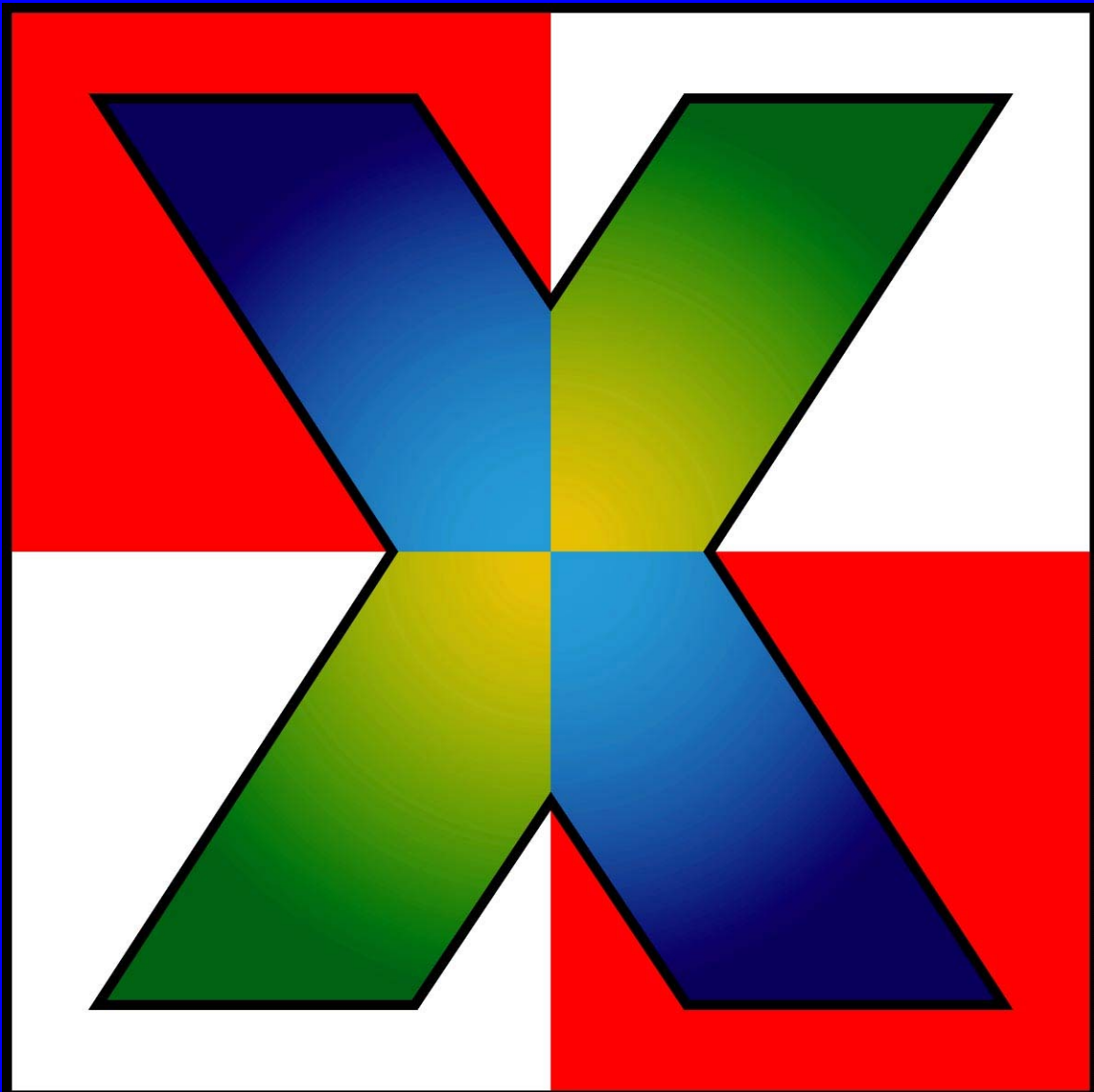# X-DEV USER'S MANUAL

"Extreme Deviation" - Automatic Price Targeting System

A <u>Unique</u> Software Program for Stocks, Mutual Funds, Commodities, and other Securities to help achieve Superior Returns at Reduced Risk

Master Table of Contents

Manual Comments

Welcome to X_DEV – "Extreme Deviation" Automatic Price Targeting System.

This user's manual covers the majority of features found in **X_DEV v3.0**. X_DEV Software continues to grow and expand as we add enhancements and features suggested by you – *Our Users*. We appreciate and encourage your thoughtful suggestions. No doubt, many suggestions will find their way into future releases.

Changes to the program may or may not be reflected in this manual. If certain features or screen layouts appear different from those shown in the manual, this is the reason. Fortunately, most changes will be intuitive to the user. The purpose of this manual is to indoctrinate users and help them understand the principles and use of X_DEV, so they can start making money fast.

We maintain a website to provide additional resources and a frequently asked questions link (F.A.Q.). These should help answer most of your questions. If not, email us for assistance.

Disclaimer

X_DEV – Extreme Deviation Automatic Price Targeting System is a reactive, cash management stock system designed to target and take action at extreme price deviations in a trend.

Under no circumstances, including, but not limited to, negligence, shall Mystifier's StockWerld be liable for any special or consequential damages that result from the use of, or the inability to use the X_DEV program.

Chapter 1 – Overview

- **What is X_DEV?**

- **Market Cycles, Trends and Deviation**

- **Capitalizing on Market Cycles**

- **Flexibility**

- **Charting Tools**

- **Picking Stocks and Funds**

- **Summary**

X_DEV Overview

What is X_DEV?

Welcome to X_DEV – **"Extreme Deviation" Automatic Price Targeting System**.

X_DEV is a new and unique software trading system with the primary goal of helping the investor find and react to the best trading opportunities in the life of a stock's trend. **X_DEV** is designed to help you profit by taking advantage of *extreme* moves in price, and is a powerful tool for those who believe investing for the long term is best achieved through a series of shorter term trades.

X_DEV will target and recommend the next best buying and selling prices based on the amount of your initial investment and trading setup. **X_DEV's** money management feature advises you to purchase or sell stocks, mutual funds and other securities in *"partial amounts"* for optimum **safety and performance**, so that over time your return relative to a "Buy & Hold" method is greatly enhanced.

X_DEV's primary function is to help the user make better decisions regarding their investments, and is not meant to be used as a substitute for decision making.

X_DEV is **not** a day trading program, but can be used very effectively for short-term, mid-term and long-term trend trading to suit the trading style and frequency of the individual.

Market Cycles

Experienced market watchers know that most stocks, mutual funds, commodities and other securities spend most of their time within *trends* or *trading ranges*. Market forces push prices up and down in waves.

Trading ranges are boundaries that enclose a *"sideways moving channel"* of highs and lows within which a security cycles. Classic trading ranges can be drawn on a chart using horizontal lines. As a trading range becomes more firmly established, the upper and lower lines begin to act as "resistance" and "support" which contain the highs and lows.

Trends (uptrends or downtrends) can be identified using *sloping* parallel lines. Long-term trends can persist for many months or even years. Mid-term trends are usually measured in weeks or months, while short-term trends last days or weeks. You will often notice minor trends within a longer trend. Trends often begin when a stock, fund or index breaks out of a trading range.

The ability to automatically recognize optimal entries and exits in trends and trading ranges, and shifts in the prevailing trend, presents powerful money making opportunities. Capitalizing on the cyclical behavior of the markets in general and individual securities specifically is a critical component in the X_DEV algorithm.

Example 1-1 shows QQQ (Nasdaq 100 tracking stock) in a 4 month downtrend enclosed between parallel lines. As you can see, the stock undulates between these channel lines. This is considered a "classic downtrend" as prices set a series of **lower** "highs" and **lower** "lows".
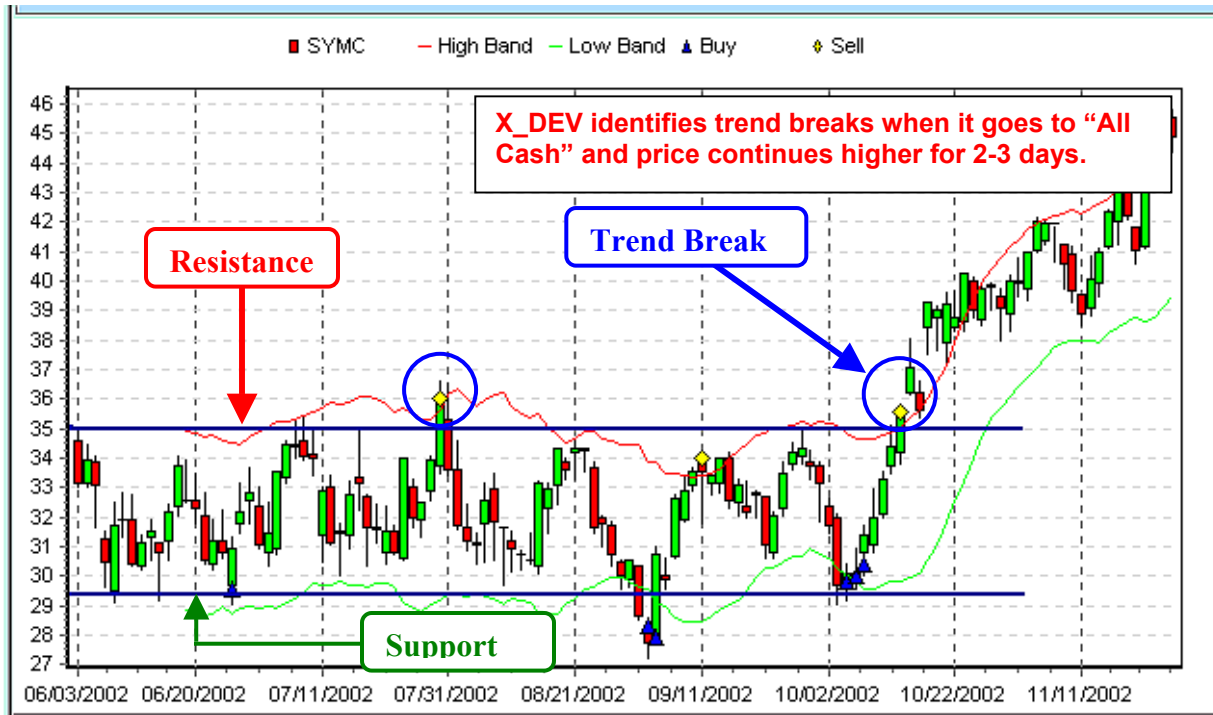

Example 1-1

For the life of the trend, the upper line acts as a barrier to penetration on the upside. The lower line acts as a barrier to penetration on the downside. When a breach in the opposite direction of the trend lines occurs and price remains out of the former channel for a significant time period, the trend can be said to have been broken.

Notice the break in trend that occurred in mid-April 2001 in example 1-2. QQQ made a noticeable and prolonged move to the upside and penetrated the upper channel line.

Example 1-2

Example 1-3 shows SYMC in a *trading range*, bounded on the top and bottom by horizontal lines. There were a few attempted penetrations in June and September, but prices snapped back into the range, as if pulled by a magnet. In the middle of October, however, there was a serious breakout to the upside, signaling an end to the trading range and the possible emergence of new pattern. In the next segment you will see how X_DEV *automatically* identifies possible trend breakouts.

Example 1-3

Capitalizing on Market Cycles

Look at example 1-3 above. In addition to the two horizontal trend lines, you will notice two wavy lines, one green and one red. These are 12-day "standard" X_DEV bands, which enclose all but the most extreme moves of the stock. These lines are rendered automatically by X_DEV. While "X_DEV bands" are similar to "standard deviation" bands, they are not the same. X_DEV bands incorporate the entire daily range into their calculation, including high, low and closing prices. The calculation of normal "standard deviation" bands uses only closing prices. The standard X_DEV bands capture the <u>average deviation</u> of price highs (red band) and price lows (green band) from a 12 day simple moving average. Since the underlying investment philosophy of X_DEV *is "long term investing through a series of shorter term trades"*, the 12 day simple moving average is a critical component of the X_DEV algorithm. It allows the program to identify optimal entries and exits in a short term time frame to capitalize on high and low areas in short term trading ranges or trends. Notice how X_DEV triggers sells near the top of the trading range and triggers buys at the bottom of the range. This is typical because X_DEV's unique algorithm constantly measures the distance of price highs and price lows from its baseline 12-day simple moving average (SMA). Once price has moved a specific percentage away from its 12-day SMA, X_DEV recognizes the move as the next best buying or selling opportunity to produce the optimal return.

You will notice there are multiple buy signals and multiple sell signals in some locations. X_DEV is not generally an *"All or Nothing"* algorithm (though it allows the user this flexibility). X_DEV suggests that the investor place some cash in reserve as he starts a new investment. This lowers risk, as not everything has been wagered on the hope that this stock will shoot straight up. If stock price begins to decline, X_DEV will trigger another "partial buy signal", allowing you to pick up cheaper shares and lower your

average cost.   X_DEV allows the user to tailor settings to take many small, staggered "bites", fewer large "bites", or move fully into and out of positions in a single move.

In a more predictable world, standard X_DEV bands would be adequate to help identify and trigger Buy and Sell points on a stock chart. Since the Stock Market is _anything but predictable_, X_DEV was designed with flexibility in mind. An extra set of **adjustable** X_DEV bands were developed to allow the user to capture price points that the X_DEV algorithm considers optimal to produce the highest return possible.

Notice example 1-4 below. In addition to the red and green standard X_DEV bands, you will see the two adjustable X_DEV bands (blue lines). X_DEV allows the user to _offset_ the "standard" bands in almost unlimited increments until optimal settings are achieved. Optimal settings yield the highest return and the lowest risk, given the trading style and risk profile of the individual investor (short, mid or long-term trend trading). In the chart below, the adjustable bands were user adjusted to capture the optimal entries and exits for this stock in this time frame.

Example 1-4

X_DEV Bands follow the stock's movement, however to capitalize on trend changes the blue adjustable bands need to be adjusted to capture the new trend's range of highs and lows. See Chapters 2 and 4 for in-depth information on setting parameters.

Flexibility

X_DEV was designed with flexibility in mind, to adjust to changing markets and trading preferences. X_DEV allows the user to independently set the minimum number of shares to buy or sell in a given trade, to tailor how quickly one becomes fully invested, to determine initial cash reserve, and widely vary chart time frames making it suitable for nearly any investor profile.

Are you an active trader who prefers to trade into and out of a stock many times in a given week? How about an intermediate term trader, who prefers to hold positions for weeks or even months? Or, perhaps you like to trade the long trend? X_DEV is flexible enough to accommodate any of the above profiles. However, X_DEV is NOT suitable for daytrading.

Investors come in all risk profiles. X_DEV was built to work the way you work, help you make better decisions and become a smarter investor. Aggressive investors often feel comfortable taking large risks for higher gain. No problem with X_DEV. Conservative investors will generally be more comfortable trading in smaller increments, thus reducing risk and taking gains when they are available. Again, X_DEV's unique flexibility allows for multiple trading styles and risk profiles.

The variables in X_DEV will be explained in the upcoming chapters. They are easy to optimize for your trading style and risk profile. The Tutorial in the next chapter will have you up and running in no time.

Charting Tools

For those wishing to perform Technical Analysis, (TA), X_DEV offers a substantial "tool kit" of *Standard Charting Tools*, including **Moving Average Convergence Divergence (***MACD), Simple and Exponential Moving Averages (SMA & EMA), Bollinger Bands, Directional Movement Index (DMI & ADX), Relative Strength Index (RSI), Slow Stochastics, Fast Stochastics, Full Stochastics, Williams %R, Chaikin Money Flow, Commodity Channel Index (CCI) and Trend Line***s**. Tool parameters can be user adjusted. See Chapter 6 for resources and more information on charting.

