy will continue to be the leading economy among the G8 nations in terms of growth, thus buying the pound, you would execute a BUY GBP/USD order. By doing so, you have bought pounds in the expectation that they will appreciate versus the US dollar. If you believe the British are going to adopt the euro and this will weaken pounds as they devalue their currency in anticipation of the merge, you would execute a SELL GBP/USD order. By doing so, you have sold pounds in the expectation that they will depreciate against the US dollar.

### USD/CHF

*In this example, the USD is the base currency and thus the “basis” for the buy/sell.*

If you think the US dollar is undervalued, you would execute a BUY USD/CHF order. By doing



so, you have bought US dollars in the expectation that they will appreciate versus the Swiss Franc. If you believe that due to instability in the Middle East and in U.S. financial markets the dollar will continue to weaken, you would execute a SELL USD/CHF order. By doing so, you have sold US dollars in the expectation that they will depreciate against the Swiss franc.

## Buying/Selling

First, the trader should determine whether they want to buy or sell. If they want to enter a short order – whereby they will profit if the exchange rate falls – they simply need to click on the SELL rate. The opposite holds true for traders who enter buy orders: they can simply click on the BUY rate, and thus will profit if the exchange rate goes up.

### Example of How Buying/Selling Works

Just like in all markets, there are two prices for every currency pair. The difference between these two prices is the spread, or the cost of the trade. In this example, the spread is three pips. On a mini account, a pip on the EUR/USD currency pair is worth \$1.

EUR/USD	
Sell	Buy
1.32	1.32
<b>14</b>	<b>17</b>
Low	High
1.3191	1.3268

## Margin

The margin deposit is not a down payment on a purchase of equity, as many perceive margins to be in the stock markets. Rather, the margin is a performance bond, or good faith deposit. The margin requirement allows traders to hold a position much larger than the account value.

### Example of How Margin Works

Since the trader opened 1 lot of the EUR/USD, his margin requirement or used margin is \$1000. Usable margin is the funds available to open new positions or sustain trading losses. If the equity (the value of his account) falls below his used margin due to trading losses, his position will automatically be closed. As a result, the trader can never lose more than he/she deposits.

## Rollover

For positions open at 5pm EST, there is a daily rollover interest rate that a trader either pays or earns, depending on your established margin and position in the market. If you do not want to earn or pay interest on your positions, simply make sure it is closed at 5pm EST, the established end of the market day. Since every currency trade involves borrowing one currency to buy another, interest rollover charges are an inherent part of FX trading. Interest is paid on the currency that is borrowed, and earned on the one that is purchased. If a client is buying a currency

with a higher interest rate than the one he/she is borrowing, the net differential will be positive – and the client will earn funds as a result. Please note that clients must be on 2% margin in order to earn funds.

### **Short-Selling Without an Uptick**

Unlike the equity market, there is no restriction on short selling in the currency market. Trading opportunities exist in the currency market regardless of whether a trader is long or short, or which way the market is moving. Since currency trading always involves buying one currency and selling another, there is no structural bias to the market. Hence, a trader has an equal access to trade in a rising or falling market.

### **Equity Market: Making the Transition to Forex**

Equity markets can be used as a key indicator for movement in the Forex market. As technology has enabled greater ease with respect to transportation of capital, investing in global equity markets has become far more feasible. Accordingly, a rallying equity market in any part of the world serves as an ideal opportunity for all, regardless of geographic location. The result of this has become a strong correlation between a country's equity markets and its currency: if the equity market is rising, investment dollars are coming in to seize the opportunity. Alternatively, falling equity markets will have domestic investors selling their shares of local publicly traded firms only to seize investment opportunities abroad.

# Getting Started

Get the Big Picture

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3



## Installation

Whether you purchased the Stocks or Forex section of Track 'n Trade High Finance, installing the program will be the same. You will either download it from the internet or install by CD-ROM. Double click the HF icon on your screen and follow the steps.



### End User License Agreement

Please read the End User License agreement and if you agree to the terms of use, select the appropriate button and click OK. The next screen will appear.

### Shortcuts/Location

Read the instructions and select which installation process you would like to follow, and where to install it on your computer's hard drive if that is your choice. Then select the shortcuts you would also like to install. Select Install when you are finished.



### Log-in

The start up screen will appear next. This is the screen you will see when you start up Track 'n Trade High Finance. Select the section of Track 'n Trade High Finance you want to enter (Forex Live Trading, Forex Live Demo, Forex Simulator, or Stocks Charting) and enter in your username and password:

- If you were already a customer of Gecko Software when you purchased Track 'n Trade High Finance, use the same username and password from your Account Manager
- If you purchased Track 'n Trade High Finance by phone your username and password will be in your confirmation email
- If you purchased Track 'n Trade High Finance online, use the username and password you set up.



### Saving Username and Password

The option to save your username and password is available in Track 'n Trade High Finance. Remember, logging in gives you access to your financial information through Track 'n Trade High Finance. Be aware that others may use these saved passwords and access this information.

## Account Manager

The Account Manager was created to give Gecko Software customers a convenient resource to update their personal information with us, such as your billing, shipping, and payment information.

To access the Account Manager, log-in to Track 'n Trade High Finance, click on the Help Menu, and select Account Manager. The Account Manager will open in your default browser. (You will not need to enter your email address and password if you are already logged-in to the program.)



Or, access your Account Manager by visiting [www.trackntrade.com](http://www.trackntrade.com) or [www.geckosoftware.com](http://www.geckosoftware.com) and click on Account Manager. To log-in to the Account Manager, use the same username and password you use to access the Track 'n Trade High Finance software program. There are links below the log-in to help you in case you forget this information. If you do not have a password, click on the “Click Here to Sign-Up” button on the bottom of the screen. It is helpful to read the information given here.

Once you have logged in, a screen will appear with your information on it. The top of the screen is a menu with Home, Update Account, Order History, and Available Products tabs.

**Home** | Update Account | Order History | Available Products

From the **Home** page you can view your Account Details at the top left corner, which include your current address and phone number. You can change this information by clicking Review. You will also see any Account Notices, such as a notice that one of your subscriptions needs to be renewed. Below will be a list of your current subscriptions and a list of the software programs you currently own.

The **Update Account** page is where you can update your Billing and Contact Information, Shipping Information, Payment Information, and your Password. It is important to keep this information up-to-date.

On the **Order History** page, there will be a chronological list of all your orders. To view them in detail, click on the Details link on the right side of the screen.

The last page on the menu is **Available Products**. Here you can view all the Gecko Software products you do not own. Please browse through and make purchases from this window.

## Getting Started

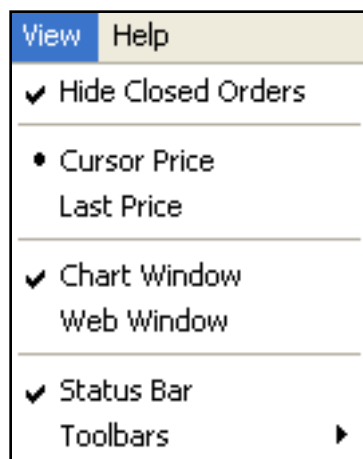
This section will introduce you to the basic functions and features of Track 'n Trade High Finance. First we'll take a look at your workspace. The screenshot below is what you will see when you open Track 'n Trade High Finance. Use this as a reference for the rest of the manual. The following pages will go into further detail of the functions of each Toolbar and Menu you see here.



## Keyboard Shortcuts Quick Reference

F1	Help
Ctrl and N	New Book
Ctrl and O	Open Book
Ctrl and S	Save Book
Ctrl and P	Print
Home	Move Chart to Beginning
End	Move Chart to End
←	Step Chart Back 1 Tick
→	Step Chart Forward 1 Tick
Shift	Highlight Day Under Cursor
Delete	Delete Selected Object or Tool
Ctrl	Lock Tool to 45 or 90 Degrees
Ctrl-click Gann Fan	Square Gann Fan Tool
+	Increment Calculator
-	Decrement Calculator
Shift-click Hand	Scale Chart
Alt-click Zoom	Zoom Out
F6	Rotate View
CTRL and F6	Hide Control Panel
Ctrl-click Screen Capture	Copy Chart to Clipboard
Ctrl-Alt-click Screen Capture	Copy Chart Control Panel to Clipboard
Alt-click Screen Capture	Save Chart and Control Panel to File





## File Menu

**New:** Closes the chartbook that is open and creates a new blank chartbook.

**Open:** Opens an already saved chartbook.

**Save:** Saves the chartbook you have open.

**Save As:** Saves the chartbook you have open as a new file, or over an existing file.

**Print:** Prints the chart window.

**Print Setup:** Gives options for printing the chart window.

**Recent File:** Lists the last eight chartbooks that have been opened.

**Manage Local Cache:** Edit Cache history.

**Manage Pip Spreads (Forex only):** Modifies pip spreads.

**Work Offline:** Disconnects from the data feed.

**Exit:** Closes the program

## View Menu

**Hide Closed Orders:** Hides any orders that have been closed.

**Cursor Price:** Shows statistics of where the cursor is on a chart in the Status Bar.

**Last Price:** Shows the last price information in the Status Bar.

**Chart Window:** Makes charts viewable in the chart window.

**Web Window:** Opens the Track 'n Trade High Finance web site in the chart window.

**Status Bar:** Makes the Status Bar appear at the bottom of the program screen.

**Toolbars:** Choose which toolbars to display.



## Help Menu

**About TNT HF:** Shows the version of Track ‘n Trade High Finance installed. Also shows what account you are currently signed-on to.

**Online Manual:** Opens the online manual in your chart window.

**View EULA:** View the End User License Agreement.

**Reset Questions:** Reset notification warnings of deletions.

**Report a Problem:** Shortcut to reporting a bug or problem with the software.

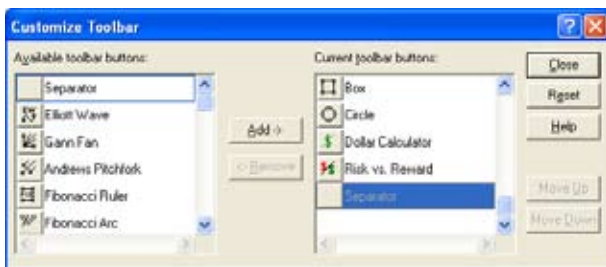
**Account Manager:** Log on to the Account Manager to change your personal information, order a new product, and monitor your data services.

**Traders Forum:** Log on to the Traders Forum to talk with other traders.

**Online Tech Support:** Opens a window that explains how to receive technical support.

## Toolbars

Each toolbar can be customized to fit your trading needs. To customize a toolbar, place mouse over the toolbar and right click, then select *Customize Toolbar*. The following screen will appear.



To add buttons, select desired buttons and click *Add*. To delete unwanted buttons, select and click *Remove*. To restore default buttons, click *Reset*. When you have made your changes, select *Close* to save your changes and return to the program.

## Main Toolbar



**New:** Closes your current Chartbook and opens a new Chartbook.

**Open:** Closes your current Chartbook and opens a window for you to choose a previously saved Chartbook.

**Save:** Saves your open charts as a Chartbook.

**Print:** Prints the Chart Window.

**Help:** Click on this button, then click anywhere in the software to learn more about that feature.

## Navigations Tools

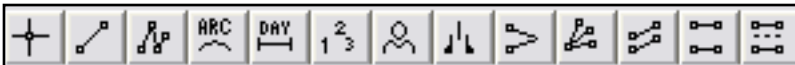


**Pointer:** Default tool used for selecting tools and features in the software.

**Magnifier:** Used to zoom in on a section of your chart. You can click and drag to select an area to zoom in on or simply click on the center of the chart to zoom in. To zoom out, hold down the Alt key and click on the chart.

**Hand:** Scrolling tool used in chart window. Click and drag a chart to scroll.

## Technical Tools



**Crosshair Tool:** Used to draw a line vertically and horizontally on a chart.

**Line Tool:** Used to draw support/resistance lines.

**Multi-Line Tool:** Used to draw an alternating support/resistance line.

**Arc Tool:** Used to illustrate a Rounded Top/Bottom Formation.

**Day Offset Tool:** Measures the number of trading days vs. actual days that are between two points.

**123 Tool:** Used to chart a 123 Top/Bottom formation.

**Head & Shoulders Tool:** Used to identify either a Head & Shoulders Top or Bottom Formation.

**Dart/Blip Tool:** Used to chart a Dart (Blip) Up or Down Formation.

**Wedge Tool:** Used to identify any type of Wedge or Triangle.

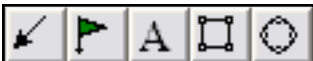
**Trend Fan Tool:** Used to identify a Trend Fan.

**Trend Channel Tool:** Used to identify an Inclining or Declining Channel.

**Horizontal Channel Tool:** Used to identify a Horizontal Channel.

**N% Ruler:** Used to measure a retracement. Default is 50%.

## Notation Tools



**Arrow Tool:** Used to draw arrows to help point out areas of interest.

**Flag Tool:** Used to place a flag or a graphic.

**Text Tool:** Used to type text.

**Box Tool:** Used to draw a box.

**Circle Tool:** Used to draw a circle.

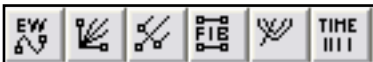
## Calculators



**Dollar Calculator:** Used to find the dollar value between two points on the chart.

**Risk/Reward Calculator:** Used to find the difference between two points of the risk and reward zone.

## Advanced Technical Tools



The *Advanced Technical Tools* only appear if you have the Advanced Technical Tools Expansion Pack, which includes the *Elliott Wave Tool*, the *Gann Fan Tool*, the *Andrews Pitchfork Tool*, the *Fibonacci Ruler*, the *Fibonacci Arc Tool*, and the *Fibonacci Time Zones*.

## Time Interval Buttons



*Daily Chart* - Each chart price bar represents a day.



*Weekly Chart* - Each chart price bar represents a week.



*Monthly Chart* - Each chart price bar represents a month.

The following buttons are integrated with the *Time Interval Tabs* found on the bottom of a chart at full screen. They can be customized to play the chart at minute intervals from 1 to 60.



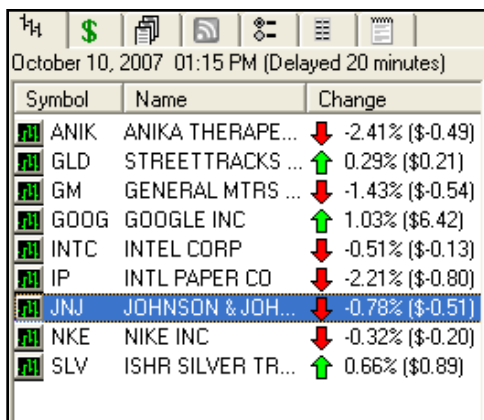
## Screen Capture Button



Saves your open chart as an image. Ctrl-click on this button to copy the screenshot to your clipboard (making it ready to paste).

## Control Panel

The control panel is on the left side of your screen. It includes seven tabs: Charts, Account, Reports, News, Preferences, Data, and Notes.



October 10, 2007 01:15 PM (Delayed 20 minutes)

Symbol	Name	Change
ANIK	ANIKA THERAPE...	↓ -2.41% (\$-0.49)
GLD	STREETTRACKS ...	↑ 0.29% (\$0.21)
GM	GENERAL MTRS ...	↓ -1.43% (\$-0.54)
GOOG	GOOGLE INC	↑ 1.03% (\$6.42)
INTC	INTEL CORP	↓ -0.51% (\$-0.13)
IP	INTL PAPER CO	↓ -2.21% (\$-0.80)
JNJ	JOHNSON & JOH...	↓ -0.78% (\$-0.51)
NKE	NIKE INC	↓ -0.32% (\$-0.20)
SLV	ISHR SILVER TR...	↑ 0.66% (\$0.89)

## Charts Tab

In the *Charts Window* you will see all the symbols you have opened, the name of the chart, and the change in price of that chart since it opened.

To view a specific chart at full screen, double click on the symbol in your *Charts Window*, or right-click on the symbol and select *Open Chart*.

To delete a chart select it in your *Charts Window* and hit the delete button on your keyboard, or right-click on the symbol and select *Delete Chart*.

The more charts you open, the slower your computer will run.

*Note:* If you find your computer running slow, you may need to break your charts into two or more chartbooks.

GOOG -- Last 6 quotes

Change 6.42 (1.03%)

Show change from: Previous Price Bar

Order Placement

Buy Qty: 1 Order Type: Stop Rate: 573.24

Sell

Locally Held Order

Trailing Stop

Dollars

Confirm

Account overview: Statement

Field	Value
Name	GOOGLE INC
Ticker	GOOG
Exchange	NASD
SIC Code	7375
Division	Services
Sector	Business Services

## Account Tab

The Chart Quote Window shows a history of quotes. Customize this window by adjusting the **Show Change Form** to show the change from the Previous Price Bar, Previous Day, or Previous Quote.

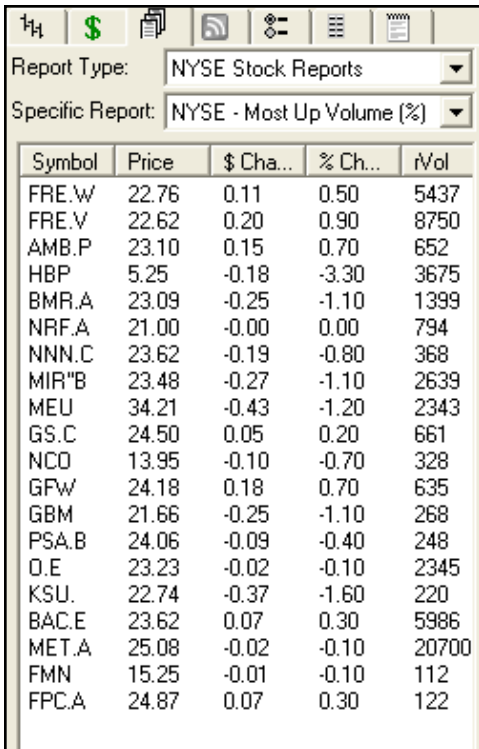
**Order Placement:** Displays details of the order you are placing. The time, date, and market you are buying are determined by the date your chart is played to and what market you have open. Once your order is placed, it will not show in your Accounting Simulator until the order is filled.

**Locally Held Order:** This type of order is temporarily held locally at your computer. It is only sent as an actual order when the markets meet the proper conditions of your order. Locally held orders are only available in the Forex version of Track 'n Trade.

**Trailing Stop:** You can only select this option on a Stop Order. It will follow an open position and protect profits by trailing a market rise or decline. You can choose to set your Trailing Stop by Dollar amount, Price Bars Back, or by following the PSAR or Zig Zag indicators.

**Account Overview:** View a detailed overview of your current symbol. Includes the ticker symbol, exchange, open/close data, and much more.

The account **Statement** button will give you access to a detailed tabulation of your account history.

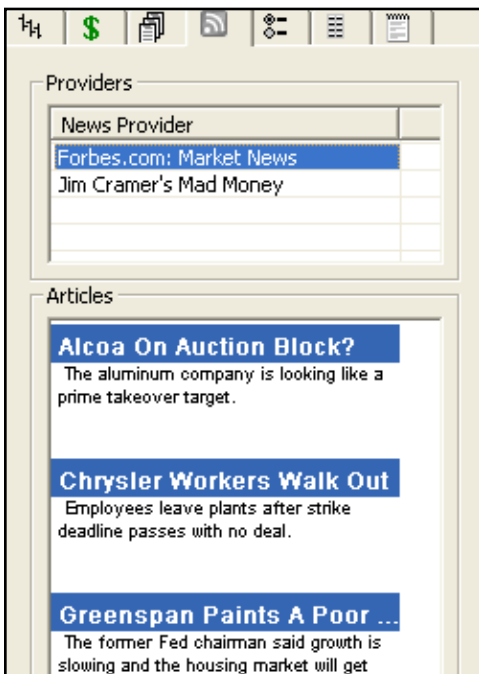


Symbol	Price	\$ Cha...	% Ch...	rVol
FRE.W	22.76	0.11	0.50	5437
FRE.V	22.62	0.20	0.90	8750
AMB.P	23.10	0.15	0.70	652
HBP	5.25	-0.18	-3.30	3675
BMR.A	23.09	-0.25	-1.10	1399
NRF.A	21.00	-0.00	0.00	794
NNN.C	23.62	-0.19	-0.80	368
MIR"B	23.48	-0.27	-1.10	2639
MEU	34.21	-0.43	-1.20	2343
GS.C	24.50	0.05	0.20	661
NCO	13.95	-0.10	-0.70	328
GFW	24.18	0.18	0.70	635
GBM	21.66	-0.25	-1.10	268
PSA.B	24.06	-0.09	-0.40	248
O.E	23.23	-0.02	-0.10	2345
KSU.	22.74	-0.37	-1.60	220
BAC.E	23.62	0.07	0.30	5986
MET.A	25.08	-0.02	-0.10	20700
FMN	15.25	-0.01	-0.10	112
FPC.A	24.87	0.07	0.30	122

## Reports

### \*Stocks Only

Under *Report Type*, select the Exchange you would like to get a statistical report from. Then select the statistical report you are interested in under *Specific Report*. There are 10 reports available that highlight different statistical findings. For example, you can select to see the most actively traded market that is trading higher or lower, or bring up the market that is creating the most news. The information is based on the current day's trading information.



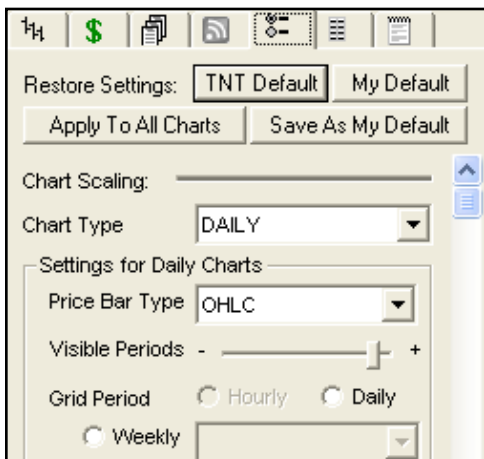
Providers
News Provider
Forbes.com: Market News
Jim Cramer's Mad Money

Articles
<b>Alcoa On Auction Block?</b> The aluminum company is looking like a prime takeover target.
<b>Chrysler Workers Walk Out</b> Employees leave plants after strike deadline passes with no deal.
<b>Greenspan Paints A Poor ...</b> The former Fed chairman said growth is slowing and the housing market will get

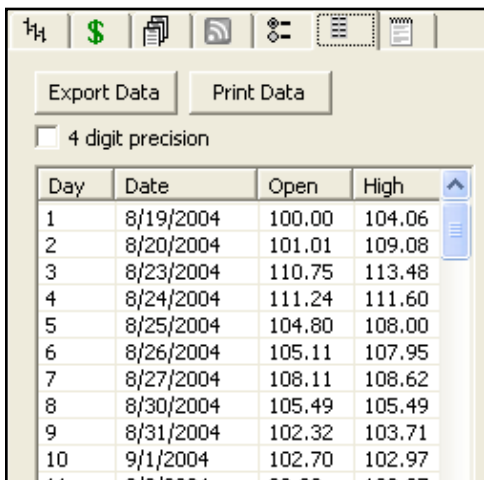
## News Tab

The *News Tab* is a wonderful resource for gathering outside information. Under the *Providers* section will be a list of the news providers Track 'n Trade High Finance is downloading information from. You can add or delete providers from this list by right-clicking on the provider and selecting add or delete. Under the *Articles* section is a list of articles on the markets. Simply click on them and the article will show in your chart window.



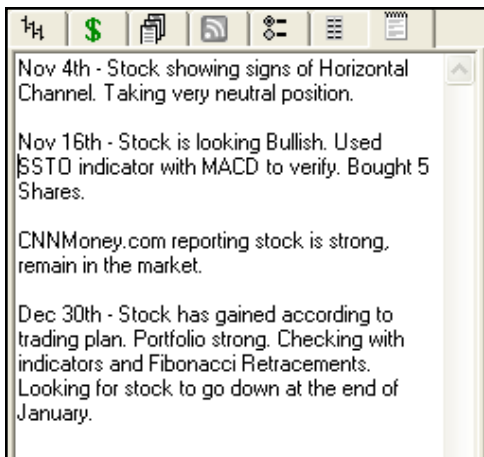
### Preferences Tab

The *Preferences Tab* will help you customize how your chart, and information on it, looks. It will also show the options for customizing Technical Tools and Indicators. There are many different features found on the *Preferences Tab*.



### Data Tab

The *Data Tab* will give you the historical data for each day a specific symbol has traded. It will give you the open price, close price, highest price, and lowest price on the day. It will also show the volume traded. You have the option to print the data for your records, or export the data for use another way. Also, values for indicators are added when the indicator is open.



### Notes Tab

The *Notes Tab* is for your convenience to use as a note pad for your research and trading strategy. A separate note pad is provided for each chart.



## Chartbooks

Just like a novel is made up of many single pages, a chartbook contains many individual charts. Each chartbook can contain several charts, each individual chart becoming the “pages” of your chartbook. Every time you open Track ‘n Trade High Finance, a blank chartbook named *Book1* will open. You can either continue with this new chartbook or open a chartbook that has already been created and saved.

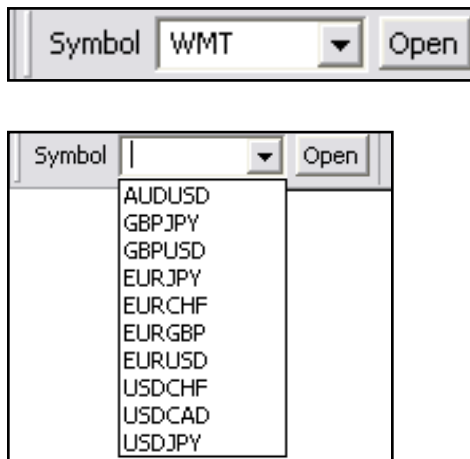
## Opening a Chart

To open a chart, type in the symbol in the *Symbol Entry Bar* or click on the arrow to the right of the box and select from the dropdown menu. If you do not know the symbol of the market you want to see, select Look Up Keyword for stocks or type in the Forex Market and click Open for Forex.

### Symbol Lookup Window



### Symbol Entry Bar



## Opening Multiple Charts

You can open multiple charts and view them at the same time. The charts will automatically adjust to fit into your *Chart Window*. Opening too many charts can slow down your computer. If you notice slow downs in your system you may want to break up your charts into two chartbooks or more.

*To maximize a chart*, double-click on the name of the chart in the *Control Panel*, or select the maximize button on the top right hand corner of the chart.

*To restore the chart to full screen view* in your chart window with multiple charts open, click on the restore down button on the top right hand corner of the chart.

*To minimize a chart*, select the minimize button on the top right hand corner of the chart. This will not delete your chart or any notations or tools you have placed on it. It will only eliminate it from your chart window.

*To restore your chart*, double-click on the name of the chart in the *Control Panel* charts list.

*To close a chart* and remove it from your list of charts, click the X on the top right hand corner of your chart. This will delete any notation or technical tool you have drawn on the chart.

### **Saving Chartbooks**

Once you have opened all the charts you would like to save in a Chartbook there are two ways to save it. (1) You can click on the *Save* button found in the *Main Tools*, or (2) you can choose *File* from the *Menu Bar* and select *Save*.

To save over or replace a Chartbook that has already been saved, select *Save As* from the *File Menu*, and select the chartbook you want to save over.

### **Printing**

To print your *Chart Window*, select the *Print* button in your *Main Tools*, or select *Print* from the *File Menu*. To print only one chart, maximize it in your *Chart Window*, then select print.

## Charting Preferences

The *Chart Preferences Tab* is used to control how your chart looks. You can change your price bar style and color, background color, scaling, and even control time intervals. You can also choose to have different styles for each chart, or apply your favorite chart style to all your charts.

The *Charting Preferences Tab* is located on the *Control Panel*. To view the *Charting Preferences Tab*, right-click on the chart and select *Chart Preferences*, or click on the *Preferences Tab* in the *Control Panel*. The *Charting Preferences Tab* includes *Chart Scaling*, *Ruler Options*, *Charting Colors*, *Price Bars*, and *Onscreen Indicators*.



### Restore Settings

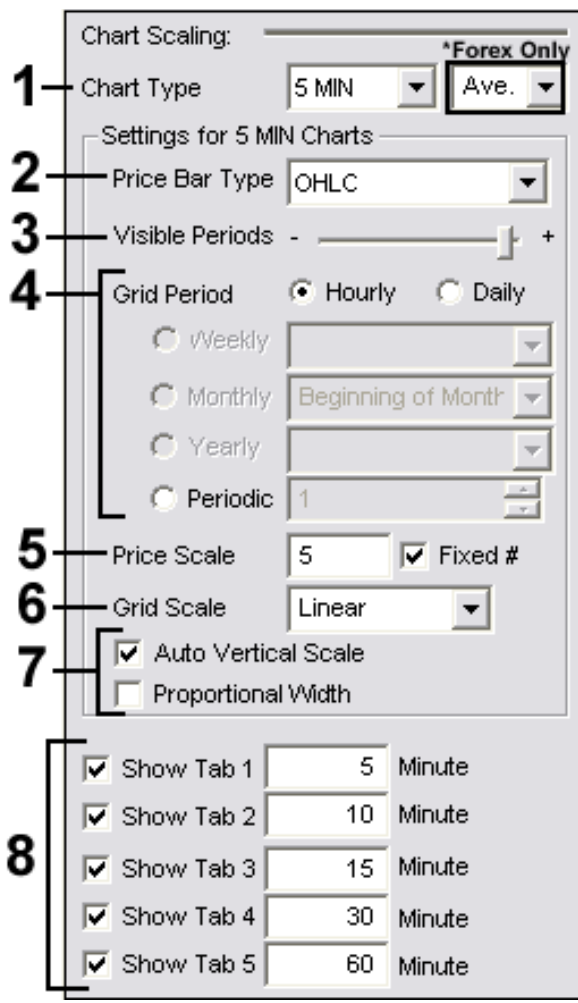


**TNT Default** will change your settings back to the original software settings.

**My Default** will change current settings to your personalized default settings.

**Apply To All Charts** will apply your selected settings on all open charts.

**Save As My Default** will save your current personal settings.



### Chart Scaling

**Chart Type** Sets the time interval each price bar will represent. You will have different grid options depending on what chart type you choose.

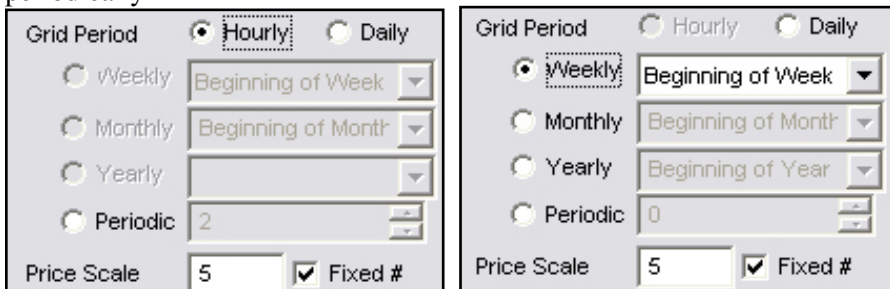
\*Forex section will have a drop-down menu next to the Chart Type to set the price bar according to the sell (bid), buy (ask), or average of the two on a Forex Chart.

**Price Bar Type** Choose what information you want your price bar to include.

- OHLC: Open, high, low, and close
- HLC: High, low, and close
- Close: Close price only
- Open: Open price only
- Candlestick: open, high, low, and close in a Japanese Candlestick style
- None: No price bars will be displayed on the chart

**Visible Periods** Scaling tool to make the chart wider or narrower to view different sections of time periods.

**Grid Period** Sets vertical grid lines at specific intervals. For example, if you have selected a 5, 10, 15, 30, or 60 minute chart type your grid period settings will be limited to hourly, daily, or periodically.



However, if you select a daily, weekly, or monthly chart type your grid period settings will be open to selecting any day of the week or month. You can also set your grid line to show daily, or at the beginning of each month, as well as selecting to show them periodically, as shown on the previous page.

**Price Scale:** Sets the amount of horizontal price grid lines you see on your chart.

**Grid Scale:** Linear will keep your grid lines evenly distributed. Logarithmic will continually decrease the amount of space between horizontal grid lines as the price goes up.

**Auto Vertical Scale** keeps the price bars vertically centered on your chart. **Proportional Width** changes price bar thickness according to scale

The **Show Tab** section below the settings is integrated with the Time Interval Tabs on the bottom left corner of your chart. You can hide/show each tab on your chart by checking the box next to it. You can then set the time interval you want your price bars shown in the box next to each tab number.

### Ruler Options



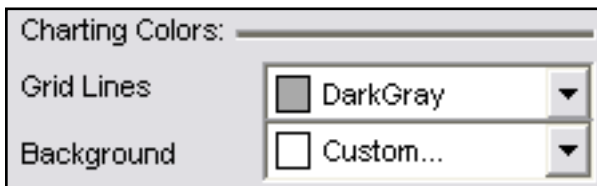
**Font:** Change the font and size of the text on the ruler.

**Ruler/Text Color:** Change the background and text color of the ruler.

**Location Lines:** Change the line style and thickness of your ruler lines.

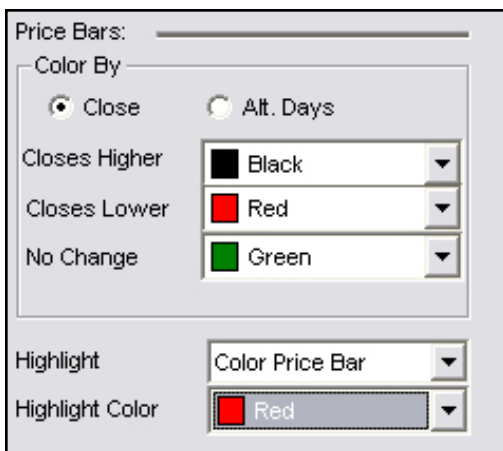
**Cursor, Last Price, Buy/Sell:** Select if you would like to see location lines, a last price line, or buy or sell prices on your chart and what color.

