Trading for Tigers

High Probability Trading Tactics for Stocks, Futures and Options

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Publishing Division

Contents

CHAPTER 1

Money Management for Tigers: Trading for Zero, Equity Pops and Equity Charting

> *"If a man proves too clearly and convincingly to himself that the tiger is an optical illusion--well, he will find out that he is wrong. The tiger will himself intervene in the discussion."*
>
> -- G.K. Chesterton, Illusions

Without proper risk and money management you can really only expect one of two results. Either a pyrotechnic blowout of your trading capital, or a slow attritional bleed into trading obscurity. There are many fine books out there on risk management and money management, and I suggest that you read them. They will allow you to fine tune your trading in order to increase profits and decrease overall trading risk. I have included a reading list at the end of this chapter. That being said, I would like to present some themes that have always been good to me.

TRADING FOR ZERO

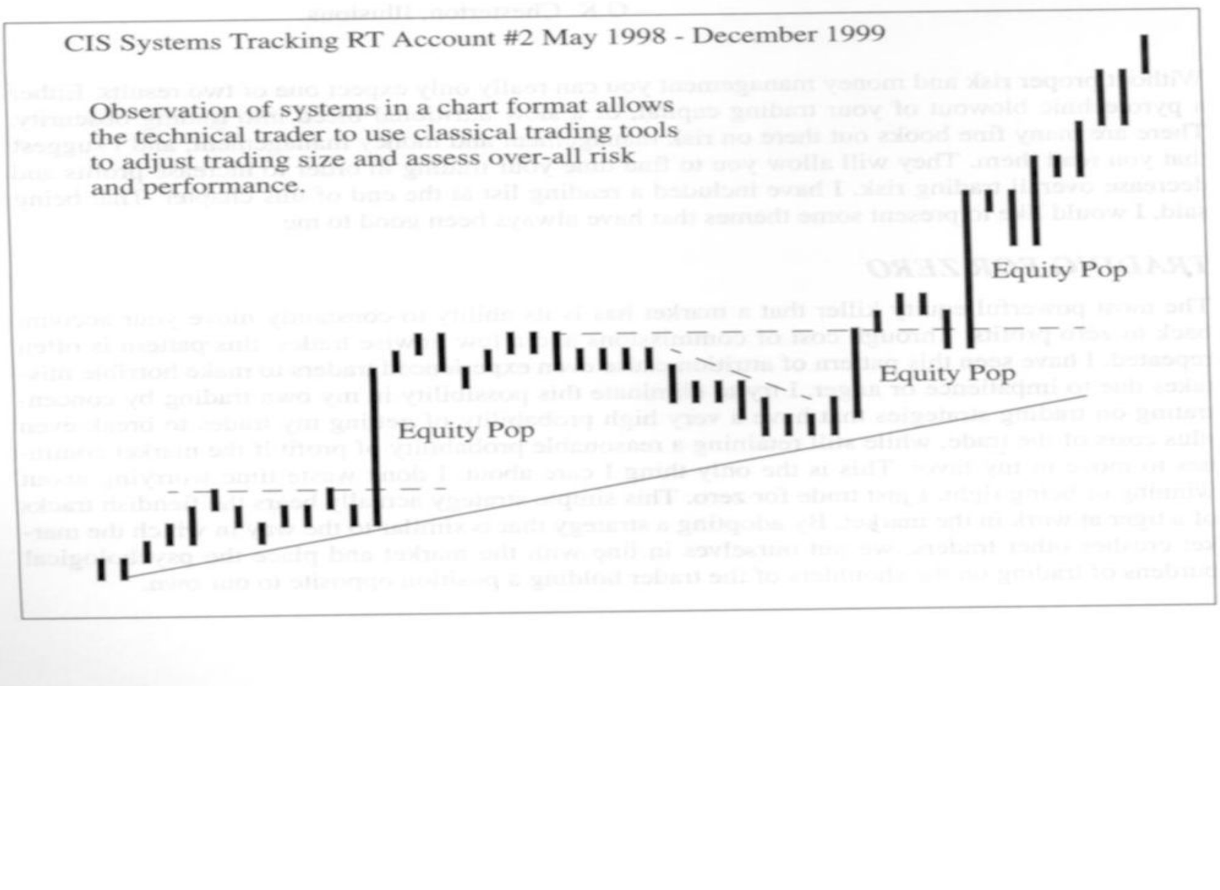
The most powerful equity killer that a market has is its ability to constantly move your account back to zero profits. Through cost of commissions and a few unwise trades, this pattern is often repeated. I have seen this pattern of attrition cause even experienced traders to make horrible mistakes due to impatience or anger. I try to eliminate this possibility in my own trading by concentrating on trading strategies that have a very high probability of getting my trades to break-even plus costs of the trade, while still retaining a reasonable probability of profit if the market continues to move in my favor. This is the only thing I care about. I don't waste time worrying about winning or being right. I just trade for zero. This simple strategy actually bears the fiendish tracks of a tiger at work in the market. By adopting a strategy that is similar to the way in which the market crushes other traders, we put ourselves in line with the market and place the psychological burdens of trading on the shoulders of the trader holding a position opposite to our own.

EQUITY POPS

Active traders often hold open positions in several markets at the same time. At any given time some of these trades are making money and some are losing money. Regardless of the winning and losing ratios in the portfolio, there will be days when the equity in the account suddenly increases. This is a day where the winning positions made ground or stayed even and the losing positions experienced momentary reversals, and you made back some of the money that you were down. Congratulations! You have just pulled an *equity pop*. Immediately exit all positions and go flat. Usually, I also take a few days off from trading at this point, because it is a good natural time to rest

EQUITY CHARTING

Many traders don't realize that they can trade themselves much like a futures contract. Create a graph of your equity in chart format. Use the patterns formed on the chart and increase or decrease the size of your trading accordingly. Classical charting techniques and tools can be used. This also allows you to track the volatility of your trading as well. Winning and losing is a cyclical occurrence and the chart reflects this. The chart also makes you very aware of exactly how your account is doing. It is always my goal to be able to view my own chart and say that I am definitely a buying opportunity!



RECOMMENDED READING LIST

Epstein, Richard A.[1997]. *The Theory of Gambling and Statistical Logic*, Academic Press. Revised edition.

Balsara, Nauzer J.[1982]. *Money Management Strategies for Futures Traders*, John Wiley and Sons. Wiley Finance Editions.

Bachelor, Louis[1900]. *Théorie de la Spéculation*, Gauthier-Villars, Paris.

Thorp, Edward O.[1967]. *Beat the Market*, Random House, New York.

Granville, Joseph E.[1960]. *A Strategy of Daily Stock Market Timing for Maximum Profit*, Prentice-Hall, Englewood Cliffs, New Jersey.

Babcock, Bruce Jr.[1989]. *The Dow Jones-Irwin Guide to Trading Systems*, Dow Jones-Irwin (McGraw-Hill).

Markowitz, Harry[1959]. *Portfolio Selection: Efficient Diversification of Investments*, John Wiley and Sons, New York.

Siegel, Sidney[1956] *Non parametric Statistics for the Behavioral Sciences*, McGraw-Hill, New York.

CHAPTER 2

Trading Psychology for Tigers: A Tactical Paradigm for Efficient Trading Models

> *"Or if some time when roaming round, a noble wild beast greets you, With black stripes on a yellow ground, just notice if he eats you. This simple rule may help you learn, the Bengal tiger to discern."*
>
> — Carolyn Well

Tigers know that trading is like chess. A successful player is able to accurately assess the position on the board, and to gauge the psychological mettle of his opponent. Victory is gained by implementing a positional and/or tactical strategy. Positional strategy is the accumulation of small advantages in terrain and the positioning of available forces in advantageous locations. Tactical play is a direct assault on the opposing army, usually highlighted by sacrificial combinations in which the attacking player is willing to give up material in order to gain a decisive advantage. In trading, a long-term trader can be thought of as a positional strategist. He builds a strong position and holds it an extended period of time. Short-term traders are the tacticians of the market place. Their methods revolve around a short-term sacrifice of equity in expectation of gaining an advantage sufficient to gain back the equity risked as well as a reasonable and consistent profit. Strangely, many short-term traders take risks a chess tactician never would. As a prospective tiger trader you need to develop a strategy that prevents this from happening.

THE TACTICAL TIGER

A chess tactician is more than willing to sacrifice material, but only when he is able to calculate that the sacrifice is justified. In the markets, tigers trade the same way. They know that tactical combinations (sacrifices of equity) are only good if the calculations used are strategically valid. Here are the four guidelines that I use. Following them will go a long way towards making you a successful trader. They ensure that the next time you place a trade, you are thinking like a tiger.

Guideline # 1: Tigers never trade without an edge. The building of a *mathematical edge* is the statistical validation of a trading model. While this testing does not prove conclusively that success may continue to exist in the future, it *does* prove that in the past the approach was successful. This is an important step in building confidence in the system and in the determination of how much risk a trader might face in implementing the chosen trading tactic.

Guideline # 2: Tigers act on what others do instead of reacting to what others do. Short-term price fluctuations can be ascribed to *psychological bias*. Understanding why market participants become bullish or bearish allows us to build an active rather than reactive tactic for the market. This allows us to trade the market in anticipation of an impending crowd reaction

Guideline # 3: Tigers don't do anything stupid. *Logical* trading means looking for logical reasons why our approach may or may not work.

Guideline # 4: Tigers keep it simple. *Simplicity* is the cornerstone of the short-term trader. Recognition of the set-up, timely action and proper execution are necessary if the trader is to be successful. A plan that has many exceptions, or is hard to recognize or implement is pure death to the short-term market tactician.

USING COMPLEX MARTIAL THEORY AS AN EFFICIENT MARKET PARADIGM

The first figure on the next page shows the classical model of strategic and tactical development used by martial strategists. Many traders use something similar without realizing it. Note that the flow from one section of the paradigm to another can go both ways. this means the structure is flexible, but also means that there will be a lot of room for subjective interpretation. To further muddy the waters, it is left to the discretion of the user of this paradigm to decide what constitutes strategy, operations or tactics. In general, one might consider "strategy" as a viewing of the map of the battlefield, "operations" as the positioning of forces on the battlefield, and "tactics" as the final attack.

Subjectivity in the first paradigm can cause problems in a market environment. In figure 2, I have re-formed the paradigm under strategic guidelines more suited to trading. Note that this model builds from an initial point of strength (statistical edge). The logic flows naturally through the model, accumulating added advantages. The model will not allow a trade unless the strategic guidelines have been met, and a tactical advantage exists.

In viewing these models, we can see that unlike a military situation in which a general might not have a choice as to his circumstances, we as traders have the luxury of hand-picking every encounter! By patiently waiting for only those opportunities that fulfill our strategic ideals and match our particular talent for tactics, we can enjoy probabilities of success that are very reasonable.

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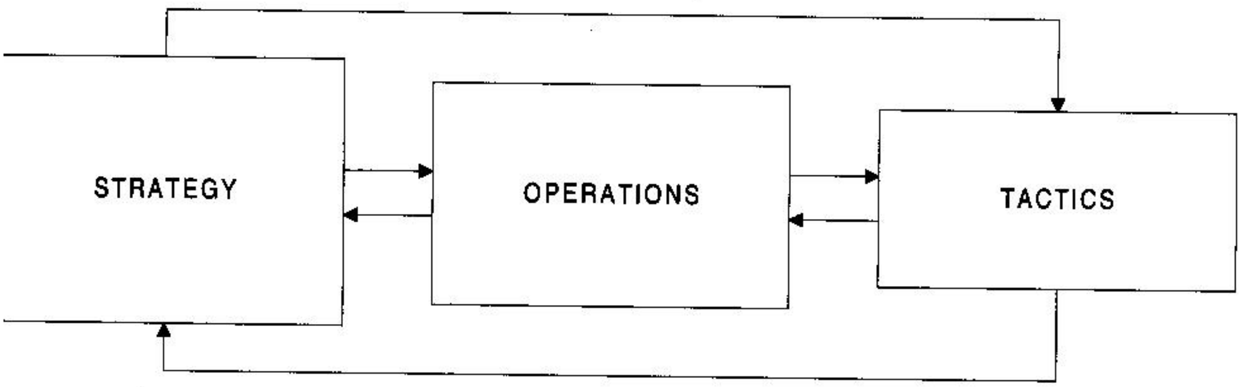
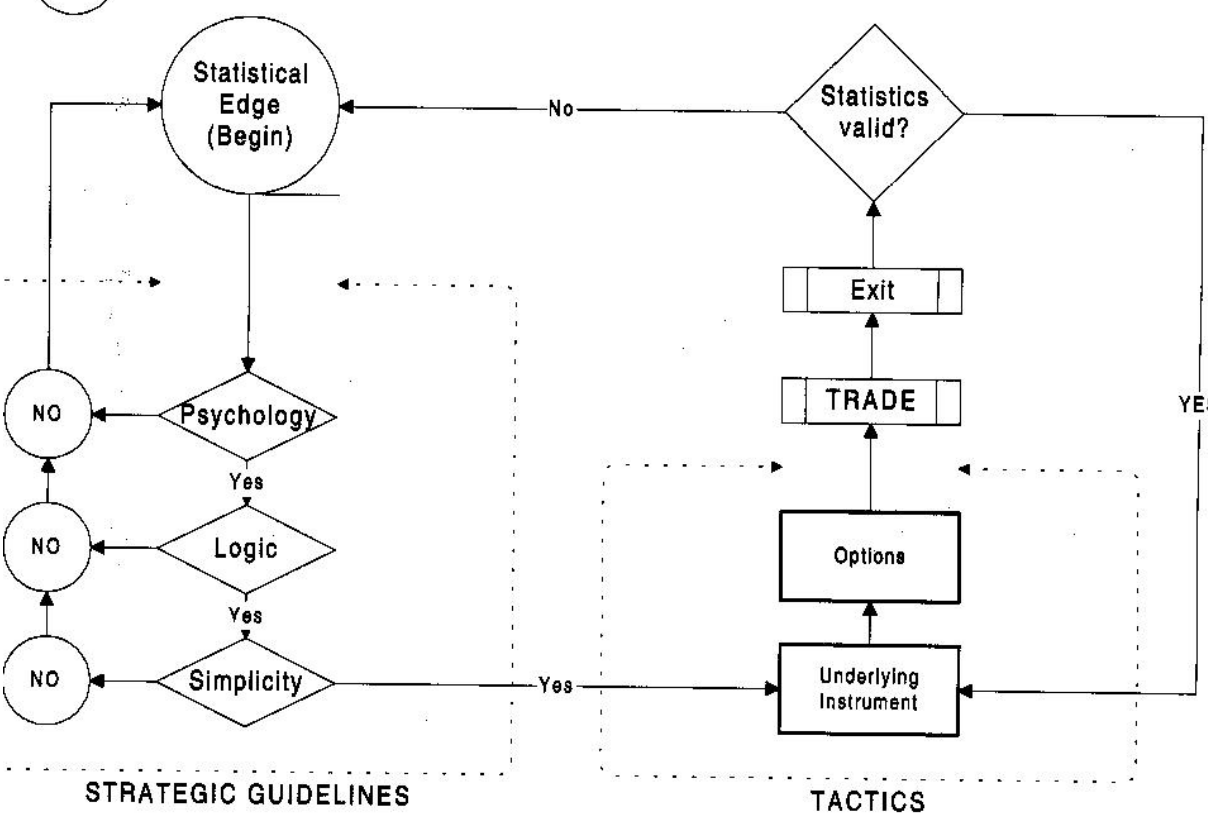

STRATEGY
OPERATIONS
TACTICS

2.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Psychology
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Logic
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Simplicity
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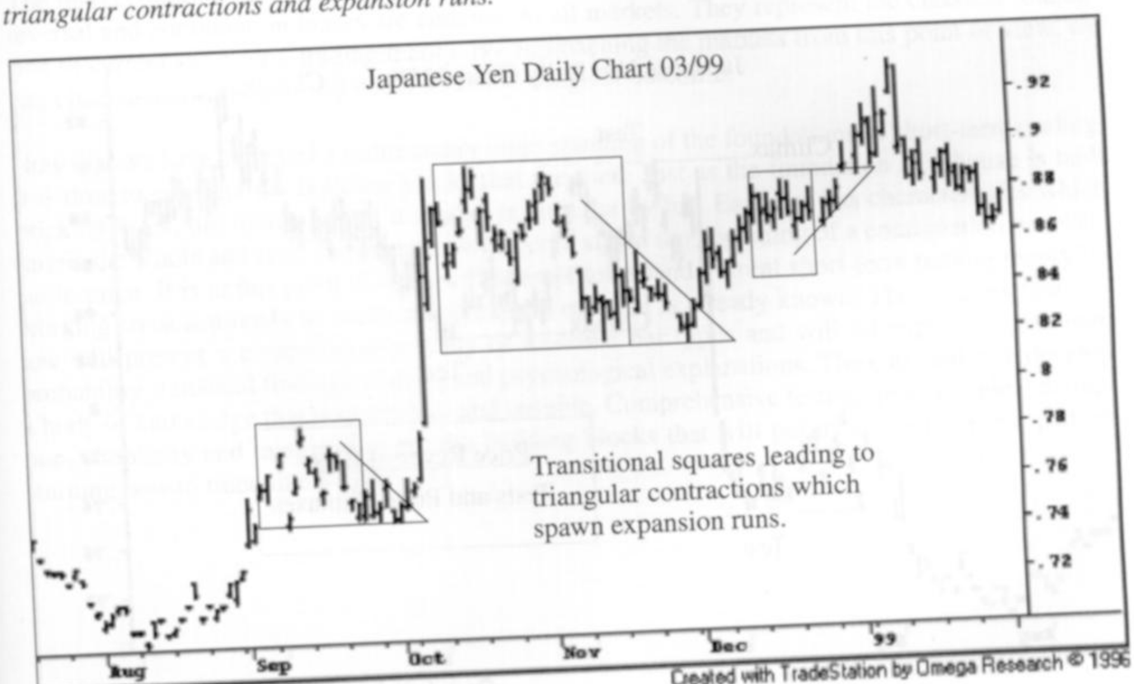
Options
Underlying Instrument
STRATEGIC GUIDELINES
TACTICS

CHAPTER 3

Classical Short Term Trading Concepts

*"I have studied many philosophers and many cats.
The wisdom of cats is infinitely superior."*
— Hippolyte Taine

Markets contain three states. The first is *price contraction*, which is defined as price action that diminishes in momentum and direction. The second is *price expansion*, which is defined as price action that increases in momentum and direction. These two states can be connected by a third state, *price transition*, which is defined by chaotic shifts in price momentum and direction. When these three states of price action are linked, three complex patterns emerge: *Transitional squares, triangular contractions and expansion runs.*



CLASSICAL SHORT TERM OBSERVATIONS

Inside the larger context of our three states of price action, we can further define price action in two forms of directional bias. By observing how price action reacts under certain market scenarios, the following directional biases have become generally accepted.

Price Reversal Biases

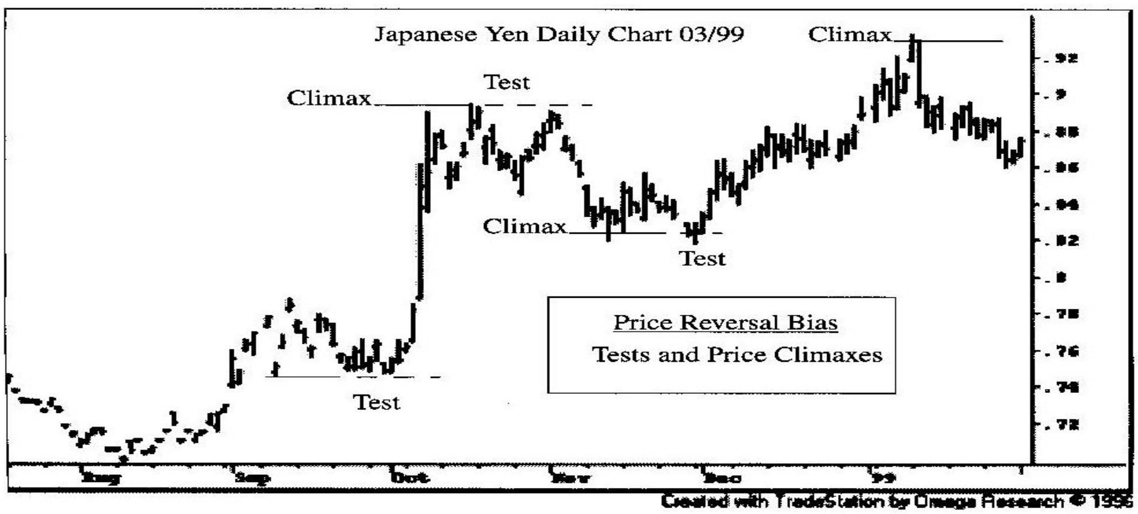
Price Tests - This is price action that is characterized by the testing of a previous level of support or resistance. Logically, at this key point, one of two things will happen. The market will either break through to new highs or lows, or else it will reverse.

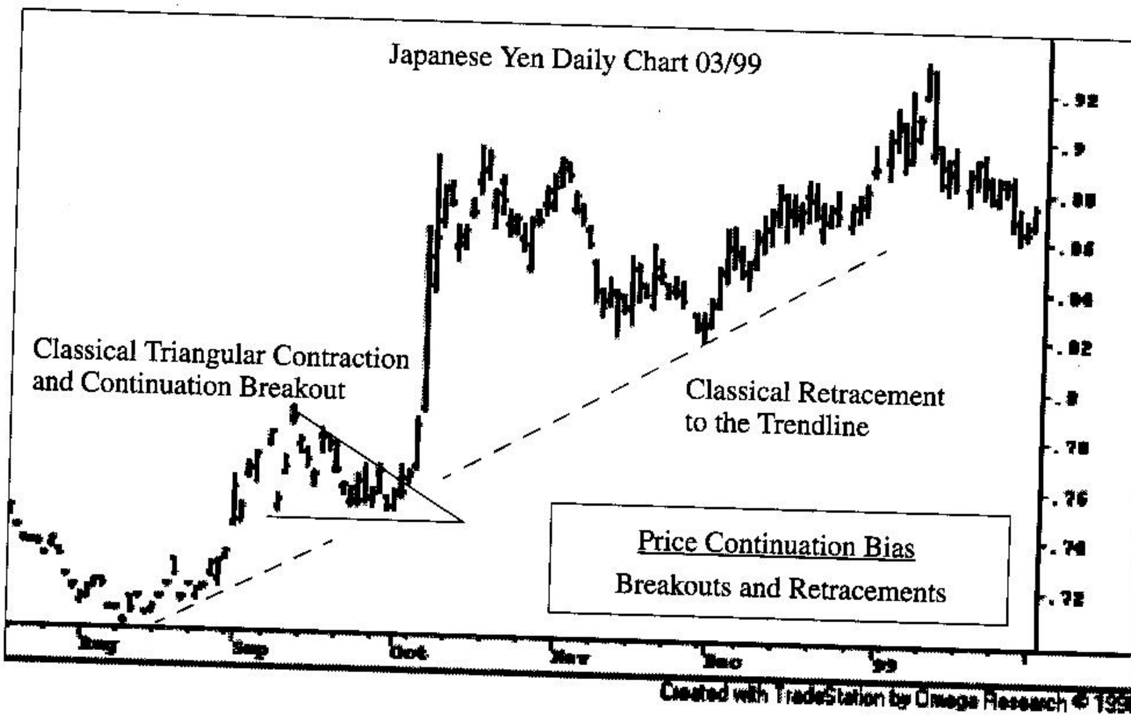
Price Climaxes - Price climaxes occur when the last of a group of buyers or sellers pile in to a market. Climaxes are characterized by a bar with a larger than normal range, whose original direction is reversed either on the close of that day, or within the next few trading sessions.

Price Continuation Biases

Price Retracements - This price action is characterized by entering a trending state on momentary weakness. The idea is that the trade will have a better chance of succeeding if it is in the direction of the longer-term market trend.

Price Breakouts - This price action is usually preceded by some form of market contraction followed by a breakout from a range that the market has been trading in for several days.





CLASSICAL FOUNDATIONS AND BUILDING BLOCKS

The market states of contraction, expansion, transition and the classical definitions found within reversal and continuation biases are endemic to all markets. They represent the classical foundation of current short-term trading theory. By approaching the markets from this point of view, we can observe market action and use it to define a logical outcome.

Now that we have achieved a rudimentary understanding of the foundations of short-term trading, it is time to consider the building blocks that are used. Just as the foundation of a house is built brick by brick, the foundation of a market is built bar by bar. Each bar has characteristics which mimic the whole and each can of their own accord signal the beginning of a continuation or reversal in price. It is at this point that we will attempt to expand current short-term trading theory by working conscientiously to confirm and expand on what is already known. The chapters that follow will present a comprehensive study of effective bar types and will attempt to couple high probability statistical findings with logical psychological explanations. The end goal is to develop a body of knowledge that is quantified and testable. Comprehensive testing, psychological deduction, simplicity and imagination are the building blocks that will put us squarely on the path of learning how to trade like a tiger.