Stocks & Funds – What to Look For

X_DEV will work with Stocks, Mutual Funds, Commodities, and other securities. The ideal candidate for X_DEV will exhibit *significant volatility and undulation* within a channel or gradually sloping trading range. Luckily, much of the market behaves in this manner for extended periods. A "sleepy" stock or a "stodgy" mutual fund will trigger very little activity from X_DEV, and the potential for profit will be limited. "Asset Allocation Funds" (a mixture of stocks, bonds, cash, etc.) are usually poorly suited to X_DEV, since the mixture of assets dampens fluctuation and volatility. Some volatile funds, however, provide a very exciting ride and great profit potential.

The following factors are important when selecting a security – **quality, liquidity, volatility, trends, patterns and price**.
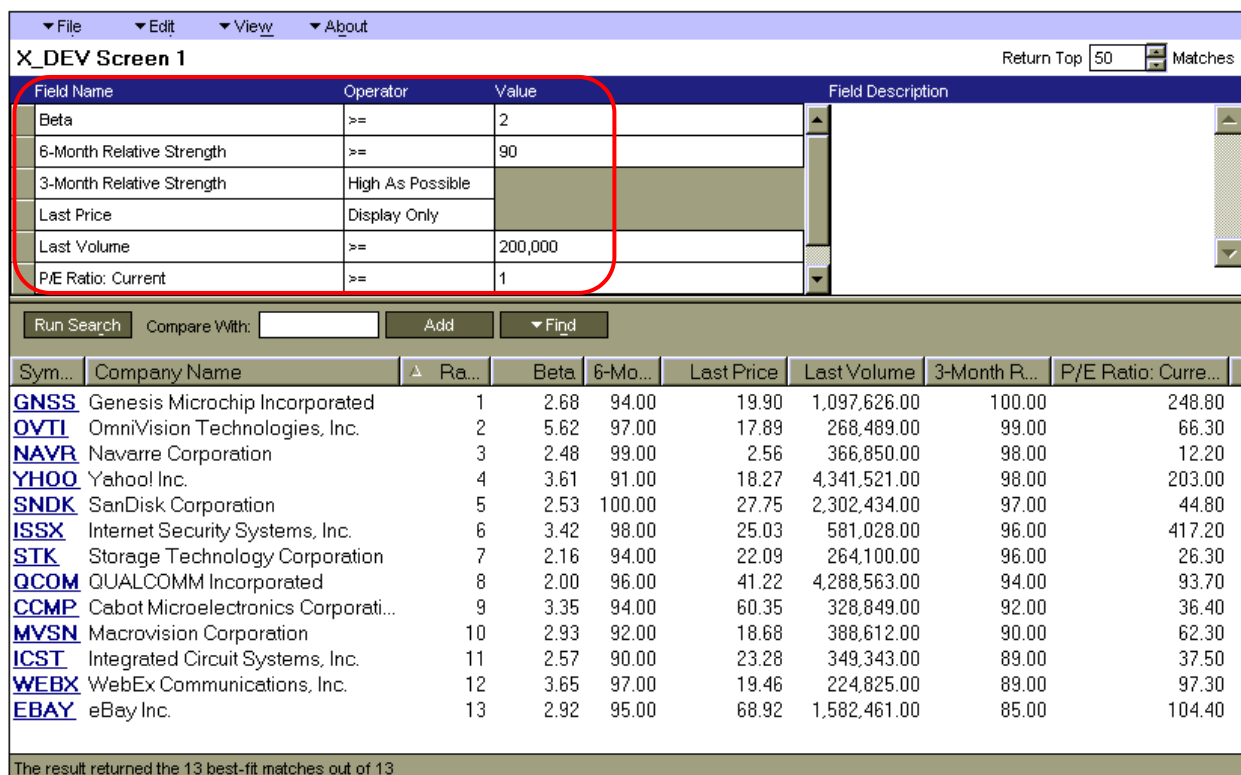
Stock selection can be an art in itself. Example 1-5 shows a simple screen using MSN's excellent stock screener to locate potentially suitable candidates for X_DEV. Note the parameters I have chosen:

1) **Beta** - An important measure of a stock's (or a portfolio's) volatility in relation to the S&P 500, which by definition has a beta of 1. Higher volatility is great for X_DEV stocks. The wider and more frequent a stock reaches upper and lower levels in a trend, the greater your X_DEV return will be.

2) **Relative Strength -** Measures the price performance of a stock in comparison to all other stocks. Higher relative strength stocks are generally strong performers for a reason. If a stock is performing

better than all other stocks, it's usually a good indication of strong demand by professionals who are privy to information not commonly known.

3) **P/E Ratio -** Also known as the "multiple", P/E Ratio is the latest closing price divided by the latest 12 months' earnings per share. Obviously a stock must have earnings for the PE ratio to be over 1. Generally stocks with earnings can be considered safer that those without.

4) **Price** – The current price of a stock or fund can figure into selection for a number of reasons. High priced securities need much bigger "point moves" to provide the same volatility as low priced stocks. Ultra low priced stocks can provide more volatility, but many are priced low for a good reason. Do your homework. *All else being equal*, a lower priced stock is often a better choice.

5) **Liquidity** – Try to select stocks with adequate daily trading volume, so it is easy to get into and out of positions. Very low volume can sometimes make it difficult to make a trade at a favorable price, since the number of buyers and sellers is limited. See the screen below.

As stated the following is a general screen to locate candidates worthy of consideration. Not all candidates in the screen will perform optimally in every time frame. Experiment with the screen options and variables yourself to locate stocks that fit your individual tastes and risk tolerance, and still demonstrate characteristics suitable for X_DEV.

Field Name	Operator	Value
Beta	>=	2
6-Month Relative Strength	>=	90
3-Month Relative Strength	High As Possible	
Last Price	Display Only	
Last Volume	>=	200,000
P/E Ratio: Current	>=	1

Sym...	Company Name	Ra...	Beta	6-Mo...	Last Price	Last Volume	3-Month R...	P/E Ratio: Curre...
GNSS	Genesis Microchip Incorporated	1	2.68	94.00	19.90	1,097,626.00	100.00	248.80
OVTI	OmniVision Technologies, Inc.	2	5.62	97.00	17.89	268,489.00	99.00	66.30
NAVR	Navarre Corporation	3	2.48	99.00	2.56	366,850.00	98.00	12.20
YHOO	Yahoo! Inc.	4	3.61	91.00	18.27	4,341,521.00	98.00	203.00
SNDK	SanDisk Corporation	5	2.53	100.00	27.75	2,302,434.00	97.00	44.80
ISSX	Internet Security Systems, Inc.	6	3.42	98.00	25.03	581,028.00	96.00	417.20
STK	Storage Technology Corporation	7	2.16	94.00	22.09	264,100.00	96.00	26.30
QCOM	QUALCOMM Incorporated	8	2.00	96.00	41.22	4,288,563.00	94.00	93.70
CCMP	Cabot Microelectronics Corporati...	9	3.35	94.00	60.35	328,849.00	92.00	36.40
MVSN	Macrovision Corporation	10	2.93	92.00	18.68	388,612.00	90.00	62.30
ICST	Integrated Circuit Systems, Inc.	11	2.57	90.00	23.28	349,343.00	89.00	37.50
WEBX	WebEx Communications, Inc.	12	3.65	97.00	19.46	224,825.00	89.00	97.30
EBAY	eBay Inc.	13	2.92	95.00	68.92	1,582,461.00	85.00	104.40

The result returned the 13 best-fit matches out of 13

Example 1-5   Microsoft Investor Stock Screener (http://moneycentral.msn.com/investor/finder/customstocks.asp)

To learn more about stock selection and some of the resources available, see Chapter 3.

Summary

X_DEV provides specific signals for *staggered buying* during lower risk periods, when a stock price moves below its "normal" range. As the stock price rises, so does the risk of a correction. X_DEV recognizes this and staggers selling to take profits and set them aside for future buying opportunities. As this cycle is repeated over and over, it is easy to see how profits can multiply dramatically, especially compared to a Buy & Hold strategy. In fact, a stock that cycles in a trading range for an extended period can build wealth rapidly for the experienced X_DEV user, while the Buy & Holder will show no profit at all.

As a bonus, *the X_DEV user operates with reduced risk*, since only a percentage of one's money is invested initially.

X_DEV works the way the market works, and takes advantage of the historical trends and emotional underpinnings that drive stock prices in cyclic waves. As a *tool*, it is unsurpassed in helping the investor analyze a stock and make wise, well-timed, unemotional decisions. Like any tool, it should not be used as a blind substitute for decision-making.

This completes the general introduction and overview of X_DEV.

Proceed to the <u>Tutorial</u> in Chapter 2 to see X_DEV at work!

Chapter 2 – Tutorial

Tutorial
"A Guided Tour"

In Chapter 2, we will take you on a guided tour of X_DEV. Using annotated charts generated by the program, you will be led through a variety of market scenarios, using DELL Computer as an example. By the time you complete the tutorial you should have an appreciation for the X_DEV algorithm and a basic understanding of how the program works. You will gain additional insights on how to use X_DEV to deal with some of the market's inevitable twists and turns.

The details of the program are thoroughly covered in the succeeding chapters.

We invite you to duplicate screen setups in this section in your X_DEV software, so you not only learn X_DEV, but how and why certain settings make sense in different situations. This is probably the fastest way to come up to speed. You will be learning much more than just a software program.

A note of caution: Stocks split, restated earnings, and online database adjustments can sometimes result in changes to historical prices. If when following along in the tutorial your data does not exactly match data in this manual, just continue with the tutorial. In most cases, the same parameter settings will work fine, though some calculations and returns may be slightly "off". Also, be sure you use the same data source for your historical prices as we do in our examples (WallStreet City, Yahoo Finance, or Silicon Valley Investor). Different database sources sometimes have minor differences in historical data.

Also, different versions of X_DEV may have different features, screens and chart layouts.

Let's Get Started…

Beginning an X_Dev investment program

Below are a series of X_DEV charts of DELL starting from mid 1999. By following the progression of charts and reading the annotations you should get a good feel for how an X_DEV investment is begun, how it works in different market scenarios, and why it works, if you follow a few simple rules. As you follow along, notice that some rules are for active seasoned traders and others are for less active, beginning traders. I will point out which rule is best suited for different traders and trading styles as we move along.

The very first thing you will do is look at the longer-term view of the stock you are interested in. Stock selection is extremely important in any investment program and is covered in chapter 3 of this manual. After a glance of the longer-term picture, you will try to capture the most recent intermediate to short-term trend (3 to 8 months generally) for "optimizing". Optimization is covered in detail in chapter 4.

Example 2-1

Once you've discovered the recent short or intermediate term trend you will optimize your X_DEV parameters over that time period. This allows you to capture the best buying and selling opportunities of the past so that if the trend continues the best buy and sell areas will continue to be identified.

Obviously the trend will change at some point. It may even change soon after you're your first X_DEV buy. Later in this chapter you will learn to recognize trend changes and adjust your X_DEV investment to meet those changes.
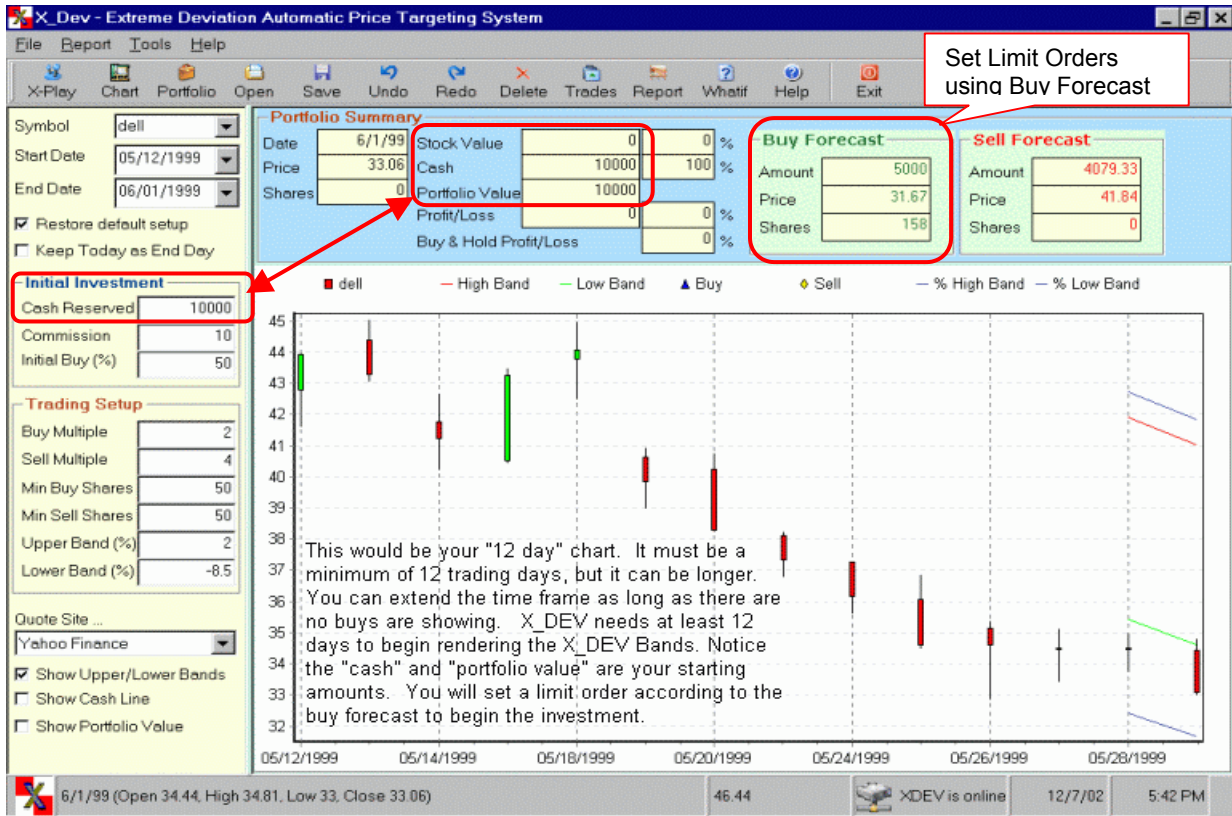
Example 2-2

Example 2-2 shows our chosen optimization time frame for DELL, with enough history to generate multiple buy and sell signals. For the purposes of this example, we are assuming today's date is 6/1/1999 (the end date shown on the chart). Historical buys are indicated blue triangles, and the sells are notated with yellow diamonds. This chart includes enough time to establish a *meaningful trend* that has a reasonable likelihood of continuing.

In this example, we decided to earmark $10,000 for this investment (Cash Reserved Box).   Example 2-2, however, shows multiple buy and sell signals and the results of those trades are shown in the Portfolio Summary boxes above the chart. As can be seen, we no longer have $10,000 in our account.

In preparation for trading, we set up a very short "**12-day chart**" (note – it's called a 12 day chart even though it may be longer than 12 trading days) so X_DEV can calculate your very first X_DEV buy. The 12-day chart in example 2-3 shows you have $10,000 in Cash, since no buys or sells have taken place. X_DEV will now tell you the exact price, number of shares and total dollar amount to commit to your first buy. You use the information in the "Buy Forecast Box" to set your limit order for the day.

Example 2-4 below, moves ahead one day to 6/2/1999, and shows what your chart looks like after your first buy is initiated.

Example 2-3

Example 2-4

Congratulations! You've made your first X_DEV buy. Now continue to monitor the next buy and sell forecasts each morning and set your daily limit orders accordingly. The "12 day chart setup" is just one way of beginning an X_DEV investment. You may choose to enter at any time instead of waiting for X_DEV to signal a buy. X_DEV's unique portfolio manager will accept your entry and forecast the next best buy or sell target based on your initial entry and subsequent buys and sells.   Just enter your exact fills into the X_DEV portfolio manager and X_DEV will do the rest! (See Chapter 5).