## Charting Colors



The **Charting Colors** section changes the look of your chart by allowing you to change the background color of the chart and letting you change the color of the horizontal and vertical grid lines.

## Price Bars

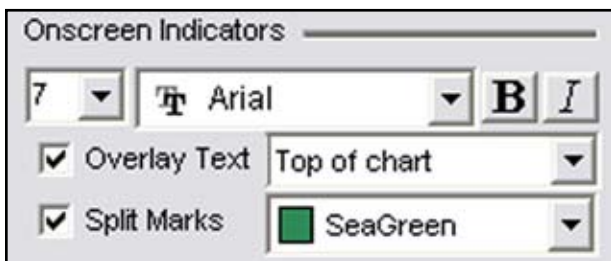


The price bars, or tics, on your chart can be colored in two different ways.

You can select **Close** to shade them according to their close price, or you can select **Alt Days** (alternating days) to shade them by odd and even days.

In the **Highlight** section, you have the choice of highlighting the price bar you are over, or highlighting the entire day you are over.

## Onscreen Indicators

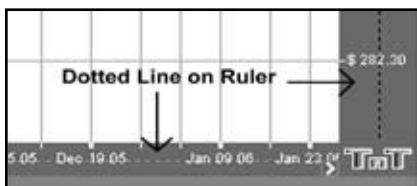


In the **Onscreen Indicators** section, you have the ability to change the font, size, and style of the text displayed onscreen.

Click on the **Overlay Text** checkbox to display text for an indicator on your chart, then choose whether you would like the text to appear at the top or bottom of the

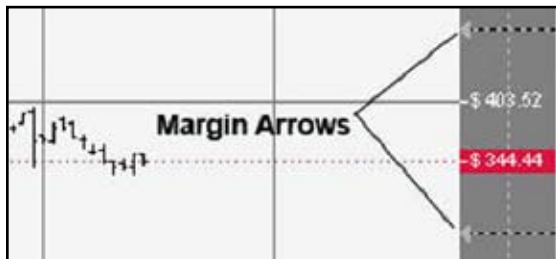
chart. Also, check the **Split Marks** box if you would like those points displayed on the chart. Split Marks show when a market is split into two markets. Choose your desired color for the split marks as well.

## Scaling



On your ruler you will see a dotted line splitting it in half. If you want to move your chart horizontally or vertically, click and drag the section of the ruler bar closest to the chart. To scale your chart horizontally or vertically, click and drag the section of the ruler bar farthest from the chart.

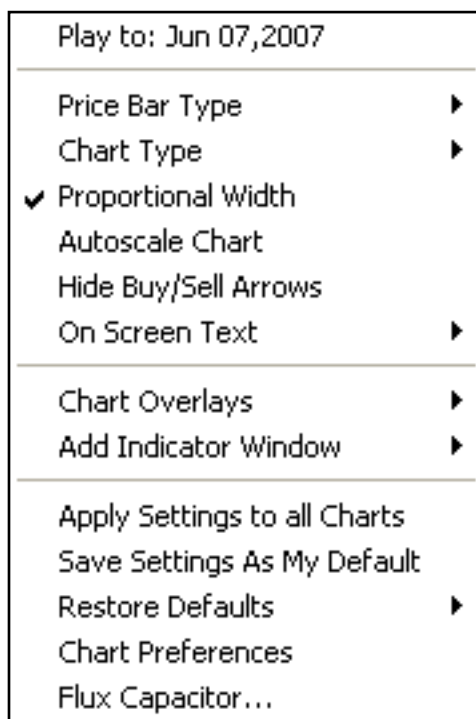
## Margin Arrows



On the Ruler Bar you will notice four Margin Arrows, two on the right ruler, and two on the bottom ruler. These arrows are used to center your chart within these “margins.” To move the margin click on the arrow, continue holding down the mouse button, and drag to the new location. Then click on the center chart button to resize the chart.

## Chart Right-Click Menu

The right-click menu is a shortcut to customize your chart, add overlay indicators, add indicator windows below your chart, and change other features. Make sure your pointer is selected on your navigation menu, then select the chart and right-click. The following menu will appear.



**Play to: Date** Your cursor should be in line horizontally with the date you want the chart to play to. Select this option and the chart will either erase price bars to the date or play price bars up to the date you have selected.

Choose what **Price Bar Type** you would like to view. **Chart Type** will change the time intervals. **Proportional Width** will make your price bar width proportional to the scale of your chart. **Autoscale Chart** will center your price bars within the height of your chart. **Hide Buy/Sell Arrows** will show or hide your arrows for the indicator selected. Choose to show your **On Screen Text** and where you want it to appear.

Select which **Chart Overlays** you would like to appear on the chart. Or if you would like to **Add Indicator Window** at the bottom of your chart window.

**Apply Settings to all Charts** will apply your selected settings on all open charts. **Save Settings As My Default** will save your current personal settings. **Restore Defaults** will change your settings back to the original software settings or to your personal saved settings.

**Chart Preferences:** Select to display the Chart Preferences Tab to the left of your chart.





# Charting Tools

Let's Get Technical

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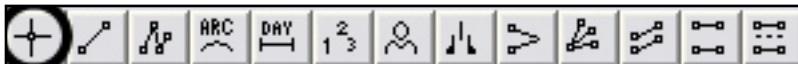
# 4



## Introduction

Track ‘n Trade High Finance has a complete set of charting tools that enable the futures trader to apply concepts from technical analysis to their charting. Take a look at some of the technical analysis formations and trends in this chapter and see how to apply these concepts in trading with Track ‘n Trade High Finance charting tools.

## Crosshair Tool



The first tool in the Charting toolbar is the Crosshair tool. This tool is helpful when lining up your technical indicators and recurring price patterns. Click the Crosshair button and position the crosshair on your chart and click your mouse. The crosshair draws a line vertically and horizontally on the chart. To help place the crosshair line on a specific value, the cursor price is displayed on the vertical line of the crosshair.

### Moving a Crosshair

To select the drawing, click on the center point of the crosshair and drag to the new location. Release your mouse button to place. The tool is selected when a box appears at the center point.

### Deleting a Crosshair Drawing

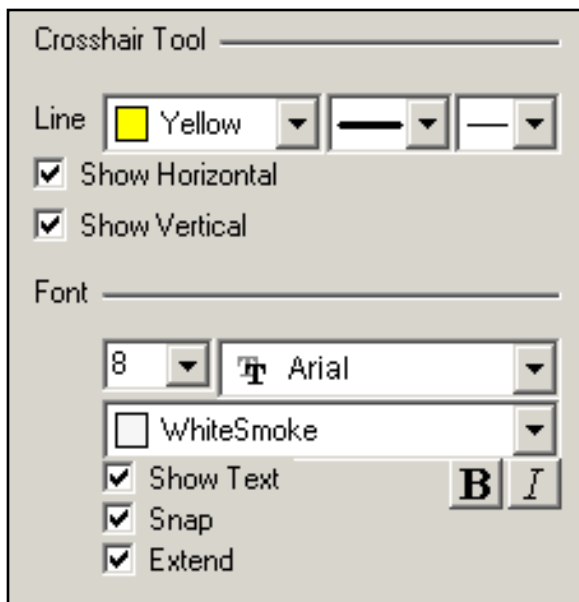
There are two ways to delete the Crosshair tool. If your crosshair is selected (you’ve clicked on it and the box appears at the center point), you can press the Del (Delete) key on your keyboard. You can also place your mouse cursor over the crosshair and right-click. In the drop-down menu, select “Delete.”

If you only want to delete the horizontal or vertical line of the crosshair, select the crosshair by clicking on it and view the preferences in the control panel. Select or deselect “Show Horizontal (Vertical) Line.” A check will appear in front of the item when it is selected.

### Preferences

Select the crosshair by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Crosshair Tool:** You can choose the color, line style, and line thickness of your crosshair. Deselect **Show Horizontal Line** or **Show Vertical Line** to hide your lines.

**Font:** Select the font, size, and color of the text. You can also choose to bold or italicize your text. Select the checkbox next to **Show Text** to hide or show your text on the chart.

Select **Snap** if you want your crosshair to snap to price bars when moved. Select **Extend** if you would like your line to extend into the Indicator window.

### Example of the Crosshair Tool

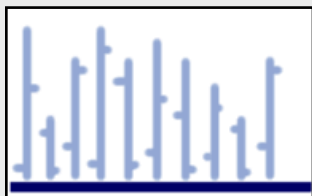


The remaining technical tools are used to identify technical analysis formations and trends. Take a look at the different patterns available then read about how to use each of the technical tools and apply the technical concepts learned.

## Support and Resistance - Technical Analysis

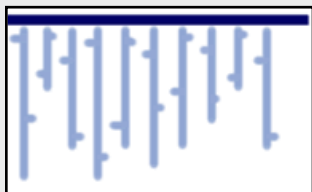
Markets have a tendency to move in troughs and peaks or, more appropriately, “Support and Resistance.”

### Support



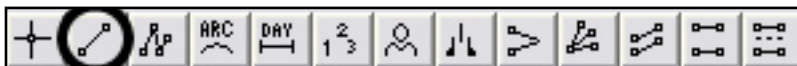
These troughs are called support, indicating that support is level. This shows that buying interest is strong enough to overcome selling pressure. A decrease in price is reversed and prices rise once again. Typically, a support level is identified by a previous set of lows.

### Resistance



Resistance is essentially the opposite of support. Resistance is defined as a horizontal ceiling where the pressure to sell is greater than the pressure to buy. An increase in price is reversed and prices revert downward. Typically, support can be located on a chart by a previous set of highs.

## Line Tool



To draw a support or resistance line, also referred to as a trend, use the Line tool. Select the Line tool from your Charting toolbar. Click on your chart where you want the line to begin. Hold down the mouse button and move to the position you want your line to end. Release mouse button to place.

### Resizing the Line

Select the line drawing by clicking on it. The line is selected when boxes appear at the ends of the line. Click on one of the boxes and drag it to the desired length. Release the mouse button to place the end point of the line.

### Moving the Line

Select the line drawing by clicking on it. Click on the line, not an end box, and drag the line to the new location. Release the mouse button to place.

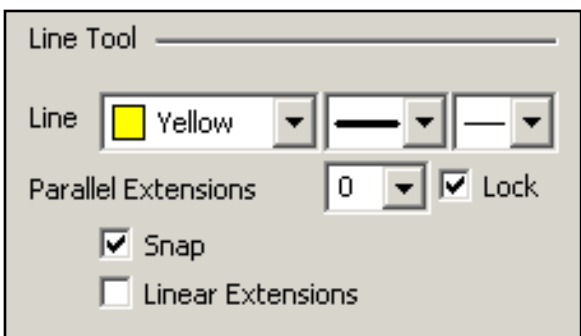
## Deleting the Line

Select the line drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the line drawing and select “Delete” from the dropdown menu.

## Preferences

Select the line drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Line Tool:** You can choose the color, line style, and line thickness of your line.

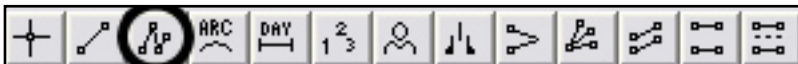
**Parallel Extensions:** Select from the dropdown menu how many lines you would like to add. Deselect **Lock** if you want to be able to move them independently.

Select **Snap** if you want your crosshair to snap to price bars when moved. Select **Linear Extensions** to extend your line to the edge of your chart window.

### Example of the Line Tool



## Multi-Line Tool



Some contracts will have a continuous line, or trend, of alternating support and resistance. To illustrate these multi-lines, select the Multi-Line tool from your Charting toolbar. Click on the chart where you want your line to start. Move your mouse to the next point on your multi-line and click to place. Repeat this until the last point. When placing the last point on the multi-line, right-click to finish.

### Resizing the Multi-Line

Select the multi-line drawing by clicking on it. You will know the multi-line is selected when boxes appear at the ends of the multi-line. Click on a box and drag it to your desired length. Release the mouse button to place.

### Moving the Multi-Line

Select the multi-line drawing by clicking on it. Click on the multi-line, not a box, and drag it to the new location. Release mouse button to place.

### Deleting the Multi-Line

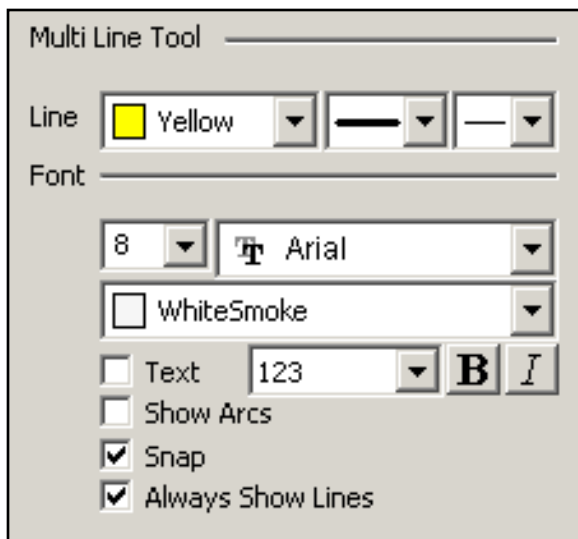
Select the multi-line drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the multi-line drawing and select “Delete” from the dropdown menu.

### Preferences

Select the line drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.





**Multi Line Tool:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. You can also choose to see numbers or letters. Select **Text** to hide or show your text on the chart.

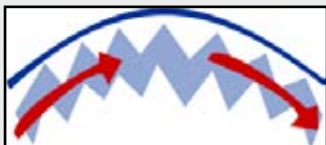
Select to **Show Arcs** on points of the multi-line. Select **Snap** to have your lines snap to price bars when moved. Use **Always Show Lines** to keep lines on the chart even when the multi-line is deselected.

### Example of Multi-Line Tool



## Rounded Top & Bottom Formations

*The Rounded Top & Bottom formation is a very gradual change in trend.*



### Rounded Top

The Rounded Top formation consists of a gradual change in trend from up to down.



### Rounded Bottom

The Rounded Bottom formation consists of a gradual change in trend from down to up. This formation is the exact opposite of a Rounded Top Formation.



### Double Top

This formation includes two distinct “tops” and anticipates a change in trend from up to down.



### Double Bottom

This formation includes two distinct “bottoms” and anticipates a change in trend from down to up. This formation is the exact opposite of a Double Top.



### Triple Top

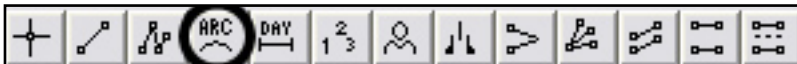
This formation includes three distinct “tops” and anticipates a change in trend from up to down.



### Triple Bottom

This formation includes three distinct “bottoms” and anticipates a change in trend from down to up. This formation is the exact opposite of a Triple Top.

## Arc Tool



To illustrate a Rounded top or bottom formation on your futures chart, select the Arc tool in your Advanced Charting toolbar. Move the mouse pointer to the point on the chart that will be the corner of your arc. Hold the mouse button and drag to your end point. Release the mouse button to place.

### Resizing the Arc

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Arc

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

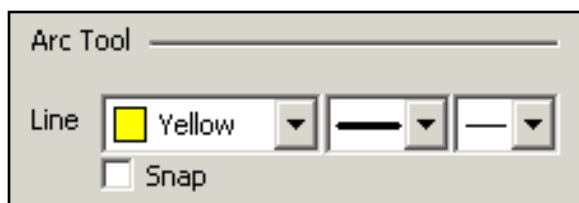
### Deleting the Arc

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Arc Tool:** You can choose the color, line style, and line thickness of your line.

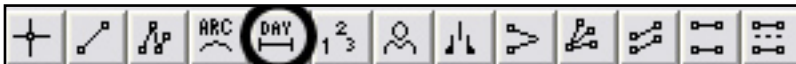
Select **Snap** to have your lines snap to price bars when moved.

### Example of the Arc Tool



Charting Tools

## Day Offset Tool



The Day Offset tool enables you to measure the number of trading days versus actual days that are between two points on the chart. Also calculated on this tool is the number of days that the market closed high or lower in comparison with the previous day. Select the Day Offset tool from your Advanced Charting toolbar. Click where you would like to start and drag the horizontal line to where you would like it to end. Release the mouse button to place.

### Resizing the Day Offset

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Day Offset

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

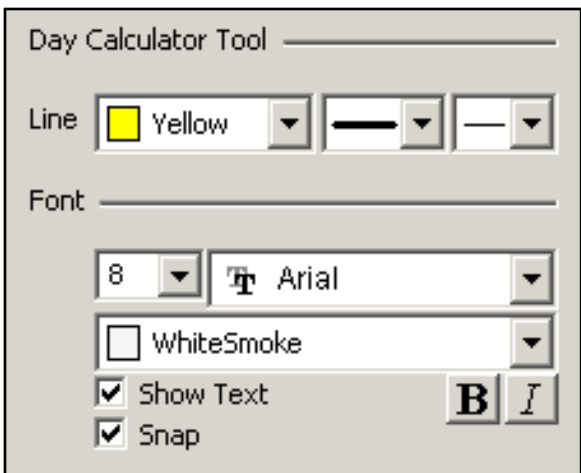
### Deleting the Day Offset

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Day Offset Tool:** You can choose the color, line style, and line thickness of your line.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

### Example of the Day Offset Tool



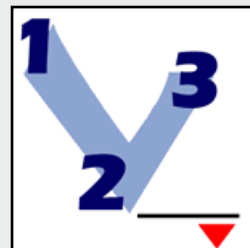
## 123 Formations - Technical Analysis

*The 123 formation anticipates a change in trend. There are both top and bottom formations.*

### 123 Top Formation

The 123 top formation anticipates a change in trend, from up to down, on a break below the number two point. This formation is easily identified because the number 1 point is the annual price high for the contract.

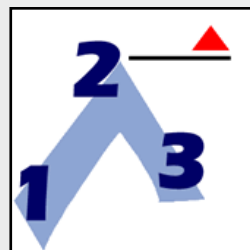
To trade a 123 top formation, place a **sell** order on a break down past the 2 point. Then place a stop loss order just above the 1 point (an industry standard) or just above the 3 point (a more conservative stop loss placement).



### 123 Bottom Formation

The 123 bottom formation anticipates a change in trend from down to up on a break above the number 2 point. A 123 bottom formation is easily identified because the number 1 point is the annual price low.

To trade a 123 bottom formation, place a **buy** order just above the 2 point. Then place a stop loss order just below the 1 point (an industry standard) or just below the 3 point (a more conservative placement).



## 123 Tool



Use the 123 tool to chart both top and bottom formations. To draw a 123 formation, select the 123 tool from your Charting toolbar. Position the mouse pointer over the spot you would like to place the 1 point and click to place. Move to the 2 point and click to place. Move to the 3 point and click to place.

### Resizing the 123 Drawing

Select the 123 drawing by clicking on it. You will know the 123 drawing is selected when boxes appear on the corners. Click on a box and drag it to your desired length. Release the mouse button to place.

### Moving the 123 Drawing

Select the 123 drawing by clicking on it. The drawing is selected when boxes appear at the 1, 2, and 3 end points. Drag to the new location and release the mouse button to place.

### Deleting the 123 Drawing

Select the 123 drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the 123 drawing and select “Delete” from the drop-down menu.

### Preferences

Select the 123 drawing by clicking on it. The properties will show up in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



123 / ABC Tool

Line Yellow — —

Font

8 T Arial

WhiteSmoke

Text 123 **B** *I*

Show Arcs

Snap

Always Show Lines

1 - 2 / A - B

Fibonacci

User Defined: (20.3,40,50,...)

Labels Percent  Reverse

2 - 3 / B - C

123 / ABC Retracement

Fibonacci

User Defined: (20.3,40,50,...)

Labels Percent  Reverse

3 - 4 / C - D

Fibonacci

User Defined: (20.3,40,50,...)

Labels Percent  Reverse

Projections

**123 / ABC Tool:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. You can also choose to see numbers or letters. Select **Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved. Select if you would like to **Show Arcs** or **Always Show Lines** on your drawing.

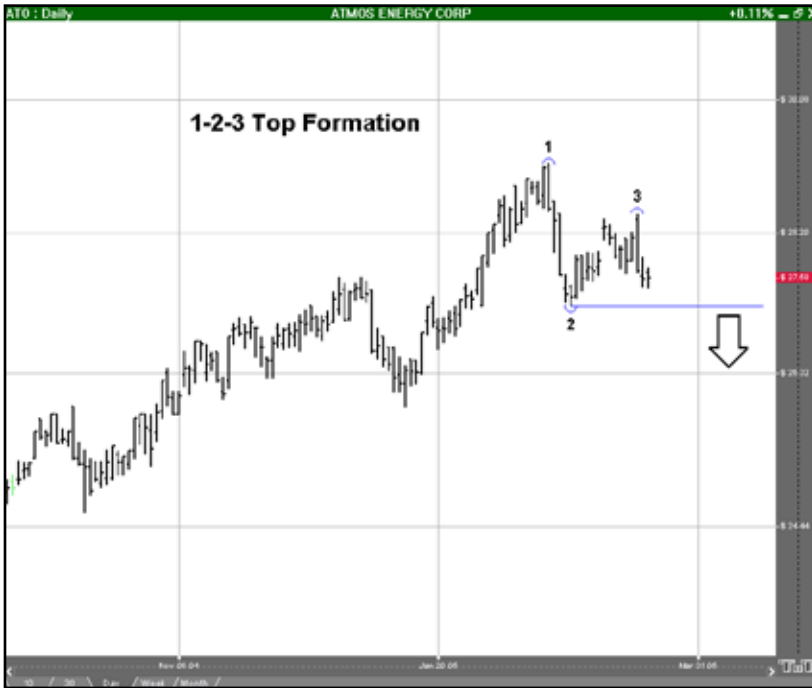
**1-2/A-B, 2-3/B-C:** Select if you would like to see **Fibonacci** Retracements on either line or type in your own values in **User Defined**. Choose from the **Labels** dropdown menu to view the marks as price, percent, or both. Select **Reverse** to change the direction of your values.

**3-4/C-D:** Select if you would like to see a third prediction line after point C. You can view **Fibonacci** Retracements on this line or type in your own values in **User Defined**. Choose from the **Labels** dropdown menu to view the marks as price, percent, or both. Select **Reverse** to change the direction of your values.

Select **Projections** to view a projected line extended from the C-D line. You can view **Fibonacci** Retracements on this line or type in your own values in **User Defined**.

### Example of the 123 Top and Bottom

Charting Tools



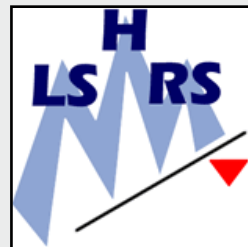
## Head & Shoulders Formations - Technical Analysis

*This formation can appear anywhere in the chart and is made up of the Head, Left Shoulder, and Right Shoulder. There are both top and bottom formations.*

### Head & Shoulders Top Formation

In this formation, the middle peak, the Head (H), is higher than either shoulder (LS, RS). This formation anticipates a drop in price below the Neckline (shown by the red arrow).

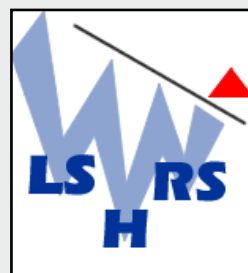
To trade a Head & Shoulders top formation, place a sell order on the break of the Neckline. Your stop loss order should then be placed just above the Head. The stop loss order can also be placed above the Right Shoulder as a more conservative point.



### Head & Shoulders Bottom Formation

This formation is an inverted version of the Head & Shoulders top formation. A Head & Shoulders bottom anticipates a rise in price above the Neckline.

To trade a Head & Shoulders bottom formation, place a buy order on the break up from the Neckline. Then place a stop loss order just below the Head. The stop loss order can also be placed below the Right Shoulder as a more conservative point.



## Head & Shoulders Tool



To identify a H&S top or bottom formation, use the Head & Shoulder tool. Select the Head & Shoulders tool from your Charting toolbar. Position the mouse pointer where you would like to place the Left Shoulder (LS) point and click to place. Move to the valley point between the LS and the Head (H) and click to place. Move to the H point and click to place. Move to the valley point between the H and Right Shoulder (RS) and click to place. Move to the RS point and click to place.

### Resizing the Head & Shoulders Drawing

Select the H&S drawing by clicking on it. You will know the drawing is selected when boxes appear on the corners. Click on a box and drag it to your desired length. Release the mouse button to place.

### Moving the Head & Shoulders Drawing

Select the H&S drawing by clicking on it. The tool is selected when boxes appear at the LS, H, and RS end points. Drag to the new location and release the mouse button to place.

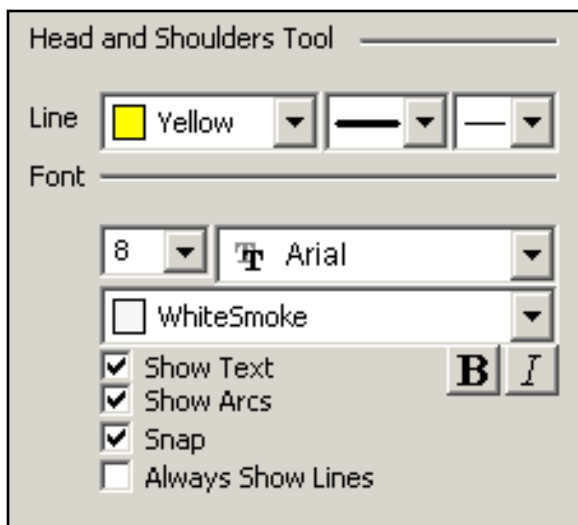
### Deleting the Head & Shoulders Drawing

Select the H&S drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the H&S drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Head & Shoulders Tool:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select to **Show Arcs** on points of the drawing. Select **Snap** to have your lines snap to price bars when moved. Select **Always Show Lines** to keep lines on your chart even when the drawing is deselected.

Example of Head & Shoulders Top and Bottom



Charting Tools

## Dart/Blip Tool



To chart a Dart Up or Down formation, select the Dart/Blip tool from your Advanced Charting toolbar. Click your mouse on the Left Feather (LF). Move to the Tip of the dart and click your mouse again. Click on the Right Feather to finish your dart.

### Resizing the Dart/Blip

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Dart/Blip

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

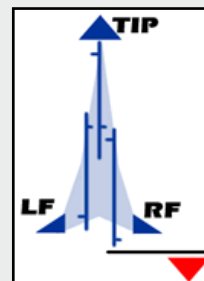
## Dart/Blip Formations - Technical Analysis

*The Dart/Blip formation occurs when there is a dramatic price change which is followed by an equally dramatic price change.*

### Dart Up

This formation is a sudden dramatic price increase followed by an equally dramatic drop in price. A dart formation can appear anywhere in a chart.

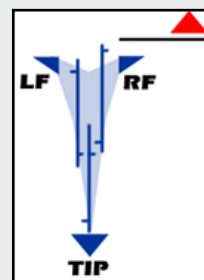
To trade a dart up, place a sell order on the break down of the Right Feather (RF) along with a stop loss order just above the Tip.



### Dart Down

This formation is where a sudden dramatic price decrease occurs followed by an equally dramatic increase in price. A dart formation can appear anywhere in a chart.

Place a buy order on the break up of the Right Feather, and place a stop loss order right below the Tip.



*Trading on a Dart Formation is extremely risky.*

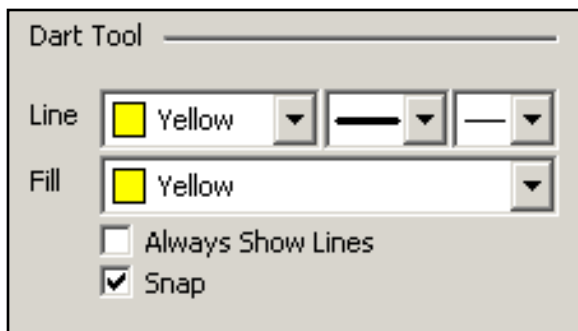
## Deleting the Dart/Blip

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Dart Tool:** You can choose the color, line style, and line thickness of your lines.

Select **Always Show Lines** to keep lines on your chart even when the drawing is deselected. Select **Snap** to have your lines snap to price bars when moved.

### Example of a Dart Up and Down



Charting Tools



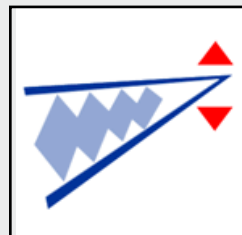
## Wedges and Triangles - Technical Analysis

The wedge formation occurs when the slope of price bar highs and lows consolidate to a point. The triangle formation occurs when there is a pause in the current trend.

### Inclining Wedge

The Inclining Wedge formation occurs when the slope of both lines is up with the lower line being steeper than the higher one.

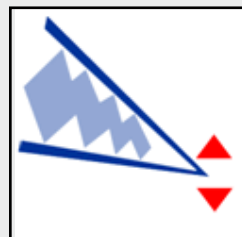
To trade the Inclining Wedge, place a **buy** on a break up and out of the wedge or a **sell** order on a break down and out of the wedge. Inclining Wedges with a prior downtrend are anticipated to break down and out, rather than up and out.



### Declining Wedge

The Declining Wedge formation occurs when the slope of both lines is down, the top line being steeper than the lower one. This formation is opposite the Inclining Wedge.

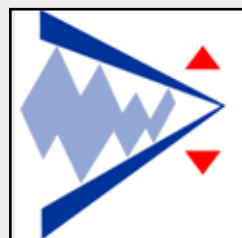
Trade the Declining Wedge the same as the Inclining Wedge. Declining Wedges with a prior uptrend are anticipated to break up and out, rather than down and out.



### Symmetrical Triangle

A Symmetrical Triangle is likely to resume the previous trend after the pause forming the triangle. Notice the price bars form a perfect symmetrical triangle shape.

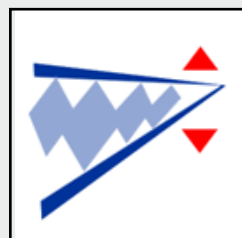
To trade a Symmetrical Triangle, place a **buy** order on a break up and out of the triangle or a **sell** order on a break down and out of the triangle.



### Non-Symmetrical Triangle

A Non-Symmetrical Triangle is exactly the same as the Symmetrical Triangle, except lacking symmetry. The formation resumes the previous trend when a break occurs.

Trade a Non-Symmetrical Triangle just as you would a Symmetrical Triangle.



## Wedge and Triangle Tool



Identify any type of wedge or triangle by selecting the Wedge tool from your Charting toolbar. Position the mouse pointer where you would like to place the top point of the triangle and click. Move to the bottom point of the triangle and click again. Position the mouse pointer where you would like to place the final point of the triangle and click to place.

### Resizing the Wedge/Triangle

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Wedge/Triangle

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

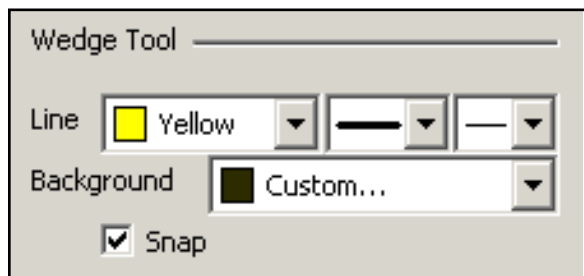
### Deleting the Wedge/Triangle

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Wedge Tool:** You can choose the color, line style, and line thickness of your lines, as well as the background color.

Select **Snap** to have your lines snap to price bars when moved.

### Example of an Inclining and Declining Wedge



Charting Tools

## Trend Fan - Technical Analysis

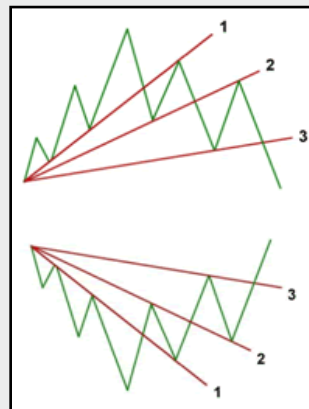
*Trend Fans are an extension of the regular trend line. They accent simple trend line trading concepts by extending the single trend line to multiple fan lines that give a better look at a trend, its retracements, and market reversals.*

### Trend Fan

As a trend moves up in scale, a chartist will draw a line across price bar lows or, when a market is moving down, across the price bar highs.

As the market continues to make its retracement, we can draw another trend line across the next level of support or resistance. The line is support if the market is moving up and resistance if it is moving down.

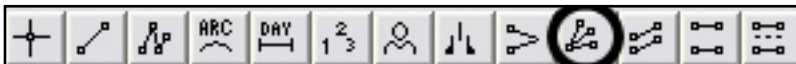
The last move of the trend was resistance for the first trend line, and is now support for the second trend line. The third trend line shows that the market has made a solid retracement down past this third fan line.



When the market crosses the third fan line, it is considered to be confirmation of market retracement. A market that was once considered bullish is now bearish, or if bearish, would now be considered bullish. When the market's price bars cross above or below the third trend fan line, this is your signal and confirmation that the market has shifted from bullish to bearish, or bearish to bullish.

To trade a Trend Fan, place an order to enter the market on the break out past the third Trend Fan line.

## Trend Fan Tool



Identify a trend fan within a chart by selecting the Trend Fan tool from your Charting toolbar. Position the mouse pointer where you would like to place the main point of your trend fan. Move the mouse pointer to the end of the first line and click. Add as many lines of your trend fan as you would like. To place the last trend, position the mouse pointer at the end of the last line and right-click to place.

## Resizing the Trend Fan

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the ends of the lines. Click on a box and drag it to your desired location. Release the mouse button to place.