CHAPTER 4

Trading for Tigers: A Pattern Search Protocol for Hunting Bulls and Bears in the Market

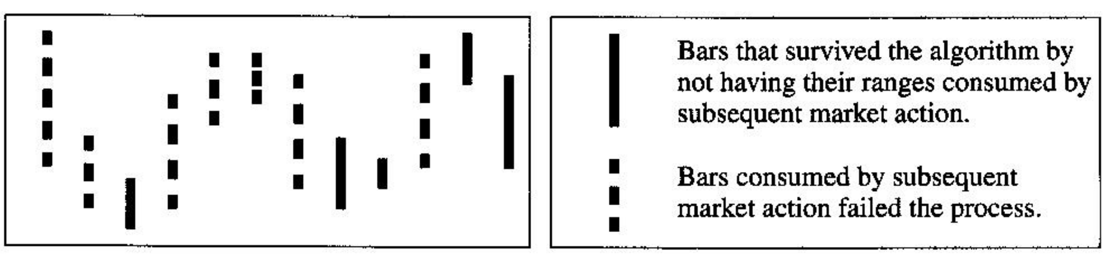
"Tyger! Tyger! burning bright
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?"

— William Blake

Any book on pattern trading must show objective patterns along with the testing of those patterns. However, of greater importance is to show how the patterns were found and researched to begin with! It is not enough to think like a tiger. One must learn to hunt like one as well.

In accordance with the tactical paradigm developed in chapter two, the best way to find market patterns is to start first by running statistical tests on all known variables. While this approach is somewhat labor and computer intensive, it tends to yield a superior starting point for most pattern trading methodologies.

Sixty stocks and thirteen futures markets were analyzed in monthly, weekly and daily time frames in order to accumulate a library of bars and bar formations that initially had the greatest statistical probability of profit. This was accomplished by using a strict "survival of the fittest" algorithm that excluded any bars eventually destroyed by subsequent market action. The results of this analysis confirmed some aspects of current short-term trading theory and allowed for the discovery of new patterns as well. All available price data from the inception of each market was used.



RELATION OF SURVIVING BARS TO COMPLEX MARKET STATES

In chapter three, I defined the market states of expansion, contraction and transition as transitional

(M) J.Yen Patterns JAPANESE YEN 67/99-Monthly 08/31/76 - 07/31/96

Performance Summary: All Trades

Total net profit	$101862.50	Open position P/L$	0.00
Gross profit	$107300.00	Gross loss	$ -5437.50
Total # of trades	57	Percent profitable	82%
Number winning trades	47	Number losing trades	10
Largest winning trade$	14550.00	Largest losing trade$	-1862.50
Average winning trade$	2282.97	Average losing trade$	-543.75
Ratio avg win/avg loss	4.20	Avg trade(win & loss)$	1787.06
Max consec. winners	19	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown	$ -3637.50		
Profit factor	19.73	Max # contracts held	5
Account size required $	3637.50	Return on account	2800%

Performance Summary: Long Trades

Total net profit	$ 75562.50	Open position P/L$	0.00
Gross profit	$ 80050.00	Gross loss	$ -4487.50
Total # of trades	35	Percent profitable	83%
Number winning trades	29	Number losing trades	6
Largest winning trade $	14550.00	Largest losing trade$	-1862.50
Average winning trade$	2760.35	Average losing trade$	-747.92
Ratio avg win/avg loss	3.69	Avg trade(win & loss)$	2158.93
Max consec. winners	13	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown	$ -5162.50		
Profit factor	17.84	Max # contracts held	5
Account size required $	5162.50	Return on account	1464%

Performance Summary: Short Trades

Total net profit	$ 26300.00	Open position P/L$	0.00
Gross profit	$ 27250.00	Gross loss	$ -950.00
Total # of trades	22	Percent profitable	82%
Number winning trades	18	Number losing trades	4
Largest winning trade$	5350.00	Largest losing trade$	-687.50
Average winning trade$	1513.89	Average losing trade$	-237.50
Ratio avg win/avg loss	6.37	Avg trade(win & loss)$	1195.45
Max consec. winners	13	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown	$ -2887.50		
Profit factor	28.68	Max # contracts held	3
Account size required $	2887.50	Return on account	911%

(M) Crude Oil NY LIGHT CRUDE OIL 67/99-Monthly 03/31/89 - 07/31/96

Performance Summary: All Trades
Total net profit $ 17620.00 Open position P/L$ 0.00
Gross profit $ 19350.00 Gross loss $ -1730.00
Total # of trades 11 Percent profitable 73%
Number winning trades 8 Number losing trades 3
Largest winning trade $ 6450.00 Largest losing trade$ -1470.00
Average winning trade $ 2418.75 Average losing trade$ -576.67
Ratio avg win/avg loss 4.19 Avg trade(win & loss)$ 1601.82
Max consec. winners 4 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -3040.00
Profit factor 11.18 Max # contracts held 2
Account size required $ 3040.00 Return on account 580%

Performance Summary: Long Trades
Total net profit $ 13900.00 Open position P/L$ 0.00
Gross profit $ 14160.00 Gross loss $ -260.00
Total # of trades 6 Percent profitable 67%
Number winning trades 4 Number losing trades 2
Largest winning trade$ 6450.00 Largest losing trade$ -130.00
Average winning trade$ 3540.00 Average losing trade$ -130.00
Ratio avg win/avg loss 27.23 Avg trade(win & loss)$ 2316.67
Max consec. winners 2 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown$ -3040.00
Profit factor 54.46 Max # contracts held 2
Account size required $ 3040.00 Return on account 457%

Performance Summary: Short Trades
Total net profit$ 3720.00 Open position P/L$ 0.00
Gross profit $ 5190.00 Gross loss $ -1470.00
Total # of trades 5 Percent profitable 80%
Number winning trades 4 Number losing trades 1
Largest winning trade$ 1940.00 Largest losing trade$ -1470.00
Average winning trade$ 1297.50 Average losing trade$ -1470.00
Ratio avg win/avg loss 0.88 Avg trade(win & loss)$ 744.00
Max consec. winners 3 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -1470.00
Profit factor 3.53 Max # contracts held 1
Account size required $ 1470.00 Return on account 253%

(M) Corn Patterns CBT CORN 67/99-Monthly 02/29/68 - 07/31/96

Performance Summary: All Trades

Total net profit $	14618.75	Open position P/L$	0.00
Gross profit $	15356.25	Gross loss $	-737.50
Total # of trades	22	Percent profitable	77%
Number winning trades	17	Number losing trades	5
Largest winning trade$	4256.25	Largest losing trade$	-275.00
Average winning trade$	903.31	Average losing trade$	-147.50
Ratio avg win/avg loss	6.12	Avg trade(win & loss)$	664.49
Max consec. winners	6	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown$	-475.00		
Profit factor	20.82	Max # contracts held	1
Account size required $	475.00	Return on account	3078%

Performance Summary: Long Trades

Total net profit $	13631.25	Open position P/L$	0.00
Gross profit $	14368.75	Gross loss $	-737.50
Total # of trades	21	Percent profitable	76%
Number winning trades	16	Number losing trades	5
Largest winning trade$	4256.25	Largest losing trade$	-275.00
Average winning trade$	898.05	Average losing trade$	-147.50
Ratio avg win/avg loss	6.09	Avg trade(win & loss)$	649.11
Max consec. winners	6	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-475.00		
Profit factor	19.48	Max # contracts held	1
Account size required $	475.00	Return on account	2870%

Performance Summary: Short Trades

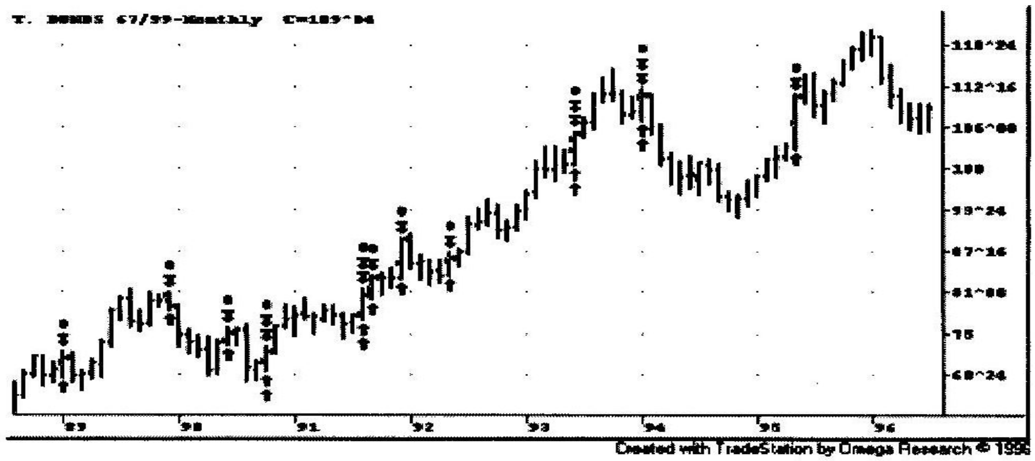
Total net profit $	987.50	Open position P/L$	0.00
Gross profit $	987.50	Gross loss $	0.00
Total # of trades	1	Percent profitable	100%
Number winning trades	1	Number losing trades	0
Largest winning trade$	987.50	Largest losing trade$	0.00
Average winning trade$	987.50	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	987.50
Max consec. winners	1	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown$	0.00		
Profit factor	100.00	Max # contracts held	1
Account size required $	0.00	Return on account	0%

M) B.Pound Patterns BRITISH POUND 67/99-Monthly 02/28/75 - 07/31/96

Performance Summary: All Trades
Total net profit $ 72806.25 Open position P/L$ 0.00
Gross profit $ 79025.00 Gross loss $ -6218.75
Total # of trades 31 Percent profitable 90%
Number winning trades 28 Number losing trades 3
Largest winning trade$ 11387.50 Largest losing trade$ -3156.25
Average winning trade$ 2822.32 Average losing trade$ -2072.92
Ratio avg win/avg loss 1.36 Avg trade(win & loss)$ 2348.59
Max consec. winners 22 Max consec. losers 3
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -10593.75
Profit factor 12.71 Max # contracts held 3
Account size required $ 10593.75 Return on account 687%

Performance Summary: Long Trades
Total net profit $ 37875.00 Open position P/L$ 0.00
Gross profit $ 37875.00 Gross loss $ 0.00
Total # of trades 17 Percent profitable 100%
Number winning trades 17 Number losing trades 0
Largest winning trade$ 6587.50 Largest losing trade$ 0.00
Average winning trade$ 2227.94 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 2227.94
Max consec. winners 17 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -1175.00
Profit factor 100.00 Max # contracts held 3
Account size required $ 1175.00 Return on account 3223%

Performance Summary: Short Trades
Total net profit $ 34931.25 Open position P/L$ 0.00
Gross profit $ 41150.00 Gross loss $ -6218.75
Total # of trades 14 Percent profitable 79%
Number winning trades 11 Number losing trades 3
Largest winning trade$ 11387.50 Largest losing trade$ -3156.25
Average winning trade$ 3740.91 Average losing trade$ -2072.92
Ratio avg win/avg loss 1.80 Avg trade(win & loss)$ 2495.09
Max consec. winners 10 Max consec. losers 3
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -10593.75
Profit factor 6.62 Max # contracts held 2
Account size required $ 10593.75 Return on account 330%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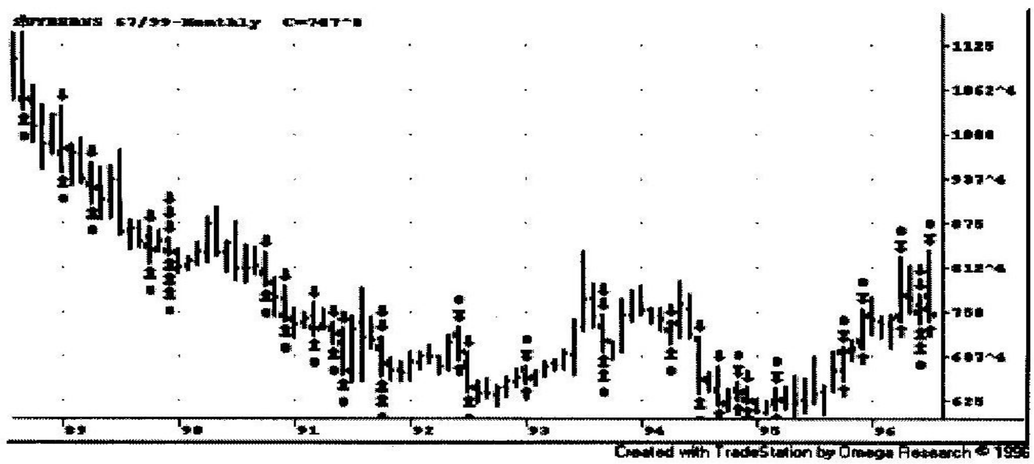
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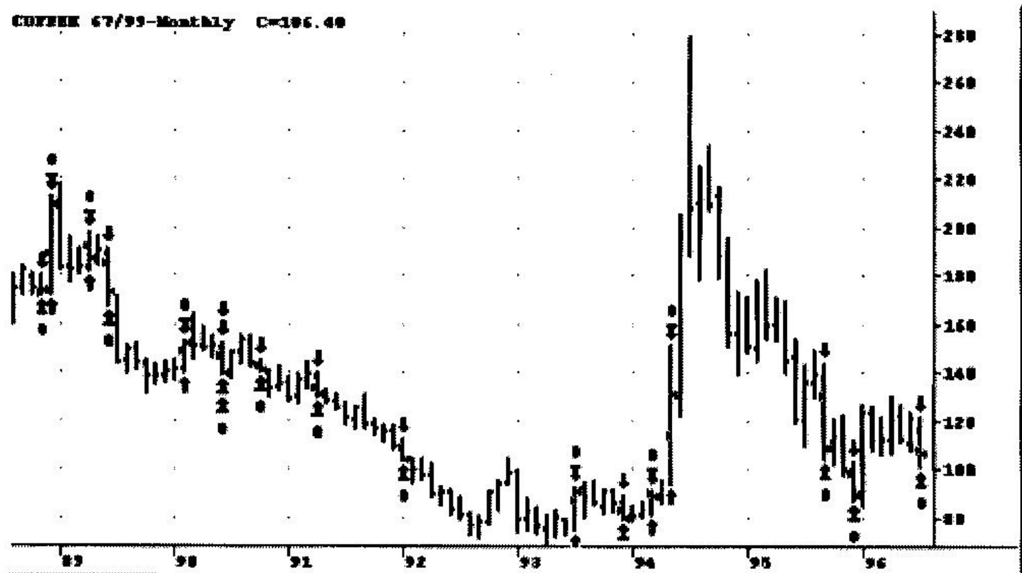

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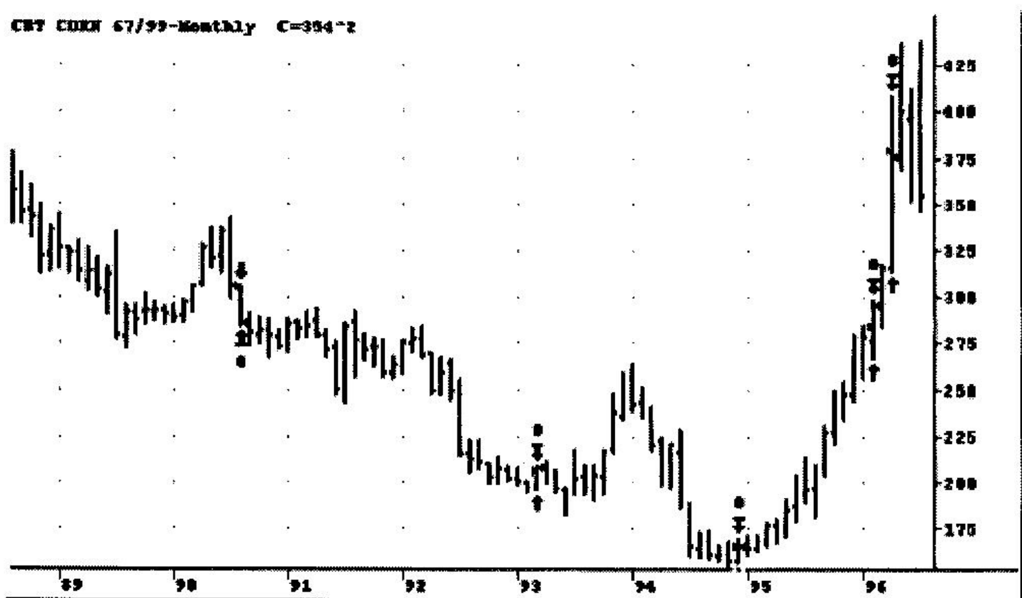

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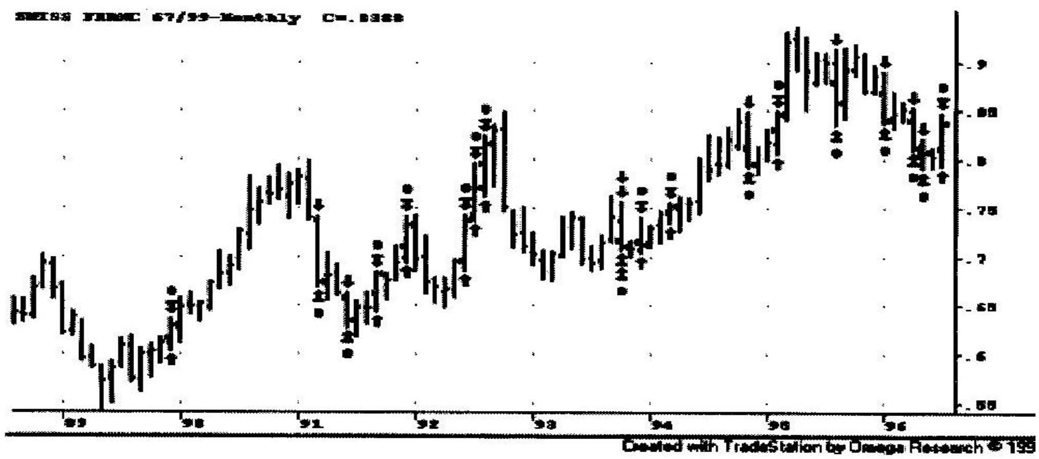
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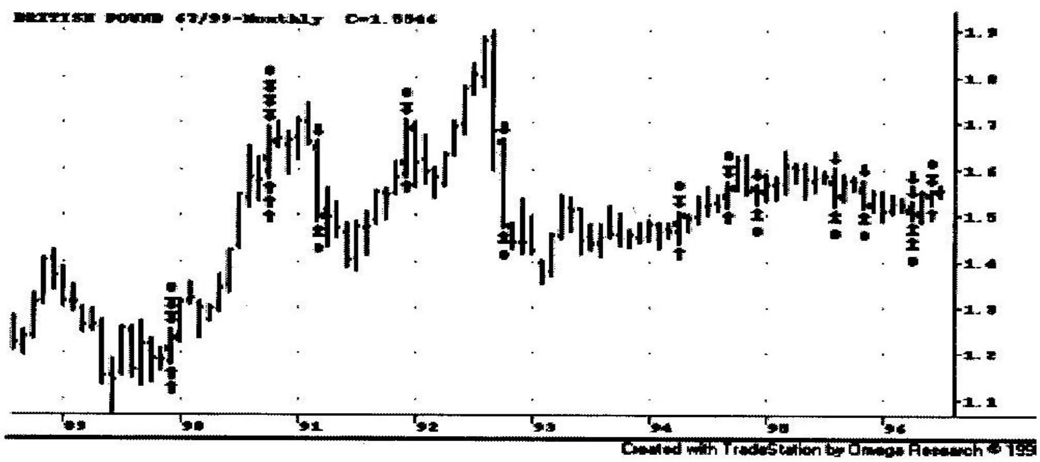
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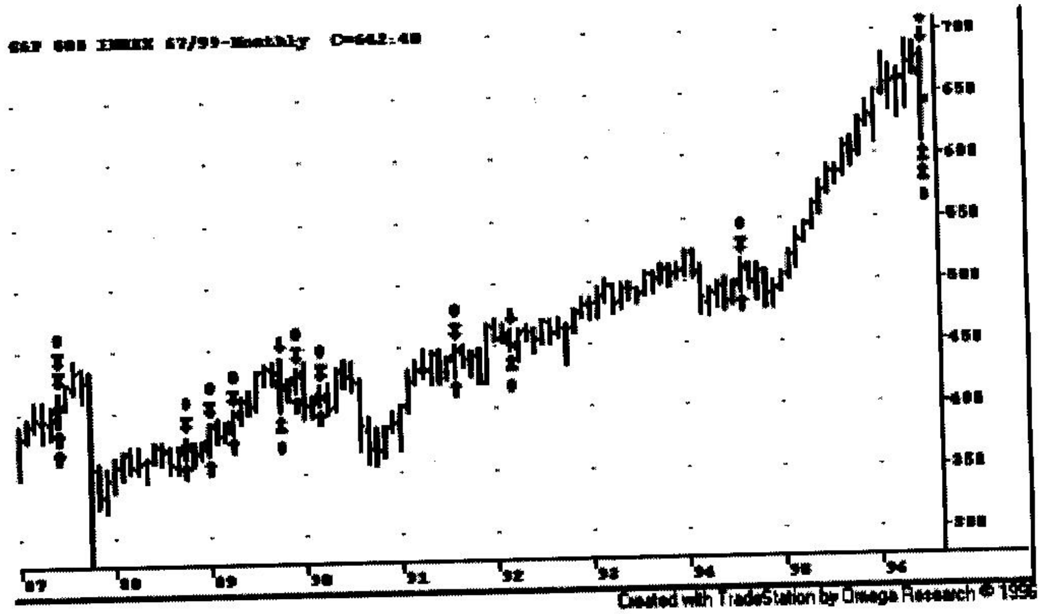
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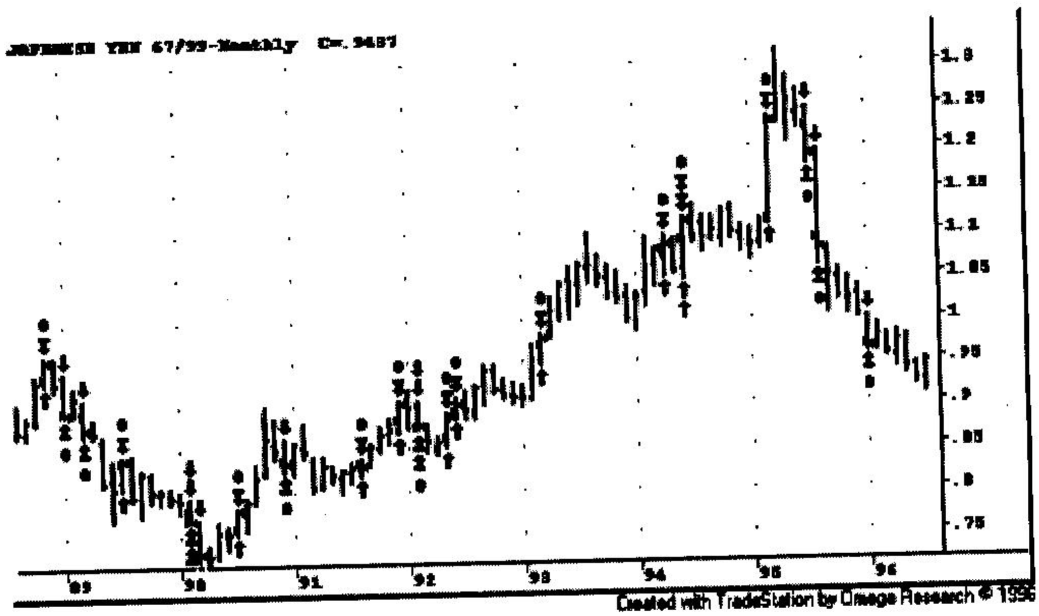
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(M) AAPL Apple Computer Inc-Monthly 12/31/80 - 03/31/99

Performance Summary: All Trades

Total net profit $	66.88	Open position P/L$	0.00
Gross profit $	73.50	Gross loss $	-6.63
Total # of trades	27	Percent profitable	78%
Number winning trades	21	Number losing trades	6
Largest winning trade$	11.50	Largest losing trade$	-2.00
Average winning trade$	3.50	Average losing trade$	-1.10
Ratio avg win/avg loss	3.17	Avg trade(win & loss)$	2.48
Max consec. winners	7	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-3.44		
Profit factor	11.09	Max # contracts held	2
Account size required $	3.44	Return on account	1946%

