

# 1. Introduction to the Best Trading System in the World

**Welcome to the Fractal's Edge. In this section you will be introduced to the commodities business and get a bird's eye view of how the Fractal's Edge works.**

## The Perfect Business

You are about to get into a business that gives you everything you've ever wanted from a business of your own. Roberts (1991) calls it the world's perfect business. It offers the potential for unlimited earnings and real wealth, and you can run it working your own hours while continuing to do whatever you're doing now.

You operate this business entirely on your own, and can start with very little capital. You won't have any employees, so you wouldn't need attorneys, accountants, or bookkeepers. In fact, although you'd be buying and selling the very necessities of life, you never even carry an inventory.

What's more, you'd never have collection problems because you won't have any "customers," and since there is no competition, you won't have to pay the high cost of advertising. You also won't need office space, warehousing, or a distribution system. All you need is a personal computer and you can conduct business from anywhere in the world.

Your business deals with the basic staples of everyday life: lumber, fuel, grains, meats, orange juice, sugar, cocoa, coffee, metals, currencies, and so on. Individuals, small businesses, and giant corporations use these items every day of the year, so there always is, and always will be, a need for them.

The commodities business doesn't suffer from hard times because it can flourish under any economic conditions. In fact, commodity exchanges have been thriving for centuries. Their purpose is to provide a means for the orderly transfer of commodities between buyers and sellers.

Farmers, dealers, and manufacturers use the world-wide network of commodity exchanges to reduce the risks of future price fluctuations. That's why only part of the exchange floor is devoted to cash sales of commodities for immediate delivery, and over 90% of an exchange's business is in futures contracts.

A futures contract is an agreement between a buyer and a seller, where the buyer agrees to purchase and the seller agrees to deliver a specific quantity of a given commodity at a specified price in a definite month. The great thing about all of this is that it is your business that makes it all possible.

## How Do YOU Fit In?

In your commodities business, you buy or sell futures contracts, not because you know anything about, say, corn or lumber or copper, but because you expect to make a profit on the transaction.

In fact, most commodities traders have no use for the actual commodities they are trading; they never even see them. They are just people like you and me; people with a certain amount of capital to invest getting started in their own business.

There are millions of them and they come from almost every profession: from clerks to executives, from janitors to doctors, from students to university presidents. It is the millions of traders controlling the millions and millions of contracts that allow the exchanges to exist.

But more than that, we make it possible for farmers, dealers, and manufacturers to reduce their own risks. For performing this service, we expect to make a profit.

The great thing about all of this is that you don't need a college degree or even a high school education to do well trading commodities. However, you do need some training, you need an objective system, and you need a plan. This manual provides everything you'll need to get started, to become successful, and to build real wealth. So if you're ready, let's get going.

## Purpose of the Course

The purpose of this course is to help you understand and use *The Fractal's Edge*, an innovative trading system for your commodities business. While this system is based on Chaos Theory, fractal geometry, and nonlinear mathematics, anyone can learn to use it. You won't need any special ability with math or computer programming.

Most of the math you will need is pre-programmed into *The Fractal's Edge* spreadsheet file we provide you in chapter 12 after you have purchased the registration key (for the downloadable e-book version) or membership password (for the online version of the Fractal's Edge System). This file contains the "brains" of the system and allows you to begin cashing in on your new trading knowledge.

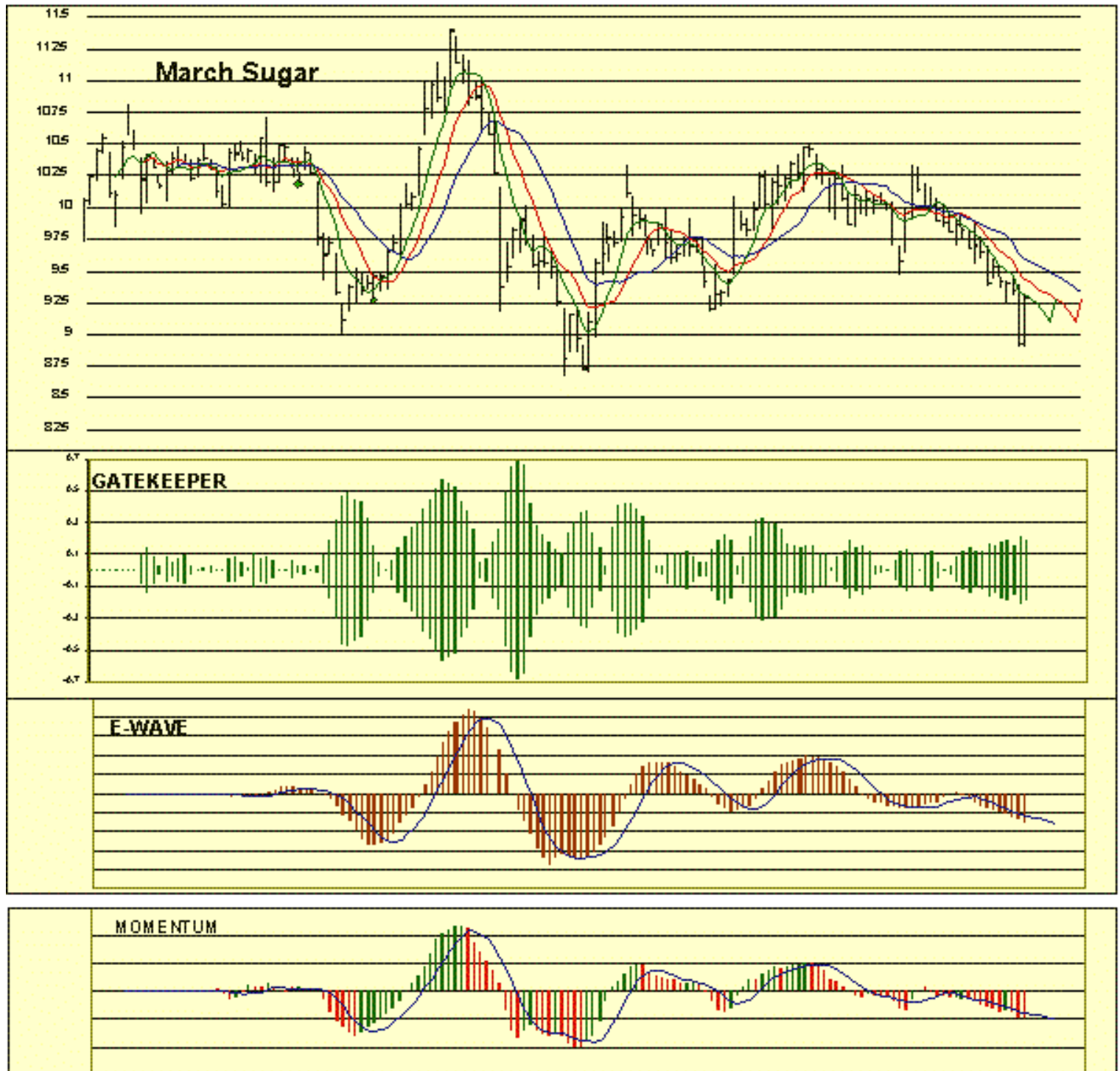
In the meantime, study this course in the order it is presented. It contains everything you need to know to profit from the information that *The Fractal's Edge* spreadsheet program will provide you.

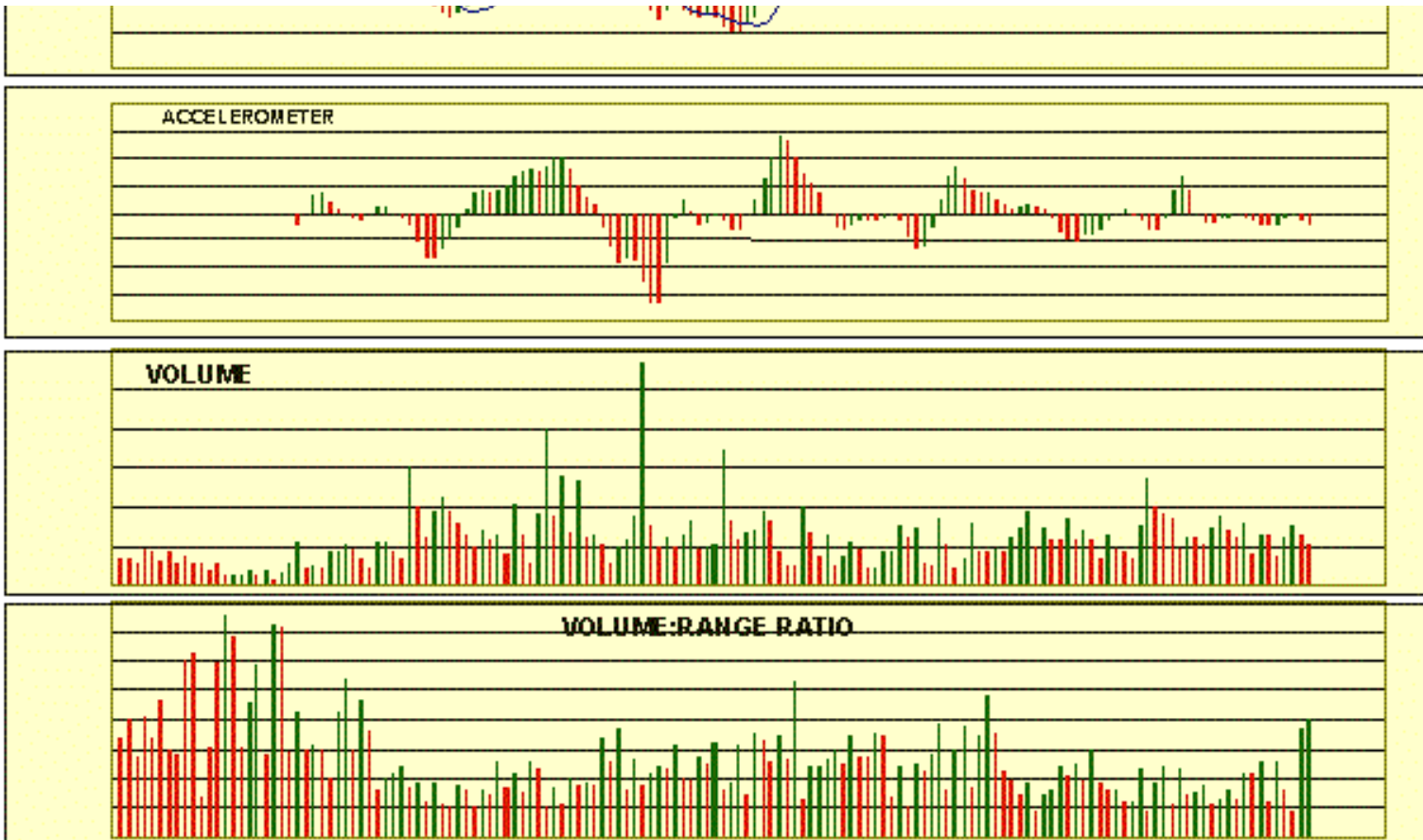
## Visual Display and Descriptions of System Components

The purpose of this page is to provide you with a visual bird's eye view of the *The Fractal's Edge Trading System* and to give you a quick click description of each component. Figure 1 shows the charts and graphs you would see after entering the day's trading data into the Fractal's Edge spreadsheet file. Each part of the system works in concert with the others to give you an accurate picture of current market conditions.

The components include the Bar Chart, the Gatekeeper, the Accelerometer, the Momentum Oscillator, the E-Wave Oscillator and the Psychometric Evaluators, which consist of the Volume Chart and Volume: Range Ratio Chart. (Don't let the technical big words scare you. They are based on easy to understand principles that you will quickly learn as you go through the remainder of this course.)

**Figure 1: View of Entire System Graphics**





## Unique System Attributes

*The Fractal's Edge Trading System* contains the following attributes that make it different from any other trading system on the market today:

- Converts user-entered market data into visually rich and informative charts and graphics
- Describes only the current market situation. Deals only with the here and now-does not care about frosts in Florida, pending legislation, interest rates, or the opinions of experts
- Does not depend on past performance (formulas are not optimized or curved to fit statistical models)
- Does not depend on pattern recognition algorithms
- Does not attempt to predict the future
- Empowers the trader to analyze the market and to recognize and go with the market's current flow
- Facilitates trading at the edge of chaos - the fractal's edge

## 2. Chaos Theory 101

### Seeing the Underlying Order of the Market

In this chapter you will be introduced to Chaos Theory and its application to the markets.

#### What is Chaos Theory?

Since the principles found in *The Fractal's Edge* are based on Chaos Theory and fractal geometry, we'll take a few moments to explain those concepts and how they are related to trading the markets.

When we think of the word "chaos," we usually think of disorder. But did you know that there are actually several definitions of the word? The dictionary defines chaos as:

1. a state of utter confusion or disorder.
2. any confused, disorderly mass.
3. the infinity of space or formless matter supposed to have preceded the creation of the universe.
4. the nonlinear, deterministic behavior of certain systems, as the appearance of strange attractors or fractal structure in graphical representations of a system's evolution.
5. the discipline that studies such behavior.

*Webster's Universal College Dictionary. New York: Random House, Inc. 1997.*

Throughout this manual, we will use the word *chaos* as defined in number 4 above. So, let's examine the meaning a little more closely by looking at the particular words or phrases in the definition.

#### **Nonlinear**

In math, *linear* refers to measurement in one dimension only (the line); in statistics, the term usually refers to the prediction of one variable from another—for example, the prediction of next week's cocoa prices based on cocoa's performance over the past several weeks or months.

*Nonlinear*, on the other hand, refers partly to measurement in fractional dimensions. That is, it refers to dimensions between a point and a line (the zero and first dimension); between a line and a plane (the first and second dimension); between a single plane and an infinite number of planes (the second and third dimension); and between a lower structural order and a higher structural order (the third and fourth dimension).

#### **Deterministic Behavior**

*Deterministic behavior* refers to a system's underlying structure. It is in that underlying structure that we find a system's true order. The behavior of the underlying structure, through an extremely complex series of unpredictably linked events, determines the visible surface structure we see in a complex system. That is what we mean by deterministic behavior.

Thus, while to our eyes, the surface structure appears turbulent, chaotic, and unpredictable, the underlying structure is extremely orderly, and is actually determining the behavior the surface structure is displaying. For example, when we examine a commodity or stock chart, we are only looking at a picture of the market's surface structure as it has been determined by the underlying structure.

Just remember that in the end, it is the underlying structure that *determines* the direction the market is going, and the ability to see that underlying structure makes the difference between winning and losing. *The Fractal's Edge* allows us to see that underlying structure, and thus to accurately interpret the market's current behavior, regardless of the price on the chart.

### **Strange Attractor**

The term *nonlinear* also deals with the self-organizing Strange Attractor. The Strange Attractor's main value is that it allows us to see the order in the underlying structure of highly irregular, complex, and turbulent systems. It is also extremely sensitive to what Edward Lorenz (1963) terms the Butterfly Effect. That is, even the smallest change in initial conditions will show up as a huge change in conditions down the road. He describes the Butterfly Effect this way:

The wing movement of a butterfly in Peru may later, *through an extremely complex series of unpredictably linked events*, magnify air movements and ultimately cause a hurricane in Texas. (p. 8)

This is a radical idea, and very important in trading. *The Fractal's Edge* is based on this concept. The Gatekeeper, the Accelerometer, the Momentum Oscillator, and the Psychometric Evaluators are the Strange Attractors of our system.

### **Fractal Structure**

Fractal structures exist in complex systems. They are self-similar, determined by definite rules, and repeat themselves over all scales of measurement. For example, a mountain range contains a series of mountains that form the peaks and valleys characteristic of all mountain ranges. If we look carefully at the silhouette of one mountain in the range, we will see that it, too, is irregular in structure, with its own peaks and valleys, and quite similar to the whole mountain range.

If we go a step further and examine with a magnifying glass the silhouette of a rock that fell from the mountain, we would see another self-similar fractal of the entire range with its own peaks and valleys. Finally, if we were to examine under a microscope the silhouette of a very small grain of sand from the rock, we would again see the fractal image of a mountain range. Even though the grain of sand, the rock, and the mountain are only fractals of the mountain range, they still contain all the characteristics of the whole.

## **Graphic Representation**

Charts are a graphic representation of the market's trading system. Because the markets are complex and chaotic, the charts contain fractals that repeat themselves over all scales of measurement. To illustrate, when we look at a monthly chart (one example of a scale of measurement), we see the typical ups and downs that we would expect to find on a weekly chart. Likewise, we will see a similar pattern on the daily chart that we see on the weekly, and so on down to a six-minute chart.

Each chart, over all scales of measurement (monthly, weekly, daily, hourly, and six-minute) is a self-similar fractal of the next higher chart. What is more, the irregular ups and downs of price movements within the same chart form fractals as well. It is precisely those fractals that are the key to how the markets organize themselves.

So that, in a nutshell, is why we say that chaos is "the nonlinear, deterministic behavior of certain systems, as the appearance of strange attractors or fractal structure in graphical representations of a system's evolution."

Put more simply, Chaos Theory is the attempt to see and understand the underlying order of complex systems that at first glance may appear to be without order. The remainder of this course will teach you how to see the underlying order of the markets so that you can make profitable trading decisions.

## **Why Apply Chaos Theory to the Markets?**

For most of our lives, we have been taught to think in linear, Newtonian terms. We have been led to believe that for every effect, there is a cause; for every action, there is an equal but opposite reaction. If we want to prove or disprove a hypothesis, we employ the scientific method, and then analyze our data through the use of statistics.

At the root of all of our statistical tools is linear mathematics with its averages, standard deviations, variances, confidence intervals, probability estimates, and so on. Outliers, random noise, and data that fail to fit a particular statistical model are assumed to be part of "measurement error" and while they are "accounted for," they are, in effect, disregarded.

Furthermore, when we apply linear tools or Newtonian thinking to stable, non-turbulent data, the results are actually very useful.

However, if we assume that linear math is also adequate for analyzing the behavior of such complex systems as the weather, the flow of traffic in city streets, or human brain activity, we are making a big mistake. This is because these systems are nonlinear in nature, and analyzing them requires a nonlinear approach.

For example, what happens in the markets is overwhelmingly influenced by the individual decisions of all active traders. Since traders base their decisions on their own personal motives, needs, desires, hopes, fears, and beliefs, the markets, as a reflection of their interaction with the mass of traders, are inherently complex, nonlinear systems.

Yet most market experts ignore this fact when developing trading systems that

appear to work. They analyze decades of charts and employ highly sophisticated linear statistics to "fit" these historical data to a particular model.

Using such processes has led to pattern recognition programs (head and shoulders, 1-2-3 formations, triangles, pennants, and so on), as well as to many of the other market indicators such as Bollinger bands (based on standard deviations), reserve strength indicators, and others. These tools will accurately point to where you should have entered and exited the market for maximum profit.

However, while all systems and indicators that are based on linear techniques are accurate predictors of past performance, they do not work well in present time. Nevertheless, the experts continue to apply linear tools to analyze these nonlinear phenomena, and they continue to obtain indifferent results (Gleick, 1987).

Thus, the implication for the millions of traders who use techniques, tools and systems based on linear models is that they are doomed to losing often and winning only occasionally. This is because such models are grounded in the mistaken assumption that the future will be like the past.

But the fact is that every broker, every publication, every trading system including this one, and every Internet site that deals with trading publishes this warning: *Past performance is not necessarily indicative of future results. The risk of loss exists in futures trading.*

However, since Chaos Theory is totally nonlinear in its approach to analysis, it lends itself particularly well to systems whose behavior appears to be random, unpredictable, and "chaotic." Employing rigorous mathematical methodology, Chaos Theory is especially useful for revealing the highly ordered underlying structure of turbulent systems.

Take a rapidly running river, for example. The underlying structure of the riverbed, with its rocks, boulders, trenches, shallows, and sandbars is what produces the rapids, the white water, and the eddies we see on the surface. If we could see the bottom, we could accurately predict the surface conditions at any given spot along the river.

The markets are a lot like a river: they, too, have their rapids, their white water, and their eddies. And like rivers, they also have an underlying structure. If we could see that structure, we could more accurately make sense of the chart on our computer screens. And that is the exact purpose for which *The Fractal's Edge* was created. It allows us to "see" the underlying structure of the markets. What's more, it allows us to see the Butterfly Effect in action. Here's how:

- Price is the very last thing to change in the markets.
- Before there is a major change in price, there is a change in momentum. The Momentum Oscillator alerts us to those changes.
- Before there is a change in momentum, there is a change in acceleration. The Accelerometer is extremely sensitive to changes in the speed at which the momentum is moving.



- Before the speed changes, there is a change in volume. This is measured by one component of the Psychometric Evaluators, a histogram of the raw market volume.
- Before the volume changes, traders make their individual chaotic decisions based on their own personal motives, needs, desires, hopes, fears, and beliefs. This massive psychological influence is measured by combining the second component of the Psychometric evaluators, the volume:range ratio with the raw volume. This is the butterfly's wings, the first event in a series that leads to price change.

Beginning with the traders' decisions, each of these effects sets in motion a complex series of unpredictably linked events, and each event exerts exponentially more influence on the outcome of the next. Price, momentum, acceleration, volume, and the mass mind reflected in the decisions of millions of traders are the rocks, boulders, trenches, shallows, and sandbars of the market's underlying structure. Being able to see the structure enables us to move in rhythm with the markets, and moving in rhythm with the markets enables us to make consistently profitable trades.

## Recap of Chaos Theory

- Chaos is the nonlinear, deterministic behavior of certain systems, as the appearance of strange attractors or fractal structure in graphical representations of a system's evolution.
- The market is a complex, chaotic system whose graphical representation is the bar chart.
- Applying linear tools to complex, chaotic systems is a profound error.
- Chaos Theory uses a nonlinear approach to analyzing complex systems.
- Nonlinear refers to fractional dimensions, fractal geometry, and Strange Attractors.
- The Gatekeeper, the Accelerometer, the Momentum Oscillator, and the Psychometric Evaluators are the Strange Attractors of The Fractal's Edge.
- Strange Attractors allow us to see the underlying structure of the market by keeping us aware of the Butterfly Effect.
- Being able to see the underlying structure enables us to move in rhythm with the markets, and moving in rhythm with the markets enables us to make consistently profitable trades.

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## 3. The Bar Chart

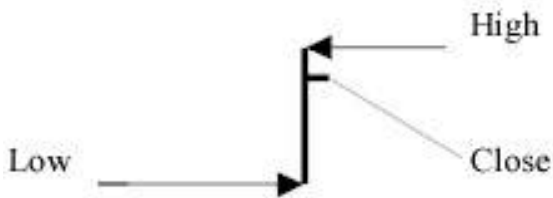
### What to Look for When Considering a Market to Enter

**In this chapter you will be introduced to the price bar chart, how it works and what to look for when exploring possible markets in which to invest.**

## What to Look for When Considering a Market to Enter

Bar charts depict time in two dimensions: the vertical and the horizontal. The vertical dimension carries information about what happened to the price of the stock or commodity during a single time period (in 6- or 10-minute intervals for an hourly chart, in one-day intervals for a daily chart, in one-week intervals for a weekly chart, and so on). The horizontal dimension carries visual information about the price history, hour after hour, day after day, so that we can see the general direction that the market is traveling.

The individual bars look like this:



The vertical line (bar) represents the range that the price traveled during that time frame. The bottom of the bar indicates the lowest price the market reached during that same time frame (hour, day, week, etc.), while the top of the bar indicates how high the market took the price.

Finally, the small horizontal line indicates the price at which the market closed during that particular time frame. The position of the close, relative to the high and the low, also tells us who (buyers or sellers, bulls or bears) was in control of the market at the end of the day.

In the example above, because the close is in the upper third of the bar, we would say that the bulls (those traders expecting the market to trend upward) were in control. If the close had been in the lower third of the bar, then we would say that the bears (those traders expecting the market to trend downward) were in control. And, if the close were in the middle of the bar, we'd have to call it a draw.

**Figure 2** below is a daily bar chart for March, 2001, Sugar. It contains approximately 120 bars, each depicting the events of a single day in the life of this commodity. All the bars successively represent about six months of market activity, and together they depict the approximate direction the market is heading.

**Figure 2 Daily Bar Chart for March Sugar**



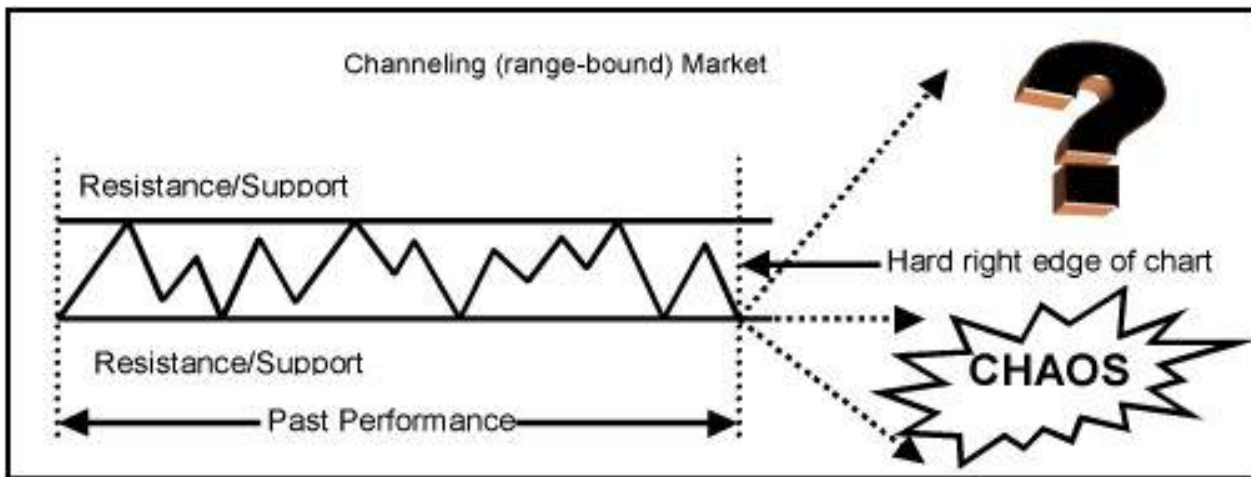
However, while we can see where the market has been up to now and the apparent direction it is taking, anyone who spends time in the market knows that past performance is no guarantee of future results. In fact, as traders, we are always left with what Elder (1993) calls "the hard right edge of the chart."

For most traders, that is the area of greatest uncertainty, for no matter how hard we try, we cannot predict the future. The one thing we do know for sure is that prices can only move up, down, or sideways—they don't go backwards, and they don't stand still.

We also know that the market spends from 70% to 85% of its time moving in narrow, sideways channels, or "trading ranges" (Roberts, 1991; Williams, 1998). Technical analysts describe these channels as having a lower and an upper boundary beyond which the price "refuses" to move. In an upward-trending market, they call the lower boundary "support" and the upper boundary "resistance." The reverse is used for downward-trending markets.

It is precisely in this area of the market's life that most traders lose. They spend the majority of their time entering and exiting a market that is going nowhere. They are hoping to get in on the very beginning of a trend by anticipating a "breakout" from the channel. But time and time again, they come up against the "hard right edge" of the chart, with no way of knowing whether the "breakout" (a price move above or below resistance) is real or not. To get a clearer idea of this quandary, let's look at the "generic" sideways movement of the market depicted in **Figure 3**.

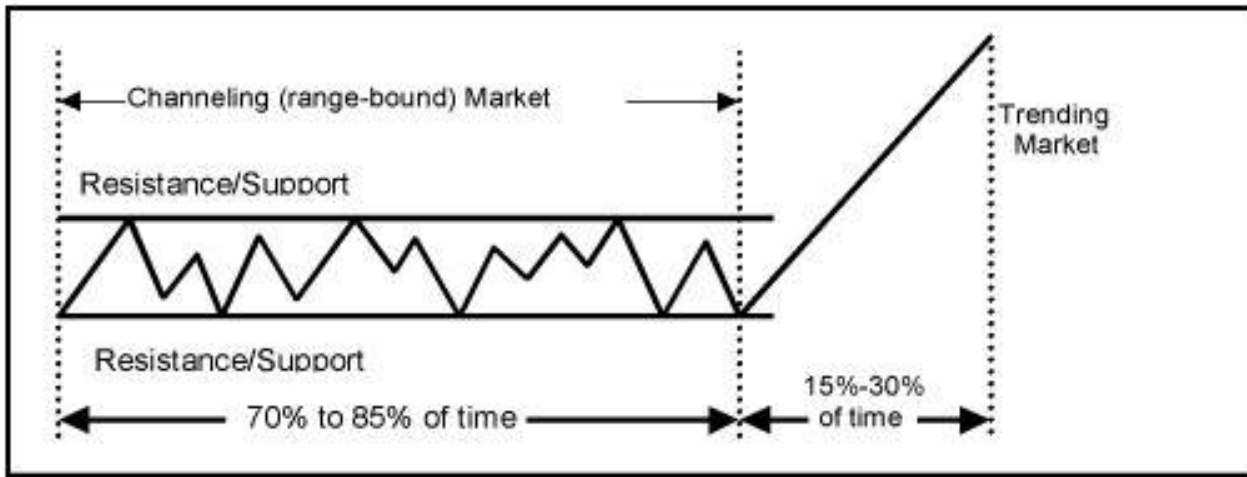
**Figure 3 A Channeling (range-bound) Market**



Remember, this is how the market spends 70% to 85% of its time, and at the hard right edge of the chart, uncertainty reigns, and anything is possible. Keep in mind that a great deal of energy is stored in that channel, so when a trend begins, there is a lot of steam behind it.

**Figure 4** shows a trend that began as a "breakout" from the channel. Pretend for a moment that you were interested in this market. You had no way of knowing for sure what direction the trend would take, but from all of your research, you were sure the price would be dropping. So when the breakout was to the up side, you were caught off guard and missed getting into the market early.

**Figure 4 A Trending Market After a "Breakout"**



## 4. The Fractal

### Key to Understanding How the Markets Organize Themselves

In this chapter you will learn what fractals are and how to use them to identify profitable entry points into the markets.

#### What are Fractals?

Since our approach to the markets involves Chaos Theory and its application through fractal geometry and nonlinear mathematics, it would be well for you to have at least a layman's grasp of how it all works.

Simply put, fractals are self-similar patterns that repeat themselves. Each smaller part of the fractal resembles the over-all pattern of the entire fractal.

Fractals frequently appear in nature. For example, take a look at the computer-generated image of a fractal below. Look like anything you might have seen in real life? Notice that the shape of each individual petal is in the same shape as each leaf which, in turn, is in the same shape of the entire limb. That's a fractal.

#### Computer-Generated Fractal



If you start looking around, you will begin noticing fractals everywhere: in the clouds, in bird's wings, in the physical structure of DNA, in mountain ranges, in the human nervous system, the blood system, root and branch systems of trees, the order of planets and stars, the atomic structure of matter and in the markets themselves. It's one of the key ways that nature uses to grow, organize and repeat itself. Because the markets share the same properties and behaviors as naturally occurring fractals, we can begin to see how the markets organize themselves and use that information to make effective trading decisions.

## Fibonacci Ratios: Nature's Own Mathematics

Fractals come into being through a process called iteration, or iterative accretion (addition). That is, one effect is added to another effect, and the sum of those two becomes a larger effect that is added to yet another one, and on into infinity.

Pioneers of Chaos Theory in the markets were looking for patterns in the way fractals form. They employed supercomputers to perform calculations so complex that they required a rocket scientist's understanding of nonlinear equations. Then, Williams (1998), in his seminal work on applying chaos theory to trading, discovered certain ratios among moving averages that very closely approximated the earlier, more complex formulas. These ratios, in turn, are relatives of Fibonacci numbers.

Fibonacci numbers are probably the earliest model of iterative accretion, and are a summation sequence that looks like this: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55.....infinity. If you add any two adjacent numbers in the sequence, the result will be the next higher number. The interesting thing about the relationship of the numbers in the sequence is that beginning with 3, each number is approximately 62% of the next number, no matter which two numbers you use.

Not only that, but if you convert three or more consecutive ratios to decimals ( $5/8=.6250$ ;  $8/13=.6154$ ;  $13/21=.6190$ ), subtract the adjacent results and use their absolute values ( $.6250-.6154=.0096$ ;  $.6154-.6190=.0036$ ), divide the smaller of the remainders by the larger ( $.0036/.0096=.3810$  after accounting for rounding error), and add that result to the last number in your original three, you'll get a perfect

1.00. In addition, you will have seen two very important numbers: 62% and 38%.

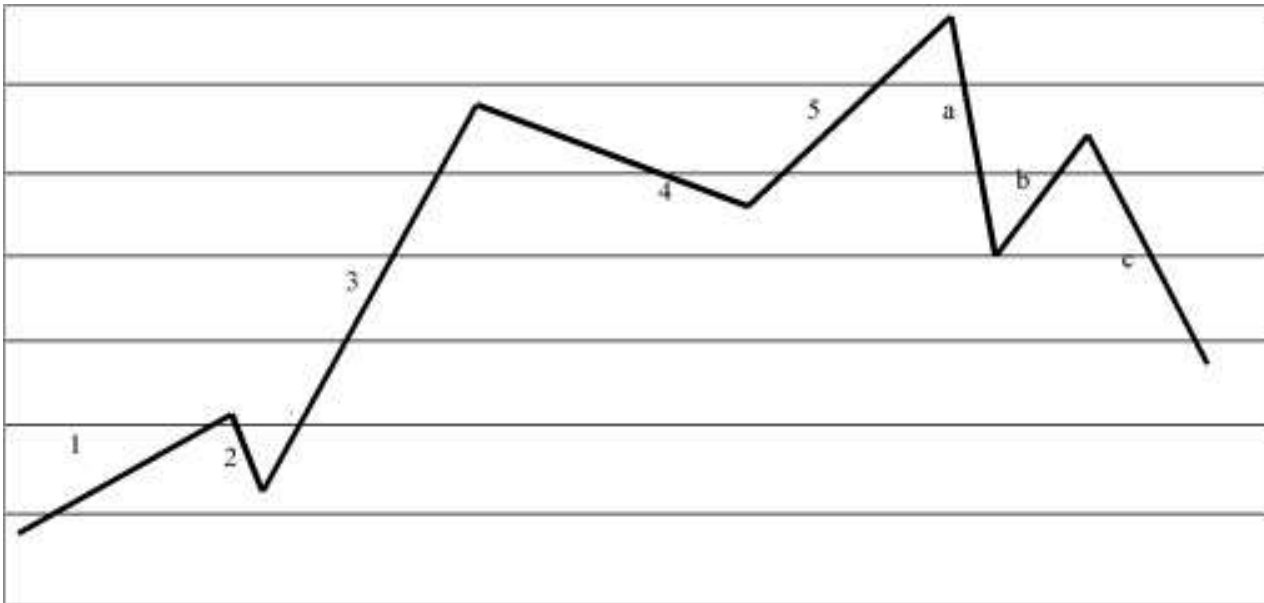
(If you didn't follow the math, don't worry. You don't need to remember this in order to use *The Fractal's Edge*. All the math you need is programmed into the *The Fractal's Edge* spreadsheet file.)

According to Barnsley (1988), these numbers are found throughout nature. Seed patterns on flowers, the ratio of the heart's contracting and resting length, the Nautilus shell, or the location of the human navel at 62% of a person's height, are all examples of Fibonacci relationships. These same relationships are also the basis for many of the calculations used in *The Fractal's Edge*.

## The Elliot Wave: Secret to the Rhythm of the Markets

R. N. Elliot, a pioneer in pattern recognition, discovered that the market moves to the rhythm of a sequence of five impulse waves that travel in the direction of the current trend, and three corrective waves that travel in the opposite direction. Figure 5 illustrates this series on a daily chart. His discovery became known as Elliot waves, and they are awash with Fibonacci relationships.

**Figure 5 The Elliot Wave on a Daily Chart**

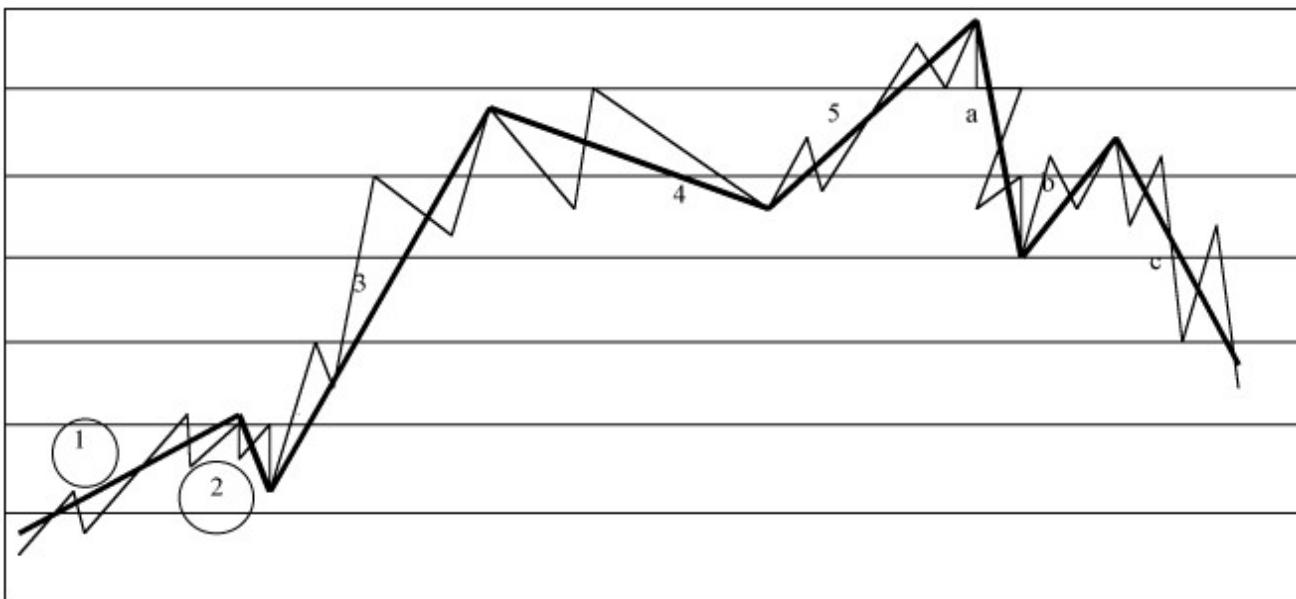


Williams had been analyzing the behavior of the Elliot wave because he believed that it represented the underlying structure of the market, and that the fractal was the underlying structure of the Elliot wave. According to Williams, the market's rhythm is similar to the sequence of waves depicted in Figure 5 above, but with these interesting notes:

- Wave 1 marks the beginning of a trend in a new direction. It is usually short and is preceded by a change in momentum.
- Wave 2 is a price correction wave that will retrace approximately 38% of Wave 1. It is caused by traders who don't realize that a new trend has begun. In the case of Figure 5, they enter the market on the mistaken assumption that Wave 1 is just another corrective wave in a continuing downward trend, so they sell at the top of Wave 2, and are generally wiped out as Wave 3 develops.
- Wave 3 is the most powerful in the sequence. It will generally be at least 68% longer than Wave 1 and its slope is usually steeper than the other waves. Wave 3 is also fueled by heavy volume, and has the potential to be the most profitable in the sequence.
- Wave 4 is a price correction wave that will retrace 38% - 50% of Wave 3. It can be more irregular and somewhat longer in terms of time than the other waves. Wave 4 is caused by profit taking after Wave 3.
- Wave 5 is the last wave in the trend. It represents one last effort to reach new high (low) prices. While it appears to be another powerful thrust in the direction of the current trend, its slope is generally not as steep as that of Wave 3, and it is not accompanied by heavy volume.
- Waves a, b, and c are corrective waves. Wave a may extend below the end of Wave 4, Wave b will retrace about 38% of Wave a, and Wave c will retrace about 68% of Wave 3.

In our earlier definition of a fractal we said that each chart, over all scales of measurement (monthly, weekly, daily, hourly, and six-minute), is a self-similar fractal of the next higher chart. Figure 6 depicts the Elliot Wave sequence of an hourly chart superimposed over the Elliot Wave sequence on the daily chart we saw in Figure 5.

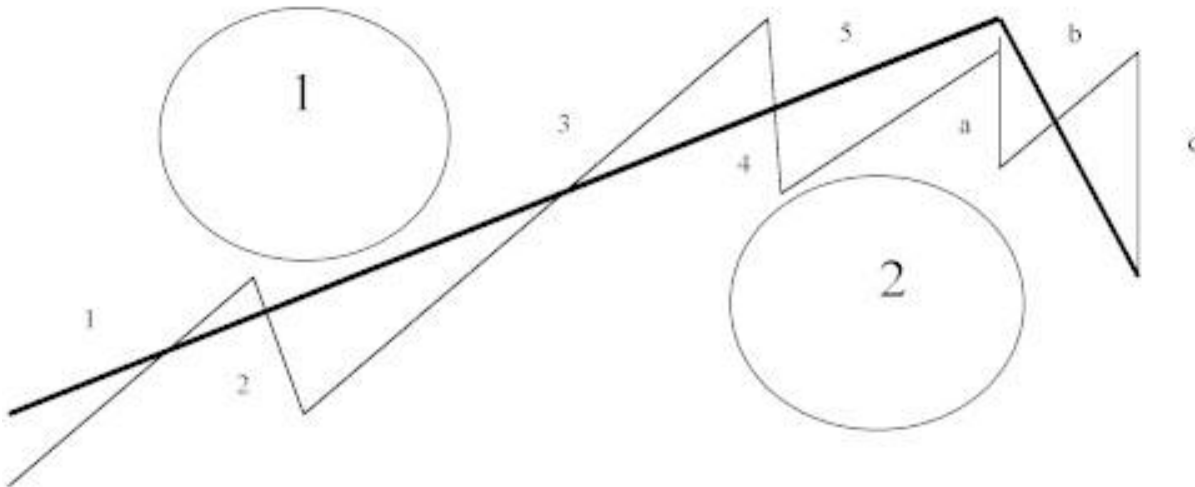
**Figure 6. The Elliot Wave on an Hourly Chart Superimposed Over a Daily Chart**





Look at daily Waves 1 and 2 in Figure 6. Can you count the sequence of hourly Waves 1-5 and a, b, c? Figure 7 shows you a clearer picture.

**Figure 7. The Elliot Wave on an Hourly Chart Superimposed Over a Daily Chart**



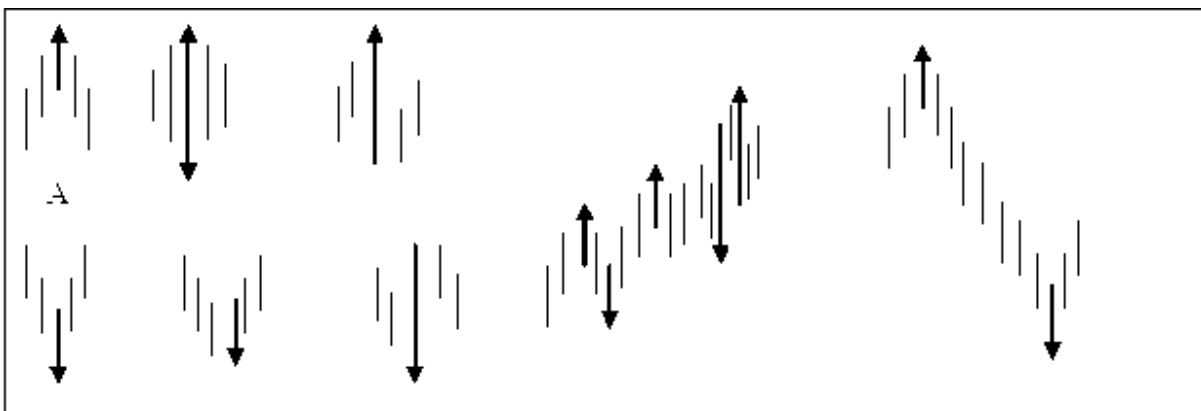
What you are really looking at is the fractal relationship between the two time periods. And what is more, you are getting a glimpse of the market's underlying structure.

### Fractal Formations

The irregular ups and downs of price movement within the same chart form fractals as well. It is precisely those fractals that are the key to how the markets organize themselves. And it is those fractals that we will most closely study, because we will work with them every day.

This type of fractal is composed of at least five consecutive bars, three with higher highs (or lower lows) followed by two with lower highs (higher lows). Figure 8 illustrates this ideal fractal pattern (the two on the far left labeled "A") and depicts several variations as well. Notice that in every case, the fractal bar (the one with the arrow) is higher (lower) than the two bars preceding it and the two bars following it.

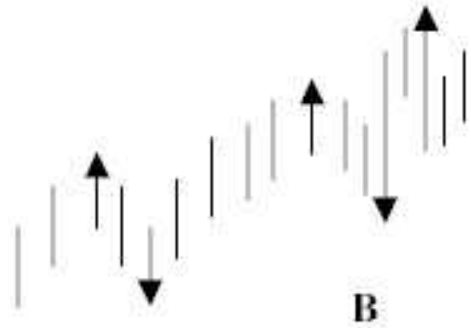
**Figure 8. Frequently-Occurring Fractal Formations**



## How to Use Fractals to Profitably Enter the Market

It is important to remember that fractals form in response to a change in mass trading behavior. For example, as the market moves up, there will come a time when there will be no buyers willing to enter the market. Consequently, prices begin to fall because no one wants to buy. Then Chaos, in the form of some new bit of incoming information, motivates further buying and the market moves up again.

Illustration B is an example of what this behavior might look like on a chart.

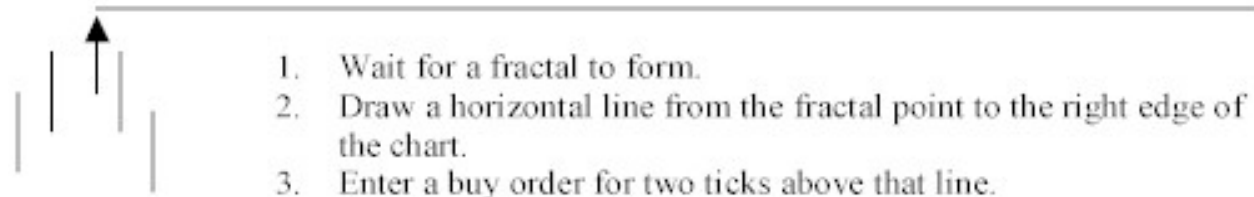


Furthermore, what we are seeing between each of the up and down fractals is an Elliot wave of some degree. For example, if we look carefully at illustration "B" above, we can see what might be a Wave 1 developing over the last 17 bars on a daily chart. Can you see the five Elliot waves that would be found in an hourly chart covering the same 17 days?

Illustration "C" makes these waves more visible.



Since we will always use the fractal as the fundamental signal for entering the market, the following sequence of illustrations will show you how, in a trending market, we do this:



When we use the word "tick," we mean units of price, usually cents. In Illustration 2, for example, if the price for the commodity represented by the high of the fractal were 9.50, we would enter an order to buy one contract at 9.52. Let's suppose that this is the case with Illustration 2 below. The first buy fractal was formed after the fifth bar, so we would place an order to buy one contract at 9.52.

The first sell fractal formed after the seventh bar, at 8.70, so we would also enter an order to sell one contract at 8.68. We now have two active orders: one to buy and one to sell. If one order is filled, the other will be cancelled. So now we can sit back and see what develops, because we don't really care what direction the market takes.



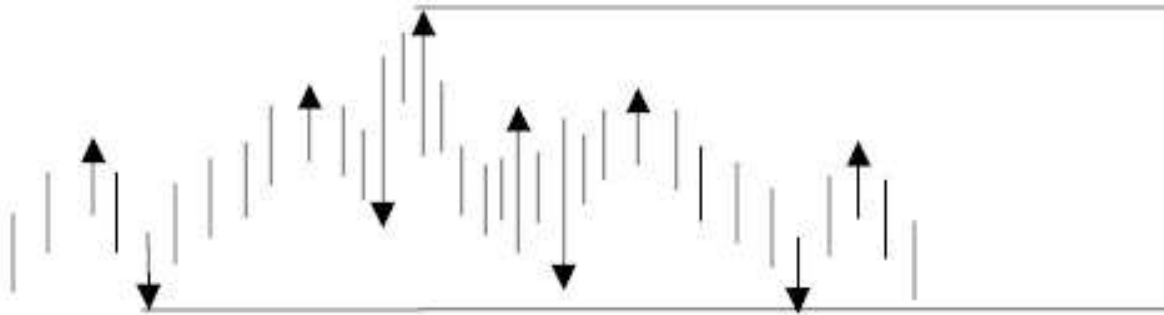
4. If a sell fractal forms, draw a horizontal line from the fractal point to the right edge of the chart.
5. Enter a sell order for two ticks below the line.

In Illustration 3, the first buy fractal was "hit" on the ninth bar, so our buy order was filled and our sell order was cancelled. We now have one active contract. The second buy fractal, formed after the 12th bar, was at 9.75. We would again go long the market (place another buy order) at 9.77. This fractal was hit the next day, on the 13th bar. Our buy order was filled, and now we are long the market two contracts. The 13th bar was also a sell fractal, but we would ignore it and all sell fractals for now. We would continue adding contracts as each fractal was hit, until the trend changes.



The scenario above illustrates how we use fractals to enter the market and to add contracts to our trading business as the market continues to trend. A major problem with relying only on the fractals is that we have no clue as to when the trend may change, or even whether the market is trending.

For all we know, the chart in Illustration 3 above is actually range bound between the lowest fractal and the highest. It is entirely possible that the entire scenario could play itself out as depicted in Illustration 4 below. With this type of market behavior it is impossible to keep any gains you might make and you could find yourself whipsawing all over the chart. So, while the fractal is a very powerful indicator of where to enter the market and where to add more contracts, it is only useful when used in conjunction with the rest of the tools in The Fractal's Edge.



## Review of Fractals

- Fractals come into being through a process called iteration, or iterative accretion (addition).
- Fibonacci numbers are probably the earliest model of iterative accretion, and are a summation sequence that looks like this: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55.....infinity.
- Fibonacci ratios are found throughout nature. These same relationships are also the basis for many of the calculations used in The Fractal's Edge.
- The Elliott Wave is a sequence of five impulse waves that travel in the direction of the current trend, and three corrective waves that travel in the opposite direction.
- Elliott waves contain Fibonacci relationships.
- The Elliott Wave represents the underlying structure of the market, and that the fractal is the underlying structure of the Elliott wave.
- The bar chart of a lower time frame is a fractal of the next higher time frame.
- The irregular ups and downs of price movement within the same chart form fractals. Those fractals are the key to how the markets organize

themselves.

- This type of fractal is composed of at least five consecutive bars, three with higher highs (or lower lows) followed by two with lower highs (higher lows). The middle bar in the series is higher (lower) than the two preceding and two following bars.
- What we are seeing between each set of up and down fractals is an Elliott wave of some degree.
- Fractals are used to locate entry points into the market, and points at which to add other contracts.
- While the fractal is a very powerful indicator of where to enter the market and where to add more contracts, it is only useful when used in conjunction with the rest of the tools in *The Fractal's Edge*.

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## 5. The Gatekeeper

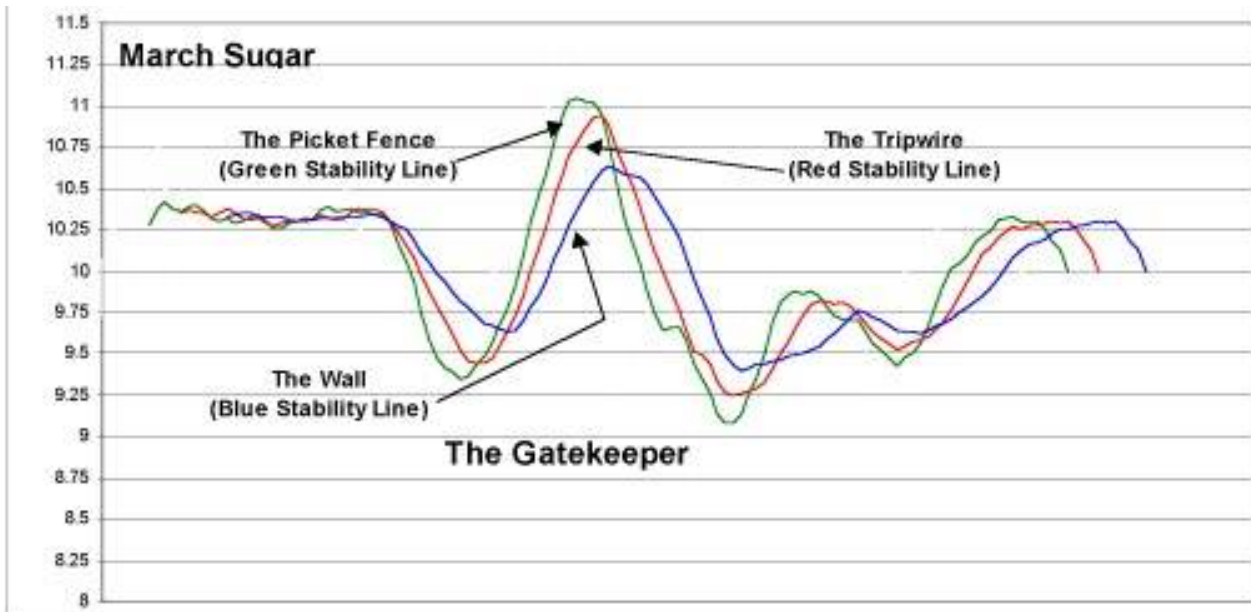
### Staying Out of Trouble

In this chapter you will learn how to use the Gatekeeper as a tool to assist you in deciding when it is safe to enter the market and when it is time to exit. This tool will also help you to know how long to stay with a trend so that you can maximize the profit potential of your trade.

### What is the Gatekeeper?

The Gatekeeper is a series of three Stability Lines (The Wall, The Tripwire and The Picket Fence) that combine to help us know when to enter the market, when to stay with the current trend and when to exit the market. The Stability Lines are based on fractal geometry and nonlinear mathematics. (See Figure 9 below.)

Figure 9. The Gatekeeper



In his system, Williams (1998) calls this combination of moving average lines the Alligator. Each of the Alligator's moving averages is based on Fibonacci ratios. For example, Williams' "Balance Lines" were constructed using time frames that are each approximately 62% of the next higher frame. However, we have chosen to use a derivative of the Fibonacci sequence that is obtained by applying an additional computation which also allows an iterative accretion of the Fibonacci sequence to occur.

So, while the Gatekeeper's Stability Lines are based on time frames that are each about 62% of the next highest time frame, they were constructed using an alternative sequence of moving averages. This adjustment allows us to be more certain about where a trend is beginning or ending, and more precise in entering and exiting the market.

## The Wall

Figure 10 below shows the interaction of the three Stability Lines with the bars on a daily chart. The blue moving average line represents the time frame we are currently trading (hourly, daily, weekly, and so on) and indicates where the price would be if there were no new information (chaos) coming in. It marks the boundary between stability and chaos, and is like a high stone wall that the price must clear before it makes a major change in direction. In fact, we call it "The Wall."

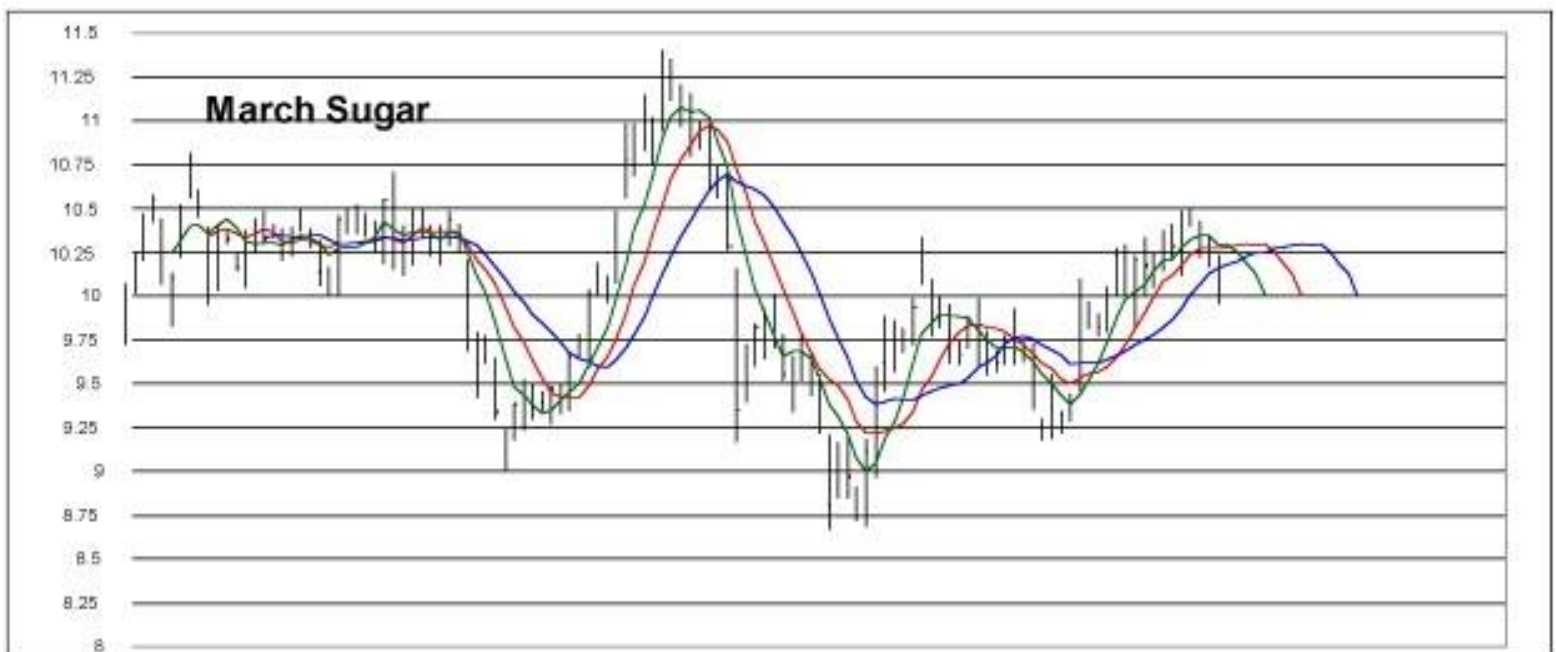
## The Tripwire

The red moving average line, or Tripwire, is the Stability Line of one significant dimension lower. If the Wall is on the daily chart, the Tripwire is on the hourly time frame. We call this line the Tripwire because it provides an early warning that the trend may be changing. If the price closes between the Tripwire and the Wall (the red and blue Stability Lines), it is a warning to exit your trade. However, since all of the constituents of The Fractal's Edge should be used together, the other components may indicate only that you tighten your stops. You'll learn more about this later.