## Moving the Trend Fan

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

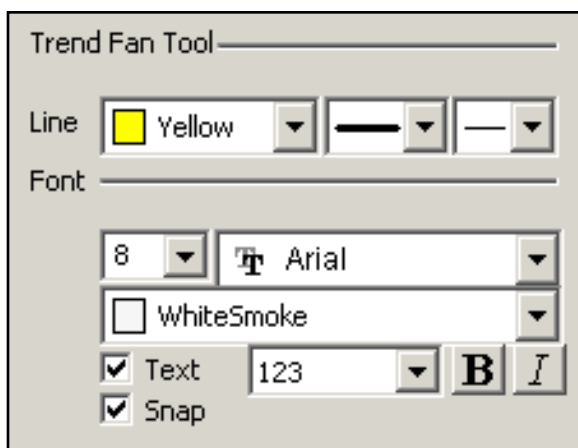
## Deleting the Trend Fan

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Trend Fan Tool:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. Select **Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

### Example of a Trend Fan



Charting Tools

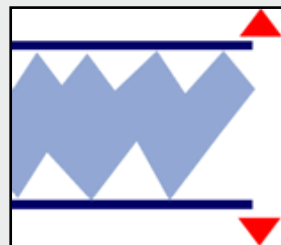
## Channels - Technical Analysis

A trend channel consists of a section of price bars that are between parallel support and resistance lines. There are three types of channels: the Narrow Sideways Channel, the Inclining Channel, and the Declining Channel.

### Narrow Sideways Channel

A Narrow Sideways channel is a formation that features both resistance and support with a sideways movement. Support forms the low price bar, while resistance provides the price ceiling.

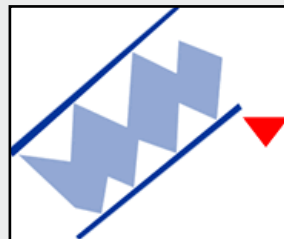
To trade a Narrow Sideways channel, place an order to **buy** on a break up and out of the channel, or **sell** on a break down and out of the channel.



### Inclining Channel

The Inclining channel is a formation with parallel price barriers along both the price ceiling and floor. Unlike the Narrow Sideways channel, the Inclining channel has an increase in both the price ceiling and price floor. The breaking of the bottom trend line on this formation shows a change in trend from bullish to bearish.

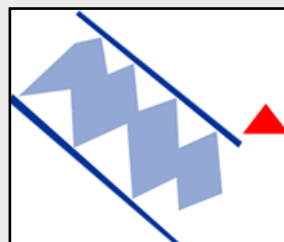
To trade an Inclining channel, place an order to **sell** on the break down and out of the channel.



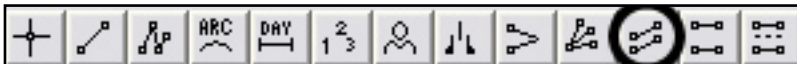
### Declining Channel

The Declining channel is the exact opposite of the Inclining channel formation. The Declining channel has a decrease in both the price ceiling and price floor. The breaking of the top trend line on this formation shows a change in trend from bearish to bullish.

To trade a Declining channel, place an order to **buy** on the break up and out of the channel.



## Trend Channel Tool



Identify an Inclining or Declining Channel by selecting the Trend Channel tool from your Charting toolbar. Position the mouse pointer where you would like to place the top-left point of the channel and click. Move to the bottom-left point and click again. Move to the bottom-right point and click again. Position the mouse pointer where you would like to place the top-right final point of your channel and click to place.

### Resizing the Trend Channel

Select the channel by clicking on it. You will know the channel is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Trend Channel

Select the channel by clicking on it. Drag to the new location and release the mouse button to place.

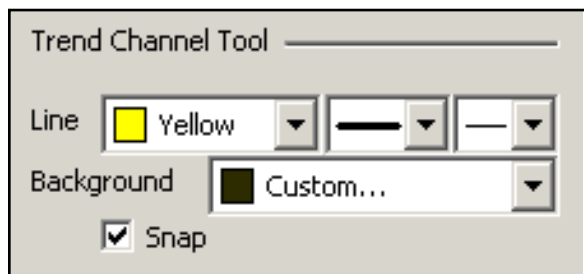
### Deleting the Trend Channel

Select the channel by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the channel and select “Delete” from the dropdown menu.

### Preferences

Select the channel by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Trend Channel Tool:** You can choose the color, line style, and line thickness of your lines, as well as the background color.

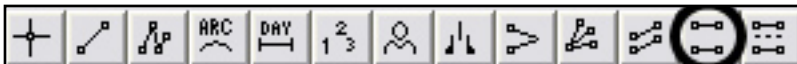
Select **Snap** to have your lines snap to price bars when moved.



### Example of Trend Channels



## Horizontal Channel Tool



Illustrate a Horizontal channel in a chart by selecting the Horizontal Channel tool from your Charting toolbar. Position the mouse pointer where you would like to place the to top-left point of the channel and click. Continue to hold down the mouse and drag it to the bottom-right point of your channel. Release the mouse button to place.

### Resizing the Horizontal Channel

Select the Horizontal channel by clicking on it. You will know the channel is selected when boxes appear on the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Horizontal Channel

Select the Horizontal channel by clicking on it. Drag to the new location and release the mouse button to place.

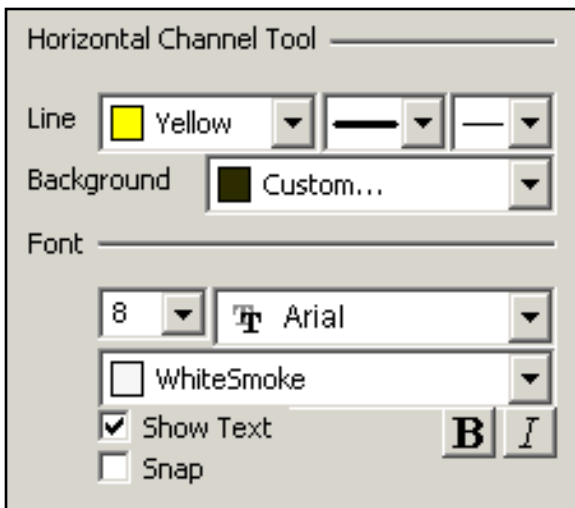
### Deleting the Horizontal Channel

Select the Horizontal channel by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the channel and select “Delete” from the dropdown menu.

### Preferences

Select the Horizontal channel by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

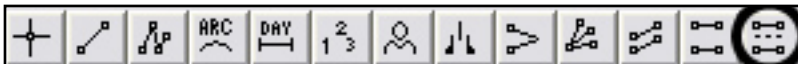


**Horizontal Channel Tool:** You can choose the color, line style, and line thickness of your lines, as well as the background color.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

## N% Tool



You can measure a retracement by selecting the N% tool from your Charting toolbar. Position the mouse pointer where you would like to place the top-left point of the channel and click. Continue to hold down the mouse button and drag to the bottom-right point of the channel. Release mouse button to place. The default on this charting tool is 50%. (For more information on retracements, see Fibonacci Time Zone and Fan tools in the *Advanced Charting Tools* section.)

### Resizing the N% Channel

Select the channel by clicking on it. You will know the channel is selected when boxes appear on the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the N% Channel

Select the channel by clicking on it. Drag to the new location and release the mouse button to place.

### Moving the % Line in the N% Channel

Select the channel by clicking on it. Notice the box in the center of the middle line. Click and drag the box to move the line. As you change the position of the percentage line, the percentage value to the left will change as well.

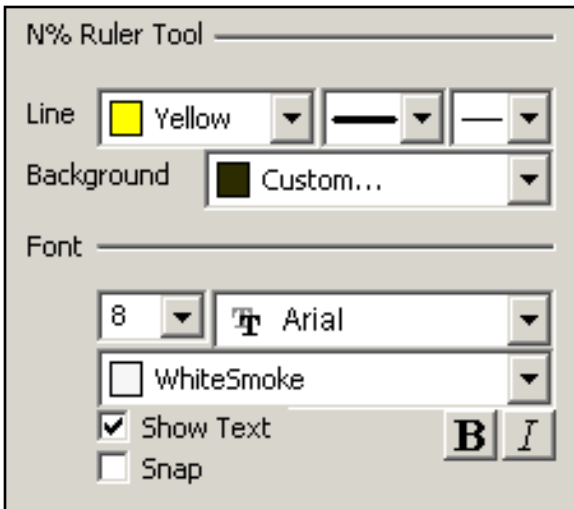
### Deleting the N% Channel

Select the channel by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the channel and select “Delete” from the dropdown menu.

### Preferences

Select the channel by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

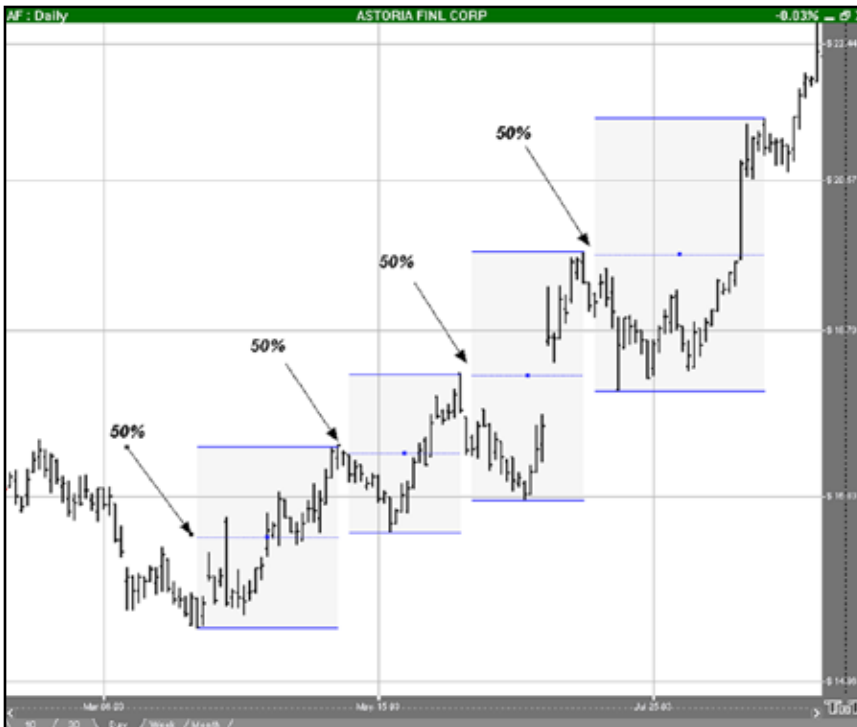


**N% Ruler Tool:** You can choose the color, line style, and line thickness of your lines, as well as the background color.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

**Example of the N% in the chart window**





# Advanced Charting Tools

Fibonacci, Elliott, Gann, and More

# 5

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\*Expansion Pack - Purchase Required





## Introduction

Track 'n Trade High Finance has incorporated concepts and theories from leading technical and fundamental educators in the industry allowing you as a trader to apply their studies easily to your trading. In this section you will learn basics about their theory and how to apply it in Track 'n Trade High Finance using the Advanced Technicals Expansion Pack. If you do not have these features in the software, you can purchase them online at [www.trackntrade.com](http://www.trackntrade.com)

### Elliott Wave Theory

*The Elliott Wave theory was developed by Ralph Nelson Elliott. He suggested that market behavior is based on waves rather than random timing. He believed that market prices rose and fell in a series of waves based on the same Golden Ratio or Golden Mean that Fibonacci proved.*

#### Interpretation

The basic idea of the Elliott Wave theory is that a market rises in a series of five “waves” (as he called them), and a market declines in a series of three declines.

Elliott's said the market rises on the first wave, declines on the second, begins to rise again on wave three, has a period of decline again on wave four, and finally completes the rise on wave five. The period of correction is referred to as a three-wave correction where the market declines for wave A, begins to rise for wave B, and falls again for wave C.

Elliott went on to further explain that a complete market cycle consisted of a 144 wave cycle, broken down into an 89 wave bull cycle, and a 55 wave bear cycle. This is based on his observation of Fibonacci's Golden Ratio. The series of numbers Fibonacci describes shows a relationship of 1:0.618. Elliott further showed that a market usually rises or falls based on this wave cycle. Each wave in the cycle has its own characteristics.

#### Five Wave Advance

- **One:** Normally very short and easy to miss.
- **Two:** A retracement wave. Gives back all or most of what the first one gained.
- **Three:** Usually very prominent. Follows a period of what appears as a consolidation, most people trade this wave.
- **Four:** Noted to be very intricate, yet still a consolidation. One of Elliott's main rules is that in a five-wave advance cycle, wave four can't overlap wave one.
- **Five:** Often very active. At some point declines and lead to the three wave corrective cycle.

#### Three Wave Decline

- **A:** Normally seen as a minor pullback of wave five of the advance cycle.
- **B:** Follows A of the downtrend and is often hard to spot. Should result in a third wave continuing down.
- **C:** Usually quite significant and many traders see this as a selling opportunity. The price bars form a perfect symmetrical triangle shape.

## Elliott Wave Tool



To identify an Elliott Wave on a chart, select the Elliott Wave tool from your Advanced Charting toolbar. Click on the first point to place. Continue throughout the wave by clicking on each point 1-5 and ABC to place. When you get to the last point, C, the drawing is complete.

### Resizing the Elliott Wave

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Elliott Wave

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

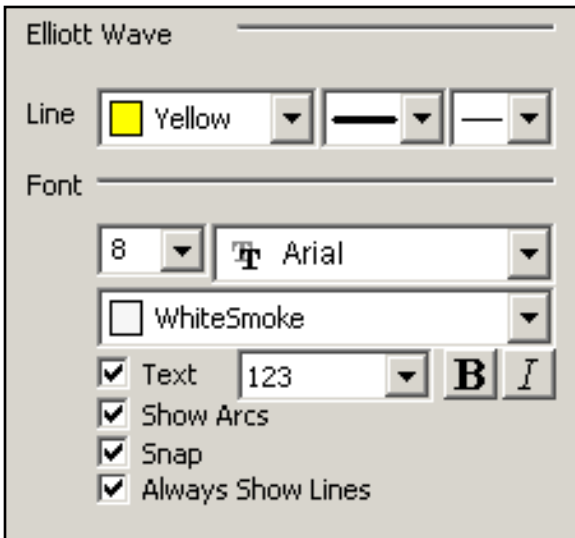
### Deleting the Elliott Wave

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Elliott Wave:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. Select **Text** to hide or show your text on the chart.

Select to **Show Arcs** on points of the drawing. Select **Snap** to have your lines snap to price bars when moved. Select **Always Show Lines** to keep lines on your chart even when the drawing is deselected.

### Example of an Elliott Wave



## Gann Fan Theory

*W. D. Gann designed several techniques for studying price charts. One of these included the use of geometric angles in conjunction with time and price. Gann believed that specific geometric patterns and angles had unique characteristics that could be used to predict price action.*

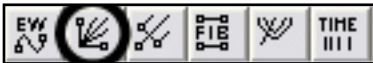
*Gann's techniques require that charts be drawn with equal time and price intervals, so that a rise/run of one price unit for each time unit (called a 1 x 1 trend or angle) will equal a 45 degree angle anywhere on the chart. Gann believed that the ideal balance between time and price exists when prices rise or fall at a 45 degree angle relative to the time axis.*

### Interpretation

A Gann Fan is used to define a market direction or a new trend. For example, a bull market exists if prices are maintaining strength between the 1x2 lower line and 1x2 higher line. A bear market would be the exact opposite of the previous scenario. The Gann Fan is made up of nine angles based on this concept. These trend lines are used to indicate support and resistance levels. When one line is broken (by the entire days price range) prices should move to the next line. The drawing of these lines should start from either a market top or bottom.

It is important to note that this theory is based on a squared 45 degree angle on the chart. Obviously, a 45 degree angle drawn on a chart is no longer 45 degrees when the scale is changed without a change to the opposite scale as well. To “square” the Gann Fan to the current chart’s scaled settings, hold down the CTRL key on your keyboard while clicking and rescaling with the mouse pointer. Some Gann experts have reported that to get a truly “squared” chart, one must set the scaling to 8 price bars per inch for the width and 4 price bars per inch for the height.

## Gann Fan Tool



You can apply this theory to your charts by selecting the Gann Fan tool from your Advanced Charting toolbar. Click where you want the Fan to start and continue to hold down the mouse button until reaching the top-right position of the fan. Release the mouse button to place.

## Resizing the Gann Fan

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

## Moving the Gann Fan

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

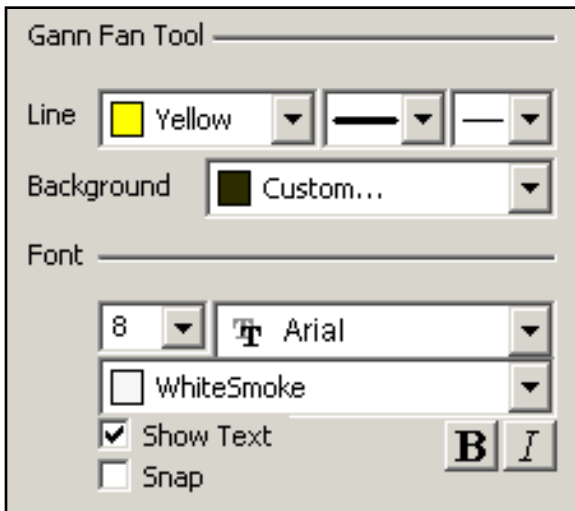
## Deleting the Gann Fan

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Gann Fan Tool:** You can choose the color, line style, and line thickness of your lines. Select what color you want the background to be.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

Example of the Gann Fan



Advanced Charting Tools

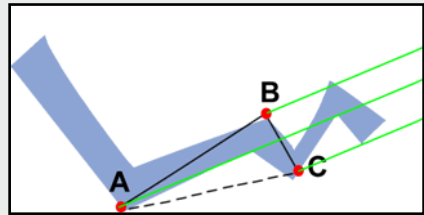
## Andrews Pitchfork Theory

*Dr. Alan Andrews developed a channel technique to show areas of support and resistance from a baseline. This use of a median line is the key to using the Andrews Pitchfork. Buying near lows and selling near highs that are identified by the “tines” of the pitchfork. The basic premise is to trade the channel from one level of support or resistance to the next.*

### Interpretation

The first element to draw the Andrews Pitchfork is the centerline. The middle tine, or median line, begins at the most recent contract low or high. To plot the direction of this point we must attain the other two points. The top tine is determined by looking at the highest move made from the origin of the contract low or high. The next point is found by looking at the retracement of that move. For example, a contract begins at point A, rallies to point B, and sells off from point B to point C. A line is drawn from point B to point C, and the line originating at point A splits those two lines equally.

This pitchfork shows continuing points of support and resistance. The general use of this tool is to **sell** when the market rises to line B, take profits once prices reach line A, and **buy** when prices dip to line C. This series of movements within the pitchfork affords traders the opportunity to trade a channel system within a trending market.



## Andrews Pitchfork Tool



You can apply this theory to your charts by selecting the Andrews Pitchfork tool from your Advanced Charting toolbar. Click where you want the handle of the pitchfork to be (at the end of the previous trend). Your next two clicks will form the base of the fork, or the tops of the next two trends. You can elongate the pitchfork to the length desired. Click to place.

### Resizing the Andrews Pitchfork

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release mouse button to place.

### Moving the Andrews Pitchfork

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

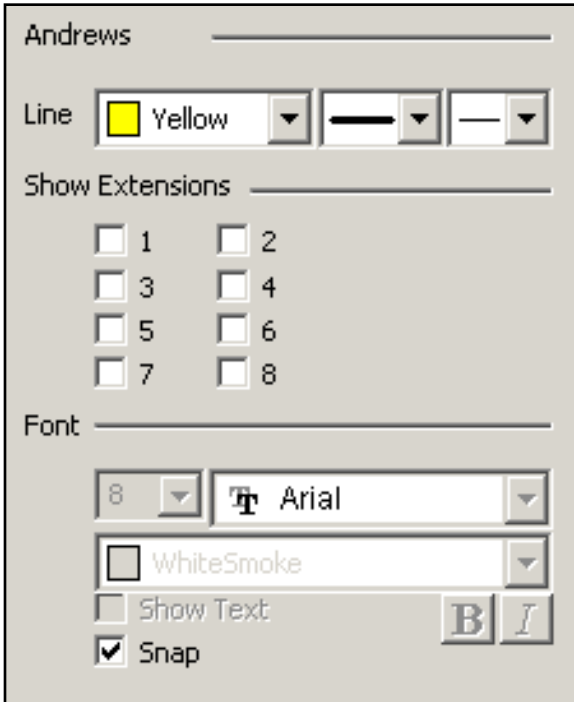
## Deleting the Andrews Pitchfork

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the channel and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Andrews:** You can choose the color, line style, and line thickness of your lines.

**Show Extensions:** Select the boxes next to the extensions you want to add to your pitchfork drawing. The odd numbers are placed below the main line, and the even numbers are placed above.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.



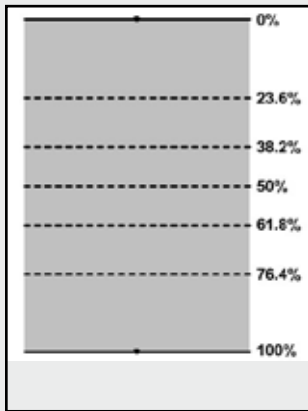
### Example of Andrews Pitchfork



Advanced Charting Tools

## Fibonacci Retracements

*Fibonacci Retracement levels correspond with percentage retracements that occur in the ebb and flow of a market trend. According to the Elliott Wave Theory, market trends tend to occur in five distinct waves. See the Elliott Wave section for more information. Elliott asserted that these counter-trend waves will usually retrace against the trending waves by 38.2, 50, and 61.8 percent. These retracement percentages correspond to natural ratios discovered by the Greeks called the Golden Ratio and rediscovered by Fibonacci, a medieval Italian Mathematician.*



### Interpretation

Commodity prices will frequently consist of an initial wave, a second wave (often retracing 61.8% of the initial move), a third wave (usually the largest), another retracement, and finally a 5th wave (the last gap), which would exhaust the movement.

In Track 'n Trade 5.0, you have three tools that you can use to apply these concepts: Fibonacci Retracement, Fibonacci Time Zones, and Fibonacci Arc.

## Fibonacci Ruler Tool



To measure the different retracement levels within a market, select the Fibonacci Ruler tool from your Advanced Charting toolbar. Click on the chart where you would like the ruler to begin. Hold the mouse button down and move to the lower right position of the ruler. Release the mouse button to place.

### Resizing the Fibonacci Ruler

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release mouse button to place.

### Moving the Fibonacci Ruler

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

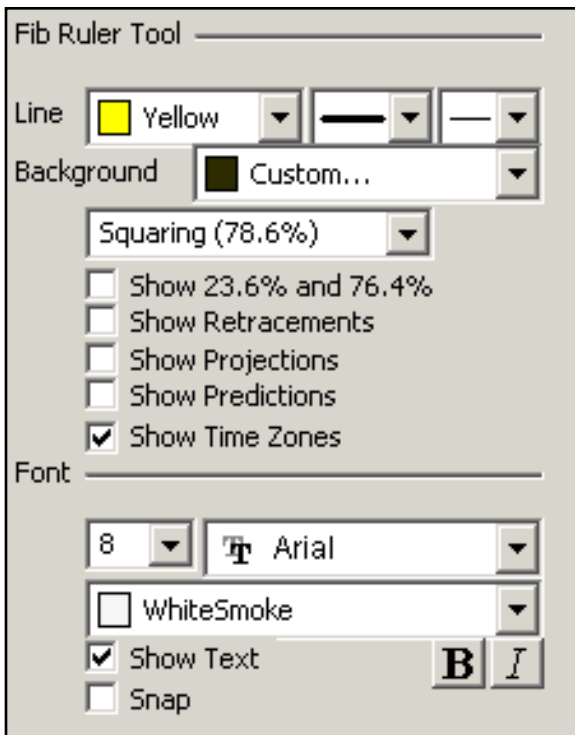
## Deleting the Fibonacci Ruler

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



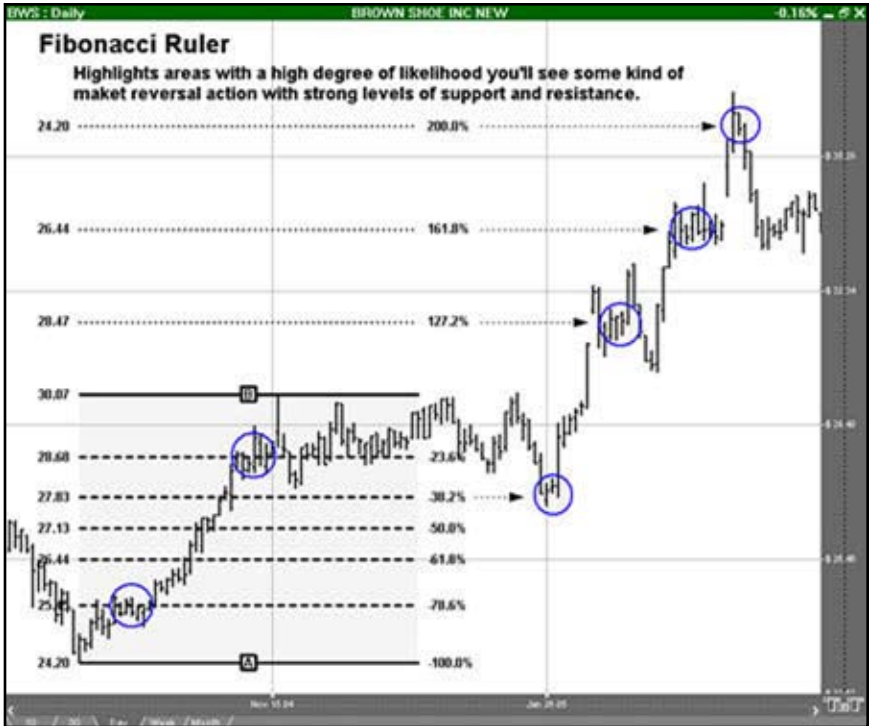
**Fib Ruler Tool:** You can choose the color, line style, and line thickness of your lines, as well as the color of your background.

Select **Show Retracements** or **Show Projections** to view default extensions. You can also choose to show **Predictions, Time Zones, and 23.6% and 76.4%**.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

### Example of a Fibonacci Retracement



Advanced Charting Tools

## Fibonacci Arc Tool



To measure the different retracement levels within a market, select the Fibonacci Arc tool from your Advanced Charting toolbar. Move the mouse pointer to the point on the chart that will be the corner of your arc. Hold the mouse button and drag to your end point. Release the mouse button to place.

### Resizing the Fibonacci Arc

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Fibonacci Arc

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

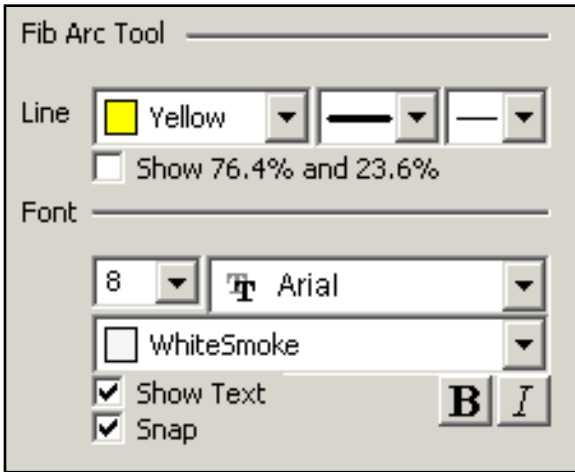
### Deleting the Fibonacci Arc

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

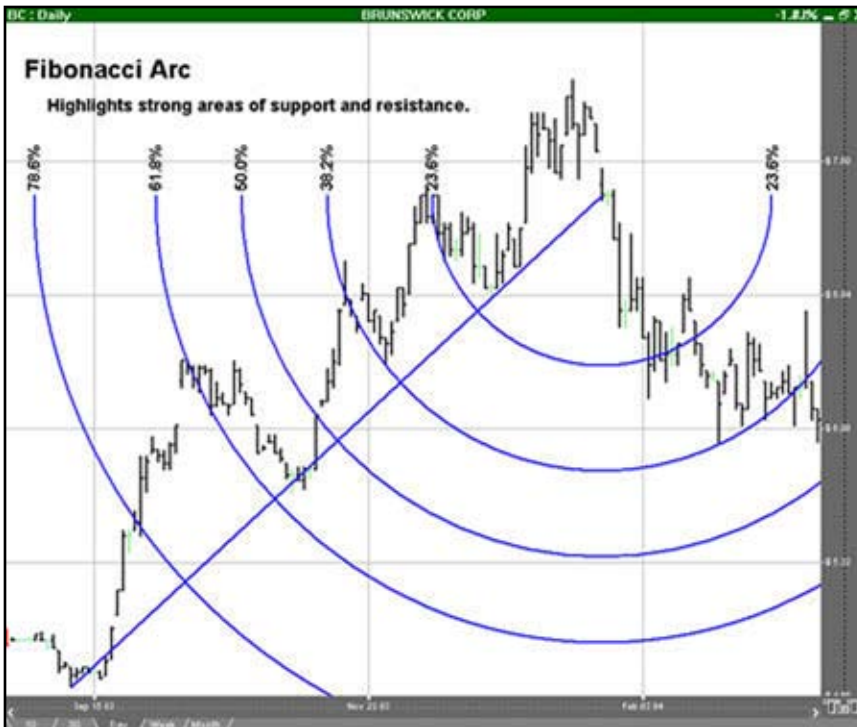


**Fib Arc Tool:** You can choose the color, line style, and line thickness of your lines. Select **Show 76.4% and 23.6%** to view these two additional arc lines.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

Example of a Fibonacci Arc



## Fibonacci Time Zones



The Fibonacci Time Zone uses Fibonacci numbers rather than the percentages used in the Ruler and Arc tools. Select the Fibonacci Time Zones from your Advanced Charting toolbar. Click where you want the upper left point. Hold the mouse button and drag to the bottom right position. Release the mouse button to place.

### Resizing the Fibonacci Time Zones

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Fibonacci Time Zones

Select the drawing by clicking on it. Drag to the new location and release the mouse button to place.

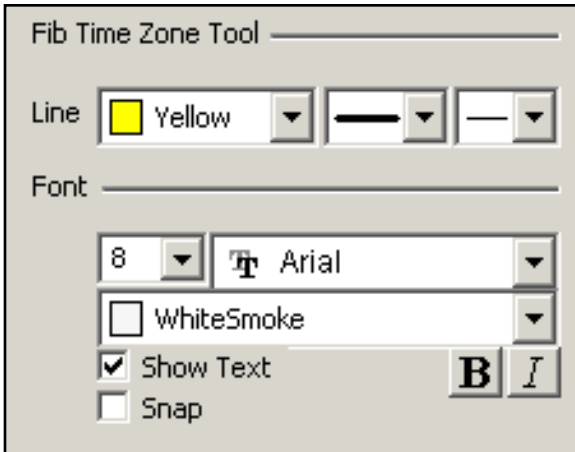
### Deleting the Fibonacci Time Zones

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

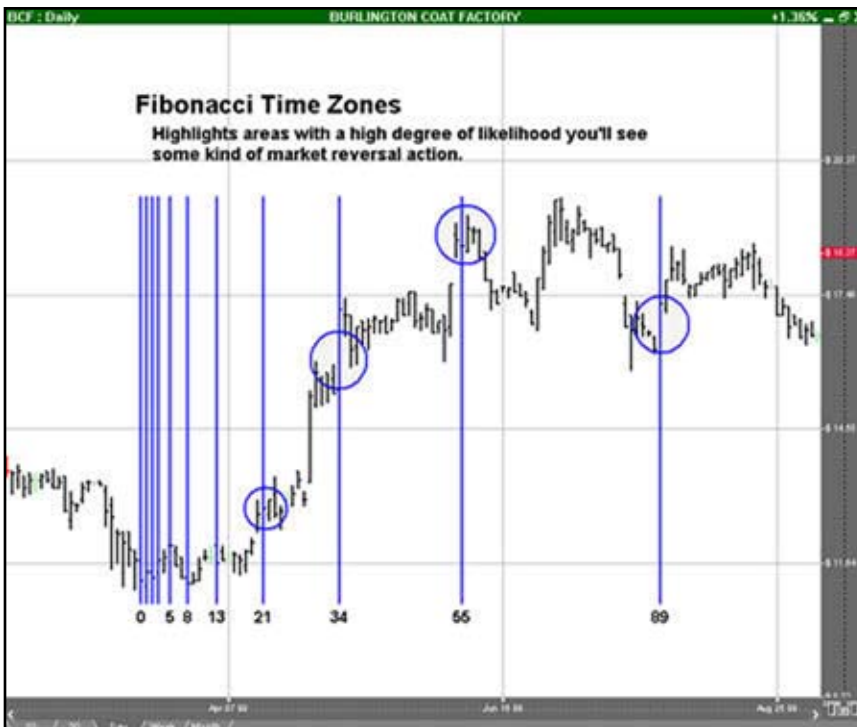


**Fib Time Zone Tool:** You can choose the color, line style, and line thickness of your lines.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart.

Select **Snap** to have your lines snap to price bars when moved.

**Example of a Fibonacci Time Zone**





# Notation Tools

Document Everything

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6



## Introduction

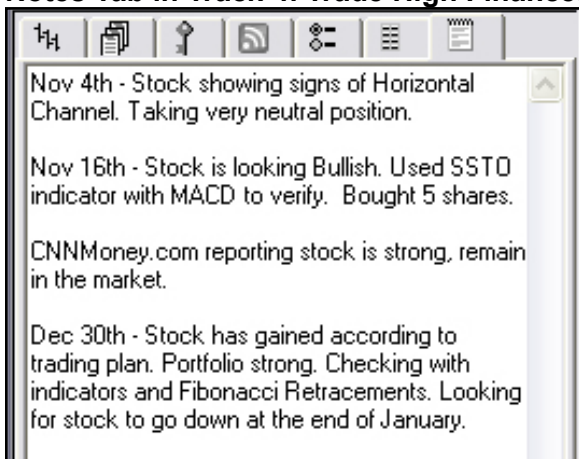


In Track 'n Trade High Finance, you have a variety of tools available to help you personalize, notate, and analyze your charts. You can type text, make drawings, import flags, and keep notes on each chart. The Notation tools, as well as the Notes tab in the Control Panel, enable you to record and remember what you learn for others' tips and tricks. In this section, you will learn how to use these features.

