



AlphOmega Elliott Waves 5.6

For MetaStock® 9.0 and MetaStock® Pro 9.0 and higher

User's Manual

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Welcome to AlphOmega Elliott Waves! This set will display Elliott waves count, price projections and time projections. The wave count is calculated from individual wave definitions, their relationship in size or time and a specific hierarchy. The wave count is intended as a basis for analysis and does not pretend to be an end in itself or exhaustive. Interpretation is always necessary when dealing with Elliott waves, but the basic rules are strictly enforced within the set.

The purpose of this manual is not to teach in depth theory of Elliott Waves or the use of MetaStock® software, but to give you directions on how to use the tools provided in The Expert Advisor™, Indicators, System and Explorations you have just purchased. From the Web site <http://AlphOmegaEW.com>, you can run Viewlets that will show you how to perform the most important tasks. A simple way to understand the set is to go through the various templates of the set and the screens you can create. This booklet was made short so you can read through it in less than a couple of hours, so please take the time for your own benefit. You will get a deeper understanding as you use the set of Experts, Indicators, Systems and Explorations. *For information on the theory of Elliott Waves, an address is provided on page 60. All screenshots in this manual are unedited except for annotations hence offering a true picture of the set's displays; the data is from the market and has not been manipulated.*

Introduction (Set-up)

First let's make sure you have correctly set-up your set of Experts, Indicators, Systems and Explorations. From MetaStock® 7.2 and up, the import is done automatically. Open a chart and right click to select a template. Use the **AlphOmega Simple** template (Elliott Waves) that should contain in addition to the **price and volume data**, the following indicators:

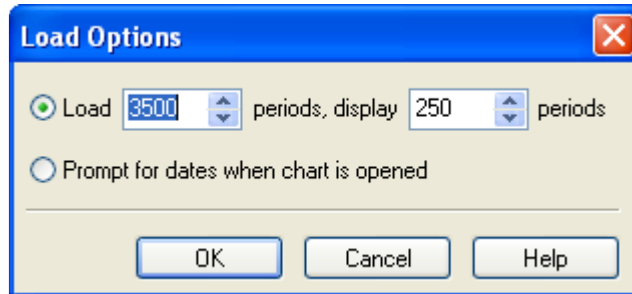
- AO P&T Duration in gray and Wave Time Projection for 21% (Normal) in red
 - AO STORSI in green and Demand Index in red
 - Exponential Moving Averages on Close for 13, 55 and 144 days in green, dark yellow and red
 - AlphOmega Elliott Waves NV Expert
 - AO PTF Indicator set-up for 21% (Normal)* in dotted red lines
 - AlphOmega Wave Highlighter (already set-up for 21%) (Normal) in red
 - AlphOmega Auto Trendline* for 21% (Normal) in blue
 - AO Elliott Oscillator in gray
 - AlphOmega RSI/RMI Trend, RSI (Close, 14)* in magenta, Dynamic Momentum Index in blue and Trendline in green and Relative Momentum Index (20, 5)* in red
 - Volume Moving Average (50,E) in dark yellow
- (Note that an asterisk indicates the indicators that may be verified for proper parameters set-up in the provided template. MetaStock® imports with default set-up but it is rarely a problem.)*

The first two are in the top inner window while the last four should be in the Volume inner window. You can choose to have no scale or use a left side scale to protect your volume scale. Your AlphOmega Simple template should look like the graph in Fig. 1 below. The other AlphOmega templates (Elliott Waves (8%), Elliott Waves (13%) and Elliott Waves (34%)) will have all of the above where the 21% is replaced by 8%, 13% and 34%.

If you place an icon at the bottom of your window, the templates are called at will and do not replace your smart charts.

All these templates are included in your set. Please take the time to verify that the correct settings are in place for the indicators with an asterisk otherwise all the templates will show the same Wave depth.

One word before we get in the screens layout, The Explorer™ and the charts should be run with the largest amount of data you have. In the options I have used “Load 3500 records” because the slowest cycle can evolve over many years. Since you must capture one full wave (At least one Peak and one Trough) before The Expert Advisor™ can see it, you must also have a full cycle of waves before you can track accurately wave 5 or A, B and C. The Expert Advisor™ forms an opinion on what is displayed, and so it cannot know that this wave is actually the fifth if it doesn’t see the previous four. The more data you have and the more reliable is the wave count.