Performance Summary: Long Trades

Total net profit $	33.78	Open position P/L$	0.00
Gross profit $	35.66	Gross loss $	-1.88
Total # of trades	15	Percent profitable	80%
Number winning trades	12	Number losing trades	3
Largest winning trade$	6.13	Largest losing trade$	-1.00
Average winning trade$	2.97	Average losing trade$	-0.63
Ratio avg win/avg loss	4.75	Avg trade(win & loss)$	2.25
Max consec. winners	6	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1.69		
Profit factor	19.02	Max # contracts held	2
Account size required $	1.69	Return on account	2001%

Performance Summary: Short Trades

Total net profit $	33.09	Open position P/L$	0.00
Gross profit $	37.84	Gross loss $	-4.75
Total # of trades	12	Percent profitable	75%
Number winning trades	9	Number losing trades	3
Largest winning trade$	11.50	Largest losing trade$	-2.00
Average winning trade$	4.20	Average losing trade$	-1.58
Ratio avg win/avg loss	2.66	Avg trade(win & loss)$	2.76
Max consec. winners	5	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-3.75		
Profit factor	7.97	Max # contracts held	1
Account size required $	3.75	Return on account	883%

(M) AMAT Applied Matls Inc-Monthly 02/29/80 - 03/31/99

Performance Summary: All Trades
Total net profit $ 7.20 Open position P/L$ 0.00
Gross profit $ 7.20 Gross loss $ 0.00
Total # of trades 10 Percent profitable 100%
Number winning trades 10 Number losing trades 0
Largest winning trade$ 3.81 Largest losing trade$ 0.00
Average winning trade$ 0.72 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 0.72
Max consec. winners 10 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ 0.00
Profit factor 100.00 Max # contracts held 1
Account size required $ 0.00 Return on account 100%

Performance Summary: Long Trades
Total net profit $ 4.25 Open position P/L$ 0.00
Gross profit $ 4.25 Gross loss $ 0.00
Total # of trades 3 Percent profitable 100%
Number winning trades 3 Number losing trades 0
Largest winning trade$ 3.81 Largest losing trade$ 0.00
Average winning trade$ 1.42 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 1.42
Max consec. winners 3 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown$ 0.00
Profit factor 100.00 Max # contracts held 1
Account size required $ 0.00 Return on account 100%

Performance Summary: Short Trades
Total net profit $ 2.95 Open position P/L$ 0.00
Gross profit $ 2.95 Gross loss $ 0.00
Total # of trades 7 Percent profitable 100%
Number winning trades 7 Number losing trades 0
Largest winning trade$ 1.88 Largest losing trade$ 0.00
Average winning trade$ 0.42 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 0.42
Max consec. winners 7 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ 0.00
Profit factor 100.00 Max # contracts held 1
Account size required $ 0.00 Return on account 100%

(M) BGEN Biogen Inc-Monthly 03/31/83 - 03/31/99

Performance Summary: All Trades

Total net profit $	8.94	Open position P/L$	0.00
Gross profit $	8.94	Gross loss $	0.00
Total # of trades	8	Percent profitable	100%
Number winning trades	8	Number losing trades	0
Largest winning trade$	2.88	Largest losing trade$	0.00
Average winning trade$	1.12	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	1.12
Max consec. winners	8	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1.19		
Profit factor	100.00	Max # contracts held	1
Account size required $	1.19	Return on account	752%

Performance Summary: Long Trades

Total net profit $	8.94	Open position P/L$	0.00
Gross profit $	8.94	Gross loss $	0.00
Total # of trades	8	Percent profitable	100%
Number winning trades	8	Number losing trades	0
Largest winning trade$	2.88	Largest losing trade$	0.00
Average winning trade$	1.12	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	1.12
Max consec. winners	8	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1.19		
Profit factor	100.00	Max # contracts held	1
Account size required $	1.19	Return on account	752%

Performance Summary: Short Trades

Total net profit$	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required $	0.00	Return on account	0%

(M) COF Capital One Finl Corp-Monthly 11/30/94 - 03/31/99

Performance Summary: All Trades
Total net profit $ 66.75 Open position P/L$ 0.00
Gross profit $ 67.94 Gross loss $ -1.19
Total # of trades 6 Percent profitable 83%
Number winning trades 5 Number losing trades 1
Largest winning trade$ 20.94 Largest losing trade$ -1.19
Average winning trade$ 13.59 Average losing trade$ -1.19
Ratio avg win/avg loss 11.45 Avg trade(win & loss)$ 11.13
Max consec. winners 5 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -5.38
Profit factor 57.24 Max # contracts held 2
Account size required $ 5.38 Return on account 1242%

Performance Summary: Long Trades
Total net profit $ 66.75 Open position P/L$ 0.00
Gross profit $ 67.94 Gross loss $ -1.19
Total # of trades 6 Percent profitable 83%
Number winning trades 5 Number losing trades 1
Largest winning trade$ 20.94 Largest losing trade$ -1.19
Average winning trade$ 13.59 Average losing trade$ -1.19
Ratio avg win/avg loss 11.45 Avg trade(win & loss)$ 11.13
Max consec. winners 5 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -5.38
Profit factor 57.24 Max # contracts held 2
Account size required $ 5.38 Return on account 1242%

Performance Summary: Short Trades
Total net profit $ 0.00 Open position P/L$ 0.00
Gross profit $ 0.00 Gross loss $ 0.00
Total # of trades 0 Percent profitable 0%
Number winning trades 0 Number losing trades 0
Largest winning trade$ 0.00 Largest losing trade$ 0.00
Average winning trade$ 0.00 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 0.00
Max consec. winners 0 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ 0.00
Profit factor 100.00 Max # contracts held 0
Account size required $ 0.00 Return on account 0%

(M) DELL Dell Computer Corp-Monthly 06/30/88 - 03/31/99

Performance Summary: All Trades

Total net profit $	10.99	Open position P/L$	0.00
Gross profit $	11.15	Gross loss $	-0.16
Total # of trades	21	Percent profitable	76%
Number winning trades	16	Number losing trades	5
Largest winning trade$	4.84	Largest losing trade$	-0.10
Average winning trade$	0.70	Average losing trade$	-0.03
Ratio avg win/avg loss	22.05	Avg trade(win & loss)$	0.52
Max consec. winners	8	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.13		
Profit factor	70.54	Max # contracts held	3
Account size required $	0.13	Return on account	8200%

Performance Summary: Long Trades

Total net profit $	10.99	Open position P/L$	0.00
Gross profit $	11.15	Gross loss $	-0.16
Total # of trades	21	Percent profitable	76%
Number winning trades	16	Number losing trades	5
Largest winning trade$	4.84	Largest losing trade$	-0.10
Average winning trade$	0.70	Average losing trade$	-0.03
Ratio avg win/avg loss	22.05	Avg trade(win & loss)$	0.52
Max consec. winners	8	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.13		
Profit factor	70.54	Max # contracts held	3
Account size required $	0.13	Return on account	8200%

Performance Summary: Short Trades

Total net profit$	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required $	0.00	Return on account	0%

(M) IBM International Busines-Monthly 01/30/70 - 03/31/99

Performance Summary: All Trades

Total net profit $	22.55	Open position P/L$	0.00
Gross profit $	32.24	Gross loss $	-9.69
Total # of trades	18	Percent profitable	61%
Number winning trades	11	Number losing trades	7
Largest winning trade$	12.00	Largest losing trade$	-3.81
Average winning trade$	2.93	Average losing trade$	-1.38
Ratio avg win/avg loss	2.12	Avg trade(win & loss)$	1.25
Max consec. winners	4	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4.00		
Profit factor	3.33	Max # contracts held	1
Account size required $	4.00	Return on account	563%

Performance Summary: Long Trades

Total net profit $	22.55	Open position P/L$	0.00
Gross profit $	32.24	Gross loss $	-9.69
Total # of trades	18	Percent profitable	61%
Number winning trades	11	Number losing trades	7
Largest winning trade$	12.00	Largest losing trade$	-3.81
Average winning trade$	2.93	Average losing trade$	-1.38
Ratio avg win/avg loss	2.12	Avg trade(win & loss)$	1.25
Max consec. winners	4	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4.00		
Profit factor	3.33	Max # contracts held	1
Account size required $	4.00	Return on account	563%

Performance Summary: Short Trades

Total net profit$	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required $	0.00	Return on account	0%

(M) INTC Intel Corp-Monthly 03/31/78 - 03/31/99

Performance Summary: All Trades

Total net profit $	27.85	Open position P/L$	0.00
Gross profit $	32.06	Gross loss $	-4.21
Total # of trades	41	Percent profitable	61%
Number winning trades	25	Number losing trades	16
Largest winning trade$	14.50	Largest losing trade$	-1.06
Average winning trade$	1.28	Average losing trade$	-0.26
Ratio avg win/avg loss	4.88	Avg trade(win & loss)$	0.68
Max consec. winners	4	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-2.38		
Profit factor	7.62	Max # contracts held	2
Account size required $	2.38	Return on account	1172%

Performance Summary: Long Trades

Total net profit $	27.85	Open position P/L$	0.00
Gross profit $	32.06	Gross loss $	-4.21
Total # of trades	41	Percent profitable	61%
Number winning trades	25	Number losing trades	16
Largest winning trade$	14.50	Largest losing trade$	-1.06
Average winning trade$	1.28	Average losing trade$	-0.26
Ratio avg win/avg loss	4.88	Avg trade(win & loss)$	0.68
Max consec. winners	4	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-2.38		
Profit factor	7.62	Max # contracts held	2
Account size required $	2.38	Return on account	1172%

Performance Summary: Short Trades

Total net profit $	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required $	0.00	Return on account	0%

(M) MRK Merck & Co Inc-Monthly 01/30/70 - 03/31/99

Performance Summary: All Trades

Total net profit $	81.38	Open position P/L$	0.00
Gross profit $	86.57	Gross loss $	-5.19
Total # of trades	73	Percent profitable	77%
Number winning trades	56	Number losing trades	17
Largest winning trade$	9.19	Largest losing trade$	-1.25
Average winning trade$	1.55	Average losing trade$	-0.31
Ratio avg win/avg loss	5.07	Avg trade(win & loss)$	1.11
Max consec. winners	15	Max consec. losers	5
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4.25		
Profit factor	16.69	Max # contracts held	4
Account size required $	4.25	Return on account	1915%

Performance Summary: Long Trades

Total net profit $	77.20	Open position P/L$	0.00
Gross profit $	82.10	Gross loss $	-4.90
Total # of trades	66	Percent profitable	76%
Number winning trades	50	Number losing trades	16
Largest winning trade$	9.19	Largest losing trade$	-1.25
Average winning trade$	1.64	Average losing trade$	-0.31
Ratio avg win/avg loss	5.36	Avg trade(win & loss)$	1.17
Max consec. winners	13	Max consec. losers	5
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4.25		
Profit factor	16.75	Max # contracts held	4
Account size required $	4.25	Return on account	1816%

Performance Summary: Short Trades

Total net profit $	4.18	Open position P/L$	0.00
Gross profit $	4.47	Gross loss $	-0.29
Total # of trades	7	Percent profitable	86%
Number winning trades	6	Number losing trades	1
Largest winning trade$	1.94	Largest losing trade$	-0.29
Average winning trade$	0.75	Average losing trade$	-0.29
Ratio avg win/avg loss	2.60	Avg trade(win & loss)$	0.60
Max consec. winners	3	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.29		
Profit factor	15.63	Max # contracts held	2
Account size required $	0.29	Return on account	1463%

(M) XRX Xerox Corp-Monthly 01/30/70 - 03/31/99

Performance Summary: All Trades

Total net profit $	3.73	Open position P/L$	0.00
Gross profit $	3.98	Gross loss $	-0.25
Total # of trades	7	Percent profitable	86%
Number winning trades	6	Number losing trades	1
Largest winning trade$	1.08	Largest losing trade$	-0.25
Average winning trade$	0.66	Average losing trade$	-0.25
Ratio avg win/avg loss	2.65	Avg trade(win & loss)$	0.53
Max consec. winners	3	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.58		
Profit factor	15.92	Max # contracts held	1
Account size required $	0.58	Return on account	640%

Performance Summary: Long Trades

Total net profit $	1.88	Open position P/L$	0.00
Gross profit $	1.88	Gross loss $	0.00
Total # of trades	2	Percent profitable	100%
Number winning trades	2	Number losing trades	0
Largest winning trade$	1.08	Largest losing trade$	0.00
Average winning trade$	0.94	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.94
Max consec. winners	2	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.13		
Profit factor	100.00	Max # contracts held	1
Account size required $	0.13	Return on account	1500%

Performance Summary: Short Trades

Total net profit $	1.86	Open position P/L$	0.00
Gross profit $	2.11	Gross loss $	-0.25
Total # of trades	5	Percent profitable	80%
Number winning trades	4	Number losing trades	1
Largest winning trade$	1.00	Largest losing trade$	-0.25
Average winning trade$	0.53	Average losing trade$	-0.25
Ratio avg win/avg loss	2.11	Avg trade(win & loss)$	0.37
Max consec. winners	3	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.58		
Profit factor	8.42	Max # contracts held	1
Account size required $	0.58	Return on account	318%

(M) LCOS Lycos Inc-Monthly 04/30/96 - 03/31/99

Performance Summary: All Trades

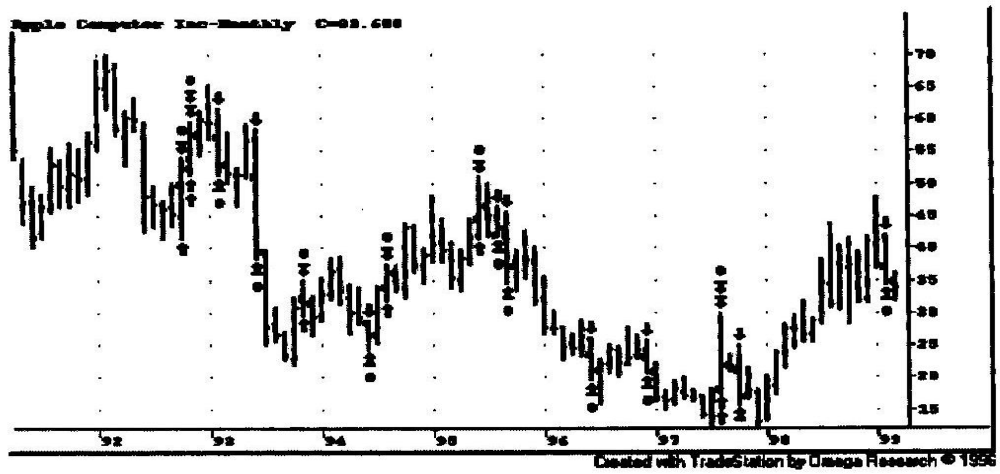
Total net profit $	127.85	Open position P/L$	0.00
Gross profit $	127.85	Gross loss $	0.00
Total # of trades	8	Percent profitable	100%
Number winning trades	8	Number losing trades	0
Largest winning trade$	72.00	Largest losing trade$	0.00
Average winning trade$	15.98	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	15.98
Max consec. winners	8	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	2
Account size required $	0.00	Return on account	100%

Performance Summary: Long Trades

Total net profit $	127.85	Open position P/L$	0.00
Gross profit $	127.85	Gross loss $	0.00
Total # of trades	8	Percent profitable	100%
Number winning trades	8	Number losing trades	0
Largest winning trade$	72.00	Largest losing trade$	0.00
Average winning trade$	15.98	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	15.98
Max consec. winners	8	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	2
Account size required $	0.00	Return on account	100%

Performance Summary: Short Trades

Total net profit$	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required$	0.00	Return on account	0%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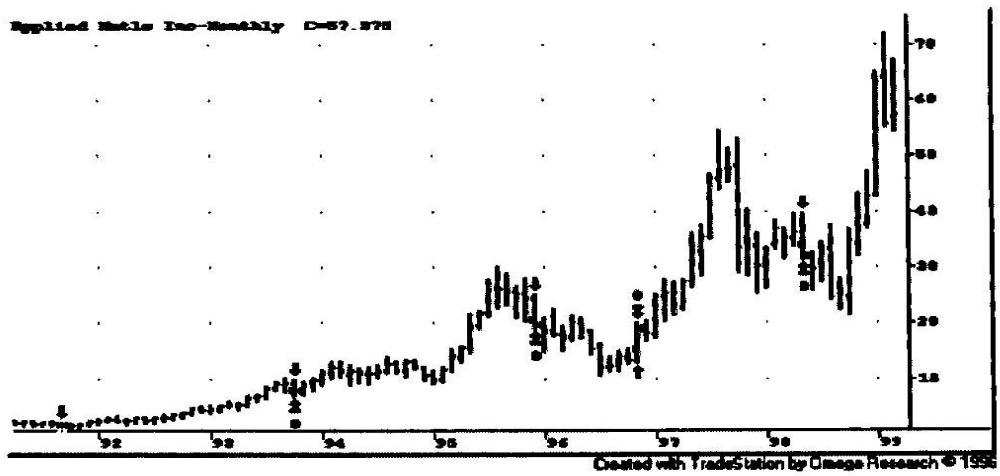
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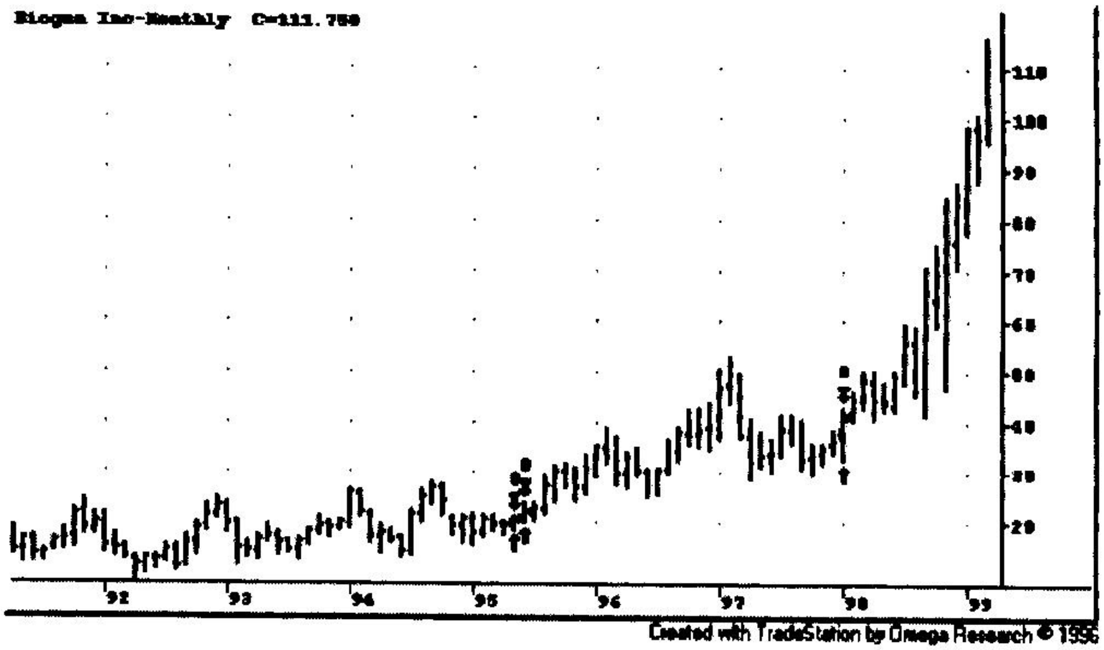

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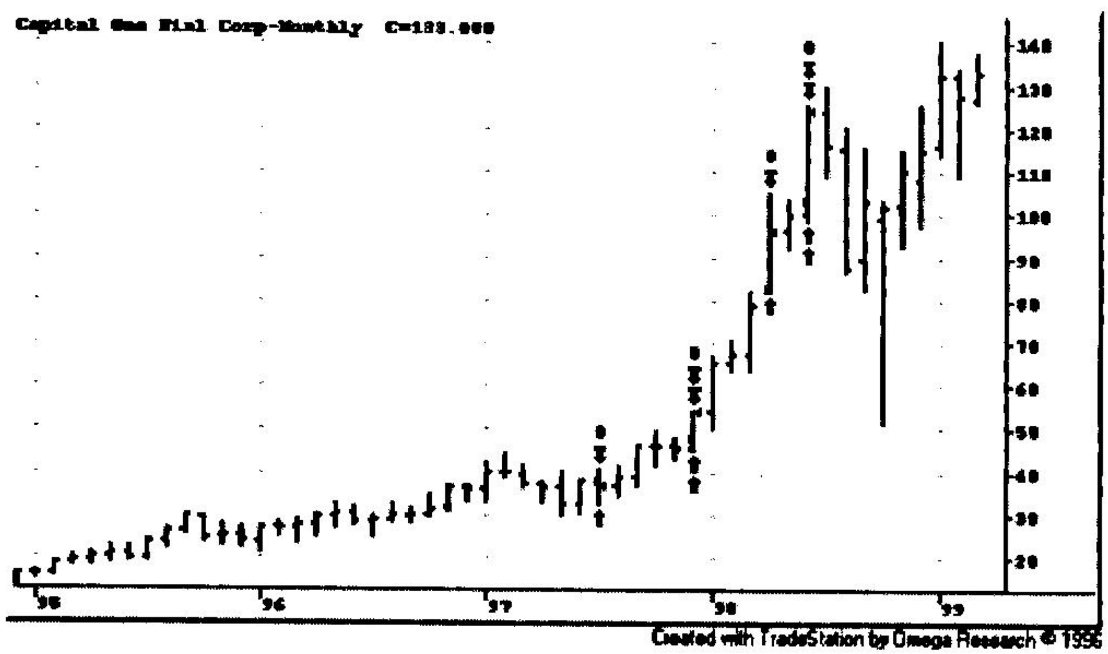