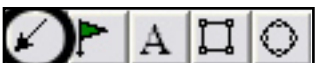
## Notes Window

The Notes window is the last tab in the Control Panel, after the Data tab. The Notes tab is for you to keep notes on the charts that are saved within your chartbook. Each chart has a new Notes section available to keep notes for that particular chart.

### Notes Tab in Track 'n Trade High Finance:



## Arrow Tool



The Arrow tool is located in the Notation toolbar. This tool enables you to draw arrows to help point out areas of interest on your chart. Position the mouse pointer where you want to place the point of the arrow and click the mouse button. Drag the mouse pointer to the location you would like to end the arrow. Release the mouse button to place.

## Resizing the Arrow

Select the arrow drawing by clicking on it. The arrow is selected when boxes appear at the ends of the line. Click on one of the boxes and drag it to the desired length. Release the mouse button to place the end point of the line.

## Moving the Arrow

Select the arrow drawing by clicking on it. Click on the arrow, not an end box, and drag it to the new location. Release the mouse button to place.

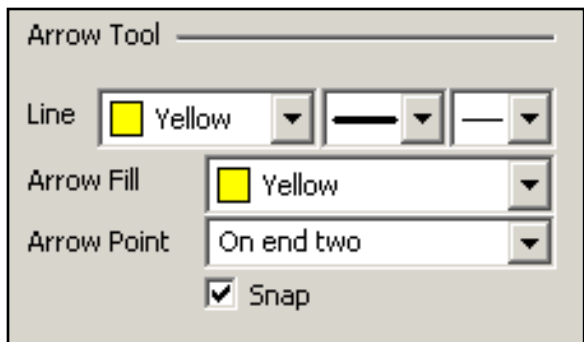
## Deleting the Arrow

Select the arrow drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

## Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

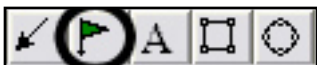


**Arrow Tool:** You can choose the color, line style, and line thickness of your arrow.

**Arrow Fill:** Select what color you want the point of your arrow to be. You can also choose which end you want the **Arrow Point** or if you want it on both ends.

Select **Snap** to have your line snap to price bars when moved.

## Flag Tool



The Flag tool enables you to place a flag or a graphic on your chart. There is a basic set of flags available to choose from or you can import custom flags. Select the Flag tool from the Notation toolbar. Click on the chart where you would like the top of the Flag. The default flag will be placed in this location.

### Resizing the Flag

Select the flag drawing by clicking on it. The flag is selected when boxes appear at the corners of the graphic. Click on one of the boxes and drag it to the desired length. Release the mouse button to place.

### Moving the Flag

Select the flag drawing by clicking on it. Click on the flag, not an end box, and drag it to the new location. Release the mouse button to place.

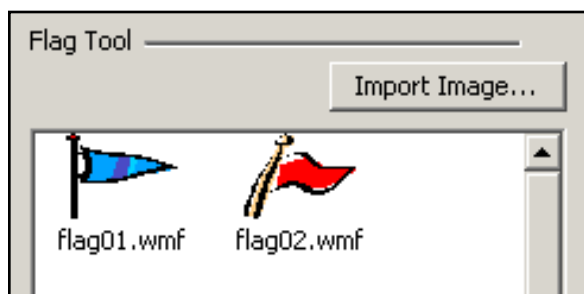
### Deleting the Flag

Select the flag drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the flag drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Flag Tool:** You can select a different flag and change or import a custom flag (Importable formats: .wmf, .jpeg, and .gif).

## Text Tool



The Text tool enables you to type text on the Chart. Select the Text toll in the Notation toolbar. Click on the chart where you would like to place the upper left corner of the text box. Drag the text box to the lower right corner of your desired text box. Release the mouse button to place.

Once the box is drawn, the Text Tool Options window will open. Enter the text, set the font, size, position, color, and style of the text. Select a border and background if you would like. Click “OK” when finished and text will be place on your chart.

### Moving the Text

Select the text box by clicking on it. Continue holding down the mouse button to drag text to the new location. Release mouse button to place.

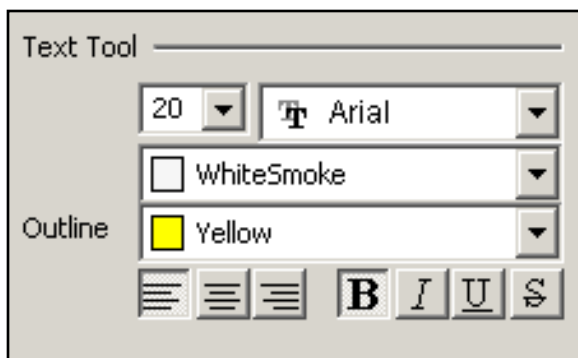
### Deleting the Text

Select the text box by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the text box and select “Delete” from the dropdown menu.

### Preferences

Select the text box by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

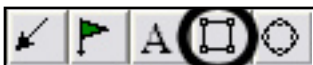
Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Text Tool:** Select the font, size, and color of the text.

**Outline:** Choose the color of the text box and change the justification.

## Rectangle Tool



The Box tool enables you to draw square or rectangle shaped drawings on the chart. Select the Box tool in the Notation toolbar. Click where you would like to place the top-left corner of the box, hold down the mouse button and drag to the location of the bottom-right corner of the box. Release the mouse button to place.

### Resizing the Rectangle

Select the rectangle drawing by clicking on it. The drawing is selected when boxes appear at the corners of the graphic. Click on one of the boxes and drag it to the desired length. Release the mouse button to place.

### Moving the Rectangle

Select the rectangle drawing by clicking on it. Click on the drawing, not an end box, and drag it to the new location. Release the mouse button to place.

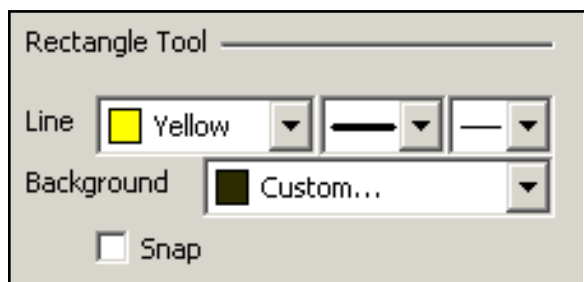
### Deleting the Rectangle

Select the rectangle drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

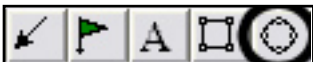
Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Rectangle Tool:** You can choose the color, line style, and line thickness of your box frame. You can also determine the color of your background.

Select **Snap** to have your lines snap to price bars when moved.

## Circle Tool



The Circle tool enables you to draw circle shaped drawings on the chart. Select the Circle tool in the Notation toolbar. Click on the chart where you would like the circle to start. Continue holding down the mouse button and drag the tool until it has formed a circle. Release the mouse button to place.

### Resizing the Circle

Select the circle drawing by clicking on it. The circle is selected when boxes appear at the corners of the graphic. Click on one of the boxes and drag it to the desired length. Release the mouse button to place.

### Moving the Circle

Select the circle drawing by clicking on it. Click on the box, not an end box, and drag it to the new location. Release the mouse button to place.

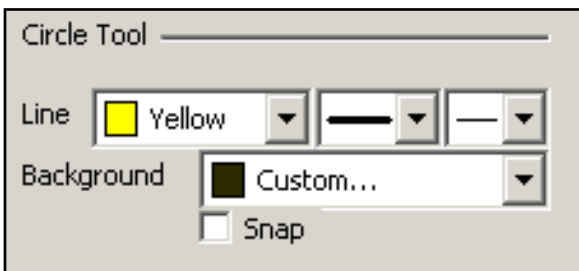
### Deleting the Circle

Select the circle drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the dropdown menu.

### Preferences

Select the circle drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Circle Tool:** You can choose the color, line style, and line thickness of your circle outline. You can also determine the color of the background.

Select **Snap** to have your lines snap to price bars when moved.



# Calculator Tools

Calculators Made Easy

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7



## Introduction

Track 'n Trade High Finance has included the Dollar calculator and the Risk/Reward calculator to help simplify the trading process. With both the Dollar calculator and the Risk/Reward calculator, simply click and drag between two locations on the chart to instantly know the dollar value between the two points.

## Dollar Calculator



Use the Dollar calculator to find the dollar value between two points on the chart. Select the Dollar calculator tool from your Calculators toolbar. Click on your chart where you want the calculator to start and drag to where you want the calculation to be completed. Release the mouse button to place. The dollar amount of the chart movement will be calculated from the beginning and end point values and will be displayed in the center of the line.

### Resizing the Dollar Calculator

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Dollar Calculator

Select the drawing by clicking on it. Hold down the mouse button and drag to the new location. Release the mouse button to place.

### Deleting the Dollar Calculator

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the drop-down menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Dollar Calculator Tool

Line   Yellow      

Quantity 100

Font 10 T Arial

WhiteSmoke

Show Text B I

Snap

\$ Value  % Value

Details

Point 1 Price 0.00

Point 2 Price 0.00

**Dollar Calculator Tool:** Choose the color, line style, and line thickness of your line.

**Quantity:** Default is set to 100, with the calculation between the two prices standing for 100 contracts. By changing the number next to Quantity in your preferences, the middle price will be calculated to show the value of multiple contracts.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart. Select **Snap** to have your lines snap to price bars when moved.

Enter the **Point 1** and **Point 2** that you want your tool to calculate.

## Risk/Reward Calculator



The Risk/Reward calculator is used to find the difference between two points of the risk and reward zone. Select the Risk/Reward tool on your Calculators Toolbar. Click on your chart where you want your technical formation to begin and drag to cover the area between your initial order and your risking stop loss order.

The calculator will create an equal-sized reward area that can be stretched to the proper distance you expect the graph to retrace. The numbers in the tool indicate the dollar amount of risk and reward.

When the chart is trading within the risk area (negative number), you are risking your own money. When the chart is trading within the reward area (positive number), you are risking OPM or “Other People’s Money.” Use the Risk/Reward calculator on all trades to calculate where your order entries and exits should be placed.

### Resizing the Risk/Reward Calculator

Select the drawing by clicking on it. You will know the drawing is selected when boxes appear at the corners. Click on a box and drag it to your desired location. Release the mouse button to place.

### Moving the Risk/Reward Calculator

Select the drawing by clicking on it. Hold down the mouse button and drag to the new location. Release the mouse button to place.

### Deleting the Risk/Reward Calculator

Select the drawing by clicking on it. Press the Del (Delete) key on your keyboard. You can also right-click the drawing and select “Delete” from the drop-down menu.

### Preferences

Select the drawing by clicking on it. The properties will appear in the preferences section of your control panel. Or, right-click on the drawing and select properties from the dropdown menu.

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Risk Reward Tool

Line Yellow

Risk Color  Red

Reward Color  SeaGreen

Quantity

Price Difference

Font

T Arial

WhiteSmoke

Show Text B I

Snap

Details

Point 1 Price

Point 2 Price

Point 3 Price

Point 4 Price

**Risk Reward Tool:** Choose the color, line style, and line thickness of your line.

**Quantity:** Select how many contracts you would like to be calculated.

**Price Difference:** Select whether you want the tool to calculate between price or points.

**Font:** Select the font, size, and color of the text. Select **Show Text** to hide or show your text on the chart. Select **Snap** to have your lines snap to price bars when moved.

Enter the points that you want your tool to calculate.

# Using Indicators

Read the Signs and Signals

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8



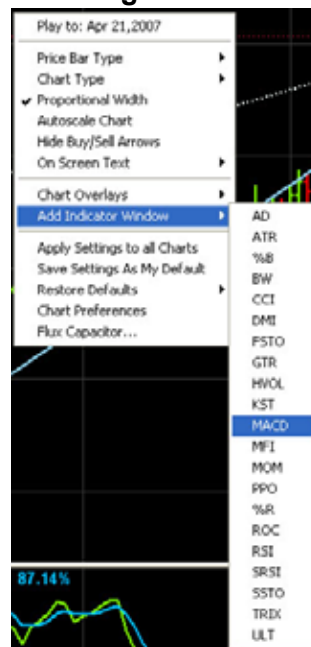


## Introduction

Track 'n Trade High Finance includes a total of thirteen indicators in the base application. Eleven of them are displayed in a window below the Chart Window, referred to as the *Indicator Window*. The other two Overlay Indicators are displayed directly on the chart in the Chart Window.



## Chart Right-Click Menu



## Displaying Indicators

To display an Indicator, right-click in the Chart Window or Indicator Window then choose the indicator from the menu. Mouse over *Add Indicator Window* and a list of indicators will appear, as you see in the screenshot above. Select the indicator you want opened. You can open six Indicator Windows at once on one chart, and you can have up to four indicators in each window. When you open a fifth indicator the first indicator opened will automatically be closed.

When you open an indicator, an overlay indicator or an indicator in the indicator window, you will see text appear on your chart in the upper left hand corner. You can choose whether to show this text, and choose where it appears by right-clicking on your chart. The screenshot above will appear. Mouse over *On Screen Text* to view your options.

## Indicator QuickLinks

Once you have deselected an indicator, to select it again click on the *Indicator QuickLink* located on the bottom right hand side of the *Indicator Window* or *Chart Window*, as shown in the screenshot below. Once the indicator is selected, you can change settings for that indicator in the *Preferences Tab* of the *Control Panel*.



### Indicator Window Quick Link

Right-click on the *Indicator QuickLink* in the *Indicator Window* to view the menu seen in the screenshot below. Indicators that are already selected will have a dot by them. To switch to another indicator simply click on it. Select Remove to delete that indicator Window. To add an additional indicator to your *Indicator Window*, right-click inside the *Indicator Window* and select another indicator.

### Chart Window QuickLink

Right-click on the *Indicator QuickLink* in the *Chart Window* to view the menu seen in the screenshot below. To open an additional indicator, right-click and choose the indicator from the menu. The indicators that are currently open will have a check mark by them. To remove an indicator from your chart, simply click on the indicator again. (A list of all indicators and their abbreviations are available at the end of this section).

### Indicator Window QuickLink Right-Click Menu

- AD
- CCI
- DMI
- FSTO
- HVOL
- MACD
- MOM
- %R
- RSI
- SSTO
- VOL
- Properties
- Remove

### Chart Window QuickLink Right-Click Menu

- ✓ AD
- CCI
- DMI
- FSTO
- HVOL
- ✓ MACD
- MOM
- %R
- RSI
- SSTO
- VOL
- Properties

## Williams Accumulation/Distribution (AD)

Larry Williams created this indicator in an attempt to measure market pressures. It specifically looks for a difference in price and measures it through market sentiment and strength. The key is to look for strong differences between what the market does and what the indicator does. Looking for substantial divergence from the AD index versus the underlying chart is the key to future price direction.

The main thing to look for is a difference between the AD and the market trend. If a market were to make a matching or lower low, or a matching or higher high and the AD fails to follow the market trend, this is divergence. Divergence implies that a reversal in the dominant trend may be near.

A series of lower lows would read as a decreasing AD. The pattern created by the AD and the differences in the chart are what the trader looks for. Divergence, or a difference from the pattern, is what you want to see. For example, if the market continues to march to higher territory and the AD follows by doing the same, then there is no divergence. However, if the market makes several new highs but the AD fails to make new highs, it is a warning signal of a market about to reverse direction.

### Calculation

The AD index is computed several different ways. Some computations normalize the index, while others add extra smoothing factors through the use of moving averages.

The first comparison checks for accumulation. (Is the current close higher than the previous close?) If the market is accumulating, subtract the difference between current close and low. Add the difference to the Accumulation/Distribution Index. Traders perceive an undervalued market and they buy.

*If  $Closet > Closet-1$  then  $ADt = ADt-1 + (Closet - Lowt)$*

The second comparison checks for no change in price. If correct, the AD index does not change.

*If  $Closet = Closet-1$  then  $ADt = ADt-1$*

The last and final comparison checks for a down market. It looks for the current close below previous close. If it's correct, the market is distributing. The software first computes the difference between current high and close. Then it subtracts that difference from the AD index. This measures market distribution. Traders perceive an overvalued market and are selling.

*If  $Closet < Closet-1$  then  $ADt = ADt-1 - (Hight - Closet)$*

*ADt*: The accumulation/distribution index for the current period.

*ADt-1*: The accumulation/distribution index for the previous period.

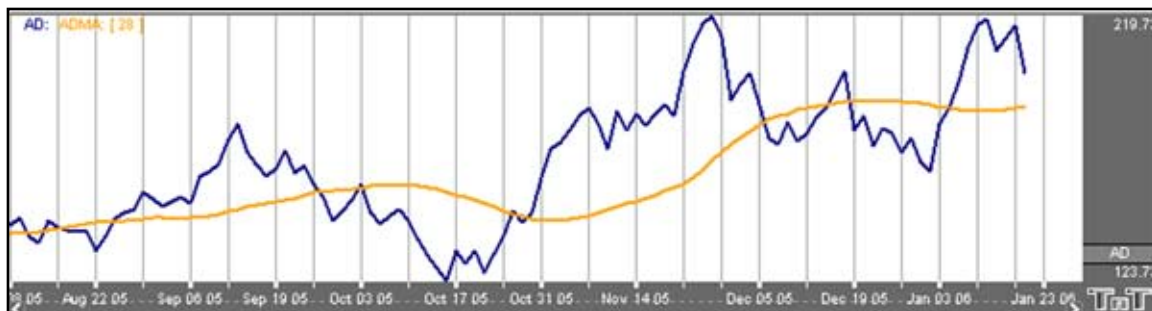
*Closet*: The closing price for the current interval.

*Closet-1*: The closing price for the previous interval.

*Hight*: The true high price for the current interval (current high or previous close).

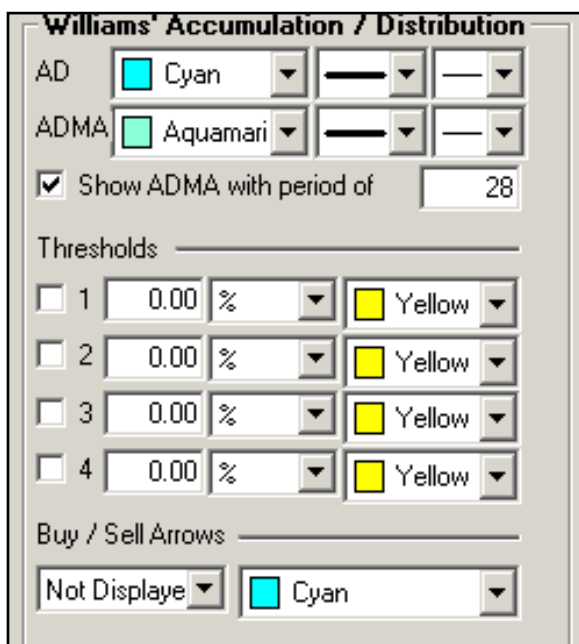
*Lowt*: The true low price for the current interval (current low or previous close).

### Example of the Williams AD in the Indicator Window



### Preferences

Open the Preferences Tab in your Control Panel. Select the AD quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)



**Restore Settings:** TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Line:** Choose the color, line style, and line thickness of your AD and ADMA line. You can also choose to show/hide the ADMA.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Commodity Channel Index (CCI)

The Commodity Channel Index (CCI) is designed to detect beginning and ending market trends. The formula standardizes market prices to help spot market trend deviations.

Donald Lambert, the creator of this indicator, says that 70% to 80% of all price fluctuations fall within +100 and -100 as measured by the index. The calculation for CCI measures the average daily price's distance from a moving average of average daily prices.

There are basic trading rules for the CCI: buy when the CCI exceeds -100 and sell when the CCI drops below +100. In other words, a buy signal is generated when the indicator enters the channel, or exceeds -100, coming up from the bottom. A sell signal is generated when the indicator enters the channel from the top, or drops below +100.

Followers of the CCI generally look to establish long positions when the CCI exceeds the -100 level, indicating that prices are in a strong up trend. Most users of this indicator also try to look for patterns within the indicator, such as higher highs, and look for CCI movements to be confirmed by general price readings as well.

The purpose of the CCI index is to keep you out of the market during consolidation, or weak trending periods. By measuring the difference between average prices and mean average prices, this indicator attempts to isolate only strongly trending markets, similar to momentum and MACD.

When CCI is viewed in the Indicator window of Track 'n Trade 5.0, -100 is 33% of the window and +100 is 66% of the window. Guides could be set at these two points for ease in tracking CCI. You could also say that -85 would be roughly 36% and +85 would be roughly 64% of the window.

### Calculation

The proper calculation of the CCI requires several steps in the proper sequence. You must first compute the typical price using the high, low, and close for the interval. Simply, take the average of the three values.

$$TP = (Hight + Lowt + Closet) / 3$$

*TPt*: Represents the typical price.

*Hight*: The highest price for this interval.

*Lowt*: The lowest price for this interval.

*Closet*: The closing price for this interval.

Next, calculate a simple moving average of the typical price for the number of periods specified.

$$TPAVG_t = (TP_1 + TP_2 + \dots + TP_n) / n$$

*TPAVG<sub>t</sub>*: The moving average of the typical price.

*TP<sub>n</sub>*: The typical price for the *n*th interval.

*N*: Number of intervals for the average.

Compute the mean deviation.

$$MD_t = (|TPAVG_1 - TP_1| + \dots + |TPAVG_1 - TP_n|) / n$$

*MDT*: The mean deviation for this interval.

*TP<sub>n</sub>*: The typical price for the *n*th interval.

*N*: Number of intervals.

**Note:** The symbol  $||$  designates absolute value. Negative differences as well as positive differences are treated as positive values.

Final Computation:

$$CCI_t = (TP_t - TPAVG_t) / (.015 \times MDT)$$

*CCI<sub>t</sub>*: The Commodity Channel Index for the current period.

*TP<sub>t</sub>*: The typical price for the current period.

*TPAVG<sub>t</sub>*: The moving average of the typical price.

.015: A constant.

*MDT*: The mean deviation for this period.

### Buy/Sell Signals

For a line drawing, a buy signal occurs when the CCI line crosses from below the lower threshold to above the lower threshold. A sell signal occurs when the CCI line crosses from above the upper threshold to below the upper threshold.



## Preferences

Open the Preferences Tab in your Control Panel. Select the CCI quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Commodity Channel Index**

CCI Period: 20

CCI: VioletRed (Color), — (Line Style), — (Line Thickness)

Standard: Line (Style)

W-CCI

Up Color: LightGreen

Down Color: FireBrick

Thresholds:

<input type="checkbox"/>	1	100.00	Value	Yellow
<input type="checkbox"/>	2	-100.00	Value	Yellow
<input type="checkbox"/>	3	0.00	%	Yellow
<input type="checkbox"/>	4	0.00	%	Yellow

Buy / Sell Arrows: Not Displayed (Style), VioletRed (Color)

When calculating Buy / Sell arrows for CCI:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**CC Period:** The number of bars, or interval, used to calculate the study. Default is 20.

**CC:** Choose the color, line style, and line thickness of your line. Select **Standard** and choose between a line or a histogram from the dropdown menu. Select **W-CCI** to display a histogram divided in the middle and choose two colors from the dropdown menu.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 100 and -100).

Choose when you want **Buy/Sell Arrows** to show and what color.

## Directional Movement Index (DMI)

Wilder's DMI is similar to the historic volatility indicator because it shows market tendencies. The main use of this tool is to show the strength of a trend. This could direct the trader to use a trend following system or a counter trend system in their trading. It also indicates possible price reversals.

Directional Moving Index is plotted as three lines on a scale of 0 to 100. This scale is a measure of market trend. The two lines of DMI show the amount of positive and negative movement. The positive line is called D+ and the negative D-. The direction of these lines and the use of crossovers can show the changes in the current market. The key to this indicator is the ADX, or average of the difference of these two lines. The ADX is the main factor in using this indicator. During periods of extreme price variation the two lines can become very volatile, and the ADX is used to compensate for this.

The best application of DMI is present when used with another indicator. DMI should either confirm or contradict the indicator being used. It is also best to use DMI in long-term trade situations. Because the study is not as sensitive as other indicators it is appropriate to use it as a confirmation tool. When the DMI is advancing, the average is higher on the 0 to 100 scale, trend following systems are best employed. Likewise, with a decreasing DMI average, the line is lower on the scale, closer to 0, so a counter trend system might be best. These traits represent the fact that as the average line goes higher in the scale the strength of the trend is gaining, and as the ADX goes lower the trend is losing strength. It is also important to look at the individual lines for changes in price movement.

The other application for DMI is to look at the D+ and D- lines themselves. When the D+ line crosses above the D- line a buy signal is initiated. This indicates that the positive price direction is greater than the negative. Conversely, once the D+ line crosses below the D- line, a sell trigger is present. The negative price movement is overtaking the positive.

Welles Wilder himself said that he was not comfortable using these two lines by themselves. When looking at reversals, the ADX should be above both lines, and once it turns lower we should see a change in market direction. You should also look to ADX for confirmation.

This application is much the same as momentum, showing a change in the market sentiment. Wilder also says that a trend following system should not be used when the ADX line is below both D lines, as this means that the market has no discernible direction.

When using the D+ and D- crossover method, Wilder stresses the use of an extreme point. On the day the crossover occurs, the extreme point is the high or low of the day (high for a buy, and low for a sell). The market should be able to take out that price and stay beyond it for several days before the trade is initiated or exited. This use of extreme points should keep the trader from getting into whipsaws or false breakouts.



## Calculation

The computations needed to generate the final figures for the DMI are not complex but are numerous and lengthy. The following discussion attempts to unravel the computational mysteries of the DMI. If you need further explanation, please refer to the author's original work. The book titled *New Concepts in Technical Trading Systems* by J. Welles Wilder, Jr., explains this indicator and several others.

You must first compute the directional movement, DM, for the current trading interval. Directional movement can be up, down, or zero. If directional movement is up, it is labeled as +DM, and -DM refers to downward directional movement. Wilder defines directional movement as the largest part of the current trading range that is outside the previous trading range. From a mathematical view, it is the largest value between two equations:

*Hight - Hight-1 or Lowt - Lowt-1*

This is only true when the current low is less than the previous low, or the current high exceeds the previous high. Both of these conditions do not have to be met, only one. It is the largest portion of the trading range outside of the previous trading range.

It is possible for the directional movement to be zero. This occurs when the current trading range is inside the previous trading range, or when the trading ranges, current versus previous, are equal.

Directional movement is up, or positive, when the difference between the highs is the greatest. It is down, or negative, when the difference between the lows is the largest value. The up directional movement is +DM and down directional movement is -DM. Do not let the plus and minus sign designation mislead you. They only indicate upward or downward movement, not values. The directional movement value is always a positive number, or absolute value, regardless of upward or downward movement. This concept is crucial to understanding the computations for the indicator. If you are confused, draw some illustrations or work with actual price data to determine the directional movement values.

The next step in determining the DMI is to compute the true range. The true range (TR) is always a positive number. According to the Wilder, the true range is the largest value of three equations:

*Hight - Lowt*

*Hight - Closet-1*

*Lowt - Closet-1*

Continue this process for the specified trading interval. In this example, use a value of 14. This is the same value Wilder used on daily data. His logic for using this value is that it represents an average half-cycle period. When this task is accomplished for the specified interval, you compute the average value of the +DM, -DM, and TR. Wilder prefers to use an accumulation technique rather than computing a pure moving average. It is a short cut designed to save computational time and effort:

$$\text{Averaget} = (\text{Averaget-1} - (\text{Averaget-1} / n)) + \text{Valuet}$$

When you substitute the above symbols, you these equations:

$$+DM_t = (+DM_{t-1} - (+DM_{t-1} / n)) + (+DM_t)$$

$$-DM_t = (-DM_{t-1} - (-DM_{t-1} / n)) + (-DM_t)$$

$$TR_t = (TR_{t-1} - (TR_{t-1} / n)) + (TR_t)$$

It is a timesaving convention. This indicator was developed before microcomputers were invented. The only tool available was the desktop calculator or adding machine. You could spend a great deal of time and effort calculating averages.

You now have the average values. The next step is to compute the directional indicator. It can be either up or down, depending upon the directional movement. On up intervals use this calculation:

$$+DI = (+DM / TR) \times 100$$

On a down interval use this formula:

$$-DI = (-DM / TR) \times 100$$

The plus and minus directional indicator values are computed as percentage figures. You are expressing the percentage of the average true range for both up and down trading intervals.

If you have followed this process so far, the last few steps are relatively simple. You compute the difference between the +DI and the -DI. Remember to use the absolute value of this difference (Convert any negative value into a positive number).

$$DI_{diff} = |((+DI) - (-DI))|$$

Compute the sum of the directional indicator values using this formula:

$$DI_{sum} = ((+DI) + (-DI))$$

Once you compute the  $DI_{diff}$  and the  $DI_{sum}$ , you can calculate the DX or directional movement index. This value is always a percentage:

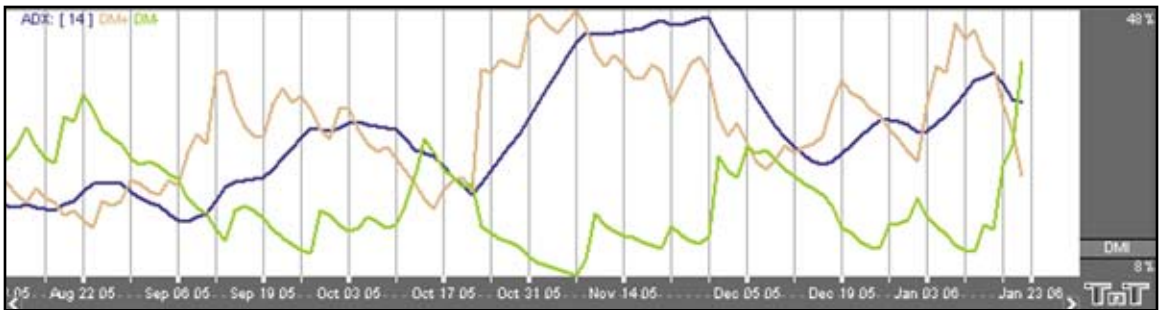
$$DX = (DI_{diff} / DI_{sum}) \times 100$$

The DX is always a value between 0 and 100. If your calculations exceed this range, you have made an error. Wilder was not comfortable using just the directional movement index. It could become very volatile during periods of extreme price movement, especially markets that rise and fall quickly. He implements his accumulated moving average technique to smooth the DX. The result is the ADX or average directional movement index. This is the computational procedure:

$$ADX_t = ((ADX_{t-1} \times (n - 1)) + DX_t) / n$$

## Buy/Sell Signals

A buy signal occurs when the DMI+ line crosses from below the DMI- line to above the DMI- line. A sell signal occurs when the DMI+ line crosses from above the DMI- line to below the DMI- line.



## Filters to Adjust Buy/Sell Signals

**Extreme Point Validation:** This filter delays the buy/sell arrows at least a day by requiring that the market move higher or lower than the high or low on the day the DM+,DM- crossover happened. If a new high or low is not obtained before the next DM+,- crossover, the buy/sell arrow is suppressed completely for that previous period. The filter does not require the use of DX/ADX, although it does stack with the other filters if they are used.

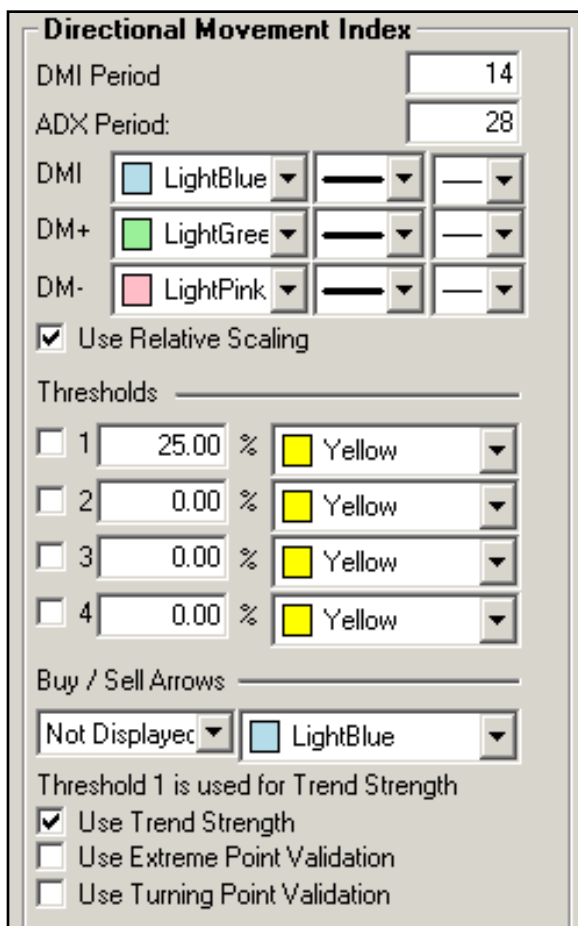
**Trend Strength:** The DX or ADX line must be above the target number before a DM+,- cross will give a buy/sell arrow. The theory is the DX/ADX lines indicate trend strength (not direction) and if it is below 20 there is practically no trend. Values above 40 indicate a strong trend. Different articles would use values between 20 and 40 as targets to look for. This box must be selected for this rule to be available.