This is the Load Options for the chart



This is the Load Options for the Explorer

If you want coherence between your explorations and your charts, make sure you load the same number of bars in both. ***Do not do as in the above example!***

Initial Data and Unusual Situations

When you are looking at the oldest price data you have for a security (at the beginning time of your chart), you will find that the wave count is undefined. This will lead to strange patterns initially until there is enough data analysed. The long and deep waves are mostly subjected to this problem or a security that is not very volatile. When you are dealing with a very volatile security, you will go through all the cycles very quickly. Another issue we have to contend with is when the security enters a consolidation period. This means that the price is trading in a narrow range and forming triangular or sideways patterns. When this situation is at hand, failing waves or repeated extensions break up the wave count and the count is erratic.

The Elliott oscillator is the next indicator of importance in your chart. It is the difference between a 5 and 35 day moving average of the High or the Low (depending on the trend). We use it to differentiate between a third wave and a fifth wave as you will find out later in this manual. The RSI and the STORSI are used to time entry or exit but not to pick a top or a bottom of market. The Demand Index is better at picking top or bottom of market because it incorporates volume in its calculation. **Do not be concerned if you do not understand everything at this point, we will discuss in more details each part of the screen.**

Terminology

The terminology we use through the book is that of R.N. Elliott. To describe the various cycles of wave pattern, we use four descriptive in each Expert. The cycles are divided in **fast (8%), moderate (13%), normal (21%)** and **slow (34%)** for the normal volatility (NV) expert; they are divided in **ifast (1%), inormal (3%), islow (5%)** and **fast (8%)** for the low volatility (LV) expert used in the AOi Simple template. These cycles correspond to intermediate, primary, cycle and super cycle for the normal volatility expert; they are minuette, minute, minor and intermediate for the low volatility expert. The correspondence is approximate since we use a mechanical approach to the evaluation. Sensitivity refers to the % used as a filter. In addition, there is a Futures' expert with sensitivities from 0.3% to 2.1%, a HV (High Volatility) Expert with sensitivities from 34% to 144%, both are used in special conditions. The Futures is used for high price conditions such as for indices or securities or currencies that vary very little in percentage over the studied timeframe. The HV is typical for Penny Stocks or securities with large price variations over the studied timeframe. This is the area where your own judgement will make the final decision as to which expert is the most adequate. To assist you in making the decision, use the AO ZZ (All4) indicator to display graphically the trends and corrections. **You are looking for trends that deploy repeatedly over your preferred investment timeframe.**

