Brief Introduction to Technical Trading (v.11 10/12/04)

Paul Dabrowski, SIGMil (sigmil.org)

Types of Markets

Stock

Trading of contracts that grant you ownership of some portion of a company or multiple companies (if you are dealing with funds).

Options

A market for contracts between two parties that allows the buyer to the right to buy or sell a lot of shares at a previously specified price on or before a set date.

Futures

The commodity market for buying and selling physical goods.

Bond

A market for bailing out companies and the government – bond contracts are bought and sold that mature to some amount of money at some interest rate. The value of bonds change relative to the current available bonds and the interest rate. It's basically a loan for whoever is selling the bond.

Currency

A slow-moving, 24-hour market that allows giant leverages (some brokers allow you to trade 100x your equity) in trading international currencies.

Stock Markets

I would suggest sticking with the NASDAQ when starting off. The NYSE seems to be less forgiving, it is generally full of experienced traders and institutional orders that can be hard to catch up with if you're not used to watching markets.

Types of Trading Accounts

In order to trade, your first task is to set up an account with some brokerage firm. If you plan on putting a decent amount of money into an account and doing daytrading, you will probably want a discount brokerage firm like InteractiveBrokers.com along with a margin account. Otherwise, interday trading is fine with scottrade.com, ameritrade.com or something similar. The following are the types of accounts you may have:

Cash

Specific type of account that only allows you to trade with the equity you've put in the account. SEC restricts cash accounts to one trade per three days.

Margin

The other kind of account – a margin account allows you to trade with up to 2x leverage. Requires at least $2000 equity in the account. SEC rules allow for up to three trades per week.

Pattern

This is an extension of a margin account. If you have at least $25,000 in your account, you can request pattern trading abilities. This will allow you to have 4x purchasing power and do unrestricted trading.

Types of Stock Orders and Pricing

Ask/Bid

All stocks have two prices: an asking price and a bidding price. The difference between the two is generally one cent, sometimes two. Slow moving or high-priced stocks may have a larger spread, while very high volume stocks may have a fraction of a cent difference.

Market Order

Market orders are fairly common and can be good in quick-moving situations where you absolutely want to get in or out in a volatile situation. These orders are bought/sold at 'market price', which means that the price that will necessarily get through. Sometimes this may be a couple cents below the ask price if you are selling or above the bid price on buys.

Limit Order

Here you put a limit on the price you are willing to pay/get paid. Limit orders don't necessarily go through, and most of the time they will be executed at exactly the price you specify, even if, for example, the stock price drops through your bid.

Stop Order

This kind of order is executed when the stock price hits or goes through a 'stop'. A stop turns into a market order once it has been activated (there are also Stop Limit orders). This can be useful if you are away from the computer and want to make sure you don't lose too much money. Some traders always put stop orders in the queue for any position they are holding in order to have some sort of safety.

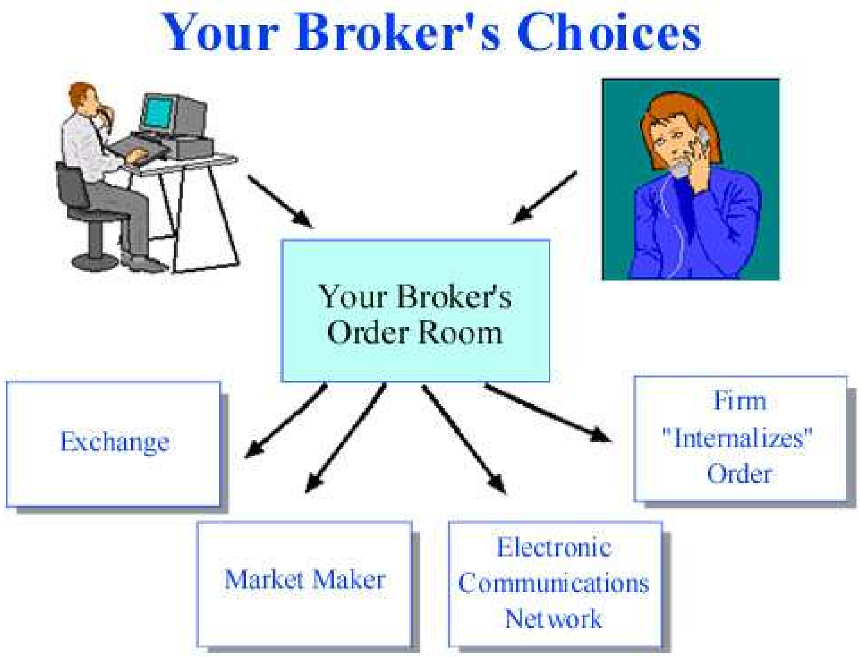
Short Sell Order

You can think of a short order as just selling stock. This is stock that you don't currently own and will buy back later (hopefully at a lower price). There can be stop/limit/market short sells and all sorts of other combinations.