**Turning Point Validation:** The directional index line (DX or ADX) must be above the point where DM+,- crossed. This is like a variable trend strength filter. The directional index can indicate any trend strengths as long as the trend strength is greater than the value of the DM+,- crossing point. This indicator also requires that the directional index line be on.

## Preferences

Open the Preferences Tab in your Control Panel. Select the DMI quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Directional Movement Index**

DMI Period: 14

ADX Period: 28

DMI: LightBlue, —, —

DM+: LightGreen, —, —

DM-: LightPink, —, —

Use Relative Scaling

Thresholds

1: 25.00 % Yellow

2: 0.00 % Yellow

3: 0.00 % Yellow

4: 0.00 % Yellow

Buy / Sell Arrows

Not Displayed, LightBlue

Threshold 1 is used for Trend Strength

Use Trend Strength

Use Extreme Point Validation

Use Turning Point Validation

**DMI Period:** The number of bars, or interval, used to calculate the study. Default is 14.

**ADX Period:** Specify the number of price bars used in calculating ADX.

**DMI+, DMI-, DM:** Choose the color, line style, and line thickness of your line. Select **Use Relative Scaling** to change the 100% location to the highest point value in the DMI indicator.

View up to four **Thresholds** at values and colors of your choice. Threshold 1 is used for Trend Strength (default value set at 40).

Choose when you want **Buy/Sell Arrows** to show and what color. Select if you would like to view **Trend Strength, Extreme Point Validation, or Turning Point Validation** filters.

## Fast Stochastics (FSTO)

The Stochastic Process was invented by Dr. George C. Lane under the basic premise that during periods of decrease, daily closes tend to accumulate near the extreme low of the day and, conversely, during periods of increase, daily closes tend to accumulate near the extreme highs of the day.

This indicator is designed to show conditions of overbought and oversold markets. Stochastics are divided into two types: Regular Stochastics, often referred to as Fast Stochastics, and Slow Stochastics. Fast Stochastics are more sensitive to price changes and can give a lot in the short-term, hence the need for Slow Stochastics.

Stochastics display two lines that move in a vertical scale between 0 and 100, representing percentiles from 0% to 100%. Think of the level of Stochastics as where the most current close is within a specific range. If Stochastics are reading 50%, the current close is in the middle of the price range for a specified period of time. If Stochastics are reading 100%, the close is at the high of the range, and 0% represents the current close price being at the low of the range. This will help you to understand why Stochastics are a counter trend indicator, in that the underlying principle behind Stochastics is that prices will move back to the center of the trading range, or the opposite extreme.

When both lines move to an area below 20 on this scale they are said to be in an oversold zone. Conversely, when both %K and %D move to above 80 on this same scale they are indicating an overbought zone. It is this indication of market sentiment that makes this counter trend indicator useful.

George Lane emphasized that the most important signal generated by this method was the difference or divergence between %D and the underlying market price. He said that the divergence is where %D line makes a group of lower highs while the market makes a series of higher highs. This would indicate an overbought condition. The reverse would be true of an oversold market, with %D making higher lows and prices making lower lows.

As with a dual moving average system, when the faster reacting indicator crosses the slower moving indicator, a buy or sell is signaled. Because Stochastics give an indication of either overbought or oversold, you would first want to see both lines in the above 80 or below 20 range, and sloping out of that range back to the middle before looking for these trade triggers.

## Calculation

The first step in computing the stochastic indicator is to determine the  $n$  period high and low. Suppose you specified twenty periods for the stochastic. Determine the highest high and lowest low during the last twenty trading intervals. It determines the trading range for that time period. The trading range changes on a continuous basis. The calculations for the %K is here:

$$\%K_t = ( (Close_t - Low_n) / (High_n - Low_n) ) \times 100$$

*%K<sub>t</sub>*: The value for the first %K for the current time period.

*Close<sub>t</sub>*: The closing price for the current period.

*Low<sub>n</sub>*: The lowest low during the  $n$  periods.

*High<sub>n</sub>*: The highest high during the  $n$  time periods.

$n$ : The value you specify.

Once you obtain the %K value, you start computing the %D value which is an accumulative moving average. Since the %D is a moving average of a moving average, it requires several trading intervals before the values are calculated properly. If you specify a 20 period stochastic, the software system requires 26 trading intervals before it can calculate valid %K and %D values. The formula for the %D is here:

$$\%DT = ( (\%DT-1 \times 2) + \%K_t ) / 3$$

*%DT*: The value for %D in the current period.

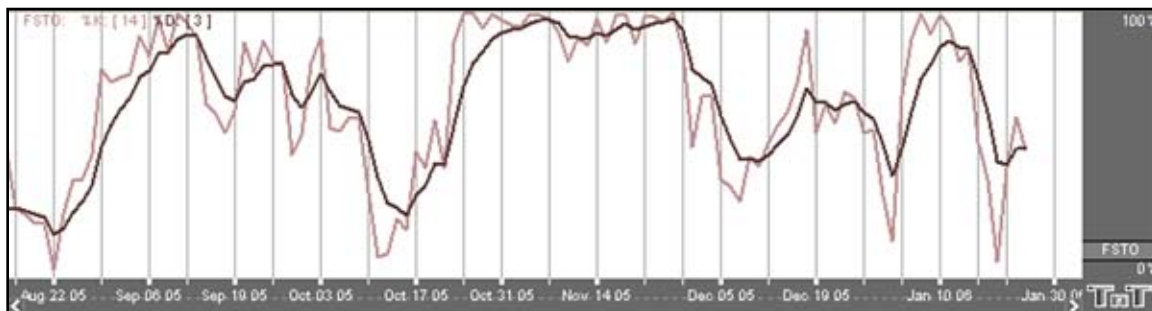
*%DT-1*: The value for %D in the previous period.

*%K<sub>t</sub>*: The value for %K in the current period.

The values 2 and 3 are constants. You specify the constants and the length of the time period to examine for the trading range.

## Buy/Sell Signals

A buy signal occurs when both lines are below the lower threshold and the %K line crosses from below the %D line to above the %D line. A sell signal occurs when both lines are above the upper threshold and the %K line crosses from above the %D line to below the %D line.



## Preferences

Open the Preferences Tab in your Control Panel. Select the FSTO quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Fast Stochastic**

FSTO Period

FSTO Smoothing %D

%K

%D

Calculation

Thresholds

<input type="checkbox"/>	1	<input type="text" value="80.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="20.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>

Buy / Sell Arrows

When calculating arrows for FSTO:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**FSTO Period:** The number of periods to be used to determine the highest high and lowest low. Default is 14.

**FSTO Smoothing:** The number of periods to be used to determine the moving average for the %D value.

**%K/%D:** Choose the color, line style, and line thickness of your %K and %D lines.

**Calculation:** Choose between Exponential, Simple, and Wilder's Smoothing calculations.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 80 and 20).

Choose when you want **Buy/Sell Arrows** to show and what color.

## Historic Volatility (HVOL)

The Historic Volatility indicator is used mainly as an option evaluation tool. It does not give trading signals like those given with other technical indicators. It gives the trader an idea of how volatile the market has been for a previous period of time.

Changing the period of time the study observes allows the trader to finetune options prices. If a market has been extremely volatile for the past 3 months, for example, near term options should be more expensive. If the market has been calm for an extended period of time, longer term options should be reasonable. In futures, we use it for observation. It tells us if prices are calming down or becoming more erratic.

The key to using historic volatility is determining the correct period of time for each market. The market you are looking at may show a history of volatility years ago, but has been relatively calm the last few months. Getting an idea of the markets behavior recently may be of no use to the trader that is looking at distant options.

For the futures trader, this tool is useful as a guide for order placement. Changing market volatility may indicate that it is time to move stops closer or farther away. If the trader is profitable with the trend and volatility is changing, it might be a time to move stops closer to protect profits. If a trader is trading against the trend, he might want to move stops further away to avoid getting bumped out prematurely.

Options traders could use this study to help them purchase profitable options. The basic idea is to buy options when volatility is decreasing to take advantage of a change in that volatility. Any rise in volatility will translate to an increase in option values. Look at options strategies that take advantage of low volatility, such as straddles or ratio spreads. When volatility is high, selling options would be better because any decrease in volatility will translate to a loss of option value. Option strategies that take advantage of a decrease in volatility are strangles and regular short option positions.

Obviously, historic volatility is only one component of option pricing. Any changes in the underlying futures market could negate the changes in option prices due to volatility. For example, if you were to buy a low volatility Put option and prices go higher, that option will lose value but not as quickly as a higher volatility option.

For the futures trader, the basic concept is to expect market changes during periods of increased volatility. George Soros, the trading legend, said “Short term volatility is greatest at a turn around and diminishes as a trend becomes established.”



This indicator is commonly viewed as very mean regressive. What this term means is that the historic volatility indicator tends to return to the opposite end of the spectrum and therefore return to an average. If volatility is great it will eventually cool off and return to that place. If volatility is low it will not stay quiet forever. What this means to traders is that a market that is erratic will sooner or later calm down and a market that is quiet will eventually get loud again.

### Calculation

The calculation for the historical volatility is rather involved. The number of periods per year vary depending on the type of price chart used for the study. The following table lists the number of periods for each type of chart:

Chart Type	Trading Periods Per Year
Perpetual	262
Daily	262
Weekly	52
Monthly	12
Variable	Based on chart period (see below)
Tick	Not available for this study

When using variable charts, you must first calculate the number of trading periods per year. To do this, you must determine the trading time of the selected commodity. The formula is as follows:

$$TP = (Tt / Pn) \times 262$$

*TP*: The total number of trading periods per year.

*Tt*: The total trading time in a day.

*Pn*: The length of the period.

262: The number of weekdays per year.

**Example:** The S&P 500 trades from 8:30 a.m. to 3:15 p.m. That is a total trading time of 6 hours and 45 minutes. On a variable chart using 5 minute bars, the number of periods for the day is 81:

$$6 \text{ hours} \times 60 \text{ minutes} = 360 \text{ minutes} + 45 \text{ minutes}$$

$$\text{Total minutes of trading} = 405 \text{ minutes}$$

$$405 / 5 \text{ minute bars} = 81 \text{ trading periods per day}$$

Now that you have calculated the trading periods per day, you now must calculate the number of periods for the year. Since historical volatility considers every weekday of the year when calculating total periods for the year, the multiplier is 262:

$$TP = (405/5) \times 262$$

$$TP = 81 \times 262$$

$$TP = 21,222$$

**Note:** This formula applies only to historical volatility on a variable chart. It does not apply to other chart types.

Now that you have the total number of periods per year, continue with the calculation of the historical volatility, by calculating the logarithm of the price change for each price in the specified time span of  $n$  periods:

$$LOGSi = LOG(Pi / Pi-1)$$

*LOG*: The logarithm function.

*Pi*: The current price.

*Pi-1*: The previous price.

Now that you have the logarithms of the price changes, calculate the total logarithms for the time span you are reviewing:

$$T_{logs} = \sum_{i=1}^n (LOGSi)$$

*Tlogs*: The total of the logarithm price ratio for the time span.

*S*: Indicates to sum all  $n$  logarithms.

*LOGSi*: The logarithm of the price change for period  $i$ .

*N*: The number of periods for the specified time span.

The next step is to calculate the average of the logs by dividing the total logarithm by the number of periods:

$$ALOGS = Tlogs / n$$

*ALOGS*: The average of the logarithms.

*Tlogs*: The total of the logarithm for the time span.

*N*: The number of periods for the specified time span.

The last calculation is to sum the squares of the difference between the individual logarithms for each period and the average logarithm:

$$SSD = \sum_{i=1}^n (LOGSi - ALOGS)^2$$

*SSD*: The sum of the squared differences.

*S*: Indicates to total the squares of all *n* differences.

*LOGSi*: The logarithm of the price change for period *i*.

*ALOGS*: The average of the logarithms.

Now that the elements of the final formula are complete, the following formula calculates the historical volatility for a given period over a specified time span:

$$HV = \sqrt{\frac{SSD}{n-1}} * \sqrt{TP}$$

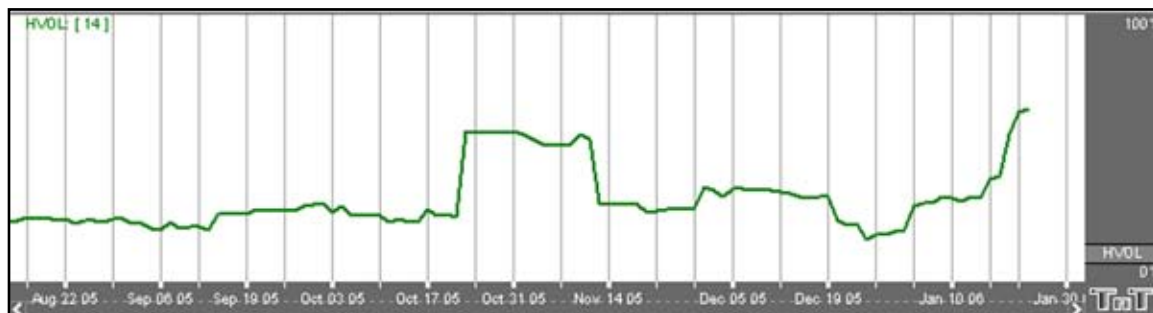
*SSD*: The sum of the squared differences.

*n*: The number of periods for the specified time span.

*TP*: The total number of trading periods for the year.

Due to the complexity of the formula, it is preferable to use a scientific calculator when attempting to manually calculate the historical volatility of a futures instrument.

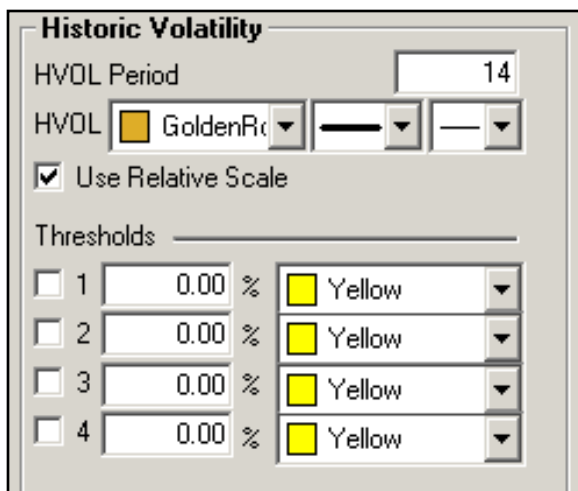
### Example of Historical Velocity in the Indicator Window



## Preferences

Open the Preferences Tab in your Control Panel. Select the HVOL quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**HVOL Period:** The number of bars, or period, used to calculate the study. Default is 20. You may use any number greater than 1 for the close.

**HVOL:** Choose the color, line style, and line thickness of your line. Click to **Use Relative Scale** if you want the 100% location to be changed to the highest point value in the indicator.

View up to four **Thresholds** at values and colors of your choice.

## Moving Average Convergence/Divergence (MACD)

MACD was created in an attempt to determine the strength of a trend along with the direction of that trend. Gerald Appel created a system that looked at two exponential moving averages and the difference between those two averages. Looking at these moving averages of the market we are able to see clear buy and sell signals. We are also able to get a more accurate signal by averaging the difference in the two moving averages.

Computing this indicator requires the use of exponential moving averages. Exponential moving averages are different than simple moving averages; instead of looking at only the last few days and averaging them, the exponential averages look at all the prices and puts more weight on the most recent data. This type of weighted average gives a smoother average price that reacts quickly to market moves. The two averages of MACD move above and below a base line, which gives indication of the strength of the current move. This placement of the two averages in relationship to the base line is calculated by looking at the exponential moving average of the difference between the two averages. Even though the two averages may cross, the divergence, or true indication of the signal, is not shown until both averages cross the base line.

Keeping this in mind, an ideal buy signal is seen on a move where the shorter-term average moves above the other average and both averages cross above the base line of zero. A sell signal would be the opposite of this.

The histogram method of MACD is read as a straight line above or below the zero base line. This line represents the difference between the Moving Averages. When the moving averages move above the base line they are indicating a buy, and as the difference between the averages increases the lines will get taller.

The opposite is true of a sell signal. Track 'n Trade High Finance's ability to display MACD in this fashion is vital because it allows you to read the strength of the current trend along with the signal to buy or sell.

When MACD is plotted as a histogram, the values used to plot the histogram are the differences between the two moving averages on each day. The "trigger" line that appears on this chart is an average of the histogram data, or a smoothed view of the histogram.

Using the MACD as a histogram will allow the trader to spot divergences between the indicator and the market price. A divergence is present when the market makes a higher high than the previous high, but the MACD histogram fails to make a corresponding higher high. This is considered to be a sign of weakness and a sell signal when the MACD breaks below the lowest point in between the divergent highs.

Bullish divergence is seen in an exact opposite fashion. Assume a market has been trending downward. The market has been consistently making lower lows, as has been the MACD histogram indicator. However, eventually the MACD fails to make a lower low, corresponding to the lower low in price. If the MACD histogram line crosses above the highest high in between the divergent lows, then technical lore says higher prices should follow. You also have the choice to view the MACD indicator in a simple line style, instead of the histogram. In this view there is no trigger line. The line style MACD gives buy and sell signals based off of the crossing of the two moving averages.

### Calculation

In this study, the oscillator is the simple difference between the first two exponential moving averages:

$$OSC_t = (EMA1 - EMA2)$$

*OSC<sub>t</sub>*: The oscillator for the current period.

*EMA1*: The first exponential moving average.

*EMA2*: The second exponential moving average.

The second part of the study computes an exponential moving average of the oscillator:

$$EMA_{osct} = EMA_{osct-1} + (k \times (OSC_t - EMA_{osct-1}))$$

*EMA<sub>osct</sub>*: The exponential moving average of the oscillator.

*OSC<sub>t</sub>*: The oscillator for the current interval.

*EMA<sub>osct-1</sub>*: The exponential moving average of the oscillator for the previous interval.

*k*: The exponential smoothing constant.

Since the second value, *EMA<sub>osct</sub>*, is an exponential moving average, it rises and falls slower than the oscillator, and the two lines generate crossover points. These crossover points are the buy/sell signals.

If the study is displayed as a histogram, each value for the lines is calculated:

$$DIFF_t = OSC_t - EMA_{osct}$$

*DIFF<sub>t</sub>*: The difference between the oscillator for the current interval and the exponential moving average of the oscillator.

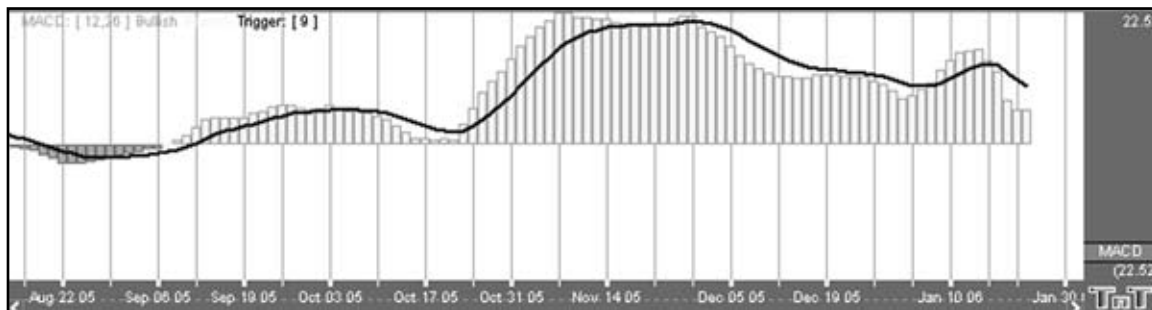
*OSC<sub>t</sub>*: The oscillator for the current interval.

*EMA<sub>osct</sub>*: The exponential moving average of the oscillator.

## Buy/Sell Signals

For a line drawing, a buy signal occurs when the MACD crosses from below the trigger line to above the trigger line, and the trigger line is less than 0. A sell signal occurs when the MACD line crosses from above the trigger line to below the trigger line, and the trigger line is greater than 0. (A histogram drawing with the trigger line works similarly.)

For a histogram drawing, a buy signal occurs when the MACD value crosses from below the 0 line to above the 0 line. A sell signal occurs when the MACD value crosses from above the 0 line to below the 0 line.



## Preferences

Open the Preferences Tab in your Control Panel. Select the MACD quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**MA Convergence / Divergence**

EMA Periods

Bear  DarkGray

Bull  LightGrey

Color in direction of movement

Trigger Period

Trigger  ForestGr

Display as

Calculation

Thresholds

<input type="checkbox"/> 1	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 2	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 3	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 4	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="text" value="Yellow"/>

Buy / Sell Arrows

LightGrey

**EMA Periods:** The first box is used to specify the first EMA with a default of 12. The second box is for the second EMA with a default of 26.

**Bear/Bull:** Choose the color, line style, and line thickness of your line.

**Trigger Period:** Specify the number of days.

**Trigger:** Check this box to hide the Trigger line. You can also change the color and line style of the Trigger.

**Display as:** The MACD indicator can be displayed differently. From the dropdown menu, choose either to view it as a line or as a histogram.

**Calculation:** Select “Standard” or “Extra Smoothing” to choose how you would like your chart to be calculated. Extra Smoothing is a proprietary formula developed by Lan H. Turner, President and CEO of Gecko Software, Inc. This method increases the movement in the MACD indicator and has

shown to be more accurate (in Gecko Software’s market testing) than the standard calculation. Its relationship to the MACD is similar to the relationship between the Fast and Slow Stochastics, think of this indicator as the “Fast MACD.”

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.



## Momentum (MOM)

The momentum indicator describes how price changes occur. It is a measure of the price change and shows if prices are increasing or decreasing at a continuous rate. Momentum can help gauge the current market trend. This indicator will sometimes shift ahead of a price change. It is both an indicator of trend as well as an indicator of a changing trend. The main thing to look for when using it is a divergence or difference between price behavior and the indicators behavior.

Momentum measures the rate of change in prices rather than actual price levels themselves. By measuring this rate of incline or decline, momentum tells whether the current trend is strengthening or weakening. If prices are rising and the momentum indicator is above the zero line, then the trend is gaining strength. If prices were rising but the indicator was sagging or went below the zero line, then we would interpret this as a sign of a coming change in trend. This is true because, although prices were still increasing, they are doing so at a decreasing rate.

The reverse would be true during a declining market. For example, think of a race car gaining 20 miles an hour each lap, until it starts to only gain 15 miles an hour, then 10 mph, then 5 mph until eventually it reaches its top speed. Like a race car, a market can not sustain growing momentum forever, and in many occurrences momentum slows before prices change direction.

Typically, the trade signals are to buy when the momentum indicator crosses from below the zero line to above it. This indicates that a new upward trend has begun, as the market is able to violate resistance levels and continue higher with increasing speed.

The sell signal would be to sell when the line crosses from above the zero line to below it. This indicates that the market is picking up speed to the downside and should be able to violate support areas. It is in this way that this unique indicator is a trend following tool.

Another way to use momentum is to establish regions of overbought or oversold. For example, in a declining market, the prices continue downward and the momentum indicator moves toward more negative but begins to level out. We would be looking for a buy signal when the indicator turned upward and out of that oversold region. It is in this way that momentum can sometimes shift ahead of the price movement. This use of the momentum indicator is a counter trend usage.

In either implementation of this indicator, the key is divergence. Seeing momentum make lower highs while prices are making higher highs, or momentum making higher lows while prices are making lower lows. Being aware of a difference in price movement and the momentum level can help the trader make informed trading decisions.

## Calculation

The general formula to calculate momentum is here:

$$MOM_t = P_i - P_{i-n}$$

*MOM<sub>t</sub>*: The momentum indicator for the current period.

*P<sub>i</sub>*: The price of the *i* interval.

*P<sub>i-n</sub>*: The price *n* intervals ago.

*n*: The number of intervals or length specified.

**Example:** Assume the current price is 7470. This example examines a momentum study using a length of ten trading intervals. The price ten intervals ago is 7400:

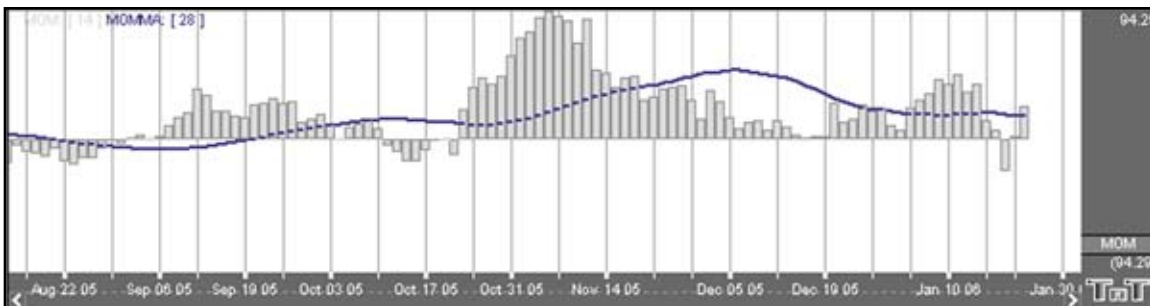
$$MOM = 7470 - 7400 = +70$$

The momentum value can have a very broad range. It is a function of the length you select for the momentum and the volatility of the underlying futures contract. Thus, it could swing very wide and wildly about the zero line.

## Buy/Sell Signals

If we draw MOM with the MOMMA line, a buy signal occurs when the MOM value crosses from below the MOMMA line to above the MOMMA line, and the MOMMA line is greater than 0. A sell signal occurs when the MOM value crosses from above the MOMMA line to below the MOMMA line, and the MOMMA line is greater than 0.

If we draw MOM without the MOMMA line, a buy signal occurs when the MOM value crosses from below the 0 line to above the 0 line. A sell signal occurs when the MOM value crosses from above the 0 line to below the 0 line.



## Preferences

Open the Preferences Tab in your Control Panel. Select the MOM quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Momentum**

MOM Period

MOM

MA

Show MOMMA with Period

Display as

Thresholds

<input type="checkbox"/>	1	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>

Buy / Sell Arrows

**MOM Period:** The number of bars, or period, to be used to calculate the study. You must determine a value suitable to your trading needs and methods. Some technicians argue that the length of the momentum indicator should equal the normal price cycle. The best method is to experiment with different lengths until you find the length that works best for that particular commodity you are trading.

**MOM/MA:** Choose the color, line style, and line thickness of your line. Uncheck the **Show MOMMA** box if you would like to hide the Momentum Moving Average line. You can also specify the number of days used in calculating the MOMMA line.

**Display as:** The MOM indicator can be displayed differently. From the dropdown menu, choose either to view it as a line or as a histogram.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Williams Percent R (%R)

Larry Williams used a ten-day period and plotted where the current price was compared to that period. He used it to measure conditions of overbought and oversold; the overbought region being the area below 20% and the oversold region the area above 80%. With the ability to invert the values, it can be looked at in the same manner as other overbought/oversold indicators. **Note:** We will use the traditional method, not the inverted, in our discussions. Choosing the time period which the indicator looks at the interval is crucial to finding the optimal sensitivity.

Williams's basic rule is simple: when the %R is lower than 20% and becomes greater than 20%, it is interpreted as a buy signal. Conversely, when the %R is higher than 80% and becomes lower than 80%, a sell signal is activated.

Changing the sensitivity of the indicator to work for you is essential to making the study a better tool. The longer the period for the %R, the less sensitive it will be. The indicator will move less but will be more smoothed. A number of technical traders use a value that is less volatile, or in other words, a larger value. Many traders find it better to use a strategy where the market leaves the areas of overbought/ oversold before entering a trade position. In either case, using solid exit strategies is important with this indicator.

### Calculation

You must first determine the highest high and lowest low for the length of the interval. This is the trading range for the specified interval:

$$\%R_t = ( (Highn - Closet) / (Highn - Lown) ) \times 100$$

*%R<sub>t</sub>*: The percent of the range for the current period.

*Highn*: The highest price during the past *n* trading periods.

*Closet*: The closing price for the current period.

*Lown*: The lowest price during the past *n* trading periods.

*n*: The length of the interval.

**Example:** Assume the market is Treasury Bills. The high for the past ten trading intervals is 9275, and the low is 9125. The closing price in the current period is 9267.

This is what you get if you substitute those values in the equation:

$$\begin{aligned} \%R &= ( (9275 - 9267) / (9275 - 9125) ) \times 100 \\ &= (8 / 150) \times 100 \\ &= 5.33 \end{aligned}$$

$$\%R_t = ( (Closet - Lown) / (Highn - Lown) ) \times 100$$

## Buy/Sell Signal

A buy signal occurs when the %R line crosses from below the lower threshold to above the lower threshold. A sell signal occurs when the %R line crosses from below the upper threshold to below the upper threshold.

## Preferences

Open the Preferences Tab in your Control Panel. Select the %R quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Williams' %R**

%R Period: 28

%R: PaleGreen

Calculation: Common ( h - c ) / ( h - l )

Thresholds:

<input type="checkbox"/>	1	80.00 %	Yellow
<input type="checkbox"/>	2	20.00 %	Yellow
<input type="checkbox"/>	3	0.00 %	Yellow
<input type="checkbox"/>	4	0.00 %	Yellow

Buy / Sell Arrows: Not Displayed, PaleGreen

When calculating Buy / Sell arrows for %R:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**%R Period:** The number of price bars, or the interval, used to calculate the study. Default is 10

**%R:** Choose the color, line style, and line thickness of your line.

**Calculation:** Choose between common or updated calculations.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 80 and 20).

Choose when you want **Buy/Sell Arrows** to show and what color.

## Relative Strength Index (RSI)

The RSI was developed by J. Welles Wilder, Jr., as a measure of the market's strength or weakness. The principle idea of this study is that it will indicate a general zone that the market is in, either the buy zone or the sell zone. This indicator is similar to Stochastics in that it shows regions of overbought and oversold. This indicator should be incorporated into a system rather than using it by itself. Wilder's popular indicator is known for its accuracy and its ability to compensate for erratic price movement.

RSI computes the difference in recent prices as a solid line and plots this line on a scale similar to the scale used by Stochastics. The area above 70 is generally considered to be the overbought region, and the region below 30 is referred to as the oversold region. Simply selling in the overbought region and buying when the RSI is in the oversold region is not a consistent method of trade. Trade signals are not generated until the RSI leaves these regions. A sell signal would not be present until the RSI has begun sloping down and leaves the 70 region.

A buy signal, in the simple methodology associated with this pattern, is derived when RSI leaves the oversold region, crosses from below 30 to above it. Just like sell signals, RSI buy signals are present when the market begins to turn and the indicator leaves the oversold region.

Another use of the RSI is to look for a divergence in prices, in the case of a market making higher highs or lower lows and the RSI failing to follow suit. This difference in the indicator and the market could be a signal that the market lacks the momentum to continue its current price direction. So, you may be able to take a position sooner using this strategy, than you would with the previous way. Wilder says that this divergence is "the single most indicative characteristic of the RSI."

In its calculation the RSI indicator uses a moving average of price changes over the period. You can select which type of moving average is used to produce the desired amount of smoothing on the RSI indicator.

### Calculation

The RSI computations are not difficult, but they are tedious. You first calculate the difference between the current closing price and the previous closing price:

$$DIF_t = Close_t - Close_{t-1}$$

If that difference is a positive value, then it is an up period, which means the current close is higher than the previous close. If the difference is negative, then it is a down period, which means the current close is below the previous close. The DOWN value is always a positive number for all computations. It is the absolute value of a negative DIF. The worksheet on the next page shows the calculations needed to create a 9 period RSI.

Day	Current Close	Previous Close	Dif	Up	Down
1	7450	7430	+20	20	0
2	7460	7450	+10	10	0
3	7470	7460	+10	10	0
4	7480	7470	+10	10	0
5	7485	7480	+5	5	0
6	7490	7485	+5	6	0
7	7480	7490	-10	0	10
8	7470	7480	-10	0	10
9	7455	7470	-15	0	15
			Totals	60	35

You now compute the up and down averages:

$$U_t = (UP_1 + \dots + UP_n) / n$$

$$D_t = (DOWN_1 + \dots + DOWN_n) / n$$

*U<sub>t</sub>*: The up average for the current period.

*D<sub>t</sub>*: The down average for the current period.

*UP<sub>n</sub>*: The UP value for the nth period.

*DOWN<sub>n</sub>*: The DOWN value for the nth period.

*n*: The number of periods for the RSI.

Use the values from the worksheet to find the up average:

$$U = 60 / 9 \\ = 6.67$$

Use the same values to find the down average:

$$D = 35 / 9 \\ = 3.89$$

The general formula for the RSI:

$$RSI_t = ( U_t / (U_t + D_t) ) \times 100$$

Use the general formula with the above values:

$$RSI = ( 6.67 / ( 6.67 + 3.89 ) ) \times 100$$

$$= 63.16$$

Assume the market continues the downward trend. The next DIF value is -15, which sets the UP value to 0 and the DOWN value to 15. Calculate the next up and down average by using Wilder’s accumulative moving average technique:

$$UT = ( ( UT-1 \times (n-1) ) + UPt ) / n$$

$$= ( ( 6.67 \times (9 - 1) ) + 0 ) / 9$$

$$= 5.93$$

$$DT = ( ( DT-1 \times (n-1) ) + DOWNt ) / n$$

$$= ( ( 3.89 \times (9 - 1) ) + 15 ) / 9$$

$$= 5.12$$

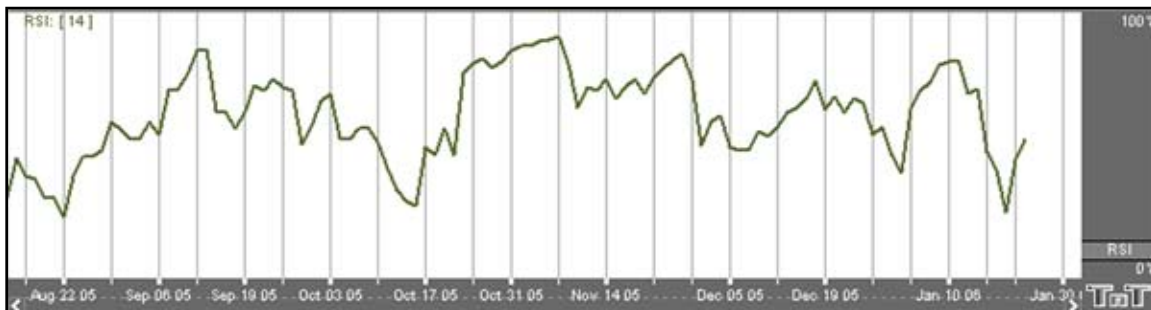
The value for the new RSI equals 53.67:

$$RSI = ( ( 5.93 ) / ( 5.93 + 5.12 ) ) \times 100$$

$$= 53.67$$

### Buy/Sell Signals

A buy signal occurs when the RSI line crosses from below the lower threshold to above the lower threshold. A sell signal occurs when the RSI line crosses from above the upper threshold to below the upper threshold.