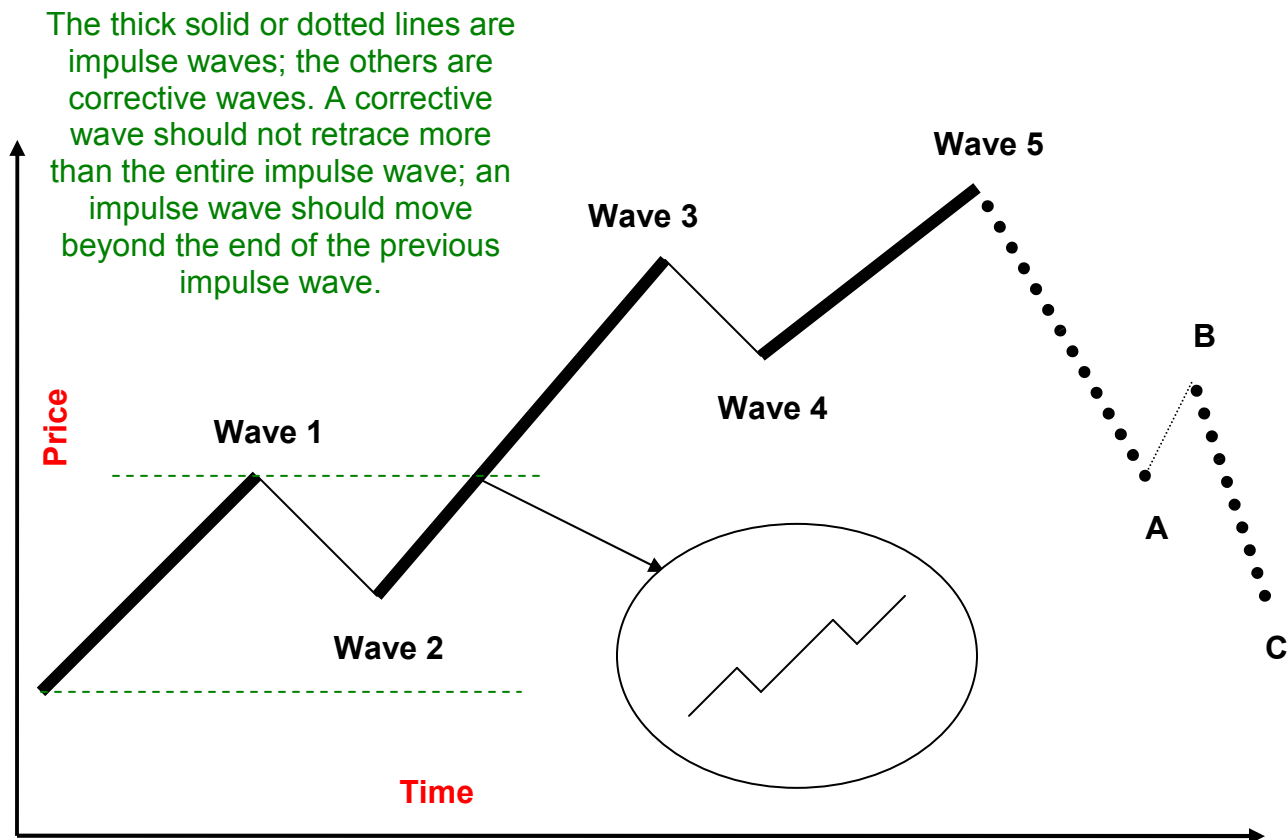


Fig. 2

Chapter 2

Elliott Waves – A Graphical Overview

Elliott waves are based on a study of market behaviour from R.N. Elliott. His theory was not as complex as the rules derived from it by modern technical analysis. Generally the market will move in cycles and Elliott postulates that a cycle is made of a rising trend of five waves followed by a corrective move of three waves, hence an eight waves cycle. Within each of these waves, you will have a smaller cycle that will repeat itself. This is called the fractal theory and it says that the patterns are replicating from a small scale to a larger. An example of decomposition of waves for a complete cycle would be 5-3-5-3-5-3-5, read 5 waves followed by 3 waves and on. To make it easier to follow a simple graph will describe what Elliott Waves and its typical patterns are:



An Elliott cycle is composed of an ascending or descending five waves and a three wave's corrective suite. An impulse wave can be made of a complete ascending or descending three or five waves at a lesser scale.

Fig. 3

Knowing the waves pattern in itself would not be of great help if it was not for the complementary knowledge brought by Fibonacci, an Italian mathematician from Pisa. Although he lived in a very different era, his contribution is enormous to the use of Elliott Waves. He postulated that there was a proportion or ratio that applied to natural phenomenon which he called the golden ration. He proceeded to prove it with calculations and a list of numbers came out. These numbers are 1, 1, 2, 3, 5, 8, 13, 21, 34 and so on. Each number is the sum of the previous two and in addition corresponds to the previous number times the golden ratio, in other words times 1.618. When applied to the waves, this theory enables the projection of price and time objectives for the market behaviour. Modern technicians have established relationships between the different waves of the cycle and elaborated rules and probability calculations. This set makes use of these rules and accepted relationships between the eight waves of a cycle. In addition, it will monitor 4 different cycles to enable you to trade different timeframes and risk levels.

if the high was hit before the low or the reverse. However we can elect that when the close is higher than the open, the trend is bullish and it is bearish for the reverse situation. It may look trivial at this point but when you will be faced with making an entry, you will understand its importance. Furthermore, when making projections for price, the results will be noticeably different. Note that the indicator has a set of rules to decide which of the high or low it should take, making it easier than remembering the individual rules.