<u>Following your X_DEV investment</u>

Now that you have purchased some shares, you will monitor your investment daily and place your limit orders before the market opens.   This only takes a few minutes each morning. The following charts will show you different setups and suggest ways to proceed according to a few simple rules. Continuing with DELL example 2-5 below, notice that the price has risen to the upper blue adjustable X_DEV Band, and X_DEV has recommended 2 sells, putting you 100% in cash. You can see that X_DEV has nailed perfect exits in the short-term trend. For those who desire to trade in and out with full, or nearly full positions, an 11+% gain in 15 trading days would be a great return! Those individuals could either take the money and move on to another stock or continue to use X_DEV on DELL for a longer-term investment.

If you desire to continue to use DELL for a longer-term X_DEV investment, you would continue to monitor price action for another re-entry. Normally, if X_DEV goes into an "all cash" or "fully invested" position, and price continues to move in the same direction instead of reversing, then you should consider it a possible <u>alert to a trend change</u>. In a bullish trend where price keeps advancing after X_DEV has sold all shares and gone to all cash, a re-entry is warranted if price closes over the last sell price on any 3 days before a buy signal is triggered. The re-entry rules for this situation are listed in chapter 4.

Example 2-5

If a trend change is confirmed (usually by a break of a major resistance or support area, or a trend line or channel line break) then a re-optimization of the stock may be preferable. If prices have broken out to the upside and are trending higher then follow the re-entry rules and wait for approximately 3 weeks or more to re-optimize. *An easy way to remember this rule is to re-optimize exactly 1 month from the day of your last sell*.

So if your last sell was on June 23rd, your next re-optimization would be July 23rd. You will need enough time for price to define the short-term trend so that an accurate optimization can be conducted. X_DEV needs a definable trend to produce the best buy and sell targets. A definable trend is one that produces at least 2 distinct buy areas and 2 distinct sell areas.

Example 2-6

Continuing with the DELL example, a 1-month time period has elapsed since the last sell on June 23rd, (which put you 100% into Cash), so a re-optimization was performed as shown in example 2-7.

The X_DEV bands were readjusted to capture the _new_ highs and lows in the trend *from the beginning low point at the start of the new trend*. You could now set up another 12-day chart for re-entry (if you haven't entered already using the re-entry rules) or enter here with a partial position.

There is a lot of flexibility as to how you choose to use X_DEV.

Example 2-7

Example 2-8

Using X_DEV in different Market Scenarios

So far you have seen how to begin an X_DEV investment and to track, re-enter and re-optimize the investment. Next you will see examples of X_DEV setups for different market scenarios so you can see how X_DEV can perform well under all market conditions.

We have focused so far on uptrends. Now we will show you what to do if you are fully invested and price continues to decline. Continuing with our DELL setup in example 2-8 we will assume the X_DEV investor chose not to re-optimize the parameters and instead left them exactly as they were.

Example 2-9 shows a fully invested position and price has continued to decline. One option in this scenario would be to use the inverse of the re-entry rule and exit the position fully or a partial amount if price closed under the last X_DEV buy on 3 separate days.   Then either choose another stock for an X_DEV investment or wait a month, re-optimize the play, and decide if another entry is warranted. As stated before, *usually when X_DEV goes to all cash or a fully invested position and price does not reverse after the last extreme buy or sell, then a trend break is usually the result.   Once price breaks an important trend line it normally continues in the same direction for a while and a new trend develops. That is why it is usually wise to wait for a new trend to develop before you re-optimize the play.*

Example 2-9

If you are a long-term player and the drop doesn't concern you (because you are confident the stock will return to your buy level and higher), you may want to hold your shares. In this case *you would still need to re-optimize about 1 month after the last buy to account for the trend change*.

Then let X_DEV continue to work it's magic. As you will see in example 2-10 below, X_DEV can be quite profitable in downtrends by selling the rally's quickly and buying the dips slowly.

Different Settings for Different Trends

In an uptrend, you will generally find that it is better to buy more quickly on the dips and sell more gradually as prices rise. This makes sense because the dips tend to last a shorter period of time than the rallies, and you want to take the opportunity to buy before it has passed you by.

In a downtrend, you will usually find the opposite to be the case – buy gradually as prices decline, and sell quickly on the rallies. This way, you average into the stock slowly to lower your average cost, and sell quickly before the opportunity to profit is gone.

Examples 2-10 and 2-11 show how your optimized settings might differ in uptrends and downtrends. This points out the need to remain optimized for the current trend.

Example 2-10

Example 2-11

Example 2-12 below shows that optimized X_DEV parameters in a trading range tend to be more or less "balanced". In this example, the Upper Band % is set to +3 and the Lower Band % is set to –4. In a true sideways trend, your Upper and Lower Band % settings will approach being equidistant from zero (e.g., Upper Band at +1 and Lower Band at –1, or Upper Band at +5 and Lower Band at –5, etc.).

The Buy & Sell Multiples will also tend to be closer to one another. This makes sense, because the rallies and dips are more evenly spaced, both from a time and price-move standpoint. So, as opposed to bull or bear market scenarios, there is no particular bias for accelerated buying or selling in a trading range.

Example 2-12

Summary

The annotated charts above provide an overview of **the power and flexibility of X_DEV in action**. X_DEV allows you to benefit handsomely from the current trend, but is also a great tool for alerting you _quickly_ when trends may be changing. The ability to identify trends and trend changes is an important skill to master. X_DEV will help develop your "market sense" and make potential shifts in market direction easier to identify. Why? Because X_DEV points out when a stock has moved beyond its *"average extreme deviation",* and this is always the way new trends begin. It's built into the algorithm.

During this Tutorial, you learned the rudiments and some of the subtleties of the program. (The chapters that follow cover program features in detail.) As you continue to work with X_DEV, you will find yourself becoming more adept at reading and reacting to the market. You will become a better investor/trader, because X_DEV presents data clearly and logically, in a manner that builds insight.

In summary, we covered the following in this chapter:

- *Identify the longer-term and current trends (example 2-1)*
- *Optimize settings for the current trend (example 2-2)*
- *Create a "12-day chart" to begin trading (example 2-3)*
- *Place BUY Limit Orders using the "Buy Forecast" boxes (examples 2-3 & 2-4)*
- *Place SELL Limit Orders using the "Sell Forecast" boxes (example 2-5)*
- *Identify a possible developing "Trend Break" (example 2-5)*
- *Confirm a Break in Trend (example 2-6)*
- *Re-optimize your settings for the new trend (examples 2-7 & 2-8)*
- *Identifying a potential downtrend (example 2-9)*
- *Sample Settings for Bear Markets (example 2-10)*
- *Sample Settings for Bull Markets (example 2-11)*
- *Sample Settings for Trading Ranges (example 2-12)*

*** The following chapters delve into the details of stock selection, optimization, trading and portfolio management.***

Chapter 3 – Finding Good X DEV Candidates

- **What Characteristics to Look For in a Stock or Fund**

- **How Trading Style Affects Selection**

  o **Risk Profile**

  o **Short, Mid or Long Term Trading**

- **Screens to Identify Candidates**

- **Considering Fundamentals**

- **General Market Behavior and Market Indices**

Finding Good X_DEV Candidates

What Characteristics to Look for in a Stock or Fund

High Quality, Volatile Stocks or Volatile Mutual Funds are usually your best choices for X_DEV.

X_DEV performs best on stocks that produce *wide swings in sideways or gradually upward or downward sloping trading ranges*. Less volatile stocks can also work with X_DEV as long as there is adequate volatility and cyclical motion. To see sample selections of X_DEV candidates go to - http://stockwerld.com/xdevcharts.htm

Look at the X_DEV chart for **RF MICRO DEVICES** (Nasdaq ticker RFMD) in chart 3-1 below. During the Jun-Nov time period depicted, RFMD exhibited wide, frequent swings in a sideways trend. This triggered many profitable buying and selling opportunities, as shown by multiple buy and sell signals. On a percentage basis, cyclical price swings were within an approximate range of 40% to 75%.

Chart 3-1

Chart 2, in contrast, illustrates a low beta stock - Fannie Mae (FNM). Over the time frame pictured, you will notice there is still cyclical motion in the stock price, but price swings on a "*percentage basis"* are small (in the order of 5 – 10%).   Prices are generally cycling between 75 and 82, a 7-point move. If the median stock price were closer to 10 or 20, a 7-point move would be substantial, but in a $75 dollar stock, it is very quiet, especially when measured over an 8-month period. This stock would be a poorer selection for X_DEV, though you could still make money with it.

Chart 2

How trading Style Affects Stock Selection

Risk Profile

Staggering buys and sells in smaller frequent "bites" *often* lowers risk. It also means more frequent trading, and sometimes (but not always) can lead to lower returns. Once the X_DEV bands are properly set for your chosen stock and time frame, try lowering the number of shares traded, as well as the buy and sell multiples. At some point, you will notice that the number of transactions increase as prices rise and fall. When you find a suitable balance between trade frequency, trade size, and investment return, use that setting going forward. X_DEV will "average you in and out" of positions more gradually.

By increasing share transaction sizes and the buy and sell multiples, you will notice fewer, larger trades taking place. For example, if you set the minimum shares sold at 500, and X_DEV wants to sell only 400 shares as the stock price rises, the transaction will not trigger. A zero will appear in the Shares box of the Sell Forecast section even though price has exceeded the upper blue adjustable X_DEV Band. If your parameters are raised high enough, you begin approaching a "buy and hold" methodology. With an "all or

nothing" approach, risk rises. You may also miss buying and selling opportunities, which can negatively affect returns.

As with any good tool, you need to experiment with different stocks, market environments and trading parameters. In a reasonably short period of time, it will become evident how to set up each stock or fund to match your comfort zone.

*(Hint: click the **Trade Report** Button at any time to review trade sizes and dates, then make appropriate adjustments).*

While X_DEV thrives on high volatility stocks that are properly optimized, less volatile stocks and funds can be used, so long as they show enough cyclical movement. Backtesting in X_DEV will show you whether they are appropriate and suited to your risk profile and expectations.

Short, Mid or Long Term Trading

X_DEV is versatile enough to use in any time frame with the exception of "intraday" or "day-trading". X_DEV currently generates its signals from <u>daily</u> high, low and closing prices (not intraday prices) so daytrading with X_DEV is not practical.   The user can adjust the time frame of the back-tested study to find suitable X_DEV targets to use going forward in any time frame longer than 12 days.

Active or "Swing" Traders

Active Traders enjoy the action, and look to capture the daily or weekly action available in the smaller ripples contained within the medium-term trend. Deviation bands should generally be spaced closer together (lower numbers) to capture the highs and lows of these smaller cycles. Since price moves will be smaller, it may be necessary to increase the buy and sell multiples to increase the size of each trade.

Long Term Traders

Long-Term Traders, in contrast, prefer a long time horizon, measured in months, quarters or years to capture "major trends". Look at historical data over a longer time frame and set the deviation bands to filter out the "noise and chatter" of minor moves to capture the longer range moves.

Short to Intermediate Term Traders (Short – Intermediate Term Time Frame)

Short and intermediate term traders prefer moderate trading activity and look to capitalize on short term trends, measured in weeks or months. Back-test the intermediate waves and adjust your settings so they are appropriate for the time setting you have chosen. Settings will usually fall between the two extremes mentioned above.

<u>Screens to Identify Candidates</u>

There are dozens of excellent stock screeners available on the Internet to help you identify good *"prospects"* quickly. Look for quality companies with good earnings prospects, high Beta, strong relative strength, trending patterns and survivability over your chosen time frame. You may also wish to look for stocks with lower prices, as they tend to show more volatility (on a percentage basis) than do high priced stocks. Just remember that low priced stocks are often low priced for a reason, so do a little homework.

Screens for X_DEV candidates

The following factors are important when selecting a security – **quality, liquidity, volatility, trends, patterns and price**.

Try a few of the following screens to uncover potential candidates for X-DEV. This first screen, using the Microsoft Investor Stock Screener, is duplicated from Chapter 1. Note the parameters I have chosen.

1) **Beta** - An important measure of a stock's (or a portfolio's) volatility in relation to the S&P 500, which by definition has a beta of 1. Higher volatility is great for X_DEV stocks. The wider and more frequent a stock reaches upper and lower levels in a trend, the greater your X_DEV return will be.

2) **Relative Strength -** Measures the price performance of a stock in comparison to all other stocks. Higher relative strength stocks are generally strong performers for a reason. If a stock is performing better than all other stocks, it's usually a good indication of strong demand by professionals who are privy to information not commonly known.

3) **P/E Ratio -** Also known as the "multiple", P/E Ratio is the latest closing price divided by the latest 12 months' earnings per share. Obviously a stock must have earnings for the PE ratio to be over 1. Generally stocks with earnings can be considered safer that those without.

4) **Price** – The current price of a stock or fund can figure into selection for a number of reasons. High priced securities need much bigger "point moves" to provide the same volatility as low priced stocks. Ultra low priced stocks can provide more volatility, but many are priced low for a good reason. Do your homework. *All else being equal*, a lower priced stock is often a better choice.

5) **Liquidity** – Try to select stocks with adequate daily trading volume, so it is easy to get into and out of positions. Very low volume can sometimes make it difficult to make a trade at a favorable price, since the number of buyers and sellers is limited. See the screen below.

As stated the following is a general screen to locate candidates worthy of consideration. Not all candidates in the screen will perform optimally in every time frame. Experiment with the screen options and variables yourself to locate stocks that fit your individual tastes and risk tolerance, and still demonstrate characteristics suitable for X_DEV.

▼File	▼Edit	▼View	▼About					
X_DEV Screen 1						Return Top 50	Matches	
Field Name		Operator	Value		Field Description			
Beta		>=	2					
6-Month Relative Strength		>=	90					
3-Month Relative Strength		High As Possible						
Last Price		Display Only						
Last Volume		>=	200,000					
P/E Ratio: Current		>=	1					

[Run Search] Compare With: [   ] [Add] [▼Find]

Sym...	Company Name	△ Ra...	Beta	6-Mo...	Last Price	Last Volume	3-Month R...	P/E Ratio: Curre...
GNSS	Genesis Microchip Incorporated	1	2.68	94.00	19.90	1,097,626.00	100.00	248.80
OVTI	OmniVision Technologies, Inc.	2	5.62	97.00	17.89	268,489.00	99.00	66.30
NAVR	Navarre Corporation	3	2.48	99.00	2.56	366,850.00	98.00	12.20
YHOO	Yahoo! Inc.	4	3.61	91.00	18.27	4,341,521.00	98.00	203.00
SNDK	SanDisk Corporation	5	2.53	100.00	27.75	2,302,434.00	97.00	44.80
ISSX	Internet Security Systems, Inc.	6	3.42	98.00	25.03	581,028.00	96.00	417.20
STK	Storage Technology Corporation	7	2.16	94.00	22.09	264,100.00	96.00	26.30
QCOM	QUALCOMM Incorporated	8	2.00	96.00	41.22	4,288,563.00	94.00	93.70
CCMP	Cabot Microelectronics Corporati...	9	3.35	94.00	60.35	328,849.00	92.00	36.40
MVSN	Macrovision Corporation	10	2.93	92.00	18.68	388,612.00	90.00	62.30
ICST	Integrated Circuit Systems, Inc.	11	2.57	90.00	23.28	349,343.00	89.00	37.50
WEBX	WebEx Communications, Inc.	12	3.65	97.00	19.46	224,825.00	89.00	97.30
EBAY	eBay Inc.	13	2.92	95.00	68.92	1,582,461.00	85.00	104.40

The result returned the 13 best-fit matches out of 13

Microsoft Investor Stock Screener (http://moneycentral.msn.com/investor/finder/customstocks.asp)

Here are a few other Screen possibilities to help you uncover good X_DEV candidates:

Stockfetcher.com - http://www.stockfetcher.com has dozens of pre-built screens that lists stocks meeting different criteria. You might want to check out the screens that "trade in channels".