How It Works

Since a brokerage firm benefits from economies of scale due to the monetary requirements of handling large numbers of orders, many small trading firms will forward their stock orders to a larger firm. This larger firm will then make a choice in how to handle this order:

Direct Exchange
Market Maker/Third Market Maker/Regional Exchange
Electronic Communications Network
Internalization of the Order



(http://www.sec.gov/investor/pubs/tradexec.htm)

Example of the flexibility allowed by this system

InteractiveBrokers.com: “When your spread order is transmitted, IB SmartRouting^{SM} will compare native spread prices when available (i.e. ISE) with implied spread prices from all available option and stock exchanges and route each leg independently to the best priced location(s). If your order is marketable, IB will route the spread order or each leg of the spread independently to the best possible venue(s). Non-marketable spread orders native to the ISE on a single underlying will be temporarily routed to the ISE book, while non-marketable orders that are not native to the ISE will remain at IB. From that moment on, IB SmartRouting will continuously evaluate changing market conditions and will dynamically route and re-route based on this evaluation to achieve optimal execution.”

Problems With This System:

Many different attack points..

Trading Styles (Non-shorting)

Here are a few example trading styles that don't include short-selling.

Interday

Managed Portfolio

This is where you pick a bunch of good-looking stocks in hopes of making money in the long run. This requires analysis of several stocks and a very detailed analysis of the general market setting. The 'managed' part comes in when you see that a specific stock or two have turned into losers, so you liquidate your position in them and move that money to a more happy-looking prospect.

Buy and Hold

If you throw all your money into a stock or two and say 'let it ride', you will probably see returns on the time frame of years as long as the companies you've picked are fundamentally sound. This nearly always works because the stock market is the world's biggest pyramid scheme.

Short Term (Swing Trading/Narrow Range Trading)

Short Term Interday trading is one of the easiest ways to trade stocks. The basic idea is to have a large watch list of stocks and wait for one to trigger your technical indicators. Usually you'll be looking for something that was in a downtrend/price failure, and you can spot the rebound (hence the 'swing trading' term). This can also generally be noticed by smaller candlesticks for the current time unit on a candlestick chart, which explains the 'narrow range'.

Intraday

Scalping

This requires nerves of steel and tons of cash. The idea is to catch a trending stock multiple times for a couple seconds each time, making a profit of a penny or two per share per trade. It is necessary to have nominal commission fees in order to scalp (less than one cent per round trip is preferred), which means you need to have a broker which will accept your heaps of cash in exchange for this privilege.

Hold (Trend Riding)

A high-risk strategy of trying to predict the continuation of trends using technical indicators and resistance/support theory. Basically, you see a trend form and you try to figure out when it'll end. This is style of trading has one of the highest return rates, though it turns out that most of the trades turn out to be losers, so it is hard on the ego. With tight stops and a good system you can minimize your losses and “buy high, sell higher”.

Swing Trading

This strategy also works well for very short term trading.

Forecasting Types

Fundamental

A fundamental trader is someone who does the research for themselves and buys what he/she thinks is doing well and what news says.

Technical

Technical trading is watching indicators (generally based on price and volume of a stock) that will signify which stock should be going up or down based on other trader's behavior.