Back to our waves, could we trade on the basis of this information alone (from a technical analysis standpoint)? We certainly could but the whipsaws would be costly in commissions or brokerage fees. We need to filter or eliminate some of the swings; we need to look at a broader picture. Let's apply the AOZZ indicator and use a 21% filter. The percent filter relates to the minimum retracement from a peak or trough (top or bottom) expressed as the price change over the initial price (price at the peak or trough). A picture is worth a thousand words...

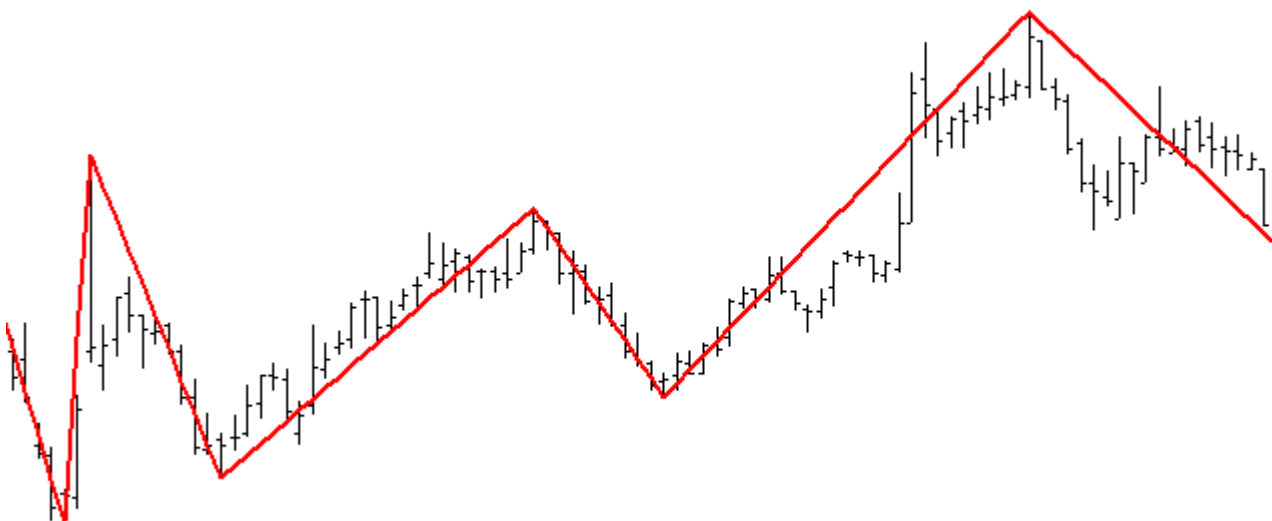


Fig. 6

Now this is a lot better in terms of number of swings! From this point on we will switch from a bar to a candlesticks presentation, why might you say? Because the open and close are hard to tell when the bars are squeezed together, moreover the candlesticks patterns will be easier to see. How can we use these waves to trade? It is quite obvious that if we enter at the trough and sell at the peak, we will do very well. If everything was that simple... alas look at the last bar... can you tell it is the bottom or trough? Of course, no you can't tell and nor can I. We need to wait for the price to start going up before we know we had a bottom. This means that we need to allow for some slippage at both ends and already we can assume that some waves will not be big enough to leave us with a gain. Is there a way to know from the start if the wave will be strong? This is where Elliott comes to help us by differentiating impulses from corrections and additionally giving us patterns that repeat frequently during trends. In Figure 3 we saw that a cycle was made of 8 waves, wave 1 to wave c; all the odd numbers are impulses hence 1, 3, 5, a and c, while all the even numbers are corrections so 2, 4 and b. Most of you already concluded that a correction will be smaller than an impulse; hence we will prefer impulses for trading. **Our goal in trading is not to identify all possible wave configurations but to identify the trend and trade with it** so we can make a profit by placing the appropriate orders. Remember that impulse waves alternate with correction waves. We want to trade impulses to minimize the number of trades and benefit from the strong price action of the dominating trend.

From the fractal effect mentioned above, we also know that a smaller pattern is nested into a larger wave, so we can adjust to a specific level of nesting to match our trading style. This is referred to as cycle or sensitivity selection since the filter used works from a percentage of price retracement.