> ▸ **Stocks Trading In Channels**
> 45 Day Channel: bottom, top, sloping up, sloping down
> 60 Day Channel: bottom, top, sloping up, sloping down
> 90 Day Channel: bottom, top, sloping up, sloping down
> **More...**

Stocks Trading Above Their Upper Band

AHC	EV	MEDM
AMX	GENZ	MIPS
BBY	GLW	MTON
BHI	GPS	PDII
BLDP	ICOS	TNL
CTXS	MDCC	

Stocks Trading Below Their Lower Band

DP
IDPH
ITT
SWC

SchaeffersResearch.com

Schaeffer's (http://www.schaeffersresearch.com/) has a listing of stocks that closed above or below their *Volatility Bands* the previous trading session. (Volatility Bands are _not_ the same as X_DEV bands but follow similar thinking).

These stocks have been pre-screened for adequate liquidity and trading volume and are generally pretty good sized companies. To access the list, click the above link, and look under "Intraday Insights" for "Volatility Bands Scan Results".

Custom Screen Results from marketscreen.com   Thu, Dec 05, 5:39 am ET

Scans are performed using stock data as of December 04, 2002   MarketScreen FROM PCQUOTE

Fundamental Criteria Selected
Exchange: NASD
Market capitalization:Small-cap

Technical Criteria Selected
Range Riders

Below is a list of all symbols matching the Fundamental and Technical criteria specified on the left.

Back To Index Report

Symbol	Name	Last	Change	% Change	Volume ▼	% Off 52-Wk High	% Off 52-Wk Low	<< sort by
VIRS	TRIANGLE PHARMACEUTICALS INC	5.82	+1.32	29.28%	17,762,252	3.05%	96.95%	
CTAC	1-800 CONTACTS INC	26.93	+0.94	3.62%	1,110,862	4.08%	95.92%	
SINA	SINA COM ORD	5.47	+0.27	5.19%	918,867	9.37%	90.63%	
SCSS	SELECT COMFORT CORP	9.76	+0.61	6.67%	680,408	5.15%	94.85%	
CRAY	CRAY INC	6.79	+0.21	3.19%	657,916	10.00%	90.00%	
RGLD	ROYAL GOLD INC	19.00	+0.67	3.66%	619,844	9.32%	90.68%	
RINO	BLUE RHINO CORP	18.90	+0.99	5.53%	557,950	11.75%	88.25%	
VRNT	VERINT SYS INC	19.77	+1.13	6.06%	533,749	2.45%	97.55%	
BSTE	BIOSITE INC	31.07	+0.54	1.77%	520,208	11.82%	88.18%	

PCQuote.com has a number of *"pre-built"* stock screens to uncover a wide variety of stocks. Click the pull-down box at the top, highlight **"strong stocks"** then click the View Screens button. Under the Strong Stocks screen click **"Range Ri**ders" and sort by volume (highest to lowest). You have the option of picking from large, mid, small and micro-cap stocks from the Nasdaq, NYSE, or AMEX exchanges.

To get to PCQuote.com, visit http://www.marketscreen.com/c/pcquote/default.asp.

A screen is _no guarantee_ that a stock is a suitable investment candidate, but it does eliminate those stocks not meeting your criteria. It is a great way to narrow the field. Investors should perform some due diligence to make sure the company is sound and has a chart that works well with X_DEV.

Considering Fundamentals

Fundamental Analysis involves looking at Balance Sheets, Income Statements, Cash Flow Statements and Quarterly Reports of a company, among other things. By evaluating a company's management effectiveness, position in the marketplace, capitalization, new products in the pipeline, cost structure and current valuation, the investor hopes to uncover a stock that has great long-term growth potential which will be reflected in its stock price. Of course, this is no guaranteed that the stock will go up.

X_DEV prefers a stock that cycles in a trading range or in a gently sloping channel with adequate volatility to generate some action. Fundamentals are not usually overemphasized for this reason, but they can help an investor select stocks that have survivability, adequate liquidity, and a balance sheet that is not leveraged to excess. It is much *easier* to hold a stock that is climbing than one that is taking a nose-dive. While X_DEV when properly optimized can often make a profit on cycling stocks in a downtrend it will almost always do better in an uptrend.

Investors who are familiar with a specific industry or sector and follow those companies closely will often have an advantage over the uneducated. So, fundamentals can play a role in X_DEV. The main thing is to find adequate quality, liquidity and volatility.

General Market Behavior and Market Indices

The great majority of stocks tend to follow the overall market trend. Even many profitable high-quality companies decline during severe corrections or Bear Markets. In *hot* Bull Markets weak companies often participate. It is generally not wise to fight the trend.

You can use X_DEV to perform analyses on the major indices and sectors, just as you do with an individual stock or fund. All you need is a ticker symbol. You will need to use Yahoo's data feed and yahoo's symbols for the indexes. Some of the major index symbols are:

S&P 500 - ^GSPC
Dow Jones Industrials - ^DJI
Nasdaq Composite - ^IXIC
Philadelphia Semi-Conductor Index - ^SOXX

The charting tools within X_DEV allow you to employ numerous technical tools to give you greater insight into the broader market. Most importantly, your analyses can usually alert you to a potential or likely trend change so you have time to rationally consider your strategy.

Knowing if the broad market is trending up, down or sideways will also give you additional insight when selecting the time frame for your study and setting parameters for the stocks you wish to trade.

Summary

You can trade a stock using X_DEV without any knowledge about fundamentals or market direction, but your results will likely improve over the long term if you are more aware and better informed. Some investors even choose to specialize in particular sectors, industries or groupings of stocks. Over time, they become familiar with cycles and patterns that might be less noticeable to others.

Picking quality stocks and knowing the general market climate can help.

Chapter 4 – Optimizing Parameters

- **Time Frame for Backtesting Studies**

- **Cash Reserved**

- **Commissions Paid**

- **Initial Buy Percent**

- **Minimum Share Amounts**

- **Adjusting X_DEV Bands**

- **Buy & Sell Multiples**

- **Final Adjustments**

- **Saving Setups**

- **Re-Optimizing When the Trend Changes**

- **Rapidly Falling Markets**

- **Rapidly Rising Markets**

- **Summary**

Optimizing Parameters

This chapter provides basic step-by-step procedures for optimizing your setup parameters in X_DEV. Some of this information was previously illustrated in the Tutorial (Chapter 2), but is covered here in greater detail. Additional information is also presented to help you address trend changes, bull and bear market scenarios, and other subtleties. It also serves as a good "quick reference to parameters".

Time Frame for Back-Testing Studies

Selecting appropriate **Start** and **End Dates** for backtesting is important when setting your trading parameters. The parameters you optimize when backtesting a stock are the same parameters you will use when you initiate a new position, so you want your settings to be representative of the current trend. It is usually best to begin by viewing a long-term chart (1 year, or longer if necessary).   This makes it easier to spot overall patterns and the general trend. If desired, use the line drawing tool to help you identify trend changes and the beginning date of the latest trend. You can also use the charting features and indicators described in Chapter 6.

Typically, it is desirable to select a time frame of at least 2 – 5 of months for your study. (As you begin setting your parameters you will want to find at least two distinct buying periods, and two distinct selling periods to help you establish a meaningful trend as shown in Example 4-1. With a very volatile stock, a shorter time frame may be entirely suitable to achieve two buy and sell points.)

Once you have established your desired Start Date, *count backward at least 12 **trading** days and enter this into the Start Date box*. X_DEV needs at least 12 trading days to calculate its simple moving average, so the first 12 days provide historical information for that purpose. As such, the X_DEV bands will not display during the first 12 days after the first stock price shown on your chart (i.e., 12 days after the Start Date).

*Put **today's date** in the **End Date** box.* This will insure your study includes the latest stock price data available.

*(Hint: when you pull down the End Date drop-box, you can click the **"red circle"** to automatically select today's date).*

As you begin performing your optimization, you may find that the time frame you selected is not suitable. Simply select a new start date to shorten or lengthen the time frame and resume your optimization. Selecting the proper time frame becomes intuitive after a little experience.

*Remember to hit the "**Enter Key**" or click the "**X-Play**" button to recalculate at any time.*
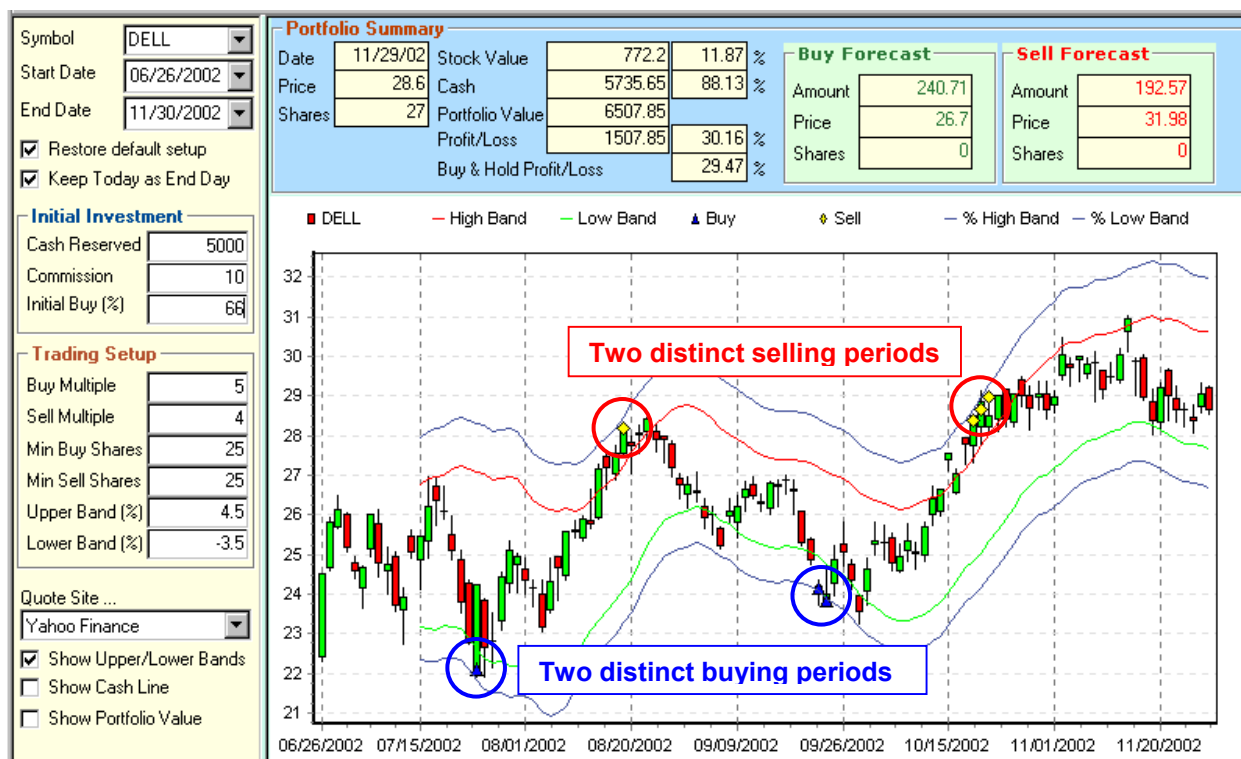
Example 4-1

Cash Reserved

In the **Cash Reserved** box, enter the <u>TOTAL AMOUNT</u> you wish to invest. A portion of your total *"Cash Reserved"* will go toward your first stock purchase and the remainder will be set aside as "cash reserve" for future purchases. Once entered, you will not be required to make any changes to Cash Reserved, unless you decide at a future date to provide additional funds from an outside source.

Commissions Paid

In the **Commissions Paid** box, enter the amount your broker charges for a <u>single</u> transaction (buy <u>or</u> sell). X_DEV will factor commissions into all calculations. This amount will not need to be adjusted, unless your commission cost per trade changes.

Initial Buy Percent

The **Initial Buy (%)** controls *the percentage* of **Cash Reserved** that will go toward your first purchase of stock. It is recommended that you *<u>start with 50%, 66% or 75% as the Initial Buy Percent</u>*. It is suggested that new users start with 50% and make final adjustments later in the process.

In a *<u>very</u>* bullish market you may choose to increase **Initial Buy (%)** to 66%, 75% or even 100% to have more of your money working as prices rise. The downside of using a high Initial Buy Percent is that you will have little or no cash reserve available for purchases should the stock correct before resuming an upward trend.

Initial Trading Setup

The six boxes in the **Trading Setup** area are where the bulk of the optimization occurs. Before you begin optimizing, it is strongly suggested that all settings in the **Trading Setup** box be *set to a value of 1, with the exception of Lower Band %, which should be set to –1*.

Minimum Shares Amounts

Now it is time to start optimizing. **Minimum Buy Shares** and **Minimum Sell Shares** allow you to set the *minimum* number of shares you are willing to trade in a single transaction.   A good starting point is to set both so that the minimum trade is in the range of 10 – 20% of your Cash Reserved.

Using the DELL optimization shown in Example 1, you will notice the price of the stock is trading in the $25 –30 range. The example shows 25 shares for both the Minimum Buy and Minimum Sell, which represents a minimum transaction value of about $625 - $750 (or 12.5% - 15% of Cash Reserved).

In the DELL example, *using a low number*, such as 10 shares, would result in more frequent trades and high commissions costs. A sale of 10 shares at $25/share would be $250, and a $15 commission would represent **6% of the total trade**. Try to keep commission costs below 1 or 2% of the purchase or sale value. If your original cost was $18/share, and you sold at $25/share, your profit before commissions would be $70. A $15 commission on a $70 would represent **21.5% of your profit,** which is unacceptable.

If the **Minimum Buy and Sell Shares** are *set too high*, you may miss profitable opportunities to buy and sell. In the DELL example, if you chose 100 shares as a minimum transaction, you would need to have a substantial move to place a trade. At $30/share, a 100 share trade would be worth $3000, or 60% of your starting cash reserve. There *will* be times when X_DEV suggests buying or selling in large amounts, but setting 100 shares as a *"minimum"* would degrade performance significantly in this case.

After setting the other trading parameters it is often a good idea to try readjusting your minimum buy and sell shares to see if you can improve your ultimate performance.

*Note: There will be occasions when you are unable to obtain the desired activity without setting your minimum buy and sell shares to an unreasonably low level. This issue will be addressed under **BUY and Sell Multiples**, later in this chapter.*

Adjusting X_DEV Bands

The next step in the optimization process is to set the **Upper Band %** and the **Lower Band %**.   The red and green X_DEV bands capture the *average deviation* of the stock displayed. You want to adjust the Upper and Lower Band % so they capture the *"**average extreme deviation**"*. The DELL chart shown in Example 4-1 above is an excellent example of how correct band settings clip the extreme deviation points.

Start with default settings of **+1 in the Upper Band %** and **–1 in the Lower Band %**. Now, begin adjusting the lower band percent up or down in increments of 1 until you achieve the highest Profit/Loss in the box above the chart. With experience you may find adjusting in larger increments and then fine tuning in lower increments will save time.

Next, adjust the Upper Band % in increments of 1 until you maximize your Profit/Loss percent. Once they are maximized, try adjusting the bands in 0.5% increments either side of the current settings to see if you can improve your result. Increments smaller than 0.5% will generally result in over-optimization, but may be useful when studying index's or sector X_DEV charts.

It is not uncommon to have two positive X_DEV band values or two negative X_DEV band values in a properly optimized stock. In a classic, strong uptrend dips are smaller than rallies, so your lower band may need to be adjusted upward to take advantage of buying opportunities.

In a classic downtrend, rallies are often short and quick, while dips are more severe and prolonged. You will find that you probably have to adjust both bands into negative territory for a down trending stock. This makes sense, since you want to "sell the rally" and buy into positions more gradually.

You may need to make a <u>final minor adjustment</u> to the **Upper and Lower Band %** after you set the **Buy & Sell Multiples**. This will fine-tune your optimization for the best results.

Buy & Sell Multiples

Buy and Sell Multiples are very powerful, and small changes can have a profound impact on trading action and returns. The algorithm for calculating Buy and Sell Multiples is complex, but the principle behind it is relatively simple.