Making an Intraday Technical Trading System

General Idea

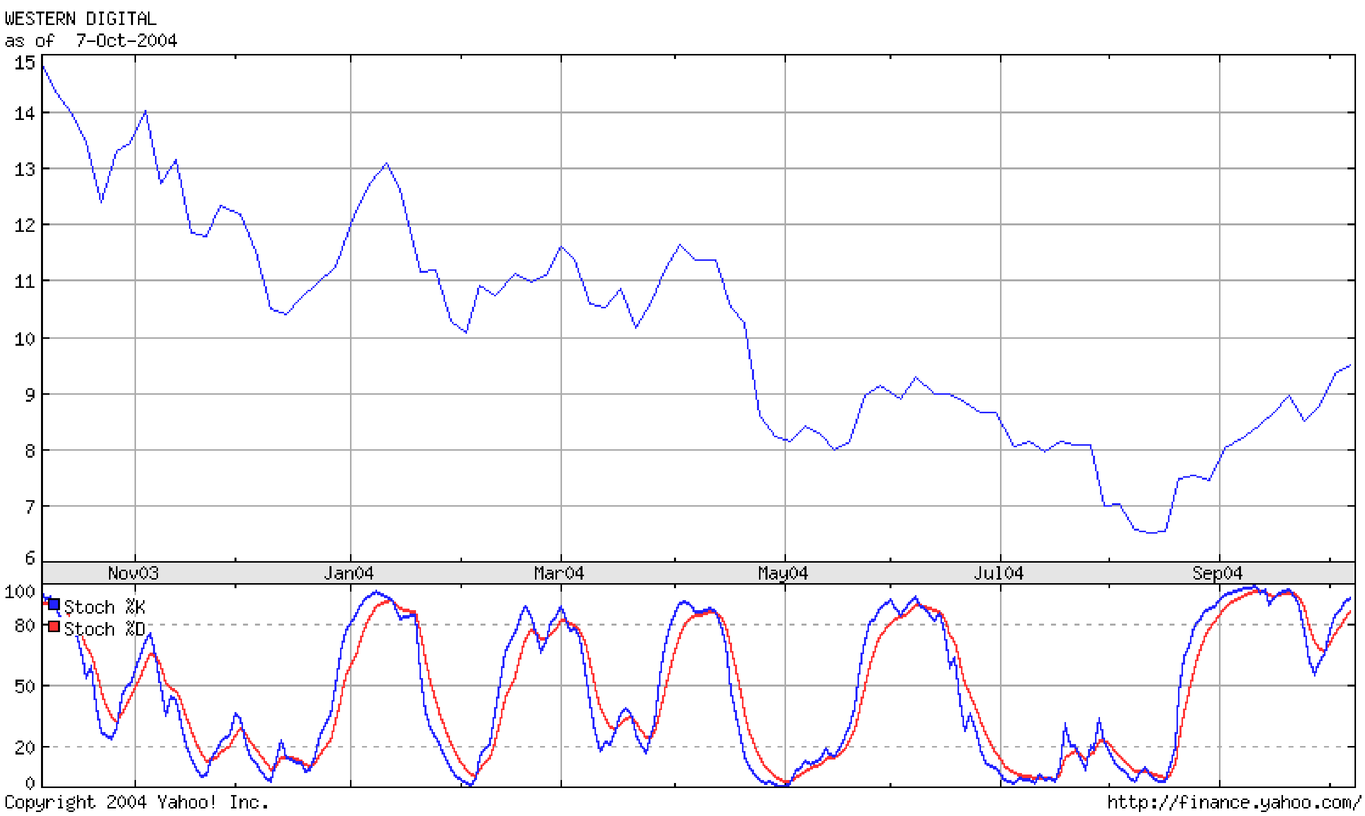
Successful technical trading takes lots of discipline, patience and nerves. A technical system grows this way: choosing a specific type of stock to target, deciding on indicators for general markets and this type specific stock, deciding on values of variables used in those indicators, analysis of patterns formed by these indicators, making rules that pertain to your target stocks, and then refining of the previous points while applying the system in trading. We will consider a very basic trading system for an short-term (weekly time frame) buy and hold strategy, but these indicators and concepts may be better suited for swing or intraday trading.

Indicators and Things to Watch

The market is interesting because filters can be applied to the prices and volumes of the stocks which, if used properly, can many times be used accurately predict price movements. We will be looking at a low-priced tech stock with medium volume (Western Digital) for our example.

Price-Based Moving Filters for Short Term Trends

The market can be considered a stochastic system with some periodicity, as is shown by by the following examples of the "stochastic" indicator (defined as difference between the closing price and lowest price of some time frame, divided by the difference between the highest and lowest prices in the same time frame):