## The Picket Fence

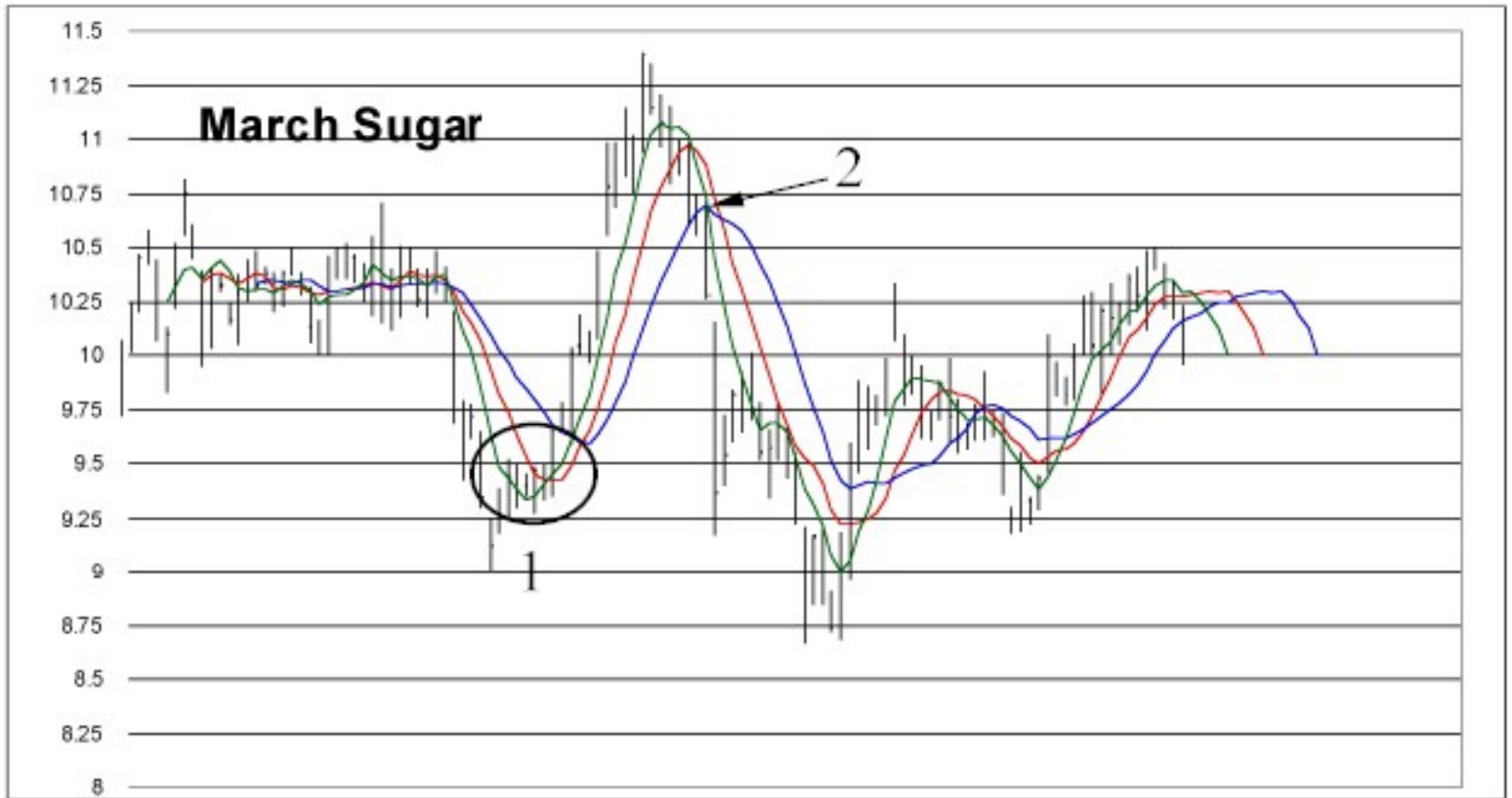
The green moving average line is the Stability Line of yet another significant time frame lower. It's like a little Picket Fence that warns you to keep a safe distance from the Tripwire.

**Figure 10. Interaction of the Stability Lines on a daily chart (March Sugar)**



As bars begin to cross the Picket Fence and get into the Tripwire, the Gatekeeper closes the gate on trading, and the gate remains closed until the price has enough momentum to "escape" over the Wall. The signal that the gate is closed is when any two, or all three Stability lines cross over one another. As long as they remain intertwined, the gate is closed (see the area marked 1 in Figure 11 below). When a bar "escapes" over the Wall, it could be a signal that a new trend is forming (see area 2). Remember, however, that price is always the last thing to change. To take full advantage of the Butterfly Effect, all of the components of The Fractal's Edge should be used together.

**Figure 11. The Gatekeeper on a daily chart (March Sugar)**



## Using the Gatekeeper to Enter the Market

Recall that earlier we said that the market spends 70% to 85% of its time in a narrow, range-bound channel, and at the hard right edge of the chart, uncertainty reigns, and anything is possible (see Figure 12 below).

**Figure 12. A Range-bound Market**



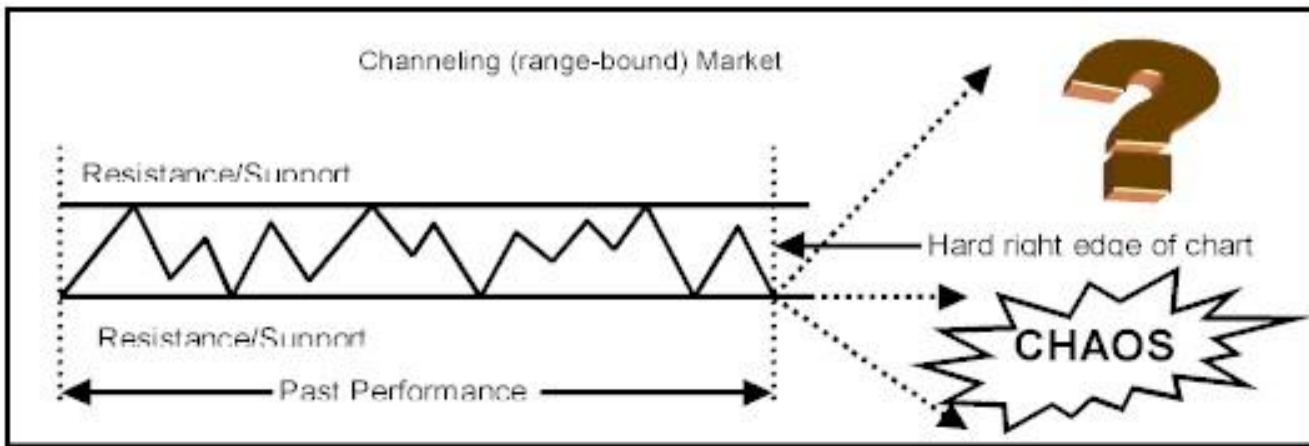


Figure 13 below is a real-life example of a range-bound, channeling market found in the March, 2001 Sugar chart. We are always looking for a market that is moving in a narrow, sideways channel because a great deal of energy is stored there. When a trend begins, there is a lot of steam behind it and this is where the greatest opportunity for profit exists.

So, how do we determine where the trend begins, and where to enter the market for the greatest profit potential? Simple, we use the gatekeeper and the fractal together.

First, we'll identify the latest fractal that is outside the Gatekeeper's blue and green stability lines. As you can see in Figure 13, the Gatekeeper has closed the gate as signified by the intertwining Stability Lines. All of the bars so far have been "captured," by the Gatekeeper, and we have to wait until one of them takes on enough energy to escape over the Wall.

**At no time do we want to try to outguess the market, predict the future, or have any preconceived notions of what the market is going to do.** And that is the great thing about using the Gatekeeper in conjunction with the fractal. We don't have to worry about which way the market moves. It will go where it wants to go and we always want what the market wants. At the moment, we have no idea whether the market will break to the upside or the downside, or whether it will continue channeling.

On the chart in Figure 13, identify the latest buy fractal and the latest sell fractal by placing an arrow above the buy fractal bar and below the sell fractal bar. As a rule of thumb, we only count as buy or sell fractals those where the fractal bar is at least two-thirds outside of the Gatekeeper's nearest Stability Line. Remember to draw a horizontal line from the top of the buy fractal and the bottom of the sell fractal to the right edge of the chart. Compare your work with what we did in Figure 14.

**Figure 13. A range-bound, channeling market (March Sugar)**

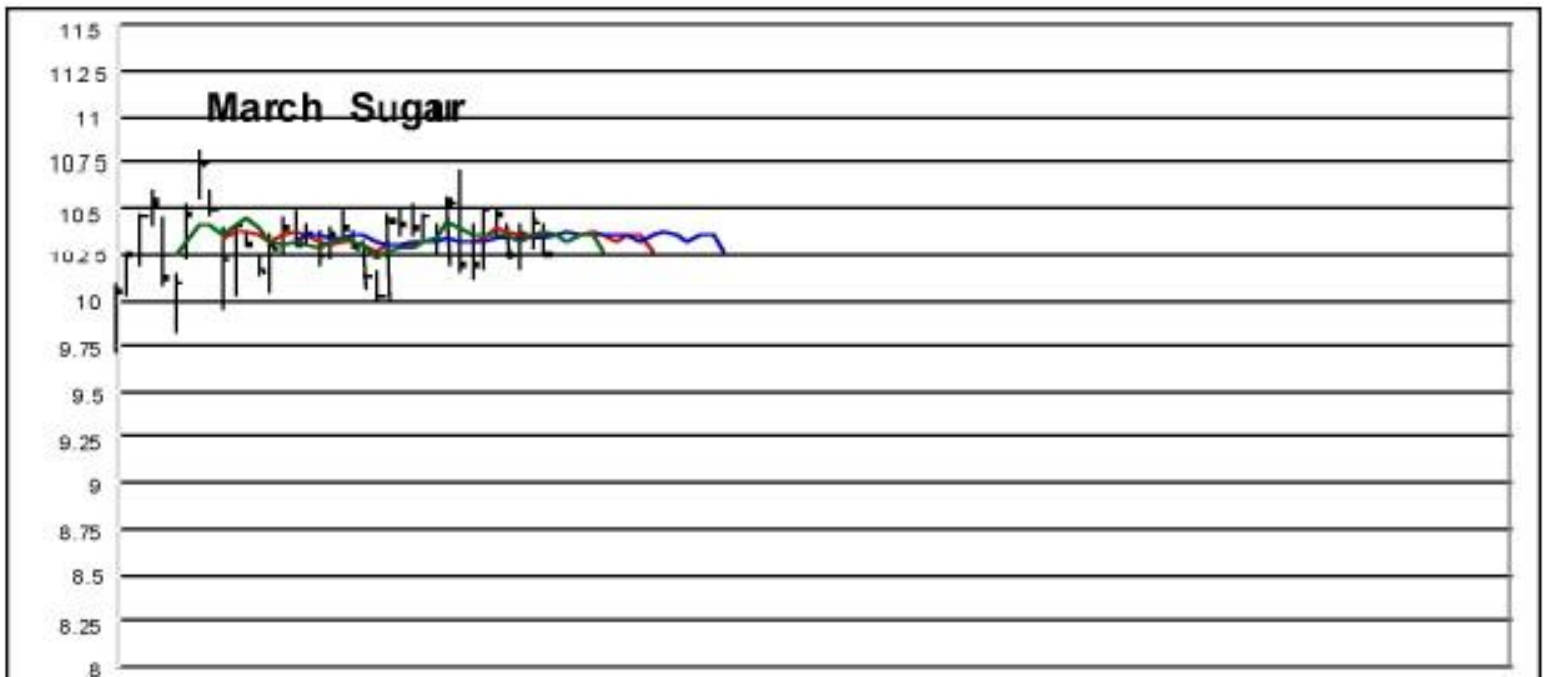
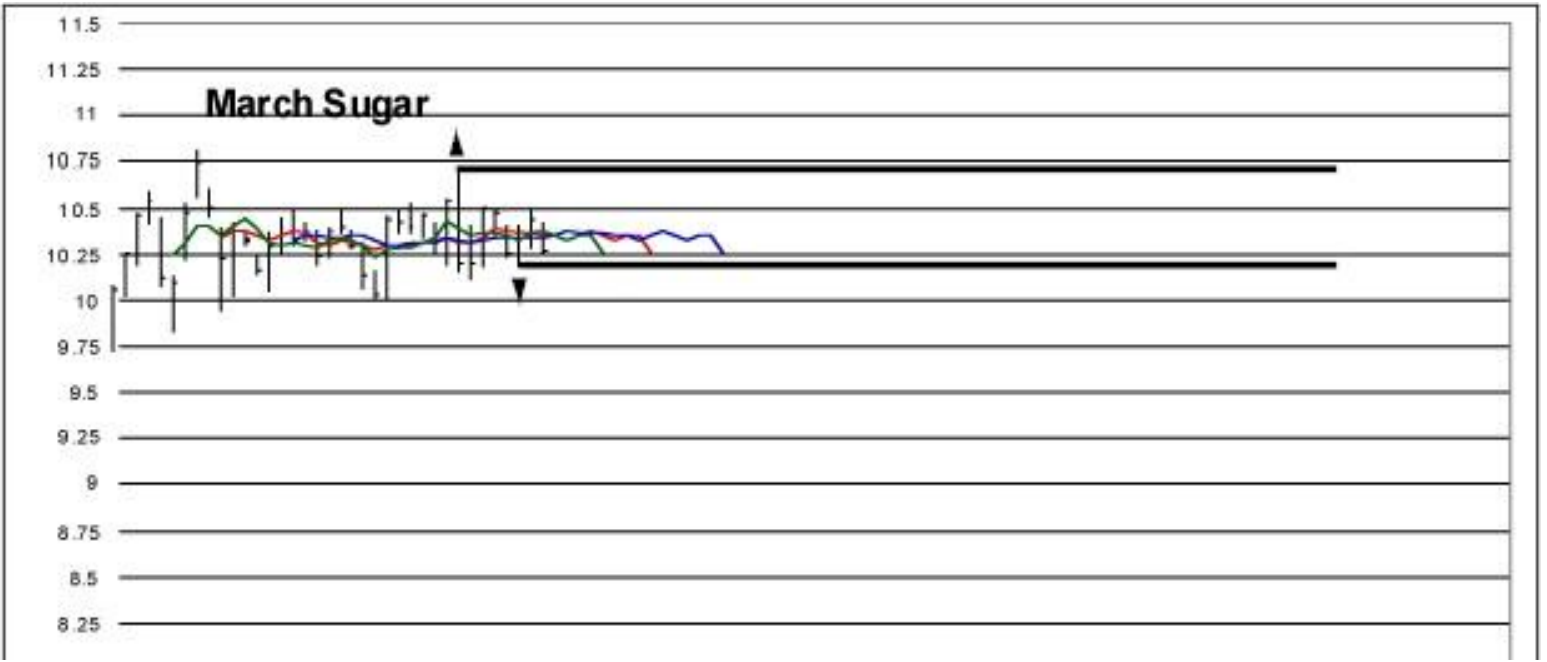


Figure 14 shows where the latest buy and sell fractals are located on the chart. We will use these as our entry points until newer buy or sell fractals are formed. We have also drawn horizontal lines from both fractal bars toward the right edge of the chart. We then place buy and sell orders for two ticks above the buy fractal, which is at 10.70, and two ticks below the sell fractal, which is at 10.18. In this case, the buy order would be at 10.72 and the sell order would be at 10.16.

Now that our orders are in place, all we have to do is go with the flow as we watch for new fractals to form, or for a breakout to occur. Because we are not locked into any particular position, we don't really care which way the market decides to go, because whichever way it goes, we're going with it.

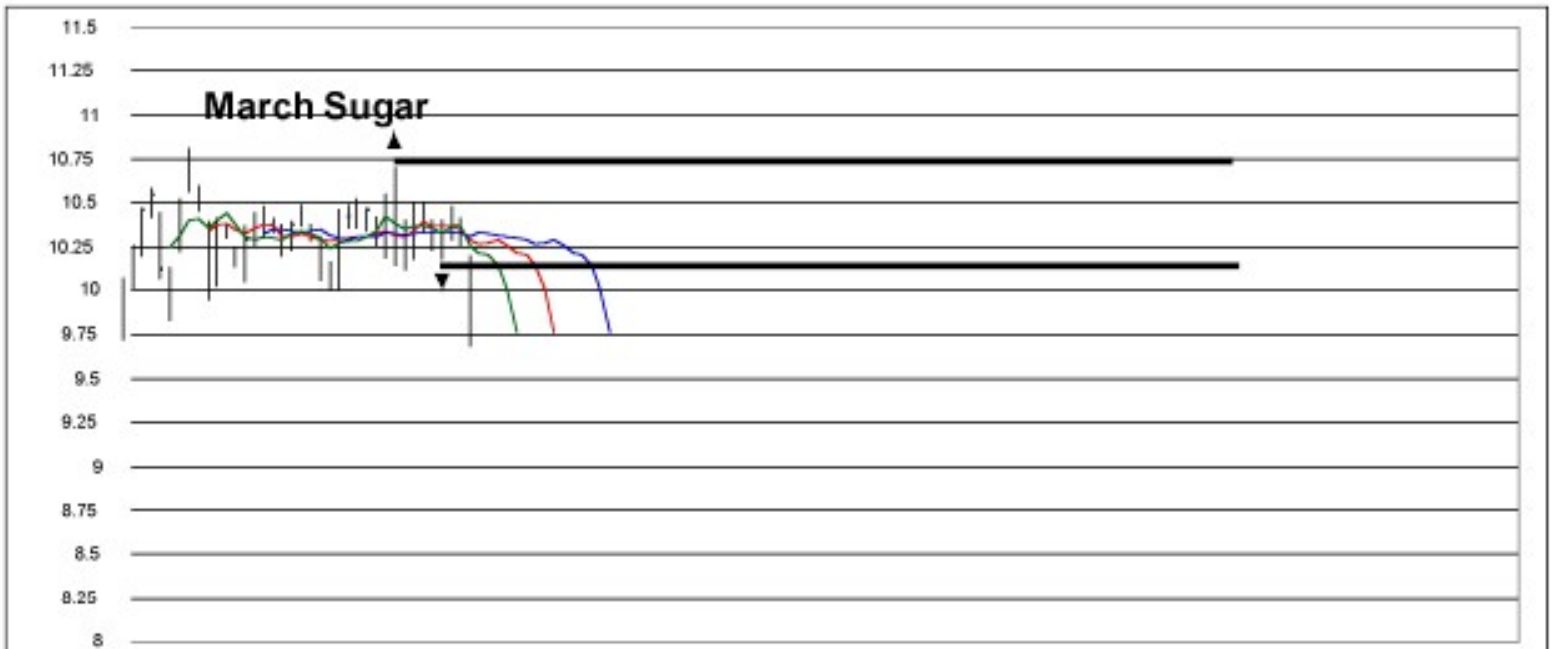
Remember we are monitoring the underlying structure of the market, but the fractal and the Gatekeeper are only a part of the tools that help us do that. To get the whole picture, we'll be watching the Psychometric Evaluators, the E-Wave, the Accelerometer, and the Momentum Oscillator for the Butterfly Effect.

**Figure 14. Identifying the Latest Buy and Sell Fractals**



Contrast Figure 14 with Figure 15a (a breakout). Notice that the gate is now wide open and the price has crossed our line. Our sell fractal has been hit, we entered the market at 10.16 as we had planned, and watched the market close at 9.76.

**Figure 15a. The Breakout**

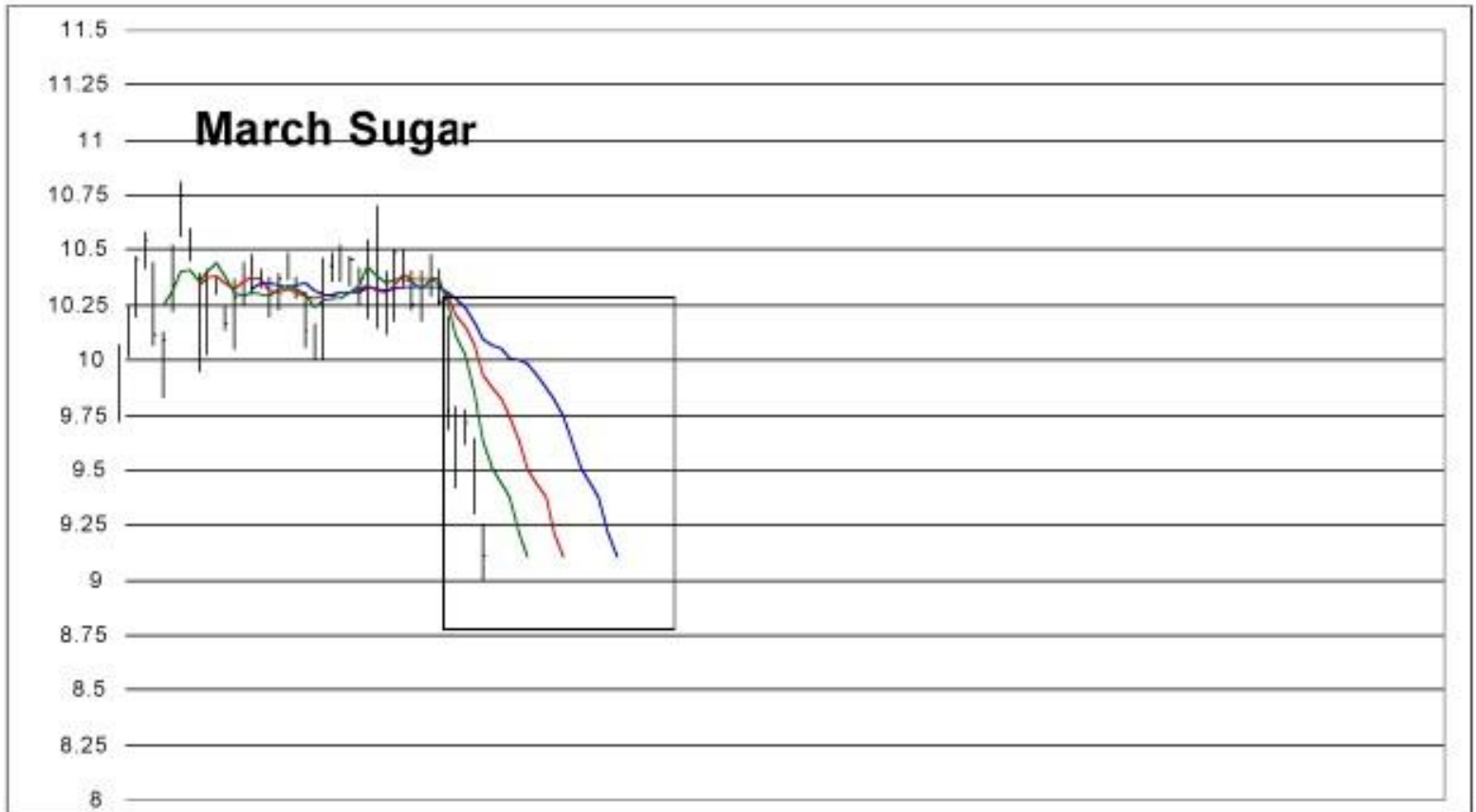


Later in the course we'll show you how to calculate your gains, but for now, we'll just tell you that each tick on the Sugar chart is worth \$11.20 to us. In the trading jargon, we would say that Sugar is worth \$11.20 a point. So, in doing the math, we subtract 976 from 1016 and multiply the result by \$11.20. This means that today we grossed \$448.

You may be thinking that this is pretty easy, and you're right. It is easy to make money in the market, but it's another thing to keep it. We'll also teach you how to do that. But for the time being, let's look at what has been happening in the market since we opened our little sugar business.

The box in Figure 15b shows the last five days of activity, during which we have seen the price plunge from 10.16 (our entry point) to a current closing price of 9.11. This steep drop has caused us to gain 105 points for a dollar value of \$1,176. Not bad for five days' work! Just another friendly reminder here-it's not making the money that we have to concentrate on, it's keeping our profits that matters.

**Figure 15b. March Sugar After a Breakout**



## Using a Stop Loss to Minimize Your Risk and Protect Your Profits

Nonetheless, here we are, at the hard right edge of the chart, looking at what is apparently a downward trend. And, we're sitting there with a gross profit of \$1,176. What do we do to protect that gain? This is where the "stop loss" comes in. The term is actually a misnomer, though, because it is really just another buy or sell order.

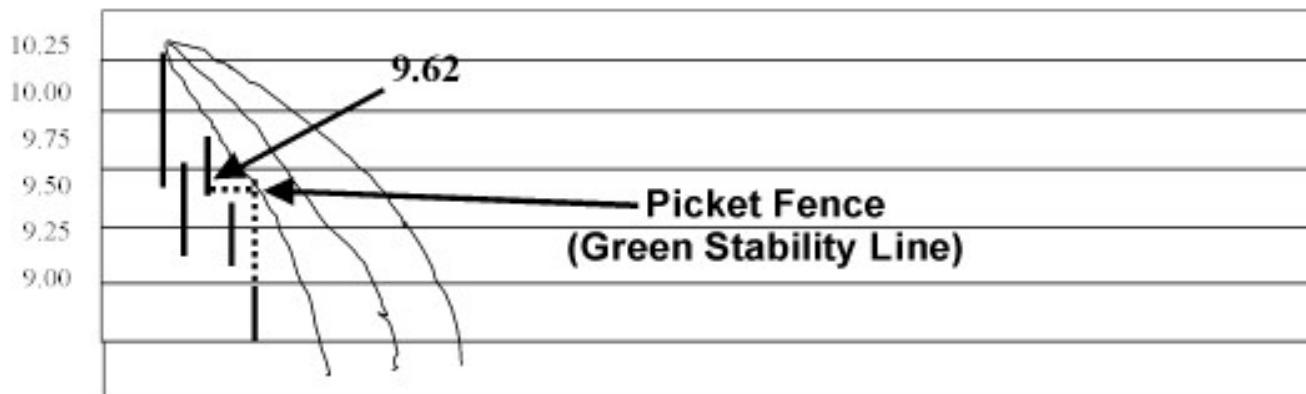
However, it has two purposes. First, it minimizes our risk and gets us out of bad trades early. Second, it protects our profits. It works like this: In our scenario so far, the market has closed at 9.11 giving us a gain of \$1,176. We know that eventually the market will change direction because there will come a point when there are no sellers willing to enter the market, and then prices will rise, and a fractal will form.

What you can't see on the chart at this point are the other components of The Fractal's Edge. We'll get to those later on in the course, but for now we'll just tell you that the Psychometric Evaluators are indicating a change in the mass mind, and the Accelerometer is alerting us that the speed of the current momentum is slowing. In other words, although the momentum has not yet changed direction, the underlying structure of the market is changing, and the downward movement of price is slowing.

To remain in the market when the price temporarily changes direction, and to protect our profits, we need to decide how much of our profits we are willing to risk. We can trade conservatively using the Picket Fence, or more aggressively using the Trip Wire. For the purpose of this illustration, we'll take the conservative approach and use the Picket Fence. We examine the chart carefully and place a buy stop (an order to buy) at 9.62.

Now, how did we arrive at this number? Well, we simply draw a vertical line from the high of the current bar to a point where it touches the Picket Fence (the green Stability Line), and then use the price at that point as our stop. Look at Figure 16 to see how that's done. This same process can be followed using the Tripwire (the red Stability Line). To maximize your gains, stop-loss calculation should be done each day the market moves in your favor.

**Figure 16. Calculating a Stop Loss**



After calculating the stop-loss point, we simply call our broker and tell him/her to place a buy stop at 9.62 for our current Sugar contract. If the market falls back to that price, then we are "stopped out," which means that our contract would be sold at 9.62, and we would get the difference between our stop loss and our original entry point of 10.16. In the process we would have exited the market with \$604 of our gross profit still intact.

So, let's see what happened in the next couple of days after setting our stop loss and adjusting it each day the market moves in our favor. Figure 17 shows us the results of using the Picket Fence as a way to calculate our stop loss point. Notice that on the following two days, the market did pull back and a fractal was formed. Because we continued moving our stop loss point each day, we had lowered it to 950. Our stop was hit (the market high went above 950), so we're out of the market with a \$739 gain in account equity.

For a slightly more aggressive approach, our signal to exit the trade could have been when the market closed at 950. To illustrate, sometimes a bar will cross the Picket Fence as the one that took us out did, but will not close there, and we want to remain with the trade as long as profitably possible. However, if the market does close on the other side of the Picket Fence at or above 950 (between the green and red Stability Lines), we would be immediately out of the market. We accomplish this by informing our broker that our stop loss point will be 950 market on close (MOC). This means that the market must close at or above 950 to take us out.

For a slightly more aggressive approach, our signal to exit the trade could have been when the market closed at 950. To illustrate, sometimes a bar will cross the Picket Fence as the one that took us out did, but will not close there, and we want to remain with the trade as long as profitably possible.

However, if the market *does* close on the other side of the Picket Fence at or above 950 (between the green and red Stability Lines), we would be immediately out of the market. We accomplish this by informing our broker that our stop loss point will be 950 market on close (MOC). This means that the market must close at or above 950 to take us out.

Another thing that you should be noticing is that as the subsequent bars begin crossing the Picket Fence, the Gatekeeper starts closing the gate on them (Figure 17, arrow). This will eventually bring the bars in close proximity to the Tripwire, and if our current bar crosses it, we want to be getting out of the market quickly, even if our stop has not been hit.

**Figure 17. March Sugar After Calculating Stop Loss**



## Using the Gatekeeper to Exit a Trade

Our signal to exit the trade will be when the market closes on the other side of the Tripwire. Sometimes a bar will cross the Tripwire, but will not close there, and we want to remain with the trade as long as profitably possible. However, if the market does close on the other side of the Tripwire between the red and blue Stability Lines, we would immediately exit our trade.

Figure 18 shows us the results of the next day's trading. Notice that the current bar shows the market closing across the Tripwire (arrow). Remember, this is our signal to exit.

**Figure 18. The Next Day's March Sugar Results**



Since the market has already closed for the day, we call our broker and tell him/her to place a stop loss (buy stop) at 9.50. This is NOT a market on close (MOC) order. If the price rises above 9.50, we've stopped ourselves out of the market and have concluded our trade. If the price does not rise above 9.50, or if the price begins dropping again, we're still trading.

Figure 19 shows us the next couple of days' trading results. It appears that we were, indeed, stopped out at 9.50 (arrow), and exited the market with a gross profit of \$739. In this particular trade, the conservative, moderately aggressive (MOC), and very aggressive (Tripwire) stop loss strategies netted the same result. This, however, is not always the case.

**Figure 19. Stopped out at 9.50 in March Sugar**



## Using the Gatekeeper to Re-enter the Market

So far, we've shown you how the Gatekeeper and the fractal work together to help us enter and exit the market. In the previous scenario, we stopped ourselves out of the market at 9.50. Now it's time to look for another opportunity to trade.

The last bar in Figure 19 reached the Wall, but the price did not have enough energy to climb over it. The high of that bar is at 9.68, so we'll use the high plus two ticks (9.70) as our entry point for going long (buying) one contract of March Sugar.

The signal bar for using the Wall must either touch or cross the blue stability line. Entry is determined at two ticks above the high of the signal bar if the market is rising, and two ticks below the low of the signal bar if the market is falling.

Again, you can't see the other tools in *The Fractal's Edge* yet, so we'll tell you what



they are indicating. The Psychometric Evaluators are informing us of a change in the mass mind, the Accelerometer is indicating an increase in the speed of the momentum, and the Momentum Oscillator is telling us that the momentum's direction has changed.

Figure 20 shows us the results of the next several days. You can see that our entry point of 9.68 was hit on the following day, and that the upward trend continued for about ten more days. At that point, the close for the current bar is 11.14, and we've gained \$1,635.

But now we're up against the hard right edge of the chart. Will the trend continue, or will the price begin to fall? To protect our profits, we again use the Picket Fence to calculate a stop loss. In this case, it is 10.56, which means that we'll walk away with \$650 if the market falls that far.

**Figure 20. March Sugar in an Upward Trend**



So here we are. We've set our stop loss and we've consulted our tools. The Psychometric Evaluators are telling us there is no significant change in the mass mind, the Accelerometer indicates that the momentum is not slowing down, and the Momentum Oscillator shows no change in the momentum's direction. Figure 21 shows us what happened next.

**Figure 21. The Trend Continues**

## March Sugar



The current bar closed at 11.39, which means we now have a potential gross profit of \$1,915. Again, we set our stop loss at the point where the current bar touches the Picket Fence, which happens to be 10.94 (dotted line).

In consulting our tools, we see that the Psychometric Evaluators are showing a change in the mass mind, the Accelerometer indicates that the momentum is slowing, and the Momentum Oscillator shows no change in the momentum's direction. Furthermore, the Gatekeeper has the gate wide open.

So now that we are set, we wait to see what tomorrow brings, knowing that we're prepared for any eventuality. If the market falls to our stop loss, we'll still come away with \$1,411 in gross profit. Figure 22 shows how we did.

**Figure 22. The End of a Trend**



As we look at the results, we can see that we stopped ourselves out of the market when the current bar hit our stop loss of 10.94 (dotted line). Also, the current bar closed below the Tripwire, which would have taken us out of the trade as well. And, the Gatekeeper has closed the gate.

## Review of the Gatekeeper

We have taken you through this series of March Sugar charts so that you can see how the Gatekeeper functions in helping us find the correct entry and exit points for trading profitably.

### Gatekeeper Components

- The Gatekeeper is a series of three Stability Lines that combine to help us know when to enter the market, when to stay with the current trend and when to exit the market. The Stability Lines are based on fractal geometry and nonlinear mathematics.
- The blue Stability Line, otherwise known as the Wall, represents the time frame we are trading.
- The red Stability Line, or Tripwire, represents the next significantly lower time frame.
- The green Stability line, or Picket Fence, represents a time frame that is two degrees lower than the one we are trading.

### Entering the Market

When making our initial entry into the market, we do the following:

- look for a range-bound market where all Stability Lines are intertwined.
- locate the latest buy and sell fractals that are at least two-thirds outside of the Gatekeeper.
- draw horizontal lines from the high (or low) of the fractal bars to the right edge of the chart.
- place a buy order for two ticks above the high of the fractal buy bar and a sell order for two ticks below the low of the fractal sell bar.
- wait for the breakout bar to cross either your buy entry line or your sell entry line and be sure that the gate is open.

## The Stop Loss

The purpose of a "stop loss" is to:

1. minimize our risk
2. get us out of bad trades early
3. to protect our growing profits

To calculate a conservative stop loss that will protect our profits and keep us in the market, do the following:

- If the market is trending upward, draw a vertical line from the low of the current bar to a point where it touches the Picket Fence (the green Stability Line), and then use the price at that point as your stop.
- If the market is trending downward, draw a vertical line from the high of the current bar to a point where it touches the Picket Fence (the green Stability Line), and then use the price at that point as your stop.
- Call your broker and place a sell stop if you are long (buying) or a buy stop if you are short (selling).
- Repeat the process each day the market is moving in your favor.

To calculate a moderately aggressive market on close (MOC) stop loss that will protect our profits and keep us in the market longer, do the following:

- If the market is trending upward, draw a vertical line from the low of the current bar to a point where it touches the Picket Fence (the green Stability Line), and then use the price at that point as your stop.
- If the market is trending downward, draw a vertical line from the high of the current bar to a point where it touches the Picket Fence (the green Stability Line), and then use the price at that point as your stop.
- Call your broker and place an MOC sell stop if you are long (buying) or an MOC buy stop if you are short (selling).
- Repeat the process each day the market is moving in your favor.

To calculate a very aggressive stop loss that will protect our profits and keep us in the market longer, do the following:

- If the market is trending upward, draw a vertical line from the low of the current bar to a point where it touches the Tripwire (the red Stability Line), and then use the price at that point as your stop.
- If the market is trending downward, draw a vertical line from the high of the current bar to a point where it touches the Tripwire (the red Stability Line), and then use the price at that point as your stop.
- Call your broker and place a sell stop if you are long (buying) or a buy stop if you are short (selling). [An extremely aggressive version of this strategy would be to use MOC stops.]
- Repeat the process each day the market is moving in your favor.

## Exiting a Trade

- We automatically exit a trade if our stop loss is hit.
- Always exit a trade if the current bar closes across the Tripwire (between the red and blue Stability Lines).

## Re-entering the Market

- After exiting a trade, if the market enters a range-bound (channeling) phase, use the entry strategy outlined above in "*Entering the Market*."
- At times, the market will reverse itself without forming an initiating fractal in the direction of the reversal. In this case, it is an appropriate strategy to use the Wall for re-entry. In calculating your re-entry point using the Wall when the market reverses itself and there is no initiating fractal, the signal bar must either touch or cross the blue stability line. Entry is determined at two ticks above the high of the signal bar if the market is rising, and two ticks below the low of the signal bar if the market is falling. In addition, the following conditions must also be met:
  - Psychometric Evaluators must read either Green/Red or Green/Green
  - The Accelerometer and the Momentum Oscillator must both be green if the market is rising, and both be red if the market is falling.
  - If any of these conditions are not met, then there is no signal to re-enter using the Wall.

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## 6. The Psychometric Evaluators

### Key to "Reading" the Mass Mind

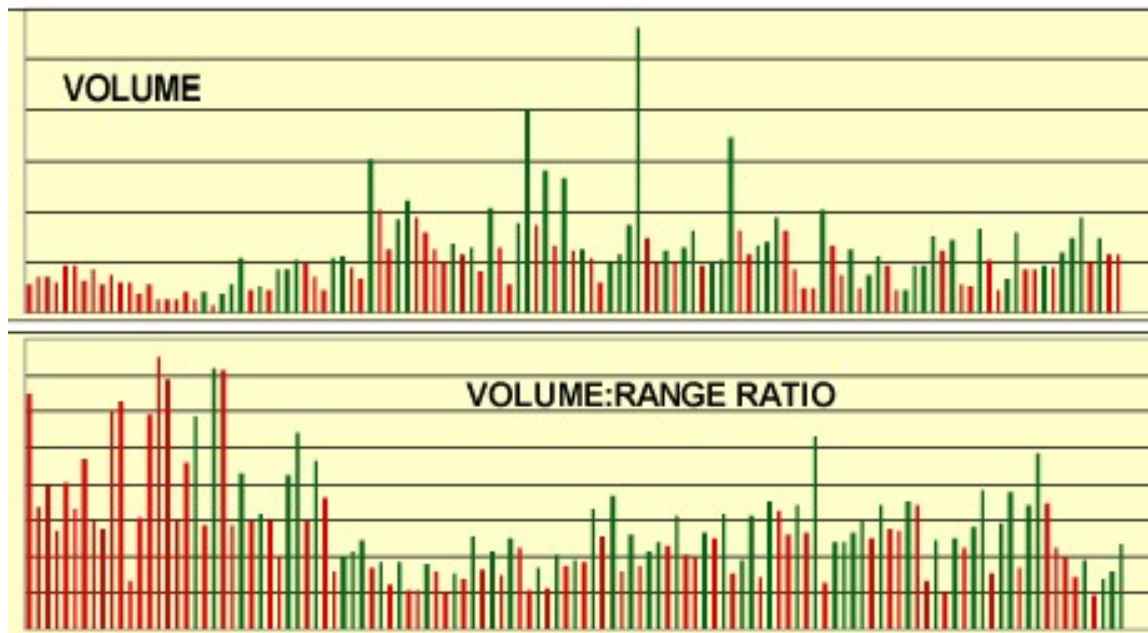
In this chapter you will learn how the Psychometric Evaluators give you an indication of what's going on in the mass mind of all the traders in a particular market.

#### What are the Psychometric Evaluators?

When you make a decision to buy, sell, enter, or exit, or stay, that decision is combined with the decisions of all the other traders in the market. Remember that the first effect in the chain of events leading to a change in market direction is the cumulative effect of all those decisions. The Psychometric Evaluators help us get some idea as to what is going on in the mass mind.

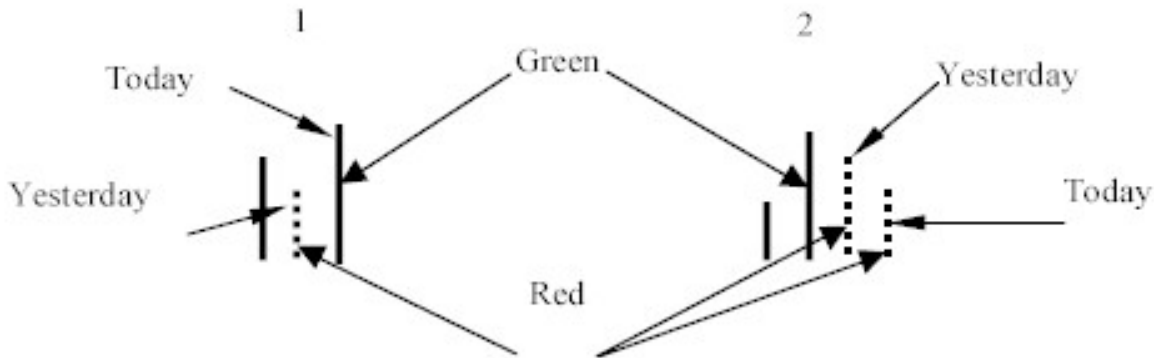
The Psychometric Evaluators are a pair of histograms that depict the current day's volume and a ratio of the current volume to the day's trading range. These graphs work together to give us a picture of the how the "mass mind" has affected the day's trading. Figure 23 shows you what they look like.

**Figure 23. The Psychometric Evaluators**



## The Volume Histogram

We use the Volume histogram to compare the current day's volume with the previous day's volume. The bar that is farthest to the right represents the most recent day's volume. The bar immediately to the left of the most recent day's bar shows the previous day's volume. On the volume chart, those are the only two bars we are concerned about. If today's volume bar is higher than yesterday's, we color it green. If it's lower, we color it red. Look at examples 1 and 2 below.



The main idea here is that we want a visual means of measuring today's trading volume in relation to yesterday's. Before a trend can start, more orders have to be coming in to the trading floor. An increase in volume always comes before a change in momentum, and momentum always changes before the market direction changes. So, it is crucial to be able to detect differences in volume because they reflect the combined decisions of all the traders in the market.

## The Volume:Range Ratio Histogram (VRR)

As we have already said, when volume goes up, more orders are coming to the trading floor, and when the volume goes down, fewer orders are coming in. Detecting changes in volume is important, but it is only half of the story. We also need an accurate way to see how these changes in volume are affecting the market.

Williams (1995) developed the Market Facilitation Index (MFI), a simple and accurate measure of how well the market facilitates the movement of price through time. It is used all over the world and is included as a standard indicator in several technical analysis systems.

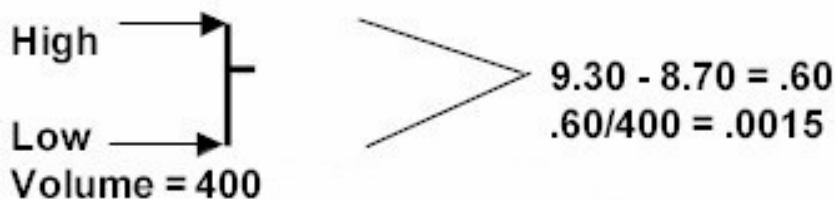
Williams' MFI is really a measure of how much each trade moves the price over the day's trading. It is a ratio of volume to range and is calculated by dividing the range by the volume, which is why we call it the Volume:Range Ratio (VRR).

It's fairly simple to calculate. If we are trading dailies, we get the volume from the daily chart and we get the range by subtracting the day's low from the day's high. We get the VRR by dividing the range by the volume. The formula looks like this:

## VRR = Range/Volume



We can see that in the illustration above, the price moved 37 cents during the day. Also, over the course of the day there were 370 trades. So, the price moved about .001 (1/10 of a cent) for each trade. Let's look at the next day's trading. In the illustration below, we see that the price moved 60 cents (23 cents farther than yesterday's range).



We can also see that the volume, at 400 trades, was greater than yesterday's. Most importantly, the market facilitated the movement of price at the rate of .0015 (about 1/7 of a cent) per trade.

It is important for you to grasp the concept that the numbers .001 and .0015 have only relative value. That is, if today's VRR is .0015, that value is important only compared to yesterday's VRR of .001. Likewise, yesterday's VRR has value only relative to today's VRR. They don't have any meaning if compared to any other VRR values.

As we did with the Volume histogram, we color the bars in the VRR histogram red or green depending on whether the current day's value is greater or less than the previous day's. The value of this indicator lies in its ability to measure how willing the market is to move the price and how efficient the market is during the current bar. Therefore, the only thing of real importance is whether today's bar is green (today's VRR is greater than yesterday's) or red (today's VRR is less than yesterday's).



## Combining the Psychometric Evaluators to "Read" the Mass Mind

An increase or decrease in volume tells us whether more or fewer traders are entering the market, and an increase or decrease in VRR tells us how the market is reacting to the changes. When we combine the Volume and the VRR, we have a tool that gives us powerful insight into the mass mind.

Think of the market as a river that you're planning on rafting down. It's a river that is perfectly safe if you understand the structure of the riverbed and know what to look for along the way; and it's perfectly treacherous if you don't.

Imagine the four combinations of green and red bars as signs, posted on the bank, that describe the bed of that river. You are not able to actually see the riverbed, but all along the shore there are combinations of green and red signs that tell you what's happening underneath.

The table below describes the signs and their meanings.

| <u>If the current Volume bar is</u> | <u>and the current VRR bar is</u> | <u>the underlying structure is</u>   |
|-------------------------------------|-----------------------------------|--|
| <b>Green (high volume)</b>          | <b>Green (high facilitation)</b>  | Deep, broad channel; smooth bottom; downhill grade; strong and swift undercurrent; <b>go with the flow</b>           |
| <b>Red (low volume)</b>             | <b>Red (low facilitation)</b>     | Wide, smooth bottom; no grade; almost no current; <b>things are slowing down</b>                                     |
| <b>Red (low volume)</b>             | <b>Green (high facilitation)</b>  | Semi-deep, narrow, man-made channel with gate; rocky, uneven bottom; swift, rough current; <b>price manipulation</b> |
| <b>Green (high volume)</b>          | <b>Red (low facilitation)</b>     | Deep and narrow; smooth bottom; river forks ahead; <b>watch for change in trend</b>                                  |

Let's take a trip down the river as we examine these four combinations of signs in more detail.

### Green-Green

Imagine that we're in a quiet pool just off the main stream. If we look down river, we can see that there is a fork ahead. In front of us are two signs, and both are green. If we understand the signs, what do we know about the river?

Well, we know that the riverbed is smooth, deep, and running down hill. We also know that there is a high volume of water and the undercurrent is swift and very strong. Once we enter the main stream, we know we will have no choice but to go with the current and travel down whichever fork it takes us. If we try to choose the other fork, the current will be way too strong to paddle against, and we'd probably end up capsizing.

So, what do we know about the market when the Psychometric Evaluators show us two green bars? We know that a lot more traders are getting into the market (higher volume). We know that their trades are favoring the direction in which the current bar is moving, and we know that price movement is picking up speed (higher VRR).

If we enter the market with two greens, our best immediate strategy would be to go with the flow. It would be disastrous for us to trade against the direction of the current bar.

## Red-Red

As we continue down the river, the current begins to force us toward a narrow branch that opens into a wide, but shallow body of water. Posted near the entry to that branch are two red signs. What do we know about the river at this point? We know that the riverbed is smooth and there is no grade, so the surface will be calm and there will be very little current. Things are slowing way down.

In the market, when the Psychometric Evaluators show us two red bars, it means that fewer traders are entering the market, and price movement is slowing down. This often happens near the end of an Elliot wave of some lower time frame. For example, the price has been rising, but as traders loose interest and are no longer willing to enter the market, there is a general slowing or even slight decline of price movement.

## Red-Green

Back to the river. Up ahead we see a man-made channel with a gate. A red sign and a green sign stand nearby. From the signs, we know that when the volume of water in the river is low, farmers in the area, sensing a possible change in the weather, open the gate. They store water in anticipation of a drought, or run it off in anticipation of rain.

Because of the red-green combination, we know that this channel is narrow, just deep enough to be over our heads, and uneven on the bottom. Although the volume flowing through the channel is not high, the channel itself is capable of moving us along at break-neck speed. Even though we would like to go in another direction, if the farmers open the gate, we will be drawn into the channel's swift, rough current. Knowing this, we wear life jackets, helmets, and whatever other safety equipment we may need.

How does all of this relate to the market, and who are those farmers, anyway? In the trading pits there are two types of traders: floor brokers and locals. The floor brokers work in the pits filling traders' orders, and have little direct impact on the market. They make a small commission on each trade. Locals also work in the pits, but they are trading for themselves with their own money.

Their main goal is to profit from the other side of a trade. If we're taking a long position, they'll take the short. If we're selling, they're buying. They are after *our* money-yours and mine. In most cases, though, they have little influence on the market.

Remember that it is the *volume* of outside paper coming into the pits that makes a trend. However, since the locals are right there in the pits, they can see just how many orders are coming in.

When the volume is low, like the farmers in our example above, the locals sense a possible change coming up. It is only in times of low volume that the locals have enough power to manipulate price. Often, they will run the price as far in the opposite direction of the anticipated change as possible. They do this to build their inventory so that they will be able to take the other side of the paper coming into the pit. Our "safety gear" is making sure we are using the green line stop loss (The Green Stability Line or Picket Fence in the Gatekeeper).

When the Psychometric Evaluators show us Red-Green, we know that we have low volume, but high price facilitation. If this situation is not followed within the next two bars by an increase in volume, we can be pretty sure that the locals are in temporary control, and are manipulating the price. If Red-Green is followed shortly by higher volume, then it is just a pause in the action before

the market moves again.

## Green-Red

As we continue down the river, we come into an area that is deep and narrow. On the bank we see a green sign and a red sign. Our knowledge of the signs tells us that the riverbed is smooth with no grade. There is high water volume, and the current is strong but slow-moving in comparison to Green-Green or Red-Green areas.

We also know that the river forks ahead, and each fork is gated. A battle over water rights is raging between two neighboring towns, and each is trying to get as much of the river to flow down its fork as possible. Depending on who is controlling the water flow, we'll either continue toward our destination, or we'll have to prepare to take a detour.

In the market, a Green-Red combination offers us the greatest potential for getting in on the beginning of a trend. Almost all major price moves end with a Green-Red as one of the top/bottom three bars. Knowing this can help us identify the beginning of a trend.

However, while almost all trends end with Green-Red, not all Green-Red combinations mark the end of a trend. Green-Reds appear quite often, and if they don't end a trend, they let us know the current one will go on until the Psychometric Evaluators show us the next Green-Red combination.

Green-Reds signify the last great battle between buyers (bulls) and sellers (bears). Buyers want the price to rise, sellers want the price to fall. More and more traders are getting into the market, but there is less price movement in relation to the volume coming in. In the river analogy, they're duking it out at the gates, and whoever wins, that's the way the water will flow; in the market, that's the way the trend will go.

## Review of the Psychometric Evaluators

**The Psychometric Evaluators are a pair of histograms that depict the current day's volume and a ratio of the current volume to the day's trading range. These graphs work together to give us a picture of the how the "mass mind" has affected the day's trading.**

### Components

The **Volume Histogram** compares the current day's volume to the previous day's volume.

- We color the current day's bar green if it is higher than the previous day's bar.
- We color the current day's bar red if it is lower than the previous day's bar.
- Differences in volume reflect the combined decisions of all the traders in the market.

The **Volume:Range Ratio Histogram (VRR)** was developed by Bill Williams, and is a simple and accurate measure of how well the market facilitates the movement of price through time.

- We use it to compare the current day's price facilitation with that of the previous day.
- If today's histogram bar is higher than yesterday's, we color it green.
- If today's histogram bar is lower than yesterday's, we color it red.
- An increase or decrease in VRR tells us how the market is reacting to changes in volume.

## Combining the Volume and VRR Histograms

- When we combine the Volume and the VRR, we have a tool that gives us powerful insight into the mass mind.
- There are four possible combinations, each of which tells us something about the underlying structure of the market. They are our first clue as to what is in the collective minds of all traders in the market.

### 1. The **Green-Green** combination means

- More paper coming in to the pits (higher volume)
- Trades are biased in the direction of the current bar's trend
- The market is moving the price efficiently through time (higher VRR)
- We go with the flow

### 2. The **Red-Red** combination means

- Fewer traders are entering the market (lower volume)
- Price movement is slowing down (lower VRR)

### 3. The **Red-Green** combination means

- We have low volume, but high price facilitation
- If the next two bars show no increase in volume, the locals are in temporary control and are manipulating the price
- If Red-Green is followed shortly by higher volume then it is just a pause in the action before the market moves again.

### 4. The **Green-Red** combination means

- We have high volume and low price facilitation
- We can identify the end of a trend (red-green is one of the three top (bottom) bars)
- We can approximate how much longer the trend will continue (at least until another green-red combination)

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## 7. The Accelerometer

### The Early Warning Signal of Trend Changes

**In this chapter you will learn how the Accelerometer alerts you to future changes in a market's trend. You will also learn how to use it as a tool for maximizing your profits as it generates additional buy and sell signals.**

### What is the Accelerometer?

Up to this point, we have learned that before there is a change in trend, there must be a change in momentum, and before momentum changes, there must be a change in the speed at which the market is traveling, and before the speed changes, there must be a change in volume, and before volume changes, traders must make decisions to buy, sell, enter, exit, or stay in the market.

In earlier chapters, we examined Chaos Theory and how it applies to trading commodities. We took a look at fractals and fractal formations and saw how they relate to the underlying structure of the market. We went through a detailed description of how the Gatekeeper, our principal decision-making tool, combines with the break-out fractal to:

- keep us out of bad trades in a range-bound market,
- help us get into a trend early on,
- show us when to exit a trade,
- assist us in setting stop-loss points

The previous chapter gave us a glimpse into the workings of the mass mind. We learned that what begins as a decision in the mind of an individual trader can, through an extremely complex series of unpredictably linked events, lead to a change in trend. We also saw how the Psychometric Evaluators provide signs that give us clues to the underlying structure of the market as it stretches before us.

We are now going to take a close look at the Accelerometer histogram. The formulas for calculating the histogram bars are based on the actual closing price, and are derivatives of the formulas we use for the Momentum Oscillator. This allows us to integrate the two tools

for even more accuracy in our trading.

The Accelerometer is a leading indicator, and is extremely sensitive to changes in the acceleration or deceleration of market momentum. It's a leading indicator in that it registers changes in direction before the Momentum Oscillator does, and long before the trend changes. It is also useful because it generates its own buy and sell signals.

The bars on the Accelerator histogram are colored red and green in the same way that the Volume and VRR histograms are. If the current bar (the bar farthest to the right) is higher than the previous bar, we color it green. If it is lower than the previous bar, we color it red. A change in color represents a change in speed, which makes it easy to spot acceleration or deceleration of momentum.

Let's look at the principles of speed and momentum for a moment. If we fire a cannon ball at a 45° angle into the air, energy expended by the exploding powder will propel it out of the muzzle at great speed. The ball's weight and momentum will carry it upward, but with each passing foot, it will gradually decelerate until it momentarily stops at the peak of its trajectory. Then it will begin to fall, gaining speed again as it travels downward.

If we look at this phenomenon from the standpoint of physics, we could say that at the moment the ball began slowing down, it started accelerating in the opposite direction. The Accelerometer works along these same lines. The cannon ball illustration below can help us visualize this phenomenon.

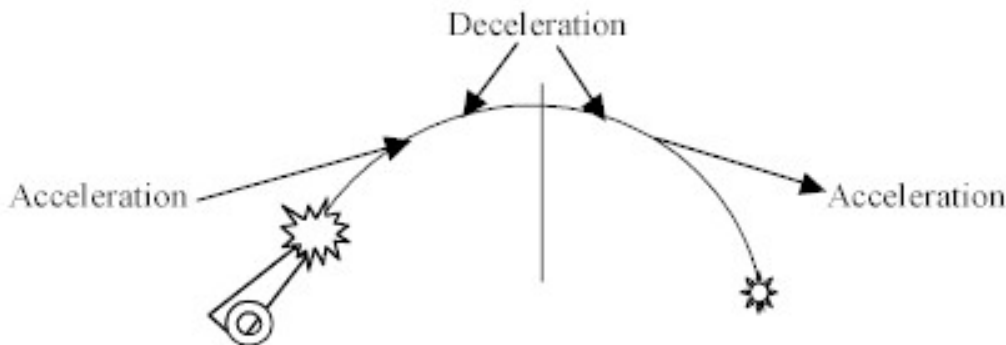
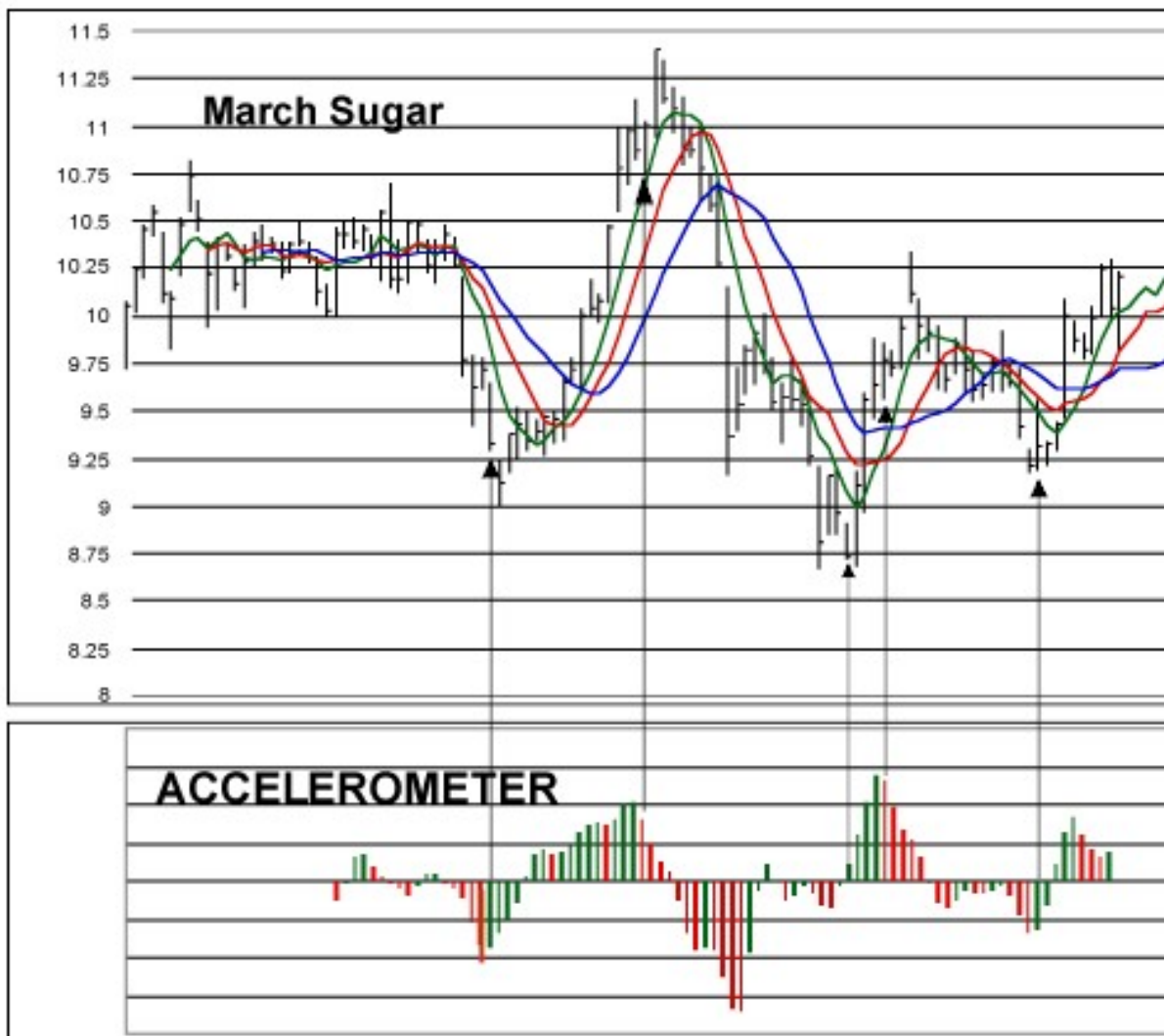


Figure 24 gives us a look at the Accelerometer and how it relates to the price charts. The arrows originate at the point where major changes in speed are taking place, and they end at the corresponding bar on the price chart. By relating major changes in speed as registered on the Accelerometer histogram with price movement reflected in the price chart, we get an early warning signal of possible trend changes.