## Preferences

Open the Preferences Tab in your Control Panel. Select the RSI quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Relative Strength Index**

RSI Period

RSI

Calculation

Thresholds

<input type="checkbox"/>	1	<input type="text" value="70.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="30.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>

Buy / Sell Arrows

When calculating Buy / Sell arrows for RSI:  
Threshold 1 is used as the upper threshold.  
Threshold 2 is used as the lower threshold.

**RSI Period:** The number of bars, or period, used to calculate the study. Default is 14.

**RSI:** Choose the color, line style, and line thickness of your line.

**Calculation:** Choose between Exponential, Simple, and Wilder's Smoothing calculations.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 70 and 30).

Choose when you want **Buy/Sell Arrows** to show and what color.

## Slow Stochastics (SSTO)

The slower version of Stochastics is commonly believed to be a more reliable indicator. In this version of Stochastics, the more sensitive %K line is dropped. The original %D now becomes the slower line %K. The new %D is a 3-day moving average of the %K. This basically gives you a smoothed version of the original indicator. This modified counter trend indicator is less reactive but considered to be more accurate.

Slow Stochastics are interpreted the same as Fast Stochastics. Quite often the faster of the two indicators moves in and out of the overbought/oversold regions quickly.

### Calculation

The calculations for the slow stochastic are similar to the normal stochastic. The first step in computing the stochastic indicator is to determine the  $n$  period high and low. Suppose you specified twenty periods for the stochastic. Determine the highest high and lowest low during the last twenty trading intervals. It determines the trading range for that time period. The trading range changes on a continuous basis.

The calculations for the %K is here:

$$\%K_t = ( (Close_t - Low_n) / (High_n - Low_n) ) \times 100$$

*%K<sub>t</sub>*: The value for the first %K for the current time period.

*Close<sub>t</sub>*: The closing price for the current period.

*Low<sub>n</sub>*: The lowest low during the  $n$  periods.

*High<sub>n</sub>*: The highest high during the  $n$  time periods.

*n*: The value you specify.

Once you obtain the %K value, you start computing the %D value, which is an accumulative moving average. Since the %D is a moving average of a moving average, it requires several trading intervals before the values are calculated properly. If you specify a 20 period stochastic, the software system requires 26 trading intervals before it can calculate valid %K and %D values. The formula for the %D is here:

$$\%D_T = ( (\%D_{T-1} \times 2) + \%K_t ) / 3$$

*%D<sub>T</sub>*: The value for %D in the current period.

*%D<sub>T-1</sub>*: The value for %D in the previous time period.

*%K<sub>t</sub>*: The value for %K in the current period.

The values 2 and 3 are constants. You specify the constants and the length of the time period to examine for the trading range.

Once the %K and %D values for the normal stochastic are derived, the slow stochastic can be computed. The formula for the slow stochastic is here:

$$\%KSLOW = \%DNORMAL$$

$$\%DSLOW_t = ( (\%D SLOW_{t-1} \times 2) + \%K SLOW_{t-1} ) / 3$$

*%KSLOW*: The %D for the normal stochastic.

*%DSLOW<sub>t</sub>*: Slow %D value for the current period.

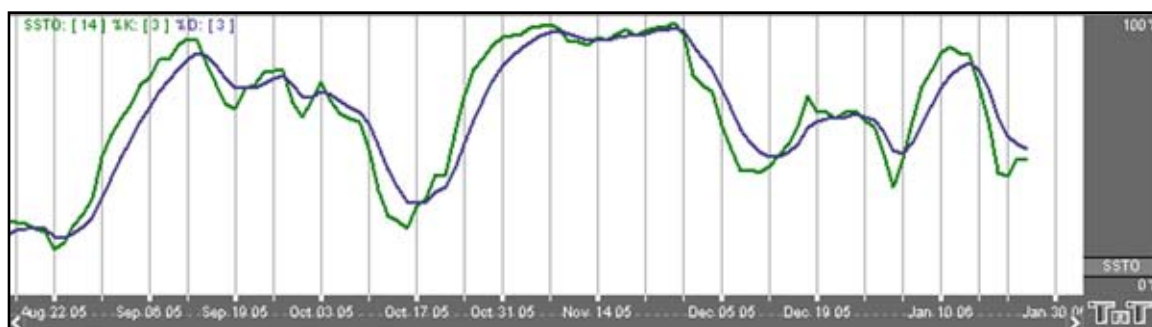
*%DSLOW<sub>t-1</sub>*: The slow %D for the previous period.

*%KSLOW<sub>t-1</sub>*: The slow %K for the previous period.

The values 2 and 3 are the smoothing constants. You may select different values.

## Buy/Sell Signals

A buy signal occurs when the %K line crosses from below %D to above %D and both lines are less than the lower threshold. A sell signal occurs when the %K line crosses from above the %D line to below the %D line and both lines are greater than the upper threshold.



## Preferences

Open the Preferences Tab in your Control Panel. Select the SSTO quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Slow Stochastic**

SSTO Period

Smoothing %K  %D

%K  LawnGreen

%D  DeepSkyBlue

Calculation

Thresholds

<input type="checkbox"/>	1	<input type="text" value="80.00"/>	%	<input type="color" value="Yellow"/>	Yellow
<input type="checkbox"/>	2	<input type="text" value="20.00"/>	%	<input type="color" value="Yellow"/>	Yellow
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	Yellow
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/>	Yellow

Buy / Sell Arrows

Green

When calculating arrows for SSTO:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**SSTO Period:** The number of periods used to determine the highest high and lowest low. Default is 14.

**Smoothing:** The number of periods used to determine the moving average for the %K and %D values.

**%K/%D:** Choose the color, line style, and line thickness of your %K and %D lines.

**Calculation:** Choose between Exponential, Simple, and Wilder's Smoothing calculations.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 80 and 20).

Choose when you want **Buy/Sell Arrows** to show and what color.

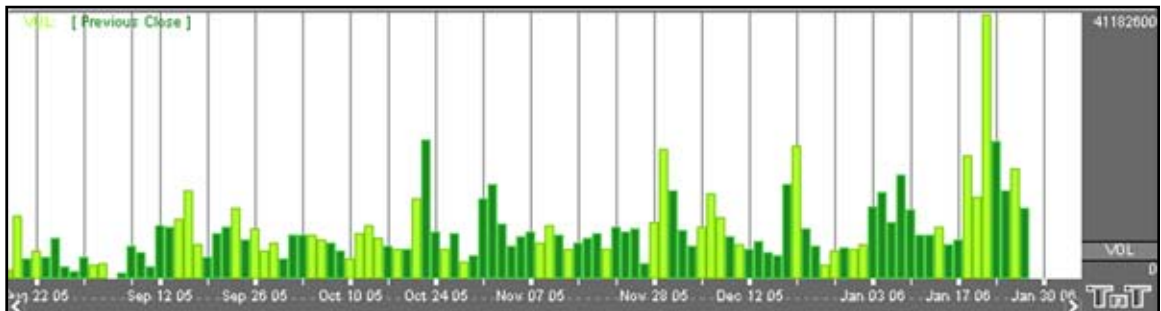
## Volume (VOL) (Stocks only)

Volume is a measurement of the number of contracts traded in a day. It is a sign of market activity. In liquid markets, these numbers will be consistently higher than in a thin or illiquid market. These numbers are always a day behind, because it takes the exchange that long to tabulate these figures. When displayed, Track 'n Trade High Finance offsets these values to put them beneath their respective data in the chart, consequently there is not a value for volume for the most recent day of any contract. Volume indicates participation and urgency. This tells the trader which market is the correct one to be in based on its participation.

Volume measures the number of contracts that changed hands during that trading session. This indicator of market activity can show whether trade was heavy or light. That will give you an idea of the possible volatility present in that market. VOL does not give straight buy or sell signals or have set trading rules. Rather it shows the cyclical tendencies of the market. The flow of the underlying market can be represented. Looking at VOL shows whether new buyers or sellers are entering the market or if they are liquidating positions.

There are basic common sense rules for this indicator. If the prices are up and VOL is increasing, the market is strong. If the prices are up and VOL is declining, the market is getting weaker. If the prices are down and VOL is rising, the market is getting stronger. If the prices are down and VOL is declining, the market is getting weaker.

In bull markets, volume tends to increase during rallies, and tends to decrease on reactions. In bear markets, volume tends to increase on declines and decrease during rallies. Trading volume usually increases dramatically at tops and bottoms. Looking at the volume can help you determine the liquidity of the market.



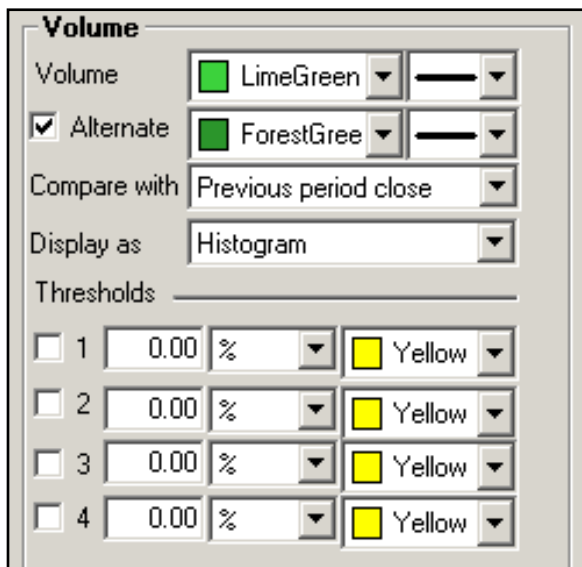
### Calculation

This study has no computations. The values for volume are transmitted from the exchanges. However, the actual volume figures are always one day behind price information. You will not know Monday's volume until Tuesday at approximately noon (for U.S. markets - central time). That is due to the exchanges and their reporting requirements.

## Preferences

Open the Preferences Tab in your Control Panel. Select the VOL quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Volume:** Choose the color, line style, and line thickness of your Volume line.

**Alternate:** Select to view the Volume indicator in two colors. Choose the color, line style, and line thickness of your Alternate line.

**Compare with:** When the Alternate option is selected, you can compare the price day to day based on Previous Period Open (high, low, and close) or the Current Period Open (high or low).

**Display as:** The VOL indicator can be displayed differently. From the dropdown menu, choose either to view it as a line or as a histogram.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 80 and 20).

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## Overlay Indicators in the Chart Window

There are two Overlay Indicators that can be displayed in the Chart Window, Moving Averages and Bollinger Bands. To select these Indicators, right-click on the Chart Window and select the name of the indicator that you would like to display on the chart.

### Moving Average Lines

The moving average, or simple moving average, represents the average of the last several closing prices. The moving average is simple to compute, easy to understand, and reliable under tests. This simplicity is the strength of the moving average.

The basic moving average is computed the same as any other mathematical average. The most common way of determining the moving average of a market is to take the closing price over a certain number of days, add them together, and divide by the select number of days.

Moving averages are generally thought to be indicators of trend. For example, conventional interpretation is that once prices cross from below the moving average to above it, the trend is considered up. On the other hand, if prices go from above the moving average to below it, the trend of the market is considered down.

The purpose of the simple moving average is to track the progress of the trend. Moving averages can potentially keep you in the trend for a long time. The moving average gives you an indication of the trend being up (prices above the moving average) or down (below the moving average). However, the moving average gives you no indication of the length or duration of the trend.

### Double Moving Average

Double moving averages use two different averages in tandem. The first average is generally a faster reacting average using a shorter period of time, usually 10 days. The second average is a slower reacting average that will indicate longer-term price movement.

Using these two averages together helps to alleviate whipsaws by giving a basis of comparison. The faster average breaking above the slower average is a buy signal, the faster average breaking below the slower average is a sell signal.

When using two different moving averages the trader gets a clearer picture of price indications. By combining a slower moving 20-day average, with a quicker reacting 10-day average, you can see where the long-term indications are going.

You would sell once the faster moving average crosses below the slower trend because that's an indication of change in trend. Near-term prices should be rising at a greater rate than longer-term prices in a good upward trending market, and vice versa for a down trend.

## Triple Moving Average

The system of triple moving averages is employed by plotting three different moving averages together. The first of these averages is a faster average that only looks at the short-term price direction. The second average is a medium average that reacts to a longer period of time, but not as long as the final average. The third average is the slowest to react, because it takes an average of the longest period of time.

A 10, 20, and 40 day moving average system would be considered a triple moving average. The first average, the 10-day, is the quickest to move when prices show a change. The second average, the 20-day, is the medium average that does not show change until the prices have moved for a longer period of time. Finally the slowest moving of the averages is the 40-day. This slow average will not indicate a difference until prices have made a significant move. Shorter-term moving averages, being more sensitive to changes in price, are said to follow the trend more closely. The middle or medium average would follow less closely and the slowest or least sensitive average would lag the most.

The use of the triple moving average is to buy when all three averages move to be in an upward trend or to sell when these averages are in a downtrend. The upward trend appears when the fastest average is higher than both of the other averages, the medium is above the slowest, and the longer term moving average is on the bottom.

This look would be reversed for a strong down trend with slow average on top, followed by the medium average, and the fastest on bottom.

### Calculation

The calculation for the moving average is here:

$$Mat = (P1 + \dots + Pn) / n$$

*Mat*: The moving average for the current period.

*Pn*: The price for the *n*th interval.

*n*: The length of the moving average.

Compute the average of the past *n* intervals using the price specified for that period. Now use real values to compute a five interval moving average. If you assume the following prices, the calculations are here:

$$\begin{aligned} MA &= (7380 + 7375 + 7385 + 7390 + 7395) / 5 \\ &= 36925 / 5 \\ &= 7385 \end{aligned}$$



The calculation for the Linearly Weighted is here:

$$Mat = [(P1 \times (n - 1)) + \dots + [Pn \times (n - n)]$$

$$Denom = n + n - 1 + n - 2 + \dots + 1$$

$$MA = Mat / Denom$$

$n$ : The length of the moving average.

$Pn$ : The price for the  $n$ th interval.

$MA$ : The moving average for the current period.

The calculation for the Exponential is here:

$$fPerc = 2 / (n + 1)$$

$$MA_t = (P \times fPerc) + [MA(t-1) \times (1 - fPerc)]$$

$MA$ : The moving average for the current period.

$t$ : The current time period.

## Example of Moving Averages



## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the moving average line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Moving Average Lines

Average 1

Line ■ FireBrick — —

Period

Type Simple

Data Close

Average 2

Line ■ BlueViolet — —

Period

Type Simple

Data Close

Average 3

Line ■ Violet — —

Period

Type Simple

Data Close

Average 4

Line ■ Orange — —

Period

Type Simple

Data Close

Average 5

**Line:** Choose the color, line style, and line thickness of your indicator line.

**Period:** The number of bars, or interval, used to calculate the moving averages. To add a **displacement**, add a second number in the period box (with only a space between the two numbers.)

**Type:** Select Simple, Linear Weight, or Exponential.

**Data:** Select Open, High, Low, Close, Mean, Median, or Mode.

## Bollinger Bands

Bollinger Bands are a type of trading envelope. They are lines at an interval around the moving average. They consist of a moving average and two different standard deviations represented as a line above the MA (Moving Average) and a line below the MA. The line above is the MA plus two standard deviations; the line below is the MA minus two standard deviations. Bollinger Bands are used to determine overbought and oversold conditions and to project price targets.

John Bollinger created Bollinger Bands in an effort to gauge the volatility and condition of a market. These bands are used to determine the trading range and give an indication of when to buy and when to sell. Bollinger Bands are also used to indicate market volatility, the wider the bands the greater the volatility. Inversely, the narrower the bands, the lesser the volatility. By plotting two lines at an interval around a moving average, Bollinger bands give a good indication of market conditions and price relation. The moving average which the band is based on works as an indicator to confirm trade signals.

### Calculation

Calculate the moving average with this formula:

$$MA = \frac{(P_1 + \dots + P_n)}{n}$$

Subtract the moving average from each of the individual data points used in the moving average calculation. This gives you a list of deviations from the average. Square each deviation and add them all together. Divide this sum by the number of periods you selected.

$$d = \frac{(P_1 - MA)^2 + (P_2 - MA)^2 + \dots + (P_n - MA)^2}{n}$$

Take the square root of  $d$ . This gives you the standard deviation.

$$\delta = \sqrt{d}$$

Compute the bands by using the following formulas:

$$\text{Upper Band} = MA + 2 \delta$$

$$\text{Middle Band} = MA$$

$$\text{Lower Band} = MA - 2 \delta$$

$P_n$ : The price you pay for the  $n$ th interval.

$n$ : The number of periods you select.

### Buy/Sell Signals

A buy signal occurs when a chart bottom is below the lower band followed by a bottom above the lower band. A sell signal occurs when a chart top is above the uppermost band followed by another top that is below the upper band.

Using Indicators



## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Bollinger Bands line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Period:** The number of bars used to calculate the study. John Bollinger, the creator of this study, states that those periods of less than ten days do not seem to work well for Bollinger Bands. He says the optimal period for most applications is 20 or 21. Default is 20.

**Type:** Select Simple, Linear Weight, or Exponential.

**Data:** Select Open, High, Low, or Close.

**% Deviation:** The percent of one standard deviation. John Bollinger suggests that if you reduce the number of days used to calculate the bands, you should also reduce the number of deviations and vice versa. For example, 200 percent of a standard deviation means two deviations above and two deviations below the moving average. If you use a period of 50, you may want to use 250 percent of a standard deviation. For a period of 10, you may want to use 150 or 100 percent.

**Upper, Middle, Lower:** Choose the color, line style, and line thickness of your indicator line.



# Advanced Indicators

Analyze the Signs and Signals  
\*Expansion Pack - Purchase Required

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## Introduction

This section covers the basics of using the Advanced Indicator Expansion Pack. Learn about each advanced indicator, its calculation and interpretation, and how to apply it in Track 'n Trade High Finance. The Advanced Overlay Indicators can be displayed in the Chart Window and select the name of the Advanced Indicator that you would like to display.

## Average True Range (ATR)

The Average True Range Indicator was developed by Welles Wilder to work with the commodity industry. The purpose of the ATR is to recognize the level of volatility in a market.

Volatility is a measurement of the change in price over a given period. It is often expressed as a percentage and computed as the annualized standard deviation of the percentage change in daily price.

When a market is going sideways, it typically exhibits low volatility and is difficult to trade. A market with higher volatility is typically trending better which would produce more opportunities to get into a trade. If a market's volatility is too high, traders find that the market is too erratic, and it becomes difficult to trade. In using the ATR, traders hope to measure the level of volatility to help them interpret the different markets they are watching. It is important to remember to consult other indicators or analysis so that you are not relying on only one indicator to determine market entry or exit.

The ATR's value is a measurement of the market volatility. When a market is increasing in volatility the ATR will have a higher value, and when the market is decreasing in volatility the ATR will have a lower value.

### Calculation

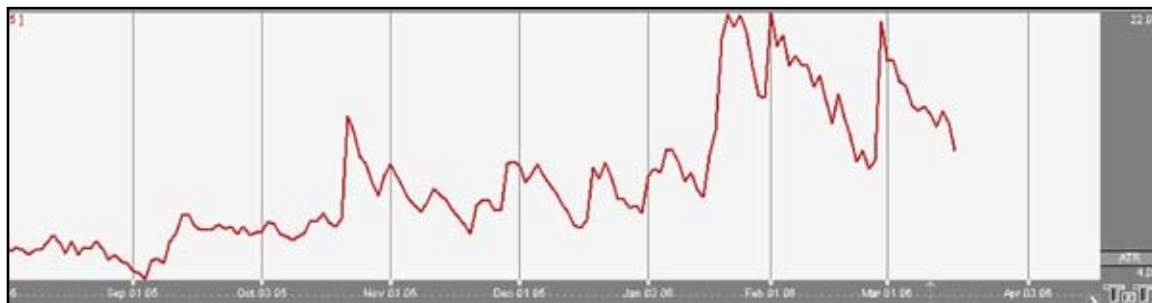
The ATR is a moving average of the True Ranges defined below. The default period interval in Track 'n Trade High Finance is 5 days. The ATR is calculated based on the largest of the three distances from the following:

*Today's HIGH to today's LOW*

*Yesterday's CLOSE to today's HIGH*

*Yesterday's CLOSE to today's LOW*

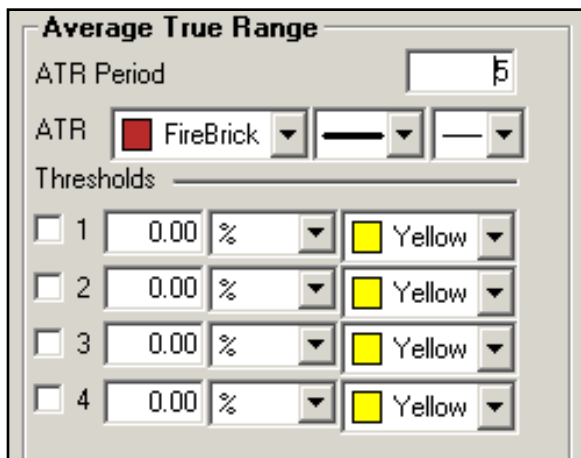
### Example of the ATR in the Indicator Window



### Preferences

Open the Preferences Tab in your Control Panel. Select the ATR quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Period:** Specify the number of days to be used in calculating the ATR.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice.

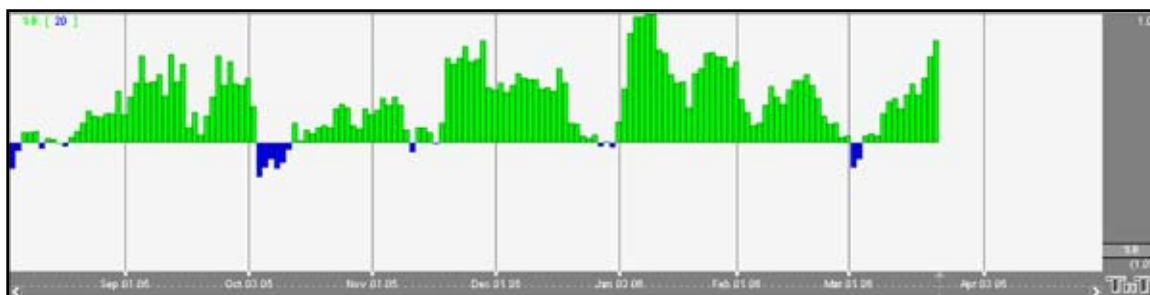
## Percent Bollinger Bands (%B)

Bollinger Bands are calculated as a simple moving average shifted up and down by a number of standard deviations. Percent Bollinger Bands relate the underlying price of an instrument to the range of these Bollinger Bands. This gives the user an adaptive measure of volatility which can be used in the same way as other momentum indicators. Buy when the indicator bottoms below 0.00 and turns up, and sell when the indicator peaks above 100.00 and turns down.

You can also use the indicator by looking for divergence between the indicator and the charts. Sharp price advances and declines usually accompany market tops and bottoms, and as a market climbs or falls toward a bottom, the indicator will tend to initially follow the price trend and then fall off, leading to bullish or bearish divergences with the chart.

### Buy Sell Signals

A buy signal occurs when %B value crosses from below the 0 line to above the 0 line. A sell signal occurs when %B value crosses from above the 0 line to below the 0 line.



### Preferences

Open the Preferences Tab in your Control Panel. Select the %B quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**%B**

Period

Type

Data

% Deviation

Display as

B +

B -

Thresholds

1

2

3

4

Buy / Sell Arrows

**Period:** Specify the number of days to be used in calculating the %B.

**% Deviation:** Define the displacement between the bands.

**Type:** Choose from Simple, Linear Weight, or Exponential.

**Data:** Choose from Open, High, Low, or Close.

**Display as:** Choose to view as a Histogram or Line.

**B+/B-:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Bollinger Bandwidth (BW)

Bollinger Bands measure volatility by placing bands on either side of a moving average. These bands are charted two standard deviations away from the average. As the average changes, the values of the two standard deviations also change. The Bollinger Bandwidth, developed by John Bollinger, represents the expanding and contracting of the bands based on recent volatility.

During a period of rising price volatility, the distance between the two bands will widen (BB Width will increase). Conversely, during a period of low market volatility, the distance between the two bands will contract (BW will decrease).

The tendency is for the bands to alternate between expansion and contraction. When the bands are unusually far apart, it is often a sign that the current trend may be ending. When the distance between the two bands has narrowed, it is often a sign that a market may be about to begin a new trend.

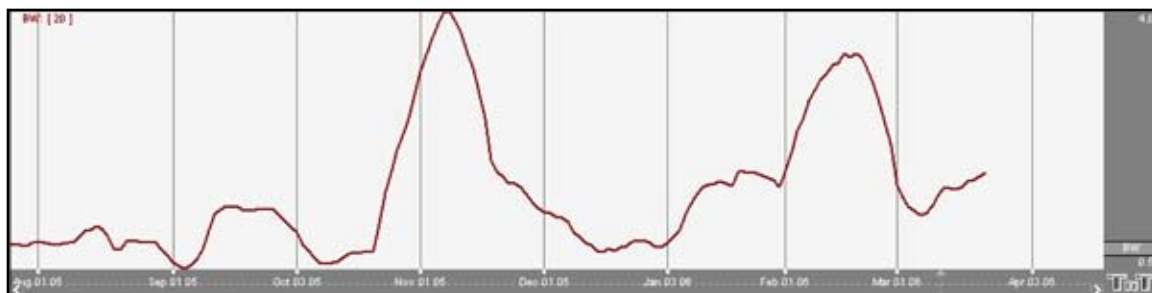
The BW gives an indication of how wide the Bollinger Bands are as a function of the middle band. It is used to identify the squeeze at low values and the end of trends at high values.

### Calculation

The calculation of the BW is here:

$$\text{Bollinger Bandwidth} = \frac{[\text{Top Bollinger Band } (x \text{ periods})] - [\text{Bottom Bollinger Band } (x \text{ periods})]}{\text{Simple Moving Average Close } (x \text{ periods})}$$

### Example of the BW in the Indicator Window



## Preferences

Open the Preferences Tab in your Control Panel. Select the BW quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Bollinger's Bandwidth**

Period: 20

Type: Simple

Data: Close

% Deviation: 200

Line: Lime, Solid, Thin

Thresholds:

<input type="checkbox"/>	1	0.00	%	Yellow
<input type="checkbox"/>	2	0.00	%	Yellow
<input type="checkbox"/>	3	0.00	%	Yellow
<input type="checkbox"/>	4	0.00	%	Yellow

**Period:** Specify the number of days to be used in calculating the BW.

**% Deviation:** Define the displacement between the bands.

**Type:** Choose from Simple, Linear Weight, or Exponential.

**Data:** Choose from either Open, High, Low, or Close.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice.

## Chaikin Money Flow (CMF)

The Chaikin Money Flow Indicator is an oscillator developed by Marc Chaikin. An oscillator is an indicator that is used as a counter trend showing when the market is overbought or oversold. These indicators are momentum based. The CMF is based largely on the Accumulation Distribution Line; it compares the close value with the high and the low for that same day.

By comparing the close to the high and low, the CMF is determining if the market has pressure to sell or buy. In doing this, the CMF is giving an indication of overbought and oversold by using these comparisons. If the market is consistently closing in the top region of the price bar and there is an increase in volume (showing an increase in the number of trades) then CMF exhibits a positive value. If the market is consistently closing in the bottom region of the price bar and there's an increase in volume, CMF exhibits a negative value.

When the CMF indicator crosses the zero line either up or down, this is an indication of a change in trend. Traders use this indicator to help confirm breakout signals from either support or resistance trend lines.

### Calculation

The calculation of the CMF is here:

$$CMF = \frac{SUM(AD, n)}{SUM(VOL, n)}$$

where  $n = \text{Period}$

$$AD = VOL \times \frac{(CL - OP)}{(HI - LO)}$$

*AD stands for Accumulation Distribution*

### Buy/Sell Signals

A buy signal occurs when the CMF value crosses from below the 0 line to above the 0 line. A sell signal occurs when the CMF value crosses from above the 0 line to below the 0 line.



## Preferences

Right-click on the CMF button in your Indicator toolbar and select CMF Settings. The Preferences Tab will open in the Control Panel and the CMF preferences will be displayed. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Period:** Specify the number of days to be used in calculating the CMF.

**CMF+/CMF-:** Choose the color, line style, and line thickness of your lines.

**Display as:** Choose between displaying CMF as a histogram or a line.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.



## Gator (GTR)

Fractal geometry and nonlinear dynamics is used to create the method of calculations for the Gator Indicator. Used in combination with the Alligator, an Overlay Indicator, the Gator has proved to be effective at pinpointing large market trends.

The Gator was created on a relative scale; what seems to be a large move in the market today may well be just a small move on the historical scale, since the Gator graphically represents itself only against its own historical price line. As the market trends, the Gator will also trend, causing historical representations of market momentum and movement to pale in comparison.

### Preferences

Open the Preferences Tab in your Control Panel. Select the GTR quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

	Period	Shift
Jaws	13	8
Teeth	8	5
Lips	5	3

Type	Exponential
Data	Close
Value Up	Lime
Value Down	Red

Threshold	Value	Unit	Color
<input type="checkbox"/> 1	0.00	%	Yellow
<input type="checkbox"/> 2	0.00	%	Yellow
<input type="checkbox"/> 3	0.00	%	Yellow
<input type="checkbox"/> 4	0.00	%	Yellow

**Restore Settings:** TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Jaws, Teeth, Lips:** Specify your periods and shift specifications.

**Type:** Select Simple, Linear Weight, or Exponential.

**Data:** Choose the data you would like to be calculated.

**Up/Down:** Select the color of the histogram when the value is up or down.

View up to four **Thresholds** at values and colors of your choice.

## Know Sure Thing (KST)

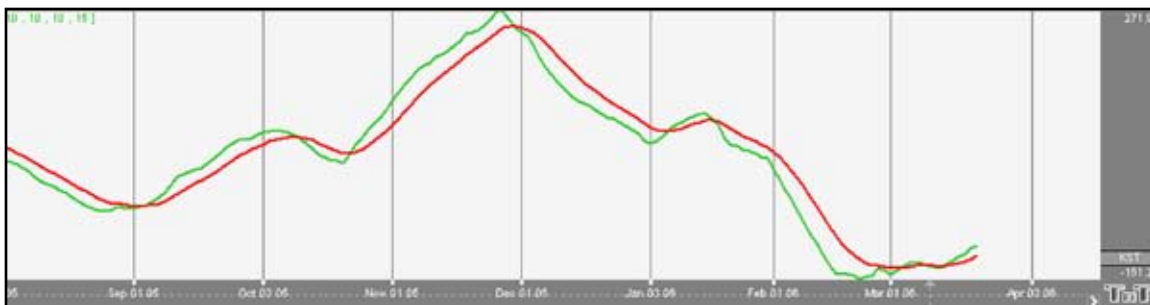
The Know Sure Thing (KST) Indicator is an oscillator developed by Martin J. Ping that gives bullish and bearish momentum signals. The difference between this indicator and other oscillators is that it takes into consideration four time periods instead of only one. Each time period is smoothed using a moving average. Also, each time period is weighted differently depending on length, so a longer time period would have greater weight. Because of the consideration of the various time periods, the KST is able to react quicker to price moves.

Watch for bullish and bearish momentum signals in the KST indicator. When the KST turns upward, this is a bullish signal, and when the KST turns down, this is a bearish signal. More confirmation is given when the trigger line crosses the KST line as a result of the change in direction.

There are two lines: the trigger line and the KST line. The KST line is a result of the four moving averages smoothed as well as the Rate of Change or ROC. The trigger line is a moving average of the KST.

### Buy/Sell Signals

A buy signal occurs when the KST line is below the 0 line and crosses from below the trigger line to above the trigger line. A sell signal occurs when the KST line above the 0 line and crosses from above the trigger line to below the trigger line.



### Preferences

Open the Preferences Tab in your Control Panel. Select the KST quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Know Sure Thing**

	Period	Roc Period
MA 1	10	5
MA 2	10	20
MA 3	10	25
MA 4	15	30

Trigger Period:

Type:

Calculation:

KST:

Trig:

Thresholds

<input type="checkbox"/> 1	<input type="text" value="0.00"/>	<input style="width: 50px;" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 2	<input type="text" value="0.00"/>	<input style="width: 50px;" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 3	<input type="text" value="0.00"/>	<input style="width: 50px;" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/> 4	<input type="text" value="0.00"/>	<input style="width: 50px;" type="text" value="%"/>	<input type="text" value="Yellow"/>

Buy / Sell Arrows

**MA:** Specify the number of days used in calculating the period and ROC period of the 1, 2, 3, and 4 moving average lines.

**Trigger Period:** Specify the number of days used in calculating the trigger period. Choose between a histogram or line.