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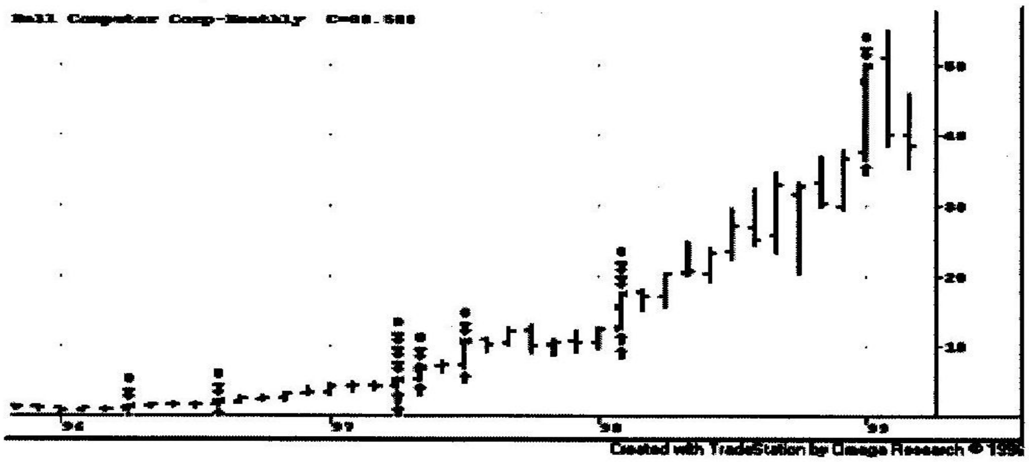
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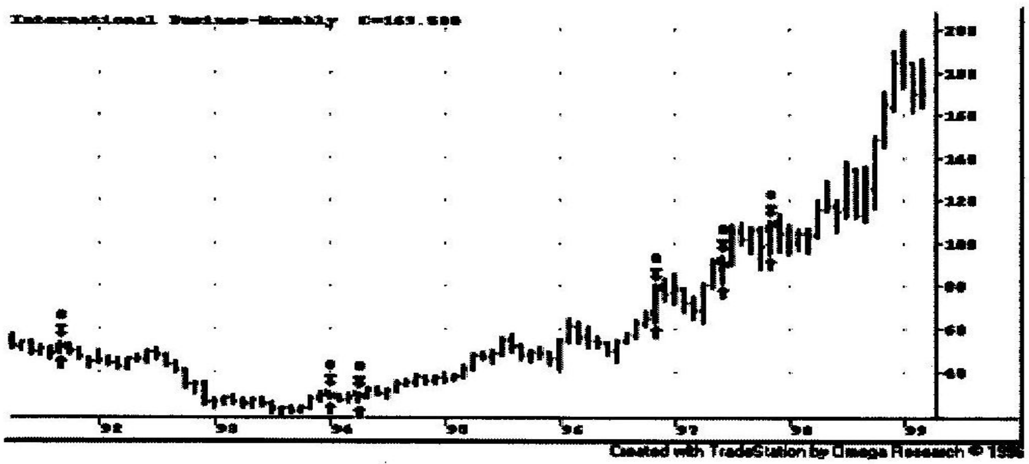
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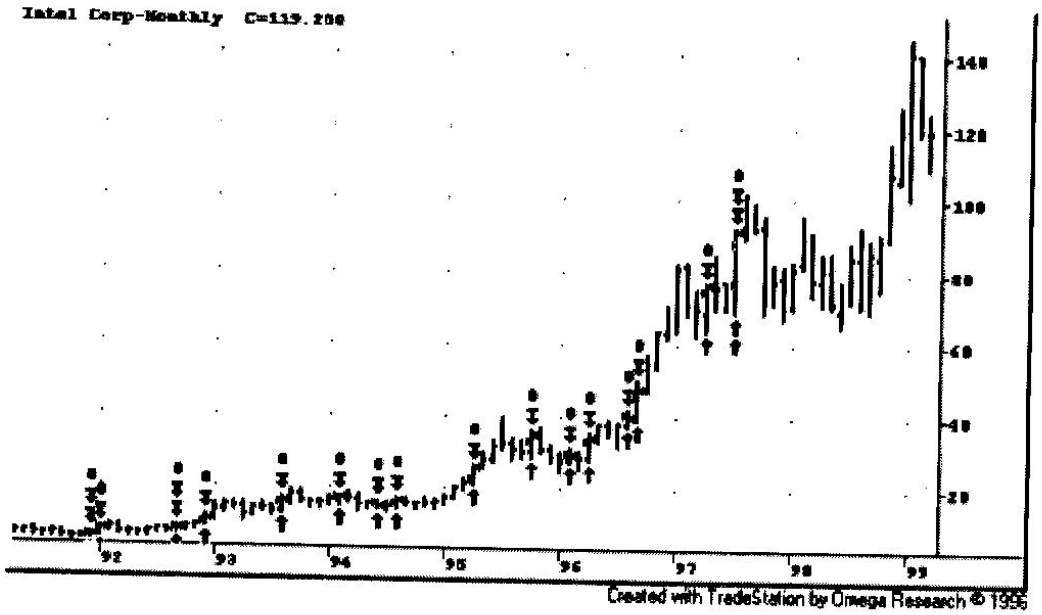
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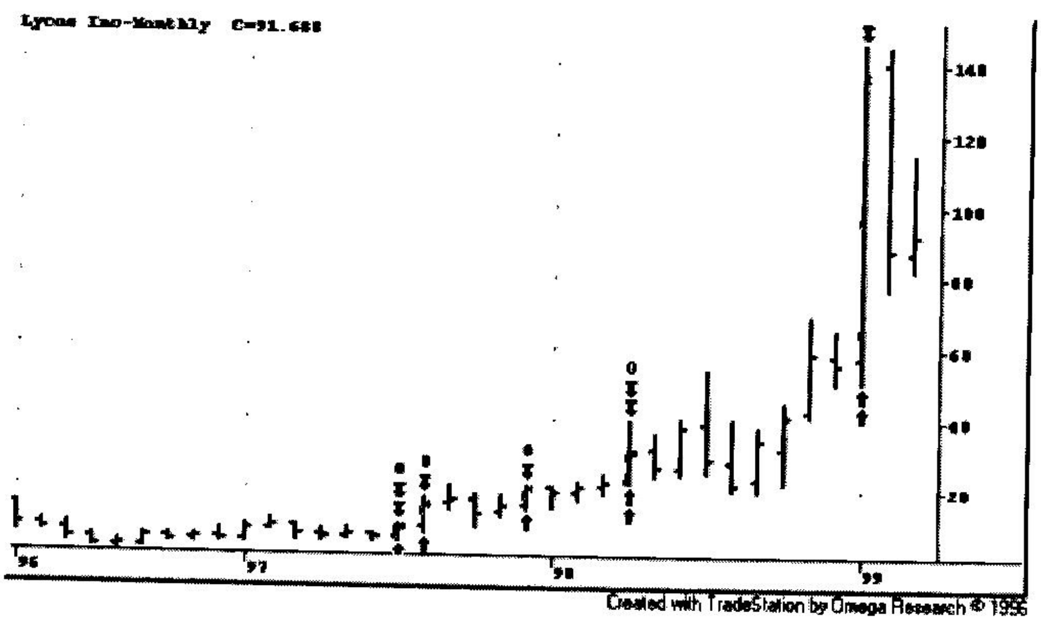
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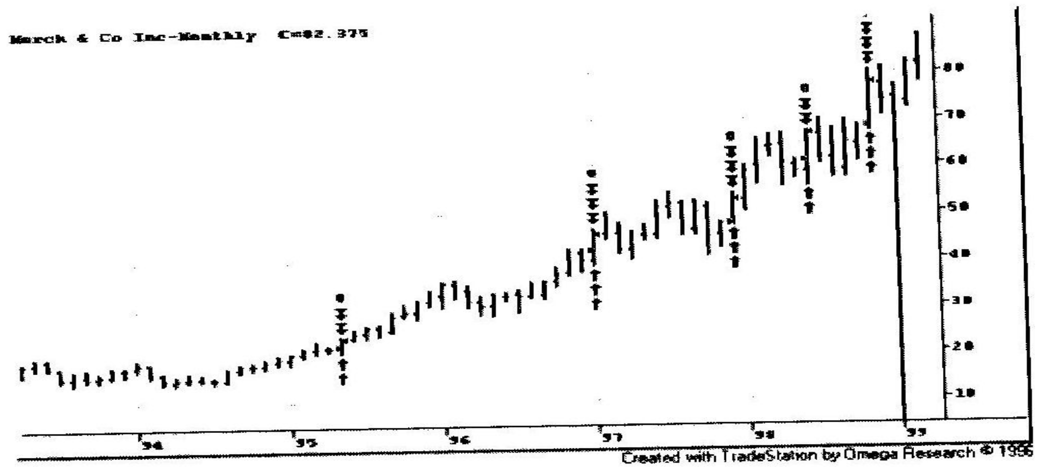
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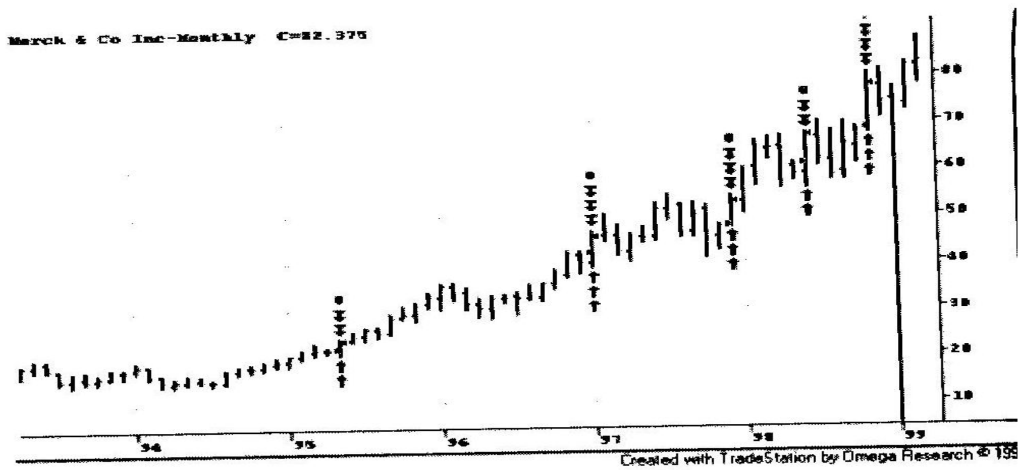
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Monthly Short-term Pattern Programming Code

{VOI Gaps. A version of the pattern#2 for stock issues}

```
IF Volume > Volume[1] then begin

If Open tomorrow > High today then
Buy ("Buy Vol") tomorrow on the Open;

If Open tomorrow < Low today then
Sell ("Sell Vol") tomorrow on the Open;
End;
```

{Volume and Open Interest Gaps}

```
IF Volume > Volume[1] and OpenInt > OpenInt[1] then begin

If Open tomorrow > High today then
Buy ("Buy Vol/Oi") tomorrow on the Open;

If Open tomorrow < Low today then
Sell ("Sell Vol/Oi") tomorrow on the Open;

End;
```

{Thinking Gaps}

```
If O > H[1]
and Range = Lowest(Range,2)
then Sell high stop;

If O < L[1]
and Range = Lowest(Range,2)
then Buy Low stop;
```

{TrueRange Expansion/Contractions}

```
If TrueRange[1] > TrueRange[2]
and TrueRange[2] > TrueRange[3]
and H<H[1] and L>L[1]
then Sell ("TrueRangeExp") Low stop;
```

{Equilateral Quads}

```
Vars: XRat(0),YRat(0);
XRat = H[1]-(Range[1]*.01);
YRat = L[1]+(Range[1]*.01);
Condition1 = H <= XRat and L>= YRat;
If Condition1 then begin
Sell ("S Equad") Low stop;
End;
```

{Abnormal Volatility Breakouts}

```
Vars: vol1(0), Vol2(0);
vol1 = highest(H,3) - Lowest(C,3);
vol2 = highest(C,3) - lowest(L,3);
If vol1<vol2 then Sell("B AbVol") tomorrow at
Open tomorrow - (vol1*1.38) stop;
If vol2<vol1 then Sell("B AbVol2") tomorrow at
Open tomorrow - (vol2*1.38) stop;
```

{Gap&Spike Continuations}

```
If Open > H[1]
and C > H-(range*.25)
then buy("B Gap Spike") H stop;

If Open < L[1]
and C < L+(range*.25)
then sell("S Gap Spike") L stop;
```

{One Bar Symmetrical}

```
If C < H - (Range*.43) and C > L + (Range*.43) then begin
buy("B 1 Bar Sym") H stop;
sell("S 1 Bar Sym") L stop;
end;
```

{Two Bar Symmetricals}

```
If C < H - (Range*.45) and C > L + (Range*.45)
And H < H[1] and L > L[1] then begin
Buy("B 2 Bar Sym") H stop;
Sell("S 2 Bar Sym") L stop;
End;
```

{Christian's Star}

```
If Range = highest(Range,3)
and C <H-(range*.28)
and C > L+(range*.28)
then Buy("B Cstar") H stop;
```

{contraction series}

```
If H<H[3] and L>L[3]
and H[1] <= H[3]
and L[1] >= L[3]
then Begin
sell("S Contraction Seq") low stop;
buy("B Contraction Seq") high stop;
end;
```

{Fractal Contraction}

```
If H<H[1] and L>L[1]
and range = lowest(range,4)
then Sell("S Fractal Con.") L stop;
```

{Fractal Swings}

```
If H<H[1] and L<L[1]
 and H[1] > H[2]
 and L[1] > L[2]
 and H[2] > H[3]
 and L[2] > L[3]
```

```
Then Buy("B Fractal Sw.") H stop;

If H[3]>H[2]
and L[3]>L[2]
and H[2]>H[1]
and L[2]>L[1]
and H>H[1]
and L>L[1]
then Sell L stop;
```

{Tiger Claw}

```
If H[2] > H[1]
and H > H[2]
and L[1]= Lowest(low,5)
then Buy("B Tiger Claw") high stop;

If L[2]<L[1]
and L<L[2]
and H[1]= highest(High,5)
then Sell("S Tiger Claw") Low stop;
```

{Shark Hybrid}

```
If H<H[2] and L>L[2]
and H[1]<=H[2] and L[1]>=L[2]
then Begin
Sell low stop;
Buy high stop;
end;
```

{Expansion Series}

```
If H>H[1] and L<L[1]
and Range > highest(Range,3)[1]
then begin
buy("B Expand Ex.") high stop;
sell("S Expand Ex.") low stop;
end;
```

{Expansion Extremes}

```
If H>H[1] and L<L[1]
and C>H-(range*.25)
then Buy("B Ex. Xtreme") H stop;

If H>H[1] and L<L[1]
and C < L+(range*.25)
then Sell("S Ex. Xtreme") L stop;
```

{Bullish Tiger Engulfing}

```
Condition1 =
C[1] < O[1] AND
L<L[1] AND
H>H[1] AND
O<=C[1] AND
C>=O[1] AND
L = Lowest(L,10)AND
Range > Average(Range,10);
```

{Bearish Tiger Engulfing}

```
Condition2 =
C[1] > O[1] AND
L<L[1] AND
H>H[1] AND
O>=C[1] AND
C<=O[1] AND
H = Highest(H,10)And
Range > Average(Range,10);

If Condition1 then begin

Buy on the Open;
End;

If Condition2 then begin

Sell on the Open;
End;
```

CHAPTER 6

Short Term Weekly Patterns

"When dogs leap onto your bed, it's because they adore being with you. When cats leap onto your bed, it's because they adore your bed."

— Alisha Everett

To the best of my knowledge, this is the first reasonably comprehensive pattern study of weekly bar patterns. In years past, complete sets of data for back-testing purposes were either non-existent or extremely expensive. In addition, it was hard to test weekly bar patterns due to the lack of a statistically significant number of trades. As with the monthly patterns, the first hurdle has been solved by a generation of data services that now offer large databases at inexpensive prices. The creation of the concept of *grid testing* overcomes the second obstacle in very logical terms.

All testing was done on a computer modeling system using complex tools. For the convenience of the trader who does not have access to such, all of the patterns and code have been re-written in Omega TradeStation Easy Language format, and re-tested on back-adjusted continuous contract data from Genesis Financial Research or Dial Data Historical CD databases. Futures testing was from the inception of each test market up to 1996. Stock testing was from the inception of each test market up to 1998. All stock results should be multiplied by the number of shares owned.

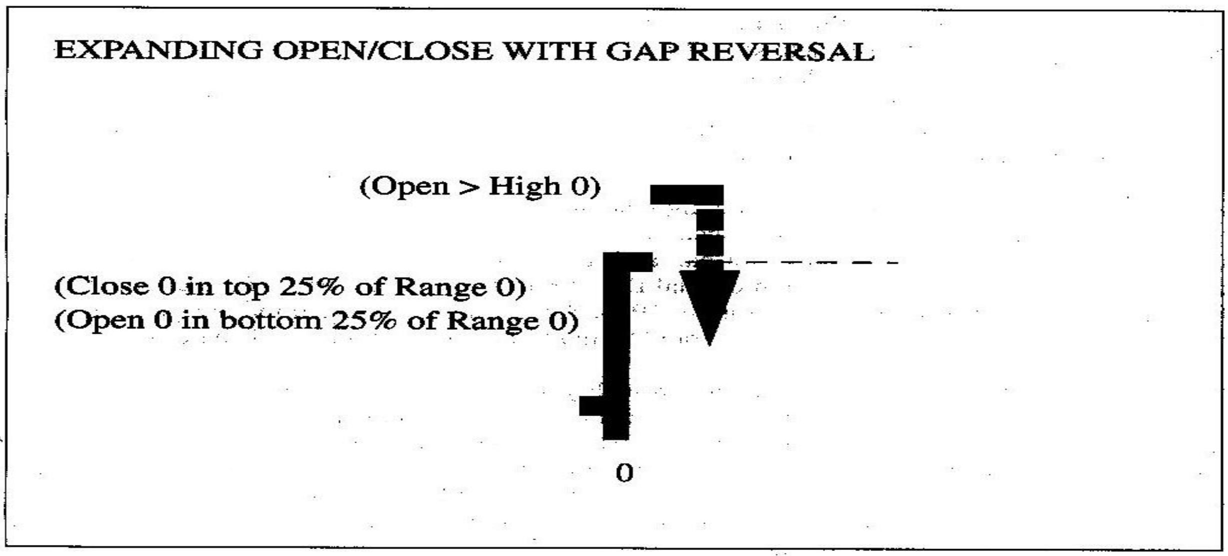
Implementation of the patterns in conjunction with your own trading methodologies should give you a statistical, psychological, strategic and tactical edge. Please remember that the patterns were tested with specific entries and exits in order to establish the statistical probabilities of short-term profit. Extending or decreasing the holding period of the position, and the use of such trading instruments as options, may dramatically increase or decrease levels of profit. In short, these patterns are best seen as *ideas*. All ideas change with time. However, the testing processes and tactical and strategic paradigms are timeless.

EXPANDING OPEN/CLOSE WITH GAP REVERSAL

This version of the gap reversal formation includes an open and close at opposite extremes of the bar. This pattern goes in to action when an opening gap occurs and then fails.

SELL SET-UP (BUY SET-UPS ARE REVERSED)

1. The close of week 0 must be within the top 25% of the week 0 range and the open of week 0 must be within the bottom 25% of the week 0 range.
2. If the first condition is met, then the set-up week is complete. In the following week, if the market opens higher than the high of week 0 then a sell-stop is placed at the high of week 0.
3. If our stop is hit, the position is exited at the end of the week.



EXPANDING OPEN/CLOSE WITH GAP REVERSAL MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Motorola	B/S	14	3.59	259	5.00	57	12.94
Lycos	B	2	100	100	0	100	3.92
DAI	S	11	4.16	667	1.13	64	7.50
Cisco	B	3	100	832	.42	100	3.47
CCI	S	9	208.66	2076	.06	89	12.88
BAC	B	16	7.87	446	2.31	75	10.31
AHP	S	11	10.77	266	2.75	91	7.33
Average		66	62.15	663	1.66	82	8.33

Table 2: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Silver	S	54	5.20	627	$915.00	72	$5733.50
Average		54	5.20	627	$915.00	72	$5733.50.

Table 3: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
120	5.5 to 1	645%	77%

Additional Notes on the Market Psychology of this Pattern:

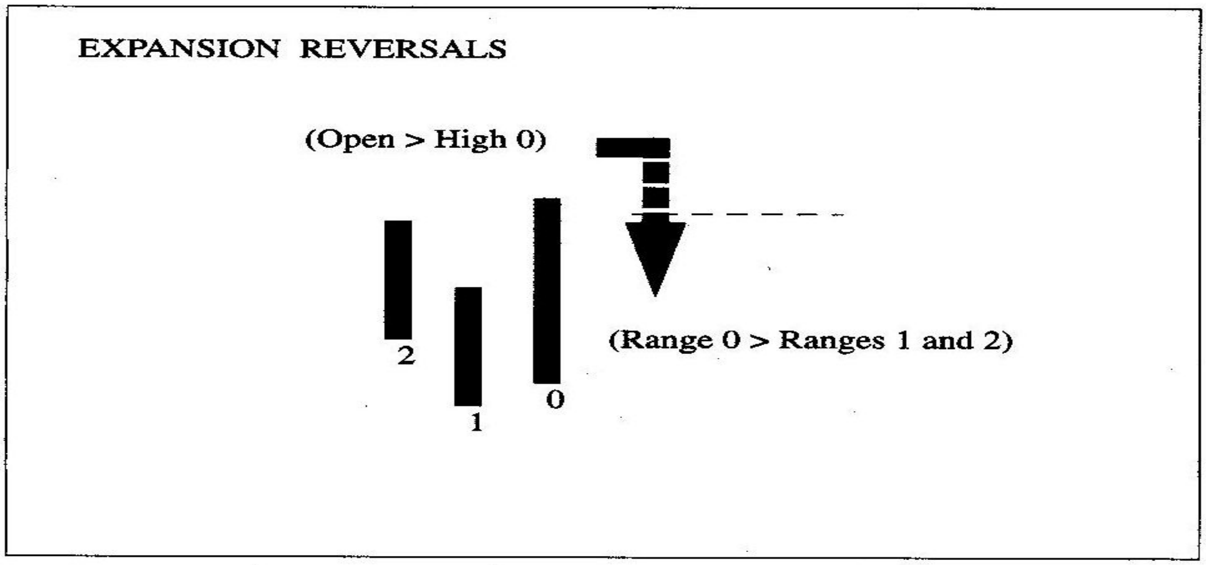
When a gap fails to follow through and the market reverses, market participants are often caught flat-footed. This often spells an opportunity to take a trade in a direction opposite the gap as traders panic and head for the exits.

EXPANSION REVERSALS

This pattern is similar to the previous pattern except that it also looks for a week with a large trading range. The large range implies extreme investor interest. This means there will be more people that want to get out when the market reverses.

SELL SET-UP (BUY SET-UPS ARE REVERSED)

1. The range of week 0 must be the largest range of the last three trading periods.
2. The open of the next week must be higher than the high of week 0.
3. If the first two conditions are met, a sell-stop order is placed at the high of week 0.
4. If our stop is hit, the position is exited at the end of the week.



EXPANSION REVERSALS MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Xerox	B	7	9.58	575	.83	71	4.29
QLogic	S	3	30.24	2924	.06	67	1.81
Peoplesoft	S	2	100	100	0	100	8.75
PG	B	14	5.38	399	3.31	57	13.22
HWP	B	8	8.10	640	.63	63	4.00
Cisco	B	4	125.85	8871	.04	75	3.37
BMY	B	9	44.50	3486	.16	89	5.44
AMR	B	7	5.38	438	1.63	86	7.12
Average		54	41.12	2179	.83	76	6.00

Table 2: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
D. Mark	S	49	5.18	462	$6325.00	71	$29200.00
Crude Oil	S	7	85.50	8450	$160.00	86	$13520.00
Average		56	45.34	4456	$3242.50	78.5	$21360.00

Table 3: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
110	6.5 to 1	3317%	77%

Additional Notes on the Market Psychology of this Pattern:

When a gap fails to follow through and the market reverses, market participants are often caught flat-footed. This often spells an opportunity to take a trade in a direction opposite the gap, as traders panic and head for the exits. This is truer in cases where large ranges denote extreme participation. The more people trading the market, the more likely that the reversal will be a strong one.

MANIPULATION BAR WITH EXPANSION REVERSAL

When a range expansion occurs, and it is followed by a bar that reverses direction in a sharp ma ner during the week, the price action is indicative of manipulation by large interests.

SELL SET-UP (BUY SET-UPS ARE REVERSED)

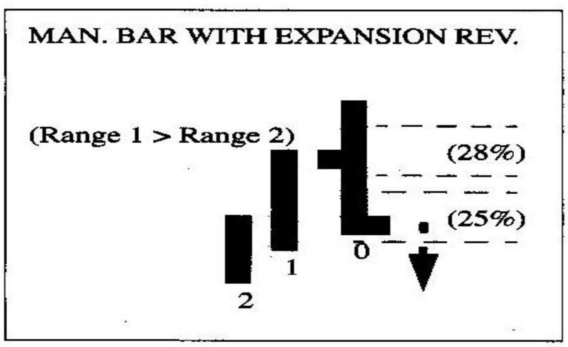
1. The range of week 1 must be greater than the range of week 2.
2. The open of week 0 must be within +/- 28% of the central point of the week 0 range and the close of week 0 must be within the bottom 25% of the week 0 range.
3. If the first two conditions have been met, a sell-stop order is placed at the low of week 0.
4. If our stop is hit, the position is exited at the end of the week.

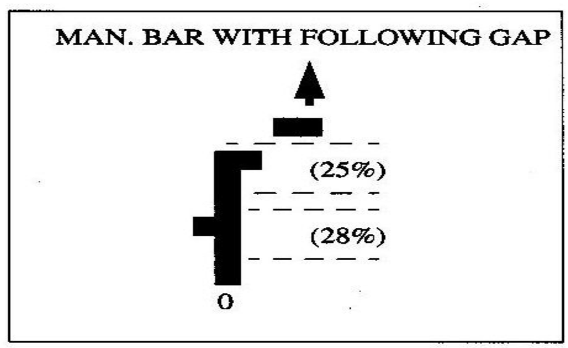
MANIPULATION BAR WITH FOLLOWING GAP

When price action reverses sharply during the week, and the market gaps higher or lower in the following week, large interests are making their play, and it is wise to hop on board for the ride.

BUY SET-UP (SELL SET-UPS ARE REVERSED)

1 The open of week 0 must be within +/- 28% of the central point of the week 0 range and the close of week 0 must be within the top 25% of the week 0 range.
2. If the open of the next week is higher than the high of week 0 then we will go long the mark
3. The position is exited at the end of the week.





MANIPULATIVE BAR WITH EXPANSION REVERSAL MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Yahoo	B/S	12	3.93	371	1.50	75	5.56
QLogic	B	17	16.60	889	.88	88	7.78
Average		29	10.26	630	1.19	81.5	6.67

Table 2: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Swiss Franc	B	42	1.68	193	$5537.50	60	$10712.50
J. Yen	B	34	2.26	431	$2550.00	59	$11000.00
Average		76	1.97	312	$4043.75	59.5	$10856.25

Table 3: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
105	4 to 1	471%	70%

MANIPULATIVE BAR WITH FOLLOWING GAP MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Yahoo	B	2	100	499	.31	100	1.54
Excite	B	4	100	2056	.50	100	10.28
IBM	B	8	100	476	3.56	100	16.97
CMGI	B	8	8.65	543	2.91	75	10.27
Average		22	77.16	893.5	1.82	93	9.76

Table 2: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
22	5 to 1	893.5%	93%

MANIPULATION BAR WITH RANGE EXPANSION

When large interests enter the market and the week's trading range is greater than the previc week's trading range, many new participants will enter the market.