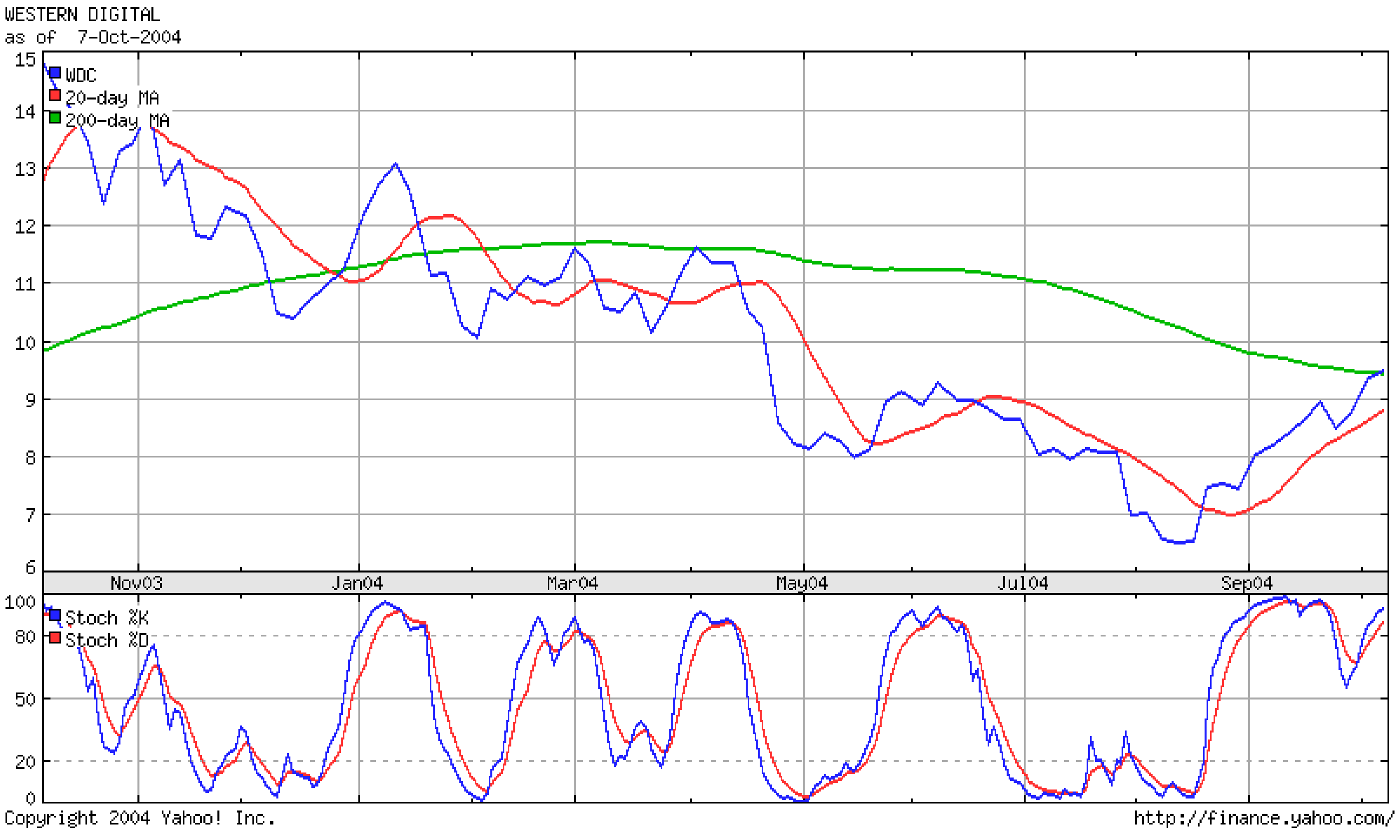


With this specific indicator, the general rule is wait for a bottom out under 20%, then once the 20% line is crossed you generally have an indication of a forming short-term trend. Glancing at the chart, this seems to work fairly well. But you may see that there are a couple peaks in the stochastic in late July while there is little price movement. It looks like other things must be taken into consideration, for example the volatility of the stock (during the previous time frame before those July peaks there was very little price movement) and volume of trading.

There are literally hundreds of named price-based indicators, but other common price-based indicators include RSI, MFI, ROC, Parabolic, Bollinger Bands, and DMI. Some of them have sound theory behind what they show, while others were made up with what seems like little theoretical consideration.

Medium and Long-Term Trending

Looking at the long-term and medium-term trends is also necessary, no matter what kind of trading time frame you want to use (as the common saying goes "don't trade against the trend"). Trends can usually be identified by looking at moving averages. The MACD indicator does just this (it is the difference between two moving averages), but we will look at the simple moving averages directly:



The green line shows a 200-unit average and red is 20-unit average. It has been observed that when the short-term moving average crosses below the long-term, you are in for some trouble. Obviously the time frames should be tweaked for the particular stock's historical performance. The first cross in late December 03 relayed the bad news that a downtrend may be forming. Looking at the right-hand side of the graph, we see that there may soon be a crossover into the up trending area.