**Type:** Choose if you would like to see KST as a histogram or line.

**Calculation:** Choose between Simple, Linear Weight, and Exponential.

**KST/Trigger:** Choose the color, line style, and line thickness of your KST and trigger lines.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Money Flow Index (MFI)

The MFI is a momentum based indicator, similar to the RSI, %R, and CCI. The MFI incorporates a more rigid calculation, giving the tell tale signs of a more rigid line and a better indication of money flowing in or out of any given security.

The theory says that as money flows into the equity, or volume increases, the MFI will increase its rate of climb. As money flows out of the equity, volume decreases, and the MFI will decrease its rate of climb. The MFI is a classic overbought/oversold indicator based on a 0-100 scale.

When the MFI reaches up above the top threshold, which is traditionally set at 75-80%, the equity is considered overbought and a retracement is anticipated. When the MFI line reaches below the 20-25% threshold, the underlying equity is considered oversold and a reversal is anticipated once again.

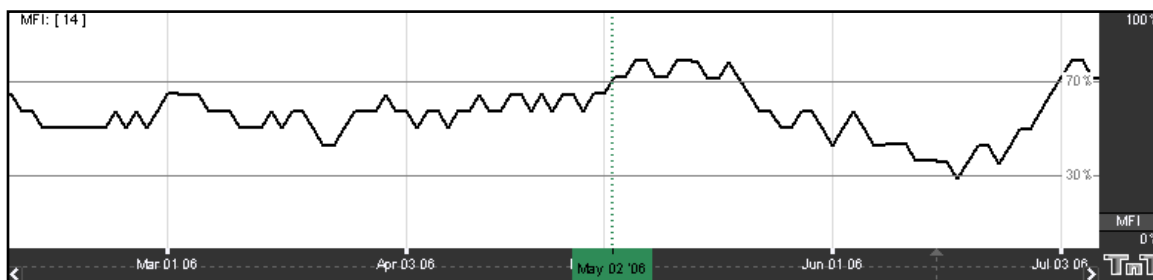
### Calculation

The calculation of MFI is here:

$$\text{Money Flow} = (\text{Typical Price}) \times (\text{Volume})$$

### Buy/Sell Signals

A buy signal occurs when the MFI line crosses from below the lower threshold to above the lower threshold. A sell signal occurs when the MFI line crosses from above the upper threshold to below the upper threshold.



### Preferences

Open the Preferences Tab in your Control Panel. Select the MFI quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Money Flow Index**

MFI Period

MFI  ForestGre

Thresholds

<input type="checkbox"/>	1	<input type="text" value="75.00"/>	%	<input type="color" value="Yellow"/> Yellow
<input type="checkbox"/>	2	<input type="text" value="25.00"/>	%	<input type="color" value="Yellow"/> Yellow
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/> Yellow
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="color" value="Yellow"/> Yellow

Buy / Sell Arrows

ForestGreen

When calculating Buy / Sell arrows for MFI:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**Period:** Specify the number of days to be used in calculating the MFI.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used at the lower threshold (default values set at 75 and 25).

Choose when you want **Buy/Sell Arrows** to show and what color.

## On Balance Volume (OBV)

The OBV indicator adds a period volume when the close is up and then subtracts the period's volume when the indicator closes down. An accumulated volume total forms the OBV line. When comparing this calculated price line, with the underlying security, we look for areas of convergence and divergence to confirm our market's directional movement.

The concept behind the OBV is that changes will be reflected in the OBV prior to the markets change. A rise in volume is meant to indicate a rise in money inflows to the security. Once the public continues to add money, the price of the equity should continue to rise.

Directional movement in the indicator gives foresight into the market direction. A rise in the OBV indicator gives the trader the indication that markets are on the rise; a dropping OBV is an indication of a weakening market and lower prices are soon to follow.

When market divergence is seen within the OBV indicator, one must take heed that the market is either weakening in a bullish trend, or strengthening in a bearish trend, and a market reversal is about to occur. The actual calculated value of the line itself is of little use, but the visual movement of the line is what's important to the trader. An inclining line is the indication of a strengthening market, and a declining line is representative of declining market strength.

### Example of the OBV in the Indicator Window



### Preferences

Right-click on the OBV button in your Indicator toolbar and select OBV Settings. The Preferences Tab will open in the Control Panel and the OBV preferences will be displayed. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**On Balance Volume**

OBV  Crimson — —

Thresholds \_\_\_\_\_

<input type="checkbox"/>	1	<span style="border: 1px solid gray; padding: 2px;">0.00</span>	<span style="border: 1px solid gray; padding: 2px;">%</span>	<span style="border: 1px solid gray; padding: 2px;">Yellow</span>
<input type="checkbox"/>	2	<span style="border: 1px solid gray; padding: 2px;">0.00</span>	<span style="border: 1px solid gray; padding: 2px;">%</span>	<span style="border: 1px solid gray; padding: 2px;">Yellow</span>
<input type="checkbox"/>	3	<span style="border: 1px solid gray; padding: 2px;">0.00</span>	<span style="border: 1px solid gray; padding: 2px;">%</span>	<span style="border: 1px solid gray; padding: 2px;">Yellow</span>
<input type="checkbox"/>	4	<span style="border: 1px solid gray; padding: 2px;">0.00</span>	<span style="border: 1px solid gray; padding: 2px;">%</span>	<span style="border: 1px solid gray; padding: 2px;">Yellow</span>

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice.

## Percent Price Oscillator (PPO)

The PPO indicator shows the relationship between two moving averages. The PPO indicator is a modification of the highly regarded and effective MACD indicator. This enhancement provides us the ability to receive the differences between the two moving averages as a percentage. This allows the trader to easily compare stocks with different prices. For example, a PPO result of 20 means that the short term average is 20% above the long term average.

### Calculation

To calculate the PPO, subtract the 26-day exponential moving average (EMA) from the nine-day EMA and divide this difference by the 26-day EMA. The end result is a percentage that tells the trader where the short-term average is relative to the longer-term average.

$$PPO = (Fast\_EMA - Slow\_EMA) / Fast\_EMA$$

Additionally, the PPO histogram can be calculated by using the MA of a PPO itself:

$$PPO\_Histogram = PPO - EMA\_PPO$$

### Buy/Sell Signals

A buy signal occurs when the PPO line crosses from below the trigger line to above the trigger line. A sell signal occurs when the PPO line crosses from above the trigger line to below the trigger line.

### Preferences

Open the Preferences Tab in your Control Panel. Select the PPO quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**% Price Oscillator**

PPO Periods

PPO

Trigger Period

Trig

Build With

Thresholds

<input type="checkbox"/>	1	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	<input type="text" value="-%"/>	<input type="color" value="Yellow"/>	<input type="text" value="Yellow"/>

Buy / Sell Arrows

**PPO Periods:** Specify the number of days to be used in calculating the PPO.

**PPO:** Choose the color, line style, and line thickness of your PPO line.

**Trigger:** Specify the number of days used in calculating the Trigger.

**Line:** Choose the color, line style, and line thickness of your Trigger line.

**Build With:** Choose either Close, Open, High, or Low to build with.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Price Volume Oscillator (PVO)

The PVO is primarily used to identify periods of expanding or contracting volume.

**Centerline Crossovers:** The PVO oscillates above and below the zero line. A PVO above zero indicates that volume levels are generally above average and relatively heavy. When the PVO is below zero, volume levels are generally below average and light. When PVO is positive, the shorter EMA of volume is greater than the longer EMA of volume. When PVO is negative, the shorter EMA of volume is less than the longer EMA of volume.

**Directional Movement:** The general overall direction of the PVO gives the trader a visual of market momentum and direction. A rising PVO signals volume levels are increasing, and a falling PVO signals volume levels are decreasing.

**Moving Average Crossovers:** The last variable in the PVO forms the signal line. For example, PVO (12,26,9) would include a 9-day EMA of PVO as well as a histogram representing the difference between the PVO and its 9-day EMA. When PVO moves above its signal line, volume levels are generally increasing. When PVO moves below its signal line, volume levels are generally decreasing.

Movements in the PVO are completely separate from price movements. Movements in PVO can correlate with price movements to assess the degree of buying or selling pressure.

### Calculation

The calculation of PVO is here:

$$\text{Volume Oscillator (\%)} - \text{PVO} = [(\text{Vol 12-day EMA} - \text{Vol 26-day EMA}) / \text{Vol 12-day EMA}] \times 100$$

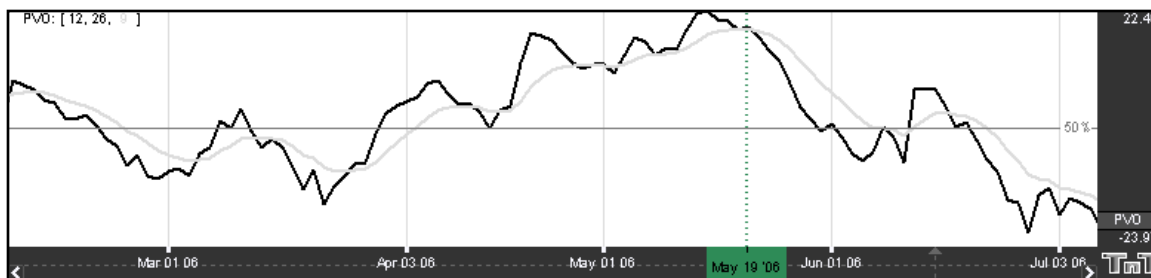
Increasing and decreasing the exponential moving average variables changes the PVO to reflect a longer or shorter trading time period. The absolute values of the PVO indicator are not as important as the crossovers of the moving averages as well as a crossover above or below the zero line.

There are three additional methods on the next page of acquiring market strength and weakness information from the PVO.

- When the PVO crosses above the zero line, volume is increasing and an increase in price is anticipated.
- When the PVO crosses below the zero line, volume is decreasing and a decrease in price and a weakening market are anticipated.
- Simple directional movement can be one of the greatest strengths of the PVO indicator. When the line is ascending, volume is increasing, so therefore markets should increase. When the line is descending, volume is decreasing, therefore the market should weaken and decrease.

## Buy/Sell Signals

A buy signal occurs when the PVO line crosses from below the trigger line to above the trigger line. A sell signal occurs when the PVO line crosses from above the trigger line to below the trigger line.



## Preferences

Right-click on the PVO button in your Indicator toolbar and select PVO Settings. The Preferences Tab will open in the Control Panel and the PVO preferences will be displayed. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**% Volume Oscillator**

PVO Periods

PVO ■ Crimson

Trigger Period

Trig ■ LightSea

Thresholds

<input type="checkbox"/>	1	<input type="text" value="0.00"/>	%	<input type="text" value="—"/>	<span style="color: yellow;">■</span> Yellow
<input type="checkbox"/>	2	<input type="text" value="0.00"/>	%	<input type="text" value="—"/>	<span style="color: yellow;">■</span> Yellow
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="text" value="—"/>	<span style="color: yellow;">■</span> Yellow
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="text" value="—"/>	<span style="color: yellow;">■</span> Yellow

Buy / Sell Arrows

■ Crimson

**PVO Periods:** Specify the number of days to be used in calculating the PVO.

**PVO:** Choose the color, line style, and line thickness of your line.

**Trigger:** Specify the number of days used in calculating the trigger period.

**Line:** Choose the color, line style, and line thickness of your trigger line.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Rate of Change (ROC)

The ROC indicator is used to help a trader determine the rate at which a market is either increasing or decreasing in strength or weakness. A rising rate of change indicates an advancing market, while a decreasing rate of change indicates a declining market. As the rate of change line approaches the centerline, the rate of change is considered to be in equilibrium. This is somewhat of a misnomer, since the ROC is on a relative scale and scales against historical rates. What is equilibrium today will not be the equilibrium line down the road, and what is not equilibrium today will appear to be so from a historical point of view.

Comparing the ROC's of different time-spans improves the accuracy of the analysis. A 12 month period is usually the most reliable for long-term trends, and a 3 or 6 month period works well for intermediate trends. A 10 or 12-day ROC is a good short-term indicator, oscillating in a fairly regular cycle.

The lower the ROC, the more undersold the market and the more likely a recovery. Although the opposite may hold true in that the higher the ROC, the more overbought the market, both extremes can indicate the formation of a sideways channel.

### Calculations

The calculation for the ROC is here:

$$ROC = 100 \times (Today's\ close - Close\ 10\ periods\ ago) / (Close\ 10\ periods\ ago)$$

### Preferences

Open the Preferences Tab in your Control Panel. Select the ROC quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Rate Of Change**

ROC Period

ROC  OrangeR

Thresholds

<input type="checkbox"/>	1	<input type="text" value="0.00"/>	<input data-bbox="302 355 329 390" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="0.00"/>	<input data-bbox="302 416 329 451" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	<input data-bbox="302 477 329 512" type="text" value="%"/>	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	<input data-bbox="302 538 329 572" type="text" value="%"/>	<input type="text" value="Yellow"/>

**Period:** Specify the number of days to be used in calculating the SRSI.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice.

## Stochastic Relative Strength Index (SRSI)

The Stochastics indicator is an oscillator that compares a securities closing price in relationship to its price range over a given period of time. The RSI indicator is also an oscillator which represents the internal strength of the equities price. Both these indicators work on an overbought and oversold formula.

The Stochastics RSI is a combination of these two indicators, where the %K within the Stochastics formula is replaced by the RSI. The formula is then set on a 0 to 100 scale for both the Stochastics indicator as well as the RSI is read in much the same manner as the traditional RSI. When the SRSI reaches up into the upper region above the upper threshold line, the market is considered overbought and anticipate a reversal of the trend. When the SRSI reaches down into the lower region below the lower threshold, the market is considered oversold and a reversal is anticipated. Traditionally, the upper threshold marker is set at 70% and the lower marker is set at 30%.

### Calculation

The calculation for the SRSI is here:

$$\text{StochRSI} = (\text{RSI} - \text{LowRSIn}) / (\text{HighRSIn} - \text{LowRSIn})$$

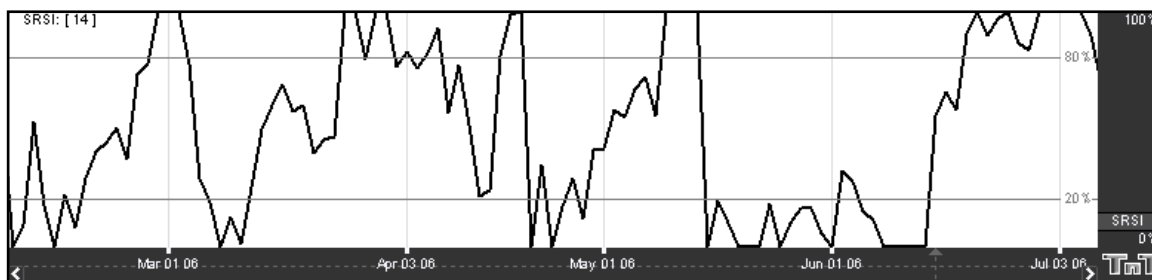
*RSI*: The current level of the RSI indicator.

*LowRSIn*: The lowest level the RSI reached over the last  $n$  periods.

*HighRSIn*: The highest level the RSI reached over the last  $n$  periods.

### Buy/Sell Signals

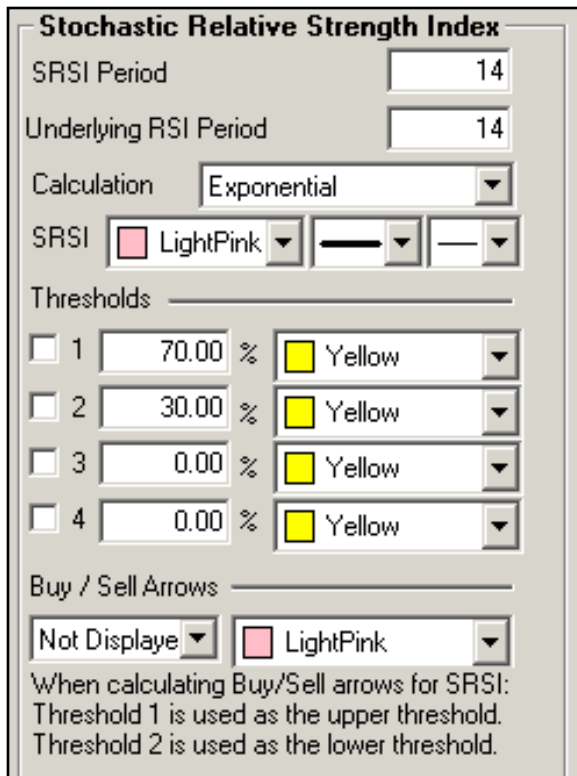
A buy signal occurs when the SRSI line crosses from below the lower threshold to above the lower threshold into the channel. A sell signal occurs when the SRSI line crosses from above the upper threshold to below the upper threshold into the channel.



## Preferences

Open the Preferences Tab in your Control Panel. Select the SRSI quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Stochastic Relative Strength Index**

SRSI Period

Underlying RSI Period

Calculation

SRSI

Thresholds

<input type="checkbox"/>	1	<input type="text" value="70.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	2	<input type="text" value="30.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	3	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>
<input type="checkbox"/>	4	<input type="text" value="0.00"/>	%	<input type="text" value="Yellow"/>

Buy / Sell Arrows

When calculating Buy/Sell arrows for SRSI:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**SRSI Period:** Specify the number of days to be used in calculating the SRSI.

**Underlying RSI Period:** Specify the number of days used in calculating the Underlying RSI.

**Calculation:** Choose from Exponential, Simple, or Wilder's Smoothing.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 70 and 30).

Choose when you want **Buy/Sell Arrows** to show and what color.

## Triple Exponential Average (TRIX)

The TRIX indicator is a momentum indicator designed to calculate the percent rate of change of a triple exponentially smoothed moving average. It is very similar in the way the MACD indicator works. Both indicators provide basically the same methodology behind generating market momentum and directional movement.

TRIX was designed to filter out the minor, less significant moves within a market trend. This is done, just as other traditional indicators have done in the past, by utilizing multiple moving averages.

Convergence and Divergence are common uses of the TRIX indicator. Adding the trigger line crossover provides the trader with a Buy/Sell Signal generated from the crossing of the two moving averages.

### Calculation

To calculate TRIX, first pick a period with which to create an exponential moving average of the closing prices. For a 15-day period the calculations would look like this:

*Calculate the 15-day exponential moving average of the closing price.*

*Calculate the 15-day exponential moving average of the moving average calculated in step #1.*

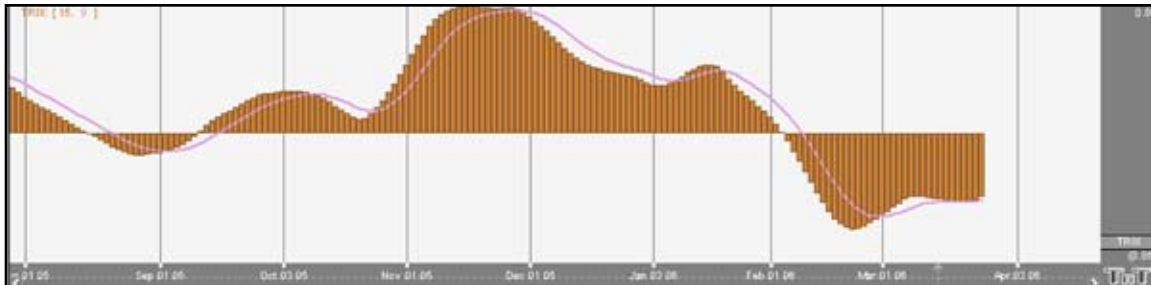
*Calculate the 15-day exponential moving average of the moving average calculated in step #2.*

The result is triple exponentially smoothing the moving average of closing prices, greatly reducing volatility.

*Finally, calculate the 1-day percent change of the moving average calculated in step #3.*

### Buy/Sell Signals

A buy signal occurs when the TRIX value crosses from below the trigger line to above the trigger line. A sell signal occurs when the TRIX value crosses from above the trigger line to below the trigger line.





## Preferences

Open the Preferences Tab in your Control Panel. Select the TRIX quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**TRIX**

TRIX Period: 15

TRIX: Peru

Trigger Period: 9

Trig: Plum

Display as: Histogram

Thresholds:

<input type="checkbox"/>	1	0.00 %	Yellow
<input type="checkbox"/>	2	0.00 %	Yellow
<input type="checkbox"/>	3	0.00 %	Yellow
<input type="checkbox"/>	4	0.00 %	Yellow

Buy / Sell Arrows:

Not Displayed Peru

**Period:** Specify the number of days to be used in calculating the SRSI.

**Line:** Choose the color, line style, and line thickness of your line.

**Trigger Period:** Specify the number of days used in calculating the Underlying RSI.

**Line:** Choose the color, line style, and line thickness of your trigger line.

**Display as:** Choose if you want to see a histogram or line.

View up to four **Thresholds** at values and colors of your choice. Choose when you want **Buy/Sell Arrows** to show and what color.

## Ultimate Oscillator (ULT)

This is another indicator introduced by Mr. Larry Williams. It seems to be another modification of the RSI indicator, as is his %R indicator. If you lay the three indicators on your chart, you'll see many similarities. The advantage of the ULT indicator is that the trader is given two additional variables in the formula to modify and finetune the action and reaction to the market price.

This indicator, as with the RSI indicator, works on an overbought and oversold region. Mr. Williams states that the upper threshold should start at 70% and the lower threshold at 30%, but depending on the market, the volatility, and the settings, you may need to adjust the thresholds to either higher or lower settings to obtain signals.

Once the ULT line crosses above the upper threshold into the overbought region, it is time to anticipate a reversal in price and lower prices to ensue. When the ULT line crosses below the lower threshold, it is time to anticipate a reversal in price and anticipate prices to rise once again. Many traders like to use a 50% line to reconfirm price action. Crossing the 50% line is a confirmation of the overall trend.

### Calculation

The True Low (TL) is the lower of today's low or yesterday's close. Calculate today's Buying Pressure (BP) like this:

$$BP = \text{Today's close} - \text{Today's TL}$$

Calculate today's True Range (TR) by finding the largest outcome of one of the following equations:

$$TR = \begin{aligned} &\text{Today's High} - \text{Today's Low} \\ &\text{Today's High} - \text{Yesterday's Close} \\ &\text{Today's Close} - \text{Today's Low} \end{aligned}$$

Calculate  $BPSum1$ ,  $BPSum2$ , and  $BPSum3$  by adding up all of the BPs for each of the three specified time frames. Calculate  $TRSum1$ ,  $TRSum2$ , and  $TRSum3$  the same way with the TR's.

The Raw Ultimate Oscillator (RawUO) is calculated here:

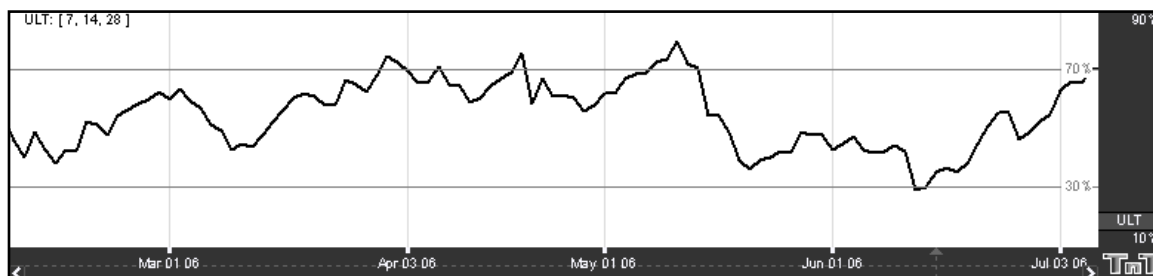
$$RawUO = 4 \times (BPSum1 / TRSum1) + 2 \times (BPSum2 / TRSum2) + (BPSum3 / TRSum3)$$

The Final Ultimate Oscillator is calculated here:

$$FUO = [ RawUO / (4 + 2 + 1) ] \times 100$$

## Buy/Sell Signals

A buy signal occurs when the ULT line crosses from below the lower threshold to above the lower threshold. A sell signal occurs when the ULT line crosses from above the upper threshold to below the upper threshold.



## Preferences

Open the Preferences Tab in your Control Panel. Select the ULT quick link at the right of the indicator window. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Ultimate Indicator**

ULT Periods:

ULT:  HoneyDe

Thresholds

<input type="checkbox"/> 1	<input type="text" value="70.00"/> %	<input type="text" value="Yellow"/>
<input type="checkbox"/> 2	<input type="text" value="30.00"/> %	<input type="text" value="Yellow"/>
<input type="checkbox"/> 3	<input type="text" value="0.00"/> %	<input type="text" value="Yellow"/>
<input type="checkbox"/> 4	<input type="text" value="0.00"/> %	<input type="text" value="Yellow"/>

Buy / Sell Arrows

HoneyDew

When calculating Buy/Sell arrows for ULT:  
 Threshold 1 is used as the upper threshold.  
 Threshold 2 is used as the lower threshold.

**ULT Periods:** Specify the number of days to be used in calculating the SRSI.

**Line:** Choose the color, line style, and line thickness of your line.

View up to four **Thresholds** at values and colors of your choice. When calculating buy/sell signals, Threshold 1 is used as the upper threshold and Threshold 2 is used as the lower threshold (default values set at 70 and 30).

Choose when you want **Buy/Sell Arrows** to show and what color.

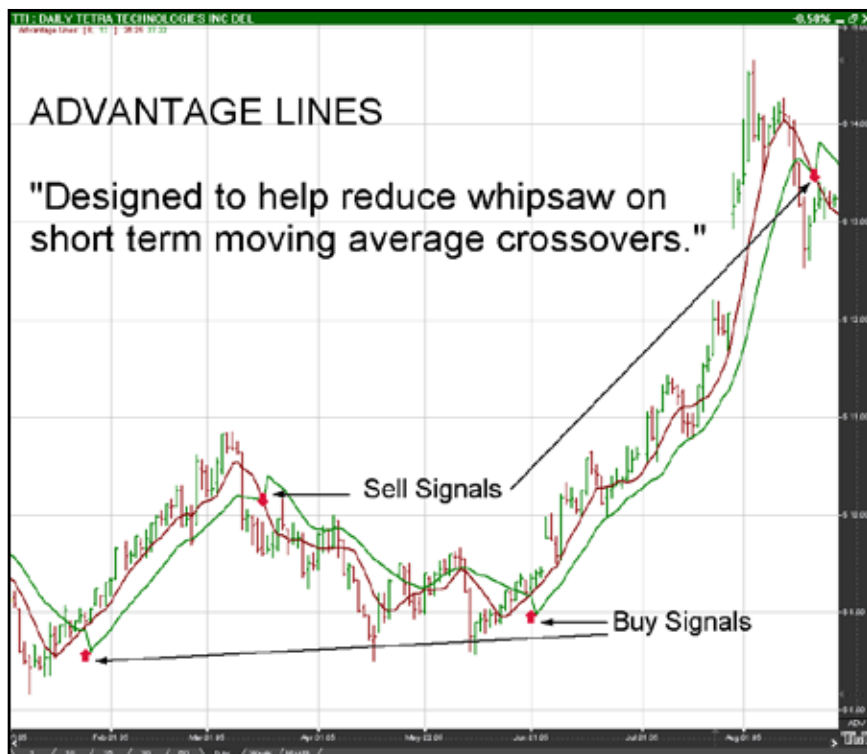
## Advanced Overlay Indicators

### Advantage Lines

Advantage lines were created in an attempt to help eliminate whipsaw from a short-term moving average trading system. The main advantage of a short term moving average trading system is that it provides early entry signals to potential trading opportunities and trend reversals. This is also the disadvantage to the same system.

Due to the early entry notification, you receive a lot of false signals, better known as whipsaw. To help eliminate many of these false signals, Mr. Turner created the Advantage Lines, which significantly help in reducing whipsaw, but also somewhat delayed the early entry signals. To enhance and help in getting back the early entry signals, the “projection” part of this indicator actually projects forward where we anticipate tomorrow’s lines to be, and let us know if we are “anticipating” a crossover or not.

### Example of Advantage Lines



## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Advantage Line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

The screenshot shows a window titled "Advantage Lines" with the following settings:

- Line 1: Slider set to 10
- Line 2: Slider set to 10
- Line1: Color dropdown set to Blue, Line style dropdown set to solid, Line thickness dropdown set to medium.
- Line2: Color dropdown set to GhostWh, Line style dropdown set to solid, Line thickness dropdown set to medium.
- Predict: Color dropdown set to Yellow, Line style dropdown set to solid, Line thickness dropdown set to medium.
- Advantage Formula: Dropdown set to Simple
- Buy / Sell Arrows: Color dropdown set to Not Displayed, Line color dropdown set to Blue

**Period 1,2:** Specify your periods by dragging the slider up or down.

**Lines:** Choose the color, line style, and line thickness of your lines.

Choose when you want **Buy/Sell Arrows** to show and what color.

## Alligator

A unique use of fractal geometry and nonlinear dynamics is used to create the method of calculations for the Alligator Indicator. Used in combination with the Gator Indicator, the Alligator has proved to be effective at pinpointing large market trends.

### Components

Alligator's Jaw (blue line): The Balance Line for the timeframe that was used to build the chart (13 period Smoothed Moving Average, moved into the future by 8 bars).

Alligator's Teeth (red line): The Balance Line for the value timeframe of one level lower (8 period Smoothed Moving Average, moved by 5 bars into the future).

Alligator's Lips (green line): The Balance Line for the value timeframe, one more level lower (5 period Smoothed Moving Average, moved by 3 bars into the future).

The Lips, Teeth, and Jaw of the Alligator show the interaction of different time periods. As clear trends can be seen only 15 to 30 percent of the time, it is essential to follow them and refrain from working on markets that fluctuate only within certain price periods.

When the Jaw, Teeth and Lips are closed or intertwined, the Alligator is going to sleep or is asleep already. As it sleeps, it gets hungrier and hungrier: the longer it sleeps, the hungrier it will be when it wakes up. The first thing it does after it wakes up is to open its mouth and yawn. Then the smell of food comes to its nostrils: flesh of a bull or flesh of a bear, and the Alligator starts to hunt it. Having eaten enough to feel quite full, the Alligator starts to lose interest in the food/price (Balance Lines join together), and this is the time to fix the profit.

### Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Alligator line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Alligator			
	Period	Shift	
Jaws	13	8	
Teeth	8	5	
Lips	5	2	
Type	Exponential		
Data	Close		
Jaws	Blue	—	—
Teeth	Red	—	—
Lips	Lime	—	—

**Jaws, Teeth, Lips:** Specify your periods and shift specifications.

**Type:** Select Simple, Linear Weight, or Exponential.

**Data:** Select Open, High, Low, or Close.

**Jaws, Teeth, Lips:** Choose the color, line style, and line thickness of your indicator line.

## Donchian Channels (DON)

Donchian Channels were created by Richard Donchian, an expert in trends. The DON is a simple trend breakout system. The channel works well in trending markets, but not as well in sideways moving markets.

Donchian Channels measure volatility by placing bands at a specified period deviation. These bands are charted two standard deviations from the market price. As the market price changes, the value of two standard deviations also changes. This value is what comprises the Donchian Channel's band width, representing the expanding and contracting of the bands based on recent price volatility.

### Calculation

The calculation of the DON is here:

*Donchian Channel High* =  $MAX(HI, n)$

*Donchian Channel Low* =  $MAX(LO, n)$

### Example of Donchian Channels

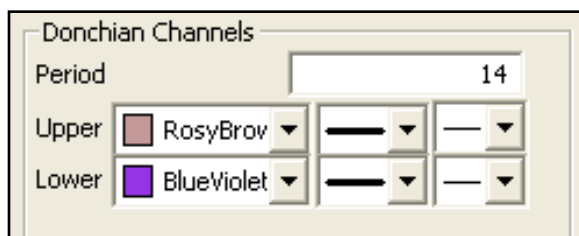




## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Donchian Channels line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



**Donchian Period:** Specify the number of days in a period.

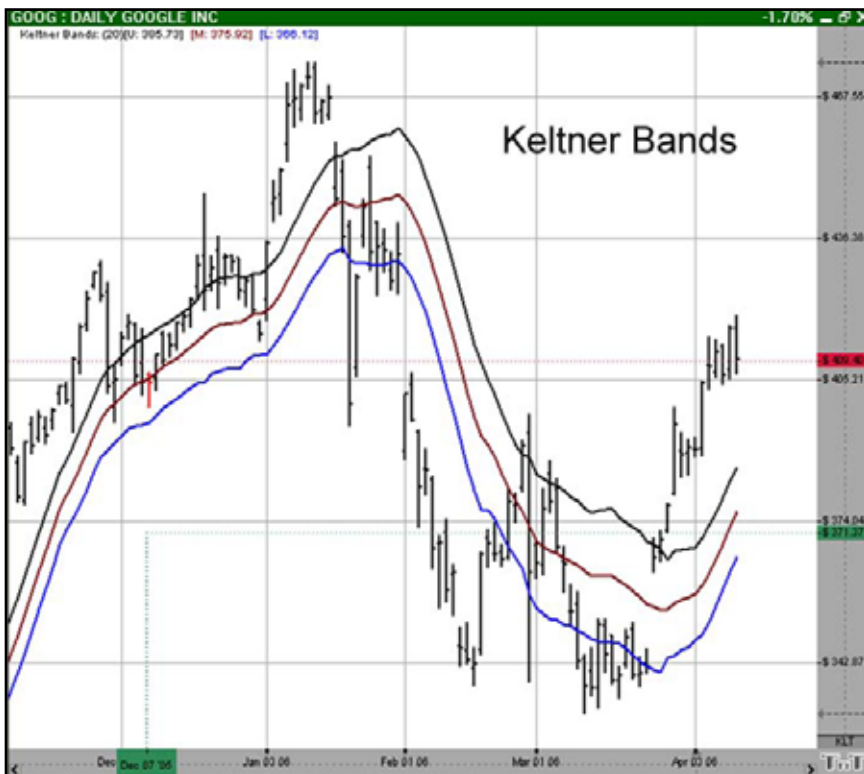
**Upper, Lower:** Choose the color, line style, and line thickness of your indicator line.