SET-UP (SELL SET-UPS ARE REVERSED)

1. The open of week 0 must be within +/- 28% of the central point of the week 0 range and thı close of week 0 must be within the top 25% of the week 0 range.
2. The range of week 0 must be greater than the range of week 1.
3. When the first two conditions have been met, a buy order is placed at the high of week 0.
4. If our stop is hit, the position is exited at the end of the week.

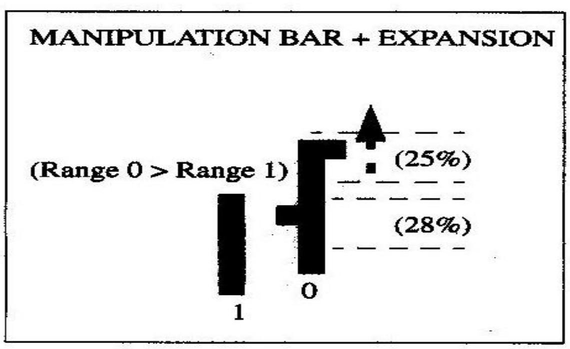
VOI GAPS

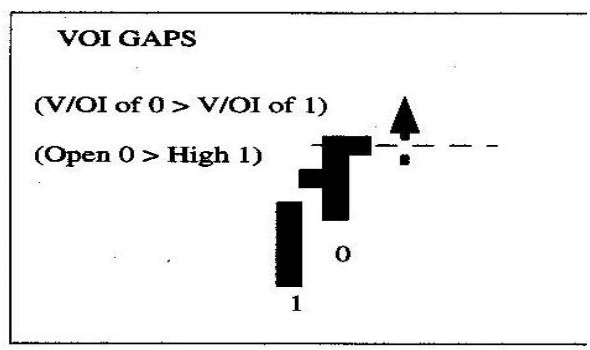
When volume and open interest increase during a gap week, new traders are flooding the mark For stocks, volume alone can be used for this pattern.

BUY SET-UP (SELL SET-UPS ARE REVERSED)

1 The open of week 0 must be greater than the high of week 1 and the volume and open intere of week 0 must be greater than the volume and open interest of week 1.

2. When the first condition is true, a buy-stop order is placed at the high of week 0.
3. If our stop is hit, the position is exited at the end of the week.





MANIPULATIVE BAR WITH EXPANSION MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
Yahoo	B	4	44.02	371	.72	75	2.67
Excite	B	6	11.04	460	1.50	83	6.91
GDT	B	6	60.18	1980	.28	83	5.56
Average		16	38.41	937	.83	80	5.04

Table 2: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
J. Yen	B	25	3.67	528	$2812.50	76	$14837.50
Crude Oil	B	15	3.40	400	$750.00	67	$3000.00
Average		40	3.53	464	$1781.25	71.5	$8918.75

Table 3: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
56	5.5 to 1	700%	76%

VOI GAP MARKET ANALYSIS

Table 1: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
WLA	B	10	25.09	1936	.48	60	9.27
UAL	S	5	8.60	760	.94	60	7.13
Biogen	B/S	4	12.00	1100	.25	75	2.75
Average		19	15.23	1265	.55	65	6.38

Table 2: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
19	11 to 1	1265%	65%

EXPANDING OPEN/CLOSE WITH GAP

When a gap occurs as a continuation of weekly sentiment, penetrations of the low or high of the gap week are seen by traders as a continuation of the current trend.

SELL SET-UP (BUY SET-UPS ARE REVERSED)

1. The open of week 1 must be within the top 25% of the week 1 range and the close of week 1 must be within the bottom 25% of the week 1 range, and the open of week 0 must be less than the low of week 1.

2. If the first condition is met, a sell-stop order is placed at the low of week 0.

3. If our stop is hit, then the position is exited at the end of the week.

EXTREME REVERSAL AND RANGE EXPANSION WITHOUT GAP

When the close and open of the week are both in the upper or lower part of the weekly range and the week's range is larger than the previous week's range, the market often continues the reversal.

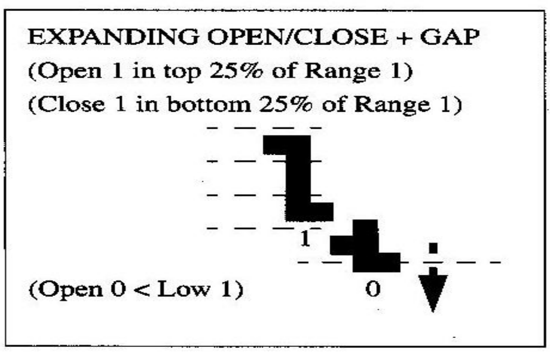
SELL SET-UP (BUY SET-UPS ARE REVERSED)

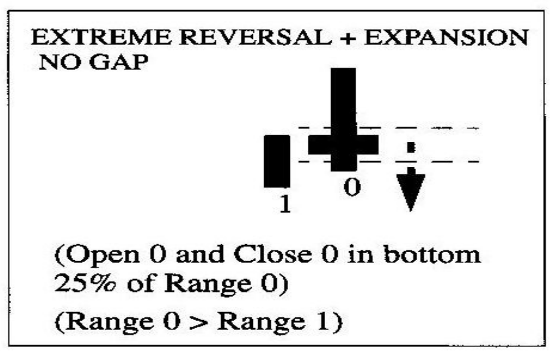
1 The close and open of week 0 must be in the bottom 25% of the week 0 range and the week 0 range must be greater than the range of week 1.

2. The open of the next week must be higher than the low of week 0.

3. If the first two conditions are met, a sell-stop order is placed at the low of week 0.

4. If our stop is hit, the position is exited at the end of the week.





EXPANDING OPEN/CLOSE WITH GAP MARKET ANALYSIS

Table 1: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
SP 500	S	3	10.74	458	$2500.00	67	$11450.00
Corn	B	8	9.35	923	$587.50	75	$5425.00
Silver	B	22	3.28	310	$2215.00	68	$6860.00
Average		33	7.79	564	$1767.50	70	$7911.66

Table 2: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
33	4.5 to 1	564%	70%

EXTREME REVERSAL AND EXPANSION NO GAP MARKET ANALYSIS

Table 3: STOCKS

Stock	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
WLA	B	11	39.87	3536	.17	82	5.87
Lycos	B	2	100	2150	.13	100	2.69
GDT	S	2	100	100	0	100	5.03
Average		15	79.95	1928	.1	94	4.53

Table 4: FUTURES

Contract	Bias	Trds	Profit Ratio	% ROA	MAX DD	W%	NET GAIN
D. Mark	S	4	60.86	5986	$87.50	75	$5237.50
Average		4	60.86	5986	$87.50	75	$5237.50

Table 5: Total Scores of Pattern

Total Trades	Risk to Reward	Return on Account	Winning Percentage
19	52 to 1	3957%	84.5%

Weekly Patterns

Matrix Testing, Charts and Programming Code

This section of the book shows the testing of short term weekly patterns in a matrix format. Each pattern was tested in thirteen futures markets and sixty stocks in order to ascertain general robustness. If a pattern scored well in most markets, and scored particularly well in a handful of markets, then the pattern was adopted into the markets that did well. The end result is a series of patterns for each market; a matrix.

Short term weekly matrix testing used an exit algorithm that exited all trades at the end of the entry week. Testing in the shortest possible time frame has merit because it is the most chaotic environment possible. In addition, trades that are immediate winners tend to stay that way in regard to longer term trends. The chart examples tend to bear this theory out.

Market matrices designed in this way tend to be robust. It is often possible to take a matrix designed for one market, drop it in to another market, and still have the matrix perform well.

Matrix testing results are shown for both stock and futures markets. At the end of the chapter, is a section detailing the programming code for all monthly short term patterns. All code is written in Omega TradeStation Easy Language, one of the more popular systems programming languages.

(W) T.Bonds T. BONDS 67/99-Weekly 08/26/77 - 08/02/96

Performance Summary: All Trades

Total net profit $	18125.00	Open position P/L$	0.00
Gross profit $	21718.75	Gross loss $	-3593.75
Total # of trades	22	Percent profitable	73%
Number winning trades	16	Number losing trades	6
Largest winning trade$	3500.00	Largest losing trade$	-1156.25
Average winning trade$	1357.42	Average losing trade$	-598.96
Ratio avg win/avg loss	2.27	Avg trade(win & loss)$	823.86
Max consec. winners	8	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1437.50		
Profit factor	6.04	Max # contracts held	2
Account size required $	1437.50	Return on account	1261%

Performance Summary: Long Trades

Total net profit $	18125.00	Open position P/L$	0.00
Gross profit $	21718.75	Gross loss $	-3593.75
Total # of trades	22	Percent profitable	73%
Number winning trades	16	Number losing trades	6
Largest winning trade$	3500.00	Largest losing trade$	-1156.25
Average winning trade$	1357.42	Average losing trade$	-598.96
Ratio avg win/avg loss	2.27	Avg trade(win & loss)$	823.86
Max consec. winners	8	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1437.50		
Profit factor	6.04	Max # contracts held	2
Account size required $	1437.50	Return on account	1261%

Performance Summary: Short Trades

Total net profit $	0.00	Open position P/L$	0.00
Gross profit $	0.00	Gross loss $	0.00
Total # of trades	0	Percent profitable	0%
Number winning trades	0	Number losing trades	0
Largest winning trade$	0.00	Largest losing trade$	0.00
Average winning trade$	0.00	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	0.00
Max consec. winners	0	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	0
Account size required$	0.00	Return on account	0%

((W) Coffee COFFEE 67/99-Weekly 01/09/76 - 08/02/96

Performance Summary: All Trades
Total net profit $ 126881.25 Open position P/L$ 0.00
Gross profit $ 145657.50 Gross loss $ -18776.25
Total # of trades 85 Percent profitable 74%
Number winning trades 63 Number losing trades 22
Largest winning trade$ 14557.50 Largest losing trade$ -4170.00
Average winning trade$ 2312.02 Average losing trade$ -853.47
Ratio avg win/avg loss 2.71 Avg trade(win & loss)$ 1492.72
Max consec. winners 8 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -6795.00
Profit factor 7.76 Max # contracts held 2
Account size required$ 6795.00 Return on account 1867%

Performance Summary: Long Trades
Total net profit $ 118616.25 Open position P/L$ 0.00
Gross profit $ 137392.50 Gross loss $ -18776.25
Total # of trades 81 Percent profitable 73%
Number winning trades 59 Number losing trades 22
Largest winning trade$ 14557.50 Largest losing trade$ -4170.00
Average winning trade$ 2328.69 Average losing trade$ -853.47
Ratio avg win/avg loss 2.73 Avg trade(win & loss)$ 1464.40
Max consec. winners 8 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -6795.00
Profit factor 7.32 Max # contracts held 2
Account size required$ 6795.00 Return on account 1746%

Performance Summary: Short Trades
Total net profit $ 8265.00 Open position P/L$ 0.00
Gross profit $ 8265.00 Gross loss $ 0.00
Total # of trades 4 Percent profitable 100%
Number winning trades 4 Number losing trades 0
Largest winning trade$ 3506.25 Largest losing trade$ 0.00
Average winning trade$ 2066.25 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 2066.25
Max consec. winners 4 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ 0.00
Profit factor 100.00 Max # contracts held 1
Account size required$ 0.00Return on account 0%

(W) Corn CBT CORN 67/99-Weekly 02/16/68 - 08/02/96

Performance Summary: All Trades
Total net profit $ 5425.00 Open position P/L$ 0.00
Gross profit $ 6075.00 Gross loss $ -650.00
Total # of trades 8 Percent profitable 75%
Number winning trades 6 Number losing trades 2
Largest winning trade$ 2375.00 Largest losing trade$ -587.50
Average winning trade$ 1012.50 Average losing trade$ -325.00
Ratio avg win/avg loss 3.12 Avg trade(win & loss)$ 678.13
Max consec. winners 3 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -587.50
Profit factor 9.35 Max # contracts held 1
Account size required$ 587.50 Return on account 923%

Performance Summary: Long Trades
Total net profit $ 5425.00 Open position P/L$ 0.00
Gross profit $ 6075.00 Gross loss $ -650.00
Total # of trades 8 Percent profitable 75%
Number winning trades 6 Number losing trades 2
Largest winning trade$ 2375.00 Largest losing trade$ -587.50
Average winning trade$ 1012.50 Average losing trade$ -325.00
Ratio avg win/avg loss 3.12 Avg trade(win & loss)$ 678.13
Max consec. winners 3 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -587.50
Profit factor 9.35 Max # contracts held 1
Account size required $ 587.50 Return on account 923%

Performance Summary: Short Trades
Total net profit$ 0.00 Open position P/L$ 0.00
Gross profit $ 0.00 Gross loss $ 0.00
Total # of trades 0 Percent profitable 0%
Number winning trades 0 Number losing trades 0
Largest winning trade$ 0.00 Largest losing trade$ 0.00
Average winning trade$ 0.00 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 0.00
Max consec. winners 0 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown$ 0.00
Profit factor 100.00 Max # contracts held 0
Account size required$ 0.00 Return on account 0%

(W) Crude Oil NY LIGHT CRUDE OIL 67/99-Weekly 03/03/89 - 08/02/96

Performance Summary: All Trades
Total net profit $ 58640.00 Open position P/L$ 0.00
Gross profit $ 62540.00 Gross loss $ -3900.00
Total # of trades 70 Percent profitable 83%
Number winning trades 58 Number losing trades 12
Largest winning trade$ 10960.00 Largest losing trade$ -2630.00
Average winning trade$ 1078.28 Average losing trade$ -325.00
Ratio avg win/avg loss 3.32 Avg trade(win & loss)$ 837.71
Max consec. winners 16 Max consec. losers 6
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -3430.00
Profit factor 16.04 Max # contracts held 3
Account size required $ 3430.00 Return on account 1710%

Performance Summary: Long Trades
Total net profit $ 9880.00 Open position P/L$ 0.00
Gross profit $ 10730.00 Gross loss $ -850.00
Total # of trades 25 Percent profitable 68%
Number winning trades 17 Number losing trades 8
Largest winning trade$ 2310.00 Largest losing trade$ -170.00
Average winning trade$ 631.18 Average losing trade$ -106.25
Ratio avg win/avg loss 5.94 Avg trade(win & loss)$ 395.20
Max consec. winners 8 Max consec. losers 5
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -1160.00
Profit factor 12.62 Max # contracts held 3
Account size required $ 1160.00 Return on account 852%

Performance Summary: Short Trades
Total net profit $ 48760.00 Open position P/L$ 0.00
Gross profit $ 51810.00 Gross loss $ -3050.00
Total # of trades 45 Percent profitable 91%
Number winning trades 41 Number losing trades 4
Largest winning trade$ 10960.00 Largest losing trade$ -2630.00
Average winning trade$ 1263.66 Average losing trade$ -762.50
Ratio avg win/avg loss 1.66 Avg trade(win & loss)$ 1083.56
Max consec. winners 20 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -2630.00
Profit factor 16.99 Max # contracts held 3
Account size required $ 2630.00 Return on account 1854%

(W) S.Franc SWISS FRANC 67/99-Weekly 02/14/75 - 08/02/96

Performance Summary: All Trades

Total net profit $	42712.50	Open position P/L$	0.00
Gross profit $	57525.00	Gross loss $	-14812.50
Total # of trades	74	Percent profitable	68%
Number winning trades	50	Number losing trades	24
Largest winning trade$	3550.00	Largest losing trade$	-2750.00
Average winning trade$	1150.50	Average losing trade$	-617.19
Ratio avg win/avg loss	1.86	Avg trade(win & loss)$	577.20
Max consec. winners	9	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4212.50		
Profit factor	3.88	Max # contracts held	2
Account size required $	4212.50	Return on account	1014%

Performance Summary: Long Trades

Total net profit $	29987.50	Open position P/L$	0.00
Gross profit $	40762.50	Gross loss $	-10775.00
Total # of trades	47	Percent profitable	68%
Number winning trades	32	Number losing trades	15
Largest winning trade$	2825.00	Largest losing trade$	-2750.00
Average winning trade$	1273.83	Average losing trade$	-718.33
Ratio avg win/avg loss	1.77	Avg trade(win & loss)$	638.03
Max consec. winners	12	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-4312.50		
Profit factor	3.78	Max # contracts held	2
Account size required $	4312.50	Return on account	695%

Performance Summary: Short Trades

Total net profit $	12725.00	Open position P/L$	0.00
Gross profit $	16762.50	Gross loss $	-4037.50
Total # of trades	27	Percent profitable	67%
Number winning trades	18	Number losing trades	9
Largest winning trade$	3550.00	Largest losing trade$	-1262.50
Average winning trade$	931.25	Average losing trade$	-448.61
Ratio avg win/avg loss	2.08	Avg trade(win & loss)$	471.30
Max consec. winners	5	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-1350.00		
Profit factor	4.15	Max # contracts held	1
Account size required $	1350.00	Return on account	943%

(W) D. Mark DEUTSCHE MARK 67/99-Weekly 02/14/75 - 08/02/96

Performance Summary: All Trades

Total net profit $	56375.00	Open position P/L$	0.00
Gross profit $	69462.50	Gross loss $	-13087.50
Total # of trades	101	Percent profitable	68%
Number winning trades	69	Number losing trades	32
Largest winning trade$	5800.00	Largest losing trade$	-1612.50
Average winning trade$	1006.70	Average losing trade$	-408.98
Ratio avg win/avg loss	2.46	Avg trade(win & loss)$	558.17
Max consec. winners	12	Max consec. losers	4
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-5187.50		
Profit factor	5.31	Max # contracts held	2
Account size required $	5187.50	Return on account	1087%

Performance Summary: Long Trades

Total net profit $	18512.50	Open position P/L$	0.00
Gross profit $	24150.00	Gross loss $	-5637.50
Total # of trades	43	Percent profitable	65%
Number winning trades	28	Number losing trades	15
Largest winning trade$	3175.00	Largest losing trade$	-1612.50
Average winning trade$	862.50	Average losing trade$	-375.83
Ratio avg win/avg loss	2.29	Avg trade(win & loss)$	430.52
Max consec. winners	7	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-2737.50		
Profit factor	4.28	Max # contracts held	1
Account size required $	2737.50	Return on account	676%

Performance Summary: Short Trades

Total net profit $	37862.50	Open position P/L$	0.00
Gross profit $	45312.50	Gross loss $	-7450.00
Total # of trades	58	Percent profitable	71%
Number winning trades	41	Number losing trades	17
Largest winning trade$	5800.00	Largest losing trade$	-1287.50
Average winning trade$	1105.18	Average losing trade$	-438.24
Ratio avg win/avg loss	2.52	Avg trade(win & loss)$	652.80
Max consec. winners	14	Max consec. losers	3
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-5187.50		
Profit factor	6.08	Max # contracts held	2
Account size required $	5187.50	Return on account	730%

(W) British Pound BRITISH POUND 67/99-Weekly 02/14/75 - 08/02/96

Performance Summary: All Trades
Total net profit $ 56606.25 Open position P/L$ 0.00
Gross profit $ 64612.50 Gross loss $ -8006.25
Total # of trades 49 Percent profitable 67%
Number winning trades 33 Number losing trades 16
Largest winning trade$ 9062.50 Largest losing trade$ -1662.50
Average winning trade$ 1957.95 Average losing trade$ -500.39
Ratio avg win/avg loss 3.91 Avg trade(win & loss)$ 1155.23
Max consec. winners 7 Max consec. losers 3
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -5250.00
Profit factor 8.07 Max # contracts held 3
Account size required $ 5250.00 Return on account 1078%

Performance Summary: Long Trades
Total net profit $ 2156.25 Open position P/L$ 0.00
Gross profit $ 2156.25 Gross loss $ 0.00
Total # of trades 2 Percent profitable 100%
Number winning trades 2 Number losing trades 0
Largest winning trade$ 2031.25 Largest losing trade$ 0.00
Average winning trade$ 1078.13 Average losing trade$ 0.00
Ratio avg win/avg loss 100.00 Avg trade(win & loss)$ 1078.13
Max consec. winners 2 Max consec. losers 0
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -312.50
Profit factor 100.00 Max # contracts held 1
Account size required $ 312.50 Return on account 690%

Performance Summary: Short Trades
Total net profit $ 54450.00 Open position P/L$ 0.00
Gross profit $ 62456.25 Gross loss $ -8006.25
Total # of trades 47 Percent profitable 66%
Number winning trades 31 Number losing trades 16
Largest winning trade$ 9062.50 Largest losing trade$ -1662.50
Average winning trade$ 2014.72 Average losing trade$ -500.39
Ratio avg win/avg loss 4.03 Avg trade(win & loss)$ 1158.51
Max consec. winners 7 Max consec. losers 3
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -5250.00
Profit factor 7.80 Max # contracts held 3
Account size required $ 5250.00 Return on account 1037%

(W) Comex Silver COMEX SILVER 67/99-Weekly 07/30/71 - 08/02/96

Performance Summary: All Trades
Total net profit $ 176315.00 Open position P/L$ 0.00
Gross profit $ 206410.00 Gross loss $ -30095.00
Total # of trades 109 Percent profitable 67%
Number winning trades 73 Number losing trades 36
Largest winning trade$ 20000.00 Largest losing trade$ -5000.00
Average winning trade$ 2827.53 Average losing trade$ -835.97
Ratio avg win/avg loss 3.38 Avg trade(win & loss)$ 1617.57
Max consec. winners 12 Max consec. losers 5
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -9150.00
Profit factor 6.86 Max # contracts held 1
Account size required $ 9150.00 Return on account 1927%

Performance Summary: Long Trades
Total net profit $ 88215.00 Open position P/L$ 0.00
Gross profit $ 99110.00 Gross loss $ -10895.00
Total # of trades 26 Percent profitable 58%
Number winning trades 15 Number losing trades 11
Largest winning trade$ 20000.00 Largest losing trade$ -5000.00
Average winning trade$ 6607.33 Average losing trade$ -990.45
Ratio avg win/avg loss 6.67 Avg trade(win & loss)$ 3392.88
Max consec. winners 4 Max consec. losers 4
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -7150.00
Profit factor 9.10 Max # contracts held 1
Account size required $ 7150.00 Return on account 1234%

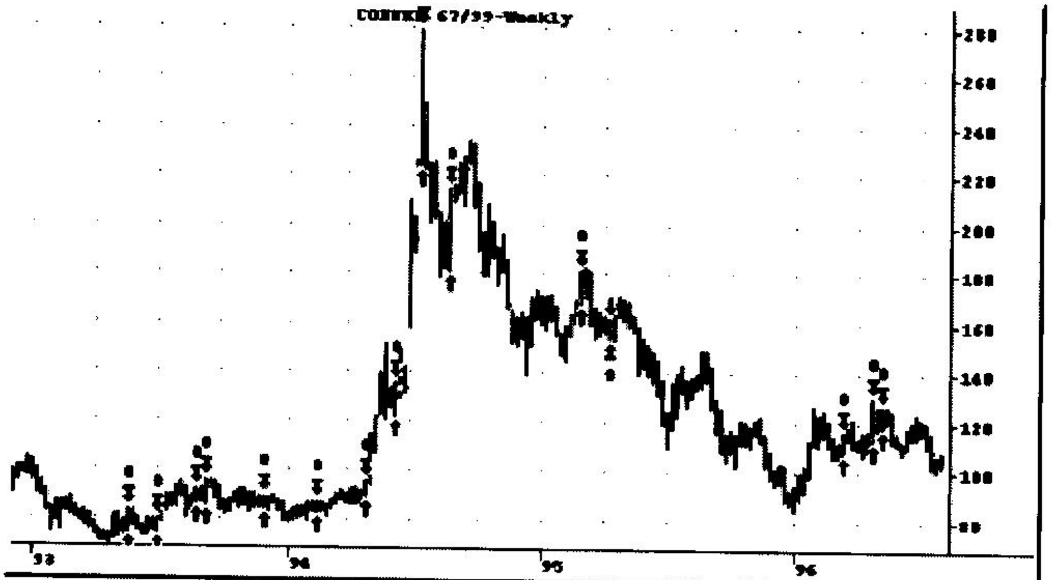
Performance Summary: Short Trades
Total net profit $ 88100.00 Open position P/L$ 0.00
Gross profit $ 107300.00 Gross loss $ -19200.00
Total # of trades 83 Percent profitable 70%
Number winning trades 58 Number losing trades 25
Largest winning trade$ 15000.00 Largest losing trade$ -2500.00
Average winning trade$ 1850.00 Average losing trade$ -768.00
Ratio avg win/avg loss 2.41 Avg trade(win & loss)$ 1061.45
Max consec. winners 12 Max consec. losers 3
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -9150.00
Profit factor 5.59 Max # contracts held 1
Account size required $ 9150.00 Return on account 963%