### **Figure 24. The Accelerometer With March Sugar Price Chart**



## Buying and Selling with the Accelerometer

Up until now, we have only talked about buy and sell signals generated either by fractals, or by price bars going over the Wall. Once we are in the market, however, we can take advantage of the buy and sell signals created by the Accelerometer.

When we say "signals," we mean that the histogram is giving us an indication of where the market is heading, and showing us possible opportunities to increase our profits.

There are two possible buy signals, and two possible sell signals associated with the Accelerometer. One set of buy and sell signals is generated above the histogram's zero line and one set is generated below the zero line. Since all of the Accelerometer's signals originate from a change in the Accelerator's direction, which means a change in bar color, we will walk through how to recognize them. Here are some important points to keep in mind:

1. **We must already be in the market.** The signals generated by the Accelerometer are for adding contracts only, not signals for entering.

2. Since the Accelerometer is extremely sensitive to minute changes in momentum acceleration and deceleration, we need:

- three consecutive green bars following a red bar to create a buy signal above the zero line. In this case, we're buying *with* the momentum.
- three consecutive red bars following a green bar to create a sell signal below the zero line. In this case, we're selling *with* the momentum.
- four consecutive red bars following a green bar to create a sell signal above the zero line. In this case, we're selling *against* the momentum.
- four consecutive green bars following a red bar to create a sell signal below the zero line. In this case, we're buying *against* the momentum.

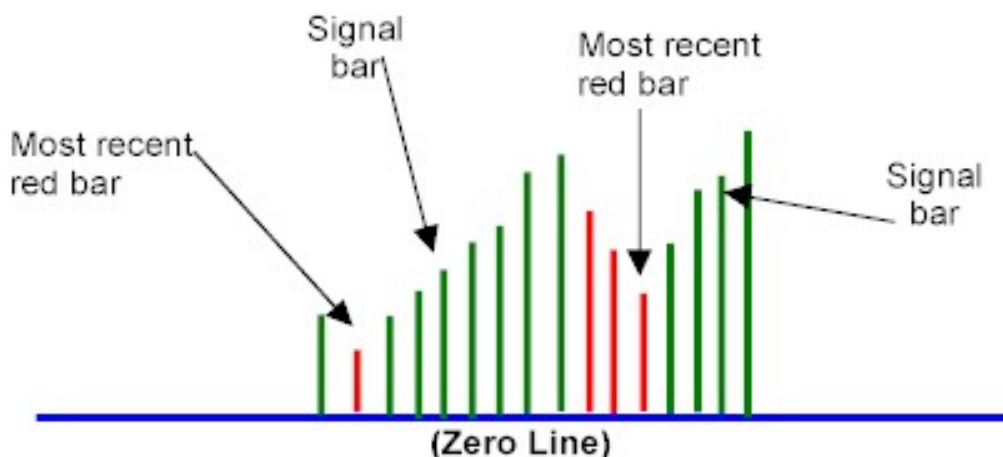
**3. We don't take any buy signal where the price bar is below the Wall (the blue Stability Line), nor any sell signal where the price bar is above the Wall.**

## Accelerometer Buy Signals Above the Zero Line

- The Accelerometer creates a buy signal on the third of three consecutive green histogram bars (higher highs) following the most recent red bar (lowest low). This third green bar is our signal bar.
- We place an order to buy two ticks above the high of the price bar that corresponds to the Accelerometer's signal bar.
- We cannot generate a second buy signal until the histogram produces another red bar. We can then create a new buy signal after three more green bars.

Figure 25 below shows us how to locate the signal bar for a buy above the zero line.

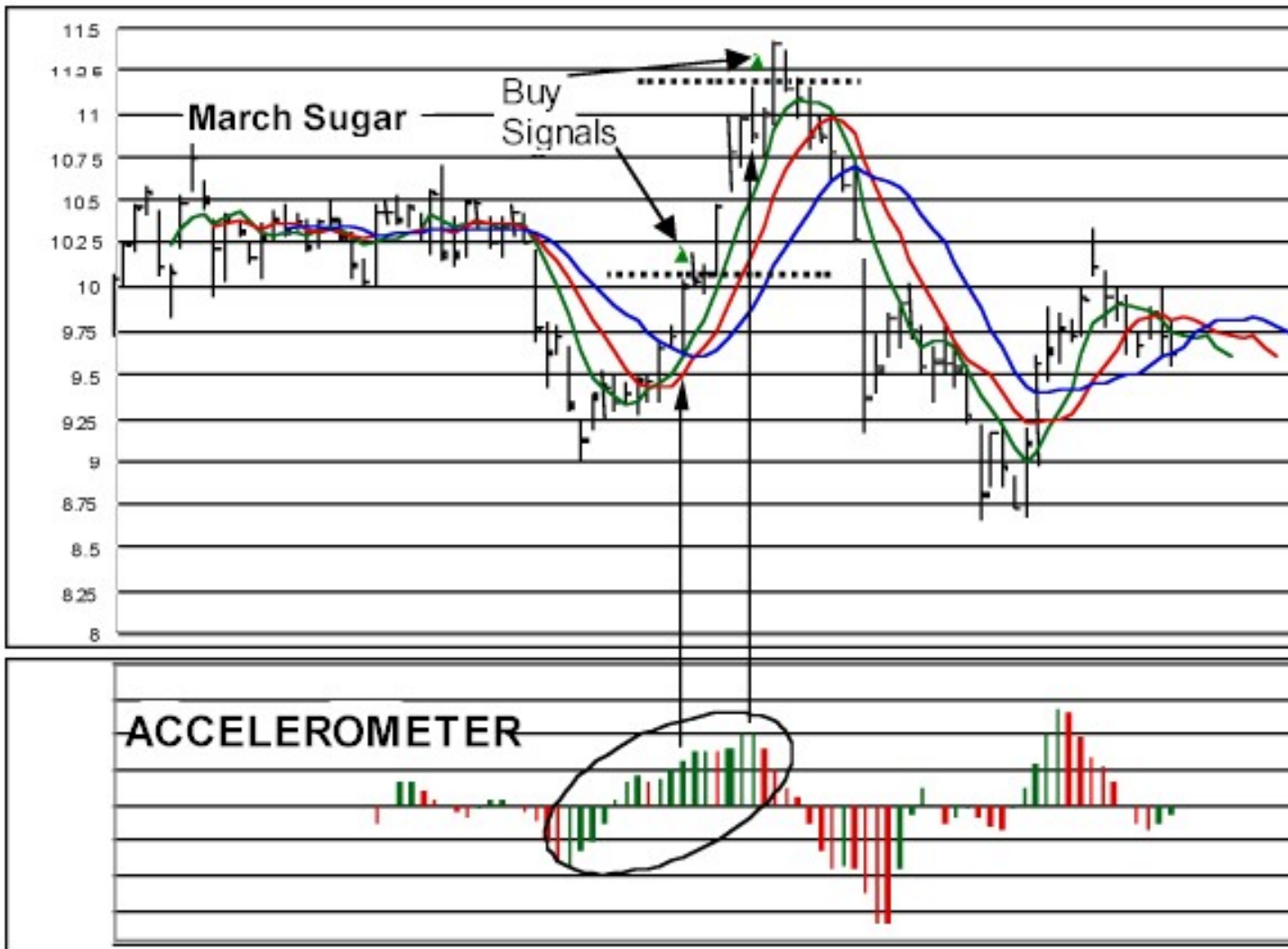
**Figure 25. Accelerometer Buy Signals Above the Zero Line**





Let's take a closer look at the actual Accelerometer with March Sugar so that we can relate the buy signals with the price chart. Figure 26 shows an example of Accelerometer buy signals above the zero line.

**Figure 26. Accelerometer Buy Signals on March Sugar Chart**



As we examine Figure 26, we notice that acceleration has been increasing (green) over the past several bars. Then a change in acceleration (from green to red) takes place. If the following bar is green (acceleration has changed again), we will wait until three consecutive green bars have formed.

The third green bar following the red bar is our signal bar. We line the signal bar up with its corresponding price bar, and place a green arrow above it, as a signal to buy. The high of this price bar is 10.03, so we also draw a line about two ticks above it, at 10.05. This is our buy line-the line over which the price must go for us to purchase another contract. We call our broker and place an order to buy one contract at 10.05 (the price that is two ticks above the high of the price bar).

Three days later, the acceleration dips a second time, forming a red bar. Again, we watch for a signal bar-three consecutive green bars following the red bar. When that bar forms, it becomes our new signal bar. We line this signal bar up with its corresponding price bar, and place a green arrow above it, as a signal to buy.

The high of this price bar is 11.14, so we also draw a line about two ticks above it, at 11.16. This is our buy line-the line over which the price must go for us to purchase another contract. We call our broker and place an order to buy one contract at 11.16 (the price that is two ticks above the high of the price bar).

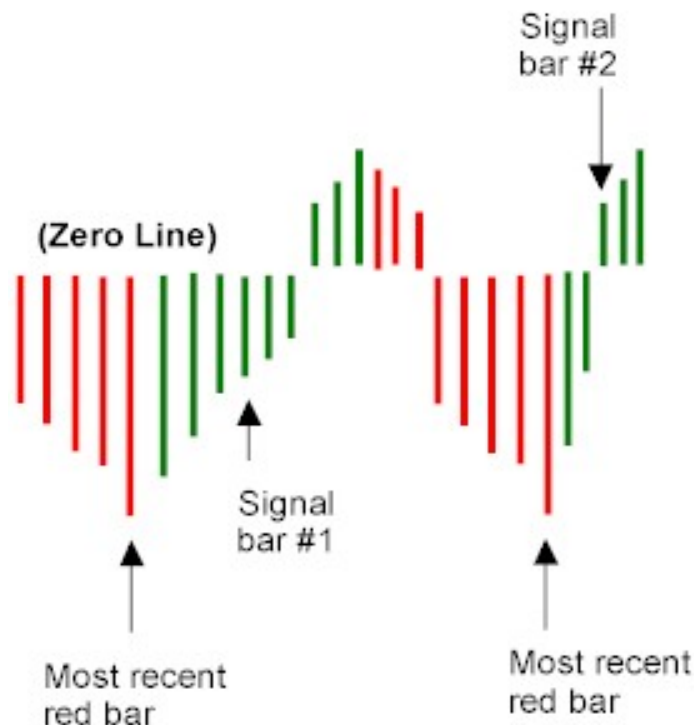
## Accelerometer Buy Signals Below or Crossing the Zero Line

The Accelerometer changes direction before the Momentum Oscillator does, and when we are buying below the Accelerometer's zero line, we are actually going against the direction of the momentum. For this reason, we need an extra bar before a buy signal below the zero line is generated.

- Below the zero line, the Accelerometer creates a buy signal on the fourth of four consecutive green histogram bars (higher lows) following the most recent red bar (highest low). This fourth green bar is our signal bar.
- We place an order to buy two ticks above the high of the price bar that corresponds to the Accelerometer's signal bar.
- We cannot generate a second buy signal until the histogram produces another red bar. We can then create a new buy signal after four more green bars.
- If one of the green bars crosses the zero line, it counts as two bars. So we only need three total green bars because we are now going with the momentum.

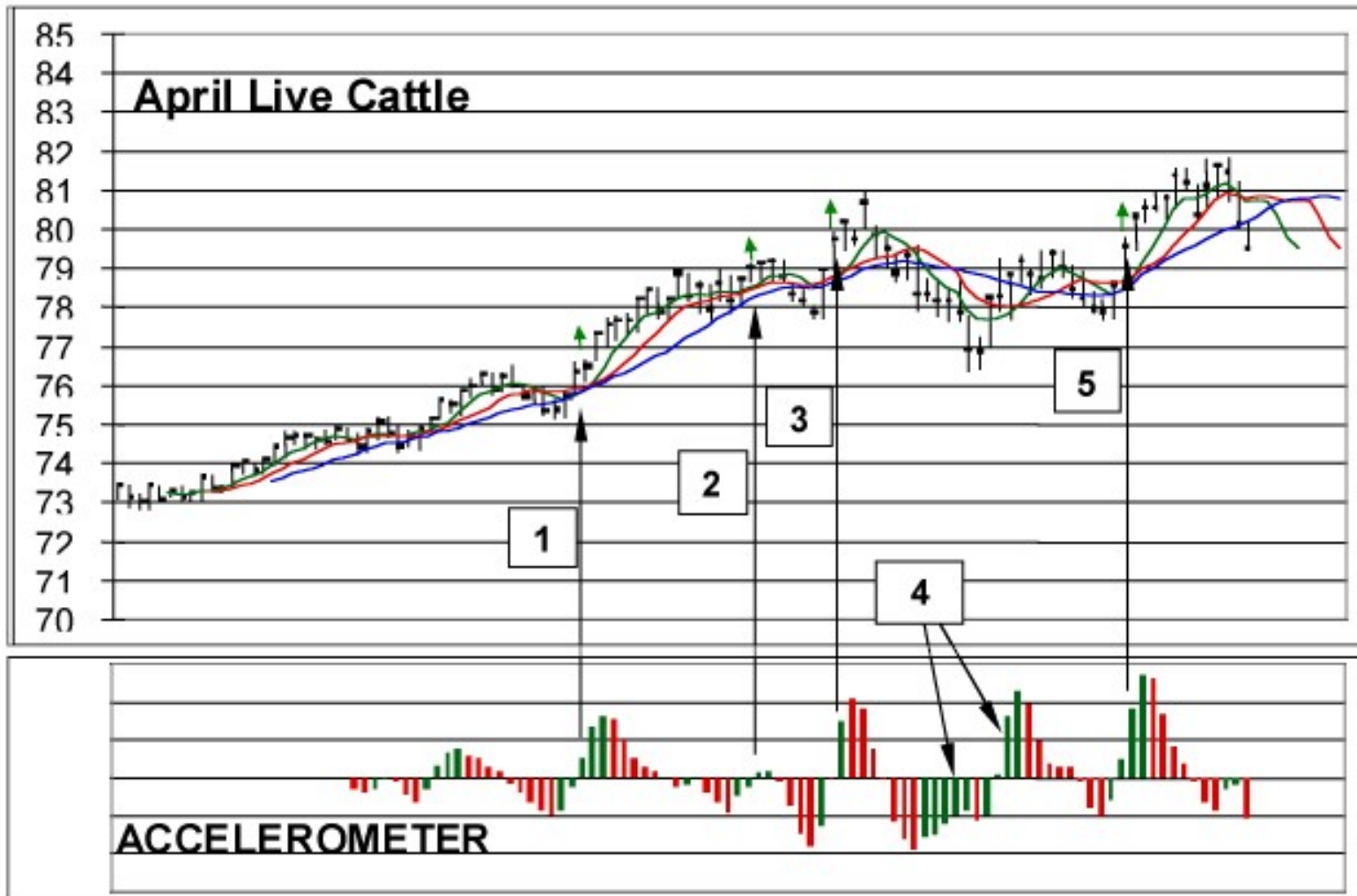
Figure 27 shows us how to identify buy signals below the zero line. As downward momentum begins slowing, the bars change color from red to green. Signal Bar #1 forms as the fourth of four consecutive green bars. Signal Bar #2, on the other hand, forms after only three bars because the bar crossing the zero line counts as two.

**Figure 27. Buy Signals Below or Crossing the Zero Line**



Let's take a closer look at the actual Accelerometer with April Live Cattle so that we can relate the buy signals with the price chart. Figure 28 shows an example of Accelerometer buy signals below or crossing the zero line.

**Figure 28. Valid Accelerometer Buy Signals Below or Crossing the Zero Line**



As we examine Figure 28, Bar #1, we notice that momentum has been accelerating downward (red) over the past several bars. Then a change in speed (from red to green) takes place. This change is actually a deceleration of the momentum, or looking at it from a physics standpoint, an acceleration in the opposite direction (upward).

We will wait until either four consecutive green bars have formed, or one of the green bars crosses the zero line. If four consecutive green bars follow the red bar, then the fourth bar is our signal bar.

Remember, if a bar crosses the line, it counts as two, which means we only need three consecutive bars to generate a buy signal. In this case, the bars are crossing the zero line, so the third bar is the signal bar. We line the signal bar up with its corresponding price bar, and place a green arrow above it, as a signal to buy. The high of this price bar is 76.65, so we call our broker and place an order to buy one contract at 76.67 (the price that is two ticks above the high of the price bar).

Now, let's take a look at Figure 28, Bar #2. Again, momentum has been accelerating downward (red bars). We see a deceleration begin as the bars change to green. Once more, we watch for a signal bar-either four consecutive green bars following the red bar, or three consecutive green bars if they cross the zero line.

As in Bar #1, the green bars cross the line, and we have our next signal bar. We line this signal bar up with its corresponding price bar, and place a green arrow above it, as a signal to buy. The high of this price bar is 79.17, so we call our broker again and place an order to buy one contract at 79.17 (the price that is two ticks above the high of the price bar).

Moving on to Bar #3, we see that it is similar in formation to Bars #1 and #2. That is, momentum is decelerating and the bars are crossing the zero line. The high of the price bar corresponding to the signal bar is 80.17. We phone our broker and place another order to buy one contract at 80.19.

Area #4 highlights two invalid signal bars. The first shows acceleration followed by deceleration and five consecutive green bars. The fourth green bar would normally be a signal bar, but its corresponding price bar is below the Wall. The second formation crosses the zero line, so the third consecutive green bar would be the signal bar.

But again, its corresponding price bar is below the Wall. Remember that the Gatekeeper is our primary tool for keeping us out of trouble. If we use it consistently, we will avoid getting into bad trades. On that basis, then, these are invalid signals, so we ignore them.

Finally, Bar #5 follows a similar pattern as Bars #1, #2, and #3. Unlike the first three bars, however, the formation creating Signal Bar #5 has only one bar below the zero line. We count it as one, the bar crossing the zero line as two and three, and the next bar as four.

We do this because once a green bar has crossed the zero line, acceleration begins. Thus, the third consecutive bar is our signal bar. The high of corresponding price bar is 80.32. We contact our broker and place a buy order for one contract of April Live Cattle at 80.34.

### **Let's review the rules for generating buy signals with the Accelerometer:**

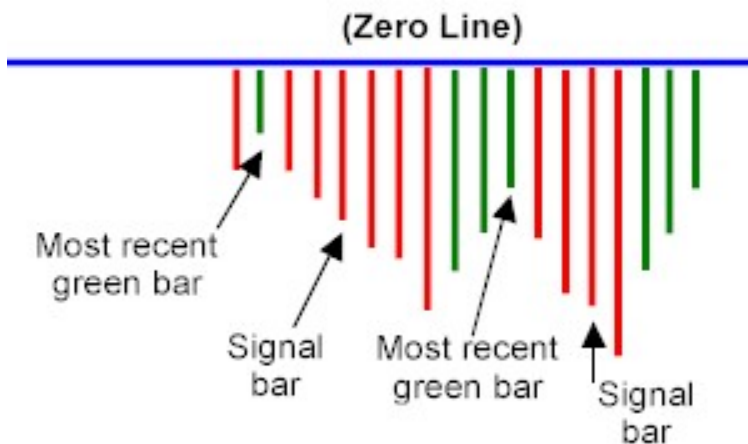
- We need three consecutive green bars to create a buy signal above the zero line.
- We need four consecutive green bars to create a buy signal below the zero line.
- If a bar crosses the zero line, it counts as two.

## **Accelerometer Sell Signals Below the Zero Line**

- The Accelerometer creates a sell signal on the third of three consecutive red histogram bars (lower lows) following the most recent green bar (highest low). This third red bar is our signal bar.
- We place an order to buy two ticks above the high of the price bar that corresponds to the Accelerometer's signal bar.
- We cannot generate a second buy signal until the histogram produces another green bar. We can then create a new buy signal after three more red bars.

Figure 29 shows us how to locate Accelerometer sell signals below the zero line.

### **Figure 29. Sell Signals Below the Zero Line**



Let's take a closer look at the actual Accelerometer with March Cocoa so that we can relate the buy signals with the price chart. Figure 30 shows an example of Accelerometer sell signals below the zero line.

As we look closely at Figure 30, we can see that in area #1 (the circle) downward acceleration has been increasing (red) over the past several bars. Then a change in acceleration (from red to green) takes place. If the following bar is red (acceleration has changed again), we will wait until three consecutive red bars have formed.

The third red bar following the green bar is our signal bar. However, when we line the signal bar up with its corresponding price bar, we find that the price bar is still enmeshed in the Gatekeeper. This makes the signal invalid because we are still waiting for a breakout.

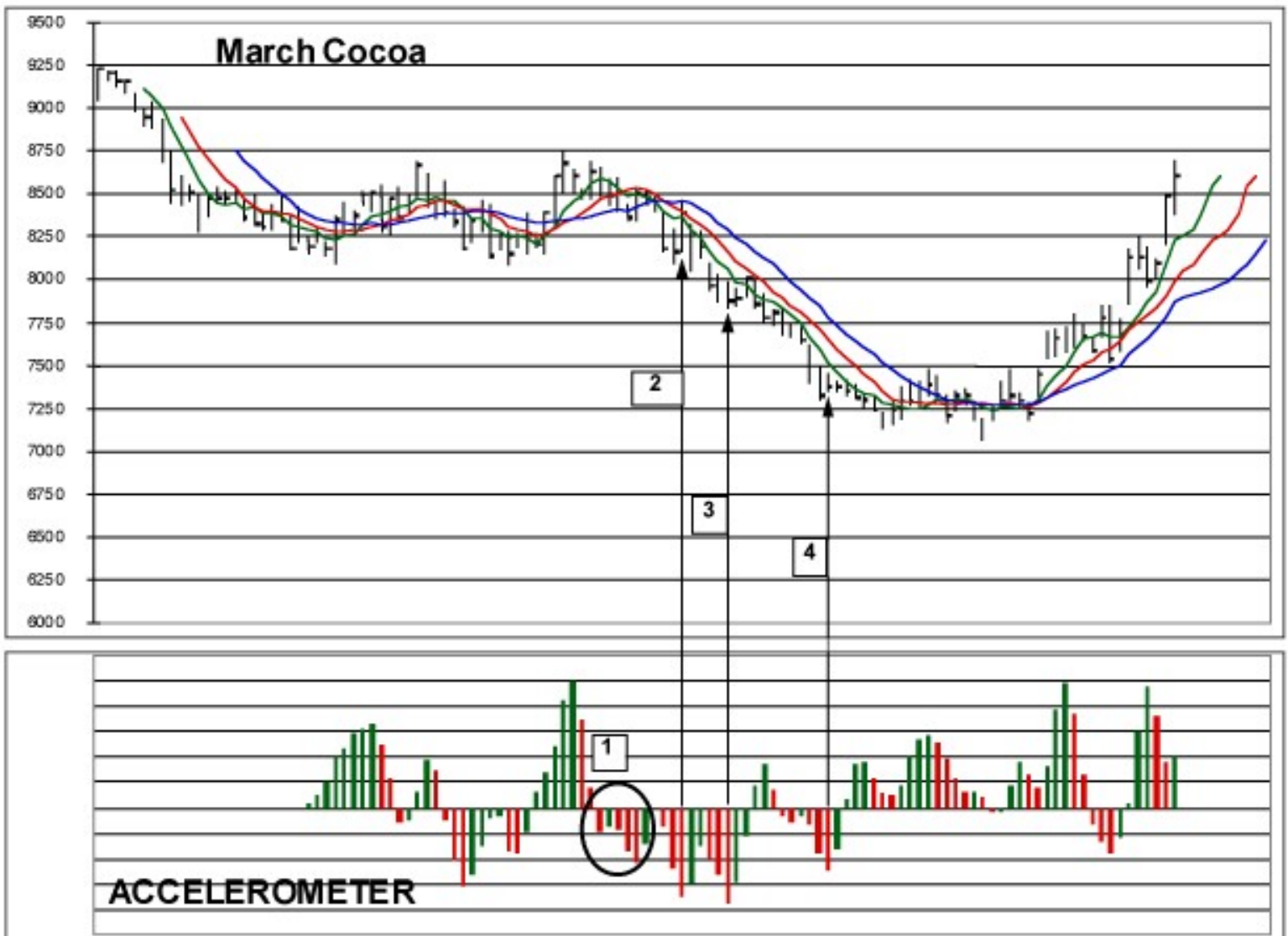
On the next day, the acceleration dips a second time, forming a green bar and beginning the formation of Signal Bar #2. Again, we watch for a signal bar—three consecutive red bars following the green bar. When that bar forms, it becomes our new signal bar. We line this signal bar up with its corresponding price bar, and find that since we have had a breakout, the bars are no longer tangled in the Gatekeeper, so we have a valid sell signal.

The low of this price bar is 8.16, so we also draw a line about two ticks below it, at 8.14. This is our sell line—the line under which the price must go for us to sell another contract. We call our broker and place an order to sell one contract at 8.14 (the price that is two ticks below the low of the price bar).

Bars #3 and #4 form in the same sequence: a dip in acceleration followed by three red bars. The third red bar becomes the signal bar. We line that up with the price bar, determine the price two ticks below the price bar's low, and tell our broker to place an order to sell one contract at that price. It's as simple as that.

Remember, any buy or sell signals generated by the Accelerometer are valid only if we are already trading the market. We don't use them as signals to get into the initial trade. That's what we use the Gatekeeper and the fractals for.

**Figure 30. Accelerometer Sell Signals Below the Zero Line: March Cocoa**



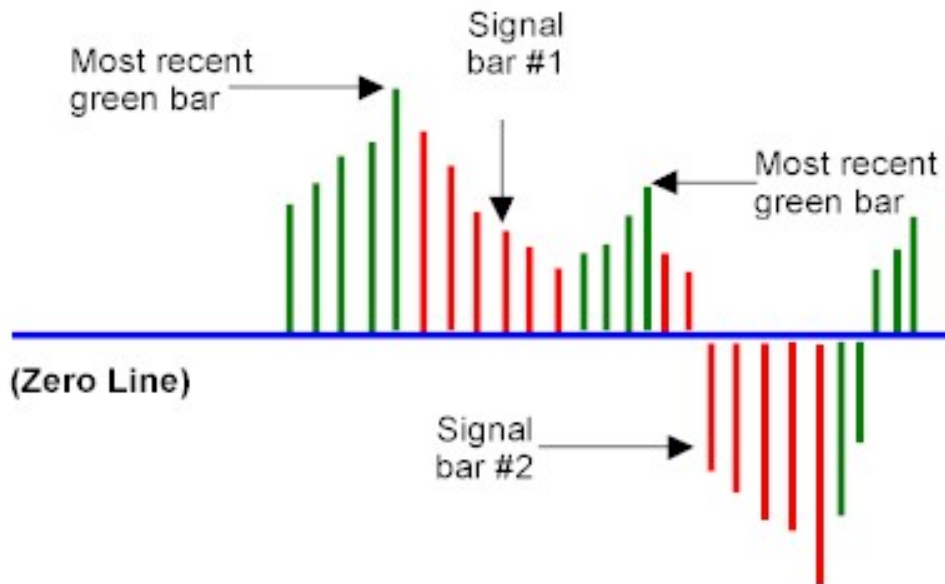
## Accelerometer Sell Signals Above or Crossing the Zero Line

As we have said before, the Accelerometer changes direction before the Momentum Oscillator does, and when we are selling above the Accelerometer's zero line, we are actually going against the direction of the momentum. For this reason, we need an extra bar before a sell signal above the zero line is generated.

- Above the zero line, the Accelerometer creates a sell signal on the fourth of four consecutive red histogram bars (lower highs) following the most recent green bar (highest high). This fourth red bar is our signal bar.
- We place an order to sell two ticks below the low of the price bar that corresponds to the Accelerometer's signal bar.
- We cannot generate a second sell signal until the histogram produces another green bar. We can then create a new sell signal after four more red bars.
- If one of the red bars crosses the zero line, it counts as two bars. So we only need three total red bars because we are now going with the momentum.

Figure 31 shows us how to identify sell signals above the zero line. As upward momentum begins slowing, the bars change color from green to red. Signal Bar #1 forms as the fourth of four consecutive red bars. Signal Bar #2, on the other hand, forms after only three bars because the bar crossing the zero line counts as two.

**Figure 31. Sell Signals Above or Crossing the Zero Line**



Let's take a closer look at the actual Accelerometer with March Soy Bean Oil so that we can relate the sell signals with the price chart. Figure 32 shows an example of Accelerometer sell signals above or crossing the zero line.

The circles marked #1 highlight five invalid signal bars. They are invalid because their corresponding price bars are being filtered through the Gatekeeper. Remember that the Gatekeeper is our primary tool for keeping us out of trouble. If we use it consistently, we will avoid getting into bad trades. On that basis, then, these are invalid signals, so we ignore them.

As we examine Figure 32, bar #2, we notice that momentum has been accelerating upward (green) over the past several bars. Then a change in speed (from green to red) takes place. This change is actually a deceleration of the momentum, and again, looking at it from a physics standpoint, an acceleration in the opposite direction (downward).

We will wait until either four consecutive red bars have formed, or one of the red bars crosses the zero line. If four consecutive red bars follow the green bar, then the fourth bar is our signal bar. Remember, if a bar crosses the line, it counts as two, which means we only need three consecutive red bars to generate a sell signal.

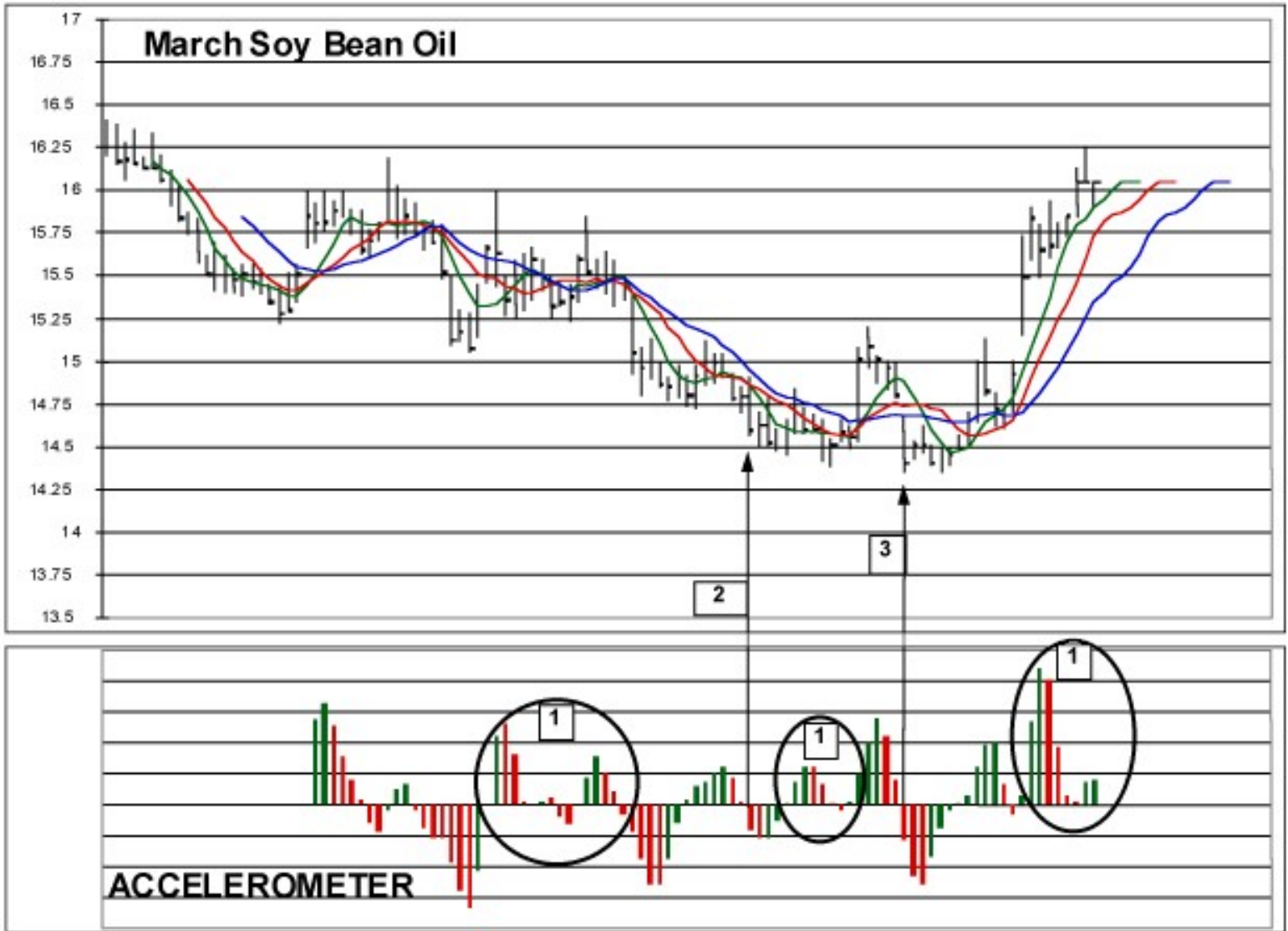
In this case, the bars are crossing the zero line, so the third bar is the signal bar. We line the signal bar up with its corresponding price bar, and place a red arrow below it, as a signal to sell. The low of this price bar is 14.57, so we call our broker and place an order to sell one contract at 14.55 (the price that is two ticks below the low of the price bar).

Now, let's take a look at Figure 32, Bar #3. Again, momentum has been accelerating upward (green bars). We see a deceleration begin as the bars change to red. Once more, we watch for a signal bar-either four consecutive red bars following the green bar, or three consecutive red bars if they cross the zero line.

As in Bar #1, the red bars cross the line, and we have our next signal bar. We line this signal bar up with its

corresponding price bar, and place a red arrow below it, as a signal to sell. The low of this price bar is 14.35, so we call our broker again and place an order to sell one contract at 14.33 (the price that is two ticks below the low of the price bar).

**Figure 32. Accelerometer Sell Signals Above or Crossing the Zero Line**



## 8. The Momentum Oscillator

### Reading the Financial Pages of Tomorrow's Newspaper Today

In this chapter you will learn how the Momentum Oscillator shows the strength and direction of the market's underlying momentum. Like the Accelerometer, you can use the Momentum Oscillator to maximize your profits as it also generates additional buy and sell signals.



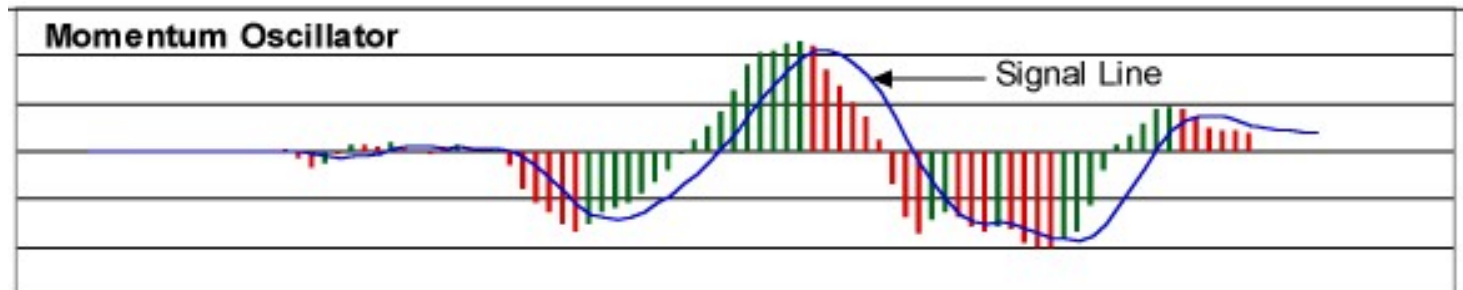
## What is the Momentum Oscillator?

The Momentum Oscillator is a histogram that displays changes in the strength and direction of market momentum. The formula we use to compute the comparison and create the histogram bars, though quite simple, is based on fractal geometry and derivatives of Fibonacci ratios. Superimposed over the histogram is a six-bar moving average line that confirms a change in the momentum.

Understanding how the Momentum Oscillator works is like being able to read the financial pages of tomorrow's newspaper. For example, if we wanted to, we could use it to trade any market profitably without ever looking at a chart. When the oscillator starts rising and the signal line separates from the histogram bars, we call our broker and place an order to buy "at market." At market means whatever price the market is at when our order hits the floor. We stay long the market until the oscillator begins to fall, and when the signal line separates from the histogram bars, we call our broker and say, "Sell at market."

Sounds impossible? Once you try it on a few charts, you'll see that you can do fairly well. We don't recommend this approach because it is possible to be a lot more accurate with our trading when we use all of *The Fractal's Edge* tools together. Figure 33 shows what the Momentum Oscillator looks like on our charts.

**Figure 33. The Momentum Oscillator with Signal Line**



As with the Psychometric Evaluators and the Accelerometer, we color any histogram bar that is higher than the previous one green, and any that is lower than the previous bar red. This makes a change in momentum instantly visible. When we see a change in color, we're seeing a change in the immediate momentum.

Also, like the Accelerometer, the Momentum Oscillator produces two buy and two sell signals. We will examine all four of them in a moment. Before we do, however, we want to stress how important it is to wait for the first fractal outside of the Gatekeeper to be hit. We take the signals generated by the Momentum Oscillator only if we are already in the market. If this is an area where your understanding is thin, please go back now and review the chapters on fractals and the Gatekeeper.

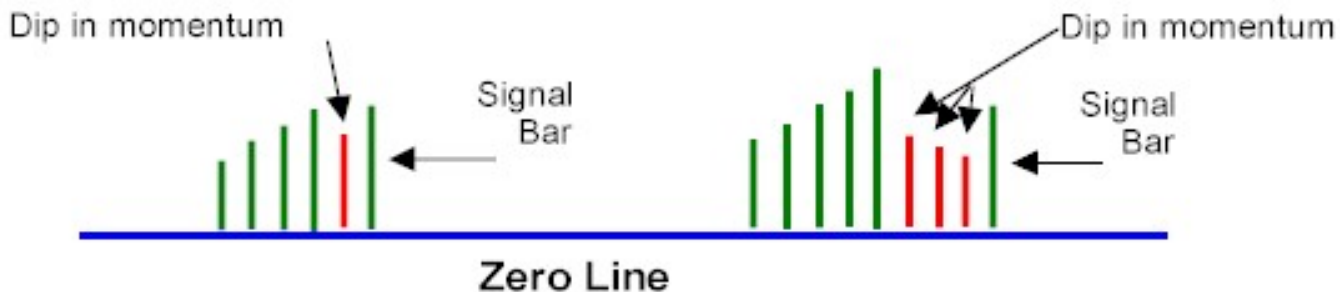
## Momentum Oscillator Buy Signals Above the Zero Line

The Momentum Oscillator creates two buy signals above the zero line: the ACDC buy and the crossover buy. The ACDC buy (Figure 34) takes a minimum of three bars to complete a formation that generates a signal. This happens in an Acceleration-Deceleration (ACDC) sequence, where the current histogram bar is green, the previous bar is red, and the one before that is green.

Green bars signify that the momentum is pushing the market upward and the appearance of a red bar means that the momentum has dipped slightly. If the histogram bars stay above the zero line and change back to green, then the momentum has made an adjustment back upward. So, the current bar is a buy signal bar if the following conditions are met:

1. we are above the zero line
2. the current bar is green
3. one or more consecutive bars preceding the current green bar are red,
4. and the one or more consecutive red bars are preceded by green

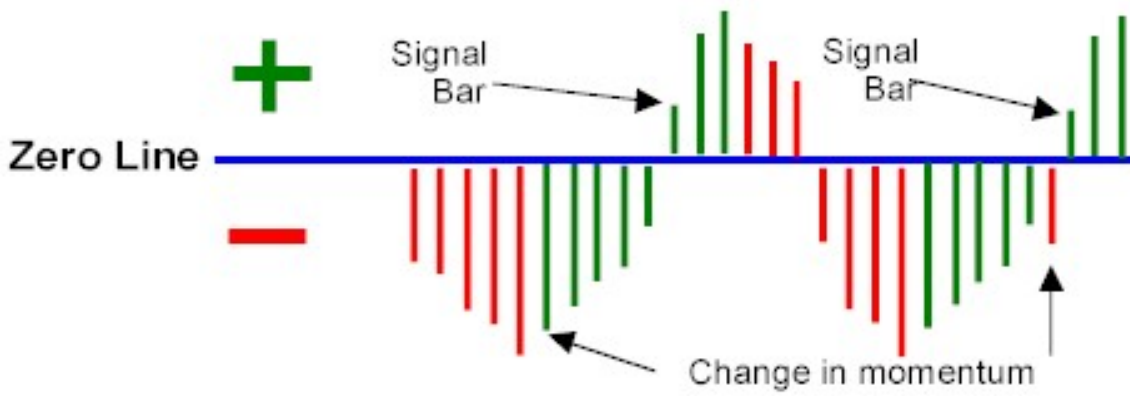
**Figure 34. ACDC Buy Signal Above the Zero Line**



The other buy signal generated by the Momentum Oscillator is the crossover. The formation for this signal takes only two bars and actually begins below the zero line. The zero line is the point at which the momentum has completely changed direction, but has not yet begun moving in the new direction.

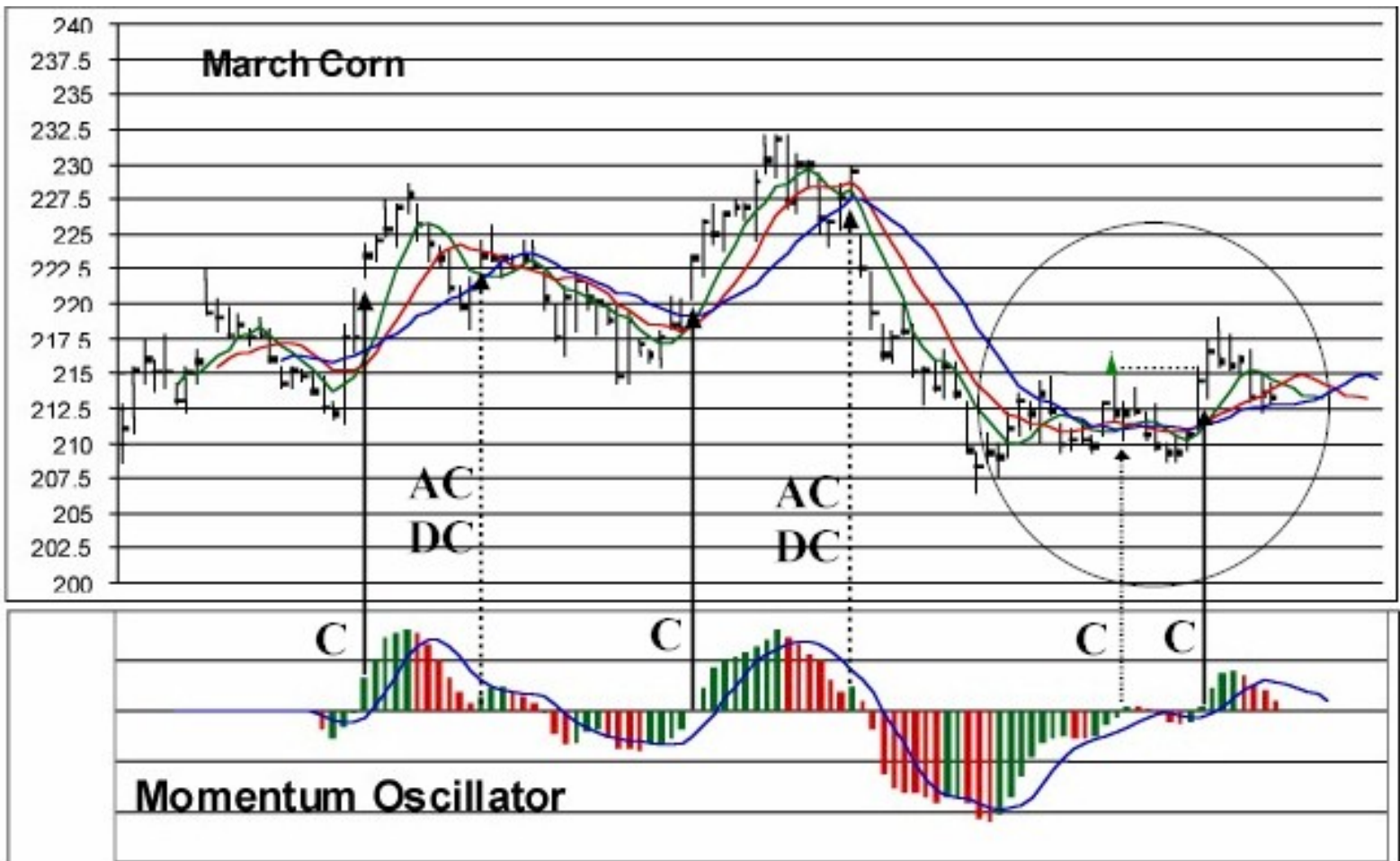
However, when the histogram bars cross the zero line, movement has begun, and we are moving with it. The very bar that crosses over becomes our signal bar. The immediately preceding bar below the zero line can be either red or green. The key is that for a crossover buy, the first bar must be below the zero line and a negative number, and the next bar must cross the zero line (from negative to positive), and must be green. Figure 35 illustrates this formation.

**Figure 35. The Crossover Buy Signal**



Let's take a look at the Momentum Oscillator with a price chart and see how the signal bars and their corresponding price bars work together (Figure 36).

**Figure 36. Momentum Oscillator Buy Signals With March Corn**



In Figure 36 above, the bars marked C are crossover buy signals and the bars marked ACDC are Acceleration-Deceleration buy signals. The solid arrows represent valid buy signals. Notice that the price bars are outside the Gatekeeper. Invalid buy signals are represented by the dotted arrows. These signals are invalid because their corresponding price bars are still inside the Gatekeeper.

Remember, these signals do not initiate buys. We only take the valid signals after we have entered the market using the Gatekeeper and breakout fractal. The examples are taken from an actual chart to illustrate what ACDC and crossover buy signals look like.

The techniques and tools in *The Fractal's Edge* help us make a very high percentage of profitable trades. The system is not infallible, however, and from time to time, we will make unprofitable trades. We are able to keep our losses to a minimum because the tools allow us to achieve a high degree of accuracy.

To illustrate, the area inside the circle in Figure 36 above shows a narrow range-bound market with an initiating fractal (up arrow above it) that is hit about 8 bars later. Conditions are within the parameters for entering a trade, so we buy one contract at 215.25.

One of the tools we use is the green Stability Line (the Picket Fence) stop loss. We always set our stops so that if the price crosses the Picket Fence, we are out of the market. The resultant loss is minimal—we are in at 215.25 and out at 215, for a loss of \$12.50 plus commissions.

At the very most, we could wait until the bar closes below the Tripwire, and we would be out about \$100 plus commissions. The point is, we always consult the Gatekeeper whenever we need to make a decision about entering or exiting the market.

## Momentum Oscillator Sell Signals Below the Zero Line

The Momentum Oscillator creates two sell signals below the zero line: the ACDC sell and the crossover sell. The ACDC sell (Figure 37) takes a minimum of three bars to complete a formation that generates a signal. This happens in an Acceleration-Deceleration (ACDC) sequence, where the current histogram bar is red, the previous bar is green, and the one before that is red.

Red bars signify that the momentum is pushing the market downward and the appearance of a green bar means that the momentum has dipped slightly. If the histogram bars stay below the zero line and change back to red, then the momentum has made an adjustment back downward.

So, the current bar is a sell signal bar if the following conditions are met:

1. we are below the zero line
2. the current bar is red
3. one or more consecutive bars preceding the current red bar are green,
4. and the one or more consecutive green bars are preceded by red

### Figure 37. ACDC Sell Signal Below the Zero Line

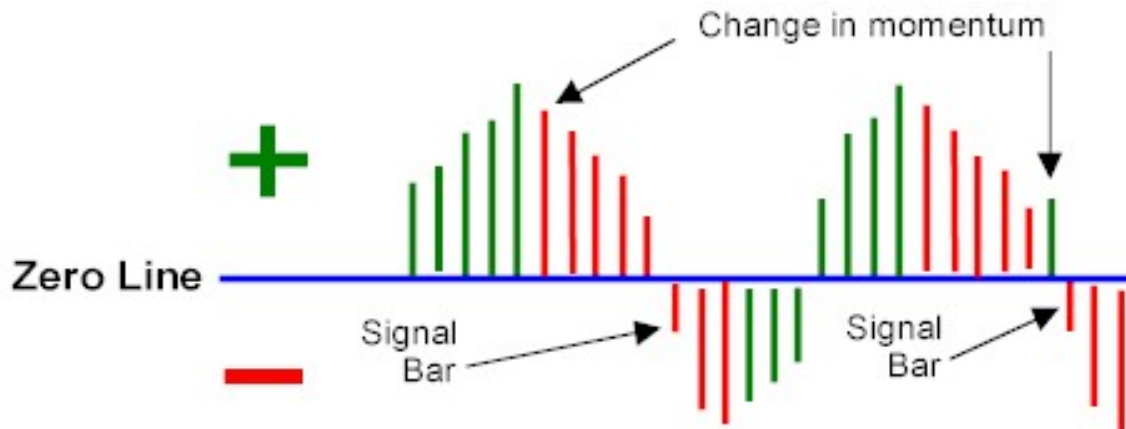


The other sell signal generated by the Momentum Oscillator is the crossover. The formation for this signal takes only two bars and actually begins above the zero line. The zero line is the point at which the momentum has completely changed direction, but has not yet begun moving in the new direction.

However, when the histogram bars cross the zero line, movement has begun, and we are moving with it. The very bar that crosses over becomes our signal bar. The immediately preceding bar above the zero line can be either red or green.

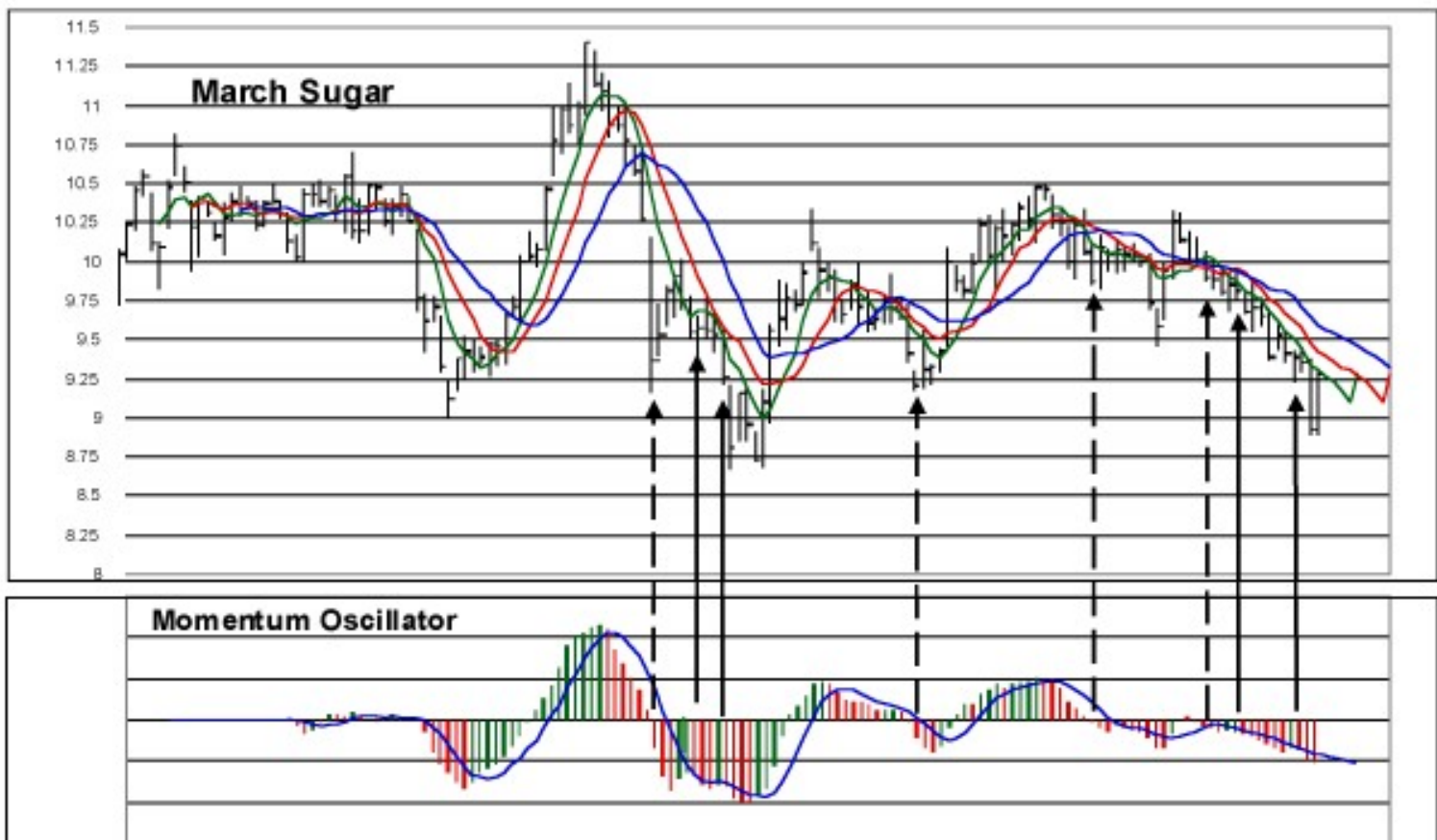
The key is that for a crossover sell, the first bar must be above the zero line and a positive number, and the next bar must cross the zero line (from positive to negative), and must be red. Figure 38 illustrates this formation.

**Figure 38. The Crossover Sell Signal**



Let's see how the Momentum Oscillator's sell signals function when coupled with a price chart.

**Figure 39. Momentum Oscillator Sell Signals with March Sugar**



In Figure 39 above, all the sell signals generated by the Momentum Oscillator are valid. The dashed lines link crossover sell signals with their corresponding price bars, and the solid lines link ACDC sell signals with their corresponding price bars. Each of them presents an opportunity to add to our short position by buying additional contracts as each signal is hit.

## Review of Momentum Oscillator Buy and Sell Signals

Let's review the function of the Momentum Oscillator and the buy and sell signals it generates.

1. The Momentum Oscillator shows us the strength and direction of the market's underlying momentum. Before price changes, the strength and direction of the momentum will change.

2. The Momentum Oscillator generates two buy signals:

- The ACDC buy
- The crossover buy

3. The Momentum Oscillator generates two sell signals:

- The ACDC sell
- The crossover sell

4. The signals generated by the Momentum Oscillator are for adding contracts only, not signals for entering or exiting the market. To take these signals, we must already be in the market.