Trending is actually a complex subject that requires much study in itself, since a market or stock is not always in a clear up or down trend.

Volume-Based Indicators

There are also many volume-based indicators, though it is possible to garner much information directly from a volume chart. This is what we'll do for our example:

Now, looking again at the end of July, we see that the first peak in the stochastic was formed on low volume, and you can infer that this means the movement is was very strong. So volume basically means how much the price changes actually mean. The growing volume in late May as stock price fell was quite the warning signal, and the giant spike in volume was a stake in the heart of WDC. Generally volume spikes will occur at the end of a rally or drop, which is many times large institutional blocks that set the price level. Mid October 03 is a good example of this.

Volume indicators that are commonly used include the Volume Accumulator, OBV, Intraday Intensity Index, and Accumulation/Distribution Index.

More Advanced Techniques

Resistance/Support

Resistance/Support theory is basically based on the idea that traders who buy at a certain price will sell at that same price if their pick turns out to be bad (this idea is somewhat flawed, though). This creates a sort of support price level if the stock is on the way down. Higher volume implies larger resistance/support at that price. For our example of WDC a support was created in mid October there was a spike of volume at about $12.5 on the upward turnaround. Theory says that if the price drops through this support price, it is likely to fall even farther. The reverse is true for for resistance prices.

http://www.investopedia.com/university/technical/technical9.asp
http://www.stockcharts.com/education/ChartAnalysis/supportResistance.html

Fibonacci Retracement

These create fancy charts that can sometimes give you lots of information. Look them up if you're interested.

http://www.prophet.net/learn/taglossary.jsp?index=F
http://www.investopedia.com/articles/technical/04/033104.asp
http://www.investopedia.com/articles/technical/04/061604.asp
http://www.woodingtrading.com/fibonacciretracement.html

Gann Angles

Very applicable ideas which were conceived by a Mr. Gann in the 1920's (and made him tons of money) that I tend to use in my trading systems.

http://www.investopedia.com/articles/technical/04/042804.asp
http://home1.gte.net/simres/e1-gann.htm

Watching the Options Market

The options market is an interesting tool for analysis as the prices there are generally a tad ahead of stock market prices, which makes sense since it is a speculative market for a speculative market. The same sorts of volume and price techniques can be applied to the options market, but it is hard to good information on it so sometimes the best approach is to just watch prices and volume directly in the options market.

Sectors

If you were looking to trade WDC, you would certainly want to evaluate the general market conditions and in particular the sector you are looking at.

Level II Quotes/Market Depth

Once you have some sort of trading system in terms of technical indicators, you will also want to get Level II quotes in order to see all orders for your specific stock that are currently waiting to be processed. This can give you lots of hints and can help out a lot if you throw some Resistance/Support theory in.

Stop Points

This is a key topic to successful trading. Picking stop points is not always easy, nor is it always easy to listen to them. The general idea is “cut losers short, let winners ride”. This is repeated everywhere, for good reason: **never risk more than 1% of your equity per trade**. Stop points should generally be between .25% and .75% loss of cash.

Setting stop points is a difficult task where you must consider the chances of a rebound after some percentage of drop in the stock price. This generally requires lots of experience.

Before you buy a stock, you should have already chosen a stop point based on historical performance of that stock. This means you always have a “soft” stop point in your head. Some people prefer to not put in a “hard” stop point with an actual stop order, and instead just put in market orders if a panic occurs. I would say this is a bad idea (I've blown through stop points on quick price failures) and you should have a hard stop at all times.

It is normally a good idea to have an incremental stop; as your good pick rises in price you pull up the stop point to lock in your profits.

Making Rules

We used the 10/10 stochastic indicator for short-term volatility and 20/200 MACD for determining trends. Volume information was used directly.

Just looking at the single chart of WDC on this time frame, we might set some simple buying rules like “MACD must have a positive slope” (i.e. difference between the averages is getting smaller for the past couple months in our case) and “stochastic must have crossed over 20% positively recently” and “previous 4 weeks of volume must be growing”.

Observations to Keep in Mind

-Shorting systems are not just the inverse of holding systems. Price drops are generally faster moving and more severe.

-The first ½ hour of the market day is referred to as “newb hour” where volatility is crazy and unexpected things tend to happen.