Starting values of 1 for Buy & Sell Multiples (highly recommended) do not modify the standard algorithm, number of shares bought or sold, or the aggressiveness with which they are bought or sold. For an "ideal" X_DEV stock moving in a sideways trend with good volatility and regular, equidistant movements above and below its midpoint, a value of 1 (or close to 1) will produce superior results.

As either the **Buy Multiple** or **Sell Multiple** is raised (usually in increments of 1) trading action becomes more aggressive. Higher Multiples apply a *"multiplier effect"* to the number of shares traded, allowing you take *"bigger bites"* and get into or out of positions more rapidly. As mentioned, the algorithm is complex and the effect is <u>*not linear*</u>.

Raising the Sell Multiple applies a multiplier effect to selling activity and instructs X_DEV to <u>*SELL shares more aggressively and in larger blocks*</u>, causing you to close out your positions faster. This would be an excellent strategy if trying to sell quickly on rallies of short duration during a downtrend.

Raising the Buy Multiple applies the multiplier effect to buying activity and instructs X_DEV to <u>*BUY shares more aggressively in larger blocks*</u>, causing you to enter positions faster. This would be an excellent strategy if trying to buy quickly on dips of short duration during an uptrend.

You can immediately begin to appreciate the flexibility and power of using **Buy & Sell Multiples**. In a sideways trend the buy and sell multiples will be the same or fairly close to one another. Small multiples will encourage smaller bites and more frequent trades than higher multiples. This flexibility allows users to respond to market changes and tailor X_DEV to their risk profile and trading style.

There is a close relationship between **Buy & Sell <u>Minimums</u>** and **Buy & Sell <u>Multiples</u>**. As mentioned earlier, there will be occasions when you will be unable to obtain the desired trade activity without setting your minimum buy and sell shares to very low levels where commissions can become excessive. If a price move (even outside of the X_DEV band) is not sufficient to exceed your minimum share requirements, the trade will not be recommended and will not display on the chart.

Buy and Sell Multiples can help address this issue. By raising the Buy or Sell Multiple, X_DEV will *apply a multiplier effect to the normal number of shares bought or sold respectively*. When the multiple is high enough that X_DEV can recommend a transaction larger than the minimum shares you specified, a buy (triangle) or sell (diamond) will be placed on the chart. You will also see the change reflected in the Profit/Loss box. *Your buy and sell multiples will be optimized when you have achieved the highest return*.

(Hint: Once you have your multiples set for the optimal return, <u>try doubling both</u> of them to see if this improves the return. If so, keep the new settings. If not, click the undo button to use the old settings.)

Final Adjustments

Your settings should be close to optimized by now. Make minor adjustments to your settings at this point to see if you can fine-tune your settings for the best performance going forward. This is an iterative process and there is no set order, but you may wish to try the following sequence:

- Adjust the Initial Buy Percent, trying 50%, 66% and 75%. Only use 100% if you have a *high degree of confidence* that the market and your stock are headed up.

- Adjust your Upper and Lower Band % values. Try adjusting both by 0.5 % in either direction to maximize the return.

- Play with the Minimum Buy Shares and Minimum Sell Shares up and down to see if you can do better. (The same number in both boxes is generally recommended).

- Make final adjustments to the Buy & Sell Multiples.

- Remember to click "X-Play" or hit the "Enter Key" to recalculate.

A properly optimized X_DEV chart will <u>ALWAYS</u> result in higher Profit/Loss % than Buy & Hold providing adequate time has elapsed on the chart to allow for two buy and two sell points.

> *The above optimization process may seem daunting, since it is covered in such great detail. After becoming familiar with X_DEV and how the parameters work, the typical stock optimization will take no more than a few minutes at most.*

Saving Setups

Once you have optimized your settings, save them using the **Save** or **Save As** commands so you can retrieve them later without having to input parameters all over again.

The **Save** command will save the chart, time frame, and all parameters to the *X_DEV / Setup* directory *using the ticker symbol as the "save name"*. DELL will be saved as DELL.XDV. If you have a previously saved DELL.XDV setup, it will be overwritten with your new setup.

The **Save As** command allows you to specify your own name to the saved file. If your setup for DELL began on June 26,2002, you might save the file as "DELL 6-26-02 Setup". The .XDV extension will be added automatically. This allows you to save the file with a name that is meaningful to you.

When you wish to retrieve your setup, you can use the **Symbol Drop-box** or use the **Open** command.

Once you have chosen and optimized a stock you wish to trade, you are ready to begin trading. (See Chapter 5).

Re-Optimizing When the Trend Changes

When a noticeable trend change occurs, you should reoptimize your settings to remain in step with the market and your stock. You do not want to reoptimize too frequently and it is recommended that you *allow <u>at least 3 weeks between optimizations</u>*. Let X_DEV do the work for you. **The one exception is when a noticeable and significant trend change occurs**.

Rapidly Rising and Falling Markets

X_DEV is an outstanding tool for assessing the market, identifying trends, formulating strategies, conducting trading activities and monitoring your progress. As shown, X_DEV is highly flexible and can be adapted to a variety of markets, trading styles and risk profiles. Still, no tool is perfect for every market. Following X_DEV blindly in certain situations could yield disappointing results. Even when wrong, however, X_DEV's algorithm is less risky than Buy & Hold, and has the potential to recover handsomely.

Let's look at some of these "challenging" situations.

Rapidly Falling Market

If you hold a position in a stock that falls rapidly during a nasty bear market or protracted correction, X_DEV will normally call for you to buy shares progressively as the price falls. This can conceivably cause you to expend all your cash reserve well before the bottom, especially if prices free-fall and exhibit no cyclical motion on the way down. At some point, you will be 100% invested, and as the stock falls, you will be just like the Buy & Hold investor, with one happy exception – you will generally have bought at a lower average price.

Look at IBM during the last 4 months of 2001. The stock was in an uptrend and you would have done well with both X_DEV and Buy & Hold. IBM during this period was not a fantastic X_DEV stock, since volatility was muted, but still X_DEV did well.

X_DEV is designed to follow the trend, and sell on extreme rises above the user defined deviation bands. This is wise, since a rapidly rising stock often becomes *overbought*, then heads south as investors overreact to the previous market euphoria. Look at mid-January. X_DEV was showing a potential change of trend. Let's move the clock forward.

By mid December, you'd have been 100% invested in stock with no remaining cash reserve. In mid January, the stock dropped below the lower deviation bands, prompting X_DEV to purchase more stock, but there was no more cash in reserve. ***X_DEV pointed out that the <u>trend was reversing</u>, since the stock price dropped below the lower blue band and kept falling 2-3 days after being fully invested. This is X_DEV's way of flagging a trend change and calling for action***. As a minimum, reoptimization of parameters is called for since the trend clearly and quickly changed from up to down. (Even if you had done nothing, notice how X_DEV resumes buying low and selling high at the end of 2002. These settings were not reoptimized as trends changed, but this still illustrates how X_DEV can help you recover after a market correction).
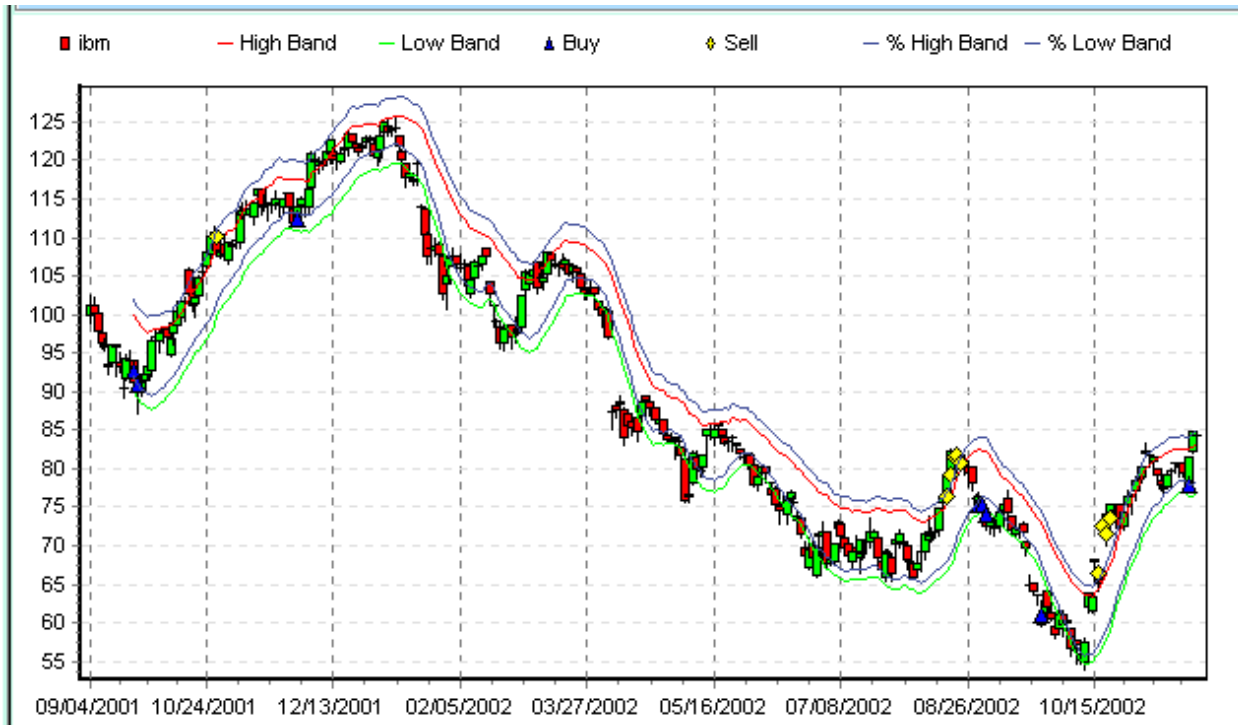
Suggestions for Downtrends

1. Review your chart patterns regularly. If you see a potential trend change, stay alert and reoptimize your settings.

2. If you are fully invested, and prices continue to drop below the lower blue deviation band for more than 2-3 days, know you are in the midst of a *probable* trend change. Re-optimize or place a stop loss order under the low of the 3rd day's intraday low and consider selling your entire position, or perhaps a partial position.

3. See if a profitable new trend (even a cycling downtrend) presents itself. You will definitely need different parameters than you had during an uptrend, but it is quite possible to profit handsomely in a downtrend that exhibits sufficient volatility and range bound activity. See SMH example below.

4. Or, look for another stock to trade.

Downtrend band settings and trend break

Rapidly Rising Markets

When a stock takes off like a rocket, and especially if it does so without much "up and down" cyclical movement, X_DEV will generally instruct you to sell your shares since it is anticipating a continuation of the previous pattern of cyclical behavior. While you might sell at a good gain it is disconcerting to sell out of a position only to watch as it races upward.

Suggestions for rapid uptrends are similar to those for rapid downtrends. *If you have moved entirely into cash at X_DEV's urging, and if the price continues to rise above the upper blue deviation band for more than 2-3 days, the trend has probably begun to change. X_DEV is telling you it is either time to do some analysis and re-optimize, or re-enter the play.*

There are a number of approaches to the re-entry scenario:

Where you re-enter and how much is of course up to you but here are some suggestions.

1) Immediately re-enter at the market at open the next trading day with a full or 50% position. Then disregard the X_DEV sell signals until a *full turn has occurred*. By "full turn", I mean waiting until price has dropped to a buy signal (lower band) and then gone all the way up to another sell signal (upper band).

2) Immediately re-enter at the market at open the next trading day with a 25% or 50% position, then wait for a dip to the 13 day EMA (exponential moving average) and buy another 25% or 50%. Then disregard the X_DEV sell signals until a full turn has occurred.

3) Wait for a dip to the 13 day EMA and enter with a 50% position. Then disregard the X_DEV sell signals until a full turn has occurred.

4) Don't do anything. Just wait for X_DEV to signal the next best buy when price has reached the lower band.

Using suggestion 1, 2 or 3 above gets you back in the market, so if it continues to rise at least some of your coin is working for you. If the market fades, you still have some cash left to buy more shares at a more timely opportunity.

Suggestion number 4 is the safest suggestion but requires more patience. It is easy to get frustrated seeing your stock continue to rise while you have sold and are parked in cash, but believe it or not, stocks DO fall and will come back to the lower X_DEV line at some time in the future.

Market re-entry during an uptrend

Trend Changes

As illustrated in the above two examples, X_DEV makes it pretty clear that a trend change has taken place, or that one is potentially in the making. Whenever it appears a trend may be changing, it is time to reoptimize your settings. The charting tools (chapter 6) can also shed light on the situation, especially when the markets are in flux.

Non-Trending Patterns

Some stocks go through periods where no trend is readily identifiable. When trying to optimize parameters with such a stock, it will be more difficult to find deviation band settings that work well. You may need to look at a different time frame. If you are looking at the short-term trend, you may wish to stretch your time horizon and look at the intermediate or long-term trend.

If a major fundamental occurrence has occurred which has drastically effected the stock's price in the short term then it may be wise to let the stock settle into a definable trending pattern before attempting to use X_DEV on it.

Summary

X_DEV was built for flexibility and to meet the needs of different investors. When properly optimized, you can profit during uptrends, downtrends and trading ranges. You can tackle short, medium or long-term trends, and you can trade frequently or infrequently. You can adjust settings for a more conservative or aggressive approach to the markets.

X_DEV will clearly point our trends and trend changes that may have eluded you before. X_DEV makes them much more transparent.

I have gone into quite a bit of effort and detail to anticipate and answer questions that the new user *might* have. This makes X_DEV appear to be much more difficult to use than it really is. The simple truth is that X_DEV is fast and easy to set up and optimize. After becoming familiar with the program and the solid principles on which it is built, it will take no more than a minute or two to optimize a stock or fund.

This chapter will be a valuable resource in your daily trading and optimization activities. Refer to it often when you have questions or to "brush up" on some of the basics.

So ………… let's get trading!

Chapter 5 – Trading / Portfolio Management

- **Saving Setups**

- **Resetting Your Chart to Trade**

- **Placing Limit Orders**

- **Portfolio Management**

- **Creating Portfolios**

- **Entering, Editing and Deleting Transactions**

- **Tracking Performance**

Trading with X_DEV

Saving Setups

During the optimization process you selected suitable **Start & End Dates** to provide sufficient history and volatility to capture the current trend. You also set your parameters to maximize your **Profit/Loss %** while triggering at least 2 buys and 2 sells at different points on the chart. Once satisfied that you have a good stock, trend and settings, save your chart and settings using the **Save As** command. Using DELL with a Start Date of 6/1/02, you could save as *"DELL Jun1 Study"* or something similar to identify it as your <u>backtesting study</u>. You chart would look something like Example 5-1 below.

Example 5-1   DELL <u>Historical</u> Setup

After selecting and optimizing your stock or fund, (called a *backtesting study*), you are ready to set up X_DEV to trade.