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## 9. The E-Wave Oscillator

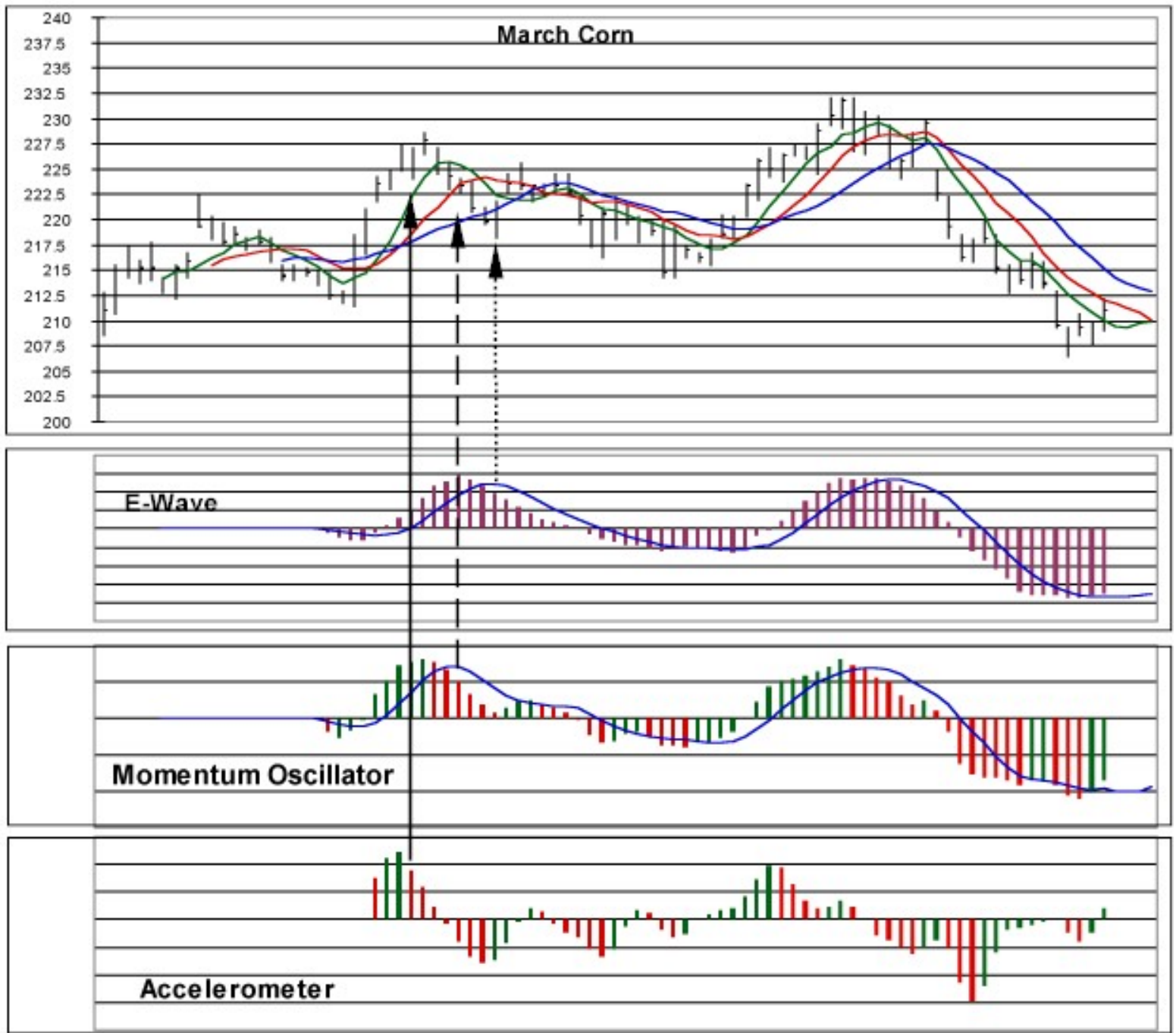
### Confirmation That It's Time to Exit the Market

**In this chapter you will learn how the E-Wave Oscillator confirms that the momentum of a current trend has turned.**

The E-Wave Oscillator is a precise indicator of overall market rhythm. It measures the ebb and flow of the market and shows where the market is picking up or running out of steam. Although the E-Wave Oscillator is similar in construction to the Momentum Oscillator, including the signal line, it uses different ratios. Its main purpose is to confirm that the momentum has turned, and to signal that if we are not out already, it is time to exit the market.

Figure 40 below demonstrates how the E-Wave Oscillator, the Momentum Oscillator, and the Accelerometer interact to give us our best estimates of where to add on, and where to exit.

### Figure 40. The Interaction of E-Wave Oscillator, Momentum Oscillator and Accelerometer



In this chapter, we'll review all the tools and their functions.



## 10. Review of the System

In the first 9 chapters of this course, we learned about the features of *The Fractal's Edge* and how we use them to determine and trade the underlying structure of the market. Before we get into how to set up the system, we'll review all the tools and their functions:

- **The Price Bar Chart:** We saw how it depicts the high, the low, and the close. It is a graphical representation of the market's trading system. Because the markets are complex and chaotic, the charts contain fractals that repeat themselves over all scales of measurement. We learned how to identify fractals on the price charts.
- **Initiating Fractals** indicate entry points for further trading and pyramiding. When combined with the Gatekeeper, fractal formations show us where to place the initial order.
- **The Gatekeeper:** We learned that the Gatekeeper is a series of moving average lines superimposed over the individual commodity or stock price chart. Averages are based on ratios derived through the application of fractal geometry. The Gatekeeper's purpose is to prevent unwise trades and to signal entry and exit points for valid trades. We learned how to use the Stability Lines in our trading.
- **The Psychometric Evaluators** depict the current day's volume and a ratio of the current volume to the day's trading range. These graphs work together to give us a picture of the how the "mass mind" has affected the day's trading.
- **The Accelerometer** is a histogram that is extremely sensitive to changes in the acceleration or deceleration of market momentum. It alerts you to future changes in a market's trend. It is also used as a tool for maximizing your profits as it generates additional buy and sell signals.
- **The Momentum Oscillator** displays changes in the strength and direction of market momentum. It's like reading the financial pages of tomorrow's newspaper. Its formulas are based on fractal geometry and it generates buy and sell signals.
- **The E-wave Oscillator** is a precise indicator of overall market rhythm. It measures the ebb and flow of the market and shows where it begins to pick up or run out of steam. Formulas for this histogram are based on fractal ratios.

The seven tools above combine to provide us with all of the information we need to make sound trading decisions:

- **Buy Signals:** The system shows us where to mark initiating buy fractals

and all buy signals generated by the Momentum Oscillator and the Accelerometer with green arrows for entering the market long. We place these arrows above the appropriate bars on the commodity or stock chart.

- **Sell Signals:** The system shows us where to mark initiating sell fractals and all sell signals generated by the Momentum Oscillator and the Accelerometer with red arrows for entering the market short. We place these arrows below the appropriate bars on the commodity or stock chart.
- The system colors green all histogram bars above the zero line that reflect higher positive numbers than the previous day's bar, and all histogram bars below the zero line that depict lower negative numbers than the previous day's bar. Thus, a change in color alerts us to a change in market conditions.
- The system colors red all histogram bars below the zero line that reflect higher negative numbers than the previous day's bar, and all histogram bars above the zero line that depict lower positive numbers than the previous day's bar. Thus, a change in color alerts us to a change in market conditions.

In the next chapter, you will experience *The Fractal's Edge* in action as you work through a trading simulation exercise that will allow you to practice using the system to make profitable trades.

After that, you will learn how to get the market data, how to set up the system on your computer, how to do paper trading and how to choose a broker that's right for you.

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- Murphy, J. J. *Technical analysis of the futures markets: A comprehensive guide to trading methods and applications*. New York: New York Institute of Finance/Prentice Hall, 2001.
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# 11. Trading Simulation

## Experience the Fractal's Edge System In Action

In this chapter, we will step you through the process so that you can experience trading through simulation. You will be presented with a series of frames that depicts the Fractal's Edge trading system and will have tasks to perform related to each particular frame. When you've completed your tasks in a frame, you can turn the page and check your work against ours. Then you can move on to the next frame until you finish the simulation.

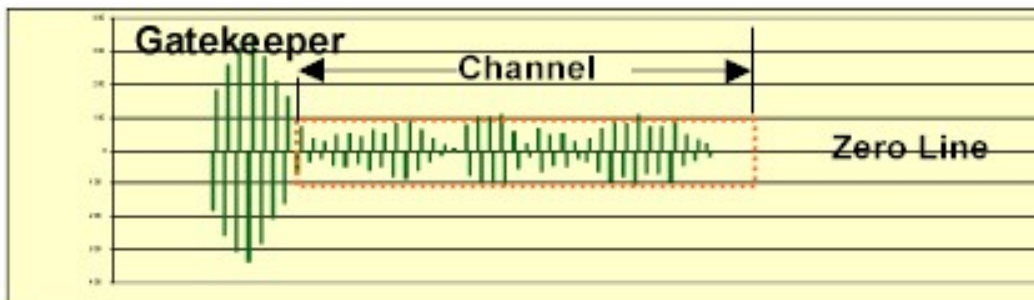
### Instructions

#### The Gatekeeper Revisited

In this chapter, we're going to use the system to go through a step-by-step simulation of the trading process. Before we do, though, we want to take another look at the Gatekeeper. We use the graphical device shown in Figure 41 to detect narrow channels.

It is actually a histogram of two of the three Stability Lines that make up the Gatekeeper, adjusted to give us an early warning of the gate's closing. It also gives us the advantage of seeing exactly where the channels are located.

Figure 41. The Gatekeeper Histogram



When the Gatekeeper closes the gate, the Stability lines are intertwined. The Gatekeeper histogram shows us where that intertwining is taking place. For locating channels, any time the histogram bars do not extend more than one gridline from the zero line the gate is closed. This is illustrated by the dotted lines. The longer the intertwining, the longer the channel, and the more potential we have of getting in on the beginning of a significant price move.

### Trading Simulation

In this part of the course we'll step you through the process so that you can experience trading through simulation. You will be presented with a frame that depicts The Fractal's Edge trading system and will have tasks to perform related to that particular frame. When you've completed the tasks, you can turn the page and

check your work against ours. Each frame represents one trading day.

As you go through the simulation, you will learn first-hand about the psychology of trading. With each successive frame, you may even find that your heart beats a little faster as you wonder how you fared in the market that "day." Through this process, you will learn to trust yourself and the system.

Remember, we are using actual data for the simulation so that you can experience what trading is really like-which includes making profits as well as losses. Because of that, you will have a chance to experience a simulated loss or two.

For example, even with The Fractal's Edge, sometimes an initial fractal will form and the system will indicate that it is a valid fractal. As a consequence, you will enter the market only to see it reverse itself within a couple of bars. This is normal and occasionally happens.

Fortunately, The Fractal's Edge was designed to help you keep such losses to a minimum while maximizing your profits. Keep in mind that no system is foolproof, and be wary of any system that does not show you how to work with the occasional "false start." Now, on to the simulation.

### **Here is the scenario:**

You have opened an account with your broker with \$2,500. You have been following several markets, and now see an opportunity in March Cocoa. To control a contract (buy or sell), you must make a deposit of \$800 into your margin account. This is done automatically when your order is executed. At the end of your trade, this \$800 deposit will be returned to you, minus commissions (about \$60), market fees (usually less than \$3.00), and any loss you sustain, or plus whatever profit you make.

One contract controls 10 metric tons (22046 pounds) of cocoa. Each tick (or point) of price movement is worth \$10 in profit or loss to you. While the price on the chart may read 8080, you can drop the last zero and read it as \$8.08, or simply 808.

On the next page is Simulation Frame #1, a screen showing March Cocoa's price chart and all of the tools in The Fractal's Edge system. Do the following tasks using the price chart and a separate sheet of paper and then compare your answers to ours.

**Step 1.** On the price chart, locate the latest buy fractal bar that has at least 2/3 of its length out of the nearest stability line and the latest sell fractal bar that has at least 2/3 of its length out of the nearest stability line. (The arrow is there only as a point of reference indicating our starting point on the chart.)

**Step 2.** Draw a horizontal line from the high of the buy fractal to about 1 inch past the current bar, and from the low of the sell fractal to about 1 inch of the current bar.

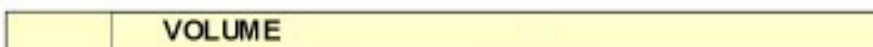
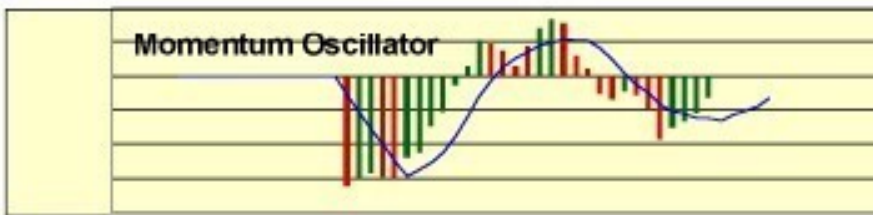
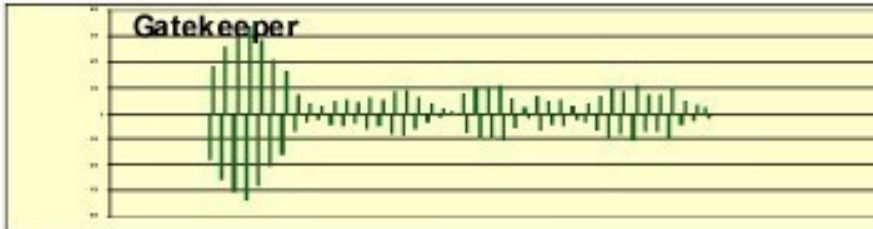
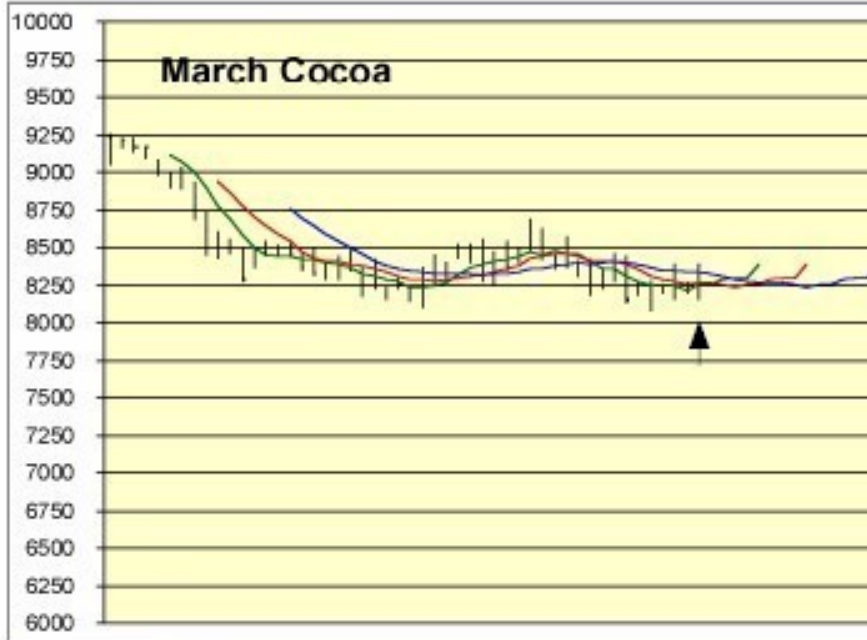
**Step 3.** Determine the approximate price for the buy and sell fractals and the price at which you will enter the market.

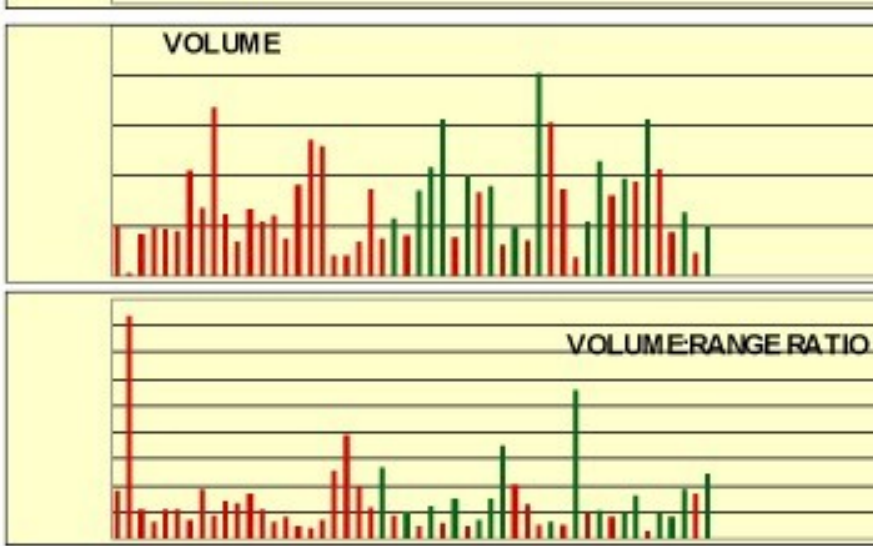
**Step 4.** Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's current indications.

**Step 5.** Write down what you would say when you call your broker to place the buy and sell orders.

## Simulation 1

### Simulation Frame #1





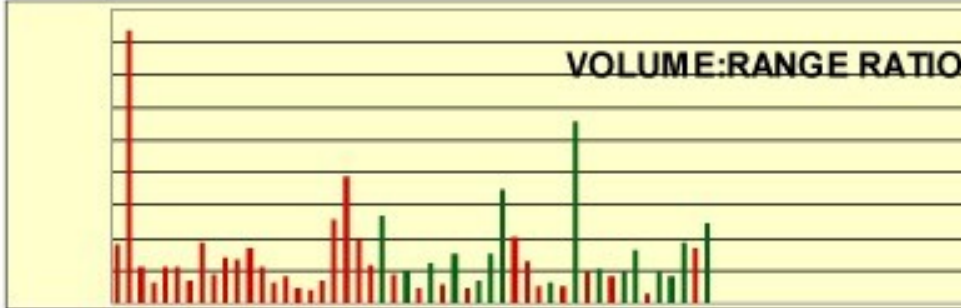
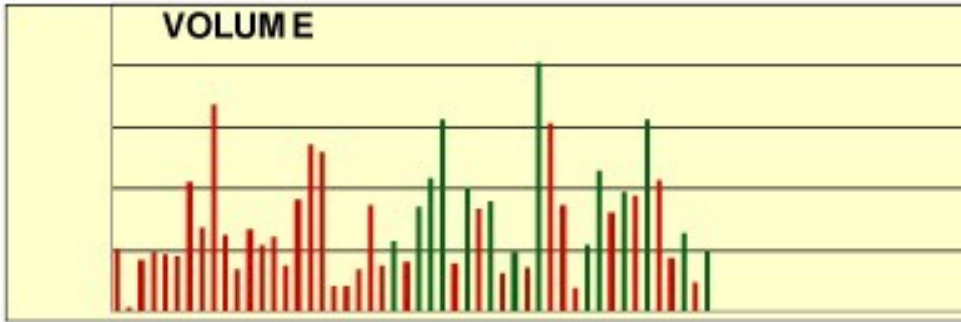
### Simulation #1 Results: Steps 1-3



### Results-Step 4

When the Psychometric Evaluators show us Green-Green, we know that a lot more traders are getting into the market (higher volume). We know that their trades are favoring the direction in which the current bar is moving, and we know that price movement is picking up speed (higher Volume:Range Ratio).

The Accelerometer bars have crossed the zero line, so momentum is beginning to accelerate upward.

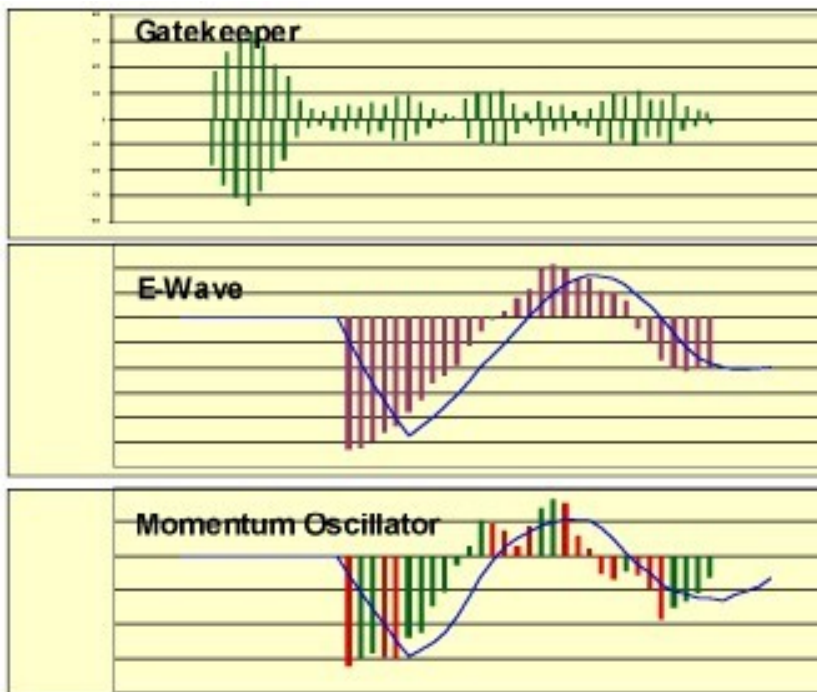


The bars on the Momentum Oscillator are approaching the zero line, which means downward momentum is slowing, and momentum is turning upward. The signal line confirms that the direction of the momentum is changing.

The E-wave shows that the overall market rhythm is just beginning to change.

The Gatekeeper shows the gate completely closed.

**Final analysis:** conditions are right for a significant price move.



## Results-Step 5

I want to buy one contract of March Cocoa at 868 (two ticks above the 866 fractal). I want to sell one contract of March Cocoa at 808\* (two ticks below the 810 fractal). One Cancels the Other (OCO). Order Good 'til Cancelled (GTC).

When we tell the broker "one cancels the other," we're saying, "if my buy order is hit, cancel my sell order. If my sell order is hit, cancel my buy order." When we say Good 'til Cancelled, we're saying don't cancel this order until I tell you to.

\*NOTE: We can drop the final zero from the price.

## Feedback

How did you do? If there were areas you were weak in interpreting any of the tools, go back to those chapters and study them again. With Step 5, you might not have known what to say to your broker. The purpose of this simulation is to prepare you. So when you don't know for sure, you can look at the answers here and make adjustment to your learning as necessary.

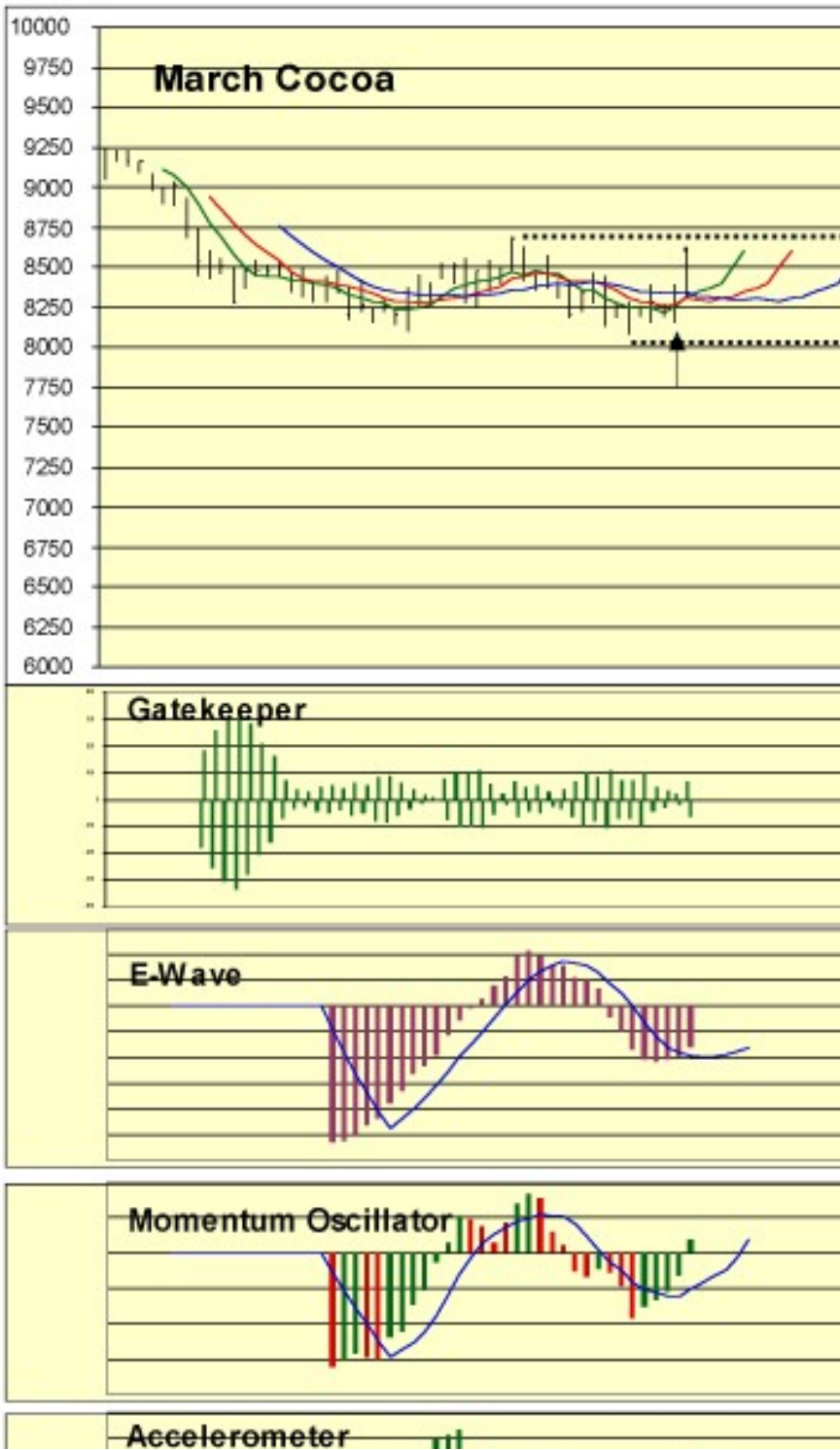


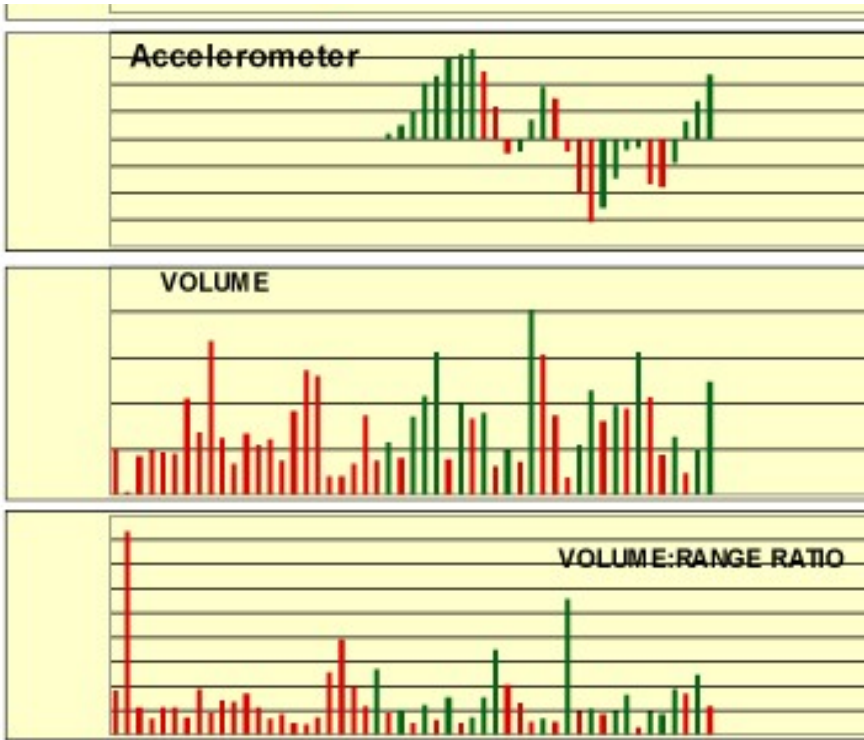
## Simulation Frame #2

In the last frame you used the tools to make a preliminary analysis of the current situation in the market. You identified the most recent buy and sell fractals, and have placed your orders. You are now ready for the next frame's task.

Starting from the bottom up, give a short analysis of each tool's indication of the current market situation. Be sure to comment on the price chart as well. (Make sure you make your best attempt to analyze the charts yourself before peeking at our answers at the bottom of the page.)

## Simulation Frame #2





## Simulation Frame #2 results:

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. We have higher volume and lower price movement. This combination appears quite often, and if it doesn't end a trend, it lets us know the current one will go on until the Psychometric Evaluators show us the next Green-Red combination. Also, since yesterday's Green-Green is followed today by an increase in volume, either a change is in the making, or the channel will continue.
- The Accelerometer indicates that the momentum is continuing to accelerate.
- The Momentum Oscillator has crossed the zero line, which means that the direction of the momentum is now upward.
- The E-Wave's signal line has lifted off from its histogram bars, confirming the change in the direction of the momentum.
- The Gatekeeper appears to be opening, but it's too soon to tell.
- The price chart tells us that price reached a high of 860 and closed at 860. This means that the immediate trend is upward. Our buy fractal (868) has not yet been hit. We'll see what tomorrow brings.

### *Feedback*

Did you catch the significance of the previous Psychometric Evaluator's Green-

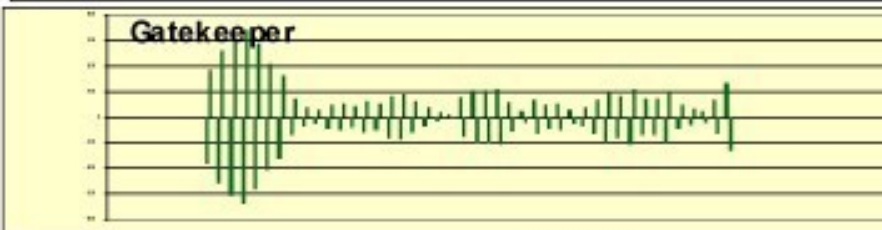
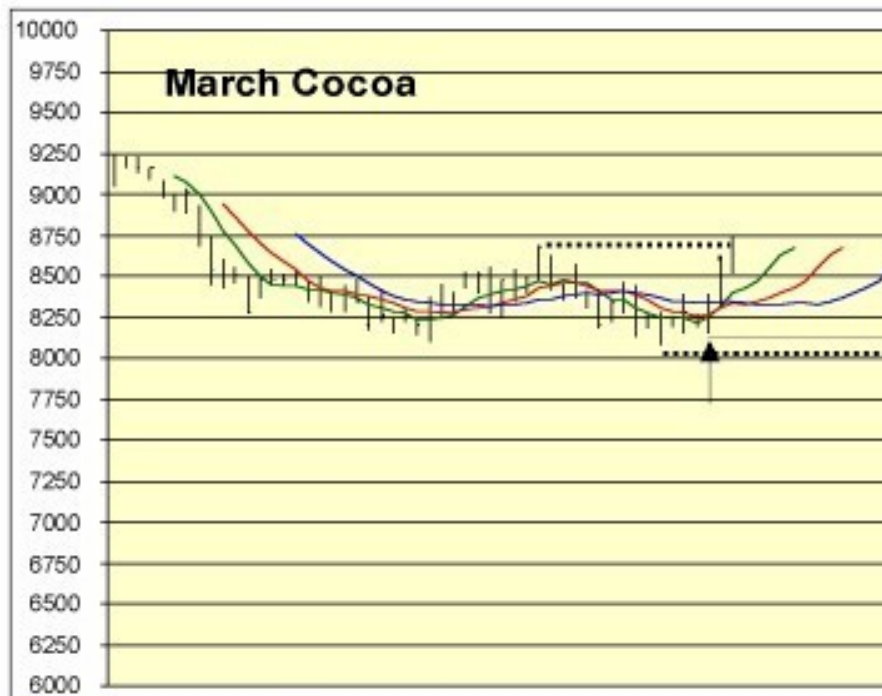
Green combination being followed by the current Green-Red? Higher volume and lower price facilitation is like cramming a jack-in-the-box back in the box. The spring (volume) is longer than the box (range) and has to be compressed to fit. This means that the market is storing energy and conditions appear to be building toward a breakout within the next two or three bars.

### Simulation Frame #3

In the last frame you used the tools to make an analysis of the current situation in the market. It appears that conditions are right for a breakout soon. You are now ready for the next frame's task:

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Be sure to comment on the price chart as well.
- Today's market results are High, 875; Low, 852; Close, 867.

### Simulation Frame #3





## Simulation Frame #3 Results

### Analysis:

- The Psychometric Evaluators are again showing Green-Red. We have higher volume and lower VRR. Also, since yesterday's Green-Red is followed today by another Green-Red, the spring is compressed even more.
- The Accelerometer indicates that the momentum is continuing to accelerate.
- The Momentum Oscillator indicates that the direction of the momentum is continuing upward.
- The E-Wave's continues to confirm the change in the direction of the momentum.
- The Gatekeeper appears to be opening.
- The price chart tells us that price reached a high of 875 and closed at 867. This means the immediate trend is upward. Our buy fractal (868) has been hit. We have just bought one March Cocoa contract. This means our position

is long the market. "Long" means we are buying and wanting prices to go up. Also, a new sell fractal was formed at 815. Because we are going long, we won't take action on it at the moment. However, a fractal remains valid until it is hit, so we'll keep the 815 and 810 fractals in mind if the market reverses itself.

**NOTE:** One contract controls 10 metric tons (22,046 pounds) of cocoa. A move of one tick (or point) on the price chart equals \$10. So, we got into the market at 868, and the market closed at 867, which means we have lost 1 point (\$10).

### **Feedback**

There is one more thing not mentioned in the analysis, but extremely important. It has to do with the current bar and the Picket Fence (green Stability Line). Can you think of what it is? A hint: how much money are you willing to risk if the market moves against your position?

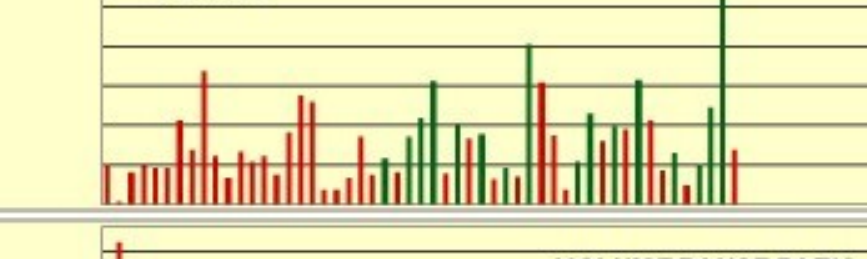
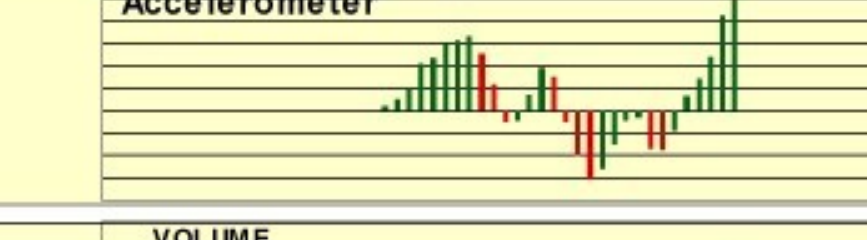
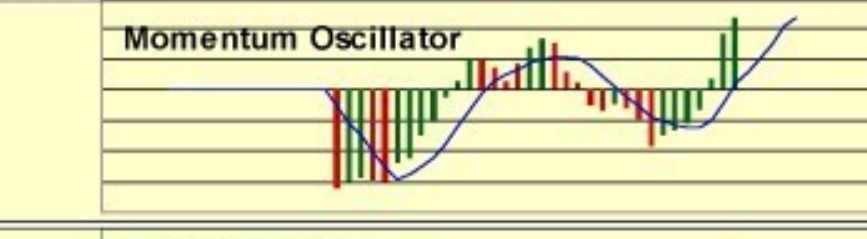
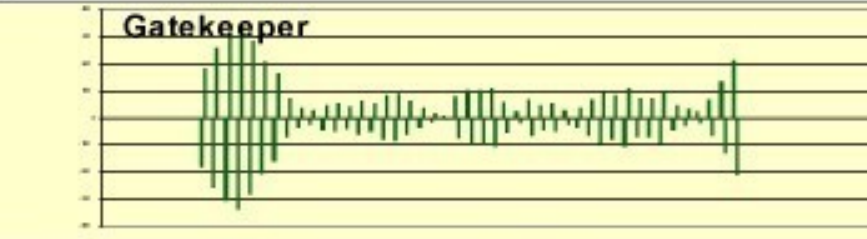
You need to set your stop loss. Remember to draw a line from the current bar to the Picket Fence. The point at which the line and the Picket Fence cross is the price for your stop loss. This point is approximately 839. Call your broker and say, "I want to place an order for a March Cocoa sell stop at 839."

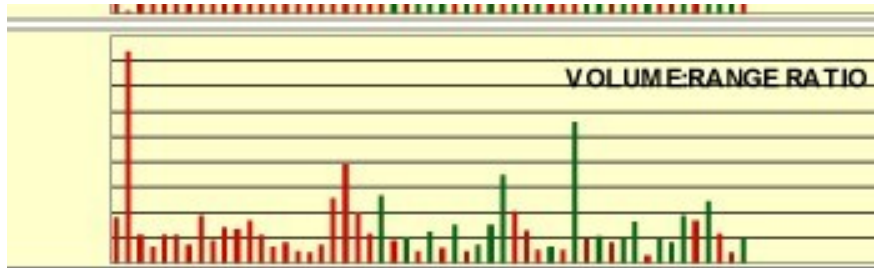
## **Simulation Frame #4**

In the last frame you used the tools to make an analysis of the current situation in the market. Your buy order was hit at 868 and you are now long the market one March Cocoa contract. The current price is 867, and your stop loss is set at 839. Your risk is \$280 plus commissions.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you are in the market, examine the tools for any buy signals they may generate.
- Be sure to comment on the price chart as well.
- Today's market results are High, 864; Low, 851; Close, 860.

## **Simulation Frame #4**





## Simulation Frame #4 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. We have lower volume and higher VRR. This indicates either a natural pause in the market or a move by the floor brokers to manipulate price. If we don't see an increase in volume over the next two to three bars, then the floor brokers have had their way with the price.
- The Accelerometer indicates that the momentum is continuing to accelerate.
- The Momentum Oscillator indicates that the direction of the momentum is continuing upward.
- The E-Wave's continues to confirm the change in the direction of the momentum.
- The Gatekeeper has opened the gate.
- The price chart tells us that price reached a high of 864 and closed at 860. We entered the market long at 868. We are now 8 points down, and at \$10 per point, we have lost \$80 plus commissions and fees.

### Our account looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 4     | \$2500 | (800)   | 0      | (80)   | (3)    | (30)   | 2387      | 1587      |

### Feedback

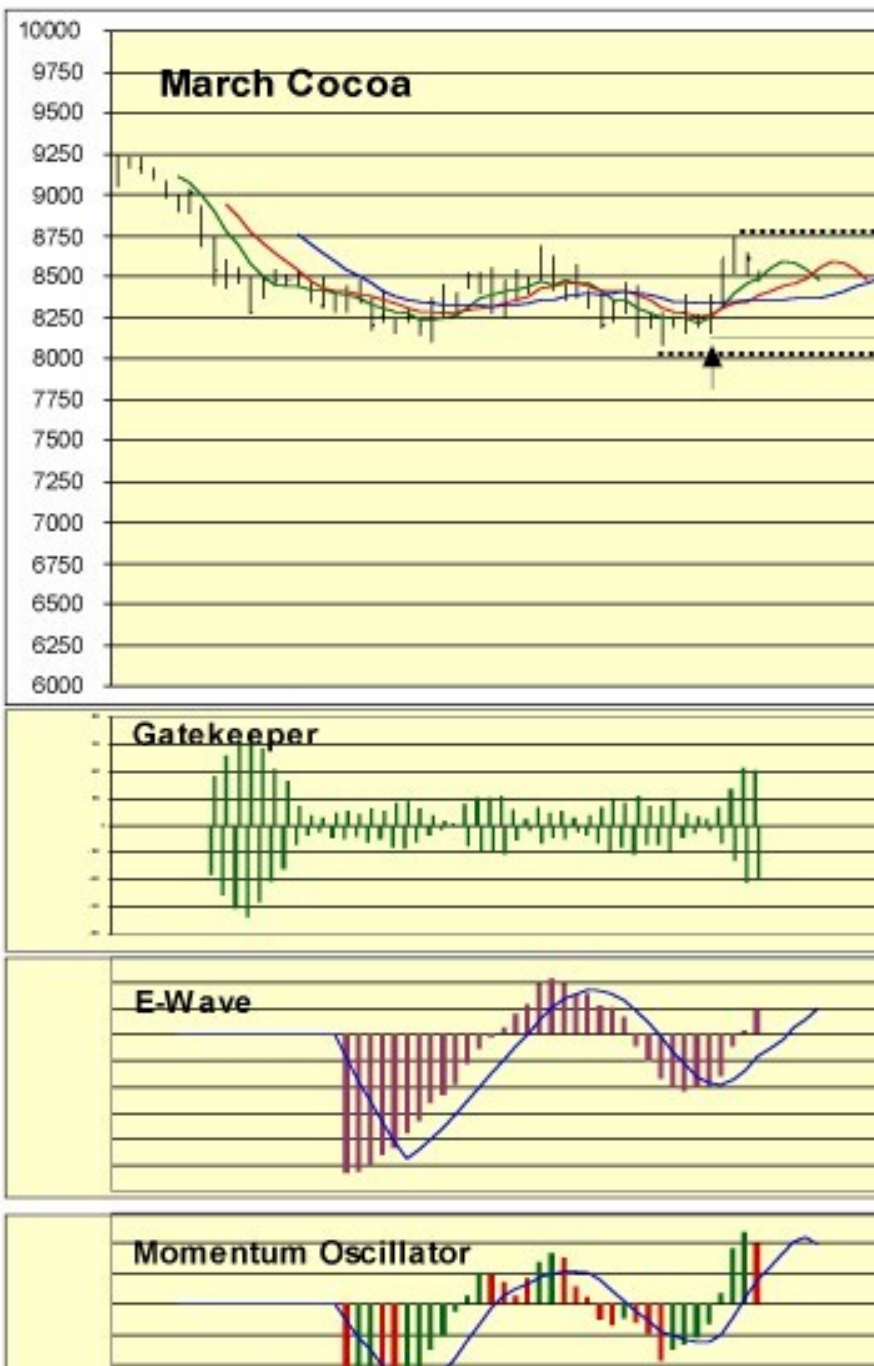
Both the Accelerometer and the Momentum Oscillator have had more than 4 consecutive matching green bars. Any time this happens, it is an early warning to watch your stop loss settings closely. Using the current bar, you should have adjusted your stop loss to 847 and called your broker to set the new stop loss.

## Simulation Frame #5

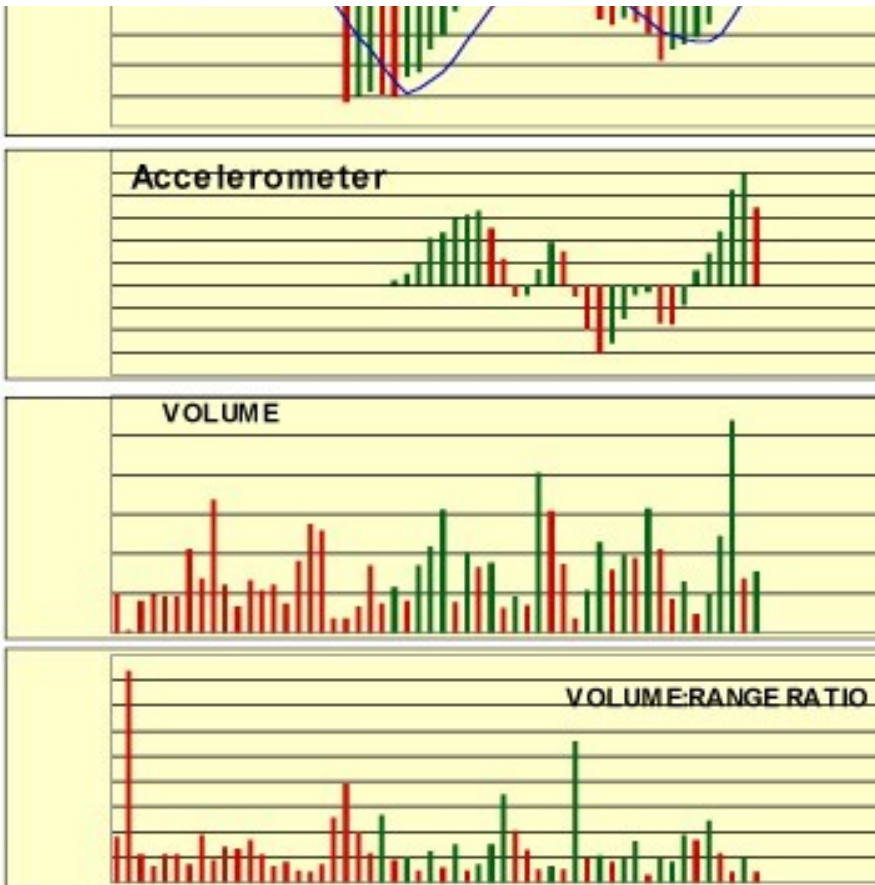
In the last frame you used the tools to make an analysis of the current situation in the market. You are long the market one March Cocoa contract at 868. The current price is 860, and your stop loss is set at 847. Your risk is \$210 plus commissions and fees.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Examine the tools for any buy signals they may generate.
- Be sure to comment on the price chart as well.
- Today's market results are High, 853; Low, 847; Close, 848.

## Simulation Frame #5







## Simulation Frame #5 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. We have higher volume and lower VRR. This indicates a possible change in trend.
- The Accelerometer indicates that the momentum is slowing.
- The Momentum Oscillator indicates that the direction of the momentum is changing.
- The E-Wave's has not confirmed the change in the direction of the momentum.
- The Gatekeeper is closing the gate.
- A new buy fractal has formed at 875. We will place an order to buy at 877 (two points above the high of the buy fractal bar) and an order to sell at 813 (two points below the low of the sell fractal bar).
- The price chart tells us that price reached a high of 853 and closed at 848. We entered the market long at 868. The market's low was 847, our stop loss

price, so we have stopped ourselves out of the market.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 4     | \$2500 | (800)   | 0      | (80)   | (3)    | (30)   | 2387      | 1587      |
| 5     | \$1587 | 800     | 0      | (130)  | (3)    | (30)   | 2224      | 2224      |

***Feedback***

So far, you have simulated 5 days of trading. Using The Fractal's Edge, you have analyzed the current market situation. All indications were that the price would rise, but it didn't. Instead, it moved against your position and you lost \$210 plus fees and commission. You followed directions and you did what you were supposed to do, and yet you lost money.

Now before you get upset, remember as we mentioned in the beginning of this chapter, we designed the simulation to represent what you will actually encounter as you begin trading. No trading system is 100% infallible and there will be times when, for no apparent reason, the market moves against you despite all other indications. That is the nature of trading and you need to learn it early. If you felt disappointment or shock, it's normal for beginners.

The purpose of the Fractal's Edge System is to minimize the likelihood of the market moving against you and to minimize your losses when it does. Rest assured that as you stay the course and consistently use all the indicators in the Fractal's Edge, you will make winning trades at least 80% of the time, which will more than make up for any losses you encounter along the way.

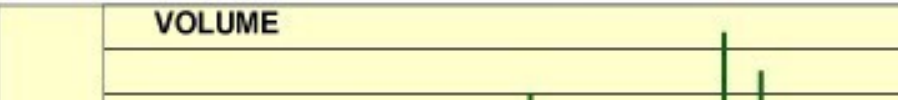
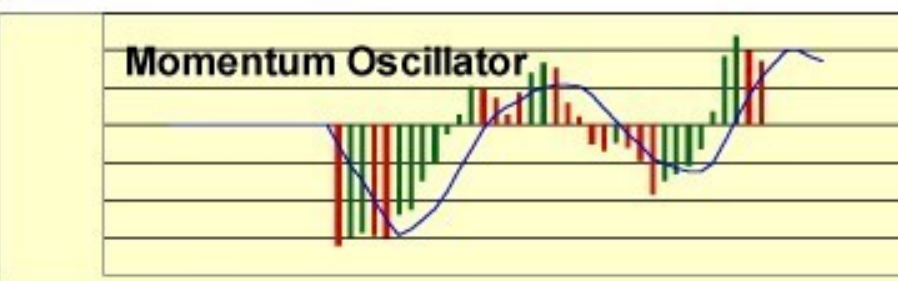
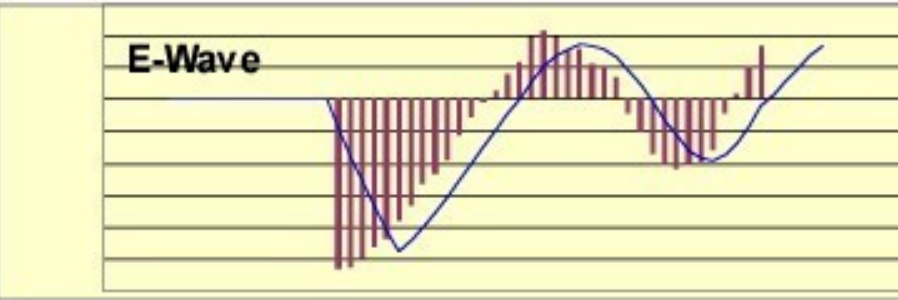
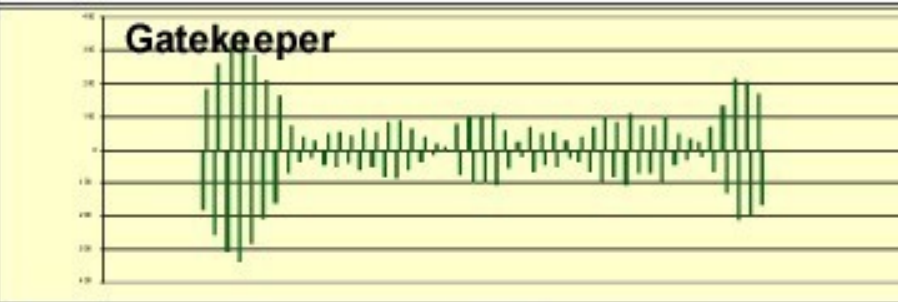
Now, let's get back to the simulation.

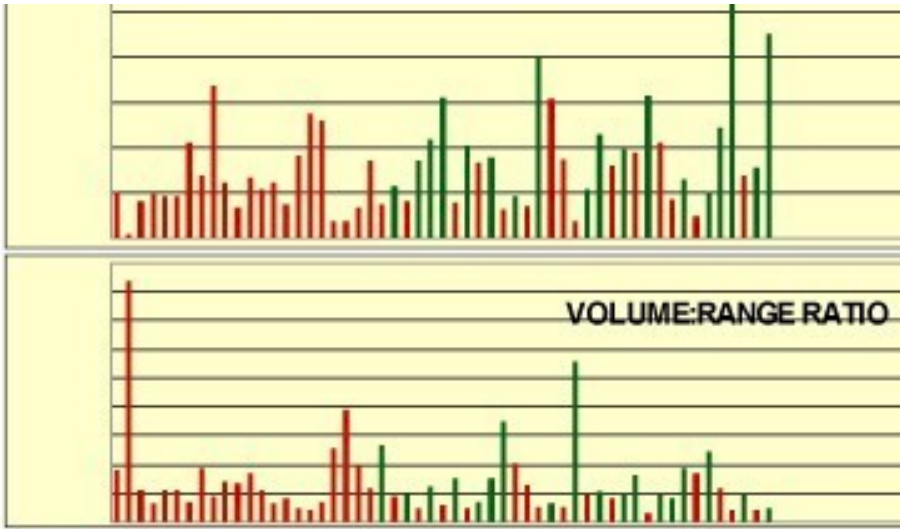
## Simulation Frame #6

In the last frame you used the tools to make an analysis of the current situation in the market. You were stopped out at 847 for a loss of \$210 plus commissions and fees. Your account is now at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 866; Low, 847; Close, 863.

## Simulation Frame #6





## Simulation Frame #6 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Green. We have higher volume and higher VRR. This indicates that a lot more traders are getting into the market (higher volume), and that their trades are favoring the direction in which the current bar is moving. It also means that the market had facilitated price movement (higher VRR).
- The Accelerometer indicates that the momentum is continuing to slow.
- The Momentum Oscillator indicates that the direction of the momentum is continuing to change from upward to downward.
- The E-Wave's has not yet confirmed the change in the direction of the momentum.
- The Gatekeeper is continuing to close the gate.
- The price chart tells us that price reached a high of 866 and closed at 863. The buy fractal at 875 has not been hit. The sell fractal at 815 has also not been hit.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 5     | \$1587 | 800     | 0      | (130)  | (3)    | (30)   | 2224      | 2224      |
| 6     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

### Feedback

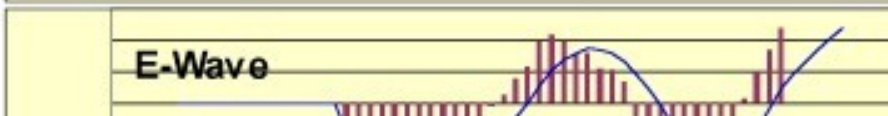
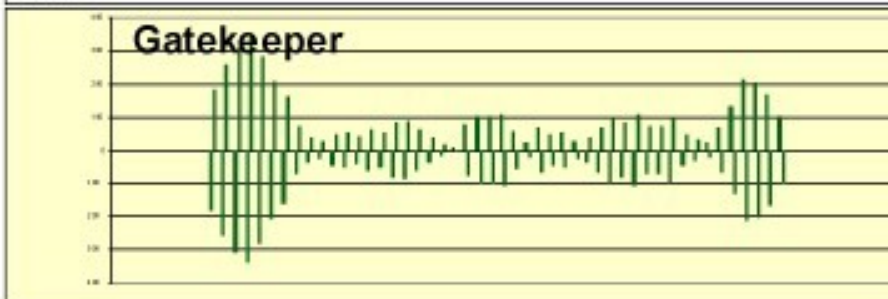
It would be tempting, in light of the Psychometric Evaluator's two greens to jump back into the market. However, both the Accelerometer and the Momentum Oscillator are indicating a downturn. We should have an open order to buy at 877 and to sell at 813. Since neither the 875 buy fractal nor the 815 sell fractal were hit, the better strategy is to wait until they are hit.

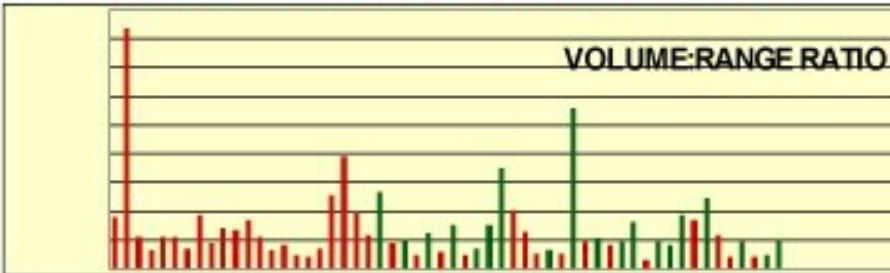
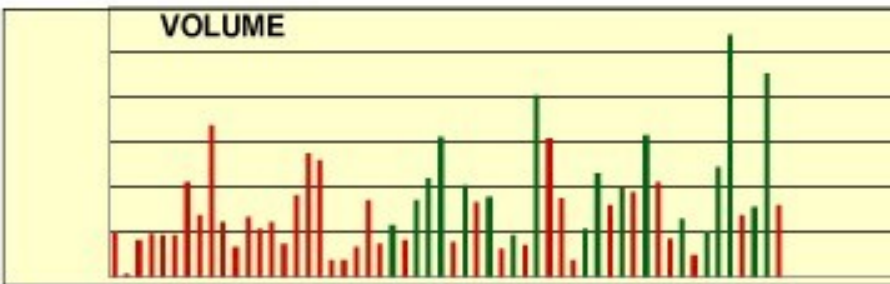
## Simulation Frame #7

In the last frame you used the tools to make an analysis of the current situation in the market. You saw the market "spring" back after you stopped yourself out. Your account is now at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 865; Low, 849; Close, 858.

## Simulation Frame #7





## Simulation Frame #7 Results

### **Analysis:**

- The Psychometric Evaluators are showing Red-Green. We have lower volume by at around 1/3 of yesterday's and higher VRR (about twice yesterday's). This indicates that a lot fewer traders are getting into the market (lower volume), but that the market had facilitated price movement (higher VRR). Once again, if we don't see higher volume within the next couple of bars, then the floor brokers have sensed a change in the air and are moving the price in the opposite direction to accumulate "inventory" for the upcoming change.
- The Accelerometer bar has crossed the zero line, indicating that the momentum is now beginning to accelerate downward.
- The Momentum Oscillator indicates that the direction of the momentum is continuing to change from upward to downward. This has not yet been confirmed by the signal line.
- The E-Wave has not yet confirmed the change in the direction of the momentum.
- The Gatekeeper is continuing to close the gate.
- The price chart tells us that price reached a high of 865 and closed at 858. The fractal at 875 has not been hit.

### **Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 5     | \$1587 | 800     | 0      | (130)  | (3)    | (30)   | 2224      | 2224      |
| 6     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 7     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

### **Feedback**

The Accelerometer has two red bars above the zero line, and one below, which counts as two. Therefore, it has generated a sell signal, but since the price bar is above the Wall, the signal is invalid because we are not short the market. We should have an open order to buy at 877 and to sell at 813. Since neither the 875 buy fractal nor the 815 sell fractal were hit, the better strategy is to wait until they are hit. We are still in a waiting mode.

## Simulation Frame #8

In the last frame you used the tools to make an analysis of the current situation in the market. You saw the market drop slightly. You are waiting for a new initiating fractal (866) or for a bar to get over the Wall. Your account is now at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 858; Low, 840; Close, 849.

## Simulation Frame #8







## Simulation Frame #8 Results

### ***Analysis:***

- The Psychometric Evaluators are showing Red-Green yet again. We have lower volume by at around 1/2 of yesterday's and higher VRR (about twice yesterday's). This indicates that a lot fewer traders are getting into the market (lower volume), but that the market had facilitated price movement (higher VRR). Once again, if we don't see higher volume by the next bar, then the floor brokers have sensed a change in the air and are in temporary control of the market
- The Accelerometer bar indicates a slight slowing in the speed of the momentum.
- The Momentum Oscillator indicates that momentum is adjusting its direction. While momentum is turning, the signal line has not yet confirmed its complete downward turn. A buy signal has been generated, but it is invalid because the corresponding price bar is inside the Tripwire and we are not currently in the market.
- The E-Wave has not yet confirmed the change in the direction of the momentum.
- The Gatekeeper has closed the gate.

- The price chart tells us that price reached a high of 858 and closed at 849. The buy fractal at 875 has not been hit. A new buy fractal has formed at 869.

**Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 7     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 8     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

**Feedback**

Both the Accelerometer and the Momentum Oscillator show slight changes in direction. This is normal. The buy signals they generate should be ignored because the bars are well within the Tripwire.

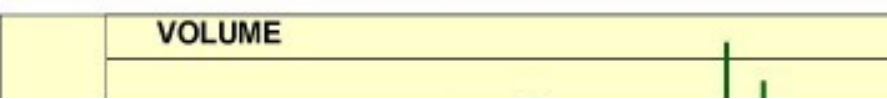
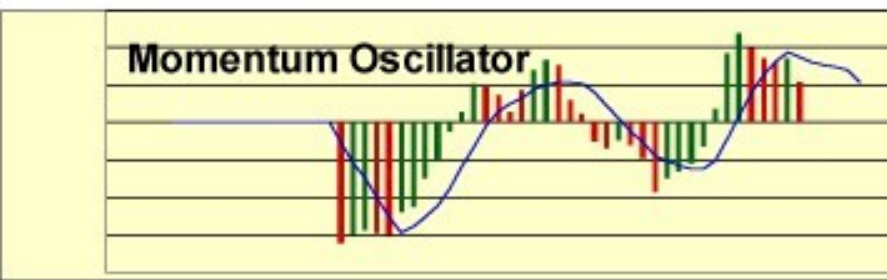
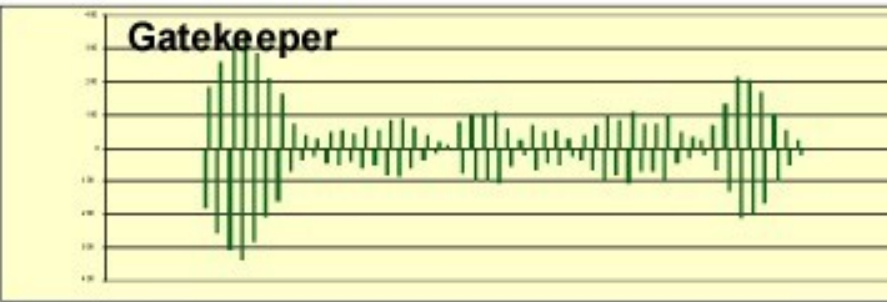
Since a new initiating buy fractal has formed at 866, we will call our broker and place a new buy order for 868 (two points above the high of the buy fractal bar), canceling for now our 877 order. We should now have an open buy order at 868 and an open sell order at 813, one cancels the other (OCO) and good 'til canceled (GTC).