Elliott Waves – Patterns

A pattern is made of series of impulses and corrections where the trend is maintained, such as in the 8 wave cycle where the first 5 waves are a trend and the last 3 waves are a correction that is against the trend. To state it in a simpler way, all impulses within a pattern must be in the same direction; an 8 wave cycle is thus made of two patterns. Why is it important to know a pattern from a cycle? Because in Elliott methodology, there are rules and observations that apply strictly within

a pattern; the rule of alternance is an example that we will discuss later. Patterns are also fractal and many times, we will see a pattern referred to as a 5-3-5-3-5. It is a lot simpler than it looks, it means the first impulse is made of 5 waves; the next correction is made of 3 waves and so on so forth. Patterns are not always orderly as in the basic Elliott cycle, when the market starts consolidating (usually after a strong correction of the trend) triangle patterns will take place. Waves can also fail or change dramatically their range of volatility. When this happens, we get erratic wave counts and the trend is almost flat.

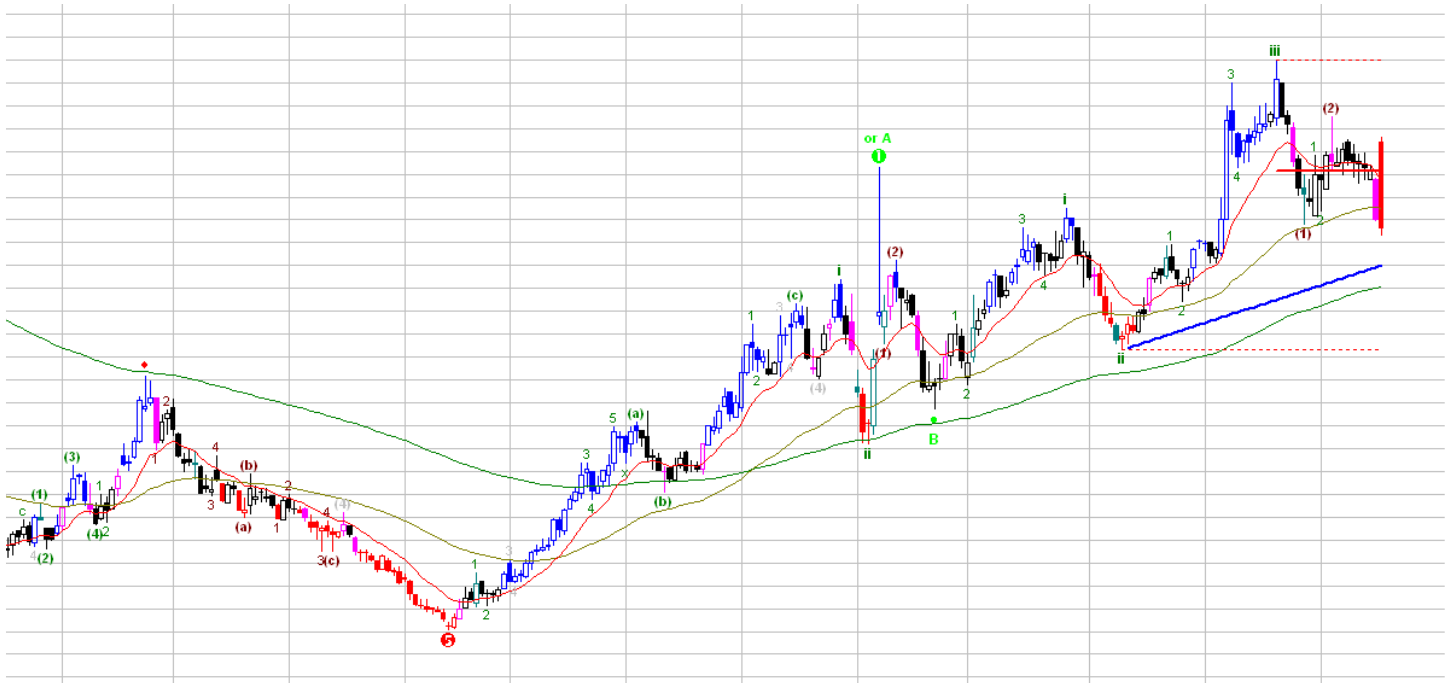


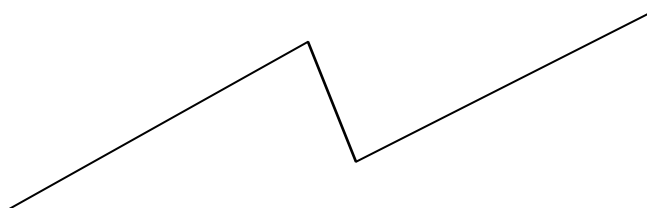
Fig. 7

The above chart displays many patterns and cycles most embedded in a larger cycle. Remembering that the circled numbers are the largest cycle, we look at the red circled 5. This is the point where wave 5 of 34% sensitivity ended; it is the end of the bearish pattern and a large correction starts. It is so strong that after the wave A or 1, wave B is over within a few bars. We will use bars rather than days because the scale could be months, weeks, days or minutes as in intra day.