## Keltner Bands

Keltner Bands were developed by Chester Keltner and Modified by Linda Raschke. They are traditional moving average envelopes based on Exponential Moving Averages. The probability is that prices will remain within the channel, as with all band-type indicators. A break above the channel is an anticipation of higher prices. When prices close below the lower band, we anticipate lower prices.

The middle line (20 period EMA) in a rising market should provide support. In a falling market, the middle line should provide resistance. Keltner Bands, as with any moving average indicator, seem to work great in strongly trending markets, but not so well in sideways markets. Just like all trend-following systems, the Keltner Bands are not meant to spot tops or bottoms. Use the Keltner Bands in conjunction with other indicators such as RSI or MACD. Using it in combination with either of these will help provide verification of the strength of a market.

### Example of Keltner Bands



## Calculation

The calculation for the top, or Plus Band, is here:

$$2 (\text{ATR over } 10 \text{ periods}) + (20 \text{ period exponential moving average})$$

The calculation for the bottom, or Minus Band, is here:

$$2 (\text{ATR over } 10 \text{ periods}) - (20 \text{ period exponential moving average})$$

## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Keltner Bands line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

**Period:** Specify the number of days used.

**Type:** Select Simple, Linear Weight, or Exponential.

**Band Calculation:** Select Original or ATR and enter values of your own.

**Upper, Middle, Lower:** Choose the color, line style, and line thickness of your indicator line.

## Parabolic Stop and Reversal (PSAR)

The Parabolic SAR, developed by Welles Wilder, creator of RSI and DMI, sets trailing price stops for either long or short positions. Also referred to as the stop-and-reversal indicator, Parabolic SAR is more popular for setting stops than for establishing direction or trend. Wilder recommended establishing the trend first, and then trading with Parabolic SAR in the direction of the trend. If the trend is up, but the underlying price drops back below the trailing PSAR indicator, then sell or liquidate your long position. If the trend is down, and the underlying price rises above the trailing PSAR indicator then buy or liquidate your short position.

### Calculation

Once the market establishes a direction, the initial SAR becomes the extreme price for the two intervals. The extreme price is either the lowest price or highest price for the two trading intervals. The short position uses the high, and the long position uses the low.

The calculation for the PSAR is here:

$$SAR_t = SAR_{t-1} + [ a \times ( EP_{trade} - SAR_{t-1} ) ]$$

*SAR<sub>t</sub>*: The stop and reverse price for the current interval.

*SAR<sub>t-1</sub>*: The stop and reverse price for the previous interval.

*a*: The acceleration factor.

*EP<sub>trade</sub>*: The extreme price for the trade.

The SAR is always the “stop and reverse” price point. This is the point you would want to liquidate your current position and establish the opposite position.

The acceleration factor, *a*, is a weighting factor. In Wilder’s work, the initial value for the acceleration factor is .02. The acceleration factor increases by a value of .02 each time the extreme price changes for the trade. You do not increment the acceleration factor if the extreme price fails to change. The value for *a*, the acceleration factor, never exceeds .20 in Wilder’s methodology.

The extreme price (*EP*) for the trade is the highest or lowest price achieved during the trade. If you have a long position, use the new highs as the extreme price. When you have a short position, use the new lows as the extreme price. The extreme price concept allows for normal market corrections without immediately triggering the *SAR* price. It keeps the *SAR* price moving in the direction of the market.

### Example of PSAR

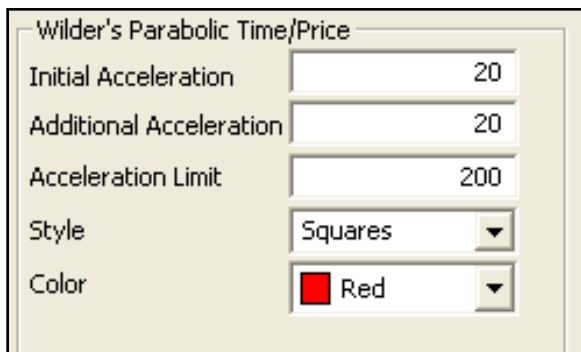


Advanced Indicators

## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the PSAR on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.



Wilder's Parabolic Time/Price	
Initial Acceleration	20
Additional Acceleration	20
Acceleration Limit	200
Style	Squares
Color	Red

**Initial, Additional, Limit:** Specify the calculation number you would like each section of the indicator.

**Style:** Choose how you would like the indicator displayed. Select squares, crosses, dots, or lines.

**Color:** Select the color of the indicator.

---

## Pivot Points

Pivot points used to be referred to as “traders numbers” because of the popularity of these points amongst floor traders. The theory behind them is that markets tend to have overlap from one period to another. On most days, the daily high or low is within the previous day’s range, as with the previous week’s extremes, and previous month’s extremes. In this sense, pivot points are a counter trend indicator.

However, many traders believe that once one point is violated, the next point will be tested, making a violation of these support and resistance levels a clue in trend following. Though we cannot vouch for the truth of this statement, the popularity of pivot points amongst floor traders tends to make these points worth watching.

The popularity of these numbers can be seen on any day when the exchanges are cleaned-up. The trading floor is literally piled high with folded pieces of paper that contain pivot points calculated on them.

The uses of pivot points varies greatly by trader. The most common function of the daily pivot is as a guide. If prices are trading above the pivot point, then the trend is considered up. Traders may wish to take short-term positions on a violation of the daily pivot to the upside with an initial upside objective of the first resistance level. If prices stall or slow at the first resistance level, then aggressive traders may wish to take profits. However, if the first Resistance level is violated to the upside, then the market should go on to test the second resistance level. If prices have violated the 1st resistance level, then this level should act as support on future pullbacks, as should the pivot point.

The opposite is true for support levels. A violation of the daily pivot to the downside indicates that the daily trend is down, with a downside target being the first support level. If the market stalls, then traders may wish to take profits on short positions, or initiate long positions in anticipation of a retracement to the daily pivot. However, if the first support level is violated, the day is said to be a strongly down trending day, and as such should move down further to test the second support level. As with the resistance numbers, the support numbers, once violated, become resistance lines to trade with in the trend.

Though originally used as a means for floor trading, longer-term traders can use pivot points for longer periods. Try plotting the weekly pivot points on the daily chart and using it for shorter term positioning on the daily charts. Pivot points can also be calculated using the monthly pivot points on the daily chart, and used for longer-term positions.

## Example of Pivot Points



### Calculation

There are several methods used to determine the Pivot Point. We have included the three different formulas in Track 'n Trade 5.0.

#### Traditional formulas:

$$\text{Pivot Point} = (H + L + C) / 3$$

$$\text{First Support Line} = (2 \times \text{Pivot Point}) - H$$

$$\text{First Resistance Line} = (2 \times \text{Pivot Point}) - L$$

$$\text{Second Support Line} = \text{Pivot Point} - (H - L)$$

$$\text{Second Resistance Line} = \text{Pivot} + (H - L)$$



**Variation 1:**

This method changes the formula used to derive the Pivot Point. The changes include adding the trading day's open and calculating the average of the four values. With this variation, one takes into account both opening gaps and overnight trading. The calculation is here:

$$\text{Pivot Point} = (H^* + L^* + C^* + O^{**}) / 4$$

\*=Yesterday

\*\*=Today

**Variation 2:**

This method changes the formula used to derive the Pivot Point as well. In this method you substitute yesterday's close with today's open. Variation 2 also takes into account opening gaps and overnight trading. The calculation is here:

$$\text{Pivot Point} = (H^* + L^* + O^{**}) / 3$$

**Preferences**

Open the Preference tab from the Control Panel on the left of your screen. Select the Pivot Points on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Pivot Points

Second Resistance Line

Line GoldenRc — —

First Resistance Line

Line Yellow — —

Pivot Point Line

Line Red — —

First Support Line

Line Yellow — —

Second Support Line

Line GoldenRc — —

Calculation Traditional

Show Historical

Show Intra Day

Show Daily

Show Weekly

Show Monthly

**Pivot Points:** Check the boxes to view different support and resistance lines. Change the color, style, and thickness of the lines.

**Calculation:** Select Traditional, Variation 1, or Variation 2.

**Display Settings:** Check to display Historical, Daily, Weekly, or Monthly pivot points.

Select if you would like to see the **Moving average** line and enter the number of price bars you would like to be used to calculate it.

**Font:** Select the font, size, and color of the text. You can also choose to bold or italicize your text and change the background color.

## 10x8 Moving Average Calculation

Just as it is easier to ride a bike downhill than uphill, it seems prices fall faster than they rise. Due to this perceived quirk in pricing, the legendary market analyst, author, and seminar speaker, Jake Bernstein, developed the 10x8 moving average system.

This system uses two simple moving averages, but they are calculated in a slightly different manner than those traditionally used. The first moving average is a moving average of the daily highs, as opposed to that of the daily settlement. The second moving average is calculated using the daily lows.

Though Mr. Bernstein recommends using a 10 period moving average of the daily highs and an 8 period moving average of the daily lows based on his observation that prices tend to fall about 20% faster than they rise, any combination would do the trick. Generally, accepting market lore that prices fall faster than they rise, the moving average of the lows should be of shorter term duration than that of the highs.

The most basic use of the 10x8 Moving Average is to look for a breakout above the upper moving average to initiate a buy signal. When the daily settlement price exceeds the average high of the last 10 days, this indicator flashes a buy signal indicating that the trend of the market should be up.

### Example of a 10x8 MAC



## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the 10x8 MAC line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Advanced Indicators

**10x8 and 3x3 Moving Average Convergence**

Display 10x8 Mac

10 x 8 Line 1 (Period 10) \_\_\_\_\_

Color / Style  Plum v  v

Type Simple v

Data High v

10 x 8 Line 2 (Period 8) \_\_\_\_\_

Color / Style  Salmon v  v

Type Simple v

Data Low v

Display 3x3 Mac

3 x 3 Line 1 (Period 3) \_\_\_\_\_

Color / Style  SeaGreen v  v

Type Simple v

Data High v

3 x 3 Line 2 (Period 3) \_\_\_\_\_

Color / Style  MediumBlue v  v

Type Simple v

Data Low v

**Display 10x8 MAC, 3x3 MAC:** Check the boxes to display the lines you would like to see.

**Line:** Choose the color, line style, and line thickness of your indicator line.

**Type:** Select Simple, Linear Weight, or Exponential.

**Data:** Select Open, High, Low, Close, Mean, Median, or Mode.

## Zig Zag

The Zig Zag Indicator acknowledges minimum price changes and ignores those that do not fit the criteria.

### Calculation

A Zig Zag set at 10% with OHLC bars would yield a line that only reverses after a change from high to low of 10% or greater. All movements less than 10% would be ignored. If a commodity traded from a low of 100 to a high of 109, the Zig Zag would not draw a line because the move was less than 10%. If the stock advanced from a low of 100 to a high of 110, then the Zig Zag would draw a line from 100 to 110. If the commodity continued on to a high of 112, this line would be extended to 112 (100 to 112). The Zig Zag would not reverse until the commodity declined 10% or more from its high. From a high of 112, a commodity would have to decline 11.2 points (or to a low of 100.8) for the Zig Zag to reverse and display another line.

### Preferences

Open the Preference tab from the Control Panel on the left of your screen. Select the Zig Zag line on your screen. The preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Zig Zag

% Change Sensitivity

2.00  8.00

Line  SkyBlue

Retracments

Line  Azure

Alt  RosyBrow

Show Retracment Target

Show as Percent

Show Retracments

Show Alternative Retracements

Number of Alternative Lines

Font

Show Text  **B**  *I*

Buy / Sell Arrows

**% Change Sensitivity:** Change the percent of calculation.

**Line:** Choose the color, line style, and line thickness of your indicator line.

**Retracments Line, Alt:** Choose the color, line style, and line thickness of the retracement lines.

Select **Show Retracment Target**, **Show as Percent**, **Show Retracments**, or **Show Alternative Retracements** to show percents, retracements, and alternative retracements.

**Number of Alternative Lines:** Enter the amount of alternative retracement lines you want to show on the chart.

**Font:** Select the font, size, and color of the text. You can also choose to bold or italicize your text. Select the checkbox next to **Show Text** to hide or show your text on the chart.

Choose when you want **Buy/Sell Arrows** to show and what color.

# Accounting & Simulator

# 10

\*Expansion Pack - Purchase Required

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## Introduction

The Accounting & Simulator Expansion Pack helps you keep track of your profits and losses, simulate trading, and perfect your trading strategy. You will be able to view your open and closed orders, your account activity, and keep track of your broker fees and pip spreads. The *Accounting Simulator Window* will be on the bottom of your screen, below the *Chart Window*. The buttons on the left of the *Accounting Simulator Window* are referred to as your *Accounting Control Panel*, see below.

Open Profit	Symbol	Date/Time	Type	Qty	Amount	Fees	Credit	Debit	Balance
Closed Profit	USD	6/1/2006	Credit	0	\$18,000.00	\$0.00	\$18,000.00	\$0.00	\$18,000.00
Account Activity	WMT	6/15/2006 4:05:00 PM	Buy	25	\$44.01	\$12.00	\$0.00	\$1,112.25	\$ 7,132.25
	GOOG	6/25/2006 4:05:00 PM	Buy	30	\$125.98	\$32.75	\$0.00	\$1,859.15	\$ 4,593.15
	GOOG	6/25/2006 4:05:00 PM	Sell	30	\$137.91	\$37.75	\$1,237.30	\$13.75	\$ 3,256.95
Order	UTX	1/15/2006 4:05:00 PM	Buy	50	\$10.90	\$12.00	\$0.00	\$1,095.00	\$ 2,161.95
	UTX	1/15/2006 4:05:00 PM	Sell	50	\$16.51	\$12.00	\$2,026.50	\$12.00	\$ 2,014.50
Deposit	WDC	5/25/2006 4:05:00 PM	Buy	50	\$22.68	\$12.00	\$0.00	\$2,049.00	\$ 3,963.50
Withdrawal	DIG	5/25/2006 4:05:00 PM	Buy	30	\$70.98	\$12.00	\$0.00	\$2,337.00	\$ 1,626.50
					\$ 38.58	\$ 20,861.30	\$ 14,855.05	\$ 2,207.75	

## Control Panel

Open Profit
Closed Profit
Account Activity
Order
Deposit
Withdrawal

Once you have open orders that have filled, they will show up under the *Open Profit* button. The *Closed Profit* button will show all closed orders, and the *Account Activity* button shows all of your account activity from deposits and withdrawals to open and closed orders. The *Order*, *Deposit*, and *Withdrawal* buttons below pull up screens that help you place orders, make deposits, and create withdrawals. Using the *Accounting Control Panel*, it is easy to see where you stand as far as your profits and losses and also view specific information as the screenshots below demonstrate.

## Open Profit

Open Profit	Basic Order Information				Price Paid vs. Current Price		Change from Previous Day		Fees, Price Paid, and Gains				
	Symbol	Date/Time	Type	Qty	Paid	Current	Each \$	Total \$	Gain %	Fees	Price Paid	Gain \$	Gain %
Closed Profit	GOOG	6/1/2006 9:30:0	BUY	1	\$373.54	\$417.91	\$0.00	\$0.00	0.00%	\$0.00	\$373.54	\$44.27	11.85%
	F	6/1/2006 9:30:3	BUY	1	\$7.21	\$6.40	\$0.00	\$0.00	0.00%	\$0.00	\$7.21	\$-0.03	-0.47%
Account Activity	WMT	6/1/2006 9:30:3	SELL	1	\$48.25	\$48.71	\$0.00	\$0.00	0.00%	\$0.00	\$48.25	\$-0.00	-0.00%
	DIG	6/1/2006 9:30:3	BUY	1	\$30.50	\$29.98	\$0.00	\$0.00	0.00%	\$0.00	\$30.50	\$-0.01	-0.04%
Order													
Deposit													
Withdrawal								\$0.00	0.00%	\$0.00	\$459.50	\$44.22	2.62%

## Closed Profit

Open Profit	Basic Order Information		Buy Information			Sell Information			Profit - Fees = Total Profit			
	Symbol	Qty	Date/Time	Price	Net Amount	Date/Time	Price	Net Amount	%	Amount	Fees	Tot
Closed Profit	GOOG	1	6/1/2006 9:30:0	\$373.54	\$373.54	BUY	7/13/2006 9:30	\$412.30	10.96%	\$38.76	\$0.00	\$38.76
	CAT	1	6/1/2006 9:30:0	\$72.71	\$72.71	SELL	6/15/2006 9:30	\$68.50	5.79%	\$0.53	\$0.00	\$0.53
Account Activity	F	1	6/1/2006 9:30:0	\$7.21	\$7.21	BUY	6/30/2006 9:30	\$6.72	-6.80%	\$0.02	\$0.00	\$0.02
	UTX	1	6/1/2006 9:30:0	\$62.05	\$62.05	SELL	6/15/2006 9:30	\$59.50	5.33%	\$0.21	\$0.00	\$0.21
Order	WMT	1	6/1/2006 9:30:0	\$48.25	\$48.25	SELL	7/14/2006 9:30	\$43.93	8.95%	\$0.02	\$0.00	\$0.02
Deposit	DIG	1	6/1/2006 9:30:0	\$30.50	\$30.50	BUY	7/14/2006 9:30	\$28.95	6.39%	\$0.04	\$0.00	\$0.04
Withdrawal									2.98%	\$39.48	\$0.00	\$39.48

## Account Activity

Basic Order Information						Fees	Debits and Credits	Current Position	Margin	Borrowed Money
Open Profit	Symbol	Date/Time	Type	Qty	Amount	Account Activity		Holdings	Margin	Loan Activity
Closed Profit						Fees	Credit/Debit	Credit/Debit	Credit/Debit	Credit/Debit
	GOOG	6/1/2006 9:30:00AM	Buy	1	\$ 5,000.00	\$ 0.00	\$ 5,000.00	\$ 0.00	\$ 373.54	
	CAT	6/1/2006 9:30:00AM	Sell	1	\$ 72.71	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.30	
	F	6/1/2006 9:30:00AM	Buy	1	\$ 7.21	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.30	
	UTX	6/1/2006 9:30:00AM	Sell	1	\$ 92.85	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.19	
	WMT	6/1/2006 9:30:00AM	Sell	1	\$ 48.25	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.13	
	Deposit	6/1/2006 9:30:00AM	Buy	1	\$ 30.90	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.30
	Withdrawal					\$ 0.00	\$ 5,000.74	\$ 0.00	\$ 374.67	\$ 0.30

\* On Forex the 'Holdings' column will be 'Open Profit'

## Simulation Tools

The following Simulation Tools will help you simulate your trading experience on your chart.



**Buy/Sell** - Select the Buy/Sell button to place an order on a chart. Click on the button and then on your chart and your order screen will open.



**Autofollow Mode** - (Green) Automatically play your open charts with incoming data.

**Simulation Mode** - (Red) Activates Play Controls.



**Play to Date** - Play all charts open to a certain date. Select this button and a window with a calendar will show. Select the date in history you want the chart to play to and click OK.

### Play Controls



**Beginning** - Chart will go to the first day the stock traded.



**Jump Back** - Chart skips several intervals back.



**Step Back** - Chart plays only one interval back.



**Rewind** - Automatically plays chart back fast at one step intervals.



**Reverse Play** - Automatically plays chart back slowly at one step intervals.



**Stop** - Stops any automatic play action on a chart.



**Play** - Automatically plays chart forward slowly at one step intervals.



**Fast Forward** - Automatically plays chart forward fast at one step intervals.



**Step Forward** - Chart plays only one interval forward.



**Jump Forward** - Chart skips several intervals forward.



**Play to End** - Chart will go to the last day the stock traded.



**Center Chart** - Center existing tics on all charts open in your chart widow.

## Setting Up your Stocks Account

When you click on order or deposit for the first time the screen to the left will appear. Select the date and amount of your first deposit, then select which options you would prefer for your trading account. These options can not be changed once they are set. Then click on OK.

**Stocks Account Setup**

Initial Deposit: July, 2006 Open your account with an initial deposit. Most brokerages require \$2,000.00 to \$5,000 minimum for a margining account.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Initial Deposit \$

**Trading Stocks**

Enforce 10¢ rule (Stop order cannot be placed within 10¢ of trading value.)

Trade with cash  
All trade costs, profits, losses and fees are directly reflected in the account balance.

Trade with margin of  %  
A percentage of the cost of all trades is borrowed from the broker. Track 'n Trade will include repaying this amount as part of fees charged for the order. (Track 'n Trade does not charge interest; your broker may require interest and/or additional fees).

## Setting Up your Forex Account

When you click on order or deposit for the first time the screen to the left will appear. Select the date and amount of your first deposit, then select the Lot Size and Account Leverage in your Forex Account. These options can not be changed once they are set. Then click on OK.

**FX Account Setup**

Initial Deposit: July, 2006 Open your account with an initial deposit. Most brokerages require \$2,000.00 to \$5,000 minimum for a margining account.

Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

Initial Deposit \$

**Forex**

Lot Size:  Account Leverage:

## Deposit and Withdrawals

Think of your Accounting Simulator as a bank account. You need to deposit money before you can use it. You can also withdraw money when you would like, or you may need to deposit more money if you spend what is already in your account. The first thing you will need to do is make a deposit.

**Deposit**


Set date for transaction: January, 2006 Amount: \$

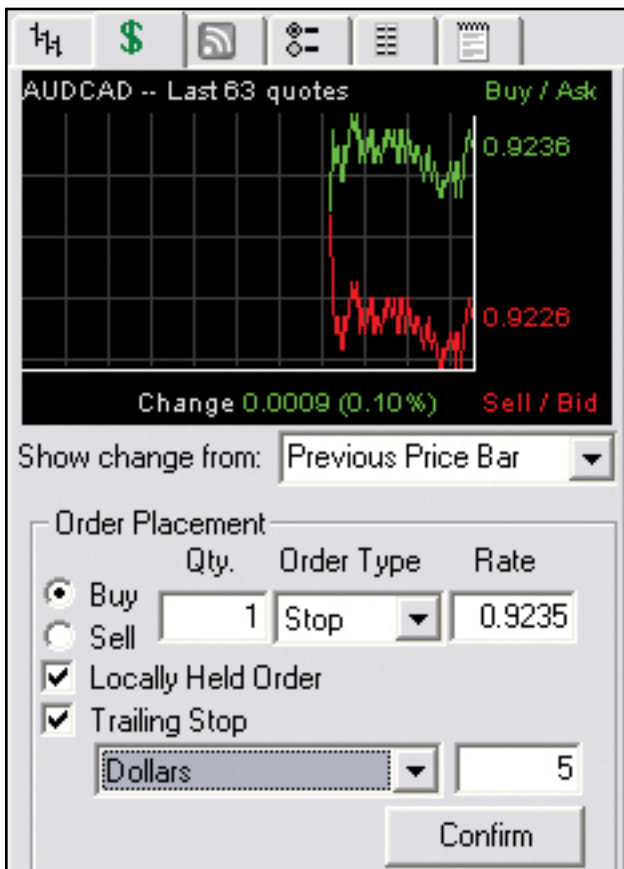
Sun	Mon	Tue	Wed	Thu	Fri	Sat
25	26	27	28	29	30	31
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	1	2	3	4

To make a deposit, click on the Deposit button on the Accounting Control Panel. The following window will appear. The date on this screen will be the same date your chart has played to. To change the date of your deposit, click on the arrows to go forward or backward by month, then click on the day of the month. Under amount, enter the dollar amount you want to deposit.

To make a withdrawal, the screen is the same as above, and the procedure is the same. The only difference will be that money will be taken out of your account instead of adding to it.

## Placing an Order

Now that you have money in your account you can start placing orders. There are two ways to place an order. You can click on the *Buy/Sell* button  on the Simulation Toolbar then on the chart where you want to place your order. The Account tab will open in your control panel with the order placement box filled out with the correct information:



**Order Placement** Choose to “Buy” or “Sell,” then the quantity, the order type (see the list of definitions for each order type in this section), and the price which you want your order to be filled. Once your order is placed it will not show in your *Accounting Simulator* until the order is filled.

**Locally Held Order:** This type of order is for simulation purposes only.

**Trailing Stop:** This can only be used on a Stop Order. Check the box to use a Trailing Stop on your order. Your Trailing Stop will follow an open position and protect profits by trailing a market rise or decline. You can choose to set your Trailing Stop by Dollar amount, Price Bars Back, or by following the PSAR or Zig Zag Indicators.

*\*If you have purchased the Bulls' n Bears Trading System then you will also have the option to follow the BNB Blue Light.*

*\* In Forex you will also have the option to select % Total Balance which will calculate a certain percent of your total balance as your Trailing Stop.*

## Trailing Stops

A trailing stop is a feature that helps you protect profits. As opposed to a Stop Loss order that is set to a certain price, a Trailing Stop moves with the market and follows an order, changing its price as it follows the parameters set in the order. Track 'n Trade will watch each of your positions. Each time one of your long positions goes up, Track 'n Trade adjusts your Trailing Stop according to the setting you set at the time you placed your order. If the prices moves back down a predetermined amount, you will hit the trailing stop, and the order will automatically sell your shares. Short positions work the same way, but the direction is reversed.

## Stock Order Types

**Stop Order** - Place a buy stop order above the market price; place a sell stop order below the market price. A stop order becomes a MARKET ORDER when the specified price is reached. Track 'n Trade fills these orders at the specified price if the price is within the trading range of the fill date, or at the opening price of the fill day.

**Market Order** - A market order does not specify a price, it is executed at the best possible price available. A market order can keep you from "chasing" a market. Track 'n Trade fills these orders at the opening price of the next day's trading.

**(MOO) Market On Open** - (\*Stocks only) This is an order that you wish to be executed during the opening range of trading at the best possible price obtainable within the opening range. Track 'n Trade will fill these orders at the opening price of the next day's trading.

**(MOC) Market on Close Order** - (\*Stocks only) Market On Close orders will be filled during the final minutes of trading at whatever price is available. Track 'n Trade will fill these orders at the closing price of the next day's trading.

**(MIT) Market If Touched** - (\*Stocks only) Similar to a limit order, orders to buy are placed below the current price; orders to sell are placed above the current price. MIT orders fill once the limit price is touched or passed through. Track 'n Trade will fill limit orders at the limit price on the day your order fills if that price is in the trading range, or at the opening price of that day.

**Limit Order** - Limit Orders to buy are placed below the current price; limit orders to sell are placed above the current price. The market may touch a limit price several times without filling. In most cases, the market must trade BETTER than the limit for the order to fill. Track 'n Trade fills limit orders when the market trades BETTER than the limit price.

## Placing Attached Stops and Limits

Attached stops and limits are an FXCM feature and can only be used when you are connected to FXCM and using live orders. The feature is not available for orders that are locally held.

Click on the order that you want attach a stop or a limit. The order must be confirmed to do this. While still holding your mouse button down, hold the CTRL key on your keyboard as you move your mouse up or down on your chart. When you release either your mouse button or CTRL, the stop or limit is placed.

An order does not need to be filled to attach a limit or stop.

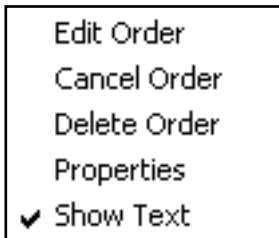
Accounting & Simulator



Your attached limits will appear in the Working Orders frame at the bottom of your screen. In FXCM, they will only appear as one order. By right-clicking on the order in the Working Orders frame, you can select “Delete Order” to delete the attached order. If you click Delete Order in the chart window, your entire order will be deleted.

## Changing an Order

You have the ability to edit an order and change the properties by right-clicking on the order. The following screen will appear.



## To Edit an Order

**Place an Order** ✕

Select the details of your order in the form below.

Per Side Brokerage Fee \$

You can afford 22 qty with \$846.94 balance

Placement Detail

	Qty.	Symbol	Order Type	Price	GTC
<input type="radio"/> Buy	<input type="text" value="2"/>	<input type="text" value="ATK"/>	<input type="text" value="Stop"/>	<input type="text" value="75.00"/>	<input type="checkbox"/>
<input checked="" type="radio"/> Sell					

Trailing Stop

Act	Date	Buy/Sell	Qty	Type	Price
Placed on	02/16/06	Sell	2	STP	74.04
Moved on	02/24/06	Sell	2	STP	74.72
Moved on	02/27/06	Sell	2	STP	75.20
Filled on	03/03/06	Sell	2	STP	75.00

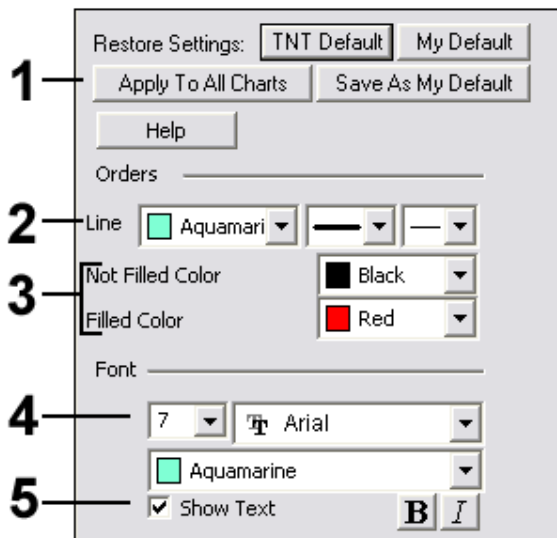
Right-click on the order you want to edit and the window the left will appear. Enter your changes in the top portion of the screen, which is a copy of your original order screen (see Placing an Order paragraph for details). The bottom half of the screen is a history of the order, which can not be changed.

## To Cancel or Delete an Order

The option to cancel an order is only shown when an order is not filled. An order can't be canceled until after it is filled, it can only be deleted. Canceled orders will still show on your chart, but will have an X through them. Deleted orders will completely disappear from the chart.



## Order Properties



*Restore Settings:* Click on “TNT Default” if you would like to see or restore original software settings. Click on “My Default” to return to your personalized default settings. Click on “Apply To All Charts” if you would like to see your selected settings on all open charts. Click on “Save As My Default” to save your personal settings. All charts opened from the time you save your settings will have those specific settings applied to them.

*Line:* Choose the color, style, and thickness of the line.

*Not Filled/Filled:* Choose the color of the arrow on your order for each status.

*Font:* From here you have the ability to change the size, font, and color of the text.

*Show Text:* Check box if you want the order text to show on your chart.

## Position Arrows

Symbol	Buy	C	Sell	Position	Quote Time
AUDCAD	0.84785	↓	0.84795	↓ 1	12:00:00 AM
CADJPY	78.975	↑	78.985	↑ 1	12:00:00 AM
CHFJPY	79.816	↓	79.824	↓ 1	12:00:00 AM
EURAUD	1.74703	↓	1.74718	↓ 1	12:00:00 AM
GBPAUD	2.73623	↓	2.73637	↓ 1	12:00:00 AM
NZDJPY	58.425	↑	58.435	↑ 1	12:00:00 AM
USDCAD	1.52378	↓	1.52383	↓ 3	12:00:00 AM

You can view your orders in the Charts tab of your control panel. Under the Position label, you will see an arrow and a number. The number accounts for how many orders you have in the market. The arrow will be red or green and pointing up or down.

- Red: You are losing money
- Green: You are making money
- Up: You are going long
- Down: You are going short



# Bulls 'n Bears

Trading System

\*Expansion Pack - Purchase Required

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11



## Introduction

Bulls 'n Bears is the first trading system designed for Track 'n Trade High Finance users. This trading system includes easily usable tools to see if the market is bullish or bearish. Bulls 'n Bears allows you to change the sensitivity of the system according to your trading style; whether you are an aggressive trader, or a more traditional trader.

With the Bulls 'n Bears Red Light, Green Light, Blue Light trading method/system you have simple to understand entry and exit signals displayed visually on the chart.



**Red Light (Bearish Trend)** Indicates the beginning of a bearish trend where the contract has started to move downward identifying a possible short entry point.



**Green Light (Bullish Trend)** Indicates the trend of a market has begun to move upward, identifying a possible long entry point.



**Yellow Lights (Neutral or Sideways Trend)**

Indicates the trend of the market has entered a sideways or neutral time frame.



**Blue Lights (Stop Loss Placement)**

The Parabolic stop is used within the Bulls 'n Bears system as the key point for managing your stop-loss risk while trading helping you to identify exit and stop-loss placement points after entering a trade.

## Preferences

Open the Preference tab from the Control Panel on the left of your screen. Right-click on your chart and highlight “Overlay Properties” from the dropdown menu. Select Bulls ‘n Bears from the list and the preferences will appear in the Control Panel. (Once you click on the chart, the Preference tab will go back to chart settings.)

Restore Settings: TNT Default will change your settings back to the original software settings. My Default will change current settings to your personalized default settings. Apply To All Charts will apply your selected settings on all open charts. Save As My Default will save your current personal settings.

Bulls 'n Bears -- Red, Green, Blue Light

0 Sensitivity 100

Low High

Style Price Bars

Formula Traditional

Bearish Red

Neutral Yellow

Bullish Lime

Blue Light

None Cyan

Display History

Show Full History

Show on 5 Price Bars.

Bullish/Bearish Arrows

Displayed Red

Filters

Inside Days

Higher/Lower

Higher/High, Lower/Low

**Sensitivity:** Adjust what you would like the sensitivity level to be.

**Style:** Select Lines, Dots, Crosses, Squares, or Price Bars from the dropdown menu.

**Formula:** Select Traditional, Progressive, or Aggressive from the dropdown menu.

**Bearish, Neutral, Bullish:** Select what color you would like each indicator to be.

**Blue Light:** Select to display the blue light on a Bearish or Bullish market and what color you would like it to appear.

**Display History:** Check if you would like to show Full History or specify how many price bars.

Choose when you want **Buy/Sell Arrows** to show and what color.