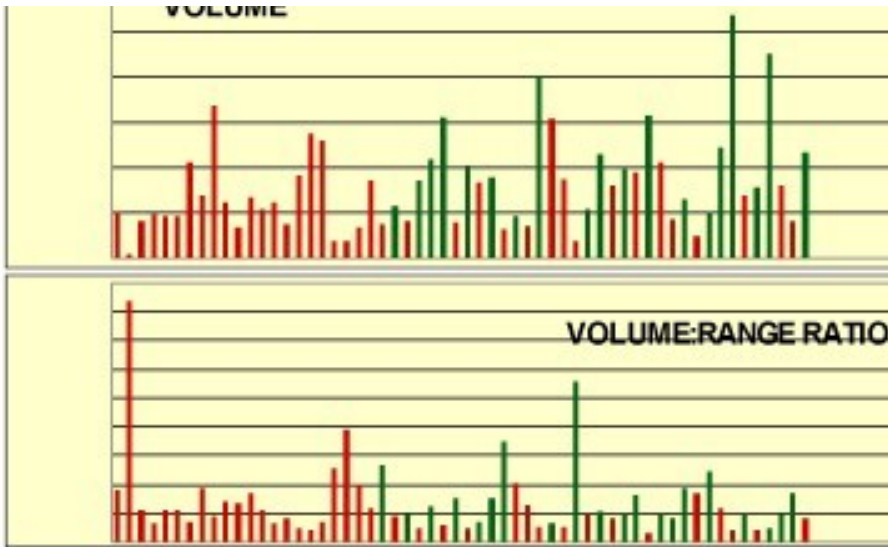
## Simulation Frame #9

In the last frame you used the tools to make an analysis of the current situation in the market. You saw the market drop again. You are waiting for the initiating fractal bar at 866 to be hit at 868, or for a bar to get over the Wall. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well. Today's market results are High, 859; Low, 840; Close, 843.

## Simulation Frame #9





## Simulation Frame #9 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. We have higher volume by at around three times yesterday's and lower VRR (about 1/2 of yesterday's). This indicates that a good number of traders are getting into the market (higher volume), but that the market had not facilitated price movement (lower VRR). The buyers and sellers battled it out, and the sellers dominated as the closing price was near the bottom of the range.
- The Accelerometer bar indicates that the speed of the momentum is accelerating.
- The Momentum Oscillator indicates that momentum is turning downward and the signal line has confirmed the turn.
- The E-Wave has still not yet confirmed the change in the overall direction of the market.
- The gate is still closed.
- The price chart tells us that price reached a high of 859 and closed at 843. The buy fractal at 875 has not been hit. The new buy fractal at 869 has not been hit. No signals were generated.

### ***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 8     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 9     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

## Feedback

Both the Accelerometer and the Momentum Oscillator show changes in direction and the Momentum Oscillator's signal bar has confirmed the change. We are still waiting for either our buy fractal bar (866) to be hit at 868, or for our sell fractal bar (815) to be hit at 813.

## Simulation Frame #10

In the last frame you used the tools to make an analysis of the current situation in the market. You saw the market drop again. You have a buy order at 871 and a sell order at 813. You are waiting for an initiating fractal to be hit. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 844; Low, 834; Close, 836.

## Simulation Frame #10





## Simulation Frame #10 Results

### *Analysis:*

- The Psychometric Evaluators are again showing Green-Red. We have a slightly higher volume than yesterday's and lower VRR (about 1/2 of yesterday's). This indicates that a good number of traders are still getting into the market (higher volume), but that the market is still not facilitating price movement (lower VRR). The buyers and sellers have battled it out again today, and the sellers have once more dominated as the closing price was near the bottom of the range.
- The Accelerometer bar indicates that the speed of the momentum is accelerating.
- The Momentum Oscillator indicates that momentum is continuing its

downward path and the signal line has confirmed the turn.

- The E-Wave has still not yet confirmed the change in the overall direction of the market, but has begun changing direction.
- The gate is still closed.
- The price chart tells us that price reached a high of 844 and closed at 836. The buy fractal at 875 has not been hit. The new buy fractal at 869 has not been hit. The sell fractal at 815 has also not been hit. No signals were generated.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 9     | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 10    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

***Feedback***

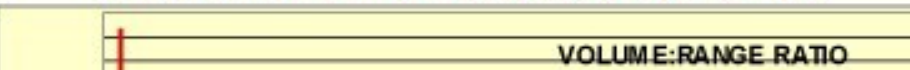
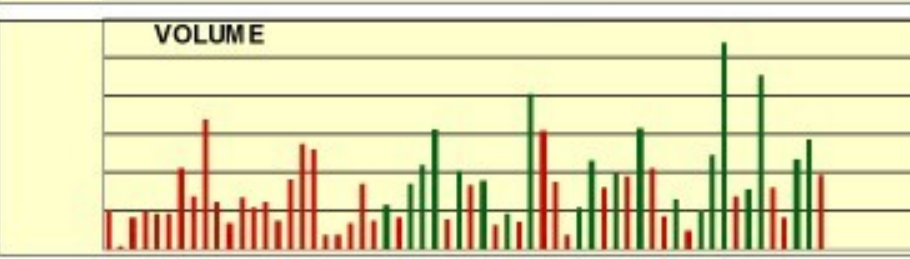
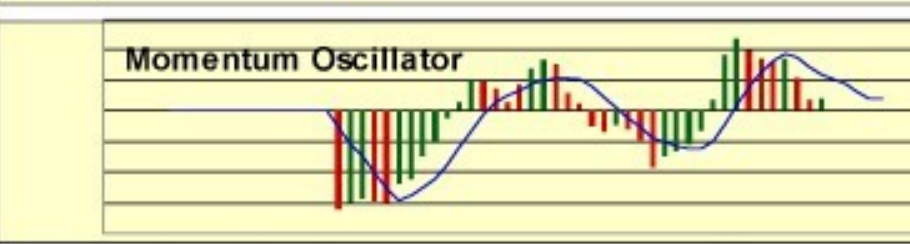
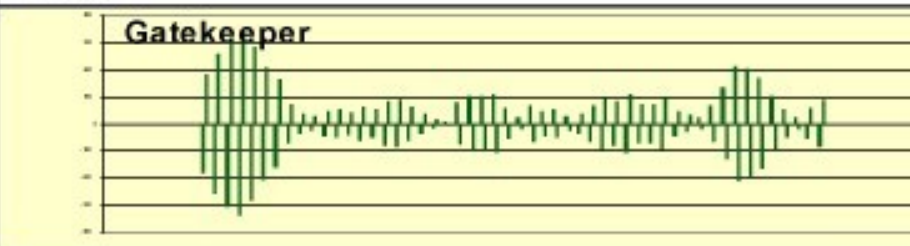
Both the Accelerometer and the Momentum Oscillator show changes in direction and the Momentum Oscillator's signal bar continues to confirm the change. The current bar has escaped over the Wall, but just barely. Often, the market will pull back for a few bars and in the process form a new fractal with the current bar as the fractal bar. In any event, we have planned our entry points and have placed our orders. We will wait and watch.

**Simulation Frame #11**

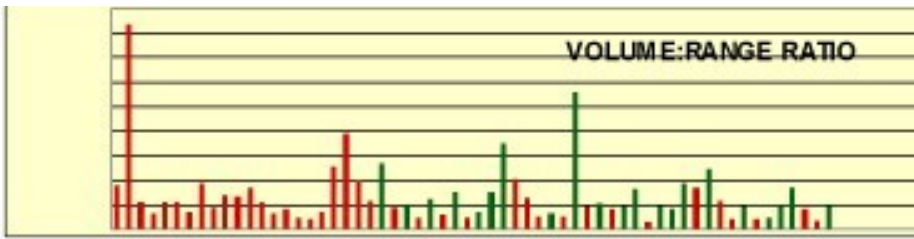
In the last frame you used the tools to make an analysis of the current situation in the market. You saw the market drop again, this time below the Wall. You have a buy order at 871 and a sell order at 813. You are waiting for an initiating fractal to be hit. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).  
Be sure to comment on the price chart as well.
- Today's market results are High, 853; Low, 835; Close, 852.

**Simulation Frame #11**







## Simulation Frame #11 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. We have a lower volume than yesterday's and higher VRR (about three times yesterday's). This indicates that a smaller number of traders are getting into the market (lower volume), but that the market is facilitating price movement (higher VRR). Since today's close was near the high end of the range, we must suspect that the floor traders have manipulated the market in anticipation of a move downward. However, we won't act on that suspicion; we will wait and see.
- The Accelerometer bar indicates that the speed of the momentum is accelerating. The third red bar following the green bar is a sell signal bar. Because the corresponding price bar is well within the Tripwire, we'll consider it invalid.
- The Momentum Oscillator indicates that momentum has changed its path slightly. It has also generated an invalid ACDC buy signal.
- The E-Wave has confirmed the change in the overall direction of the market, as evidenced by its signal line.
- The gate is still closed.
- The price chart tells us that price reached a high of 853 and closed at 852. The buy fractal at 875 has not been hit. The new buy fractal at 869 has not been hit. The sell fractal at 815 has also not been hit. No new fractal signals were generated, but one may be forming at 834.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 10    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 11    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

### Feedback

Both the Accelerometer and the Momentum Oscillator show changes in direction

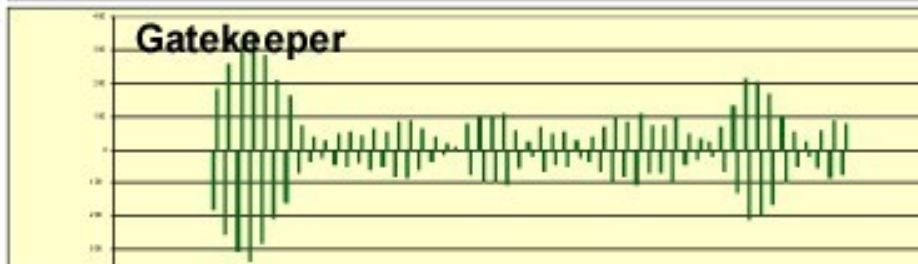
and the Momentum Oscillator's signal bar continues to confirm the change. The market has pulled back from yesterday, which presents the possibility of the formation of a new fractal.

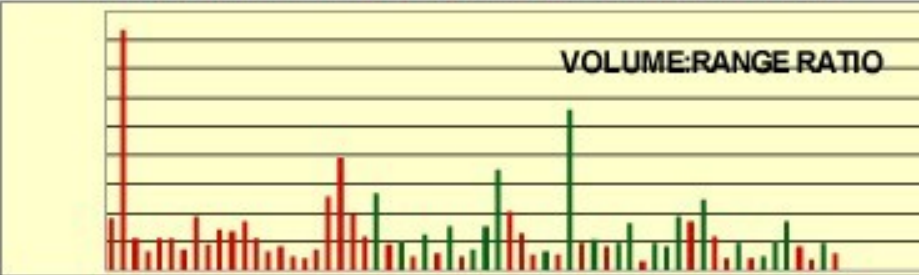
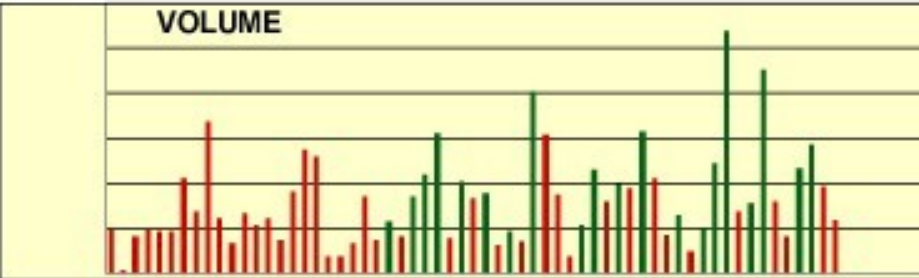
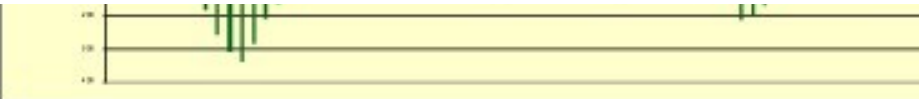
## Simulation Frame #12

In the last frame you used the tools to make an analysis of the current situation in the market. You saw the rise, and this may be due to floor broker price manipulation. You have a buy order at 871 and a sell order at 813. You are waiting for an initiating fractal to be hit. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 853; Low, 835; Close, 852.

## Simulation Frame #12





## Simulation Frame #12 Results

### **Analysis:**

- The Psychometric Evaluators are showing Red-Red. In the market, when the Psychometric Evaluators show us two red bars, it means that fewer traders are entering the market, and price movement is slowing down. This often happens near the end of an Elliot wave of some lower time frame. For example, the price has been rising, but as traders loose interest and are no longer willing to enter the market, there is a general slowing or even slight decline of price movement.
- The Accelerometer bar indicates that the speed of the momentum is decelerating. This is not inconsistent with the unwillingness of traders to enter the market at this time.
- The Momentum Oscillator indicates that momentum is continuing to change its path slightly. However, the signal line is well above the histogram bars, so there is no real cause for concern here.
- The E-Wave continues to confirm the change in the overall direction of the market, as evidenced by its signal line.
- The gate is still closed.
- The price chart tells us that price reached a high of 851 and closed at 847. The buy fractal at 875 has not been hit. The new buy fractal at 869 has not been hit. The sell fractal at 815 has also not been hit. A new sell fractal has formed at 834.

### **Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 11    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 12    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

### **Feedback**

Both the Accelerometer and the Momentum Oscillator show changes in direction and the Momentum Oscillator's signal bar continues to confirm the general downward tendency of momentum. A new sell fractal has formed at 834. We would call our broker and place an order to sell one contract at 832 (two ticks below the low of the fractal bar).

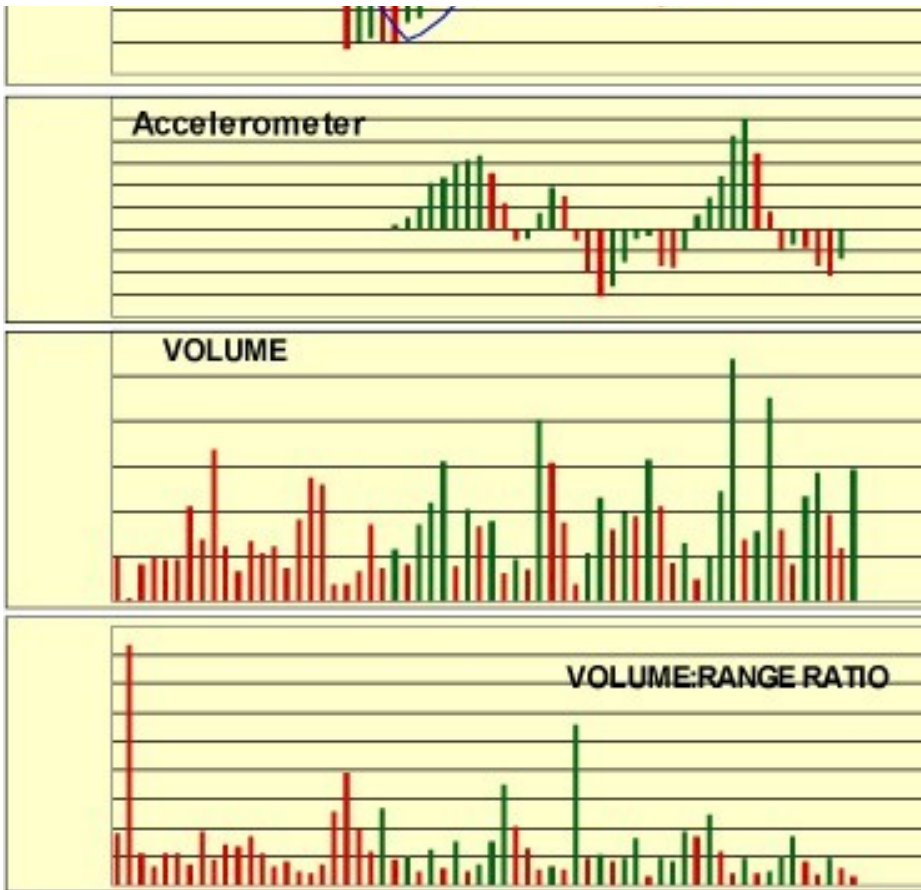
## Simulation Frame #13

In the last frame you used the tools to make an analysis of the current situation in the market. You have a buy order at 871 and sell orders at 832 and at 813. You are waiting for an initiating fractal to be hit. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 848; Low, 840; Close, 845.

## Simulation Frame #13





## Simulation Frame #13 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. We have a threefold increase in volume and a decrease VRR. More traders are entering the market, but the price is not moving very much. In fact, over the entire trading day, price moved only 8 ticks, so a lot of energy is stored in that bar.
- The Accelerometer bar (green, but not visible on the histogram because of its very low negative number) indicates that the speed of the momentum is still decelerating. This is not inconsistent with the limited movement in price.
- The Momentum Oscillator indicates that momentum is continuing to change its path slightly. However, the signal line is still above the histogram bars, so there is still no cause for concern here.
- The E-Wave continues to confirm the overall direction of the market, as evidenced by its signal line.
- The gate is still closed.
- The price chart tells us that price reached a high of 848 and closed at 845. The buy fractal at 875 has not been hit. The new buy fractal at 869 has not been hit. The new sell fractal at 834 has also not been hit.

### *Our account now looks like this:*

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 12    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 13    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |

**Feedback:**

Both the Accelerometer and the Momentum Oscillator show changes in direction and the Momentum Oscillator's signal bar continues to confirm the general downward tendency of momentum. The market has been storing energy and is poised for a move.

## 11. Trading Simulation Experience the Fractal's Edge System in Action

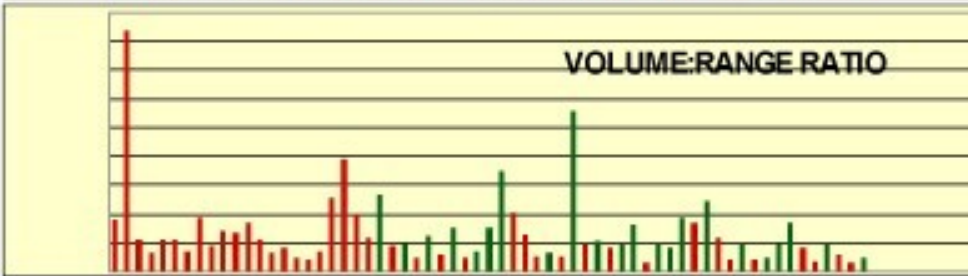
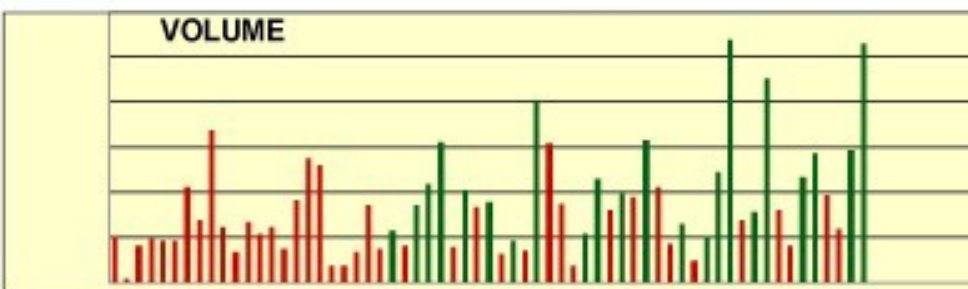
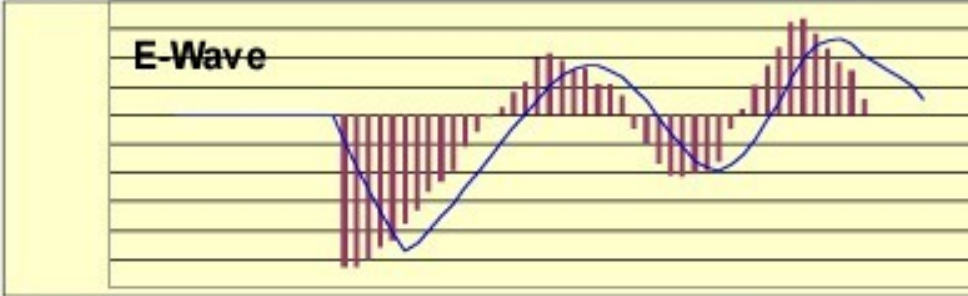
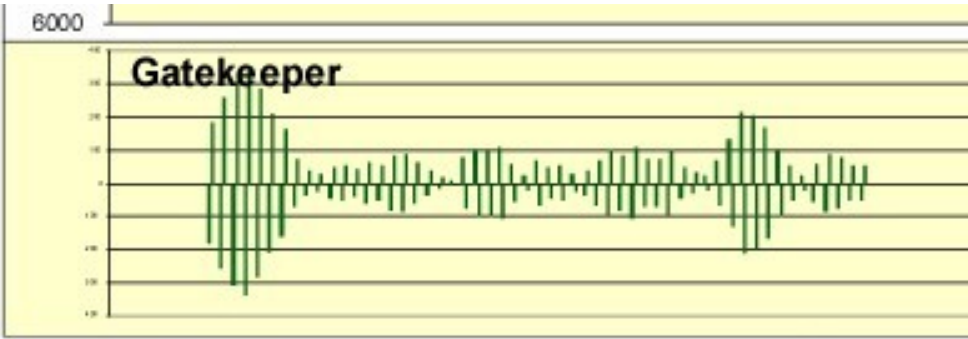
### Simulation Frame #14

In the last frame you used the tools to make an analysis of the current situation in the market. You have a buy order at 871 and sell orders at 832 and at 813. You are still waiting for an initiating fractal to be hit. Your account is still at \$2224.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for fractals that will guide you back into the market. Remember the Wall (blue Stability Line).
- Be sure to comment on the price chart as well.
- Today's market results are High, 840; Low, 816; Close, 819.

### Simulation Frame #14







## Simulation Frame #14 Results

### **Analysis:**

- The Psychometric Evaluators are showing Green-Green. We have an enormous increase in volume and a twofold increase in VRR. A great number of traders are entering the market, and their trades are favoring the direction in which the current bar is moving. In addition, the market is facilitating price movement.
- The Accelerometer indicates that the speed of the momentum is picking up.
- The Momentum Oscillator indicates that momentum has turned downward because the histogram bar has crossed the zero line. Crossing the zero line creates a sell signal. Since the current bar has escaped over the wall, the sell signal is valid at two ticks below the corresponding price bar's low.
- The E-Wave continues to confirm the overall direction of the market, as evidenced by its signal line.
- The gate is still closed.
- The price chart tells us that price reached a high of 840 and closed at 819. The buy fractal at 875 has not been hit. Our buy order at 871 was cancelled because our sell order at 832 has been hit and one cancels the other. We are in the market.

### **Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 13    | \$2224 | (0)     | 0      | (0)    | (0)    | (0)    | 2224      | 2224      |
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |

### **Feedback**

Both the Accelerometer and the Momentum Oscillator show momentum accelerating downward. We have a Momentum Oscillator sell signal at 814 and fractal sell signals at 813 and 806. Because the high of the current bar is touching the Picket Fence, we'll use the Tripwire to calculate our stop loss point at 847.

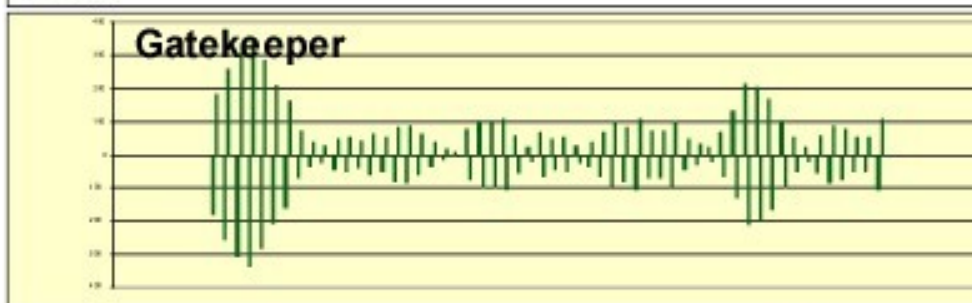
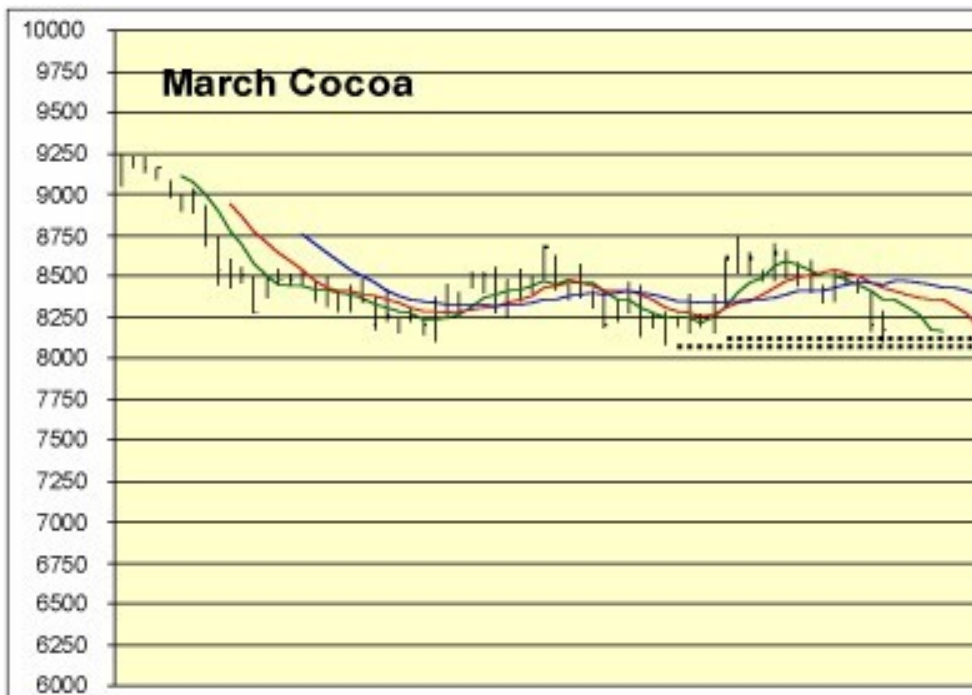
Our sell order for one contract at 813 has not been cancelled, and we have enough funds available for one more contract. Therefore, we'll go with the sell order we've already placed and wait.

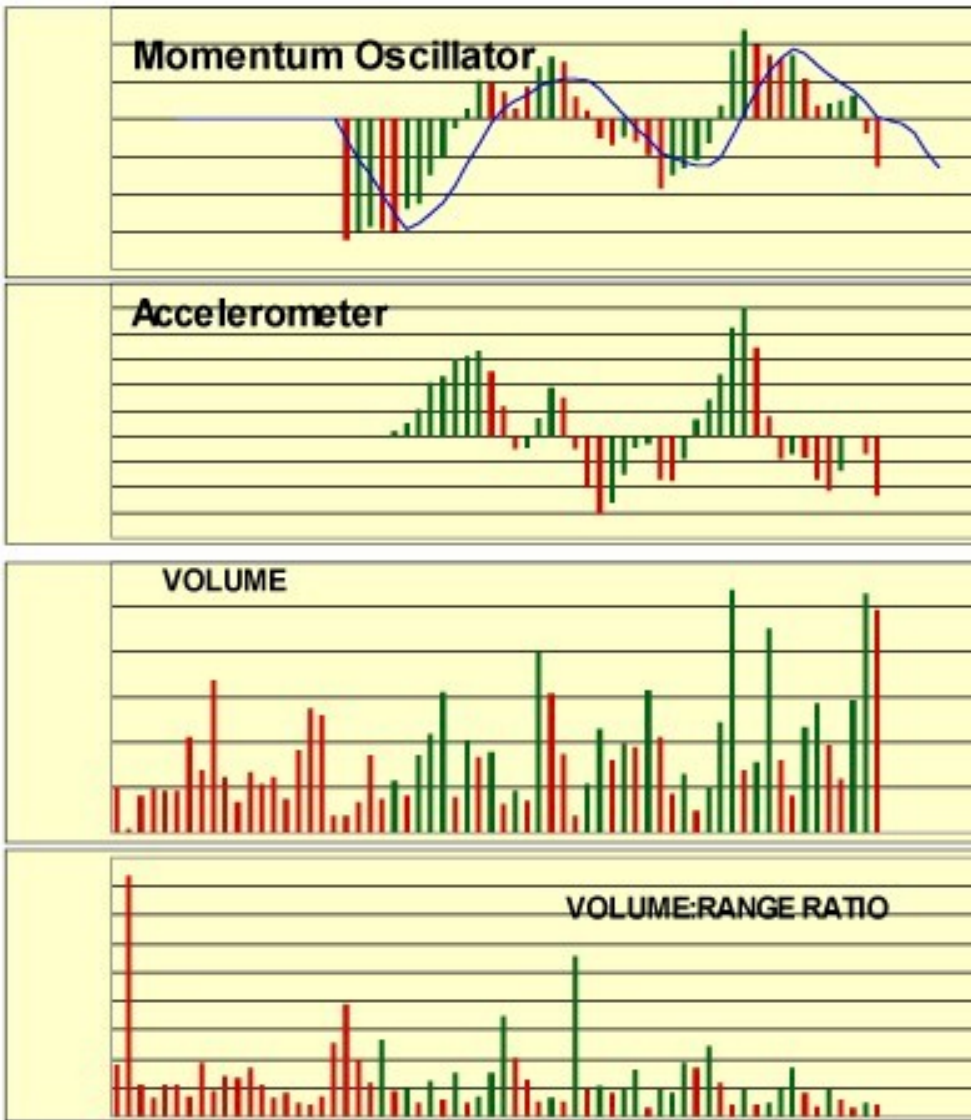
## Simulation Frame #15

In the last frame you used the tools to make an analysis of the current situation in the market. You have an active sell order at 813. You are short the market at 832. Your stop loss is at 847. Your risk is \$150 plus commission and fees. Your account has a market value of \$2321 and available funds of \$1521.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 829; Low, 810; Close, 816.

## Simulation Frame #15





## Simulation Frame #15 Results

### *Analysis:*

- The Psychometric Evaluators are showing Red-Red. We have a decrease in volume and a decrease in VRR. Fewer traders are entering the market, and the speed at which the price is moving is slowing down.
- The Accelerometer indicates that the speed of the momentum is continuing to pick up.
- The Momentum Oscillator indicates that momentum continues to move downward.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is appears to be opening.

- The price chart tells us that price reached a high of 829 and closed at 816. Our sell order at 813 has been hit. We are now short the market two contracts.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |

***Feedback***

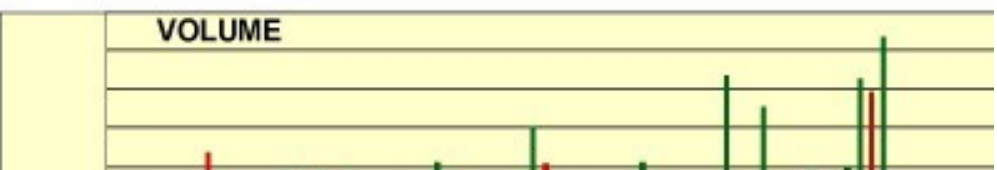
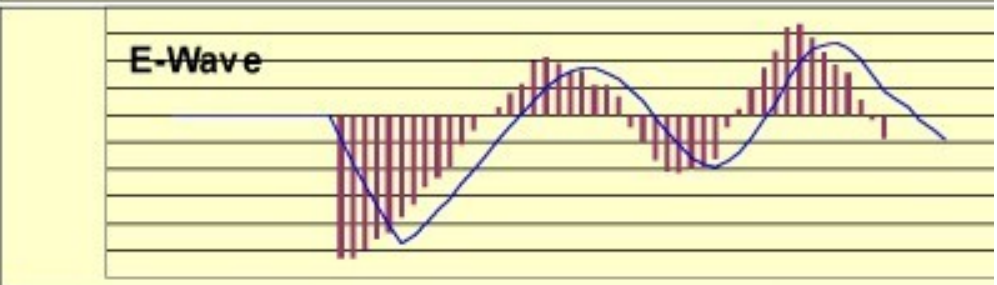
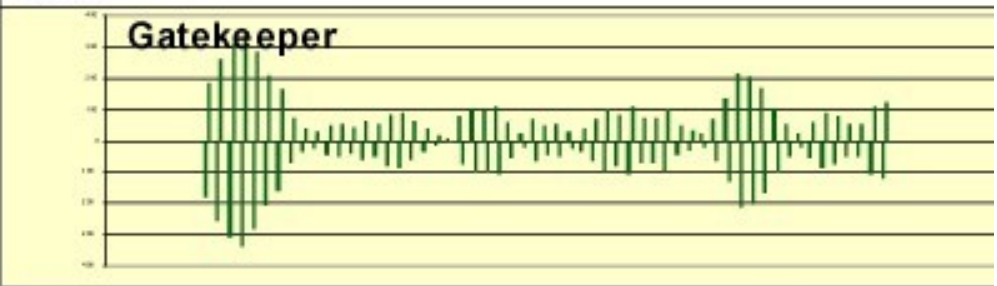
Both the Accelerometer and the Momentum Oscillator show momentum accelerating downward. We have a fractal sell signal at 806. Because we used the Tripwire to calculate our stop loss point last time, we'll continue to use it for now. We calculate our stop loss point to be 844. We call our broker and set our new stop loss at 844.

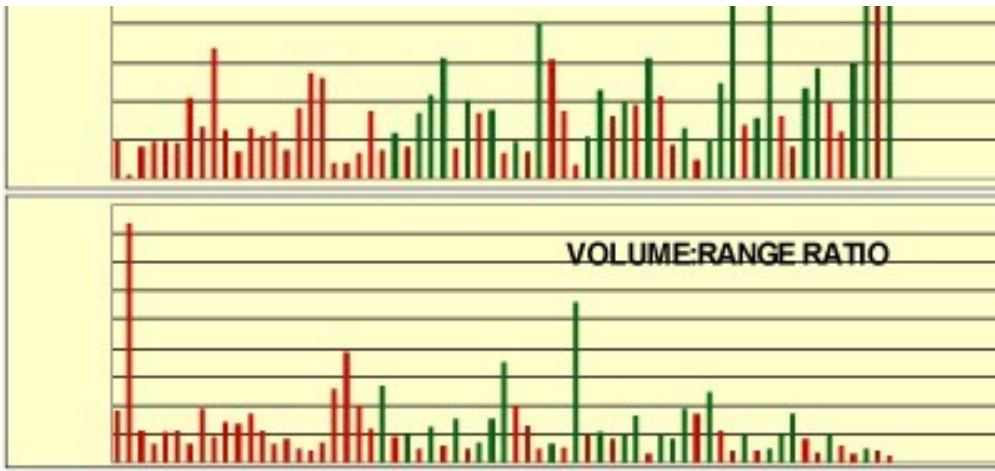
**Simulation Frame #16**

In the last frame you used the tools to make an analysis of the current situation in the market. Your active sell order at 813 has been filled. You are now short the market at 832 and at 813. Your stop loss is at 844. Your risk is \$430 plus commission and fees. Your account has a market value of \$2288 and available funds of \$688. You cannot buy another contract until you build \$312 in equity to bring your available funds to \$1000.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 831; Low, 816; Close, 828.

**Simulation Frame #16**





## Simulation Frame #16 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Red. We have an increase in volume and a decrease in VRR. More traders are entering the market, but the speed at which the price is moving is slowing down, meaning that the market is not facilitating price movement. The market is storing energy and we'll look for another Green-Red before the trend changes.
- The Accelerometer indicates that the speed of the momentum is continuing to pick up. It has generated a sell signal, but we lack the funds to take it, so we'll keep watching.
- The Momentum Oscillator indicates that momentum continues to move downward.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate appears to be opening wider.
- The price chart tells us that price reached a high of 831 and closed at 828. We are short the market at 832 and 813.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |

### Feedback

All the tools are indicating that momentum is accelerating downward. We have a fractal sell signal at 806, but not enough money to buy a contract. For now, we'll have to let it go. Because we used the Tripwire to calculate our stop loss point last time, we'll continue to use it for now. We calculate our stop loss point to be 839. We call our broker and set our new stop loss at 839.

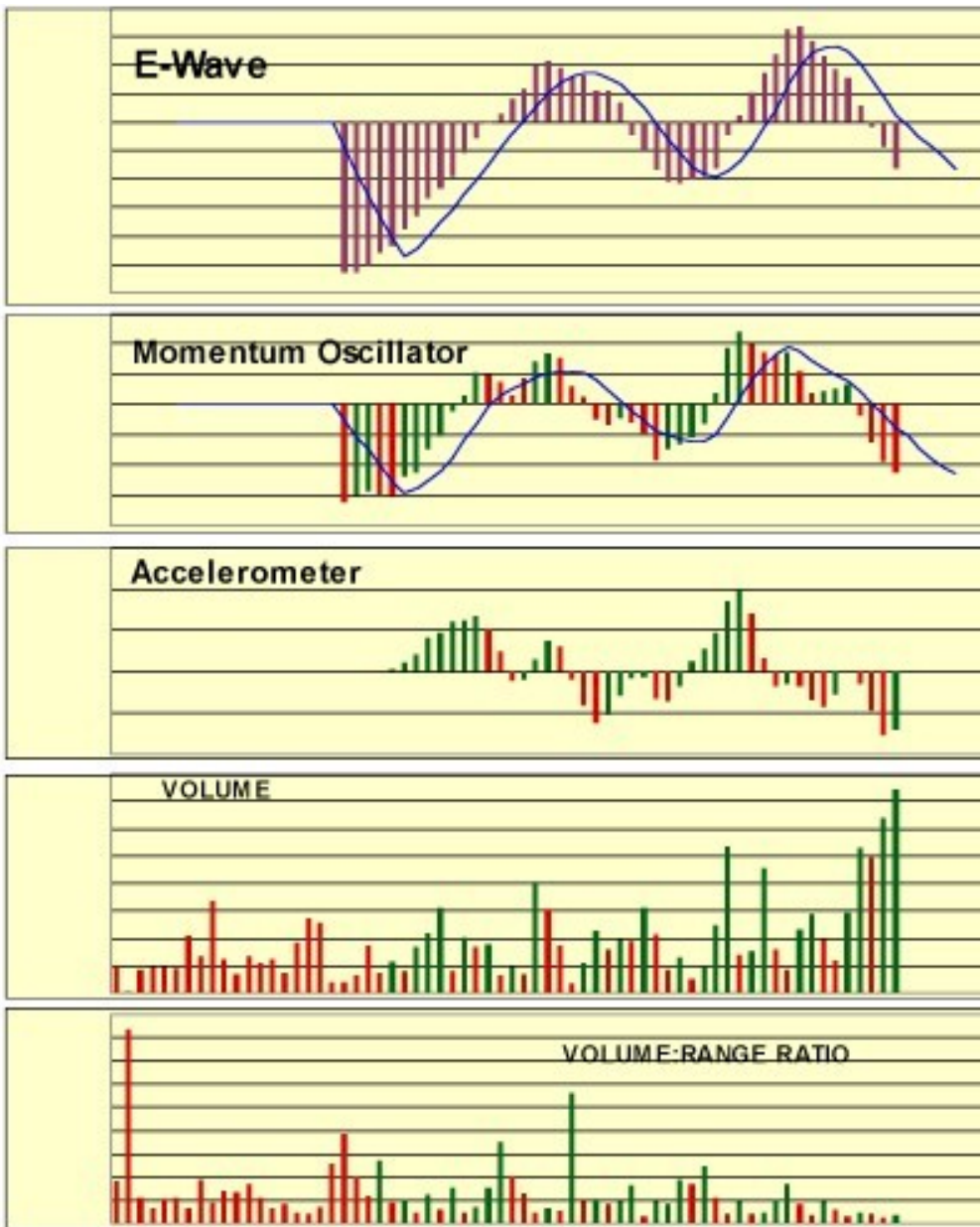
## Simulation Frame #17

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832 and at 813. Your stop loss is at 839. Your risk is \$330 plus commission and fees. Your account has a market value of \$2178 and available funds of \$578. You cannot buy another contract until you build \$422 in equity to bring your available funds to \$1000.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 832; Low, 805; Close, 806.

## Simulation Frame #17





## Simulation Frame #17 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Green. We have an increase in volume and a decrease in VRR. More traders are getting into the market (higher volume), and their trades are favoring the direction in which the current bar is moving. Price movement is also picking up speed (higher VRR).
- The Accelerometer indicates that the speed of the momentum has taken a slight dip.
- The Momentum Oscillator indicates that momentum continues to move downward.



- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate appears to be opening wider.
- The price chart tells us that price reached a high of 832 and closed at 806. We are short the market at 832 and 813.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |

***Feedback***

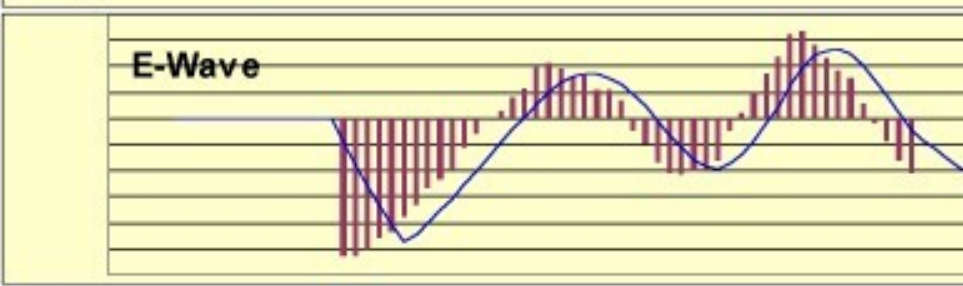
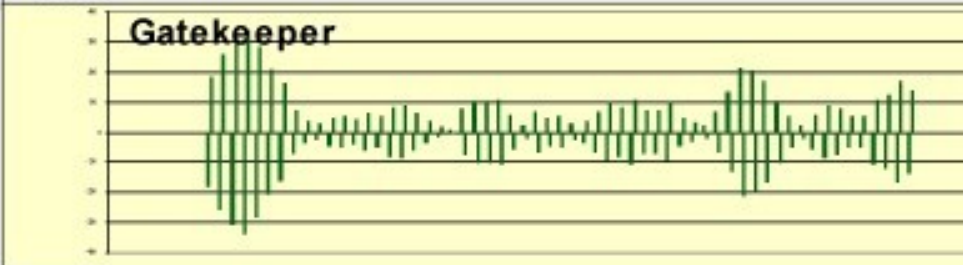
All the tools are indicating that momentum is moving downward but the Accelerometer is showing that its speed is decreasing slightly. We'll continue to use the Tripwire for calculating our stop loss. We figure our stop loss point to be 835. We call our broker and set our new stop loss at 835.

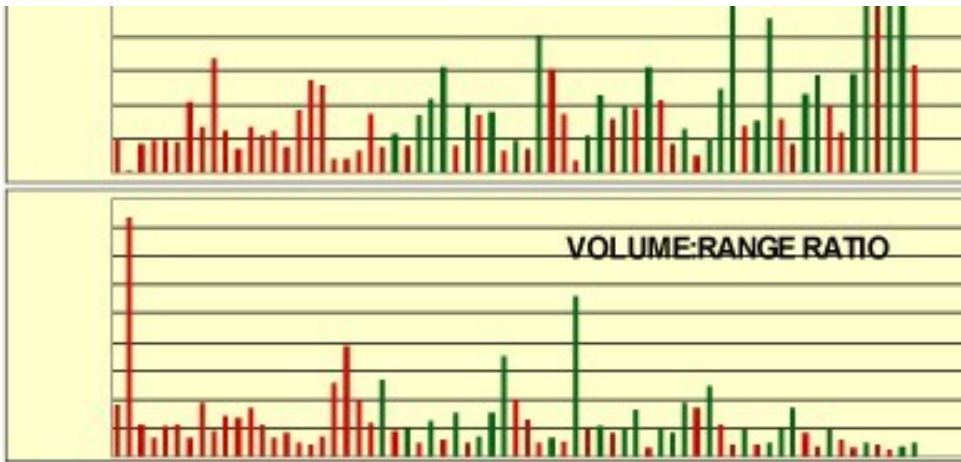
**Simulation Frame #18**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832 and at 813. Your stop loss is at 835. Your risk is \$250 plus commission and fees. Your account has a market value of \$2508 and available funds of \$908. You cannot buy another contract until you build \$92 more in equity to bring your available funds to \$1000.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools. Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 828; Low, 813; Close, 820.

**Simulation Frame #18**





## Simulation Frame #18 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. We have a substantial decrease in volume and an increase in VRR. In view of the fact that the close was in the top third of the price bar at a time when going long would not make financial sense, there is a good chance that the floor brokers manipulated the price in anticipation of a continued downward trend.
- The Accelerometer indicates that the speed of the momentum is slowing.
- The Momentum Oscillator indicates that momentum, while still moving downward, is changing direction slightly. However, the signal line is running through the histogram bars, so no significant change has begun.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate appears to be closing.
- The price chart tells us that price reached a high of 828 and closed at 820. We are short the market at 832 and 813.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |

## Feedback

The Psychometric Evaluators are pointing to possible price manipulation Both the Accelerometer and the Momentum Oscillator are indicating a change in the speed and direction of the momentum.

While it is possible that the market will drop, we'll prepare for whatever the market gives us. We'll use the Tripwire for calculating our stop loss in case the market moves against our position. We figure our stop loss point to be 833. We call our broker and set our new stop loss at 833.

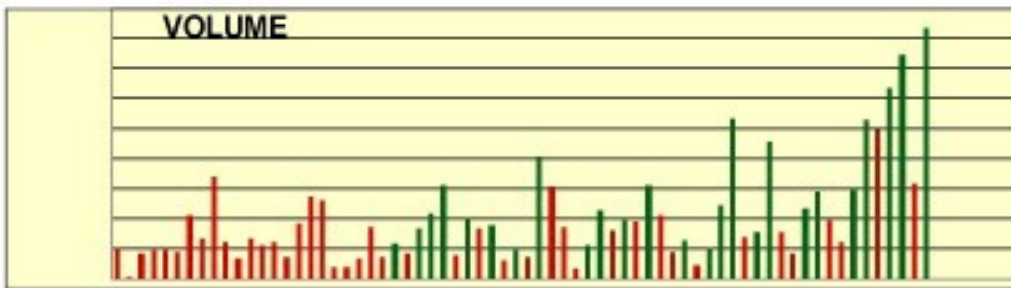
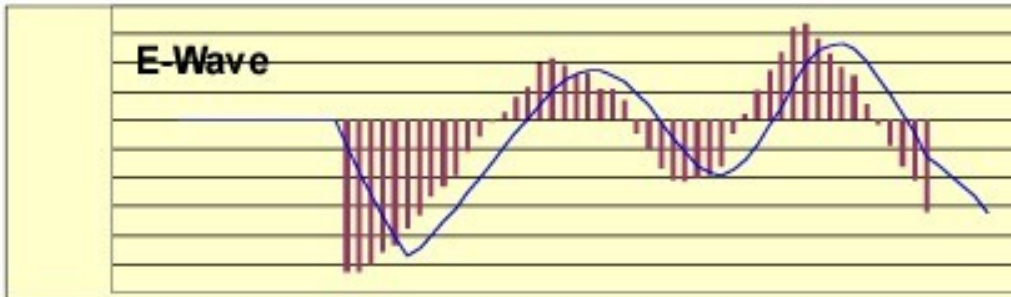
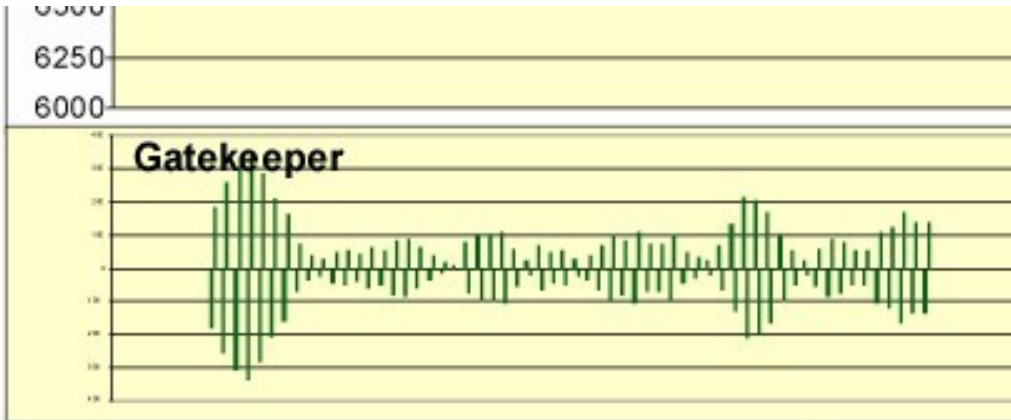
## Simulation Frame #19

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832 and at 813. Your stop loss is at 833. Your risk is \$210 plus commission and fees. Your account has a market value of \$2368 and available funds of \$768. You cannot buy another contract until you build \$232 more in equity to bring your available funds to \$1000.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 810; Low, 794; Close, 796.

## Simulation Frame #19





## Simulation Frame #19 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Red. We have a substantial increase in volume and a decrease in VRR. We have a lot of traders entering the market, all of them duking it out over price, very little price facilitation, and the sellers winning the battle as evidenced by the close two points off the low.
- The Accelerometer indicates that the speed of the momentum is continuing to slow. It has also generated an invalid buy signal.
- The Momentum Oscillator indicates that momentum has returned to its downward movement. Moreover, the signal line is running through the histogram bars, confirming the momentum's direction. An ACDC sell signal has been generated for two ticks below the current price bar's low (792).
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is appears to be stationary.
- The price chart tells us that price reached a high of 810 and closed at 796. We are short the market at 832 and 813.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |

### Feedback

The market took a big drop today, and the Psychometric Evaluators showed Green-Red, which could mean either a change in direction is coming up, or that the trend will continue at least until another Green-Red appears. We'll use the Tripwire for calculating our stop loss, which we figure to be 829. We call our broker and set our new stop loss at 829. Also, since we now have enough equity to buy a third contract, we'll take the Momentum Oscillator's sell signal at 792. We call our broker with an order to sell one contract at 792.

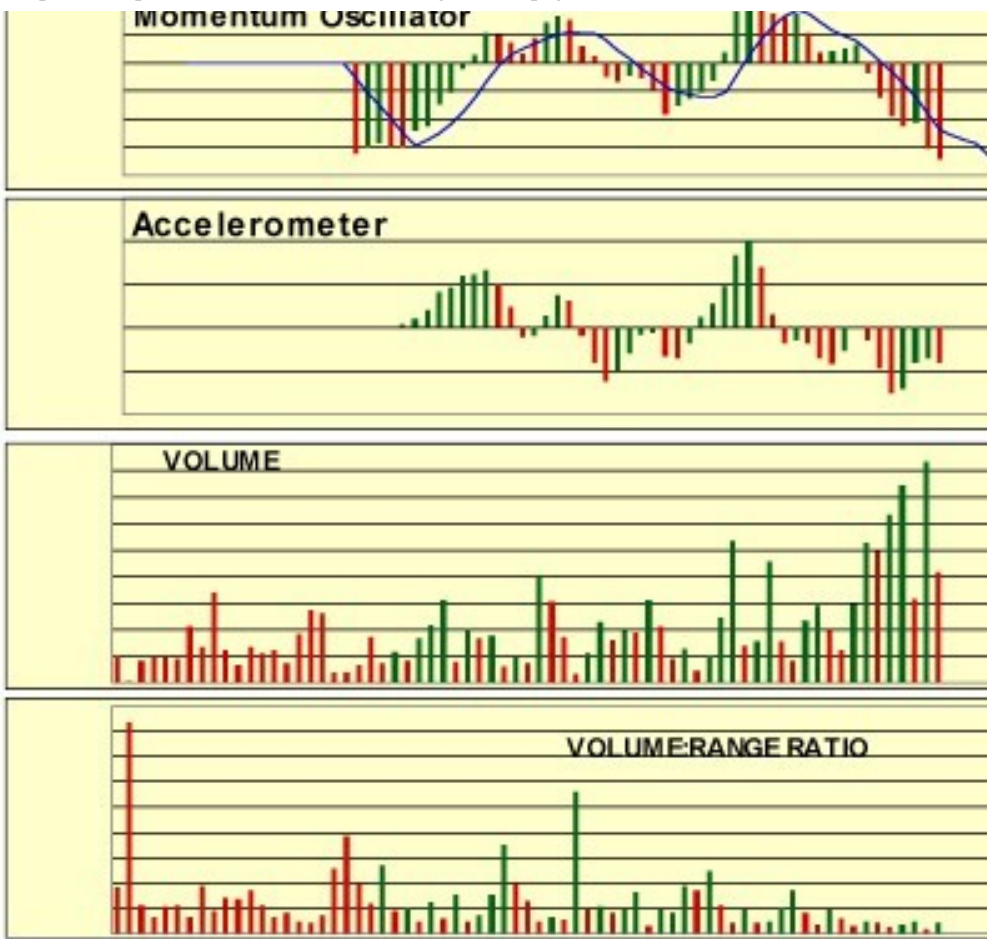
## Simulation Frame #20

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832 and at 813. Your stop loss is at 829. Your risk is \$130 plus commission and fees. Your account has a market value of \$2898 and available funds of \$1298. You now have an active order to sell one contract at 792.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look particularly for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 803; Low, 787; Close, 789.

## Simulation Frame #20





## Simulation Frame #20 Result

### *Analysis:*

- The Psychometric Evaluators are showing Red-Green. We have another substantial decrease in volume and an equally substantial increase in VRR. Since the market closed near the bottom of the price bar, the market is probably just taking a breath before it goes on.
- The Accelerometer indicates that the speed of the momentum is picking up again.
- The Momentum Oscillator indicates that momentum is continuing its downward movement. The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is open.
- The price chart tells us that price reached a high of 803 and closed at 789. We are short the market at 832, 813, and 792.

### *Our account now looks like this:*



| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |

### **Feedback**

The market took a bit of a drop again today, and the Psychometric Evaluators showed Red-Green, which probably means the market is taking a breather. We'll use the Tripwire for calculating our stop loss, which we figure to be 819. We call our broker and set our new stop loss at 819.

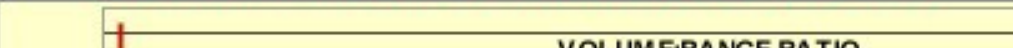
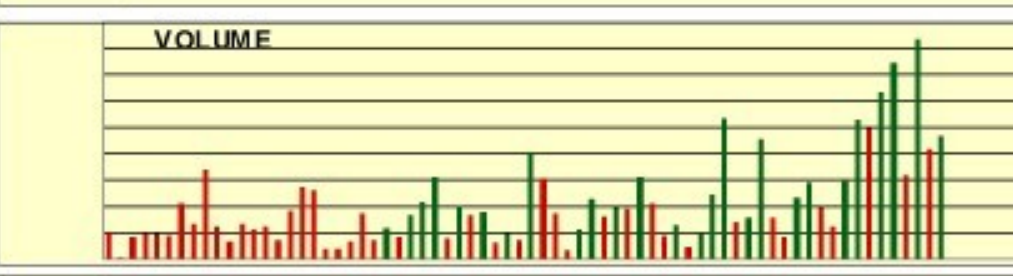
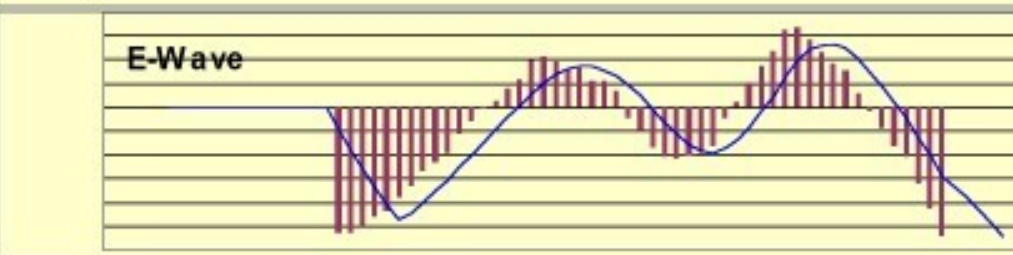
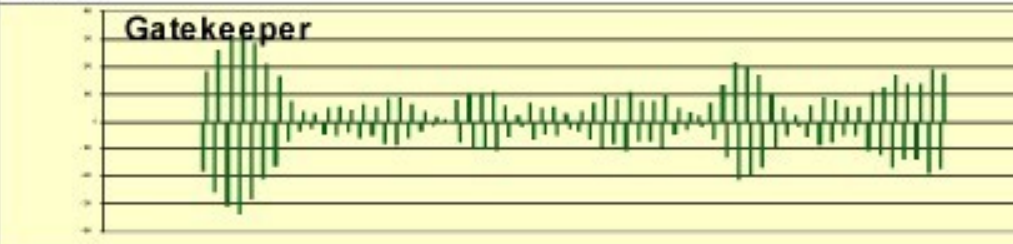
We do not yet have enough equity to buy a fourth contract, so we'll be alert for a sell fractal or a sell signal from our tools, but will not take it until we have accumulated an additional \$365.

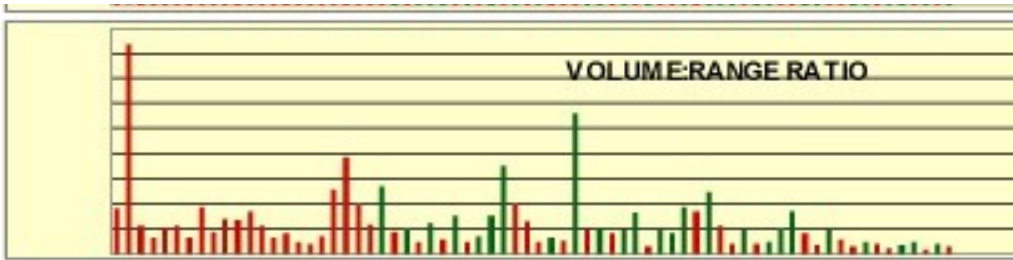
### **Simulation Frame #21**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 819. Your risk is \$200 plus commission and fees. Your account has a market value of \$3035 and available funds of \$635. You are waiting.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 798; Low, 784; Close, 787.