Within the A wave, we have smaller patterns in roman numerals, within those even smaller in bracketed numbers and lastly the smallest pattern in plain numbers. As we said before, patterns are not always perfect; our first note of this is within the wave A where the roman pattern is a 3 wave pattern. Normally an impulse is made of 5 sub waves; in corrective patterns, the smaller patterns adjust poorly because of the rapid change in volatility that makes the filter inadequate. So here we are at the beginning of this trek and already things are falling apart; this trek is in a real market where only perceptions drive the price. So we need to adjust to changing conditions and how they affect our analysis and wave counting. Throughout this book, we will use real market examples and we will avoid textbook examples because we will seldom meet them in real life.

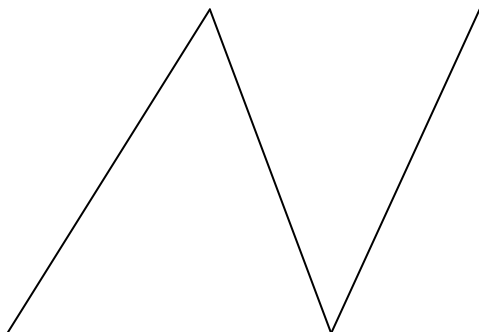
Back to patterns, what kind of patterns will we see in the market? Typically patterns are sorted between impulse, zigzags, flats, triangles, diagonals, extensions and truncations. Except for the first two, most of these patterns occur during corrections. The basic Elliott cycle is made of two patterns, the impulse for the first 5 waves and a zigzag for the last 3 waves. As we will endeavour trading impulses, we will brush rapidly over them (an impulse usually follows a correction hence the need to recognize them). As the impulse pattern is the one we have discussed since the start, we will go to the next one.

Zigzags



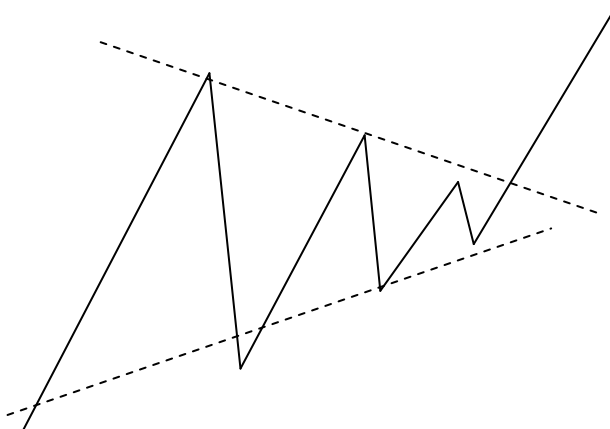
The zigzag is made of 2 impulse waves separated by a corrective wave and the whole pattern takes the price further in the direction of the trend.

Flats



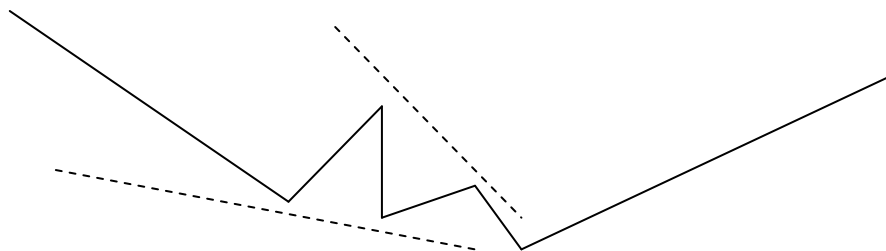
Flats are like a zigzag but do not really move the price further in the direction of the trend. After the first wave, the correction will retrace most of the wave and the third wave will just get back to the level of the first wave.