(W) SP500 S&P 500 INDEX 67/99-Weekly 04/23/82 - 08/02/96

Performance Summary: All Trades
Total net profit $ 42200.00 Open position P/L$ 0.00
Gross profit $ 51900.00 Gross loss $ -9700.00
Total # of trades 29 Percent profitable 66%
Number winning trades 19 Number losing trades 10
Largest winning trade$ 11500.00 Largest losing trade$ -2900.00
Average winning trade$ 2731.58 Average losing trade$ -970.00
Ratio avg win/avg loss 2.82 Avg trade(win & loss)$ 1455.17
Max consec. winners 6 Max consec. losers 4
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -6225.00
Profit factor 5.35 Max # contracts held 1
Account size required $ 6225.00 Return on account 678%

Performance Summary: Long Trades
Total net profit $ 6925.00 Open position P/L$ 0.00
Gross profit $ 9775.00 Gross loss $ -2850.00
Total # of trades 12 Percent profitable 58%
Number winning trades 7 Number losing trades 5
Largest winning trade$ 3225.00 Largest losing trade$ -1100.00
Average winning trade$ 1396.43 Average losing trade$ -570.00
Ratio avg win/avg loss 2.45 Avg trade(win & loss)$ 577.08
Max consec. winners 4 Max consec. losers 2
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -1450.00
Profit factor 3.43 Max # contracts held 1
Account size required $ 1450.00 Return on account 478%

Performance Summary: Short Trades
Total net profit $ 35275.00 Open position P/L$ 0.00
Gross profit $ 42125.00 Gross loss $ -6850.00
Total # of trades 17 Percent profitable 71%
Number winning trades 12 Number losing trades 5
Largest winning trade$ 11500.00 Largest losing trade$ -2900.00
Average winning trade$ 3510.42 Average losing trade$ -1370.00
Ratio avg win/avg loss 2.56 Avg trade(win & loss)$ 2075.00
Max consec. winners 8 Max consec. losers 4
Avg # bars in winners 0 Avg # bars in losers 0
Max intraday drawdown $ -6075.00
Profit factor 6.15 Max # contracts held 1
Account size required $ 6075.00 Return on account 581%



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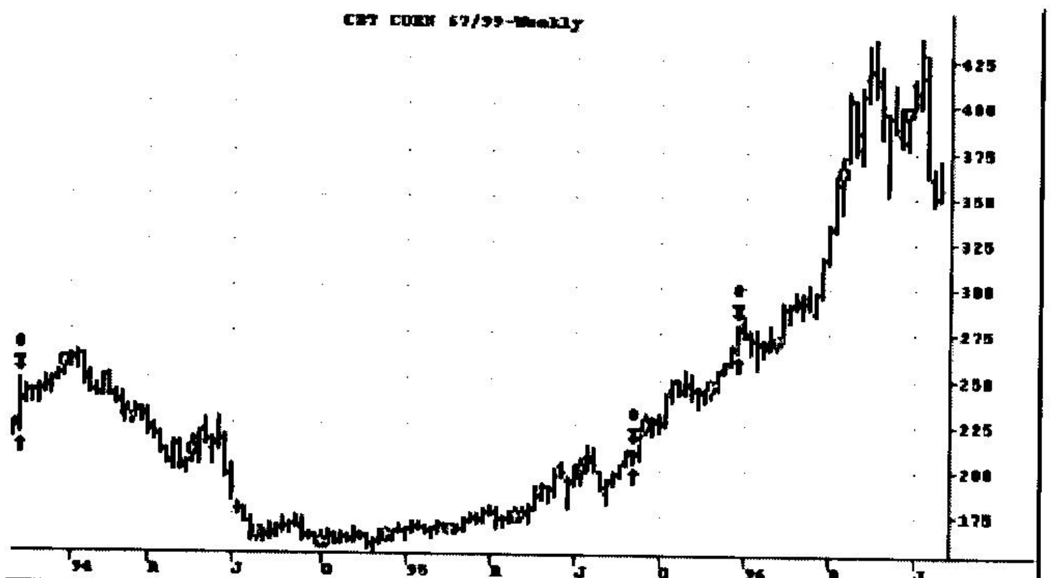

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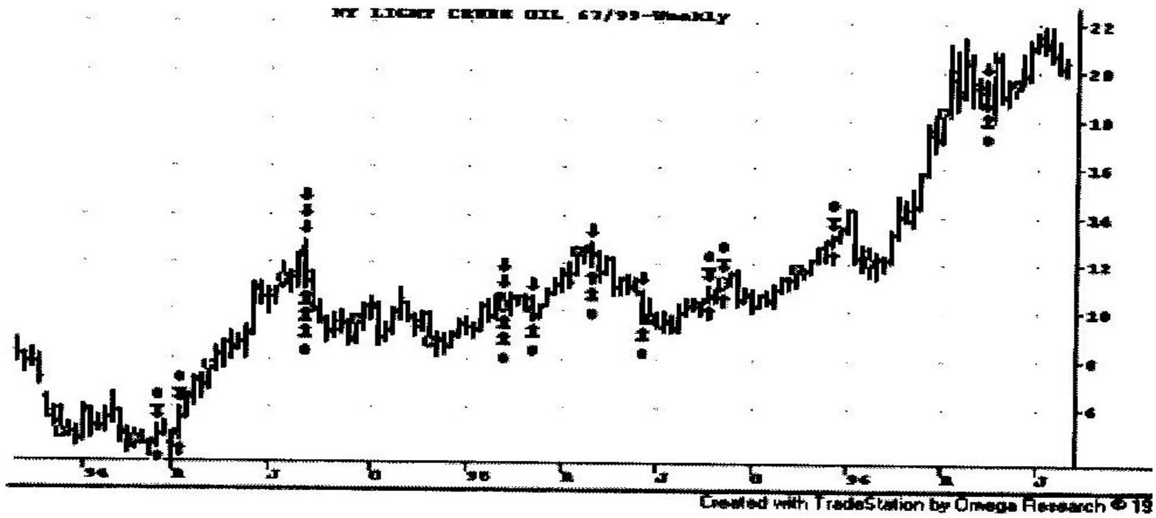
NY LIGHT CRUDE OIL 67/99-Weekly
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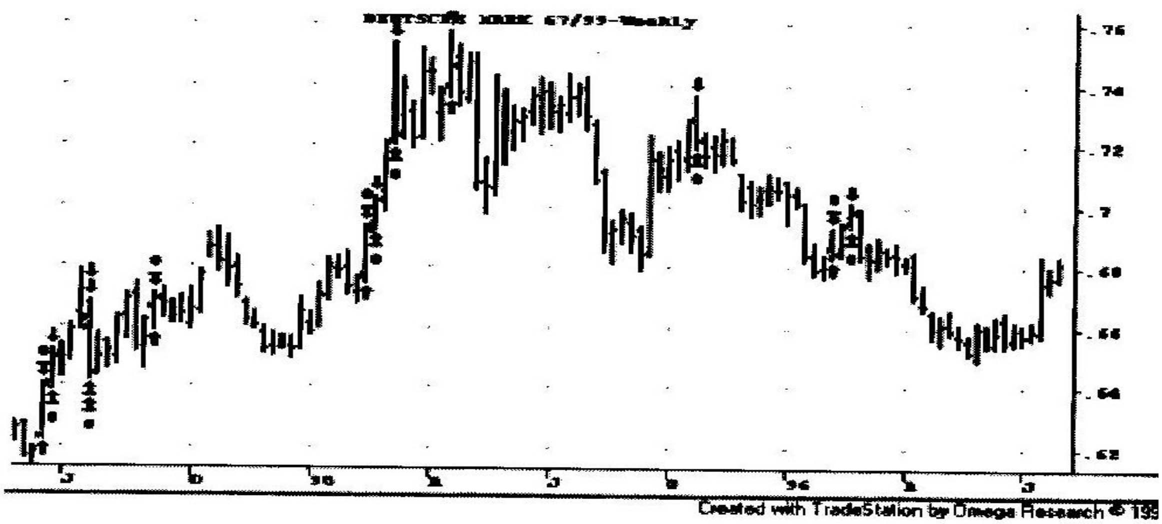
DEUTSCHE MARK 67/99-Weekly
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(W) GDT Guidant Corp-Weekly 12/16/94 - 04/16/99

Performance Summary: All Trades

Total net profit $	14.12	Open position P/L$	0.00
Gross profit $	14.47	Gross loss $	-0.34
Total # of trades	11	Percent profitable	82%
Number winning trades	9	Number losing trades	2
Largest winning trade$	2.78	Largest losing trade$	-0.25
Average winning trade$	1.61	Average losing trade$	-0.17
Ratio avg win/avg loss	9.35	Avg trade(win & loss)$	1.28
Max consec. winners	6	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.28		
Profit factor	42.06	Max # contracts held	1
Account size required $	0.28	Return on account	5027%

Performance Summary: Long Trades

Total net profit $	9.09	Open position P/L$	0.00
Gross profit $	9.44	Gross loss $	-0.34
Total # of trades	9	Percent profitable	78%
Number winning trades	7	Number losing trades	2
Largest winning trade$	2.78	Largest losing trade$	-0.25
Average winning trade$	1.35	Average losing trade$	-0.17
Ratio avg win/avg loss	7.84	Avg trade(win & loss)$	1.01
Max consec. winners	6	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.28		
Profit factor	27.44	Max # contracts held	1
Account size required $	0.28	Return on account	3236%

Performance Summary: Short Trades

Total net profit $	5.03	Open position P/L$	0.00
Gross profit $	5.03	Gross loss $	0.00
Total # of trades	2	Percent profitable	100%
Number winning trades	2	Number losing trades	0
Largest winning trade$	2.75	Largest losing trade$	0.00
Average winning trade$	2.52	Average losing trade$	0.00
Ratio avg win/avg loss	100.00	Avg trade(win & loss)$	2.52
Max consec. winners	2	Max consec. losers	0
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	0.00		
Profit factor	100.00	Max # contracts held	1
Account size required $	0.00	Return on account	0%

(W) SUNW Sun Microsystems Inc-Weekly 03/07/86 - 04/16/99

Performance Summary: All Trades

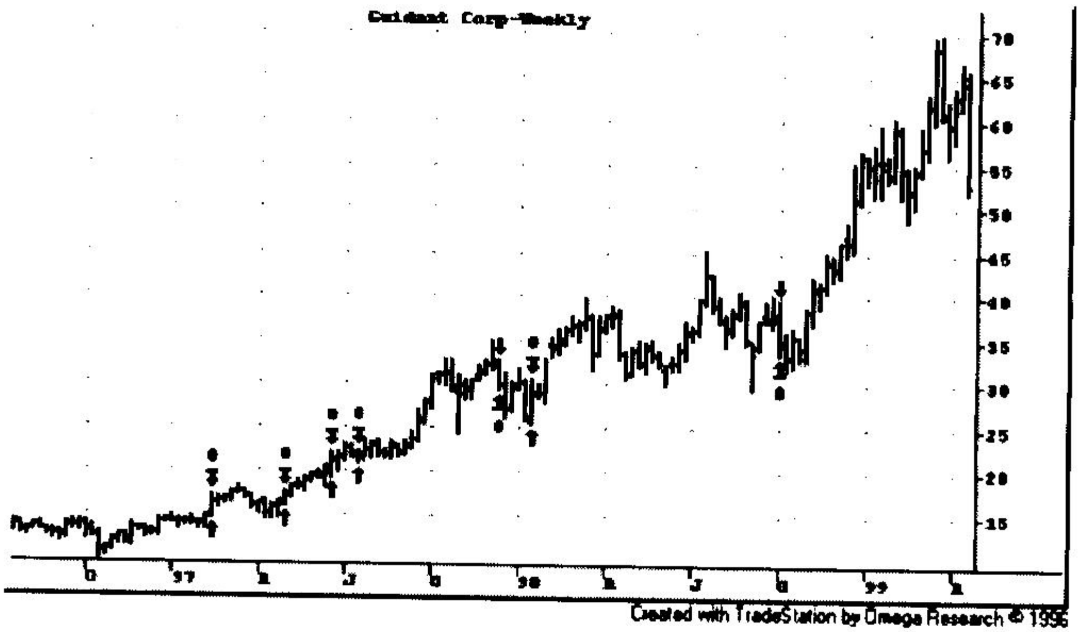
Total net profit $	11.64	Open position P/L$	0.00
Gross profit $	11.98	Gross loss $	-0.35
Total # of trades	8	Percent profitable	75%
Number winning trades	6	Number losing trades	2
Largest winning trade$	4.59	Largest losing trade$	-0.31
Average winning trade$	2.00	Average losing trade$	-0.17
Ratio avg win/avg loss	11.58	Avg trade(win & loss)$	1.45
Max consec. winners	6	Max consec. losers	2
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.45		
Profit factor	34.73	Max # contracts held	1
Account size required$	0.45	Return on account	2563%

Performance Summary: Long Trades

Total net profit $	2.75	Open position P/L$	0.00
Gross profit $	3.06	Gross loss $	-0.31
Total # of trades	3	Percent profitable	67%
Number winning trades	2	Number losing trades	1
Largest winning trade$	2.81	Largest losing trade$	-0.31
Average winning trade$	1.53	Average losing trade$	-0.31
Ratio avg win/avg loss	4.89	Avg trade(win & loss)$	0.92
Max consec. winners	2	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.42		
Profit factor	9.79	Max # contracts held	1
Account size required $	0.42	Return on account	652%

Performance Summary: Short Trades

Total net profit $	8.89	Open position P/L$	0.00
Gross profit $	8.92	Gross loss $	-0.03
Total # of trades	5	Percent profitable	80%
Number winning trades	4	Number losing trades	1
Largest winning trade$	4.59	Largest losing trade$	-0.03
Average winning trade$	2.23	Average losing trade$	-0.03
Ratio avg win/avg loss	69.69	Avg trade(win & loss)$	1.78
Max consec. winners	4	Max consec. losers	1
Avg # bars in winners	0	Avg # bars in losers	0
Max intraday drawdown $	-0.16		
Profit factor	278.75	Max # contracts held	1
Account size required $	0.16	Return on account	5661%


Guidant Corp-Weekly
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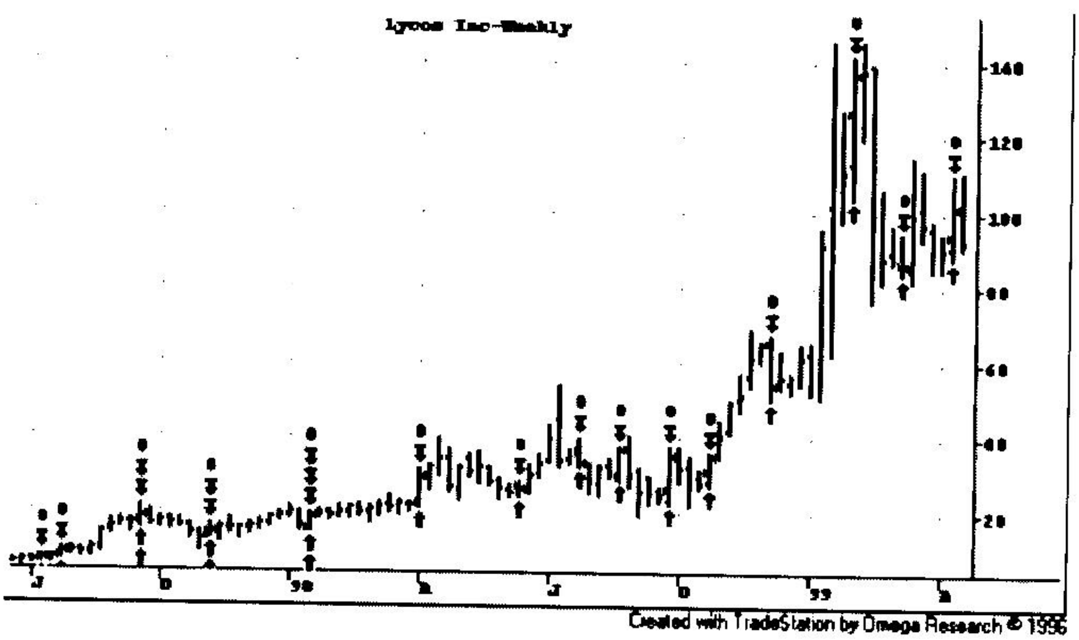
Lycos Inc-Weekly
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All Weekly Short-term Pattern Programming Code

{Single Bar: Gap Reversal}

```
If O tomorrow > H then Sell O-(O-H) stop;
If O tomorrow < L then Buy L+(L-O) stop;
```

{Composite Bar: Exp Open/close and Engulfing Bar.}

```
if C >= H-(range*.25)
and O<= L+(range*.25)
and H > H[1] and L<L[1]
then Buy("B Exp+Eng Bar") High stop;
```

{Composite Bar: Exp Open/close and Engulfing Bar.}

```
if O >= H-(range*.25)
and C<= L+(range*.25)
and H > H[1] and L<L[1]
then Sell("S Exp+Eng Bar") Low stop;
```

{Composite Bar: Exp Open/Close with reversal suprise.}

```
If C>H-(range*.25) and O<L+(range*.25)
then sell("S Exp. Rev. Sup.") Low stop;

If O>H-(range*.25) and C<L+(range*.25)
then Buy("B Exp. Rev. Sup.") High stop;
```

{Composite Bar: Extreme Reversal and Engulfing Bar.}

```
If O<L+(range*.3) and C<L+(range*.3)
and H>H[1] and L<L[1] then sell("S Ext. Rev. Eng.") low stop;
```

{Composite Bar: Extreme Reversal and Engulfing Bar.}

```
If C > H-(range*.3) and O > H-(range*.3)
and H>H[1] and L<L[1] then Buy("B Ext. Rev. Eng.") High stop;
```

{Manipulative Bar followed by Gap Bar}

If O < H-(range*.28) and O > L+(range*.28)
and C > H-(range*.25) and Open tomorrow
> H then buy tomorrow at the Open;

{Manipulative Bar followed by Gap Bar}

If O < H-(range*.28) and O > L+(range*.28)
and C < L+(range*.25) and Open tomorrow
< L then Sell tomorrow at the Open;

{Complex Set: Extreme reversal with range expansion}

IF C > H-(range*.25) and O>H-(range*.25)
and range > range[1] then buy high stop;

If C < L+(range*.25) and O < L+(range*.25)
and range > range[1] then Sell Low stop;

{Complex Set: Manipulative Bar which reverses expansion bar}

If range[1]>range[2]
and O <H-(range*.25) and O> L+(range*.25)
and C > H-(range*.28)
then buy high stop;

If range[1]>range[2]
and O <H-(range*.25) and O> L+(range*.25)
and C < L+(range*.28)
then sell low stop;

{Complex Set: Manipulative bar and 1 bar range expansion}

If O < H-(range*.28) and O>L+(range*.28)

```
and C > H-(range*.25) and range > range[1]
then buy high stop;
If O < H-(range*.28) and O>L+(range*.28)
and C < L+(range*.25) and range > range[1]
then Sell Low stop;
```

{Complex Set OI/VOL Gap}

```
If O > H[1] and V > Avera
```

(MOC) D.Mark DEUTSCHE MARK 67/99-Monthly 02/28/75 - 07/31/96

Performance Summary: All Trades

Total net profit $	8625.00	Open position P/L$	0.00
Gross profit $	9850.00	Gross loss $	-1225.00
Total # of trades	45	Percent profitable	84%
Number winning trades	38	Number losing trades	7
Largest winning trade$	762.50	Largest losing trade$	-362.50
Average winning trade$	259.21	Average losing trade$	-175.00
Ratio avg win/avg loss	1.48	Avg trade(win & loss)$	191.67
Max consec. winners	17	Max consec. losers	1
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-400.00		
Profit factor	8.04	Max # contracts held	2
Account size required $	400.00	Return on account	2156%

Performance Summary: Long Trades

Total net profit $	3212.50	Open position P/L$	0.00
Gross profit $	3337.50	Gross loss $	-125.00
Total # of trades	14	Percent profitable	93%
Number winning trades	13	Number losing trades	1
Largest winning trade$	600.00	Largest losing trade$	-125.00
Average winning trade$	256.73	Average losing trade$	-125.00
Ratio avg win/avg loss	2.05	Avg trade(win & loss)$	229.46
Max consec. winners	13	Max consec. losers	1
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-125.00		
Profit factor	26.70	Max # contracts held	2
Account size required $	125.00	Return on account	2570%

Performance Summary: Short Trades

Total net profit $	5412.50	Open position P/L$	0.00
Gross profit $	6512.50	Gross loss $	-1100.00
Total # of trades	31	Percent profitable	81%
Number winning trades	25	Number losing trades	6
Largest winning trade$	762.50	Largest losing trade$	-362.50
Average winning trade$	260.50	Average losing trade$	-183.33
Ratio avg win/avg loss	1.42	Avg trade(win & loss)$	174.60
Max consec. winners	10	Max consec. losers	1
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-400.00		
Profit factor	5.92	Max # contracts held	2
Account size required $	400.00	Return on account	1353%

Programming MOC Patterns U.S. Treasury Bonds

```
IF DataCompression = 3 then Begin
{Gap Reversals}
If O > H[1] and C < C[1] and C < L+(range*.1)
then Sell on the close;
ExitShort at the market;

If O < L[1] and C > C[1] and C > H-(range*.1)
then Buy on the close;
Exitlong at the market;

{Contraction Range Set with extreme close.}
If range = Lowest(range,2)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close < Open and
Close[1] > Open[1]
and L > L[1]
and C <L[1]+(range[1]*.25)
then Sell on the close;
ExitShort at the Market;

{Volume and OI Spikes with Extreme Close and contracting range.}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C > H-(range*.1)
then Buy on the Close;
Exitlong at the Market;

If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C < L+(range*.1)
then Sell on the Close;
ExitShort at the Market;

End;

IF DataCompression = 4 then Begin
```

```
{Manipulation Bars and 3 Low}
If O < H-(range*.28)
and O > L+(range*.28)
and C > H-(range*.1)
and L = Lowest(L,3)
then Buy on the Close;
ExitLong at the Market;

{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C< L+(range*.1)
then Sell on the close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If range = lowest(range,2)
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

End;
```

Programming MOC Patterns S&P 500

```
IF DataCompression = 3 then Begin {Weekly patterns}

{Volume and OI Spikes with Extreme Close and contracting range}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C > H-(range*.1)
then Buy on the Close;
Exitlong at the Market;

If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C < L+(range*.1)
then Sell on the Close;
ExitShort at the Market;

End;
```

Programming MOC Patterns Soybeans

```
IF DataCompression = 3 then Begin {Weekly Patterns}

{Range Expansions with Extreme closes Set #3}
If range = Highest(range,5) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Contraction Range Set with extreme close.}
If range = Lowest(range,4)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Volume and OI Spikes with Extreme Close and contracting range.}
```

```
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C < L+(range*.1)
then Sell on the Close;
ExitShort at the Market;

End;

If DataCompression = 4 then Begin {Monthly Patterns}

{Inside Bar with Extreme Close.}
If range = lowest(range,2)
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close > Open and
Close[1] < Open[1]
and H < H[1]
and C > H[1]-(range[1]*.25)
then Buy on the close;
ExitLong at the Market;

End;
```

Programming MOC Patterns Swiss Franc

```
IF DataCompression = 3 then Begin

{Manipulation Bars}
If O > L+(range*.28)
and O < H-(range*.28)
and C < L+(range*.1)
and H = Highest(H,3)
then Sell on the Close;
```

```
ExitShort at the Market;

{Extreme Reversals}
If O> H-(range*.25)
and C > H-(range*.25)
then Buy on the Close;
ExitLong at the Market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

End;

IF DataCompression = 4 then Begin

{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C< L+(range*.1)
then Sell on the close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close < Open and
Close[1] > Open[1]
and L > L[1]
and C <L[1]+(range[1]*.25)
then Sell on the close;
ExitShort at the Market;
```

```
{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If H>H[1] and L<L[1] and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

End;
```

Programming MOC Patterns Japanese Yen

```
IF DataCompression = 3 then Begin
{Extreme Reversals and Range Expansion #2}
If Range = highest(range,3)
and O < L+(range*.25)
and C < L+(range*.25)
then Sell on the Close;
ExitShort at the Market;

If Range = Highest(range,3)
and O> H-(range*.25)
and C > H-(range*.25)
then Buy on the Close;
ExitLong at the Market;
End;

IF DataCompression = 4 then Begin

{Inverted Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C > H-(range*.1)
and L = Lowest(L,3)
then Sell on the Close;
ExitShort at the Market;

If O > L+(range*.28)
and O < H-(range*.28)
and C < L+(range*.1)
and H = Highest(H,3)
then Buy on the Close;
```

```
ExitLong at the Market;

{Range Expansions with Extreme closes Set #1}
If range = Highest(range,2) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

End;
```