### **Simulation Frame #21**





## Simulation Frame #21 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Red. We have an increase in volume and a decrease in VRR. This is our third Green-Red combination since the trend began, so we need to expect some slowing down and perhaps the formation of a fractal. In view of the data from the other tools, the market appears to be storing energy, so it is not likely that the trend has ended yet.
- The Accelerometer indicates that the momentum is accelerating downward.
- The Momentum Oscillator indicates that momentum is continuing its downward movement. It has also generated a sell signal (third red bar following a green bar).
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is open.
- The price chart tells us that price reached a high of 798 and closed at 787. We are short the market at 832, 813, and 792.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |

## Feedback

The market took a bit of a drop again today, and the Psychometric Evaluators showed Green-Red, which means the market is storing energy. We'll use the Tripwire for calculating our stop loss, which we figure to be 815. We call our broker and set our new stop loss at 815.

## Simulation Frame #22

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 815. Your risk is \$80 plus commission and fees. Your account has a market value of \$3095 and available funds of \$695. You need another \$305 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look particularly for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 795; Low, 785; Close, 788.

## Simulation Frame #22





## Simulation Frame #22 Results

### *Analysis:*

- The Psychometric Evaluators are again showing Green-Red. We have an increase in volume and a decrease in VRR. This is our fourth Green-Red combination since the trend began, so we need to expect some slowing down and perhaps the formation of a fractal. In view of the data from the other tools, the market appears to be storing energy, so it is not likely that the trend has ended yet.
- The Accelerometer indicates that the momentum is decelerating slightly.
- The Momentum Oscillator indicates that momentum is continuing its downward movement.

- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is open.
- The price chart tells us that price reached a high of 795 and closed at 788. We are short the market at 832, 813, and 792.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 14    | \$2224 | (800)   | 130    | (0)    | (3)    | (30)   | 2321      | 1521      |
| 15    | \$1521 | (800)   | 30     | (30)   | (3)    | (30)   | 2288      | 688       |
| 16    | \$688  | (0)     | 40     | (150)  | (0)    | (0)    | 2178      | 578       |
| 17    | \$578  | (0)     | 330    | (0)    | (0)    | (0)    | 2508      | 908       |
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |

***Feedback***

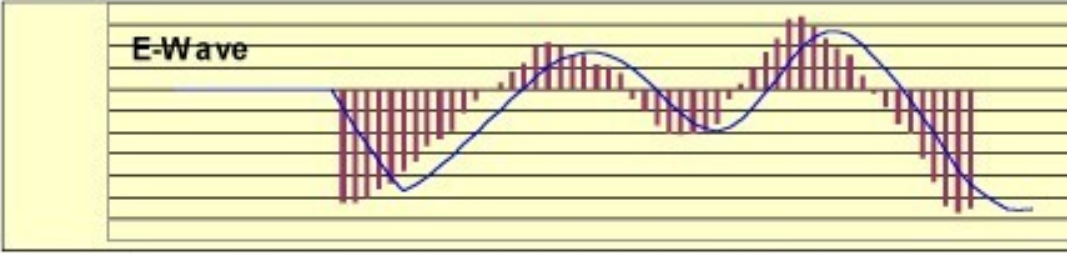
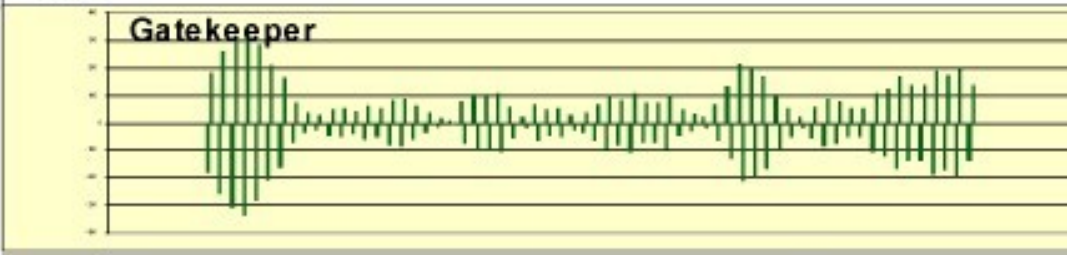
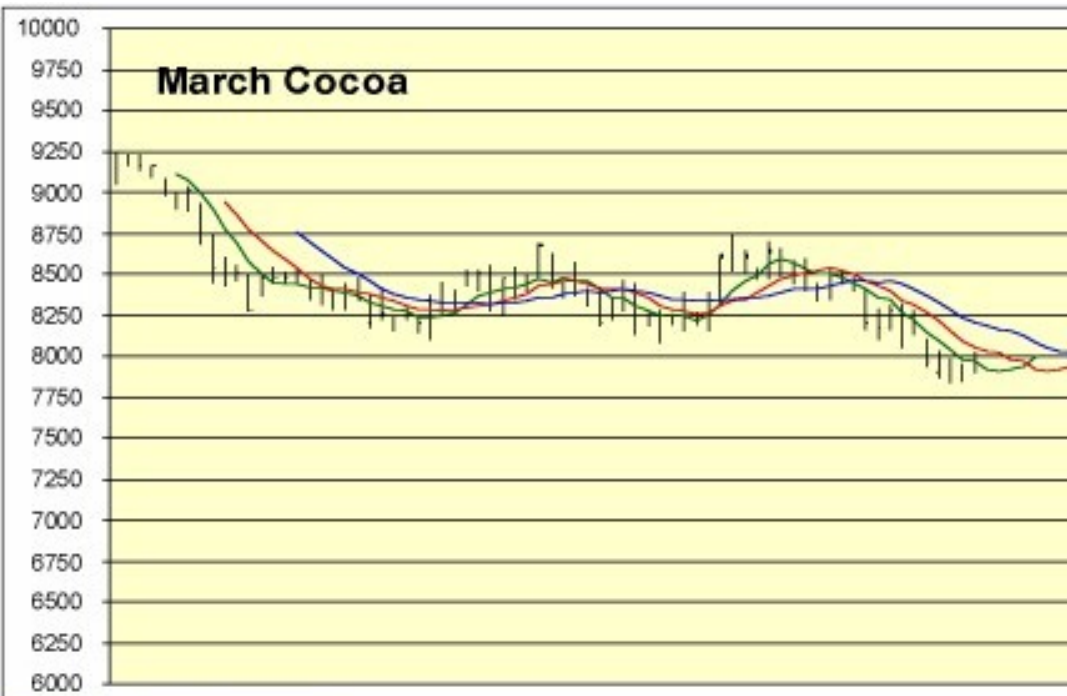
The market rose very slightly against our position today, and the Psychometric Evaluators showed Green-Red, which means the market is storing energy. We'll use the Tripwire for calculating our stop loss, which we figure to be 810. We call our broker and set our new stop loss at 810.

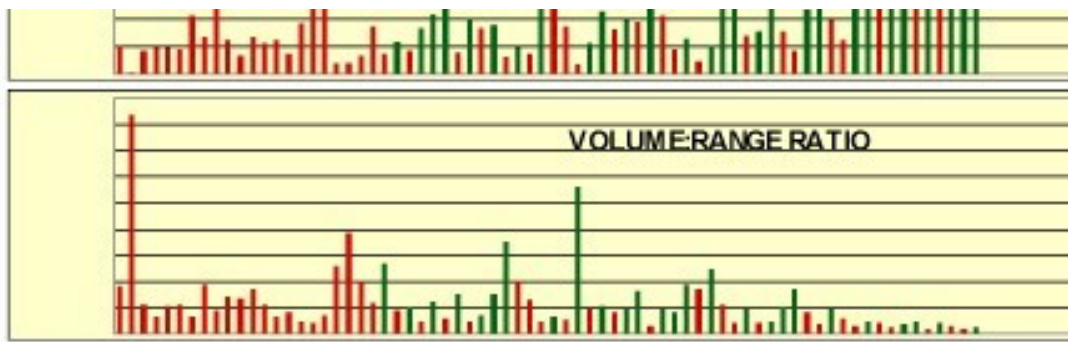
**Simulation Frame #23**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 810. Your risk is \$70 plus commission and fees. Your account has a market value of \$3065 and available funds of \$665. You need another \$335 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 802; Low, 790; Close, 800.

### Simulation Frame #23





## Simulation Frame #23 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Green. A great number of traders are entering the market, and their trades are favoring the direction in which the current bar is moving. In addition, the market is facilitating price movement.
- The Accelerometer indicates that the momentum is decelerating.
- The Momentum Oscillator indicates that the direction of the momentum is changing slightly.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is closing.
- The price chart tells us that price reached a high of 802 and closed at 800. The previous day's close was 788. We are short the market at 832, 813, and 792. We have lost 12 points per contract.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |

### Feedback

The market rose against our position again today. The Psychometric Evaluators showed Green-Green, and because the close was near the price bar's high, sellers have lost some interest in the market and the market is pulling back a bit. This is natural. Did you notice that as a result, a sell fractal had formed at 784?



We are seeing the end of an Elliott wave of some lower time frame. If it's a wave 2 or 4, we should see the market move back down within a few bars. If not, we'll use the Gatekeeper as our guide out of the market. We'll use the Tripwire for calculating our stop loss, which we figure to be 808. Since that number is so close to our previous stop loss of 810, we'll leave it at 810. There is no need to call our broker.

## 11. Trading Simulation

### Experience the Fractal's Edge System in Action

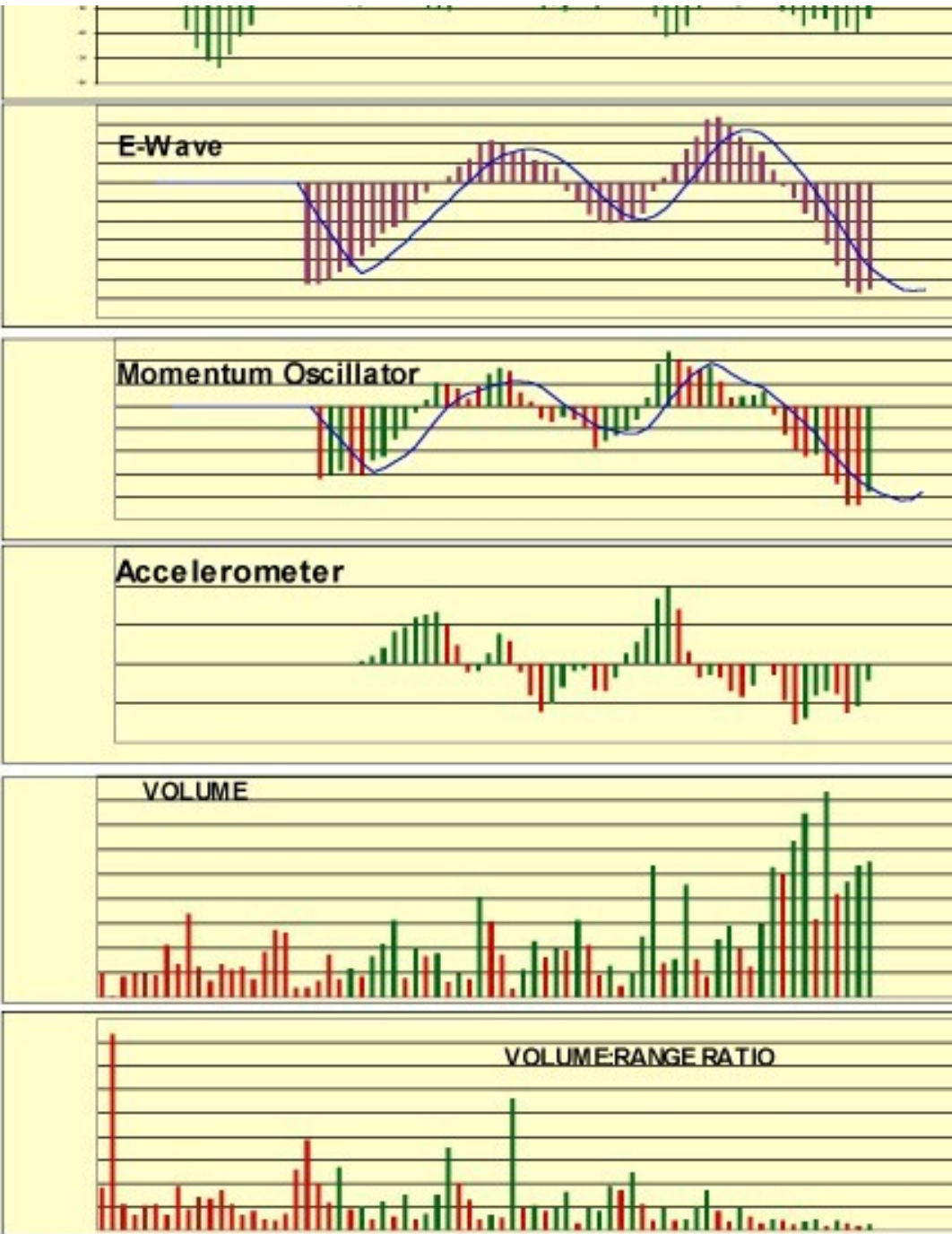
#### Simulation Frame #23

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 810. Your risk is \$70 plus commission and fees. Your account has a market value of \$3065 and available funds of \$665. You need another \$335 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 802; Low, 790; Close, 800.

#### Simulation Frame #23





## Simulation Frame #23 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Green. A great number of traders are entering the market, and their trades are favoring the direction in which the current bar is moving. In addition, the market is facilitating price movement.
- The Accelerometer indicates that the momentum is decelerating.
- The Momentum Oscillator indicates that the direction of the momentum is

changing slightly.

- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is closing.
- The price chart tells us that price reached a high of 802 and closed at 800. The previous day's close was 788. We are short the market at 832, 813, and 792. We have lost 12 points per contract.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |

***Feedback***

The market rose against our position again today. The Psychometric Evaluators showed Green-Green, and because the close was near the price bar's high, sellers have lost some interest in the market and the market is pulling back a bit. This is natural. Did you notice that as a result, a sell fractal had formed at 784?

We are seeing the end of an Elliott wave of some lower time frame. If it's a wave 2 or 4, we should see the market move back down within a few bars. If not, we'll use the Gatekeeper as our guide out of the market. We'll use the Tripwire for calculating our stop loss, which we figure to be 808. Since that number is so close to our previous stop loss of 810, we'll leave it at 810. There is no need to call our broker.

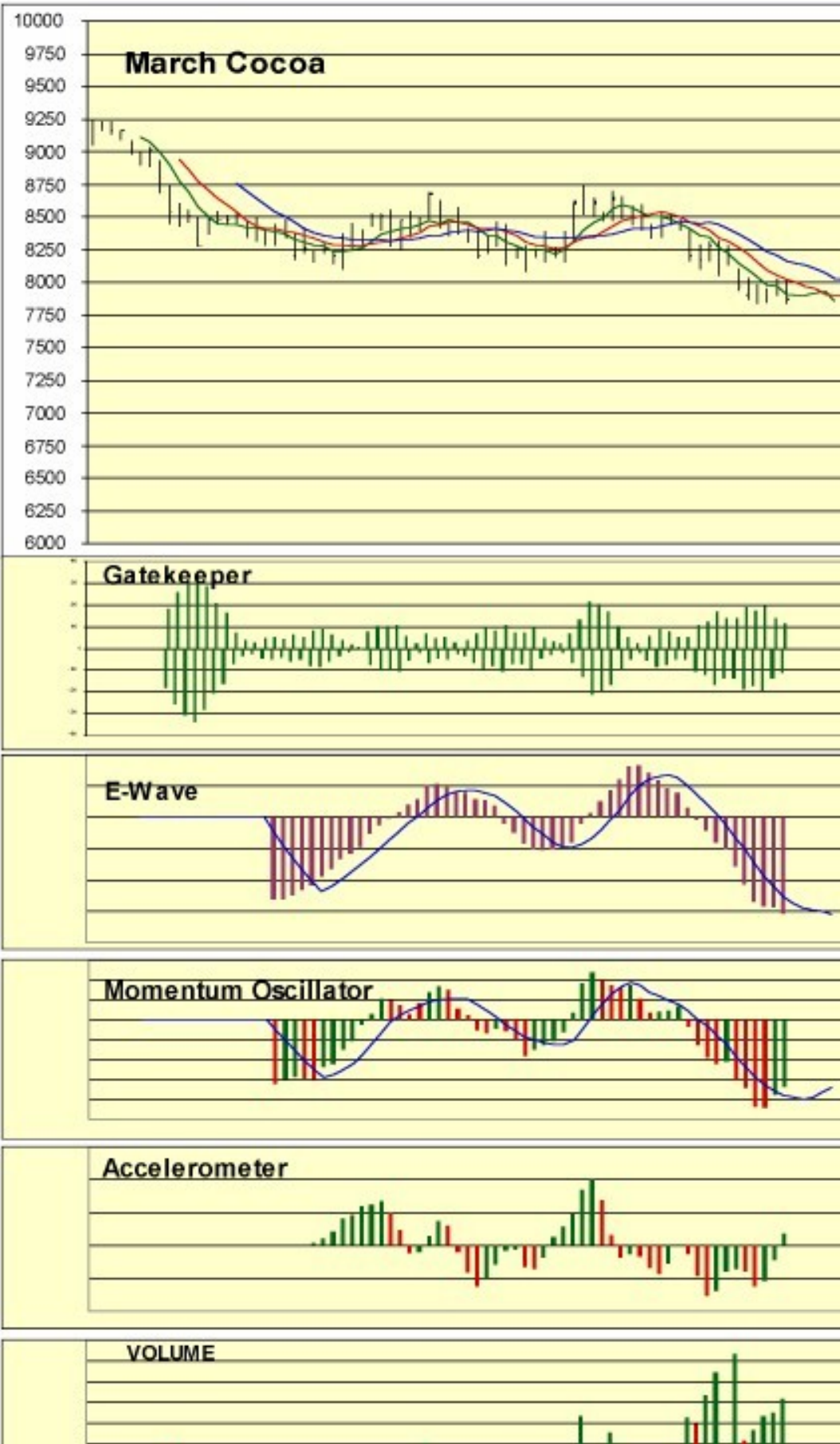
**Simulation Frame #24**

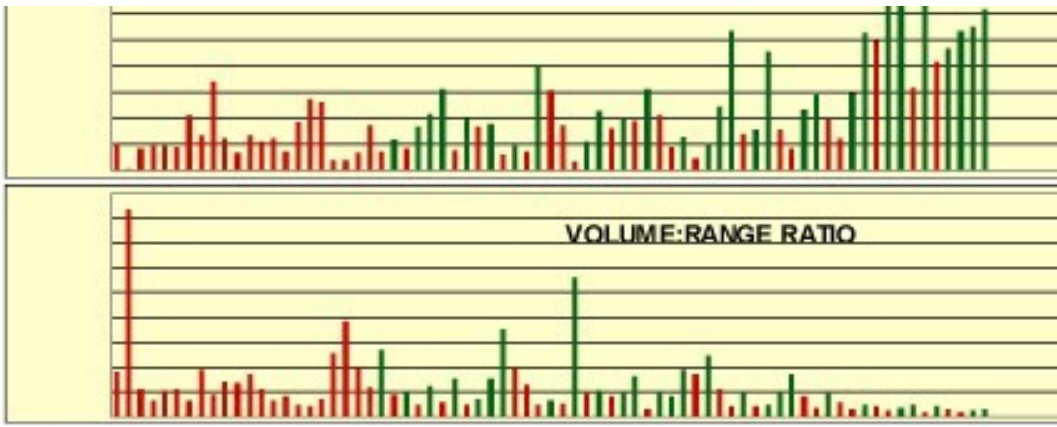
In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 810. Your risk is \$70 plus commission and fees. Your account has a market value of \$2705 and available funds of \$305. You need another \$695 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.

- Today's market results are High, 801; Low, 784; Close, 786.

## Simulation Frame #24





## Simulation Frame #24 Results

### Analysis:

- The Psychometric Evaluators are again showing Green-Green. More traders are entering the market, and their trades are favoring the direction in which the current bar is moving. In addition, the market is facilitating price movement. Volume has been rising over the last four days.
- The Accelerometer indicates that the momentum is beginning to accelerate upward. A buy signal has also been generated, but it is invalid because the price bar is below the Wall.
- The Momentum Oscillator indicates that the direction of the momentum is continuing to change.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is continuing to close.
- The price chart tells us that price reached a high of 801 and closed at 786. The previous day's close was 800. We are short the market at 832, 813, and 792. We have gained 14 points per contract.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 18    | \$908  | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768  | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |

|    |       |     |     |     |     |     |      |     |
|----|-------|-----|-----|-----|-----|-----|------|-----|
| 24 | \$305 | (0) | 420 | (0) | (0) | (0) | 3125 | 725 |
|----|-------|-----|-----|-----|-----|-----|------|-----|

### **Feedback:**

The market moved in favor of our position today. The Psychometric Evaluators showed Green-Green, and because the close was near the price bar's low, we know that sellers have jumped back into the market.

Remember, before a trend changes, we should see a swing in momentum (crossing the zero line), and before momentum changes, we'll see acceleration swing over the zero line, and before acceleration changes, we'll see a change in volume, and before the volume changes, all active traders in the market have to make decisions.

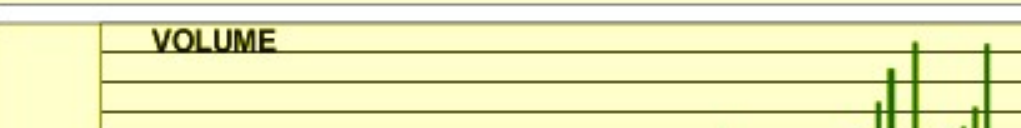
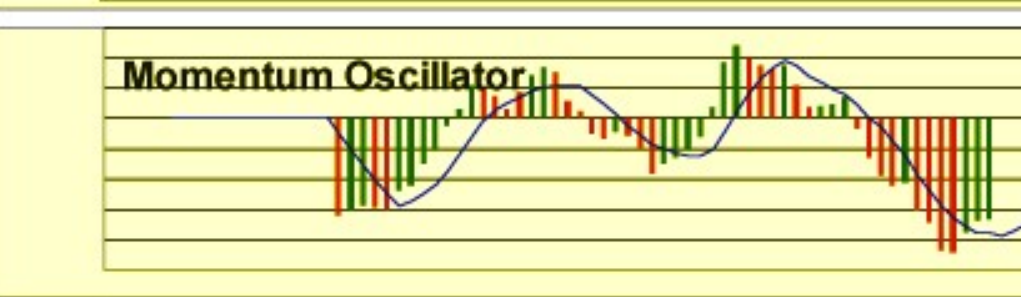
While acceleration has, in fact crossed the zero line, and momentum is slowing, sellers took the price down today. We have a sense that the price will go lower yet, but we'll keep a close watch on the Stability Lines. If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. For now, we'll keep to our previous stop loss point of 810. There is no need to call our broker.

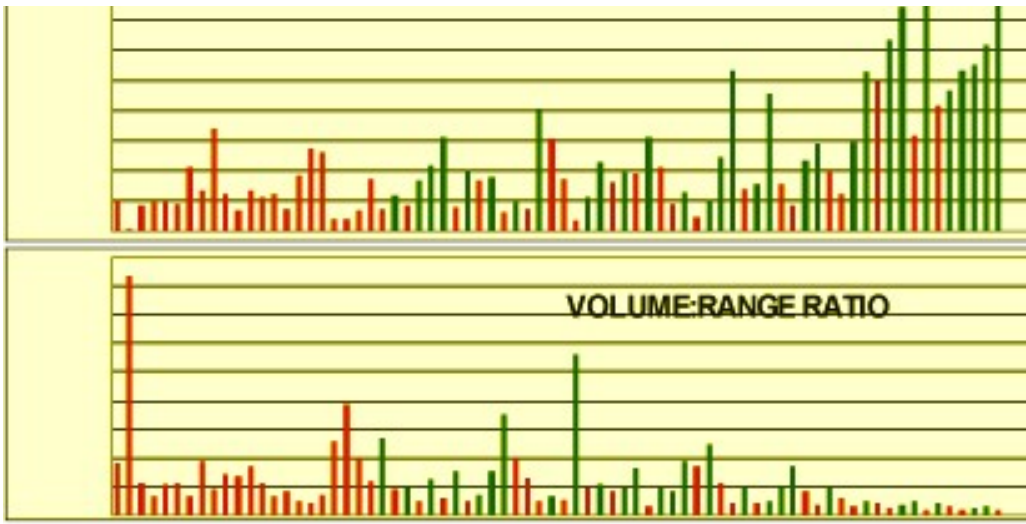
## **Simulation Frame #25**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 810. Your risk is \$70 plus commission and fees. Your account has a market value of \$3125 and available funds of \$725. You need another \$275 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High, 791; Low, 776; Close, 778.

## **Simulation Frame #25**





## Simulation Frame #25 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Red. Substantially more traders are entering the market, but the market is not facilitating price movement. Volume has been rising over the last five days, and in three of those days, price has not been facilitated.
- The market is storing the energy either to continue to drop, to create a fractal, or to change direction significantly. Based on the closing price (2 points off the low), we feel that the trend will most likely continue.
- The Accelerometer indicates that the momentum is continuing to accelerate upward.
- The Momentum Oscillator indicates that the direction of the momentum is continuing to change, but very slowly.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is continuing to close.
- The price chart tells us that price reached a high of 791 and closed at 778. The previous day's close was 786. We have gained 8 points per contract. We are short the market at 832, 813, and 792.

### Our account now looks like this:

| Frame | Start | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|-------|---------|--------|--------|--------|--------|-----------|-----------|
| 18    | \$908 | (0)     | 0      | (140)  | (0)    | (0)    | 2368      | 768       |
| 19    | \$768 | (0)     | 530    | (0)    | (0)    | (0)    | 2898      | 1298      |



|    |        |       |     |       |     |      |      |     |
|----|--------|-------|-----|-------|-----|------|------|-----|
| 20 | \$1298 | (800) | 170 | (0)   | (3) | (30) | 3035 | 635 |
| 21 | \$635  | (0)   | 60  | (0)   | (0) | (0)  | 3095 | 695 |
| 22 | \$695  | (0)   | 0   | (30)  | (0) | (0)  | 3065 | 665 |
| 23 | \$665  | (0)   | 0   | (360) | (0) | (0)  | 2705 | 305 |
| 24 | \$305  | (0)   | 420 | (0)   | (0) | (0)  | 3125 | 725 |
| 25 | \$725  | (0)   | 240 | (0)   | (0) | (0)  | 3365 | 965 |

### **Feedback**

The market moved in favor of our position again today. The Psychometric Evaluators showed Green-Red, and because the close was near the price bar's low, we know that sellers have won the battle. While acceleration has continued in its upward path, momentum is slowing and sellers took the price down again.

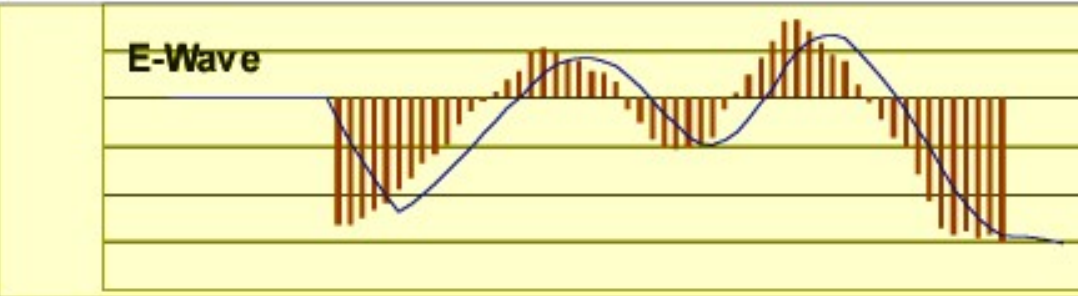
We have a sense that the price will go lower yet, but we'll keep a close watch on the Stability Lines. If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 796. We'll call our broker to set this new stop loss.

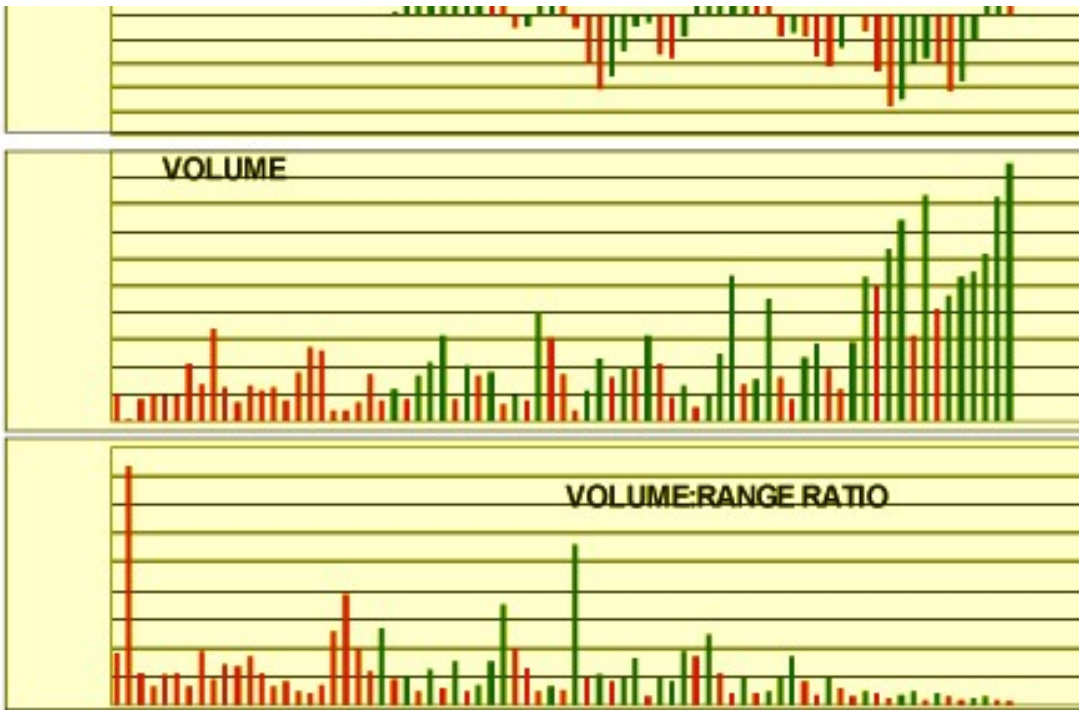
### **Simulation Frame #26**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 796. If we stop ourselves out of the market at this point, we will make a profit of \$490, minus commission and fees. Your account has a market value of \$3365 and available funds of \$965. You need another \$35 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 782; Low, 773; Close, 781.

### **Simulation Frame #26**





## Simulation Frame #26 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. Many more traders are entering the market, and the market continues to store energy because the market is not facilitating price movement. Volume has been rising over the last 6 days, and in 4 of those days, price has not been facilitated.
- The market is storing the energy either to continue to drop, to create a fractal, or to change direction significantly. Based on the other indicators, we feel that the trend will most likely continue, but are prepared to get out if it does not.
- The Accelerometer indicates that the speed of the momentum is decreasing.
- The Momentum Oscillator indicates that the direction of the momentum is turning back downward. It has also generated an ACDC sell signal at 771 (2 ticks below the low).
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is continuing to close.
- The price chart tells us that price reached a high of 782 and closed at 781. The previous day's close was 778. We have lost 3 points per contract. We are short the market at 832, 813, and 792.

**Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305  | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725  | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965  | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |

**Feedback**

Although we lost 9 points, the market actually moved in favor of our position again today. The Psychometric Evaluators showed Green-Red, which means the market is continuing to store energy. Acceleration has begun to decrease, and momentum is turning back downward.

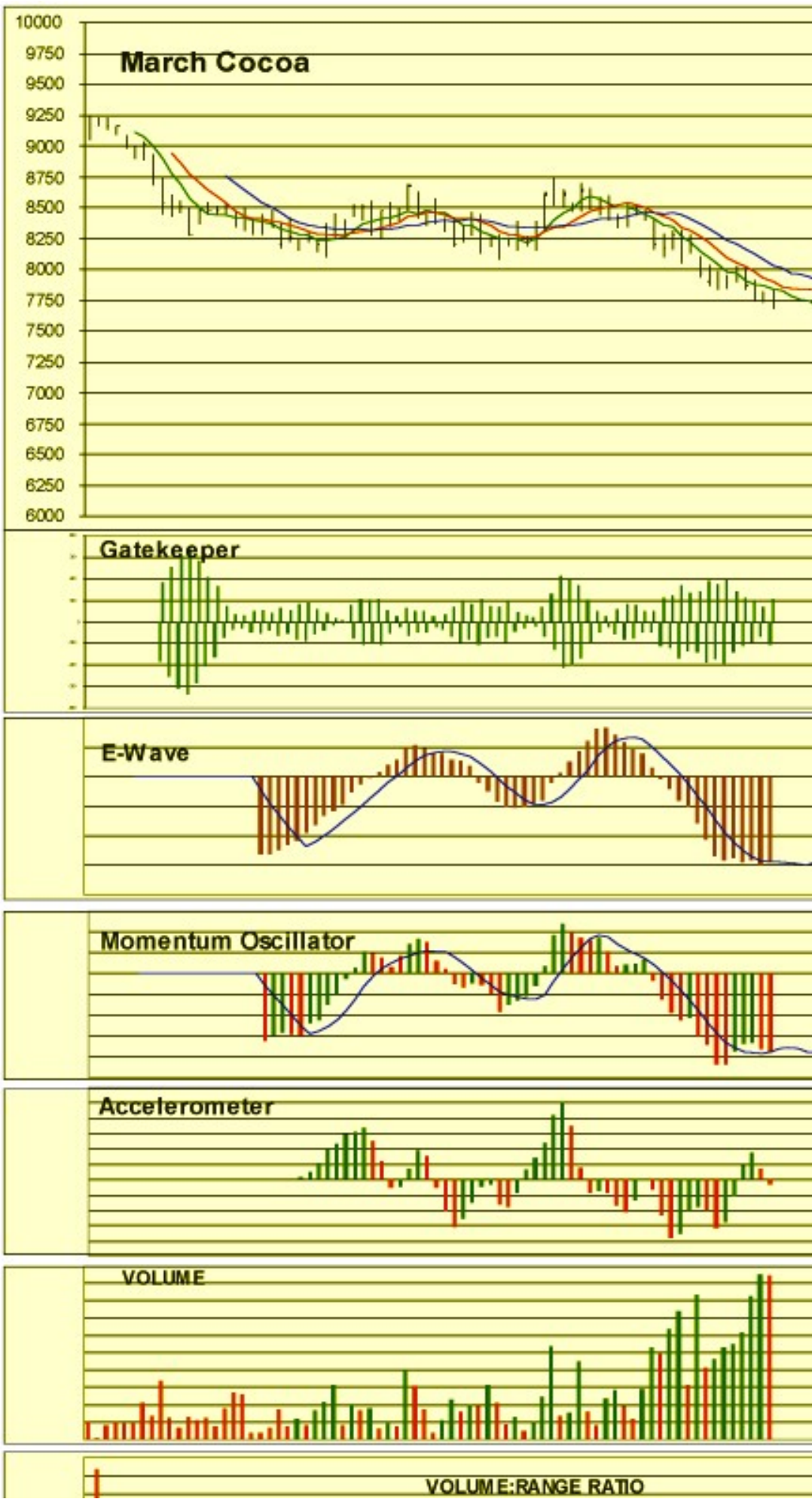
We have a sense that the price will go lower yet, but we'll keep a close watch on the Stability Lines. If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 794. Because it is so close to our last stop loss point of 796, we'll leave it at 796. No need to call the broker.

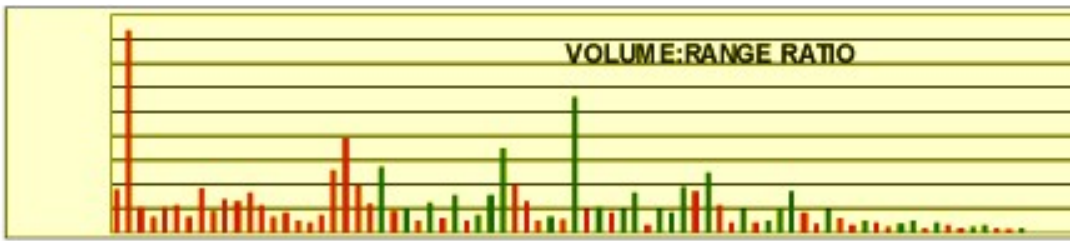
**Simulation Frame #27**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 796. If we stop ourselves out of the market at this point, we will make a profit of \$490, minus commission and fees. Your account has a market value of \$3275 and available funds of \$875. You need another \$125 in equity before you can buy another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Look for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 783; Low, 768; Close, 769.

**Simulation Frame #27**





## Simulation Frame #27 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. Slightly fewer orders are going to the floor, but the market is facilitating price movement. Because volume is still quite high, we do not feel that the floor brokers are manipulating price. This is probably just a breather in market action. Based on the other indicators, we feel that the trend will most likely continue, but are prepared to get out if it does not.
- The Accelerometer has crossed the zero line, indicating that the speed of the momentum is accelerating downward.
- The Momentum Oscillator indicates that the direction of the momentum is turning back downward.
- The E-Wave continues to confirm the overall direction of the market is downward, as evidenced by its signal line.
- The gate is opening back up.
- The price chart tells us that price reached a high of 783 and closed at 769. The previous day's close was 781. We have gained 12 points per contract. We are short the market at 832, 813, and 792.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 20    | \$1298 | (800)   | 170    | (0)    | (3)    | (30)   | 3035      | 635       |
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305  | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725  | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965  | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |

## Feedback

The market continues its downward trend. The Psychometric Evaluators showed Red -Green. Though lower than yesterday, volume is still quite high and the price closed near the low, which means the market is taking a breather. Floor brokers are not a factor.

The Accelerometer has crossed the zero line, so momentum is now picking up speed as it is turning back downward. We have a sense that the price will go lower yet, but we'll keep a close watch on the Stability Lines.

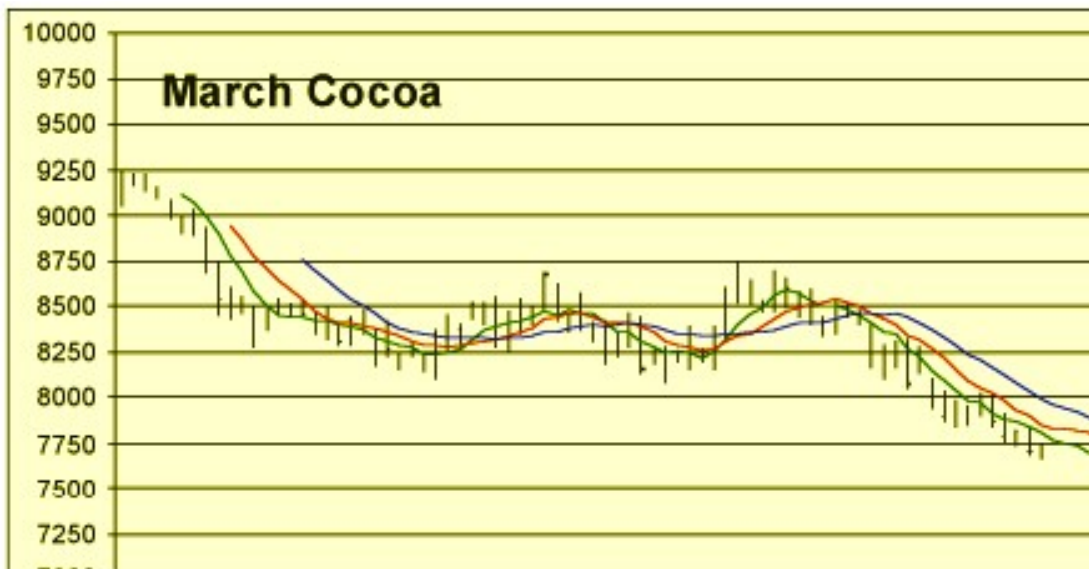
If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 788. We'll call our broker and set the new stop loss.

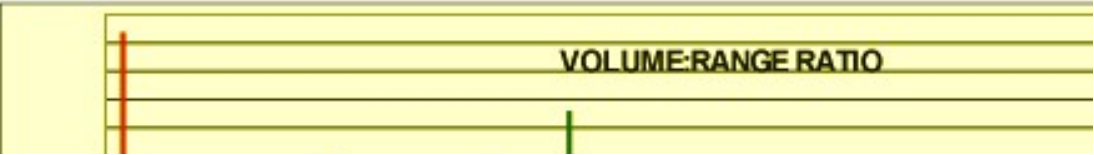
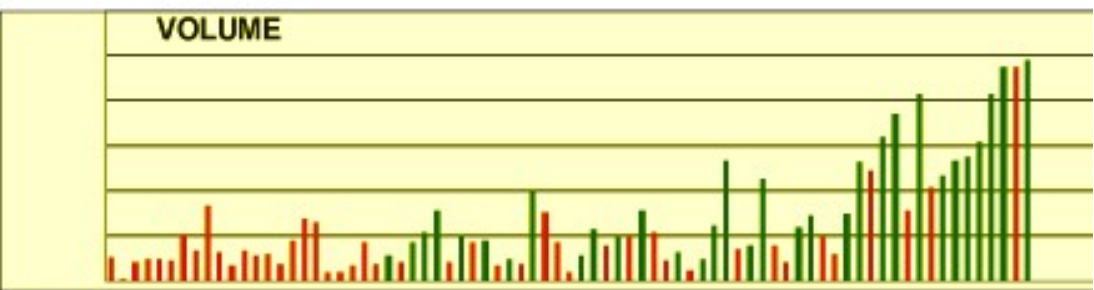
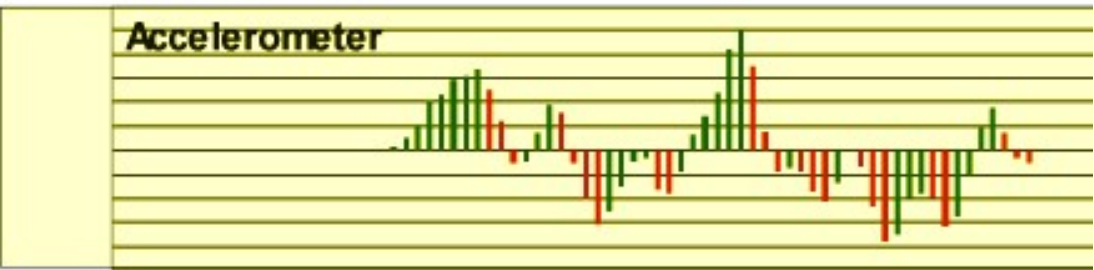
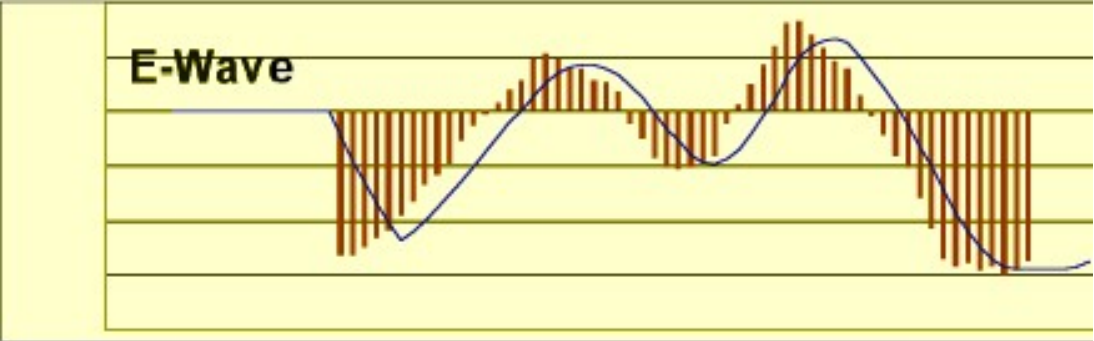
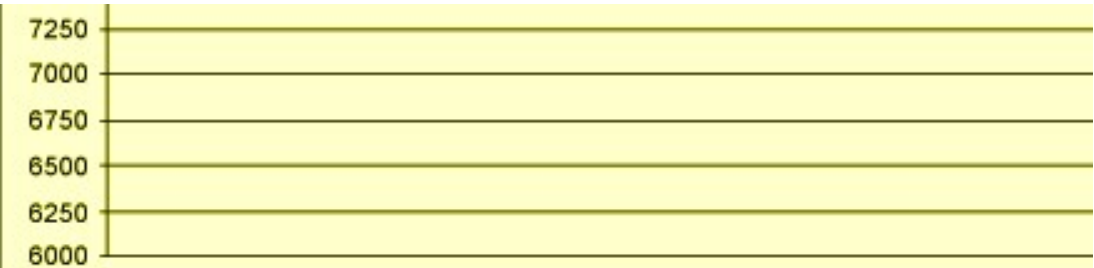
## Simulation Frame #28

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 788. If we stop ourselves out of the market at this point, we will make a profit of \$730, minus commission and fees. Your account has a market value of \$3635 and available funds of \$1235. You now have enough equity to buy another contract if the opportunity arises.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 773; Low, 766; Close, 769.

## Simulation Frame #28









### Simulation Frame #28 Results

#### Analysis:

- The Psychometric Evaluators are showing Green-Red. Slightly more orders are going to the floor, but the market is not facilitating price movement. The market is storing energy, but based on the other indicators, we feel that although the trend will most likely continue, it is slowing. We are prepared to get out if the trend changes.
- The Accelerometer is indicating that the speed of the momentum is accelerating downward. It has generated a sell signal at 764 (2 ticks below the low).
- The Momentum Oscillator indicates that the direction of the momentum is turning slightly away from downward.
- The E-Wave indicates that the overall direction of the market is still downward, but is changing direction slightly.
- The gate is stationary.
- The price chart tells us that price reached a high of 773 and closed at 769. The previous day's close was also 769. We have neither gained nor lost. We are short the market at 832, 813, and 792.

#### Our account now looks like this:

| Frame | Start | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|-------|---------|--------|--------|--------|--------|-----------|-----------|
| 21    | \$635 | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695 | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665 | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305 | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725 | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965 | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875 | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875 | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |

#### Feedback

The market continues its downward trend. The Psychometric Evaluators showed

Green-Red. Volume is still quite high and the price closed near the middle of the bar, which means neither the sellers nor the buyers are in control.

The Accelerometer indicates that momentum is now picking up speed and is generally downward. We'll take the sell signal at 764 and call our broker to sell one contract at that price.

The Momentum Oscillator may be forming an ACDC sell signal. We have a sense that the price will go lower yet, but we'll keep a close watch on the Stability Lines. If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 785. We'll also call our broker and set the new stop loss.

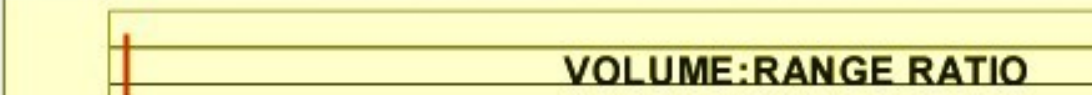
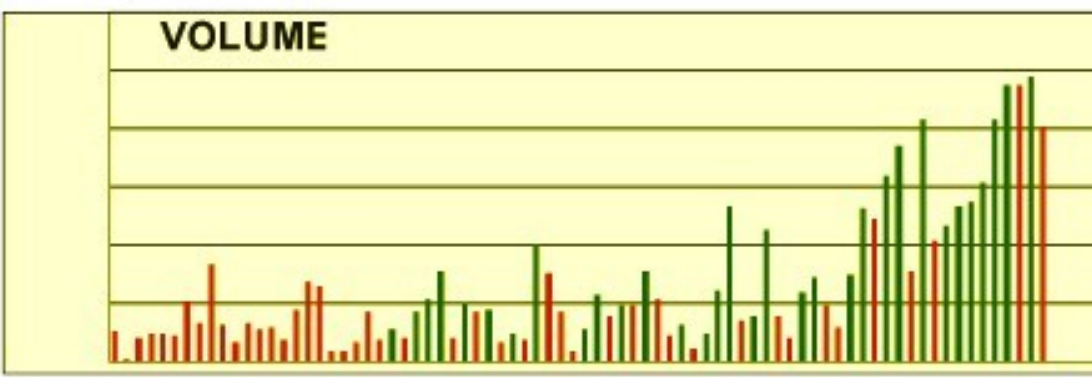
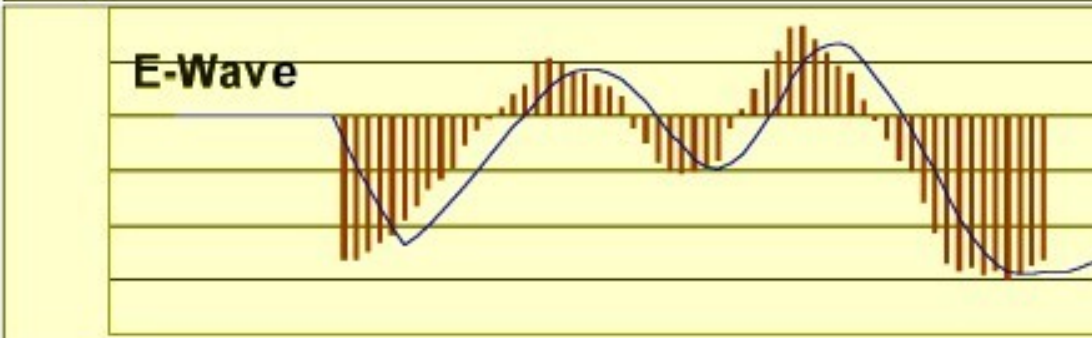
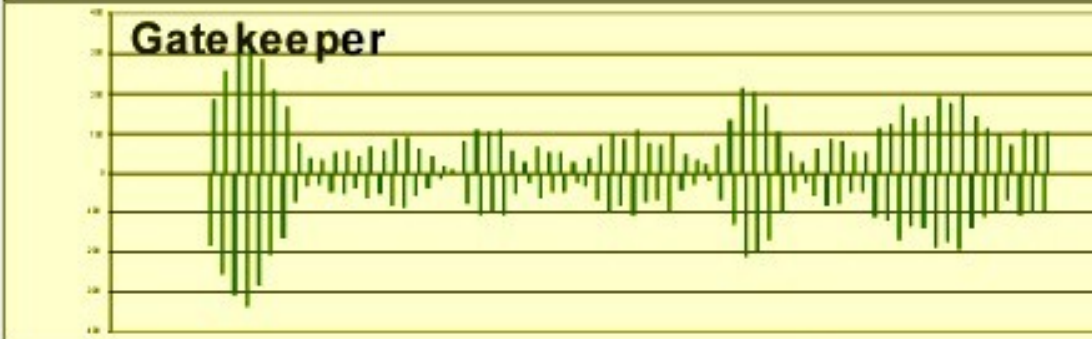
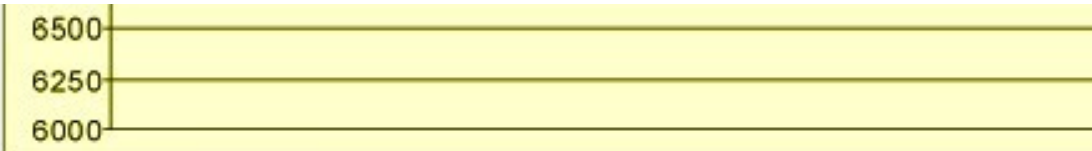
## Simulation Frame #29

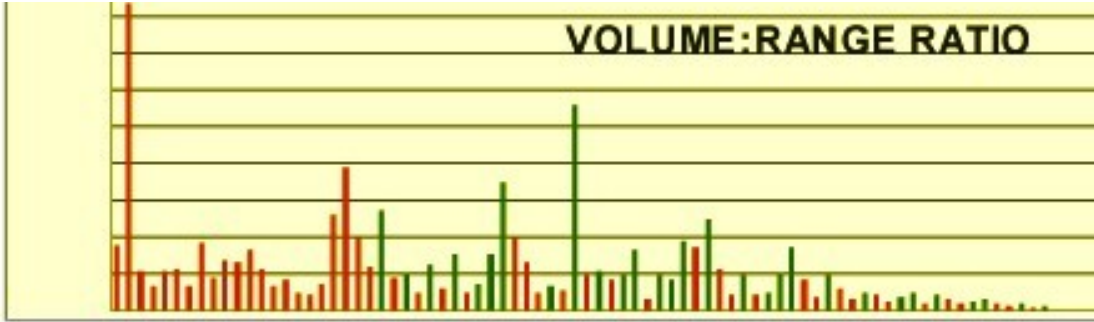
In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813 and 792. Your stop loss is at 785. If we stop ourselves out of the market at this point, we will make a profit of \$820, minus commission and fees. Your account has a market value of \$3635 and available funds of \$1235. You have an active sell order at 764.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 773; Low, 766; Close, 769.

## Simulation Frame #29







## Simulation Frame #29 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. Fewer orders are going to the floor, but the market is facilitating price movement. Based on the other indicators, we feel that although the trend will most likely continue, it is slowing. We are prepared to get out if the trend changes.
- The Accelerometer is indicating that the speed of the momentum is decelerating slightly.
- The Momentum Oscillator indicates that the direction of the momentum is turning back downward. It has generated a sell signal at 761 (two ticks below the low).
- The E-Wave indicates that the overall direction of the market is downward, but is changing direction.
- The gate is stationary.
- The price chart tells us that price reached a high of 772 and closed at 769. The previous day's close was also 769. We have gained 5 points per contract. Our sell signal was hit, and we have sold another contract. We are short the market at 832, 813, 792, and 764.

### Our account now looks like this:

| Frame | Start | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|-------|---------|--------|--------|--------|--------|-----------|-----------|
| 21    | \$635 | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695 | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665 | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305 | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725 | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965 | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875 | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875 | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |

|    |        |       |     |     |     |      |      |     |
|----|--------|-------|-----|-----|-----|------|------|-----|
| 29 | \$1235 | (800) | 150 | (0) | (3) | (30) | 3752 | 552 |
|----|--------|-------|-----|-----|-----|------|------|-----|

### Feedback

The market continues its downward trend. The Psychometric Evaluators showed Red-Green. Volume is still quite high and the price closed near the low of the bar, which means the sellers were in control.

The Accelerometer indicates that acceleration is near the zero line. The 764 sell signal was hit, so we've added a fourth contract. The Momentum Oscillator did form an ACDC sell signal at 761, but we don't have enough equity to take it.

We have a sense that the price will go lower yet, but it seems to be slowing. We'll keep a close watch on the Stability Lines. If the price closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 781. We'll also call our broker and set the new stop loss.

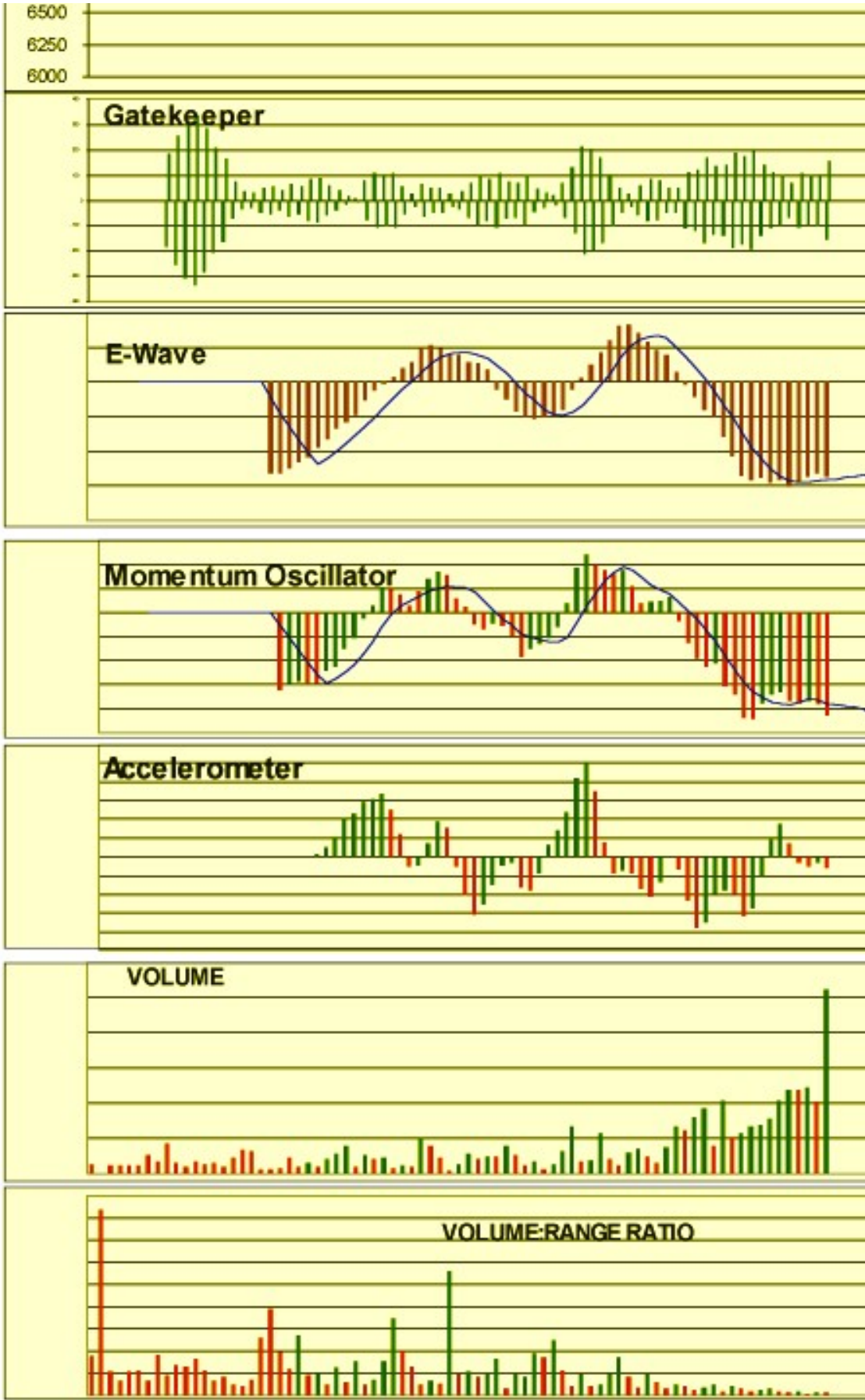
### Simulation Frame #30

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, and 764. Your stop loss is at 781. If we stop ourselves out of the market at this point, we will make a profit of \$940, minus commission and fees. Your account has a market value of \$3762 and available funds of \$552. You need another \$448 in equity to sell another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 762; Low, 739; Close, 741.