Resetting Your Chart to Trade

In the previous backtesting study (Example 5-1) you are 95.53% in Cash due to a recent sell. Notice that the **Portfolio Value** box is $7117.51, not the $5000 you have set aside for your investment. You need to *reset the time period of your graph to show at least 12 trading days, but **without any buys or sells***. X_DEV requires a minimum of 12 days trading history to generate its 12-day SMA (simple moving average). In Example 5-2, shown below, a Start Date of 11/11/02 was selected, thus showing 15 trading days. The X_DEV bands begin to show on the chart starting the 13th trading day and no trades have been marked on the chart. Save as a separate setup, for example, *"DELL Nov11 Trade Setup"*.
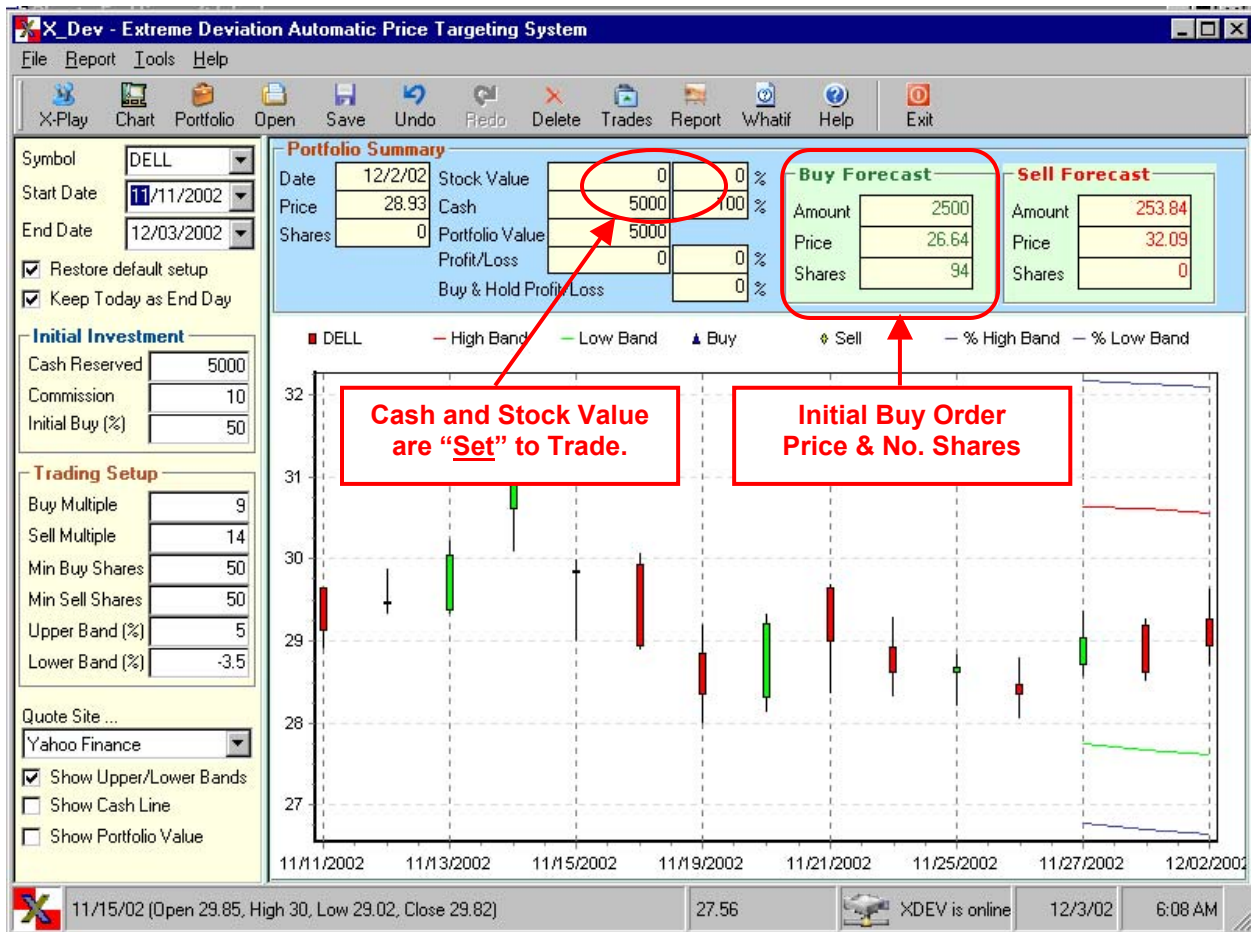
Example 5-2   12-Day Setup - Ready to Begin Trading

Placing Limit Orders

Take a look at the **Stock Value, Cash & Portfolio Value** boxes above the chart in Example 5-2. Since you have no trades marked on the "12-day setup", (it can be longer than 12 days, as long as no trades are showing), your Portfolio Value and Cash are both $5000 and your Stock Value is $0.

Now, look at the **Buy Forecast** boxes. The **Amount** of your next trade is $2500 *($5000 Cash Reserved times 50% Initial Buy % as specified in your setup)*. X_DEV has calculated the **Price** at which a buy should be made and the number of **Shares** to purchase.

It is important to understand that the ***Buy & Sell Forecast prices change every day*** as the stock price fluctuates, since the X_DEV bands move daily with price. For this reason, do NOT place "GTC" Limit Orders (Good Till Cancelled). It is recommended that you **place Limit Orders that expire at the end of the trading day if not executed**.

In the above example, you would *place a Limit Order (good for the day only) to purchase 94 shares of DELL at a target price of $26.64*. Since you have no current stock holdings, it is unnecessary to place a sell order. In the **Sell Forecast** boxes, you will notice a forecasted sell price of $32.09, but the Shares box shows 0 shares, since you have no stock holdings.

Having placed your Limit Orders, you are done for the day. If price movement triggers an order it will be filled automatically. If not, the order will expire.

X_DEV prices update after midnight of each trading day. *(Silicon Investor quotes update about 5:30pm E.S.T. so you don't have to wait till midnight).* Next morning, review your holdings, note the new Buy & Sell Forecasts and place new Day Only Limit Orders.

Portfolio Management

X_DEV comes with a comprehensive **Portfolio Manager** to track your holdings and transactions. The portfolio manager allows you to create individual portfolios, add and modify securities to your portfolios, enter, edit and delete buy & sell transactions, update portfolio prices, generate reports and more. When you begin placing trades, you will refer to the portfolio module more frequently.

Once your stock has been optimized on the main chart, "the Portfolio Manager is where the action really is". The Portfolio Manager will issue *"real life recommendations"* for buys and sells, including transaction price and quantity. The Portfolio Summary Report (discussed later in this chapter) provides this information in an easy to use format.

The main chart in X_DEV acts as a *"Laboratory"* for backtesting and optimizing your stocks. All trades shown on the "Lab Screen" are based on the assumption that all trades are filled precisely using X_DEV's recommended date, quantity and price. Since this is usually not the case, the main chart (Lab chart) is an approximation of reality. The Portfolio Manager contains real trading data and mirrors reality exactly.

Creating Portfolios
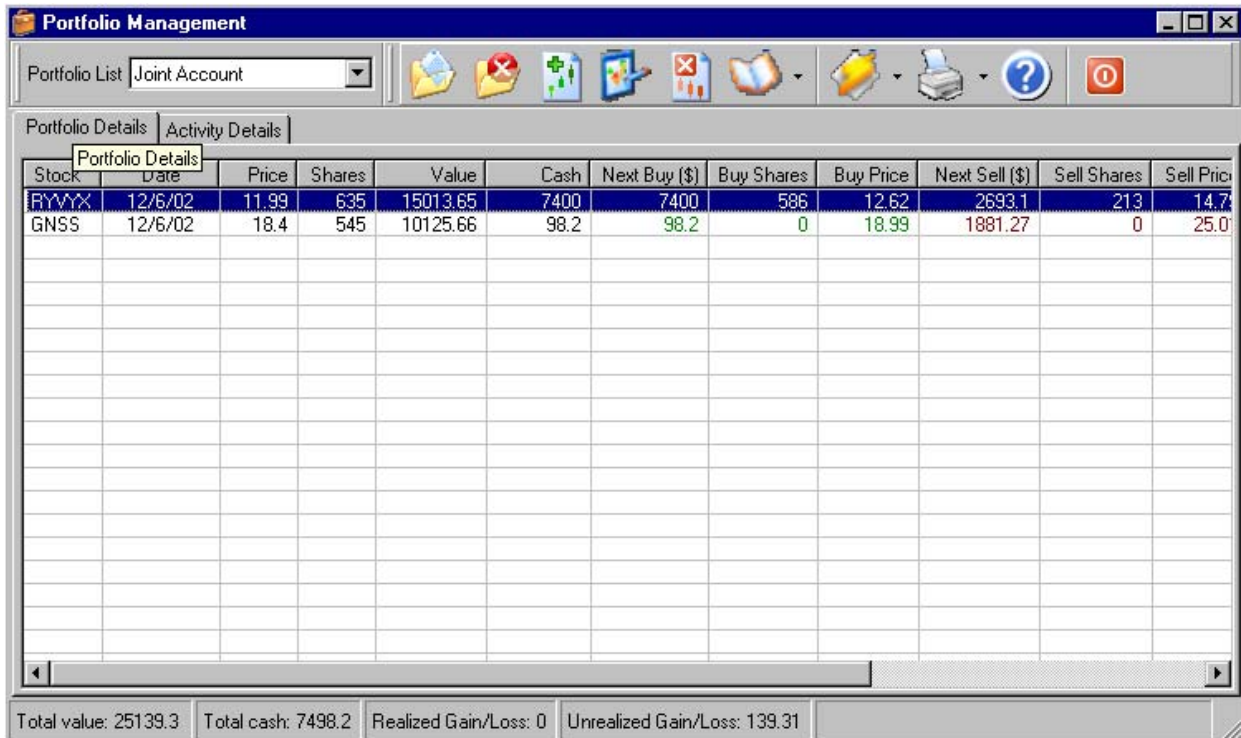
Most people maintain several separate accounts to comply with IRS requirements. The Portfolio Manager allows you to set up an unlimited number of portfolios to group your holdings as you choose.

If you have a taxable account and an IRA for yourself and your spouse, you could set up a separate portfolio for each. You can also set up separate portfolios for family and friends. How you want to "slice and dice" is up to you.

To launch the Portfolio Manager, click the **Portfolio Manager button**, or click "**Tools > Portfolio Manager**". The new Portfolio Manager window will appear.

The window below is the **Portfolio Management Window**. The portfolio currently being displayed is "Joint Account". The **Portfolio Details Window** shows there are two stocks in this portfolio, RYVYX and GNSS. It also displays Price, Shares held, Value, Cash, Next Buy & Sell, and other information.

Stock	Date	Price	Shares	Value	Cash	Next Buy ($)	Buy Shares	Buy Price	Next Sell ($)	Sell Shares	Sell Pric
RYVYX	12/6/02	11.99	635	15013.65	7400	7400	586	12.62	2693.1	213	14.7
GNSS	12/6/02	18.4	545	10125.66	98.2	98.2	0	18.99	1881.27	0	25.0

Total value: 25139.3 | Total cash: 7498.2 | Realized Gain/Loss: 0 | Unrealized Gain/Loss: 139.31

Example 5-3

At the very bottom of the Portfolio Management window you will see *summary statistics for the entire active portfolio*, including **Total Value, Total Cash, Realized and Unrealized Gain/Loss**.

When a user has sold <u>all shares</u> of a stock and gone to cash, the row with that stock will be "<u>grayed out</u>". This makes it much easier to see the current "holds".
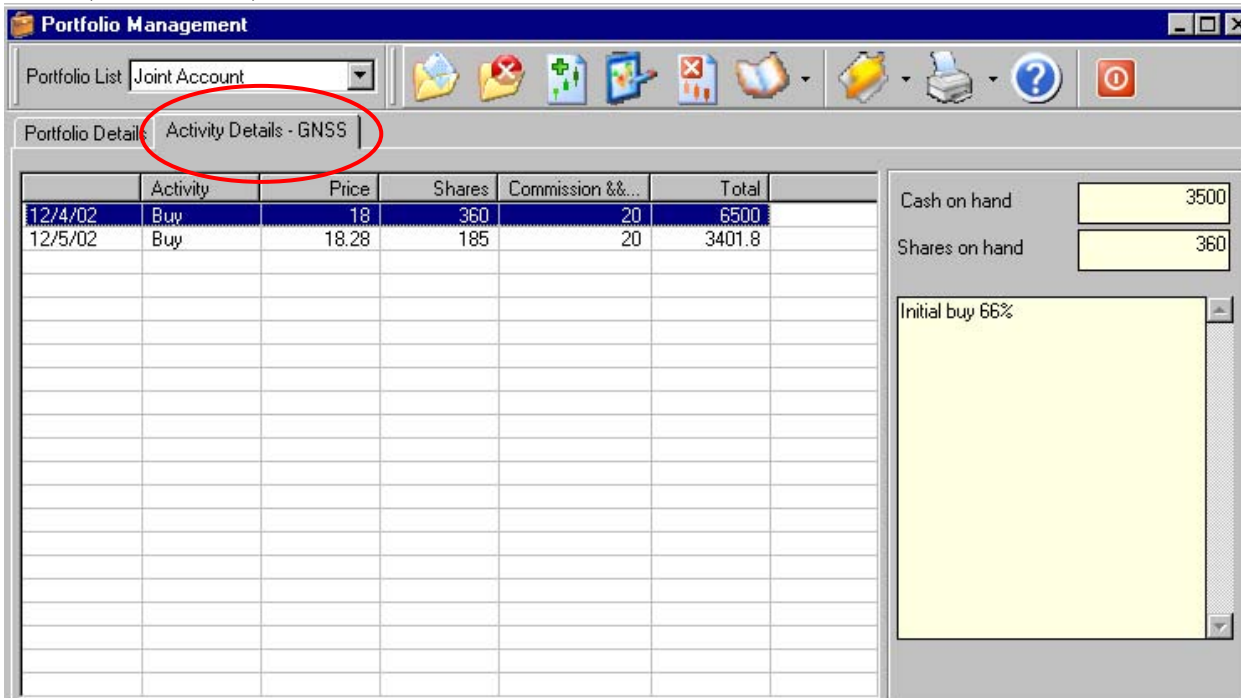
To create a New Portfolio, click the **Add New Portfolio button** at the top of the Portfolio Management screen. Enter the Portfolio Name and add a description if desired. When you click "OK" the **Add Stock window** will pop up. Since you are creating a new portfolio, X_DEV assumes you have a stock to add to it. If so, fill in the boxes with the appropriate information and add the stock immediately. If you do not wish to add a stock at this time you can click the "Cancel" button to return to the portfolio manager screen. You will be able to add or delete securities to a portfolio at any time.

To **Delete a Portfolio** (and all transactions in the portfolio) click the Delete Portfolio button.

To change from one portfolio to another, click the **Portfolio List drop-box** and select the portfolio you wish to make "active".

The **Activity Details** tab shows a listing of the detailed transactions for each individual stock or fund in your portfolio as shown in Example 5-4 below.   You can either double click the security in the Portfolio Detail View, or highlight the stock and click the Activity Details tab. The ticker symbol for the currently displayed stock will show in the Activity Details tab (in this case, Genesis Microchip – ticker GNSS). This portfolio has two transactions involving GNSS – a buy on 12/4/02 and a second buy on 12/5/02. Price, Shares, Commission, and Total transaction dollars are shown in the window.
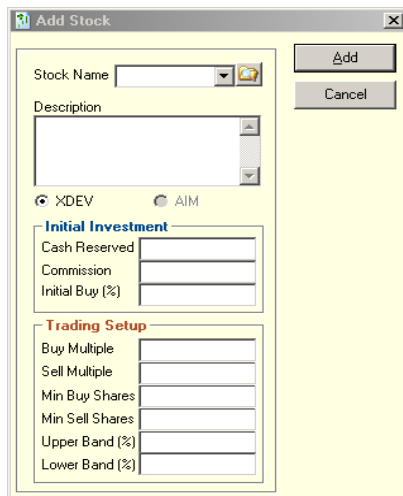
Example 5-4

In the window to the right, you will see the **Cash on Hand** and the **Shares on Hand** as of the date highlighted to the left. If you were to click on the 12/5/02 transaction, the cash on hand would drop and the number of shares would increase. This way, you can see cash and share balance at any point in time.

Entering, Editing and Deleting Transactions

The **Add Stock or Fund to Current Portfolio** button allows you to add new securities into the *active* portfolio. When you add a new security the **ADD Stock window** will appear:

To add a new stock or fund, enter the ticker symbol into the **Stock Name** box and add a **Description** if desired.

Under the **Initial Investment** heading, enter your initial **Cash Reserved** Amount, your standard **Commission** for a single transaction, and **Initial Buy %**. They should agree with your optimized settings. (see hint following)

Under the **Trading Setup** heading, enter your **Buy & Sell Multiples**, **Minimum Buy and Sell Shares**, and your Upper and **Lower Band %** to agree with your optimized trading setup. These settings _CAN_ be edited in the future, thus allowing you to change to new parameters as you reoptimize.