Programming MOC Patterns Deutshce Mark

```
IF DataCompression = 3 then Begin
{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C> H-(range*.1)
then Buy on the close;
ExitLong at the Market;

{Contraction Range Set with extreme close.}
If range = Lowest(range,2)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

End;

IF DataCompression = 4 then Begin

{Manipulation Bars and 3 Low}
If O < H-(range*.28)
and O > L+(range*.28)
and C > H-(range*.1)
and L = Lowest(L,3)
then Buy on the Close;
ExitLong at the Market;
```

```
{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C< L+(range*.1)
then Sell on the close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close > Open and
Close[1] < Open[1]
and H < H[1]
and C > H[1]-(range[1]*.25)
then Buy on the close;
ExitLong at the Market;

If Close < Open and
Close[1] > Open[1]
and L > L[1]
and C <L[1]+(range[1]*.25)
then Sell on the close;
ExitShort at the Market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If H>H[1] and L<L[1] and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

End;
```

Programming MOC Patterns Crude Oil

```
IF DataCompression = 3 then Begin

If O > L+(range*.28)
and O < H-(range*.28)
and C < L+(range*.1)
and H = Highest(H,3)
then Sell on the Close;
ExitShort at the Market;

{Gap Reversals}
If O < L[1] and C > C[1] and C > H-(range*.1)
then Buy on the close;
Exitlong at the market;

{Extreme Reversals}
If O < L+(range*.25)
and C < L+(range*.25)
then Sell on the Close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.2) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close > Open and
Close[1] < Open[1]
and H < H[1]
and C > H[1]-(range[1]*.25)
then Buy on the close;
ExitLong at the Market;

End;

If DataCompression = 4 then Begin

{Inside Bar with Extreme Close.}
If range = lowest(range,2)
and C > H-(range*.1) then
buy on the close;
```

```
exitlong at the market;

End;
```

Programming MOC Patterns Silver

```
IF DataCompression = 3 then Begin {Weekly Patterns}

{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C< L+(range*.1)
then Sell on the close;
ExitShort at the Market;

{Range Expansions with Extreme closes Set #1}
If range = highest(range,2) and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If range = Highest(range,2) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Gap Reversals}
If O > H[1] and C < C{1} and C < L+(range*.1)
then Sell on the close;
ExitShort at the market;

{Contraction Range Set with extreme close.}
If range = Lowest(range,4)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
```

```
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

{Volume and OI Spikes with Extreme Close}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and C < L+(range*.1)
then Sell on the Close;
ExitShort at the Market;

End;

If DataCompression = 4 then Begin {Monthly Patterns}

{Lone Manipulation Bars}
If O < H-(range*.28)
and O > L+(range*.28)
and C> H-(range*.1)
then Buy on the close;
ExitLong at the Market;

If O < H-(range*.28)
and O > L+(range*.28)
and C< L+(range*.1)
then Sell on the close;
ExitShort at the Market;

{Range Expansions with Extreme closes Set #1}
If range = highest(range,2) and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If range = Highest(range,2) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Contraction Bar with Extreme Close.}
If range = lowest(range,2)
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

If range = Lowest(Range,2)
```

```
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close < Open and
Close[1] > Open[1]
and L > L[1]
and C <L[1]+(range[1]*.25)
then Sell on the close;
ExitShort at the Market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

{Volume and OI Spikes with Extreme Close}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and C > H-(range*.1)
then Buy on the Close;
Exitlong at the Market;

If OpenInt > OpenInt[1]
and Volume > Volume[1]
and C < L+(range*.1)
then Sell on the Close;
ExitShort at the Market;

End;
```

Programming MOC Patterns Coffee

```
IF DataCompression = 3 then Begin {Weekly Patterns}
```

```
{Manipulation Bars}
If O > L+(range*.28)
and O < H-(range*.28)
and C < L+(range*.1)
and H = Highest(H,3)
then Sell on the Close;
ExitShort at the Market;

{Range Expansions with Extreme closes Set #2}
If range = Highest(range,3) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Gap Reversals}
If O > H[1]
and C < L+(range*.1)
then Sell on the close;
ExitShort on the Open;

{Extreme Reversals and Range Expansion #2}
If Range = highest(range,2)
and O < L+(range*.25)
and C < L+(range*.25)
then Sell on the Close;
ExitShort at the Market;

{Contraction Range Set with extreme close.}
If Range = Lowest(range,2)
and C > H-(range*.1) then
buy on the close;
exitlong at the market;

If range = Lowest(range,4)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If H>H[1] and L<L[1] and
```

```
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Volume and OI Spikes with Extreme Close and contracting range.}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and range < range[1]
and C > H-(range*.1)
then Buy on the Close;
Exitlong at the Market;

End;

IF DataCompression = 4 then Begin{Monthly Patterns}

{Manipulation Bars}
If O > L+(range*.28)
and O < H-(range*.28)
and C < L+(range*.1)
and H = Highest(H,3)
then Sell on the Close;
ExitShort at the Market;

{Range Expansions with Extreme closes Set #2}
If range = highest(range,3) and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

If range = Highest(range,3) and
C < L+(range*.1) then Sell on the Close;
ExitShort at the Market;

{Inside Bar with Extreme Close.}
If H<H[1] and L>L[1]
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

{The Bunny Hop}
If Close < Open and
Close[1] > Open[1]
and L > L[1]
and C <L[1]+(range[1]*.25)
```

```
then Sell on the close;
ExitShort at the Market;

End;
```

Programming MOC Patterns British Pound

```
IF DataCompression = 3 then Begin {Weekly Patterns}

{Extreme Reversals}
If O < L+(range*.25)
and C < L+(range*.25)
then Sell on the Close;
ExitShort at the Market;

If O> H-(range*.25)
and C > H-(range*.25)
then Buy on the Close;
ExitLong at the Market;

{Engulfing bar with Extreme close}
If H>H[1] and L<L[1] and
C > H-(range*.1) then Buy on the Close;
ExitLong at the Market;

{Volume and OI Spikes with Extreme Close}
If OpenInt > OpenInt[1]
and Volume > Volume[1]
and C > H-(range*.1)
then Buy on the Close;
Exitlong at the Market;

End;

IF DataCompression = 4 then Begin {Monthly Patterns}

{Inside Bar with Extreme Close.}
If range = Lowest(Range,2)
and C < L+(range*.1) then
Sell on the close;
exitshort at the market;

End;
```

CHAPTER 8

Tigers in the M.I.S.T: Short Term Trend and Daily Patterns

"Tiger thinks of grasses tall and wide,
And what camouflage they give,
He thinks of places he can hide,
And prey that he'll outlive."
— Jenny Parks

Short-term pattern trading off of daily charts is difficult. The patterns can not be easily defended from a logical or mathematical point of view. Many current trading manuals on this subject offer fascinating entry strategies, but do not supply testing results for this reason. While the patterns may indeed be profitable, the exit strategies are quite subjective and the common trader is left essentially at the same point from which he began. He must be a seasoned knowledgeable trader to make the patterns work.

My goal in writing this book was to present some new ideas and approaches that simplify this process and offer the best defensive possibilities and probabilities of profit. Tigers observe, simplify and quantify.

TIGERS IN THE M.I.S.T.

Before a trader can consider trading on daily charts he must define concepts of market movement that are applicable to his style of trading. Invariably, one of the key components of all methodologies is the concept of "trend". Unfortunately, each trader tends to develop his own subjective meaning of what a trend is. This makes testing impossible. Tigers don't play the game like that. I studied correlations between indicators and patterns to find the common links between them in relation to trend. By doing this, I came up with a theory of mathematical and logical absolutes.

Markets move up and down. New highs breed other new highs and new higher closes breed higher closes. Higher highs coupled with higher closes increase this effect. This is also true for a market that is moving lower. New lows breed other new lows and new lower closes breed additional lower closes. To see if this theory had merit, I came up with the following theory:

For an uptrend to be in effect the last price occurrence in the market must be:

Today's High equals the Highest high of "*n*" trading sessions, and today's close must be greater than yesterday's close. I will refer to this in the future as "condition one", an uptrend.

For a downtrend to be in effect, the last price occurrence in the market must be:

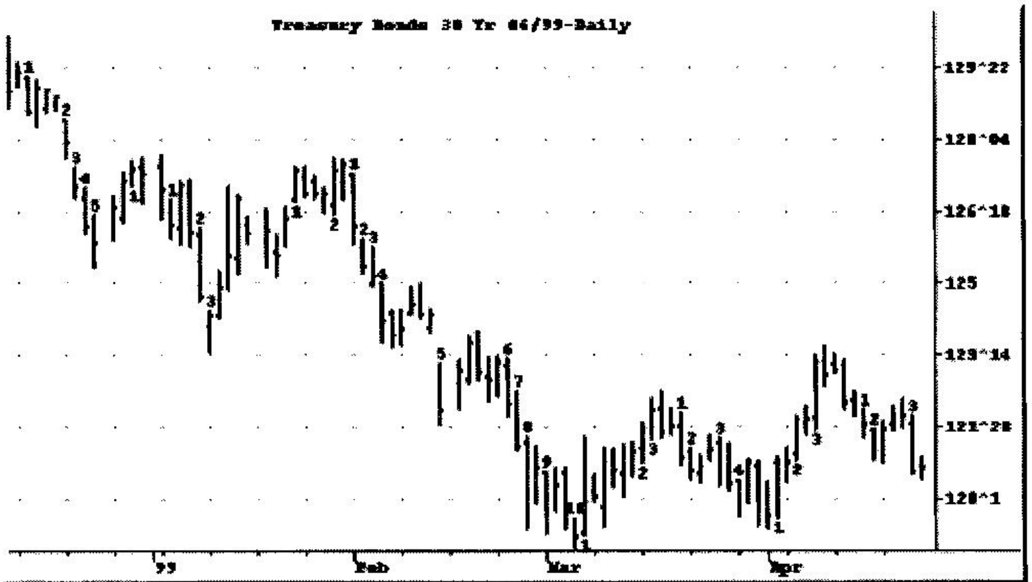
Today's low equals the lowest low of "*n*" trading sessions, and today's close must be less than yesterday's close. I will refer to this in the future as "condition two", a downtrend.

In testing across a broad range of markets, I found that if the uptrend condition one had occurred, there was a seventy percent chance that the uptrend condition would repeat before a downtrend condition two could occur. Logically, if the downtrend condition never occurs, the trend can only be up. Therefore, this template creates a series of thrusts that can now be measured. This has the following advantages. All phases of the trend in regards to profit and risk are quantified and therefore testable. Thus for any period of the trend, exact statistical probabilities for each price level can be produced. The template has logical links to observations such as Dow and Elliot wave theory.

As can be seen in figures one and two on the next page, an uptrend condition can only remain true if an opposing downtrend condition does not occur. I call this quantified series *multiple information sets* for *traders*, or *MIST*. In the case of the testing parameters, it was found that "*n*" could be any series of highs greater than one. An important mathematical constant I refer to as the *Downs Constant*, which states that if condition one occurs, the odds of condition one occurring again before a condition two downtrend will always be greater than random statistics. Therefore, the trader has an edge.

For testing purposes, and in order to show that the *Downs Constant* merited study, two separate values were used for "*n*". The first value was five, or the highest high of five trading periods. This value was used for the charts and for the statistical testing done in figure three. The statistical testing was designed to calculate the odds of a second through fifth occurrence of the condition before an opposing condition could occur. The results were then compared to the odds of what would normally be considered random chance. The second value was three, or the highest high and lowest low of three trading periods. This value was used for the system testing. For both values used, the results exceeded the probabilities of random occurrence to a degree that merits further study. The Downs Constant was found to hold true over other values for "*n*" and in both stock and futures testing.

FIGURE ONE



Created with TradeStation by Omega Research © 1996

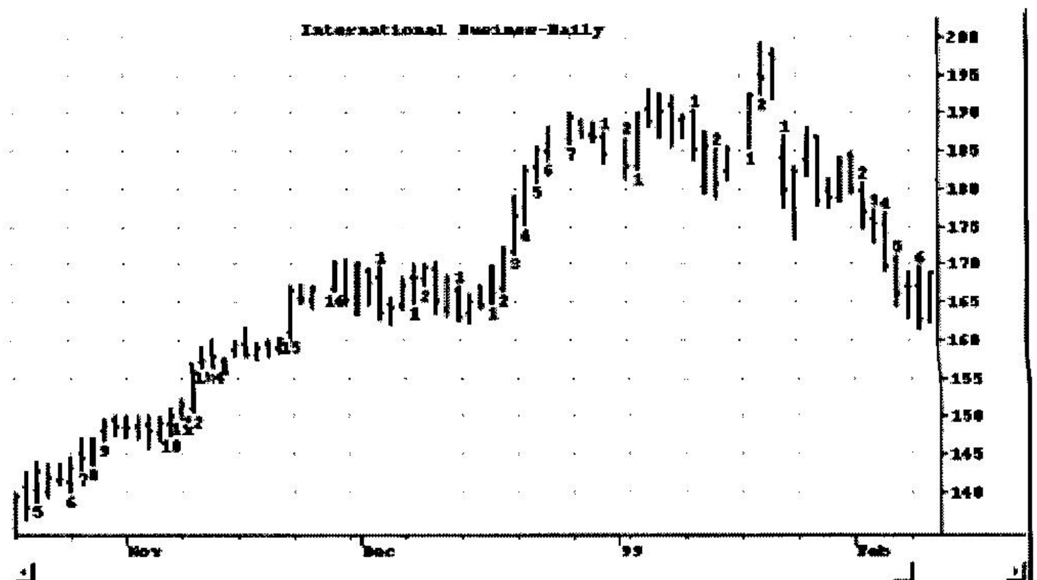


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FIGURE TWO

FIGURE THREE

Table 1: UPTREND

Market	Occurrence 2	Occurrence 3	Occurrence 4	Occurrence 5
U.S. Bonds	81%	55%	41%	33%
Coffee	69%	44%	25%	19%
S&P 500	77%	55%	39%	29%
Swiss Franc	74%	55%	43%	29%
Soybeans	69%	55%	34%	17%
Crude Oil	71%	55%	36%	26%
B. Pound	69%	55%	35%	25%
Average	72%	53%	36%	25%

Table 2: DOWNTREND

Market	Occurrence 2	Occurrence 3	Occurrence 4	Occurrence 5
U.S. Bonds	70%	47%	30%	15%
Coffee	74%	58%	43%	29%
S&P 500	71%	41%	23%	14%
Swiss Franc	61%	41%	32%	21%
Soybeans	71%	49%	34%	22%
Crude Oil	65%	45%	26%	19%
B. Pound	61%	39%	28%	20%
Average	67%	45%	30%	20%

Table 3: MIST ODDS vs. RANDOM CHANCE

MIST	69.5%	49%	33%	22.5%
CHANCE	25%	12.5%	6.25%	3.125%
Variance	+ 44.5%	+ 36.5%	+ 26.75%	+ 18.87%

PATTERNS

MIST PATTERN # 1

BUY SET-UP (SELL SET-UPS ARE REVERSED)

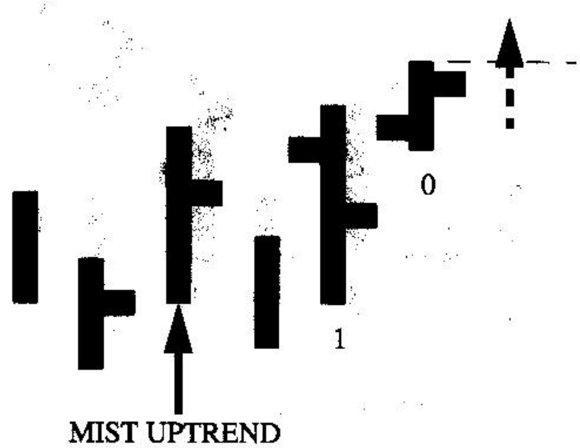
1. A MIST uptrend must be in effect. (The most recent market occurrence is highest high of three bars and close greater than close of previous bar.)

2. The close of day 0 must be greater than or equal to the High of day 1, and the range of day 0 must be less than the range of day 1.

3. When the first two conditions are true, a buy-stop order is placed at the high of day 0.

4. If our stop is hit, a protective stop is placed under the low of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.

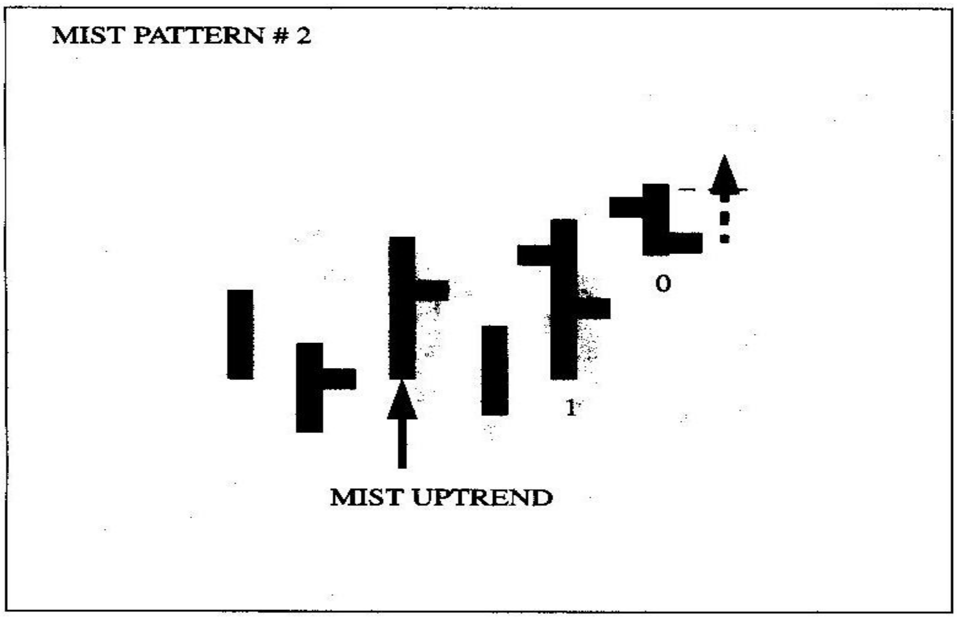
MIST PATTERN # 1



MIST PATTERN # 2

BUY SET-UP (SELL SET-UPS ARE REVERSED)

1. A MIST uptrend must be in effect. (The most recent market occurrence is highest high of three bars and close greater than close of previous bar.)
2. The open of bar 0 must be greater than the high of bar 1, and the close of bar 0 must be less than the high of bar 1.
3. When the first two conditions are true, a buy-stop order is placed at the high of day 0.
4. If our stop is hit, a protective stop is placed under the low of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.



MIST PATTERN # 3

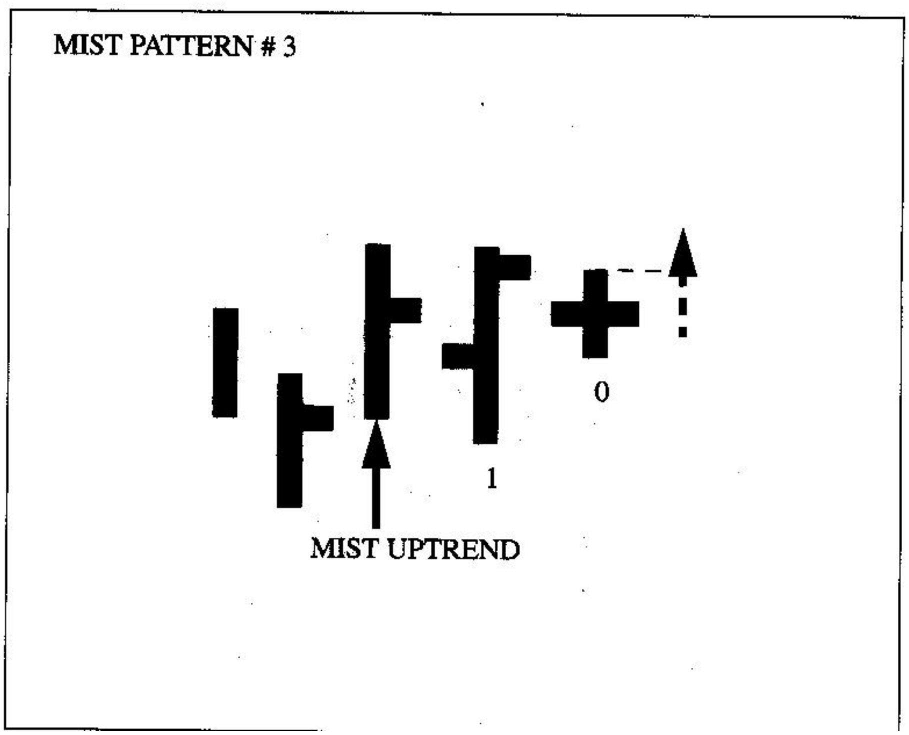
BUY SET-UP (SELL SET-UPS ARE REVERSED)

1. A MIST uptrend must be in effect. (The most recent market occurrence is highest high of three bars and close greater than close of previous bar.)

2. the absolute value of the open of bar 0 minus the close of bar 0 must be less than the bar 0 range multiplied by 7%, and the Range of bar 0 must be smaller than the previous three ranges.

3. When the first two conditions are true, a buy-stop order is placed at the high of day 0.

4. If our stop is hit, a protective stop is placed under the low of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.

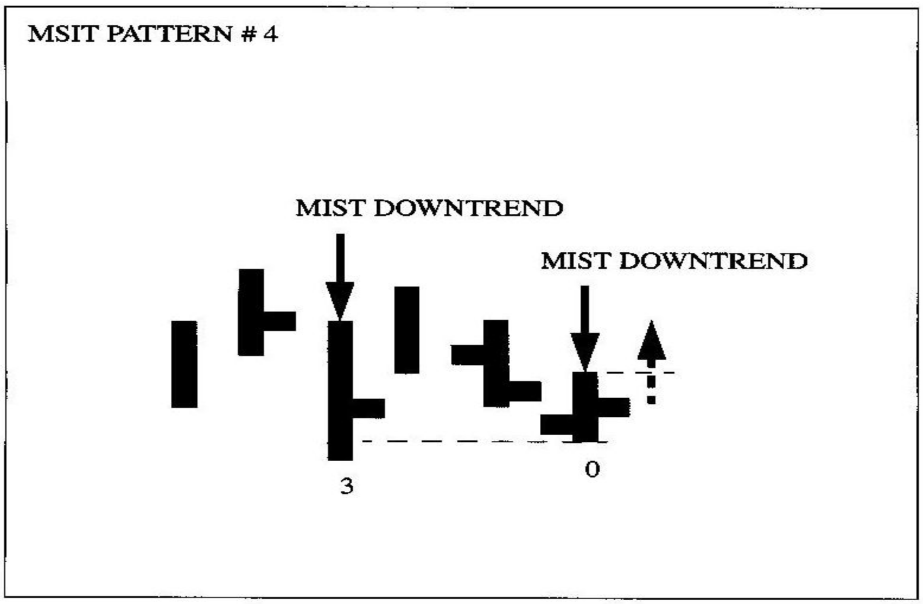


MIST PATTERN # 4

This is the only pattern that trades against the MIST trend.

BUY SET-UP (SELL SET-UPS ARE REVERSED)

1. Yesterday must have been a MIST downtrend day. (Yesterday was the lowest low of three trading periods, and yesterday's close was less than the close of the previous bar.)
2. The low of bar 0 must be greater than the low made on the *previous* condition two MIST downtrend day, provided the previous occurrence happened in the last twenty trading days.
3. When the first two conditions are true, a buy-stop order is placed at the high of day 0.
4. If our stop is hit, a protective stop is placed under the low of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.