### Simulation Frame #30





## Simulation Frame #30 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Red. Orders inundated the floor (250% more), but the market is not facilitating price movement. A tremendous amount of energy is being stored. Based on the other indicators, we feel that the trend has picked up momentum. We'll ride it to the end.
- The Accelerometer is indicating that the speed of the momentum is accelerating slightly.
- The Momentum Oscillator indicates that the direction of the momentum is turning back downward. It has generated a sell signal at 761 (two ticks below the low).
- The E-Wave indicates that the overall direction of the market is still downward, and is adjusting itself more in that direction.
- The gate is opening.
- The price chart tells us that price reached a high of 762 and closed at 741. The previous day's close was 764. We have gained 23 points per contract. We are short the market at 832, 813, 792, and 764.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 21    | \$635  | (0)     | 60     | (0)    | (0)    | (0)    | 3095      | 695       |
| 22    | \$695  | (0)     | 0      | (30)   | (0)    | (0)    | 3065      | 665       |
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305  | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725  | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965  | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |

### Feedback

The market continues its downward trend. The Psychometric Evaluators showed Green-Red. Volume is exceptionally high and the price closed near the low of the bar, which means the sellers were in control.

The Accelerometer indicates that acceleration is near the zero line, but picking up. We have a sense that the price will go lower yet, but we're not sure how far. We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 776. We'll also call our broker and set the new stop loss.

## 11. Trading Simulation

### Experience the Fractal's Edge System in Action

#### Simulation Frame #31

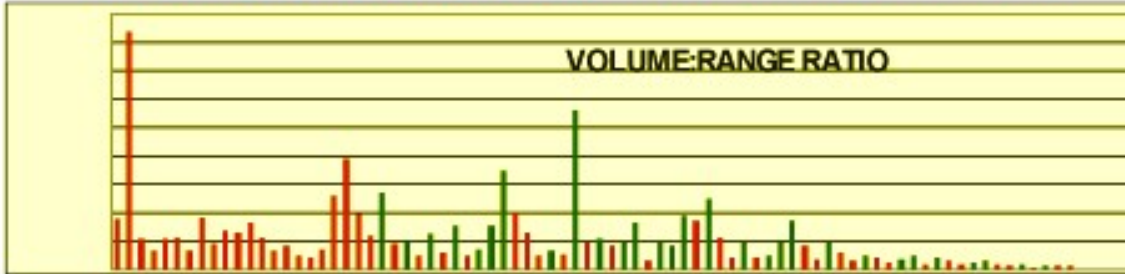
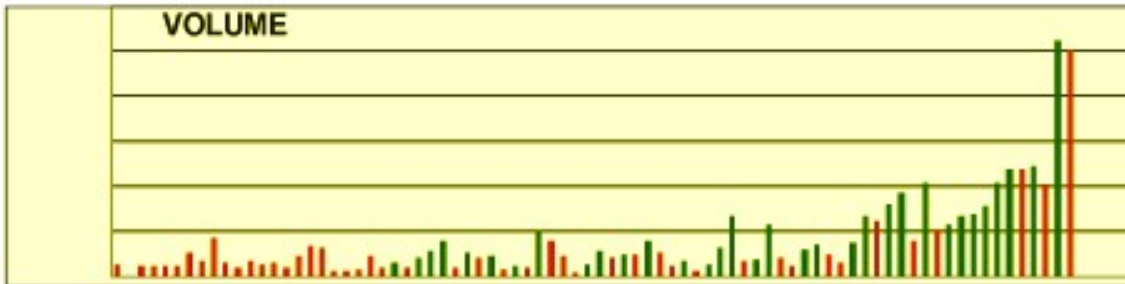
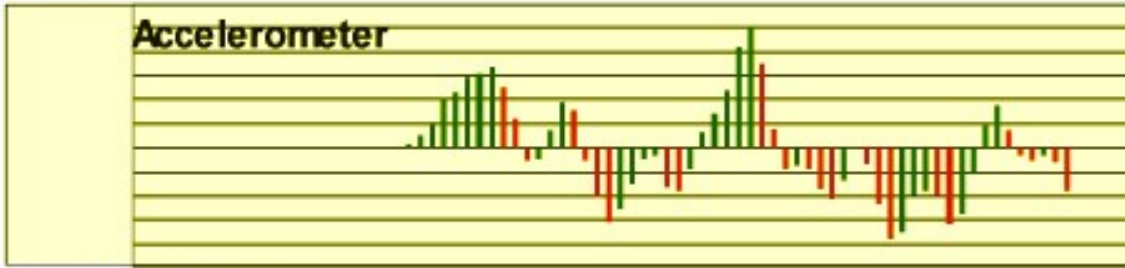
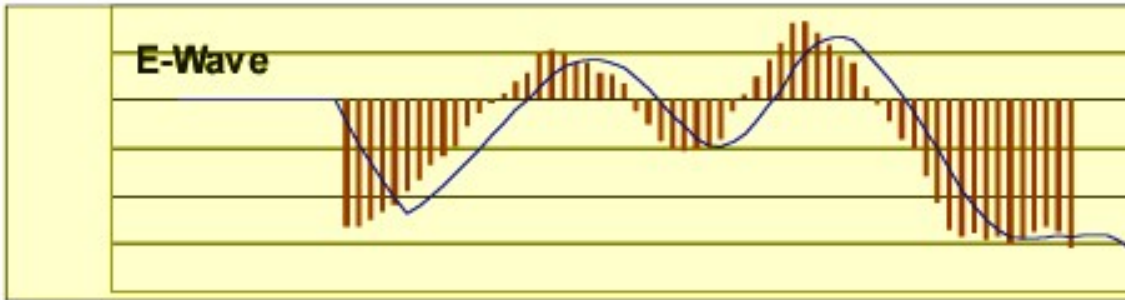
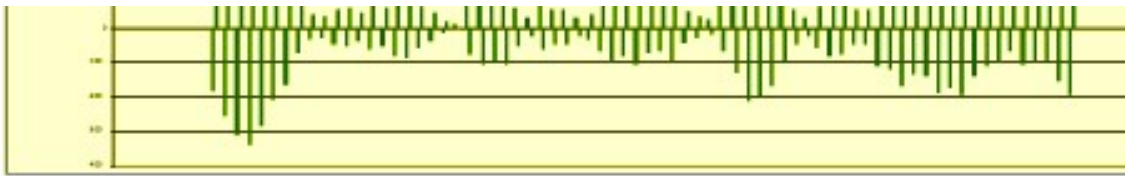
In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, and 764. Your stop loss is at 776. If we stop ourselves out of the market at this point, we will make a profit of \$970, minus commission and fees. Your account has a market value of \$4672 and available funds of \$1472. You have enough equity to sell another contract.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 748; Low, 730; Close, 732.

#### Simulation Frame #31







## Simulation Frame #31 Results

### Analysis:

- When the Psychometric Evaluators show us two red bars, it means that fewer traders are entering the market, and price movement is slowing down. This often happens near the end of an Elliot wave of some lower time frame. For example, the price has been falling, but as traders loose interest and are no longer willing to enter the market, there is a general slowing or even slight decline of price movement, and the price may pull back a bit. If it does, watch for the formation of a sell fractal.
- The Accelerometer is indicating that the speed of the momentum is accelerating.
- The Momentum Oscillator indicates that the momentum is moving downward.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line.
- The gate is opening.
- The price chart tells us that price reached a high of 748 and closed at 732. The previous day's close was 741. We have gained 9 points per contract. We are short the market at 832, 813, 792, and 764.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 23    | \$665  | (0)     | 0      | (360)  | (0)    | (0)    | 2705      | 305       |
| 24    | \$305  | (0)     | 420    | (0)    | (0)    | (0)    | 3125      | 725       |
| 25    | \$725  | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965  | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |

### Feedback

The market continues its downward trend, but may be slowing. The Psychometric Evaluators showed Red-Red. Volume is lower and the price movement is slower. The market closed near the low of the bar, which means the sellers were still in control.

The Accelerometer indicates that acceleration has moved away from the zero line,

and speed is increasing. Watch for a possible Accelerometer sell signal. Momentum is very much downward. We have a sense that the price will go lower yet, but we're not sure how far. We'll keep a close watch on the Stability Lines.

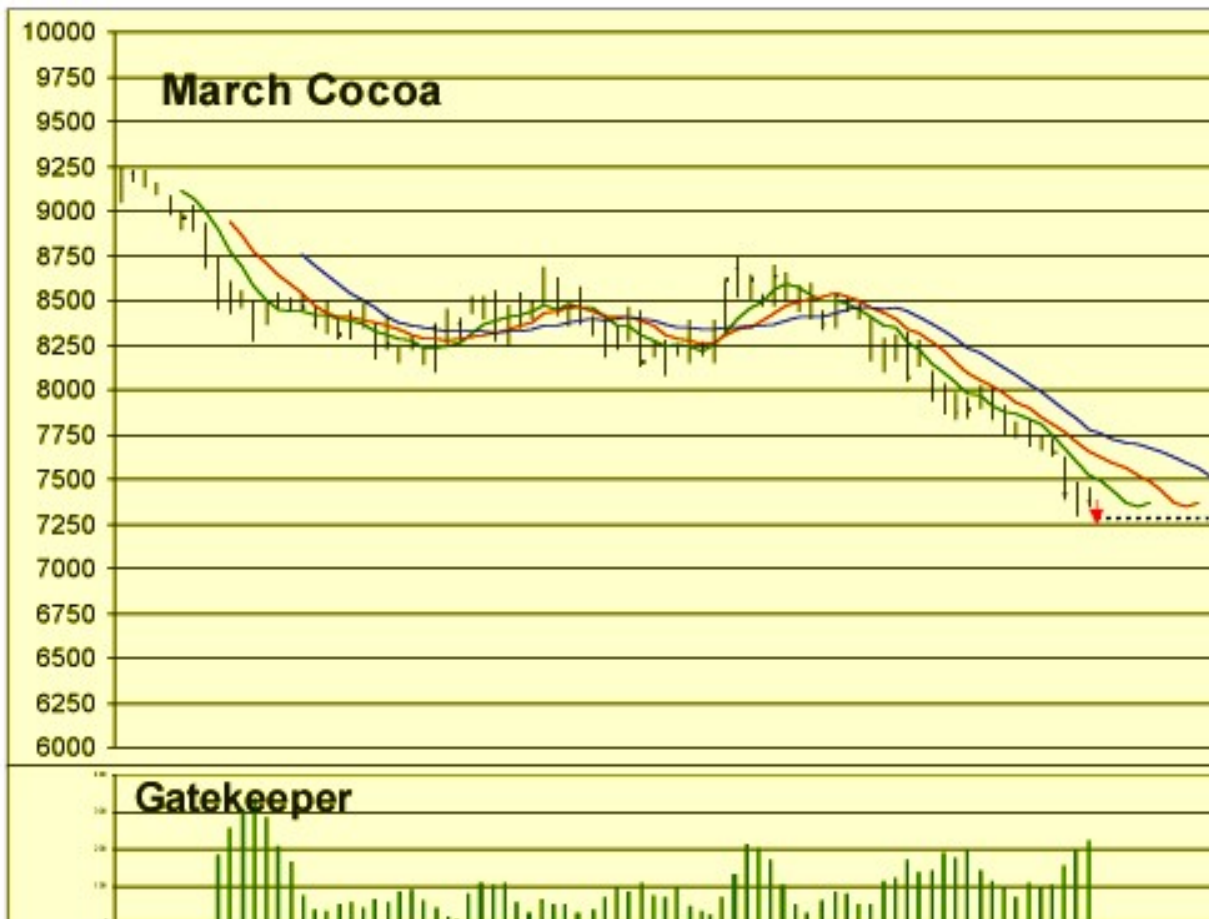
If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 769. We'll also call our broker and set the new stop loss.

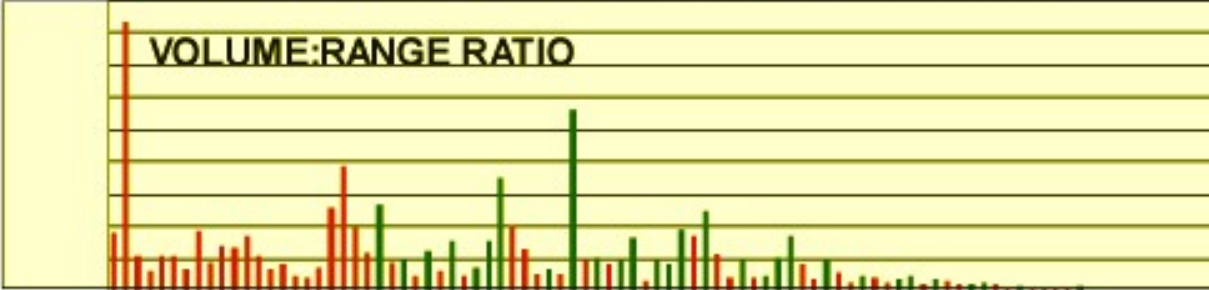
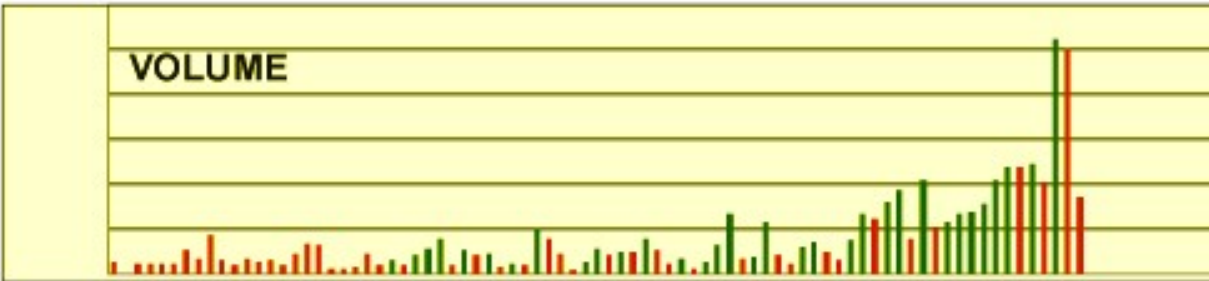
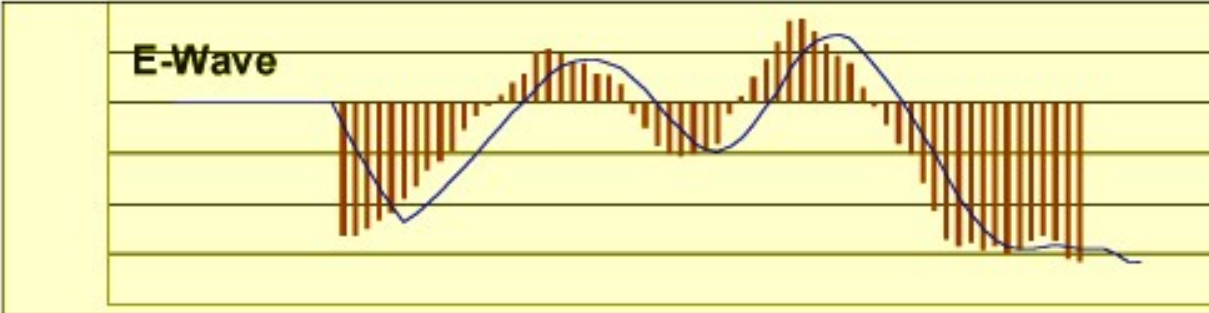
## Simulation Frame #32

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, and 764. Your stop loss is at 769. If we stop ourselves out of the market at this point, we will make a profit of \$1250, minus commission and fees. Your account has a market value of \$5032 and available funds of \$1832. You have enough equity to sell another two contracts.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 745; Low, 735; Close, 737.

## Simulation Frame #32





## Simulation Frame #32 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Green. Volume is about 1/3 of yesterday's, so substantially fewer orders were going to the floor and the market facilitated price movement. Although it appears that traders have lost interest and are no longer willing to enter the market, those that did have kept the closing price near the low. Price did pull back a bit, so watch for the formation of a sell fractal.
- The Accelerometer is indicating that the speed of the momentum is accelerating. It has also generated a sell signal at 733 (2 points below the low).
- The Momentum Oscillator indicates that the momentum is moving downward.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line.
- The gate is opening.
- The price chart tells us that price reached a high of 745 and closed at 737. The previous day's close was 732. We have lost 5 points per contract. We are short the market at 832, 813, 792, and 764.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 25    | \$725  | (0)     | 240    | (0)    | (0)    | (0)    | 3365      | 965       |
| 26    | \$965  | (0)     | 0      | (90)   | (0)    | (0)    | 3275      | 875       |
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |

### Feedback

The market continues its downward trend, but may be slowing. The Psychometric Evaluators showed Red-Green. Volume is lower but the market is facilitating price. The market closed near the low of the bar, which means the sellers were still in control.

The Accelerometer indicates that acceleration has moved away from the zero line, and speed is increasing. The Accelerometer generated a sell signal at 733. We'll call our broker and place an order to sell one contract at that price. Momentum is very much downward. We have a sense that the price will go lower yet, but we're not sure how far.

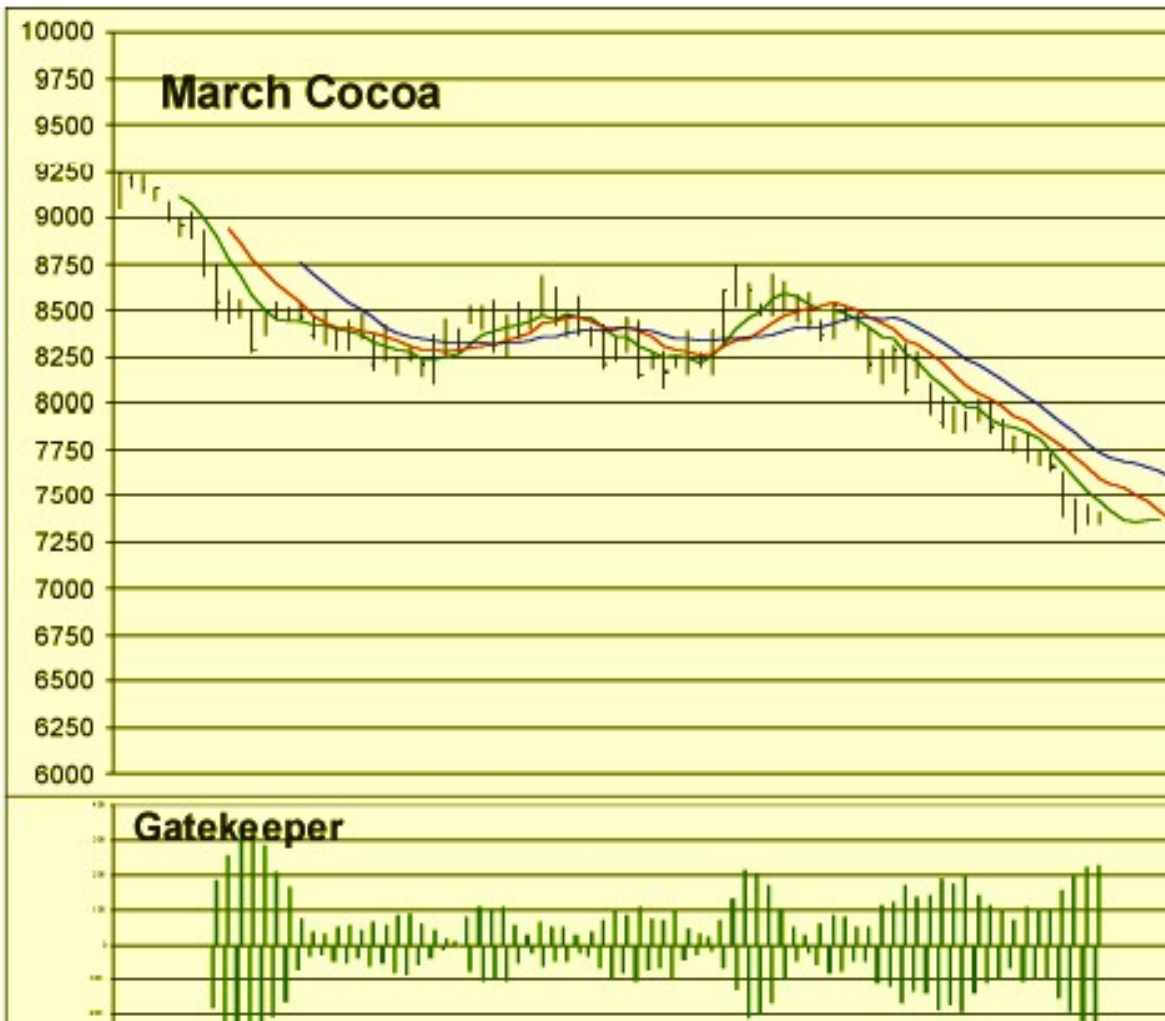
We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 764. We'll also call our broker and set the new stop loss.

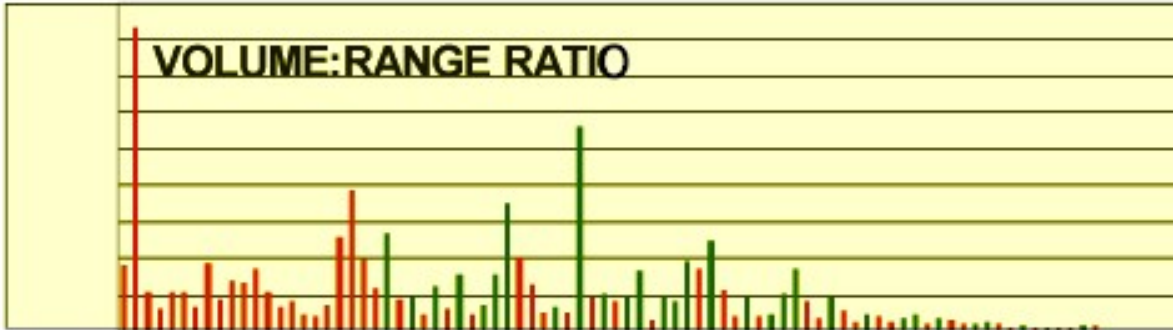
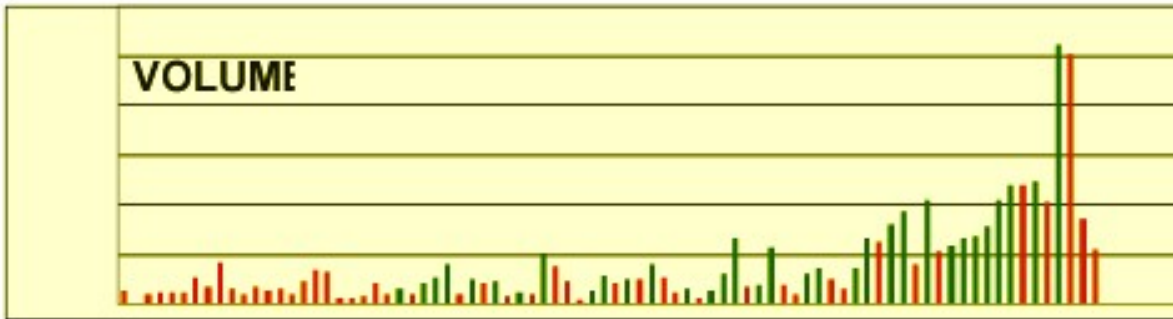
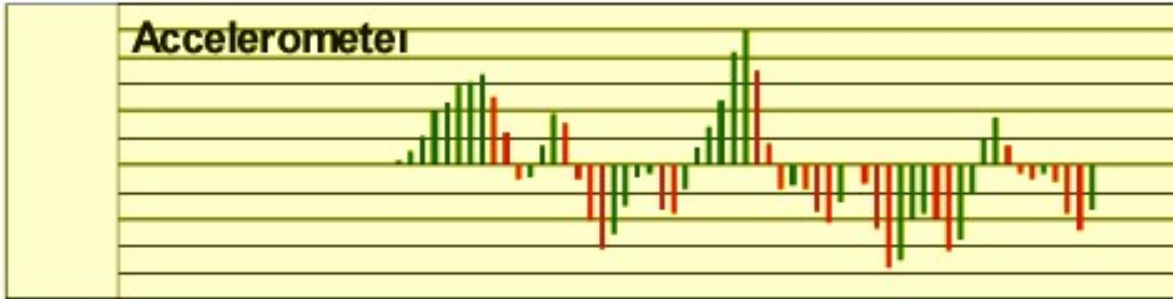
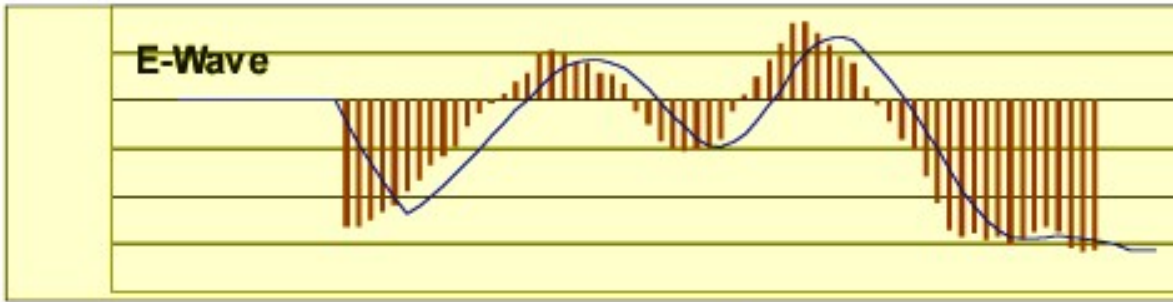
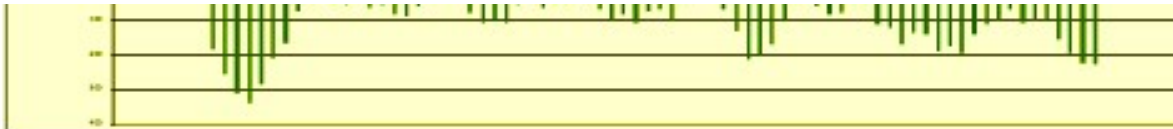
## Simulation Frame #33

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, and 764. Your stop loss is at 764. If we stop ourselves out of the market at this point, we will make a profit of \$1450, minus commission and fees. Your account has a market value of \$4832 and available funds of \$1632. You have an open order to sell one contract at 733.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 741; Low, 735; Close, 737.

## Simulation Frame #33





## Simulation Frame #33 Results

### Analysis:

- The Psychometric Evaluators are showing Red-Red. Volume is low, so and the market is failing to facilitate price movement. Although it appears that traders have lost interest and are no longer willing to enter the market, those that did have kept the closing price near the low. Price has stayed even, and a sell fractal has formed.
- The Accelerometer is indicating that the speed of the momentum is slowing.
- The Momentum Oscillator indicates that the momentum is changing direction slightly.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line. However, the signal line is just skimming the very upper part of the histogram bars, so a change may be in the offing.
- The gate is still open.
- The price chart tells us that price reached a high of 741 and closed at 737. The previous day's close was 732. We have lost 0 points per contract. We are short the market at 832, 813, 792, and 764.

### Our account now looks like this:

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |
| 33    | \$1632 | (0)     | 0      | (0)    | (0)    | (0)    | 4832      | 1632      |

### Feedback

The market may be slowing. The Psychometric Evaluators showed Red-Red. Volume is lower and the market is not facilitating price. The market closed near the low of the bar, which means the sellers were still in control.

The Accelerometer indicates that speed is beginning to decrease. Momentum may have reached its peak. We have a sense that price movement is slowing.

We have an open order to sell one contract at 733. A sell fractal has formed, but we will ignore it for now because we do not have enough equity for a second contract.



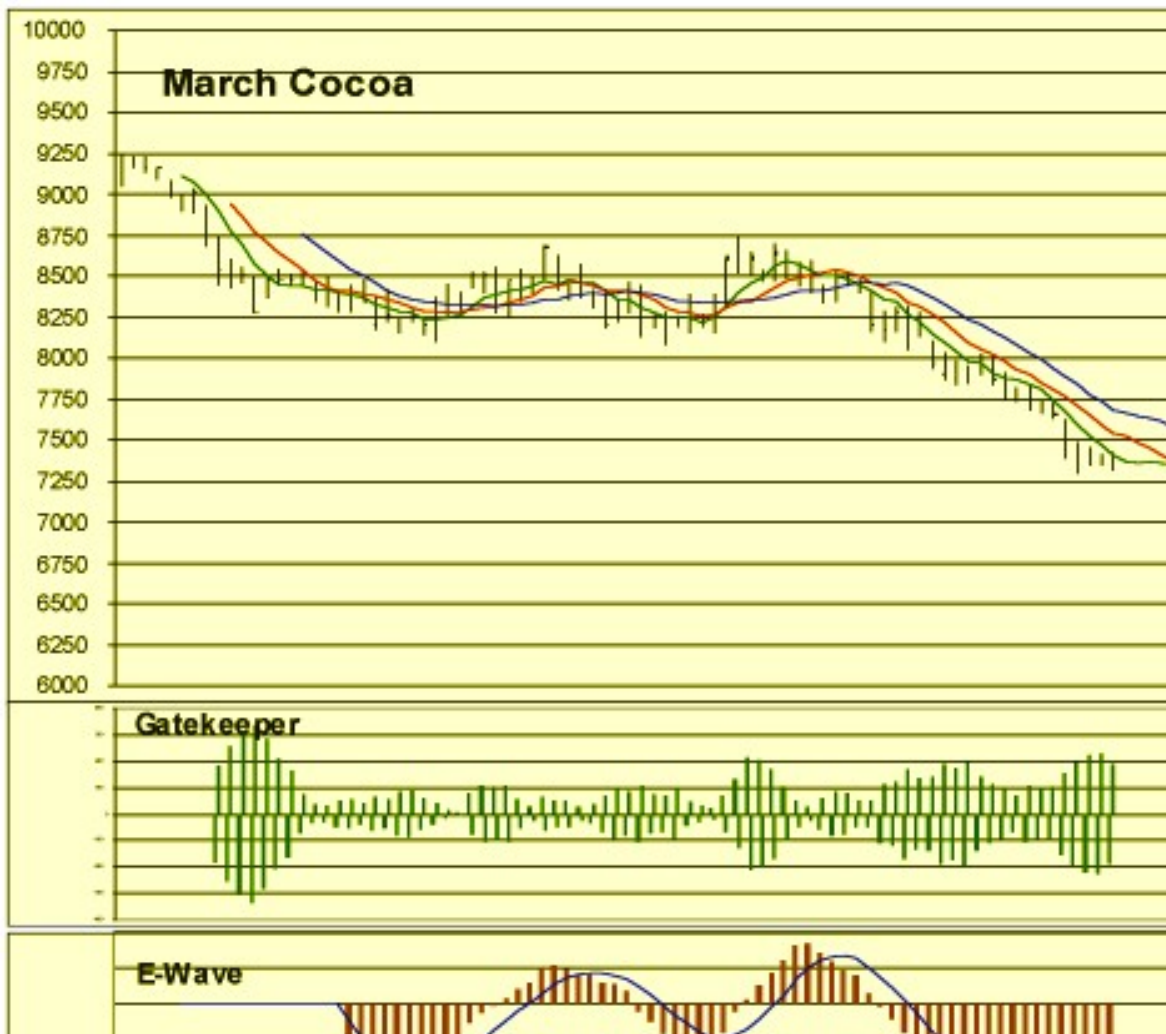
We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 762. We'll also call our broker and set the new stop loss.

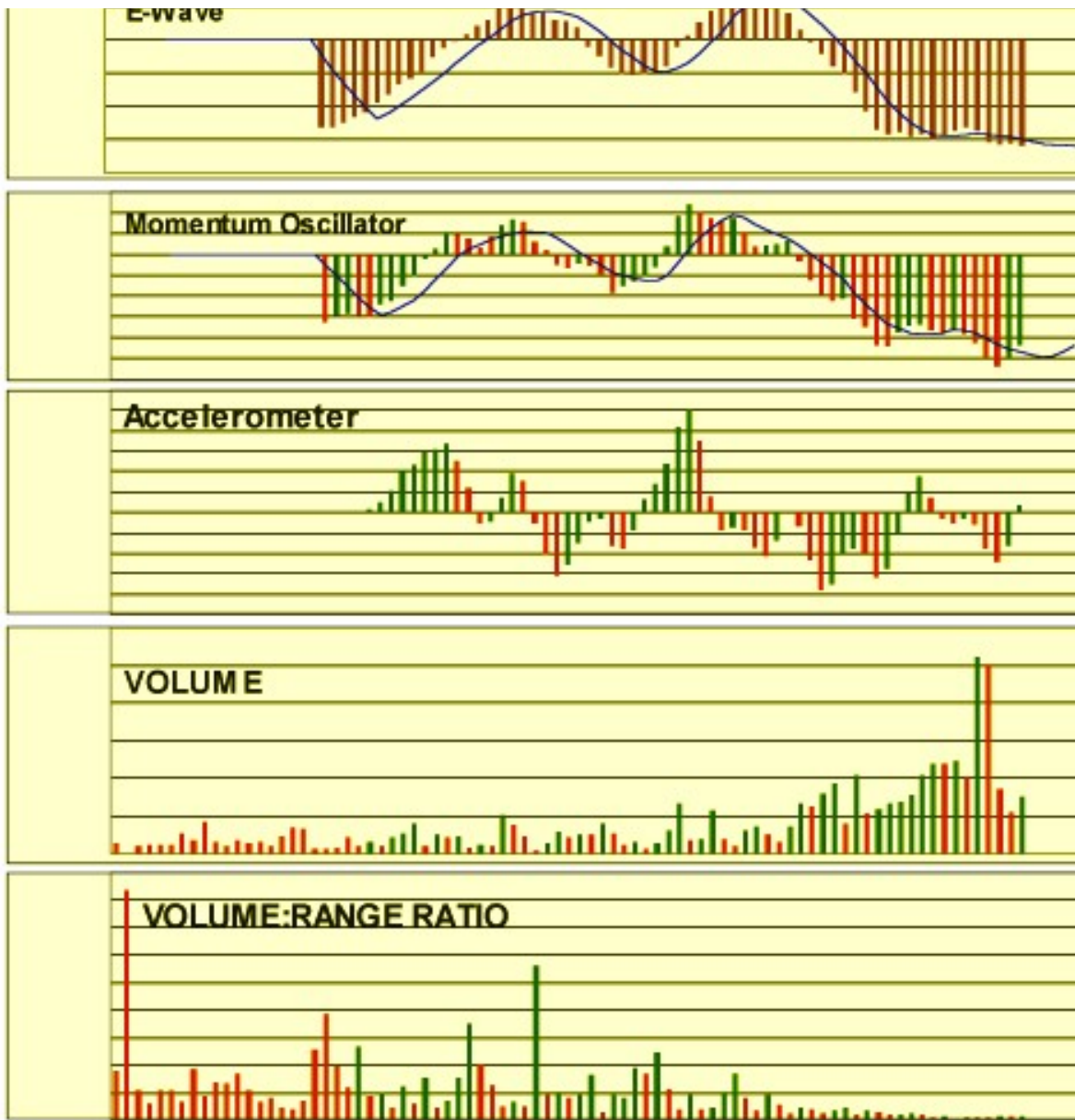
## Simulation Frame #34

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, and 764. Your stop loss is at 764. If we stop ourselves out of the market at this point, we will make a profit of \$1550, minus commission and fees. Your account has a market value of \$4832 and available funds of \$1632. You have an open order to sell one contract at 733.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 742; Low, 732; Close, 735.

## Simulation Frame #34





## Simulation Frame #34 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Green. Volume is up, and the market is facilitating price movement. Although it appears that traders have lost interest and are not as willing to enter the market, those that did have kept the closing price near the low. Price has stayed even, so watch for a further pull back and the formation of a sell fractal.
- The Accelerometer has crossed the zero line, indicating that the speed of the momentum is continuing to slow.
- The Momentum Oscillator indicates that the momentum is changing direction.
- The E-Wave confirms that the overall direction of the market is still downward, as

evidenced by the signal line. However, the signal line is still just skimming the very upper part of the histogram bars, so a change may be coming.

- The gate is beginning to close.
- The price chart tells us that price reached a high of 742 and closed at 735. The previous day's close was 737. We have gained 2 points per contract. Our 733 order was filled. We are short the market at 832, 813, 792, 764, and 733.

**Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |
| 33    | \$1632 | (0)     | 0      | (0)    | (0)    | (0)    | 4832      | 1632      |
| 34    | \$1632 | (800)   | 80     | (0)    | (3)    | (30)   | 4879      | 879       |

**Feedback**

The market may be slowing. The Psychometric Evaluators showed Red-Red. Volume is lower and the market is not facilitating price. The market closed near the low of the bar, which means the sellers were still in control.

The Accelerometer indicates that speed is beginning to decrease. Momentum may have reached its peak. We have a sense that price movement is slowing.

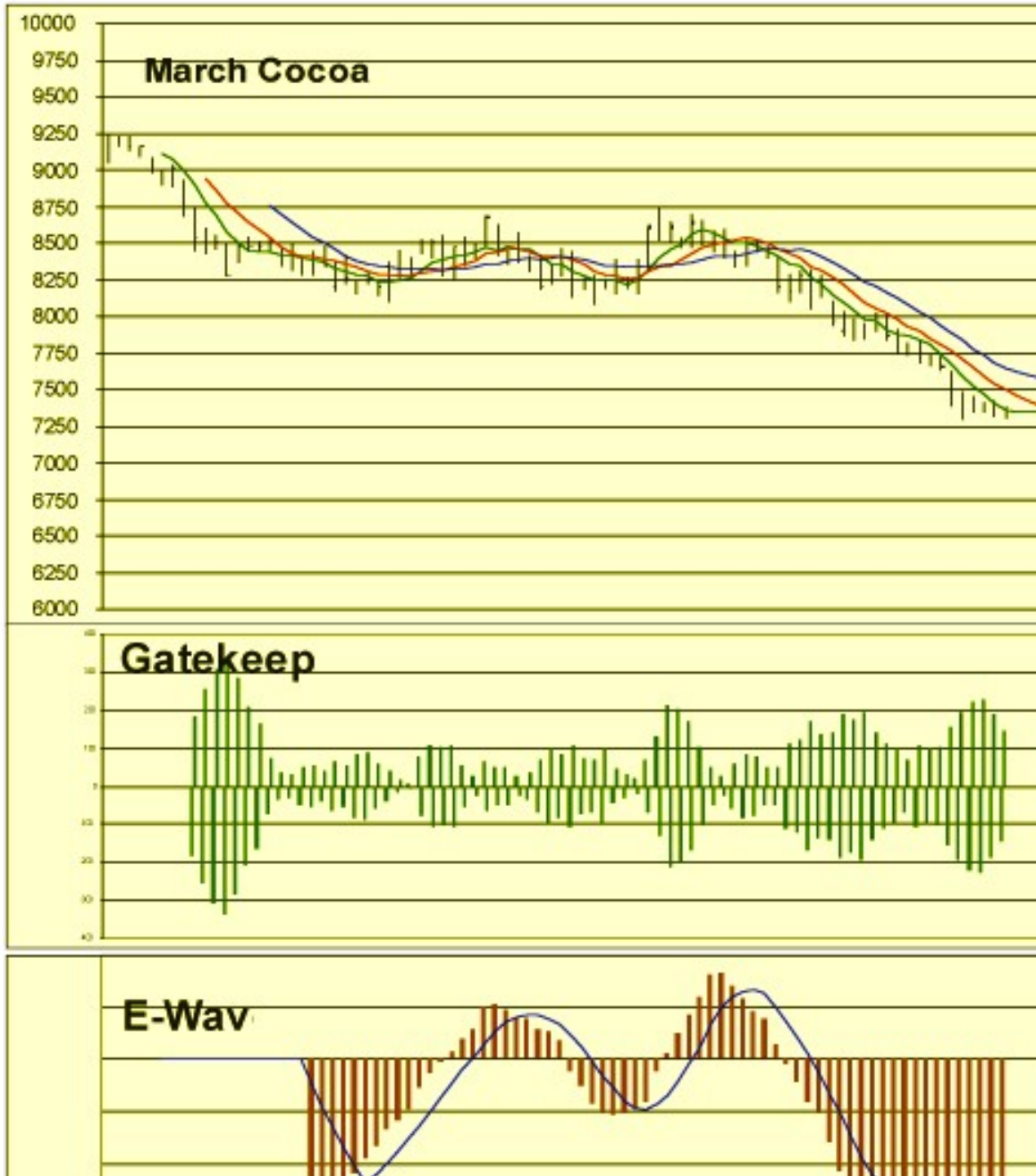
Our order to sell one contract at 733 has been filled. We now have five contracts running. We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 755. We'll also call our broker and set the new stop loss.

## Simulation Frame #35

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 755. If we stop ourselves out of the market at this point, we will make a profit of \$1590, minus commission and fees. Your account has a market value of \$4832 and available funds of \$1632.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Watch for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 738; Low, 731; Close, 731.

## Simulation Frame #35





## Simulation Frame #35 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Red. Volume is up, but the market is not facilitating price movement. Traders have kept the closing price near the low. Price has dropped slightly, and may continue to drop. Green-Red can signify the end of a trend and usually does so if it is one of the five bars that form the next fractal. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind.
- The Accelerometer is indicating that momentum is continuing to decelerate. It has also generated an invalid buy signal.

- The Momentum Oscillator indicates that the momentum is continuing to change direction.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line. However, the signal line is still just skimming the very upper part of the histogram bars, so a change may be in the offing.
- The gate is closing.
- The price chart tells us that price reached a high of 738 and closed at 731. The previous day's close was 731. We have gained 1 point per contract. We are short the market at 832, 813, 792, 764, and 733.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 27    | \$875  | (0)     | 360    | (0)    | (0)    | (0)    | 3635      | 1235      |
| 28    | \$875  | (0)     | 0      | (0)    | (0)    | (0)    | 3635      | 1235      |
| 29    | \$1235 | (800)   | 150    | (0)    | (3)    | (30)   | 3752      | 552       |
| 30    | \$552  | (0)     | 920    | (0)    | (0)    | (0)    | 4672      | 1472      |
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |
| 33    | \$1632 | (0)     | 0      | (0)    | (0)    | (0)    | 4832      | 1632      |
| 34    | \$1632 | (800)   | 80     | (0)    | (3)    | (30)   | 4879      | 879       |
| 35    | \$879  | (0)     | 180    | (0)    | (0)    | (0)    | 5059      | 1059      |

***Feedback***

The market may be slowing. The Psychometric Evaluators showed Green-Red. Volume is lower and the market is not facilitating price. The market closed at the low of the bar, which means the sellers were still in control.

The Accelerometer indicates that speed is continuing to decrease. Momentum may have reached its peak and is now turning. We have a sense that price movement is slowing. We now have five contracts running.

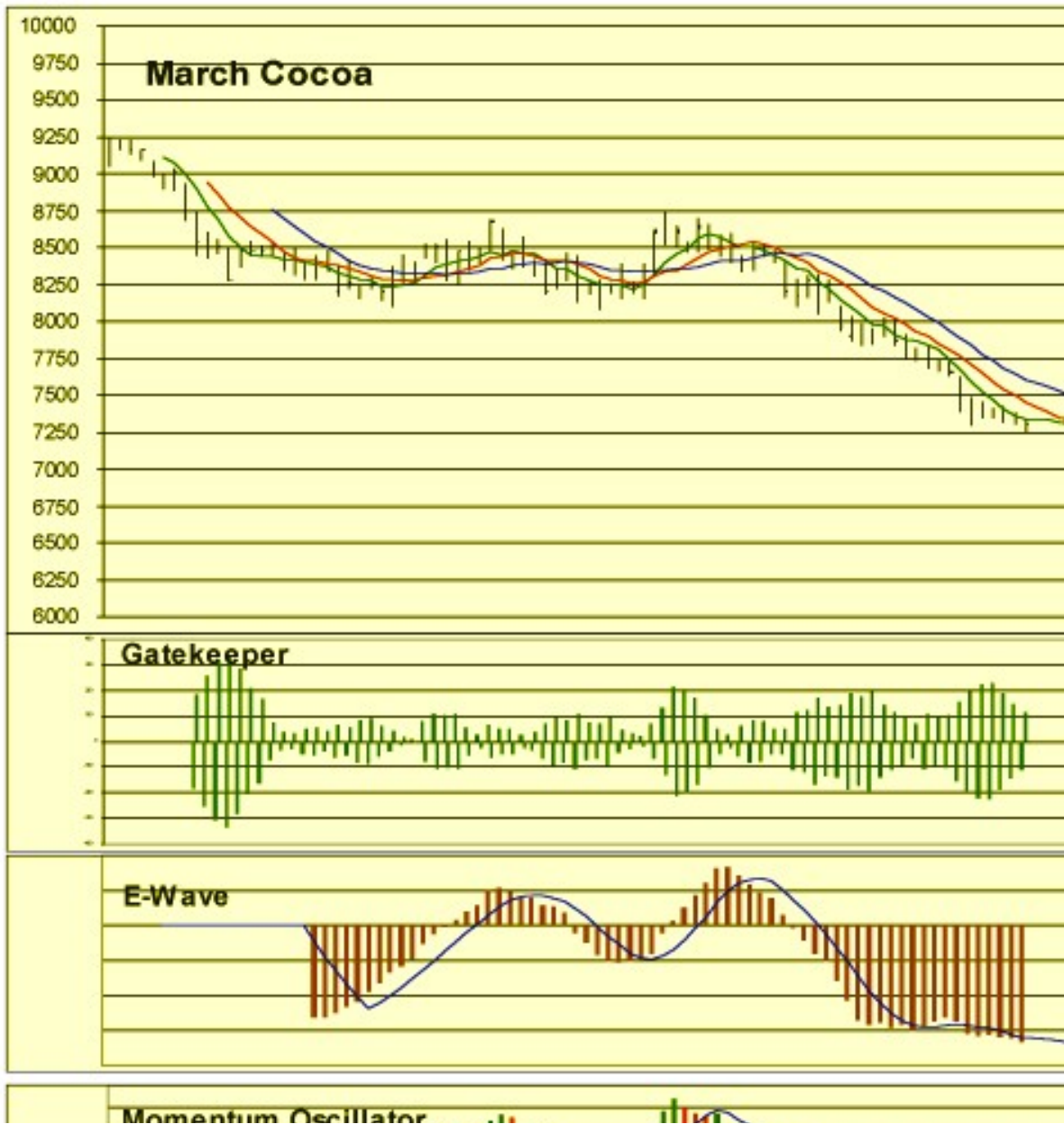
We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 750. We'll also call our broker and set the new stop loss.

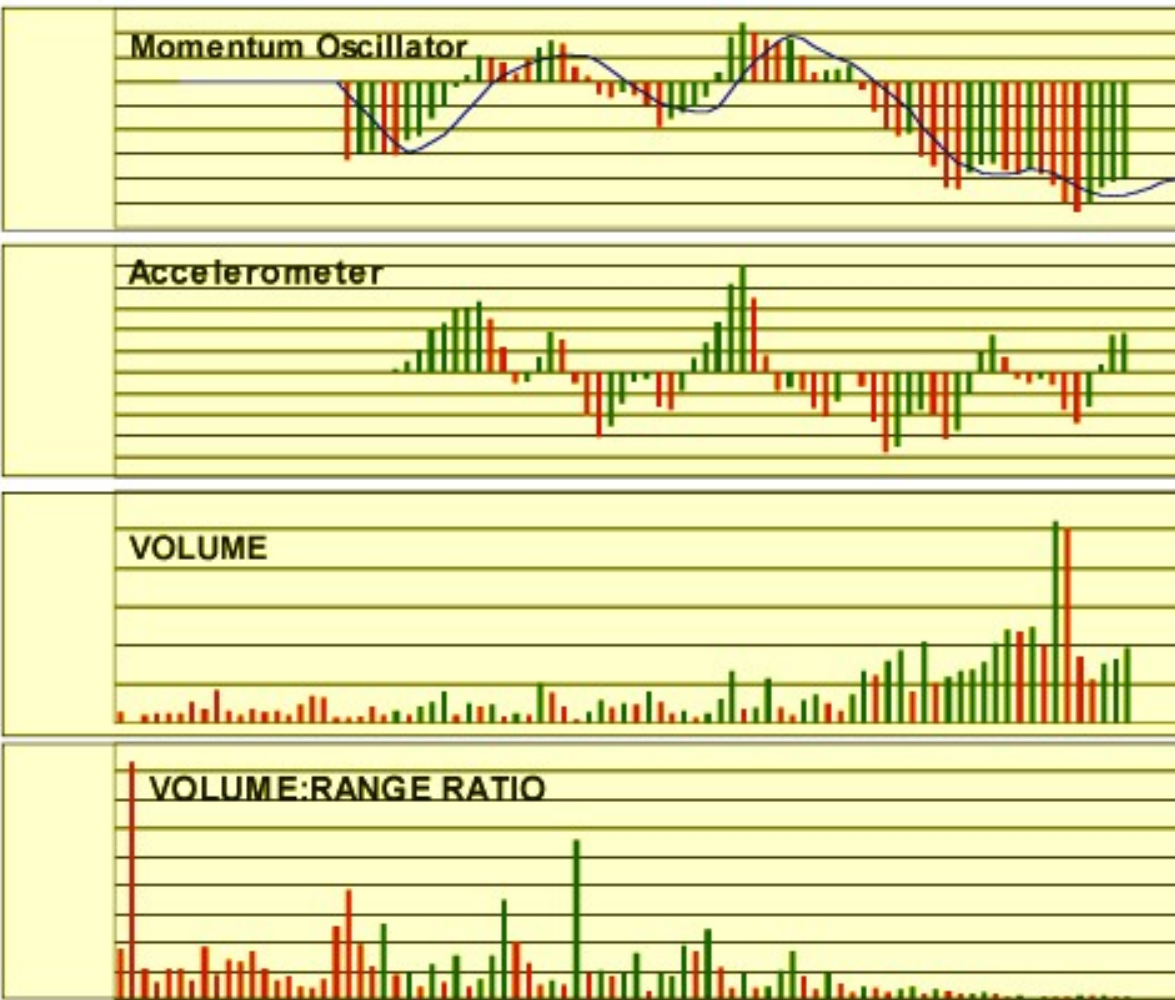
## Simulation Frame #36

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 750. If we stop ourselves out of the market at this point, we will make a profit of \$1840, minus commission and fees. Your account has a market value of \$5059 and available funds of \$1059.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Now that you have enough equity for another contract, be especially alert for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 734; Low, 725; Close, 730.

## Simulation Frame #36





## Simulation Frame #36 Results

### *Analysis:*

- The Psychometric Evaluators are showing Green-Green. Volume is up, and the market is facilitating price movement. Green-Green indicates market bias in favor of either buyers or sellers. Today, however, the closing price is nearer the middle of the price bar, so today's battle between buyers and sellers is a draw. Price has dropped slightly, and may continue to drop. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind.
- The Accelerometer is indicating that momentum is continuing to decelerate.
- The Momentum Oscillator indicates that the momentum is continuing to change direction.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line. However, the signal line is still just skimming the very upper part of the histogram bars, so a change may be in the offing.



- The gate is continuing to close.
- The price chart tells us that price reached a high of 734 and closed at 730. The previous day's close was 731. We have gained 1 point per contract. We are short the market at 832, 813, 792, 764, and 733.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |
| 33    | \$1632 | (0)     | 0      | (0)    | (0)    | (0)    | 4832      | 1632      |
| 34    | \$1632 | (800)   | 80     | (0)    | (3)    | (30)   | 4879      | 879       |
| 35    | \$879  | (0)     | 180    | (0)    | (0)    | (0)    | 5059      | 1059      |
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |

***Feedback***

The market may be slowing. The Psychometric Evaluators showed Green-Green. Volume is higher and the market is facilitating price. The market closed at midpoint of the bar, which means neither sellers nor buyers were in control.

The Accelerometer indicates that speed is continuing to decrease. Momentum is continuing to turn. We have a sense that price movement is slowing. We now have five contracts running.

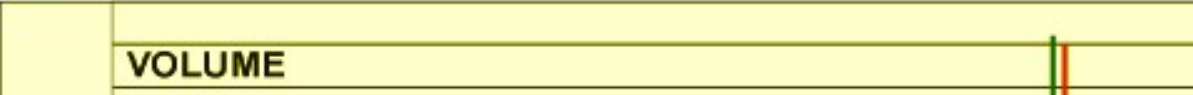
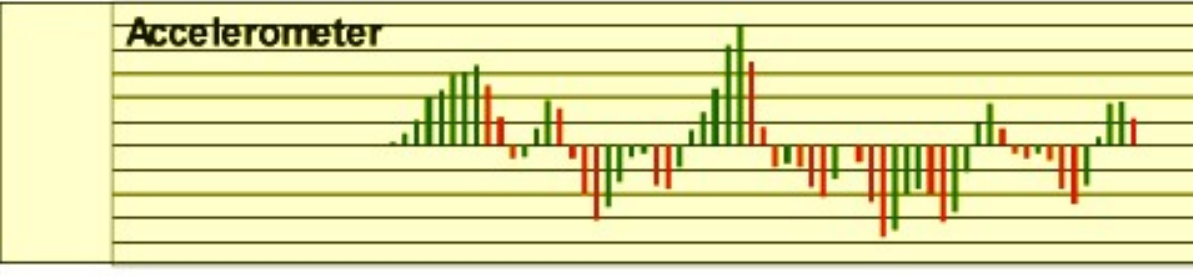
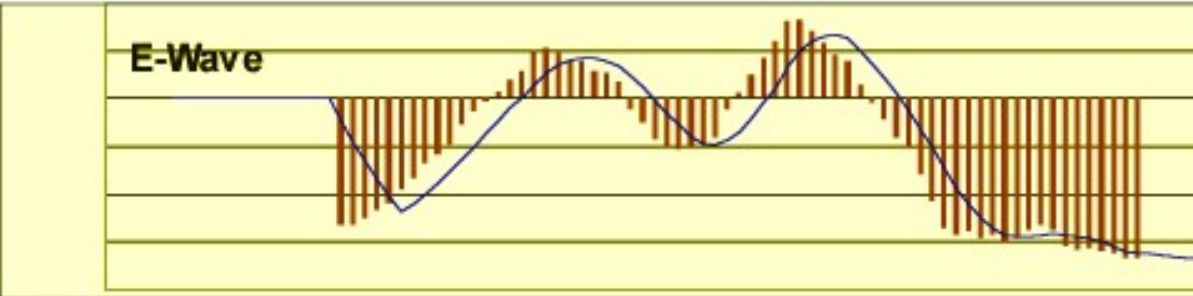
We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 745. We'll also call our broker and set the new stop loss.

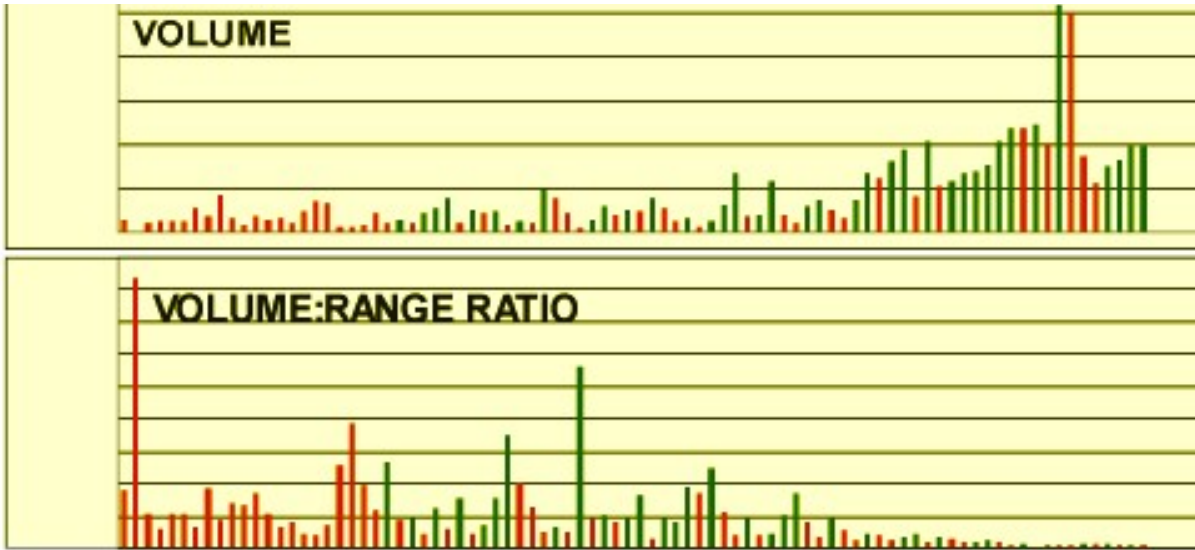
**Simulation Frame #37**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 745. If we stop ourselves out of the market at this point, we will make a profit of \$2090, minus commission and fees. Your account has a market value of \$5059 and available funds of \$1059.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Watch for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 731; Low, 723; Close, 724.

**Simulation Frame #37**





### Simulation Frame #37 Results

**Analysis:**

- The Psychometric Evaluators are showing Green-Red. Volume is up, but the market is not facilitating price movement. Green-Red indicates a battle between buyers and sellers, and with the closing price is near the bottom of the price bar, the sellers won today's battle. Price has again dropped slightly, and may continue to drop. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind. Red-Greens are signs that the market is storing energy-perhaps for a greater downward movement of price, perhaps for a change in trend.
- The Accelerometer is indicating that momentum is continuing to decelerate, but at a slower rate than the previous bar.
- The Momentum Oscillator indicates that the momentum is continuing to change direction.
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line. However, the signal line is still just skimming the very upper part of the histogram bars, so a change may be in the offing.
- The gate is continuing to close.
- The price chart tells us that price reached a high of 731 and closed at 724. The previous day's close was 730. We have gained 6 points per contract. We are short the market at 832, 813, 792, 764, and 733.

**Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |

|    |        |       |     |       |     |      |      |      |
|----|--------|-------|-----|-------|-----|------|------|------|
| 32 | \$1832 | (0)   | 0   | (200) | (0) | (0)  | 4832 | 1632 |
| 33 | \$1632 | (0)   | 0   | (0)   | (0) | (0)  | 4832 | 1632 |
| 34 | \$1632 | (800) | 80  | (0)   | (3) | (30) | 4879 | 879  |
| 35 | \$879  | (0)   | 180 | (0)   | (0) | (0)  | 5059 | 1059 |
| 36 | \$1059 | (0)   | 50  | (0)   | (0) | (0)  | 5109 | 1109 |
| 37 | \$1109 | (0)   | 300 | (0)   | (0) | (0)  | 5409 | 1409 |

### **Feedback**

The market may be slowing. The Psychometric Evaluators showed Green-Red. Volume is higher but the market is not facilitating price. The market closed near the low of the bar, which means the sellers are in control.