The **Edit Stock or Fund <u>Setup</u> in Current Portfolio** button allows you to change your trading setup parameters, *but not Stock Name, Cash Reserved, Commission or Initial Buy %.*

Use the **Remove Stock or Fund from Current Portfolio** button to completely remove the security from the <u>*active portfolio*</u>. If same stock resides in another portfolio, it will not be removed from the second portfolio unless you open that portfolio and choose to remove it.

Now that you have stocks entered into your portfolio, you can **Add, Edit or Delete Activities** for a stock. Click the arrow to the right of the **Record Trading Related Transactions** box (the open book icon) and select the appropriate transaction. A window will appear, where you can enter the date, type of transaction, price, number of shares, and Other. *Enter your commission cost into the **Other** box*. The other options are self-explanatory.

Transaction types include **Buy Stock**, **Sell Stock**, **Add Funding** and **Withdraw Cash**. <u>*Add Funding*</u> allows you to feed more cash into your program after you have begun. You might add cash if you are very happy with your investment or if you are fully invested and want to take advantage of future dips. The <u>*Withdraw Cash*</u> transaction allows you to take some or all of your cash reserve out of the program for another X_DEV investment or other purpose.
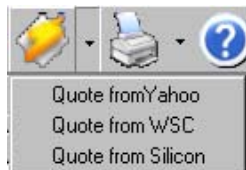
The **Daily Status Refresh** button updates the value of your portfolio by downloading the latest available prices. You must "refresh" prices if you want current, updated portfolio values. As of this writing, you can download prices from Yahoo, WallStreet City, or Silicon Investor. Silicon Investor usually has prices ready to download by 5:30 – 6:00pm the same night. The other two sources are usually not available until midnight or later.

Reports

Portfolio Summary Report
Trade Activity Report

The **Print Portfolio Summary Report** button allows you to display (and optionally print and/or save) two different reports. The **Portfolio Summary Report** provides a summary of the holdings in your portfolio, along with *Next Buy & Sell Recommendations, Realized and Unrealized Gains/Losses, and Average Cost.* This report is shown Example 5-5 below.

X_DEV Portfolio Summary Report

Portfolio - Joint Account

| Date | Symbol | Price ($) | Shares | Value ($) | Cash ($) | Next Buy | | | Next Sell | | | Average Cost ($) | Unrealized Gain (Loss) | Realized Gain (Loss) |
						Amount ($)	Shares	Price ($)	Amount ($)	Shares	Price ($)			
12/6/02	RYVYX	11.99	635	15013.65	7400	7400	586	12.62	2693.1	213	14.79	11.97	13.65	0
12/6/02	GNSS	18.399	545	10125.66	98.2	98.2	0	18.99	1881.27	0	25.01	18.17	125.66	0
Total				25139.3	7498.2							17501.8	139.31	0

Example 5-5

The Portfolio Summary Report is a handy guide to remind you of all positions and current recommendations in the active portfolio. Use it to place your Limit Orders and stay abreast of your holdings.

The second report is the **Trading Activity Report**. For any given stock, you can display and print a list of all trades in chronological order, with the most current transaction listed at the top. If you added notes at the time of the transaction, they will be displayed in the "Trade Note" column. Below is a Trading Activity Report for GNSS.

X_DEV Trading Activity Report

Portfolio Joint Account - GNSS

Date	Activity	Price	Shares	Amount	Trade Note
12/5/02	Buy	18.28	185	3401.8	
12/4/02	Buy	18	360	6500	Initial buy 66%

The X_DEV Portfolio Manager is full featured and flexible. It allows you to create unlimited portfolios, manage your assets, track performance, keep track of Cash and Stock balances and print reports (for asset management or tax preparation). It provides your next buy and sell recommendations, with target prices and number of shares. It is designed to make record keeping easy and convenient.

Chapter 6 – Charting

- **Charting Tools**

- **Support, Resistance & Trends**

- **Factoring Into Decisions**

- **Resources to Learn Charting**

Charting with X_DEV

X_DEV comes with an assortment of useful charting tools, which can be accessed by clicking the "**Chart**" button or selecting "**Tools > Chart & Analysis**" from the Main Menu. This will bring up a new chart window showing the stock, index or fund you were previously viewing, with the corresponding date range.

Those experienced in **Technical Analysis (TA)** can use charting tools to help reveal or confirm trends, trend changes, support and resistance, oscillations, entry and exit points, and more. These tools are included to help you corroborate your basic assumptions about the market or a security. Changes in the market or a stock's underlying trend may be cause to rethink and readjust your X_DEV settings.

Technical Analysis is a vast subject and is not within the scope of this manual. For those wishing to learn more about TA and Charting Tools, refer to "Resources to Learn Charting" below.

Charting Tools Included

Charting tools are divided into three sections in X_DEV – "**Add**", "**Show**", and "**Drawing and Annotation**" tools.
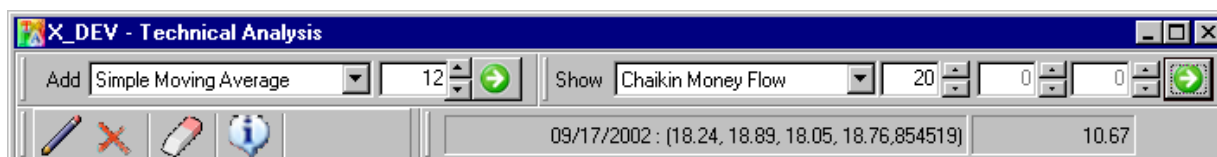
Figure 6-1

Adding Moving Averages and Bollinger Bands

The *"Add Box"* allows you to overlay **Simple Moving Averages (SMA)**, **Exponential Moving Averages (EMA)** and **Bollinger Bands** on top of the displayed price chart. Using the dropdown box, select the desired tool, use the up and down arrows to set the desired time in days, then click the right-facing green arrow to add it to your chart. If desired, you can place multiple indicators or time frames on your graph. Just select the new indicator and timeframe, click the green "go" arrow, and the new indicator will be added to your previous one. At any time, you can click the *"eraser"* button to remove ALL drawn lines from your chart.

Drawing Lines and Adding Annotations

Below the "add" box, you will find line ***drawing and annotation tools***. To draw straight lines, click the *"pencil"* and position your cursor over your starting point. Drag and drop with your mouse to draw your line. Repeat as desired. You can delete an individual line by selecting it (left clicking with your mouse) then clicking the *"Delete Line"* button. Or click *"Erase"* to remove all drawn lines and overlays from the chart. The *"Annotate"* button allows you to write custom notes and position them on the chart.

Displaying Other TA Indicators

On the upper right of the charting tool bar, you will find the *"Show"* menu. All chart selections from this menu draw a secondary chart *below* the main chart. The show menu includes the following TA tools:

- **Moving Average Convergence Divergence (MACD)**

- **Directional Movement Index and Average Directional Index (DMI/ADX)**

- **Relative Strength Index (RSI)**

- **Slow Stochastics**

- **Fast Stochastics**

- **Full Stochastics**

- **Williams %R**

- **Chaikin Money Flow**

- **Commodity Channel Index (CCI)**

These tools require that the user enter the appropriate parameters in the boxes to the right. Some tools require only one parameter, while others require more than one. After inputting the parameters, click the green arrow to display the indicator below the main chart. (To learn more about TA and the indicators included in X_DEV, refer to "Resources" below).

Support, Resistance & Trends

You can use the optional charting tools in X_DEV to help uncover, confirm or refute some of your assumptions about a stock, index or the broader market. Line drawing tools are excellent for clarifying support and resistance levels, trend channels, and for revealing trend changes. (Because of their usefulness, lines can also be drawn on the main X_DEV chart). When using charting tools, it is often a good idea to start with a longer time frame to get an overall perspective of trends and patterns. Then, if required, the time frame can be shortened for a closer, more detailed look.

Time frames for simple and exponential moving averages can be changed to fit the user's strategy and to help uncover short, medium or long-term trends and trend changes. Many technical analysts use 13 day, 50 day and 200 day simple or exponential moving averages to identify support and resistance areas for short, intermediate and long-term trends.

Moving averages can also act like magnets, pulling the stock, fund or index back toward the average when prices stray too far from the line. This is particularly true when the trend is "stable".

Factoring Charts into Your Decisions

The charting features in X_DEV are useful for revealing likely trend changes in a stock that might not be as readily apparent otherwise. If a trend line or other charting tool shows that a trend change is immanent or has taken place, you may need to reoptimize parameters in the main X_DEV chart to reflect the emerging new trend. You may also need to change the time frame of your main chart to "filter out" data that does not reflect the current trend. In conjunction with X_DEV, charting tools allow you to stay in step with the market and the trend of the stock you are following.

Resources to Learn Charting

Even basic Technical Analysis can be helpful in evaluating the market and improving one's performance. To learn about charting, there are dozens of excellent books and websites links you can visit. A few good resources are listed below.

Website Links

Visit our website at http://www.stockwerld.com/. You will find educational information on charting and examples of how we use charts to analyze and stay abreast of the markets. Our *"Education"* section gives a brief overview of some of the more popular charting tools.

StockCharts.com, (http://stockcharts.com/education/index.html), has a free online school to help you learn about the various charting tools. They also offer free online charting.

Equis, the maker of MetaStock charting software, provides some in-depth information on dozens of different charting tools. Visit their site at http://www.equis.com/.

Books

A few good books on TA include:

- **Technical Analysis from A to Z** - by Steven B. Achelis
- **The Visual Investor** - by John J. Murphy
- **Trading for a Living** - by Alexander Elder

Chapter 7 – Menus & Definitions

Menus

- **File Menu**
- **Report Menu**
- **Tools Menu**
- **Chart Analysis Menu**
- **Portfolio Manager Menu**
- **Help Menu**

Parameters

- **Symbol**
- **Start Date**
- **End Date**
- **Restore default Setup**
- **Keep Today as End Date**
- **Cash Reserved**
- **Commission**
- **Initial Buy %**
- **Buy & Sell Multiples**
- **Minimum Buy & Sell Shares**
- **Upper & Lower Band %**
- **Quote Site**
- **Show Cash Line**
- **Show Portfolio Value**
- **Portfolio Summary Box**
- **Buy & Sell Forecast**

Menus & Definitions

This section provides **"Quick Reference"** for many of the menus, commands and definitions in X_DEV. By design, it is not meant to provide "in-depth" usage of all features. Where relevant some tips and suggestions are included.

Please note that X_DEV is continually and rapidly being improved and expanded, so some features, options and screen layouts may appear different or may not be covered in this manual.

Menus

File / Report / Tools / Help
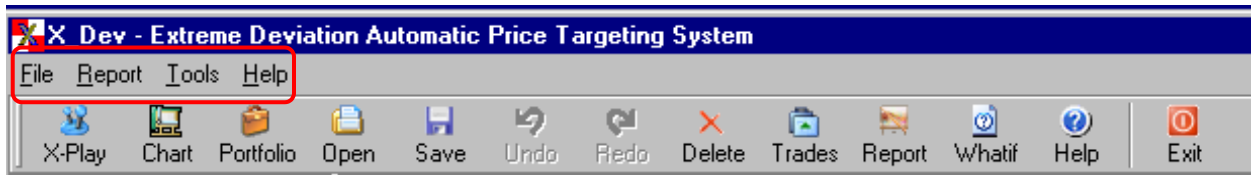
The **menu** provides dropdown choices to access the many features of the program. Many of the selections in the menu can also be accessed from the button bar (located directly underneath the menu).

File Menu
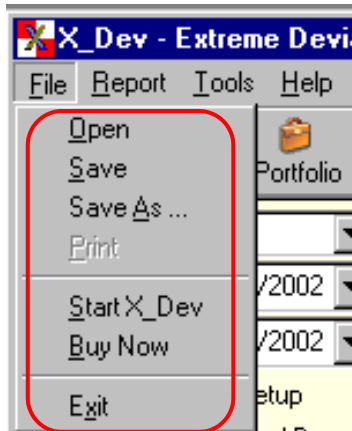
Open will open any file and setup previously saved in X_DEV file with the "Save As" command. These files have an " **.xdv**" extension.

Save saves the current parameter setup to the X_DEV default setup folder (a subdirectory of your X_DEV file).

Save As allows you to save the setup for a given stock, including date, trading parameters, initial cash, etc., to a file that you name. This feature allows you to save the "original" setup you used to analyze a stock prior to trading. If your original setup for MSFT covered a date range of 2/3/02 – 6/30/02, you might save this as "MSFT 020302 – 063002". Then, at a later date, you will be able to retrieve the exact original setup using the Open command.

Print sends a copy of the X_DEV setup parameters, portfolio summary and chart to your printer.

Start X_DEV performs calculations for the parameters and chart data currently showing on the screen. (Depressing the "enter" key or the "X-Play" icon will also update calculations).

Exit closes the X_DEV program and returns to your operating system.

Report Menu
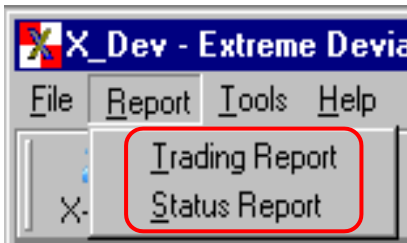
Trading Report shows the trades X_DEV *would have made* (shown on the chart by blue triangles and yellow diamonds) with the currently displayed settings and time frame. This report will show the Date, Trade (buy or sell), Shares, Price and Value of all trades over that time period.

Reviewing this report during optimization can help you fine tune your minimum buy and sell shares for performance and trading style.

Status Report, like the Trading Report, is based on the trades X_DEV *would have made* (triangles and diamonds) based on the currently displayed chart. This report provides detailed information on the portfolio value, shares, cash, etc, on a day by day basis for every trading day since X_DEV's first suggested purchase.

Tools Menu
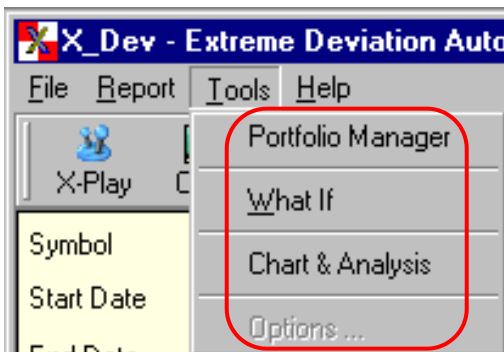
Portfolio Manager launches the portfolio management module of X_DEV, allowing you to set up portfolios, track your *"actual"* positions in stocks you own, and manage your portfolio. *(Since it has its own full-featured menu, it will be covered separately later in this section.)*

What If allows you select a date, input open, high, low and closing price, and plot it on the screen. If the *"what if"* price range extends past one of your X_DEV bands and triggers a buy or sell, it will be shown on the screen with a triangle (buy) or a diamond (sell).

Chart & Analysis brings up a separate charting window where you can perform Technical Analysis using a variety of built in charting and drawing tools. (Charting is covered in Section 6).

Help
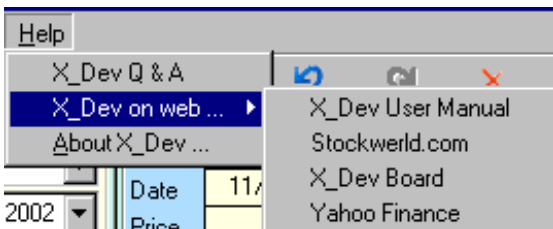
The **Help** drop down box provides links to X_DEV Q&A, information about X_DEV, and help information on the web. Access to this user's manual, a link to the X_DEV Bulletin Board and other useful links are provided to help you get the most out of X_DEV.

The X_DEV Bulletin Board is a great place to ask questions, make suggestions, share stock tips and parameter settings and commune with other active X_DEV users. It is an outstanding resource for all X_DEV users.