MIST PATTERN # 5

SELL SET-UP (BUY SET-UPS ARE REVERSED)

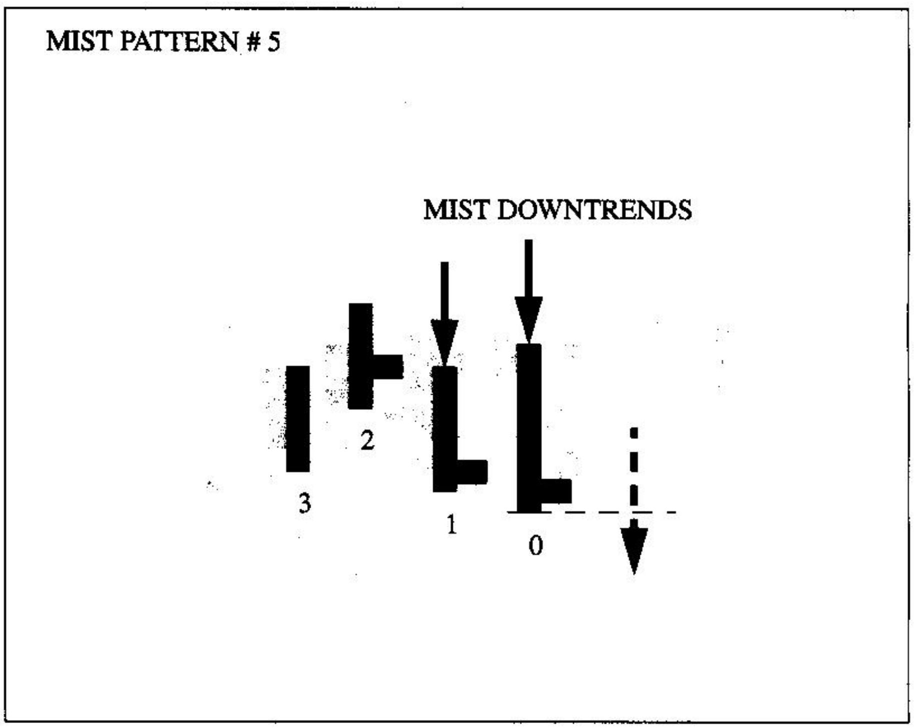
1. The high of bar 0 must be greater than the high of bar 1, and the low of bar 0 must be less than the low of bar 1.

2. The close of bar 0 must be less than the close of bar 1, and the low of bar 0 must be less than the low of bar 2.

3. The low of bar 1 must be less than the lows of bar 2 and bar 3, and the close of bar 1 must be less than the close of bar 2.

4. When the first three conditions are true, a sell-stop order is placed at the low of day 0.

5. If our stop is hit, a protective stop is placed above the high of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.



MIST PATTTERN # 6

SELL SET-UP (BUY SET-UPS OCCUR WHEN A MIST UPTREND IS IN EFFECT)

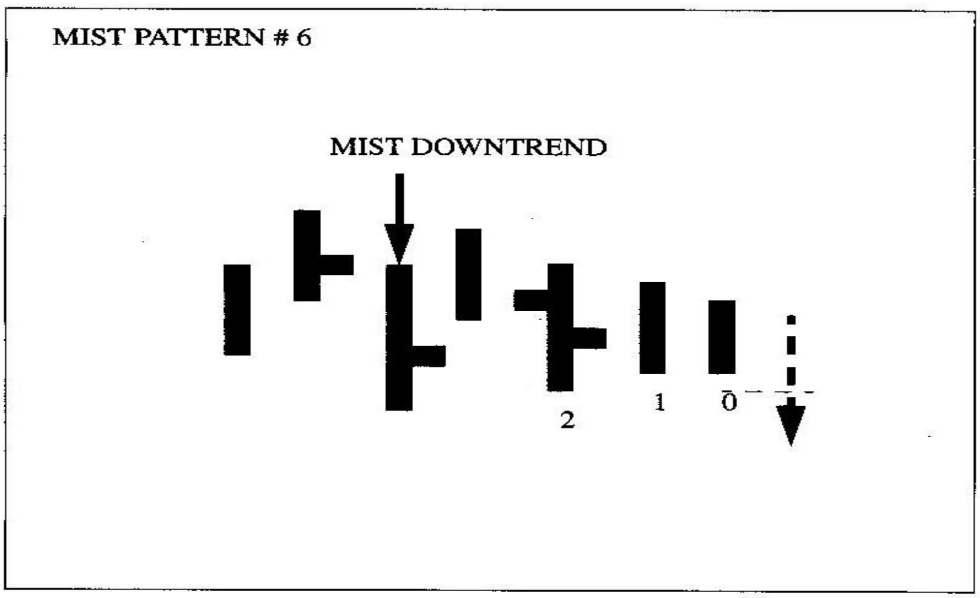
1. A MIST downtrend must be in effect. (The most recent market occurrence is lowest low of three bars and close less than close of previous bar.)

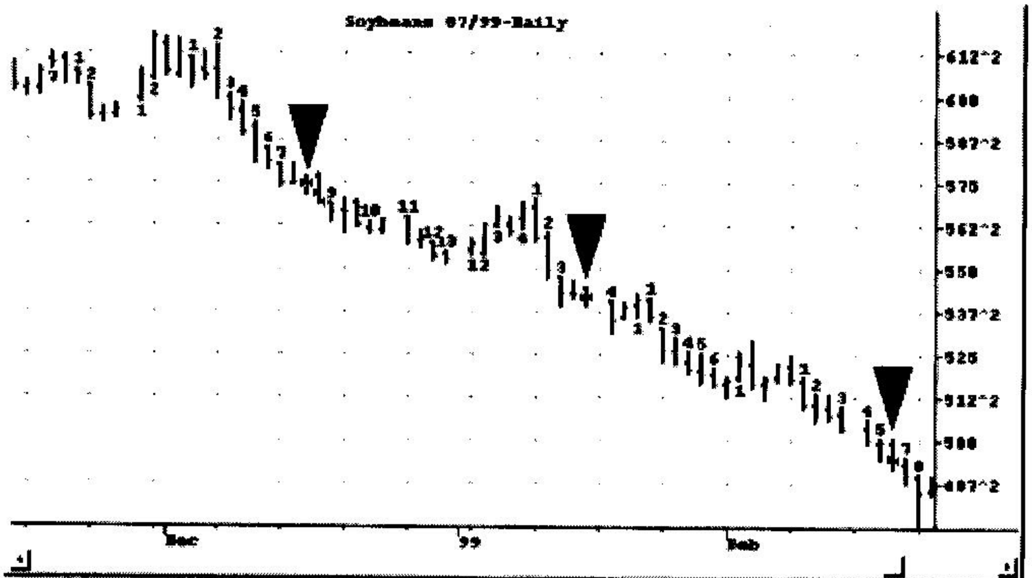
2. The high of bar 0 must be less than or equal to the high of bar 1, and the low of bar 0 must be greater than or equal to the low of bar 1.

3. The high of bar 1 must be less than or equal to the high of bar 2, and the low of bar 1 must be greater than or equal to the low of bar 2.

4. When the first three conditions are true, a sell-stop order is placed one tick under the low of day 0.

5. If our stop is hit, a protective stop is placed above the high of two bars ago. After the position is up one hundred dollars or more, we will institute a trailing stop equal to 38% of the total profit.





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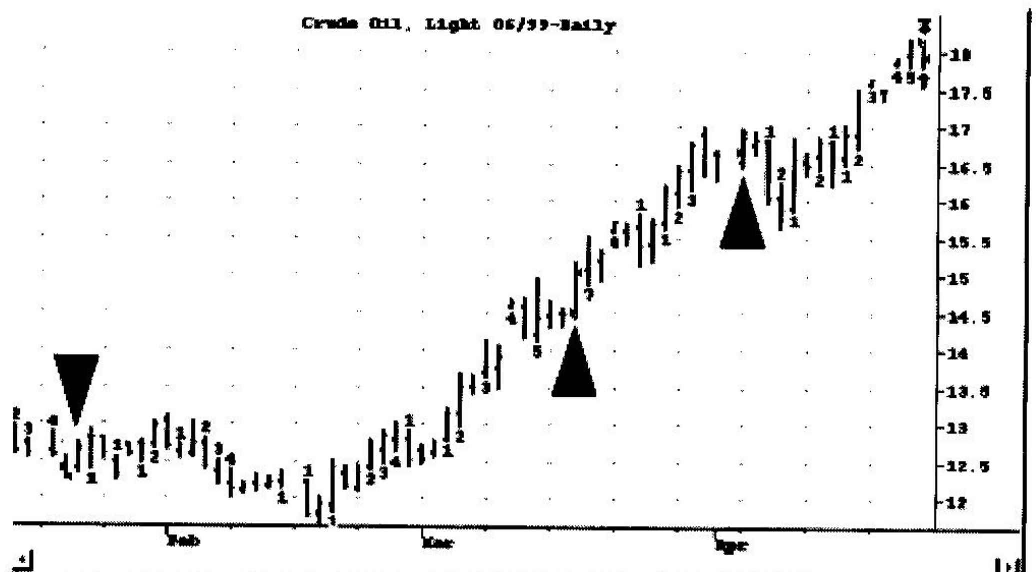

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MIST T. BONDS 67/99-Daily 12/01/88 - 07/31/96

Performance Summary: All Trades
Total net profit $ 18843.75 Open position P/L$ 0.00
Gross profit $ 28000.00 Gross loss $ -9156.25
Total # of trades 97 Percent profitable 86%
Number winning trades 83 Number losing trades 14
Largest winning trade$ 1968.75 Largest losing trade$ -1031.25
Average winning trade$ 337.35 Average losing trade$ -654.02
Ratio avg win/avg loss 0.52 Avg trade(win & loss)$ 194.27
Max consec. winners 21 Max consec. losers 2
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -1906.25
Profit factor 3.06 Max # contracts held 1
Account size required $ 1906.25 Return on account 989%

Performance Summary: Long Trades
Total net profit $ 12250.00 Open position P/L$ 0.00
Gross profit $ 18437.50 Gross loss $ -6187.50
Total # of trades 64 Percent profitable 86%
Number winning trades 55 Number losing trades 9
Largest winning trade$ 1968.75 Largest losing trade$ -1031.25
Average winning trade$ 335.23 Average losing trade$ -687.50
Ratio avg win/avg loss 0.49 Avg trade(win & loss)$ 191.41
Max consec. winners 17 Max consec. losers 1
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -1906.25
Profit factor 2.98 Max # contracts held 1
Account size required $ 1906.25 Return on account 643%

Performance Summary: Short Trades
Total net profit $ 6593.75 Open position P/L$ 0.00
Gross profit $ 9562.50 Gross loss $ -2968.75
Total # of trades 33 Percent profitable 85%
Number winning trades 28 Number losing trades 5
Largest winning trade$ 937.50 Largest losing trade$ -875.00
Average winning trade$ 341.52 Average losing trade$ -593.75
Ratio avg win/avg loss 0.58 Avg trade(win & loss)$ 199.81
Max consec. winners 10 Max consec. losers 1
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -1062.50
Profit factor 3.22 Max # contracts held 1
Account size required $ 1062.50 Return on account 621%

MIST COFFEE 67/99-Daily 12/01/88 - 07/31/96

Performance Summary: All Trades			
Total net profit $	33348.75	Open position P/L$	0.00
Gross profit $	41220.00	Gross loss $	-7871.25
Total # of trades	95	Percent profitable	88%
Number winning trades	84	Number losing trades	11
Largest winning trade$	5242.50	Largest losing trade$	-2625.00
Average winning trade$	490.71	Average losing trade$	-715.57
Ratio avg win/avg loss	0.69	Avg trade(win & loss)$	351.04
Max consec. winners	19	Max consec. losers	1
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-2625.00		
Profit factor	5.24	Max # contracts held	1
Account size required$	2625.00	Return on account	1270%

Performance Summary: Long Trades			
Total net profit $	20677.50	Open position P/L$	0.00
Gross profit $	24855.00	Gross loss $	-4177.50
Total # of trades	58	Percent profitable	86%
Number winning trades	50	Number losing trades	8
Largest winning trade$	5242.50	Largest losing trade$	-1781.25
Average winning trade$	497.10	Average losing trade$	-522.19
Ratio avg win/avg loss	0.95	Avg trade(win & loss)$	356.51
Max consec. winners	21	Max consec. losers	2
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-1800.00		
Profit factor	5.95	Max # contracts held	1
Account size required $	1800.00	Return on account	1149%

Performance Summary: Short Trades			
Total net profit $	12671.25	Open position P/L$	0.00
Gross profit $	16365.00	Gross loss $	-3693.75
Total # of trades	37	Percent profitable	92%
Number winning trades	34	Number losing trades	3
Largest winning trade$	3682.50	Largest losing trade$	-2625.00
Average winning trade$	481.32	Average losing trade$	-1231.25
Ratio avg win/avg loss	0.39	Avg trade(win & loss)$	342.47
Max consec. winners	18	Max consec. losers	1
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-2625.00		
Profit factor	4.43	Max # contracts held	1
Account size required $	2625.00	Return on account	483%

MIST NY LIGHT CRUDE OIL 67/99-Daily 03/01/89 - 07/31/96

Performance Summary: All Trades

Total net profit $	13280.00	Open position P/L$	0.00
Gross profit $	18450.00	Gross loss $	-5170.00
Total # of trades	93	Percent profitable	83%
Number winning trades	77	Number losing trades	16
Largest winning trade$	2090.00	Largest losing trade$	-680.00
Average winning trade$	239.61	Average losing trade$	-323.13
Ratio avg win/avg loss	0.74	Avg trade(win & loss)$	142.80
Max consec. winners	17	Max consec. losers	2
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-1000.00		
Profit factor	3.57	Max # contracts held	1
Account size required $	1000.00	Return on account	1328%

Performance Summary: Long Trades

Total net profit $	10550.00	Open position P/L$	0.00
Gross profit $	14260.00	Gross loss $	-3710.00
Total # of trades	62	Percent profitable	82%
Number winning trades	51	Number losing trades	11
Largest winning trade$	2090.00	Largest losing trade$	-680.00
Average winning trade$	279.61	Average losing trade$	-337.27
Ratio avg win/avg loss	0.83	Avg trade(win & loss)$	170.16
Max consec. winners	12	Max consec. losers	2
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-980.00		
Profit factor	3.84	Max # contracts held	1
Account size required $	980.00	Return on account	1077%

Performance Summary: Short Trades

Total net profit $	2730.00	Open position P/L$	0.00
Gross profit $	4190.00	Gross loss $	-1460.00
Total # of trades	31	Percent profitable	84%
Number winning trades	26	Number losing trades	5
Largest winning trade$	340.00	Largest losing trade$	-410.00
Average winning trade$	161.15	Average losing trade$	-292.00
Ratio avg win/avg loss	0.55	Avg trade(win & loss)$	88.06
Max consec. winners	21	Max consec. losers	2
Avg # bars in winners	1	Avg # bars in losers	1
Max intraday drawdown $	-780.00		
Profit factor	2.87	Max # contracts held	1
Account size required $	780.00	Return on account	350%

MIST SWISS FRANC 67/99-Daily 12/01/88 - 07/31/96

Performance Summary: All Trades
Total net profit $ 34825.00 Open position P/L$ 0.00
Gross profit $ 44937.50 Gross loss $ -10112.50
Total # of trades 133 Percent profitable 89%
Number winning trades 118 Number losing trades 15
Largest winning trade$ 3312.50 Largest losing trade$ -1462.50
Average winning trade$ 380.83 Average losing trade$ -674.17
Ratio avg win/avg loss 0.56 Avg trade(win & loss)$ 261.84
Max consec. winners 20 Max consec. losers 2
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -2512.50
Profit factor 4.44 Max # contracts held 1
Account size required $ 2512.50 Return on account 1386%

Performance Summary: Long Trades
Total net profit $ 26825.00 Open position P/L$ 0.00
Gross profit $ 31712.50 Gross loss $ -4887.50
Total # of trades 81 Percent profitable 89%
Number winning trades 72 Number losing trades 9
Largest winning trade$ 3312.50 Largest losing trade$ -1087.50
Average winning trade$ 440.45 Average losing trade$ -543.06
Ratio avg win/avg loss 0.81 Avg trade(win & loss)$ 331.17
Max consec. winners 18 Max consec. losers 1
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -1475.00
Profit factor 6.49 Max # contracts held 1
Account size required $ 1475.00 Return on account 1819%

Performance Summary: Short Trades
Total net profit $ 8000.00 Open position P/L$ 0.00
Gross profit $ 13225.00 Gross loss $ -5225.00
Total # of trades 52 Percent profitable 88%
Number winning trades 46 Number losing trades 6
Largest winning trade$ 1725.00 Largest losing trade$ -1462.50
Average winning trade$ 287.50 Average losing trade$ -870.83
Ratio avg win/avg loss 0.33 Avg trade(win & loss)$ 153.85
Max consec. winners 11 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 1
Max intraday drawdown $ -1875.00
Profit factor 2.53 Max # contracts held 1
Account size required $ 1875.00 Return on account 427%

MIST S&P 500 INDEX 67/99-Daily 12/01/88 - 07/31/96

Performance Summary: All Trades
Total net profit $ 93350.00 Open position P/L$ 0.00
Gross profit $ 101325.00 Gross loss $ -7975.00
Total # of trades 129 Percent profitable 96%
Number winning trades 124 Number losing trades 5
Largest winning trade$ 4275.00 Largest losing trade$ -2450.00
Average winning trade$ 817.14 Average losing trade$ -1595.00
Ratio avg win/avg loss 0.51 Avg trade(win & loss)$ 723.64
Max consec. winners 34 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 1
Max intraday drawdown $ -2450.00
Profit factor 12.71 Max # contracts held 1
Account size required $ 2450.00 Return on account 3810%

Performance Summary: Long Trades
Total net profit $ 70525.00 Open position P/L$ 0.00
Gross profit $ 75200.00 Gross loss $ -4675.00
Total # of trades 90 Percent profitable 97%
Number winning trades 87 Number losing trades 3
Largest winning trade$ 4275.00 Largest losing trade$ -2450.00
Average winning trade$ 864.37 Average losing trade$ -1558.33
Ratio avg win/avg loss 0.55 Avg trade(win & loss)$ 783.61
Max consec. winners 33 Max consec. losers 1
Avg # bars in winners 1 Avg # bars in losers 1
Max intraday drawdown $ -2450.00
Profit factor 16.09 Max # contracts held 1
Account size required $ 2450.00 Return on account 2879%

Performance Summary: Short Trades
Total net profit $ 22825.00 Open position P/L$ 0.00
Gross profit $ 26125.00 Gross loss $ -3300.00
Total # of trades 39 Percent profitable 95%
Number winning trades 37 Number losing trades 2
Largest winning trade$ 2650.00 Largest losing trade$ -1750.00
Average winning trade$ 706.08 Average losing trade$ -1650.00
Ratio avg win/avg loss 0.43 Avg trade(win & loss)$ 585.26
Max consec. winners 24 Max consec. losers 1
Avg # bars in winners 0 Avg # bars in losers 1
Max intraday drawdown $ -2000.00
Profit factor 7.92 Max # contracts held 1
Account size required $ 2000.00 Return on account 1141%

MIST SYSTEM CODE

```
Input: MstLen(2),Ex(1);
Vars: UT(0), DT(0);

{Initial conditions for establishing the MIST set and Fear Protocols.}

Condition1 = H > Highest(H,MstLen)[1] and C > Close[1];
Condition2 = L < Lowest(L,MstLen)[1] and C < Close[1];

If Condition1 Then Begin

UT = UT+1;
DT = 0;

End;

If Condition2 then Begin

DT = DT+1;
UT = 0;

End;

{MIST Trending Pattern Set-ups}
If Condition1 and C <= H[1] and Range < Range[1] then buy("B_MST1") H stop;
If Condition2 and C >= H[1] and Range < Range[1] then Sell("S_MST1") L stop;

IF Condition1[1] and O > H[1] and C < H[1] then Buy("B_MST2") H stop;
IF Condition2[1] and O < L[1] and C > L[1] then Sell("S_MST2") L stop;

IF AbsValue(O-C) < Range*.07 and Range < lowest(Range,3)[1]
 and UT > 0 then Buy("B_MST3") H stop;
IF AbsValue(O-C) < Range*.07 and Range < lowest(Range,3)[1]
 and DT > 0 then Sell("S_MST3") L stop;

IF Condition2 and L > L[MRO(Condition2,20,2)]
and DT > 1 then Buy("B_MST4") H stop;
IF Condition1 and H < H[MRO(Condition1,20,2)]
and UT > 1 then Sell("S_MST4") L stop;
```

```
If L<L[1] and Condition1[1] and Condition1 then buy("B_MST5") H stop;
If H>H[1] and Condition2[1] and Condition2 then Sell("S_MST5") L stop;

IF H <= H[1] and L >= L[1] and H[1] <= H[2] and L[1] >= L[2] and UT > 0 then
Buy("B_MST6") H - 1 point stop;
IF H <= H[1] and L >= L[1] and H[1] <= H[2] and L[1] >= L[2] and DT > 0 then
Sell("S_MST6") L + 1 point stop;

{Exit testing algorithm}

IF MarketPosition <> 0 then Begin

ExitLong L[BarsSinceEntry+1] stop;
ExitShort H[BarsSinceEntry+1] stop;

End;
```

CODE TO PRODUCE MIST NUMBERS ON CHARTS

```
Input: MstLen(4);
Vars: UT(0),DT(0),String1(""),TextLoc(0);

{Initial conditions for establishing the MIST set and Fear Protocols.}

Condition1 = H > Highest(H,MstLen)[1] and C > Close[1];
Condition2 = L < Lowest(L,MstLen)[1] and C < Close[1];

If Condition1 Then Begin

UT = UT+1;
DT = 0;

End;

IF Condition2 then Begin

DT = DT+1;
UT = 0;

End;


If DT = 1 or UT = 1 then String1 = "1";
If DT = 2 or UT = 2 then String1 = "2";
If DT = 3 or UT = 3 then String1 = "3";
If DT = 4 or UT = 4 then String1 = "4";
If DT = 5 or UT = 5 then String1 = "5";
If DT = 6 or UT = 6 then String1 = "6";
If DT = 7 or UT = 7 then String1 = "7";
If DT = 8 or UT = 8 then String1 = "8";
If DT = 9 or UT = 9 then String1 = "9";
If DT = 10 or UT = 10 then String1 = "10";
If DT = 11 or UT = 11 then String1 = "11";
If DT = 12 or UT = 12 then String1 = "12";
If DT = 13 or UT = 13 then String1 = "13";
If DT = 14 or UT = 14 then String1 = "14";
If DT = 15 or UT = 15 then String1 = "15";
If DT = 16 or UT = 16 then String1 = "16";
If DT = 17 or UT = 17 then String1 = "17";
```

```
If DT = 18 or UT = 18 then String1 = "18";
If DT = 19 or UT = 19 then String1 = "19";
If DT = 20 or UT = 20 then String1 = "20";
If DT = 21 or UT = 21 then String1 = "21";
If DT = 22 or UT = 22 then String1 = "22";
If DT = 23 or UT = 23 then String1 = "23";
If DT = 24 or UT = 24 then String1 = "24";
If DT = 25 or UT = 25 then String1 = "25";
If DT = 26 or UT = 26 then String1 = "26";
If DT = 27 or UT = 27 then String1 = "27";
If DT = 28 or UT = 28 then String1 = "28";
If DT = 29 or UT = 29 then String1 = "29";
If DT = 30 or UT = 30 then String1 = "30";

IF UT > UT[1] then Begin

Plot1(H,"H,"");

Value4=Text_New(Date,Time,Low,String1);
TextLoc=Text_SetStyle(Value4, 2, 0);

If GetBackGroundColor=Tool_White then Value5=Text_SetColor(Value4,
Tool_Black)
Else Value5=Text_SetColor(Value4, Tool_Yellow);

End;

IF DT > DT[1] then Begin

Plot2(L,"L,"");

Value4=Text_New(Date,Time,High,String1);
TextLoc=Text_SetStyle(Value4, 2, 1);

If GetBackGroundColor=Tool_White then Value5=Text_SetColor(Value4,
Tool_Black)
Else Value5=Text_SetColor(Value4, Tool_Yellow);

End;
```

CODE TO TEST STATISTICS OF MIST NUMBER COUNTS

```
Input:
UorD(1), {1 for uptrend, 0 for downtrend}
TwavNum(1), {Starting count to compare against WavAdd.}
WavAdd(1),{Ending count to compare against TwavNum}
Len(2); {2 = high > previous 2 bars = 3 day high}

Vars: DT(0),UT(0),TotalUT(0),TotalDT(0),UPCount(0),DPCount(0);

IF H > Highest(H,Len)[1] and C > Close[1] then Begin

UT = UT + 1;
DT = 0;
Plot1(H,"H,"");

End;

IF L < lowest(L,Len)[1] and Close < Close[1] then begin

DT = DT + 1;
UT = 0;
Plot2(L,"L,"");

End;

If UorD = 1 then Begin

IF UT[1] = (TwavNum-1) and UT = TwavNum then TotalUT = TotalUT + 1;

IF UT[1] = (WavAdd-1) and UT = WavAdd then UPCount = UPCount + 1;

If UPCount > 0 and TotalUT > 0 then Begin
Value1 = UPCount/TotalUT;
End;
End;


If UorD = 0 then Begin

IF DT[1] = (Twavnum-1) and DT = TwavNum then TotalDT = TotalDT + 1;
```