The Accelerometer indicates that speed is continuing to decrease, but at a slightly lower rate than yesterday. Momentum is continuing to turn. When the Accelerometer histogram bar is red and the Momentum Oscillator bar is green (momentum turning up while speed is slowing), it is an indication of transition. We have a sense that price movement is slowing and that a transition is likely. We now have five contracts running.

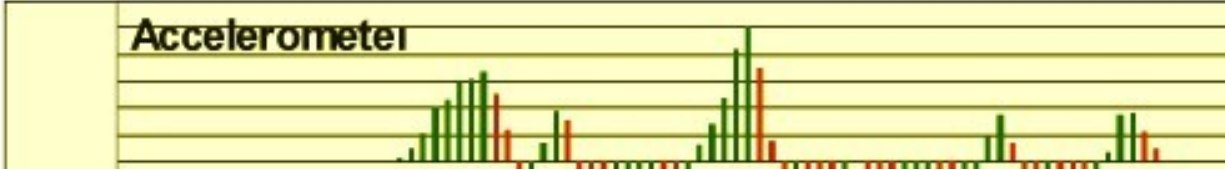
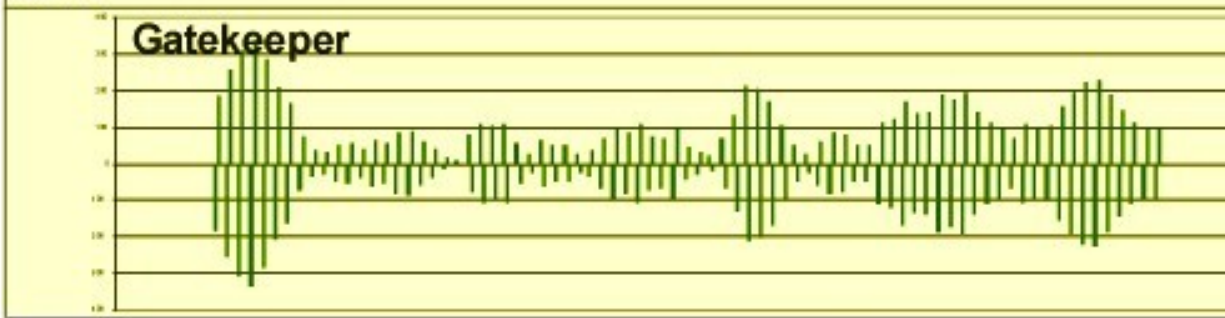
We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens. Using the red Stability Line, we calculate our stop loss point to be 739. We'll also call our broker and set the new stop loss.

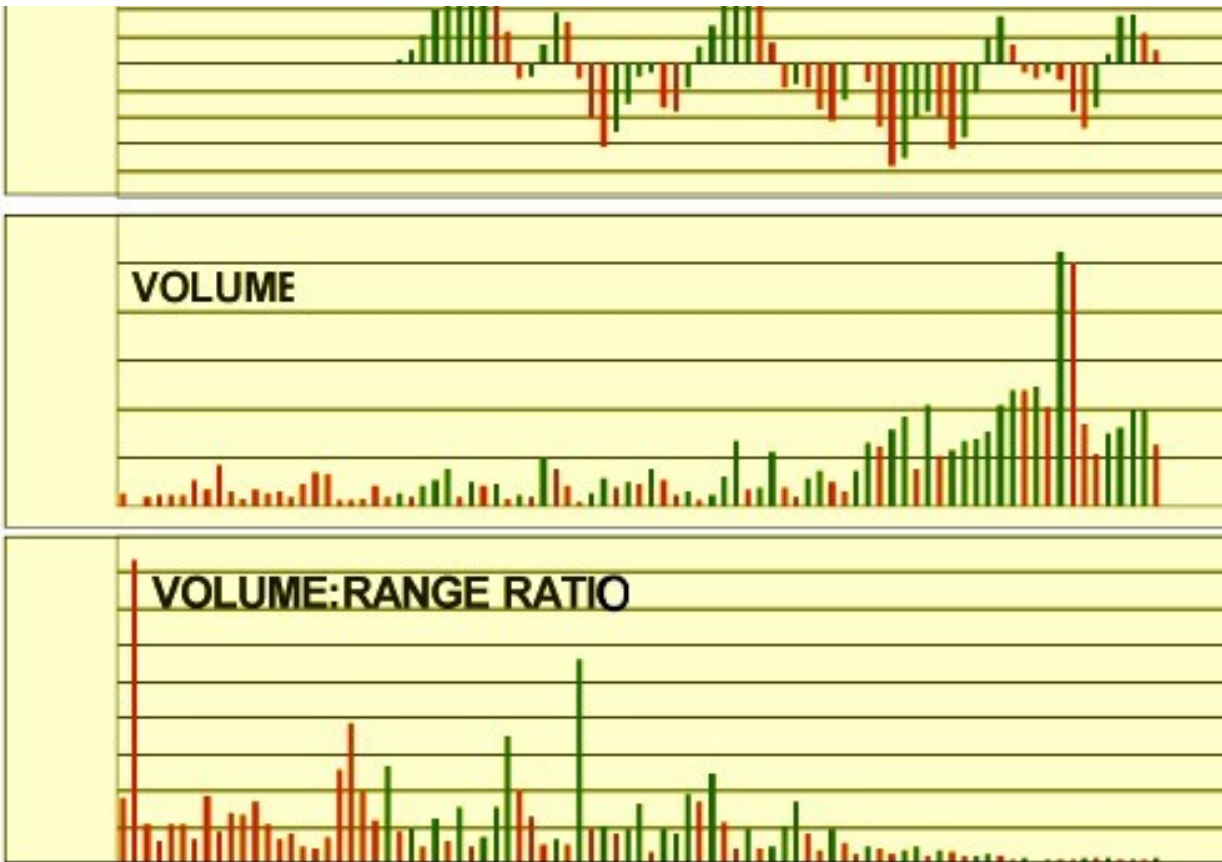
### **Simulation Frame #38**

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 739. If we stop ourselves out of the market at this point, we will make a profit of \$2390, minus commission and fees. Your account has a market value of \$5409 and available funds of \$1409.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Watch for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 722; Low, 713; Close, 714.

### **Simulation Frame #38**





## Simulation Frame #38 Results

### *Analysis:*

- The Psychometric Evaluators are showing Red-Green. Volume is down, but the market is facilitating price movement. Red-Green indicates possible price manipulation by the floor brokers in preparation for a change in trend. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind.
- The Accelerometer is indicating that momentum is continuing to decelerate toward the zero line.
- The Momentum Oscillator indicates that the momentum is changing direction back down. It has also generated a sell signal at 712 (two points below the low of the price bar).
- The E-Wave confirms that the overall direction of the market is still downward, as evidenced by the signal line. However, the signal line is still just skimming the very upper part of the histogram bars, so a change may be coming.
- The gate is stationary.
- The price chart tells us that price reached a high of 722 and closed at 714. The previous day's close was 724. We have gained 10 points per contract. We are short the market at 832, 813, 792, 764, and 733.

### *Our account now looks like this:*

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 31    | \$1472 | (0)     | 360    | (0)    | (0)    | (0)    | 5032      | 1832      |
| 32    | \$1832 | (0)     | 0      | (200)  | (0)    | (0)    | 4832      | 1632      |
| 33    | \$1632 | (0)     | 0      | (0)    | (0)    | (0)    | 4832      | 1632      |
| 34    | \$1632 | (800)   | 80     | (0)    | (3)    | (30)   | 4879      | 879       |
| 35    | \$879  | (0)     | 180    | (0)    | (0)    | (0)    | 5059      | 1059      |
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |
| 37    | \$1109 | (0)     | 300    | (0)    | (0)    | (0)    | 5409      | 1409      |
| 38    | \$1409 | (0)     | 500    | (0)    | (0)    | (0)    | 5909      | 1909      |

### Feedback

The market may be slowing. The Psychometric Evaluators showed Red-Green. Volume is lower and the market facilitation is higher. The market closed near the low of the bar, which means either the sellers are in control or the floor brokers have manipulated price.

The Accelerometer indicates that speed is continuing to decrease toward zero. Momentum is turning slightly back downward. When the Accelerometer histogram bar is red and the Momentum Oscillator bar is red (momentum turning down while speed is going down), it is an indication that momentum and acceleration are in sync.

Although the market appears to be turning back downward, and in spite of the fact that we have a sell signal, price movement is slowing. We feel that a transition is likely and that the market will pull back to form a fractal, so we will not add another contract. If one or more of the five bars forming the fractal are Green-Red, we will have to be extremely careful, for that could signal the end of the trend.

We now have five contracts running. We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens.

To be more conservative, we calculate our stop loss point using the green Stability Line. Our stop loss point is 730. We'll also call our broker and set the new stop loss at 730 Market on Close (MOC). Market on Close means that the market must close at 730 or higher to activate our order. So, if our price bar crosses the Picket Fence, but closes below it, we're still in. If it crosses the Picket Fence and closes above it, we're out.

## 11. Trading Simulation Experience the Fractal's Edge Trading System

### Simulation Frame #39

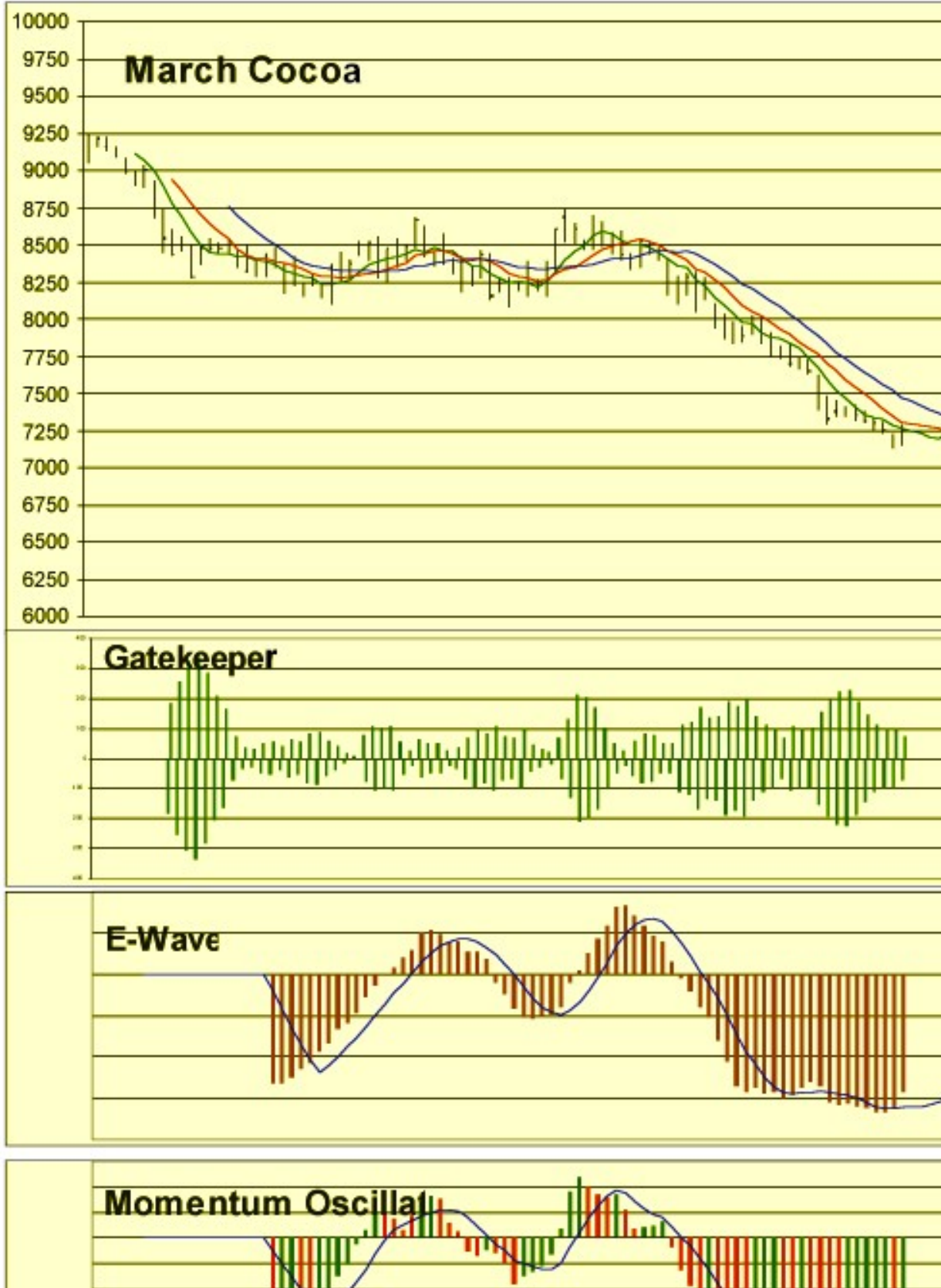
In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 730 MOC. If we stop ourselves out of the market at this point, we will make a profit of \$2840, minus commission and fees. Your account has a market value of \$5909 and available funds of \$2909.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of

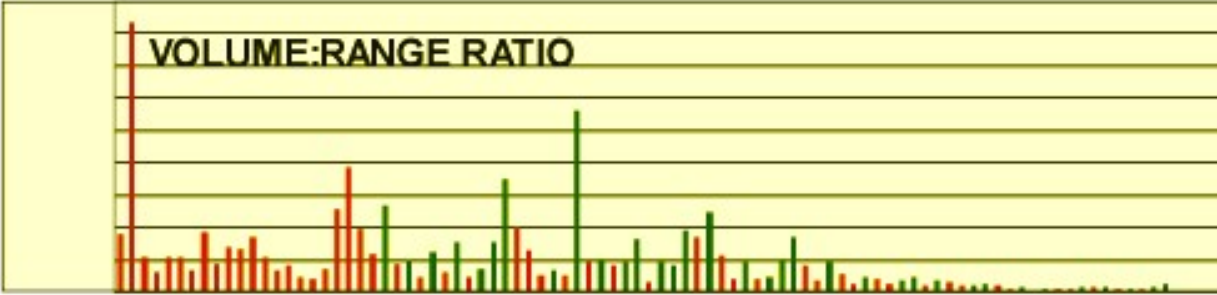
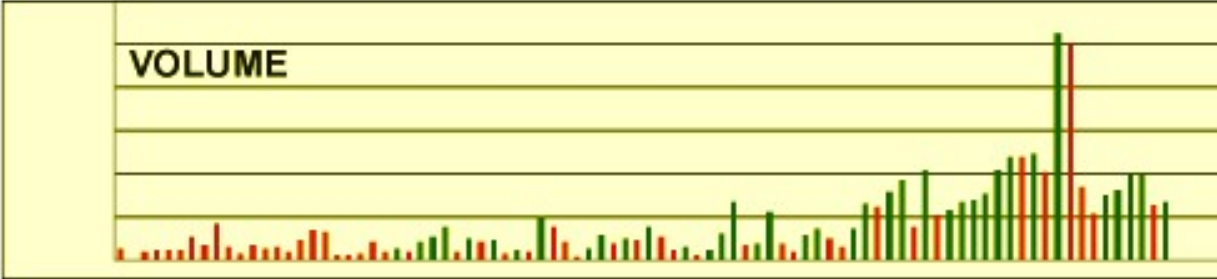
each tool's indication of the current market situation.

- Watch for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 729; Low, 715; Close, 724.

### Simulation Frame #39







## Simulation Frame #39 Results

### Analysis:

- The Psychometric Evaluators are showing Green-Green. Volume is up and the market is facilitating price movement. Green-Green indicates market bias in favor of either buyers or sellers. Today, however, the closing price is nearer the high of the price bar, so today's battle between buyers and sellers goes to the buyers. Price has risen slightly, and may continue to rise. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind.
- The Accelerometer is indicating that momentum is continuing to decelerate toward the zero line, which means the momentum is just creeping along.
- The Momentum Oscillator indicates that the momentum is changing direction again, this time upward. The signal line has lifted from the histogram bars, confirming the direction change.

- The E-Wave confirms that the overall direction of the market is changing, as evidenced by the signal line's separation from the histogram bars.
- The gate is closing.
- The price chart tells us that price reached a high of 729 and closed at 724. The previous day's close was 714. We have lost 10 points per contract. We are short the market at 832, 813, 792, 764, and 733.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |
| 37    | \$1109 | (0)     | 300    | (0)    | (0)    | (0)    | 5409      | 1409      |
| 38    | \$1409 | (0)     | 500    | (0)    | (0)    | (0)    | 5909      | 1909      |
| 39    | \$1909 | (0)     | 0      | (500)  | (0)    | (0)    | 5409      | 1409      |

***Feedback***

The market is definitely slowing. The Psychometric Evaluators showed Green-Green. Volume is higher and the market facilitation is higher. The market closed near the high of the bar, which means the buyers are in control.

The Accelerometer indicates that speed is continuing to decrease toward zero. Momentum is turning back upward, confirmed by the signal line. When the Accelerometer histogram bar is red and the Momentum Oscillator bar is green (momentum turning up while speed is going down), it is an indication a possible transition.

The market has pulled back, and needs one more price bar with a higher low to form a fractal. If one or more of the five bars forming the fractal is Green-Red, we will have to be extremely careful, for that could signal the end of the trend.

In fact, we have a Green-Red in Frame #37. We now have five contracts running. We'll keep a close watch on the Stability Lines. If the price hits our stop loss, or closes between the Tripwire and the Wall, we'll take ourselves out of the market. Otherwise, we'll stay in until that happens.

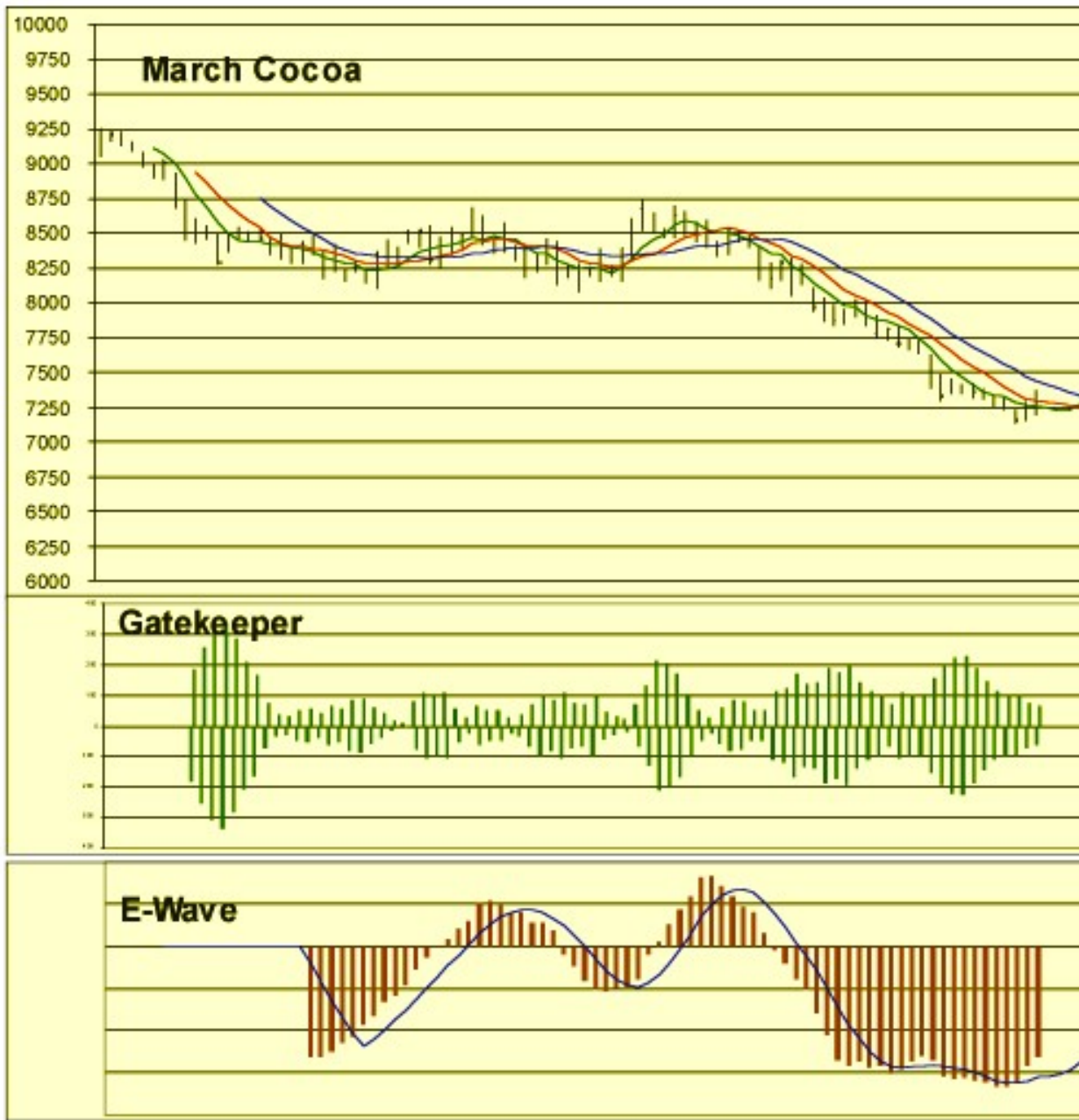
To be conservative, we'll keep our stop loss point at 730 (MOC). So, if our price bar crosses the Picket Fence, but closes below it, we're still in. If it crosses the Picket Fence and closes above it, we're out.

## Simulation Frame #40

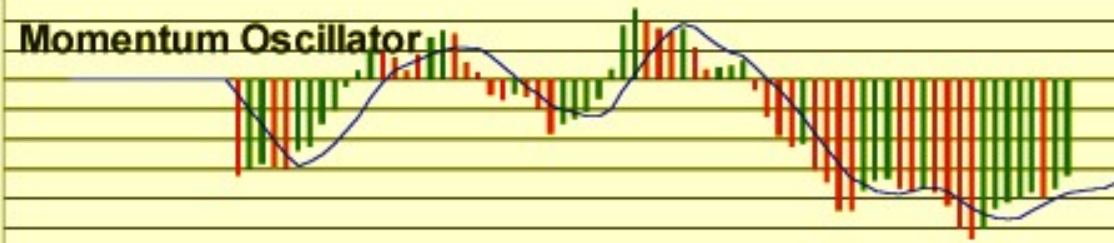
In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 730 MOC. If we stop ourselves out of the market at this point, we will make a profit of \$2840, minus commission and fees. Your account has a market value of \$5409 and available funds of \$2409.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- Watch for sell fractals and sell signals generated by the tools.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 737; Low, 719; Close, 729.

## Simulation Frame #40



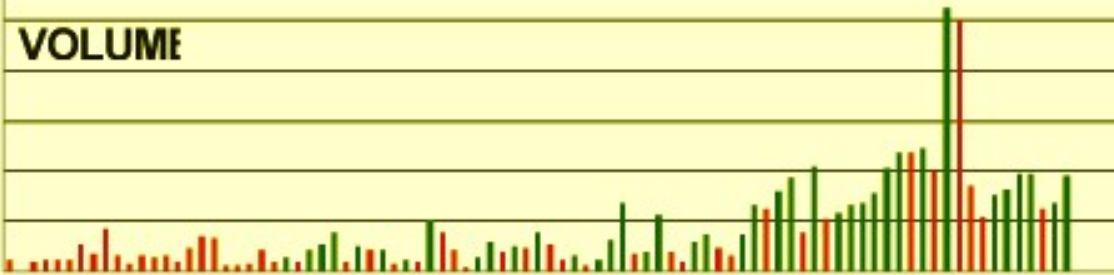
### Momentum Oscillator



### Accelerometer



### VOLUME



### VOLUME: RANGE RATIO



## Simulation Frame #40 Results

### **Analysis:**

- The Psychometric Evaluators are showing Green-Red. Volume is up but the market is not facilitating price movement. Green-Red indicates a battle between buyers and sellers. Today, the closing price is in the upper third of the price bar, so today's battle between buyers and sellers goes to the buyers. Price has risen slightly, and may continue to rise. Given the indications from the other tools, we have a feeling that the market is slowing down and that a change in trend is in the wind.
- The Accelerometer is indicating that momentum is beginning to accelerate away from the zero line, which means the momentum is picking up speed.
- The Momentum Oscillator indicates that the momentum is continuing in its upward direction. The signal line has lifted from the histogram bars, confirming the direction change.
- The E-Wave confirms that the overall direction of the market is changing, as evidenced by the signal line's separation from the histogram bars.
- The gate is closing.
- The price chart tells us that price reached a high of 737 and closed at 729. The previous day's close was 724. We have lost 5 points per contract. We are short the market at 832, 813, 792, 764, and 733.

### **Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |
| 37    | \$1109 | (0)     | 300    | (0)    | (0)    | (0)    | 5409      | 1409      |
| 38    | \$1409 | (0)     | 500    | (0)    | (0)    | (0)    | 5909      | 1909      |
| 39    | \$1909 | (0)     | 0      | (500)  | (0)    | (0)    | 5409      | 1409      |
| 40    | \$1409 | (0)     | 0      | (250)  | (0)    | (0)    | 5159      | 1159      |

### **Feedback**

The market is definitely slowing. The Psychometric Evaluators showed Green-Red. Volume is higher but market facilitation is low. The market closed in the upper third of the bar, which means the buyers are in control.

The Accelerometer indicates that speed is accelerating away from zero. Momentum is continuing its upward turn, confirmed by the signal line. The market has pulled back to form a fractal. We have a Green-Red in Frame #37 and another in Frame #40. This is a warning that the trend is changing. We now have five contracts running.

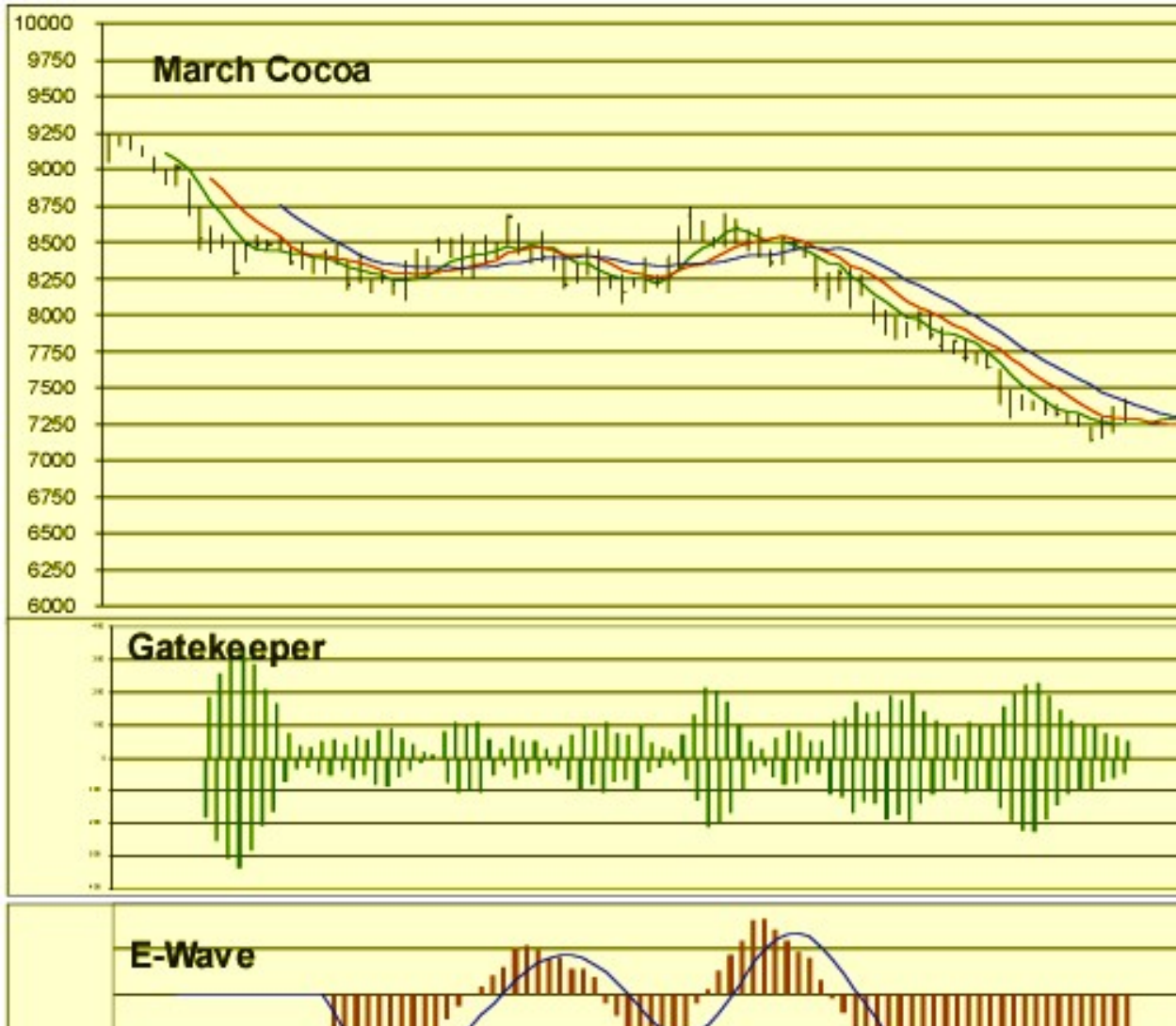
We'll keep a close watch on the Stability Lines. We'll keep our stop loss point at 730 (MOC). The market closed at 729 today, so we may be out tomorrow. If our price bar crosses the Picket Fence, but closes below it, we're still in. If it crosses the Picket Fence and closes above it, we're out.

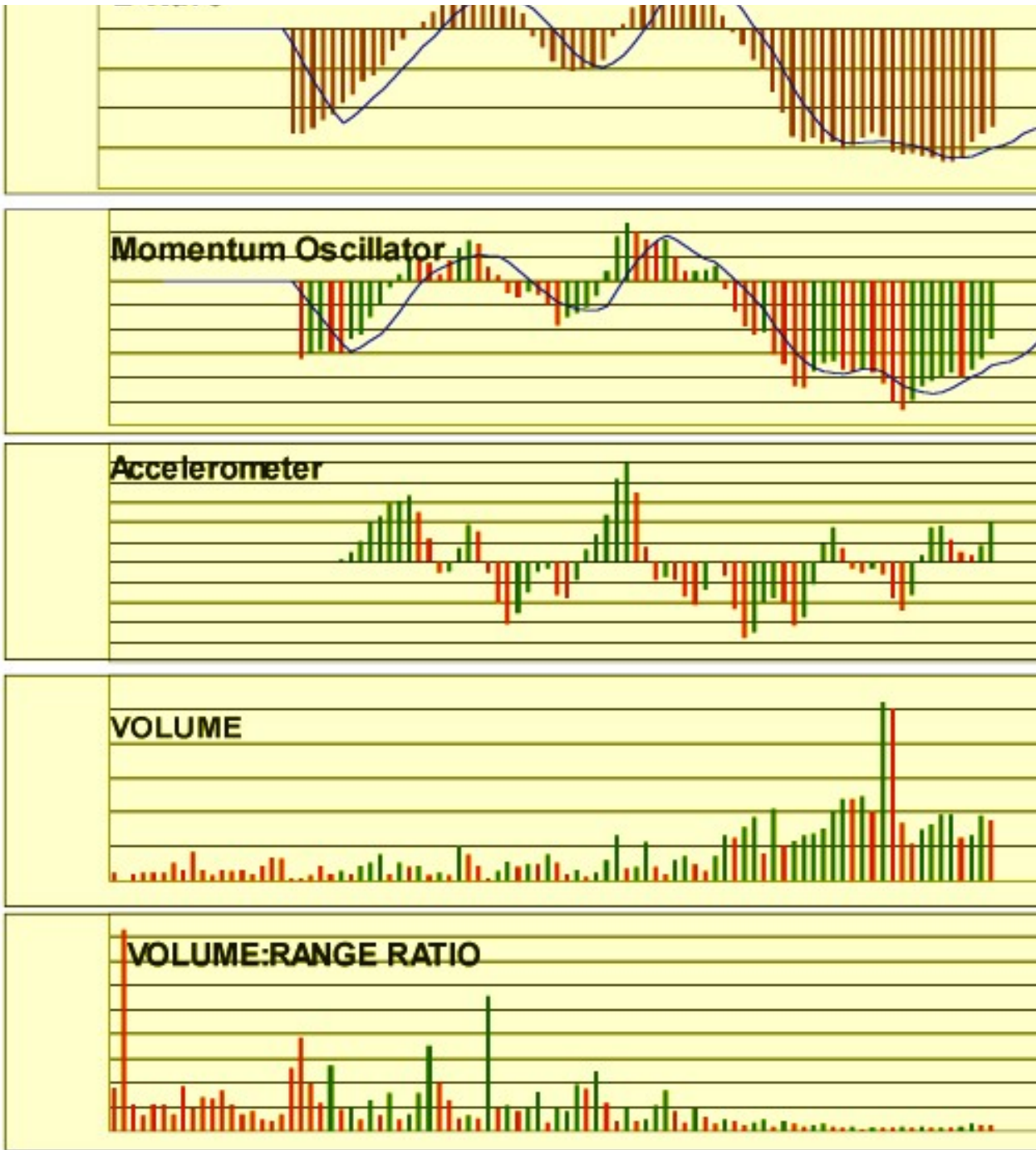
## Simulation Frame #41

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 730 MOC. If we stop ourselves out of the market at this point, we will make a profit of \$2840, minus commission and fees. Your account has a market value of \$5159 and available funds of \$2159.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- You are in a conservative mode, so you are ready to take yourself out of the market at 730.
- Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 742; Low, 727; Close, 729.

## Simulation Frame #41





## Simulation Frame #41 Results

### *Analysis:*

- The Psychometric Evaluators are showing Red-Red. Volume is down and the market is not facilitating price movement. Red-Red indicates a general slow-down. Today, the closing price is two points off the low of the price bar, so many of today's orders were sell orders. Despite the close, sellers are driving the price upward, and it may continue to rise or to move sideways. Given the indications from the other tools, we have a feeling that the market is changing direction.
- The Accelerometer is indicating that momentum is continuing to accelerate away from

the zero line, which means the momentum is still picking up speed.

- The Momentum Oscillator indicates that the momentum is continuing in its upward direction. The signal line has lifted from the histogram bars, confirming the direction change.
- The E-Wave confirms that the overall direction of the market is moving upward, as evidenced by the signal line's separation from the histogram bars.
- The gate is closing.
- The price chart tells us that price reached a high of 742 and closed at 729. The previous day's close was 729, so our profit/loss status is unchanged. We are short the market at 832, 813, 792, 764, and 733.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |
| 37    | \$1109 | (0)     | 300    | (0)    | (0)    | (0)    | 5409      | 1409      |
| 38    | \$1409 | (0)     | 500    | (0)    | (0)    | (0)    | 5909      | 1909      |
| 39    | \$1909 | (0)     | 0      | (500)  | (0)    | (0)    | 5409      | 1409      |
| 40    | \$1409 | (0)     | 0      | (250)  | (0)    | (0)    | 5159      | 1159      |
| 41    | \$1159 | (0)     | 0      | (0)    | (0)    | (0)    | 5159      | 1159      |

***Feedback***

The market is definitely turning. The Psychometric Evaluators showed Red-Red. Volume is down and market facilitation is low. The market closed just off the low of the bar, which means the sellers held control. However, with the highs creeping upward, buyers are exerting strong influence.

The Accelerometer and Momentum Oscillator indicate that momentum is accelerating upward. This is confirmed by the E-Wave, as indicated by the signal line. The market has recently formed a fractal. We have a Green-Red in Frame #37 and another in Frame #40. This is a warning that the trend is changing. We now have five contracts running.

We'll keep a close watch on the Stability Lines. We'll keep our stop loss point at 730 (MOC). The market closed at 729 again today, so we may be out tomorrow. If our price bar crosses the Picket Fence, but closes below it, we're still in. If it crosses the Picket Fence and closes above it, we're out.

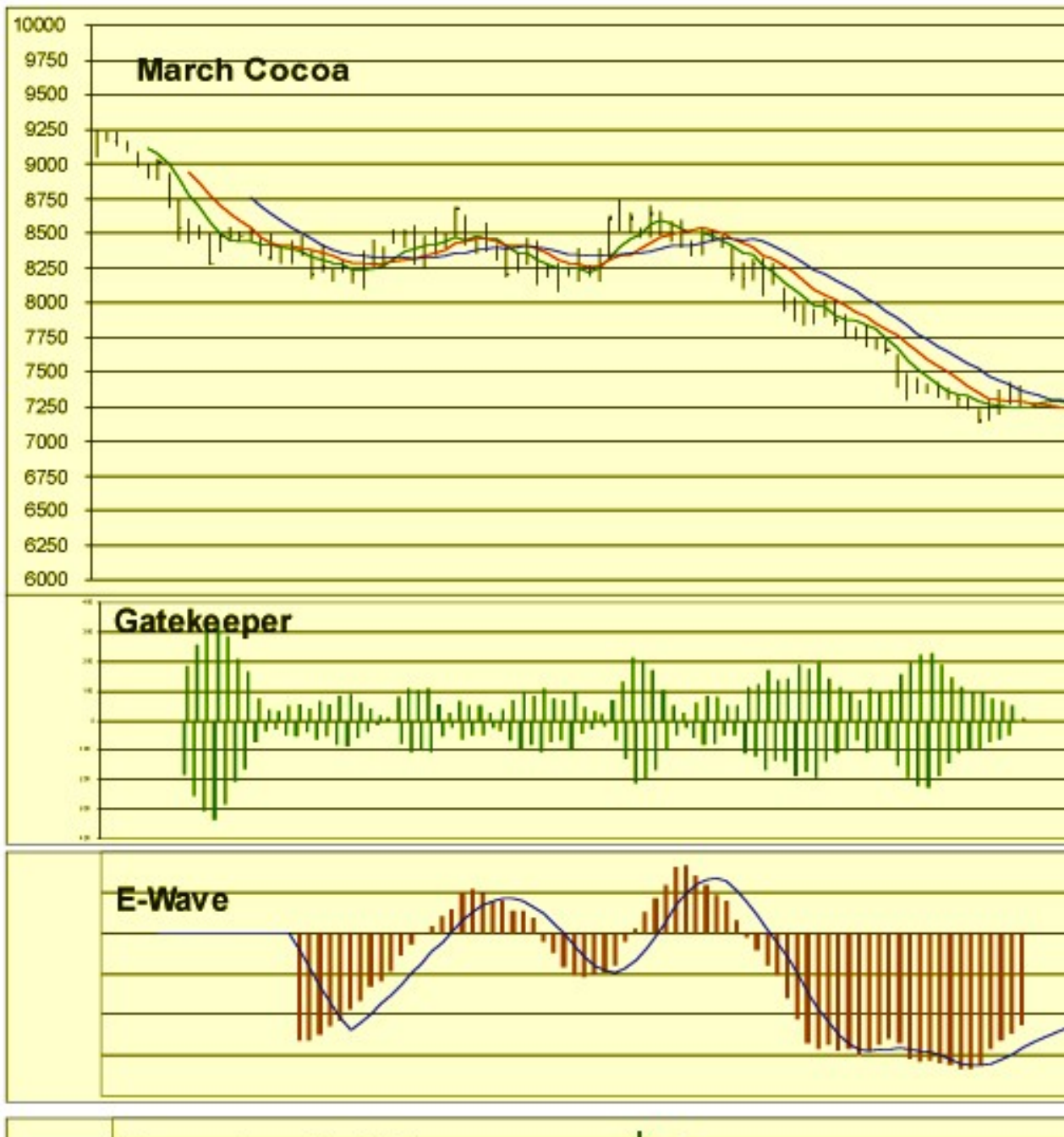


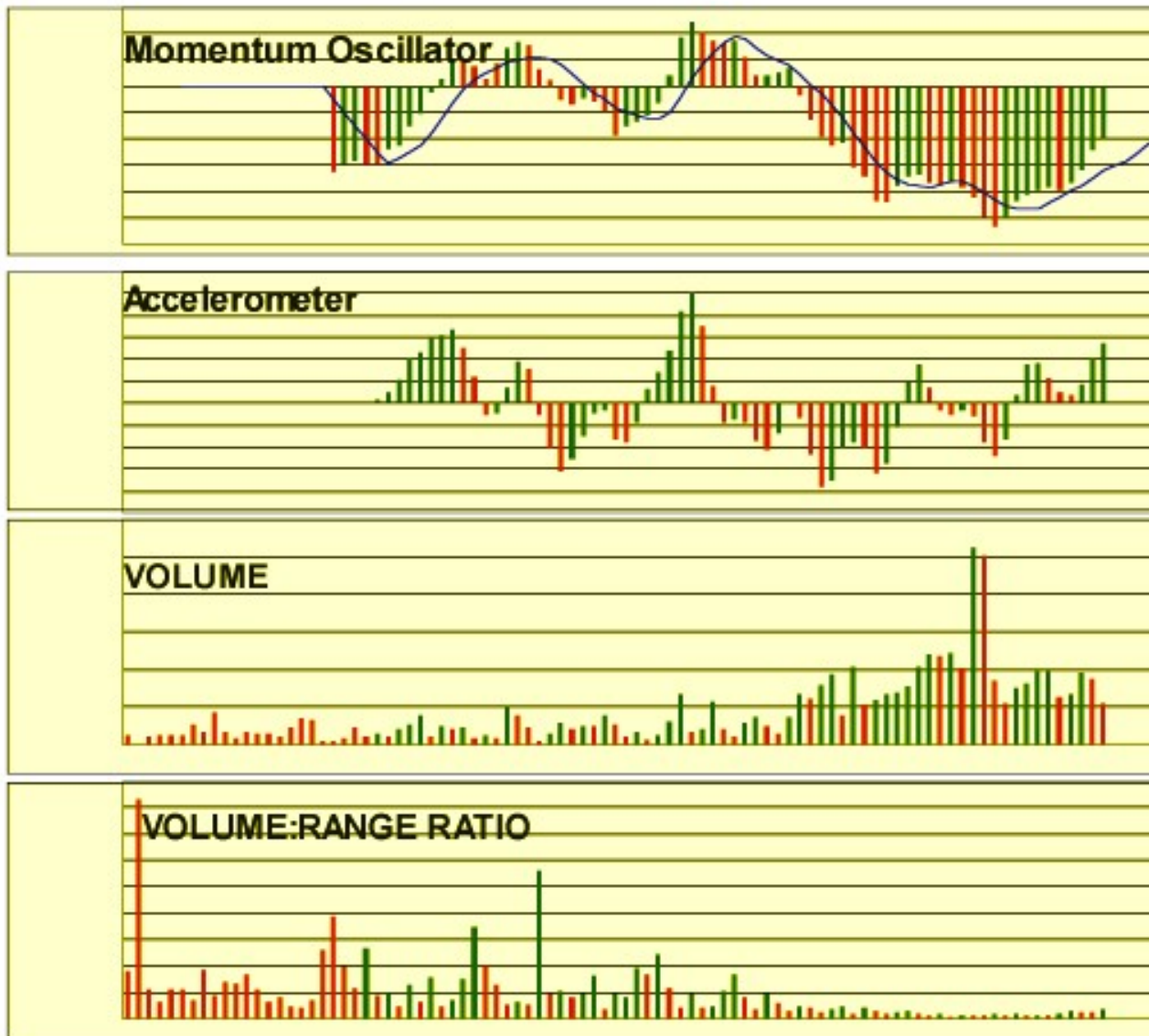
## Simulation Frame #42

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 730 MOC. If we stop ourselves out of the market at this point, we will make a profit of \$2840, minus commission and fees. Your account has a market value of \$5159 and available funds of \$2159.

- Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation.
- You are in a conservative mode, so you are ready to take yourself out of the market at 730. Remember stop loss points and stick to your plan.
- Be sure to comment on the price chart as well.
- Today's market results are High 740; Low, 725; Close, 728.

## Simulation Frame #42





## Simulation Frame #42 Results

### *Analysis:*

- The Psychometric Evaluators are showing Red-Green. Volume is down but the market is facilitating price movement. Red-Red indicates either a pause in the market action or price manipulation by the floor brokers. Today, the closing price is three points off the low of the price bar, so many of today's orders were sell orders. Despite the close, sellers are still moving the price upward, and the price may continue to rise or to move sideways. Given the indications from the other tools, we have a feeling that the downward trend is over for now.
- The Accelerometer is indicating that momentum is continuing to accelerate away from the zero line, which means the momentum is still picking up speed.
- The Momentum Oscillator indicates that the momentum is continuing in its upward direction. The signal line has lifted from the histogram bars, confirming the direction

change.

- The E-Wave confirms that the overall direction of the market is moving upward, as evidenced by the signal line's separation from the histogram bars.
- The gate is closed.
- The price chart tells us that price reached a high of 740 and closed at 728. The previous day's close was 729, so we gained 1 point per contract. We are short the market at 832, 813, 792, 764, and 733.

***Our account now looks like this:***

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 36    | \$1059 | (0)     | 50     | (0)    | (0)    | (0)    | 5109      | 1109      |
| 37    | \$1109 | (0)     | 300    | (0)    | (0)    | (0)    | 5409      | 1409      |
| 38    | \$1409 | (0)     | 500    | (0)    | (0)    | (0)    | 5909      | 1909      |
| 39    | \$1909 | (0)     | 0      | (500)  | (0)    | (0)    | 5409      | 1409      |
| 40    | \$1409 | (0)     | 0      | (250)  | (0)    | (0)    | 5159      | 1159      |
| 41    | \$1159 | (0)     | 0      | (0)    | (0)    | (0)    | 5159      | 1159      |
| 42    | \$1159 | (0)     | 50     | (0)    | (0)    | (0)    | 5209      | 1209      |

***Feedback***

The market is definitely turning. The Psychometric Evaluators showed Red-Green. Volume is down and market facilitation is up. The market closed just off the low of the bar, which means the sellers held control. However, with the highs still creeping upward, buyers continue to exert strong influence.

The Accelerometer and Momentum Oscillator indicate that momentum is accelerating upward. This is confirmed by the E-Wave, as indicated by the signal line. Price may drop as a new buy fractal forms at 742. We now have five contracts running and we need to protect our profits.

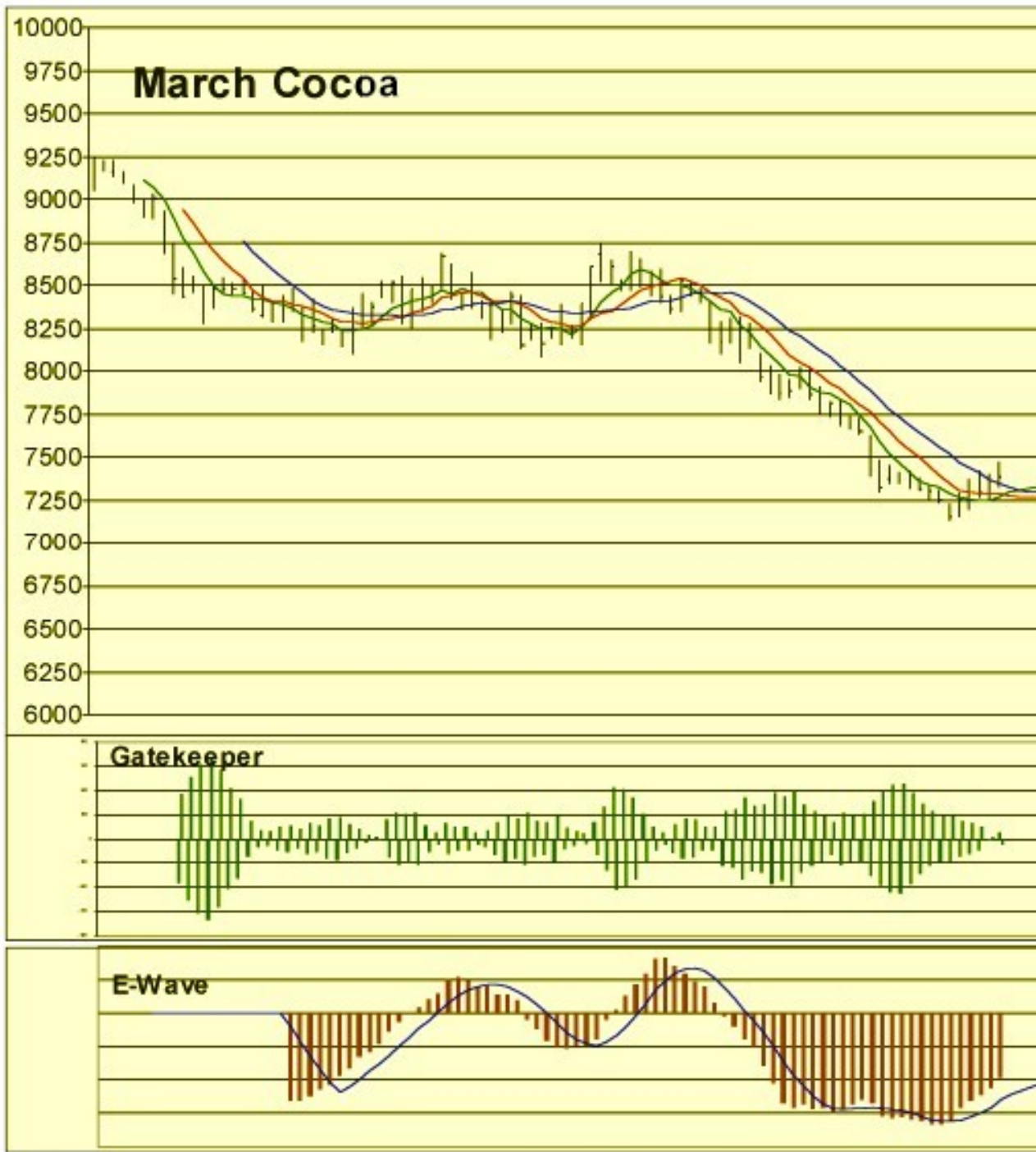
We'll keep a close watch on the Stability Lines and keep our stop loss point at 730 (MOC). The market closed at 728 today, so we may be out tomorrow. If our price bar crosses the Picket Fence, but closes below it, we're still in. If it crosses the Picket Fence and closes above it, we're out.

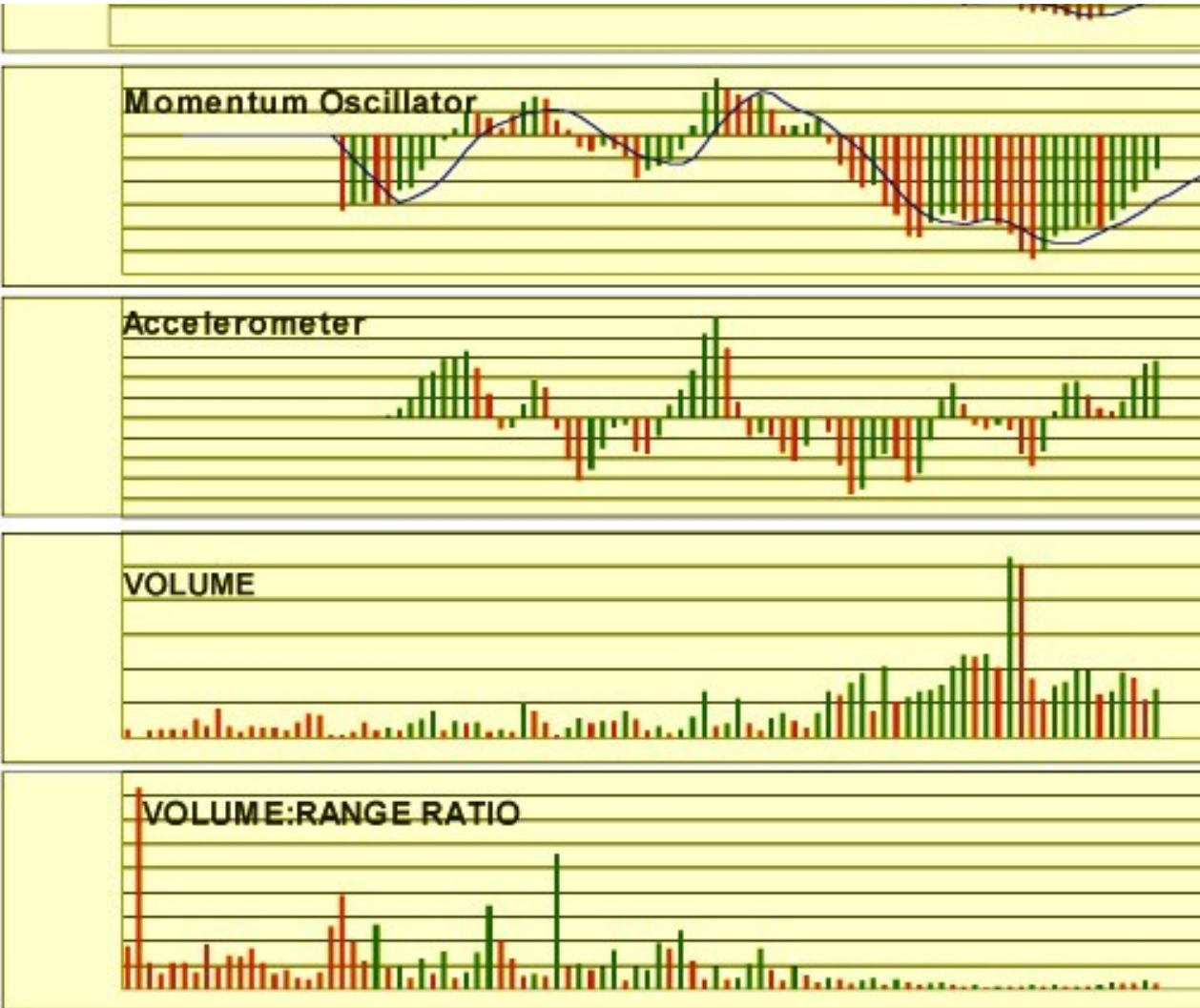
## Simulation Frame #43

In the last frame you used the tools to make an analysis of the current situation in the market. You are short the market at 832, 813, 792, 764, and 733. Your stop loss is at 730 MOC. If you stop yourself out of the market at this point, you will make a profit of \$2840, minus commission and fees. Your account has a market value of \$5159 and available funds of \$2159.

Starting from the Psychometric Evaluators and moving up, give a short analysis of each tool's indication of the current market situation. You are in a conservative mode, so you are ready to take yourself out of the market at 730. Remember stop loss points and stick to your plan. Be sure to comment on the price chart as well. Today's market results are High 747; Low, 733; Close, 738.

## Simulation Frame #43





### Simulation Frame #43 Results

**Analysis:**

- We have stopped ourselves out of the market, which closed at 738.
- The price chart tells us that price reached a high of 747 and closed at 738.
- Yesterday's close was 728.
- We have lost 10 points per contract.
- We are short the market at 832, 813, 792, 764, and 733.

**Our account now looks like this:**

| Frame | Start  | Deposit | Profit | (Loss) | (Fees) | (Com.) | Mkt.Value | Available |
|-------|--------|---------|--------|--------|--------|--------|-----------|-----------|
| 39    | \$1909 | (0)     | 0      | (500)  | (0)    | (0)    | 5409      | 1409      |
| 40    | \$1409 | (0)     | 0      | (250)  | (0)    | (0)    | 5159      | 1159      |
| 41    | \$1159 | (0)     | 0      | (0)    | (0)    | (0)    | 5159      | 1159      |
| 42    | \$1159 | (0)     | 50     | (0)    | (0)    | (0)    | 5209      | 1209      |
| 43    | \$1209 | 4000    | 0      | (500)  | (15)   | (150)  | 4544      | 4544      |

## **Feedback**

We began this trade in frame 14 with funds of \$2,224 and ended with \$4,544, for a gain of \$2,320. In our simulation, we need to account for slippage, a common phenomenon in the market. Slippage is the difference in price movement between the time you place your order with your broker and the time the order is actually filled on the floor.

Price is in a constant state of flux, so our fill price may not be exactly at the price we ordered. In our simulations and paper trading, when we conclude a trade, we deduct 10% from the gain (add 10% to the loss) to approximate slippage. Therefore, we will deduct \$232 from our gain, which leaves us with a net profit of \$2088 for 30 trading days. This means that we earned approximately 93.8% on our investment.

Could we have been more conservative, thus retaining more of our profits? Yes. Back in Frame #38 we could have set our stop loss at 730 without adding the Market on Close requirement. That would have taken us out in Frame #40, and we would have made \$320 more. This strategy can often take us out of the market too soon. We wanted you to get a feel for the rhythm of the market, so if you were getting "antsy" back around Frame #39, genuinely feeling that the downward trend had ended for now, you're doing fine.

## **Quick Review**

**By going through this simulation, you should have learned the following:**

- How to recognize initiating buy and sell fractals in conjunction with the Gatekeeper.
- How to place initial buy and sell orders based on the initiating fractals.
- How to adjust initial buy and sell orders as more recent initiating fractals form.
- How to interpret the Psychometric Evaluators as they work together to give us a picture of the "mass mind."
- How to read the Accelerometer as it gauges momentum acceleration and deceleration.
- How to recognize Accelerometer buy and sell signals.
- How to read the Momentum Oscillator as it depicts momentum direction.
- How to recognize Momentum Oscillator buy and sell signals.
- How to use the Momentum Oscillator's signal line as a confirmation of momentum direction.
- How to read the E-Wave and its signal line as an indicator of overall market rhythm.
- How to use the gatekeeper to locate channels and to determine when the gate is opening or closing with the current price bar.
- How to use the Stability Lines to determine stop loss points.
- How and when to exit the market.

We hope this experience has been helpful to you as you have been discovering how to work with the underlying structure of the market. We want you to be able to look at price charts with a new sense of awareness, and hope that much of the mystery about how the market works has been replaced by a feeling that it is a friendly place. We hope you feel more confident that you can make profitable trades at least 80% of the time and that you can keep your losses to a minimum.

Can you imagine trading without the tools you have been using in this simulation? They are powerful indicators of the here and now of the market. In every frame we went through, we followed the guidance the market gave us, so we were always in tune with its rhythm. In the next few chapters we will focus on getting market data, setting up The Fractal's Edge on your computer, and doing paper trading.

**Please view Chapters 12 and 13 online from the Members section as the information contained therein are regularly updated.**