-The last hour is when the experienced traders come in, after there is a market precedent set and trends can be followed. Sometimes it looks exactly like the newb hour, but usually there is more stability.

-Most of the time a high or low for the entire day is set within the first hour or trading.

Simple vs Complex Systems

Simple technical trading systems tend to do just as well as complex ones. It is a matter of preference (or, rather, if you want to try to kill yourself trying to account for all the anomalies with technical indicators).

For example, over the summer Pavan used an insanely complex system while I used a fairly simple one (with only a few more indicators/rules than the system presented here) and my entry timing was generally better than his (we did have completely different target stocks, though).

Psychology

Throwing a couple thousand dollars around isn't always easy. In order to do go through with successful trades, you must forget that you're dealing with something of value and instead focus on the analysis you have done.

Win/Loss Coping

Losing $20 in a few seconds can be rather intimidating, but dealing with such instances is essential to trading. Keep a log of all trades. Mark down what happened during losing trades, why you may have made a bad pick. This will help with feeling better about what happened, all the while allowing you to tweak your trading system so that it will be less likely to occur again. After some practice, you need to be able to distance yourself from emotional attachments to that money you're trading by channeling it directly to your notes.

Having several good trades in a row doesn't necessarily mean that you've found a winning strategy. Just like with loss coping, you cannot let yourself get emotional about wins. You should take the same kind of notes about winning trades, but instead write reasoning for why it worked and remember this reasoning for the next time you see the same sort of situation.

Feeling the Market

After some experience, you may start to get a feel for how the market or a particular stock moves. Try to quantify this feeling in terms of technical indicators or patterns in the price or volumes you see. For some this comes easily. With enough experience, you may be able to trade your system perfectly just by looking directly at price and volume.

Sticking to Your System

Here is where most aspiring day traders tend to fail. I've heard numbers from 90% to 98% of all starting traders end up losing money. With enough work and tweaking, you can most likely come up with a trading system that is effective and will have positive returns if followed perfectly. So:

-Write it down (which indicators, what time frames, when/where to use them, how they must be acting, stop points, etc etc)
-Memorize it
-Never, ever deviate from the system while trading
-After you see enough results, refine it

Seasoned Traders

Traders with large financial backing and adequate experience realize how hard it is for most newbs to stick to their strategy. They will tend to follow the strategy of “buy high, sell higher” to avoid all the failed rallies that newcomers may try to get in on.

They will also hold to their stop points without flinching, knowing that if you sell before a properly chosen stop, you have an increased chance of not catching a rebound, and if you sell after you are just wasting money.

Moving a Stock Price with Tricks

Choosing the Stock

You are looking for a stock where people will be half paying attention to it, sitting in the background of someone's watch list. Good characteristics are:

Low Volume/Volatility
Low Price
Large Spread

Execution

You are waiting for a particularly low-volume time where there may be no orders waiting to be executed. Buy at the last trading price and wait a few minutes. Then, as there are no other orders setting the ask price, put a sell order in an absurd amount above the current price level (a good .2% or whatever), immediately cancel it and put a second order a reasonable level above the last/current bid price. This will easily snag someone who is has just noticed the rapid ask price movement and assumes there will be a rally, which is something no newb wants to miss out on.

Example

I came up with the idea of doing this with an extremely low liquidity stock when I'd bought based on good technical indicators and the price ended up going absolutely nowhere.

Scalability

The most excellent part of this trick is that it scales very well to higher priced or higher volume stocks. In fact, it's basically how a lot of the market works once people have on the order of $10 million in their accounts. Awesome to the max.

Another Trick

Watch a volatile stock that is currently going through some crazy rally. Using Level II Quotes or Market Depth you can often see a sell order that was left behind as the price skipped a certain discrete unit where that person's limit was set. And so that order will just sit there until someone picks it up (way off the current price), or that person cancels it.

Taxes

Stuff n things, there are lots of sites out there.

Links
GOOD READ: The Path to Successful Trading (Progression of a Trader) http://elitetrader.com/tr/index.cfm?s=17&t=73
SEC Warning About Daytrading http://www.sec.gov/investor/pubs/daytips.htm
Daytrading Tips http://www.daytradersbulletin.com/html/tips.html
Clearstation Trading Community http://clearstation.etrade.com
Prophet Charting Services http://prophet.net
Interactive Brokers Discount Brokerage http://www.interactivebrokers.com