Portfolio Manager Menu
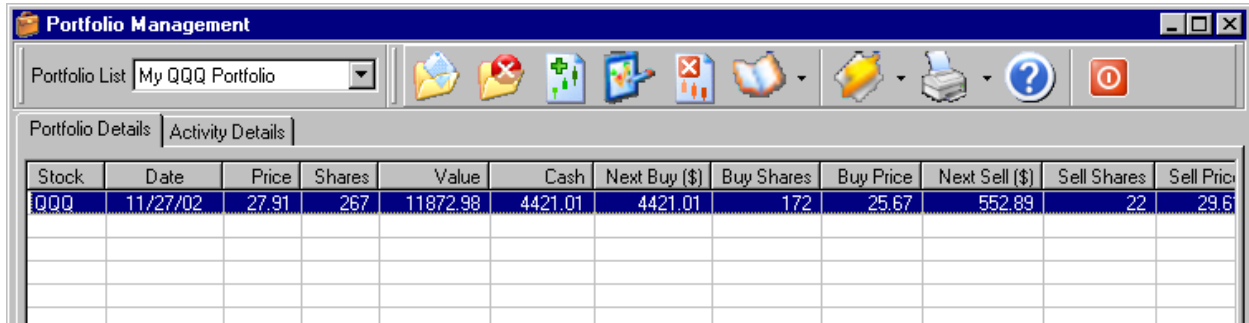
When you select **Tools > Portfolio Manager**, or click the **Portfolio** button, the portfolio screen is displayed as shown above. In the Portfolio Management module you can create portfolios, add stocks or funds to them, enter purchases and sales, run portfolio reports, and generally manage your holdings. Portfolio Management is covered in greater detail in Section 5.
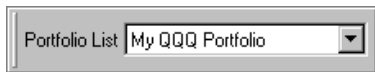
The **Portfolio List** allows you to quickly select your previously created portfolios, add positions, edit, run reports, etc.

Add New Portfolio allows you to create and name a new portfolio. Once created, it will be added automatically to the portfolio list.

Delete Current Selected Portfolio removes your currently selected portfolio and all securities contained therein.

Add Stock or Fund to Current Portfolio allows you to add a position to your portfolio, along with X_DEV settings and other information.

Edit Stock or Fund Setup in Current Portfolio allows you to make changes, which affect only the setup for that portfolio. If the same stock resides in another portfolio, it will not be changed.

Remove Stock or Fund from Current Portfolio deletes the security from this portfolio only, along with all of its related transactions.
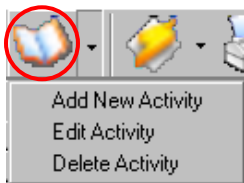
The **Record Trading Related Transaction** dropdown box allows you to **Add a New Activity** (e.g., place a trade), **Edit an Activity** (modify date, number of shares, price, etc), or **Delete an Activity**.
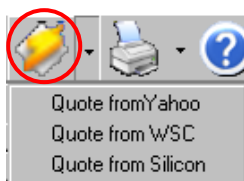
The **Daily Status Refresh** downloads price data from your choice of different online data providers to keep your portfolio values up to date. Prices do not automatically download, so update your prices before reviewing your portfolio.
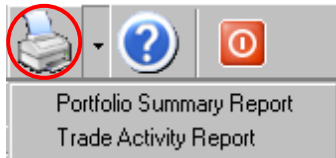
The **Print Portfolio Summary Report** allows you to display and/or print a **Portfolio Summary Report**, (showing current portfolio values and holdings), and a **Trade Activity Report** which shows actual trades you have made in the current portfolio.

The **Activity Details** tab allows you to see a summary of all activities for any given stocks in a portfolio. When in the Portfolio Details tab, click the stock of interest, then simply click the Activity Details tab to see a history of your trading activity.

Parameters

Selecting the proper study dates and setting the parameters properly is important for optimal X_DEV performance. A properly optimized X_DEV selection should always show a higher return than would be realized with a buy & hold methodology. In this section, parameters will be explained briefly. Greater detail can be found in the Tutorial and Optimizing Parameters sections.

Symbol is any listed ticker symbol for which data is available from the online data sources listed blow.

Start Date is the beginning date of your backtested study. The X_DEV bands will not be shown for the first 12 days of the study because X_DEV requires 12 days of history to calculate its 12-day simple moving average.

End Date is the ending date of your backtesting study on a stock or fund. If you are doing historical analysis or learning the program you might select a date other than today and walk forward to see how you have done. If getting ready to trade, you would use today's date to insure you have current data.

Restore Default Setup. If this box is *checked*, a saved setup for a stock will be retrieved along with the stock symbol itself. This way, your saved setup is readily available without having to remember and reenter the data. If the box is *unchecked* your current setup will remain active when retrieving other stock symbols. This is convenient if you wish to try out your current settings on different stocks, even ones currently in your dropdown list.

Keep Today as End Day makes sure that today's date is displayed when you retrieve a stock that was previously saved with its own setup. If this box is unchecked, your original setup with be retrieved, along with the original starting and ending dates.

Cash Reserved is the <u>TOTAL AMOUNT OF CASH</u> you are initially making available for your X_DEV investment in this stock or fund. Generally, a portion of this initial amount will be set aside as a cash reserve.

Commission is your cost for a single buy or sell transaction with your broker.

Initial Buy % is the percentage of the money shown in the *cash reserved box* that you will apply to your very first X_DEV purchase. In the example at the left, your initial buy will be approximately $9,900 (66% of $15,000). X_DEV generally suggests that you start with 50%, 66% or 75% for initial buy %.

Buy & Sell Multiples control how quickly and aggressively X_DEV buys or sells. *Changes in multiples can have a dramatic effect on performance, so it is recommended that the user **start with "1"** and increase these values in increments of 1*. If a price penetrates the upper or lower user-defined X_DEV band and the price move is sufficient to satisfy the minimum number of shares you have chosen to trade, X_DEV will recommend a trade. <u>Lower multiples generally trigger smaller, more frequent transactions</u> *once the buy or sell price is reached*. If price keeps moving in that direction, additional trades will be recommended. Higher multiples, on the other hand, accelerate the number of shares bought or sold once X_DEV triggers its first trade. <u>Higher multiples will generally lead to fewer, bigger trades</u>. (See chapter 4 for more information).

When adjusting multiples, you can click the *"trades"* button to quickly see when trades are recommended, and how large they are. This is helpful when optimizing your settings.

Minimum Buy & Sell Shares establish the minimum number of shares you want to buy or sell in a single transaction. Like multiples, these can be set independently. Generally, you will want to set minimums to keep your commission costs in line. If minimum buy & sell shares are set too low commission costs can become be excessive. If set too high, you may miss profitable trading opportunities as X_DEV tries to satisfy your requirement before triggering a trade.

Upper & Lower Band (%) allow the user to set the *"extreme deviation points"* for a stock during a *given timer period*. The <u>standard</u> **red** and **green** X_DEV bands are rendered automatically and show the *"average" high and low deviation points* for the current security. The user sets the **Upper Band %** and **Lower Band %** to go *beyond the average* and select the *average "extreme" deviation* of a stock. This allows the user to optimize his profit making potential for the current stock, time frame and trend.

Upper and lower X_DEV bands are adjustable. User-defined X_DEV bands are rendered in **Blue** and are offset from the standard bands based on user input. **It is highly recommended that the user begin with the Upper Band (%) set to 1, and the Lower Band (%) set to –1**. They should be adjusted upwards and downwards in increments of 1, until the optimum return is shown in the *Profit/Loss Box* located above the graph. Once the bands are set for the best return, the user may wish to adjust the bands in 0.5% increments to fine-tune his settings. Adjusting in increments smaller than 0.5% is not generally recommended. (Finer settings may result in over-optimization and actually reduce overall returns going forward).

In a <u>sideways trend</u> (trading range), high and low stock prices will tend to cross the automatically rendered red and green bands on both the top and bottom an equal number of times (approximately). This indicates that the trend is truly moving sideways. This is X_DEV's preferred environment.

In an <u>uptrend</u>, stock prices will typically cross the upper red X_DEV band much more often than they will the lower green band. In a strong uptrend, stock prices may never touch the green band. This is a prime example why the

X_DEV bands are adjustable. It may be necessary to increase both the Upper and Lower Band (%) settings into positive territory to optimize in an uptrend. During an uptrend, you may want to set you parameters to buy quickly on the dips in bigger bites, and sell gradually in smaller bites as prices rise.

In a <u>downtrend</u>, stock prices will cross the lower green X_DEV band frequently, and rarely (or never) touch the upper red line. It will probably be necessary to reduce the values of one or both bands to achieve the optimal settings. Don't be totally surprised if both bands are set to negative numbers during a downtrend. If you are trading in a downtrend, you may wish to look at setting your bands and other parameters to sell quickly on the rallies and buy gradually on the dips.
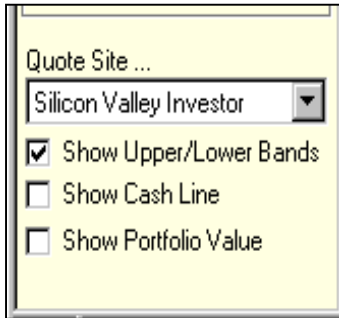
Quote Site allows you to select from different online data providers. We generally use Silicon Investor for stocks and Yahoo for Mutual Funds. (SI doesn't support funds). Databases sometimes vary slightly from one provider to another. Differences are usually minor, but "glitches" in data do sometimes occur. Be aware that stock splits and other factors will readjust historical prices.

Show Upper/Lower Bands allows the user to temporarily hide the user defined deviation bands (blue bands) for a clearer view of the standard red and green bands.

Show Cash Line draws a line on the graph showing your cash balance throughout the entire displayed history. This can be a valuable aid when setting many of the parameters.

Show Portfolio Value allows you to see the total combined value of cash and stock assuming you were to place orders at the same prices and times as recommended by X_DEV.

Portfolio Summary Box

Portfolio Summary					Buy Forecast		Sell Forecast	
Date	11/28/02	Stock Value	5950	30.93 %	Amount	13287.54	Amount	14220.1
Price	70	Cash	13287.54	69.07 %	Price	72.28	Price	90.25
Shares	85	Portfolio Value	19237.54		Shares	184	Shares	85
		Profit/Loss	4237.54	28.25 %				
		Buy & Hold Profit/Loss		2 %				

Above the main graph, the **Portfolio Summary** Box is displayed. This provides a snapshot of current values, and target buy and sell recommendations. **Date**, **Price** and **Shares** show today's stock holdings. **Stock Value** and **Cash Value**, added together equals the current **Portfolio Value**.

Profit/Loss is the X_DEV return for the current setup and over the displayed time-frame. **Buy & Hold Profit/Loss** would be the profit or loss of a buy & hold strategy if all money was allocated to the stock on the date of X_DEV's first purchase.

Buy Forecast and Sell Forecast show the X_DEV target buy and sell recommendations. These can be used to place Limit Orders (good for day only). Do <u>not</u> use "good till cancelled" (GTC) orders. If one of the boxes shows no recommendation, it means you are either holding 100% Cash or 100% Stock.

Chapter 8 – Q&A, Help

- **Resources**

  - **Stockwerld.com**

  - **Stockwerld Gold**

  - **Investor's HUB Bulletin Board**

  - **Other Resources**

- **Frequently Asked Questions Link**

- **Troubleshooting Link**

Q&A - Help

Resources

To help you enjoy and get the most out of X_DEV, a broad spectrum of useful of website resources is provided below. Some relate specifically to X_DEV and others are more general and educational in nature. As of this writing, all links were active.

Stockwerld.com

Stockwerld.com (http://www.stockwerld.com/) is a comprehensive Stock Trading Website that was designed to capture the best of the best financial information. Here you can find links to hundreds of useful sites. The Stockwerld site itself contains a wealth of relevant information for the X_DEV user. I will list some of the more useful links below, but you are invited to visit the main link and explore.

MarketEye (http://www.stockwerld.com/marketeye.htm) provides a chart and commentary on the current market, trend and things to be on the watch for.

Primary Trend (http://www.stockwerld.com/primary.htm) tracks the *Daily & Weekly Primary Trend* of the Nasdaq Composite Index. It is wise to "trade with the trend" and knowing the market direction will help keep you from being "whipsawed" out of positions. It will also provide additional valuable input when deciding how to set the X_DEV bands on your chart.

Intraday (http://www.stockwerld.com/SI.htm) provides an at-a-glance picture of what the Nasdaq Composite is doing on separate 1, 5, 15 and 60 minute charts. This is often helpful in deciding when to place buy & sell orders.

Support & Resistance (http://www.stockwerld.com/supportandres.htm) graphically depicts the support, resistance and pivot points for the Nasdaq Composite, S&P500, Dow Jones Industrials, and the Philadephia Semi-Conductors Index . It is worth paying closer attention when prices approach or linger near one of these levels.

QQQ (http://www.stockwerld.com/qqq.htm) follows the Q's (NASDAQ 100 tracking stock). X_DEV and TA are used to follow and trade this popularly held stock.

Stockwerld Gold (http://www.stockwerld.com/gold.htm) is the StockWerld premium subscription site, and includes current "picks", X_DEV setups for numerous stocks and other valuable resources.

Tools (http://www.stockwerld.com/tools.htm) links you hundreds of valuable sites in a variety or categories, including *Real Time Quotes, Charts, Stock Picks, Commentary, Research, Education, Downloads, News*, and dozens of other resources too numerous to mention here.

X_DEV Overview (http://stockwerld.com/xdevover.htm) is a basic overview of the X_DEV program as posted on the Stockwerld.com website. If you have gotten this far, you probably don't need it!

If you have **Technical Problems** with your program or installation, contact us at - http://www.investorshub.com/boards/board.asp?board_id=1164.

Other Resources

IHUB (Investor's Hub) Bulletin Board (http://www.investorshub.com/boards/) links you into a broad network of Bulletin Boards where you can discuss almost any stock market topic.

The X_DEV Bulletin Board on IHUB (http://www.investorshub.com/boards/board.asp?board_id=1074) can be accessed directly using this link. Here, you can meet with other X_DEV users, ask questions, share stock tips and X_DEV settings, and more. There are also *dozens of useful links* listed on this site. It is a great way to come up to speed quickly and tap the best X_DEV ideas around.

Stock Screeners are discussed in a previous chapter. You can also visit http://www.stockwerld.com/ to find links to useful stock screening sites.

FundEstimate.com (http://www.fundestimate.com/) is a good site if you use X_DEV with **Rydex, ProFunds, Fidelity Select, Invesco or FolioFn**. FundEstimate provides estimated closing prices on the above fund families throughout the day, updated every 10 minutes. Since funds trade only at the close, this can be helpful when making fund buys or sells in the listed fund families.

Nasdaq-100 Dynamic Heat Map is an interactive view showing the prices of companies in the Nasdaq-100 Index at a glance. Each colored rectangle represents an individual company that is part of the Nasdaq-100. http://screening.nasdaq.com/heatmaps/heatmap_100.asp

ETF Heat Map (http://screening.nasdaq.com/Heatmaps/Heatmap_ETF.asp) provides a nice graphic view of what is happening with the various ETF's (Exchange Traded Funds).

Sector-Based ETF's (http://quotes.nasdaq.com/asp/ETFsSector.asp) can be found here, giving you insight into how the various sectors of the economy are doing.

Sector Indices (http://moneycentral.msn.com/investor/market/secind.asp) can be found at this site to monitor the direction of sectors of interest.

Stock Index Futures can be found at http://money.cnn.com/markets/morning_call/. It can sometimes be helpful to get a feel for how the markets will start the day before placing a market or limit order.

Frequently Asked Questions Link

Frequently Asked Questions are maintained on the web to keep information current and relevant. To access our frequently asked questions site, use the following link: http://stockwerld.com/qa.htm

Troubleshooting Link

If you have problems with your software or other technical questions, please check our frequently asked questions. If you cannot answer your question, click the following link for assistance: http://www.investorshub.com/boards/board.asp?board_id=1164

Enjoy & Prosper

Thank you for using X_DEV