Triangles



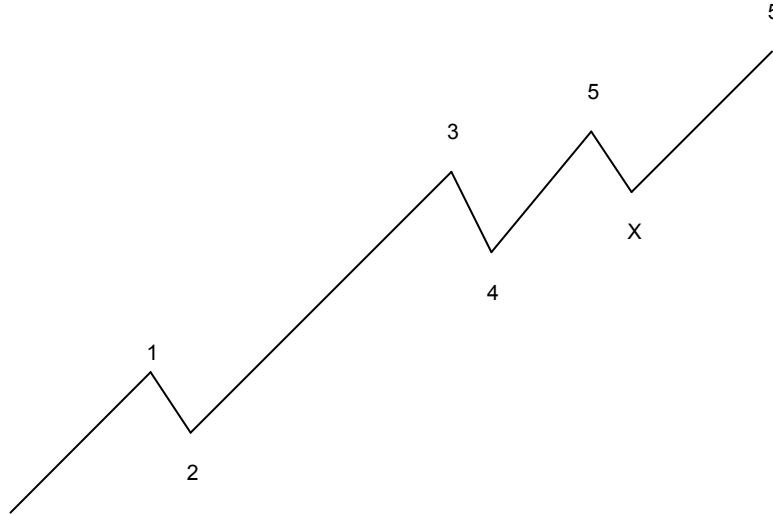
Triangles are made of 5 waves where each wave is smaller than the preceding. There are many types of triangles, ascending, descending, symmetrical and within the later expanding or contracting. What is important to remember from triangles is that they usually exit in the same direction they started.

Diagonals



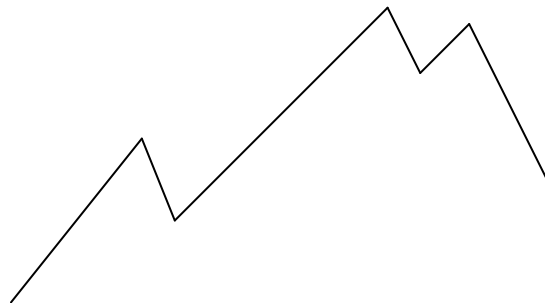
Similar to triangles but both containment lines are heading in the same direction and the exit is in opposite direction from the trend. These take place mostly in wave 4 of an impulse or the C wave of a correction.

Extensions



Extensions can develop in any of the impulse waves and many times the X wave will retrace into the previous peak or trough territory. **AlphOmega tracks extensions by labelling the waves in the usual order and giving an X on the sixth and a 5 on the seventh;** this is as long as the individual wave criteria are met.

Truncations



Truncations are literally a fifth wave failure since the peak or trough of wave five does not extend beyond the previous peak or trough. This is the most frequent failure. **Note that AlphOmega reads this failure in its own way**, up to wave 4 the labels are normal, and then at wave 5 failure it will reassess the count because it will see the wave as a 2 of the opposite trend (which reassesses the wave 4 as a 1 of opposite trend). The label of wave 4 remains unchanged as up to that point the wave meets the criteria; the label of wave 5 will never display as its criteria is not met hence the label 2 of opposite trend. This is important to price and time projection as it will calculate from a different base.

Other Type of Failure

Consolidating, triangular or “trading range” patterns are also important to consider; they are very difficult to trade. For this reason, they are identified with the expert by coloring the bars differently. We will see switches from ascending to descending patterns in the middle of a pattern, called **wave failure**. To understand and to trade these patterns properly is a very difficult task since when we see the signs, the pattern is almost complete. The wolf wave pattern is among these difficult patterns but yields itself better to the trade. Because this trade pattern can be detected fairly rapidly, we have indicators in the Expert Advisor™ and The Explorer™ to help you spot it. Here is an illustration of the pattern:

Wolf Wave is a sequence of two failed waves forming a triangle with base BD and AC as the apex more or less. Once the price moves from point D, it must touch or penetrate line AC and then bounce towards extended line AD. The price projection is located on that line right above the crossing of extended lines AC and BD. This pattern is rare and unreliable so be sure to place appropriate stops.

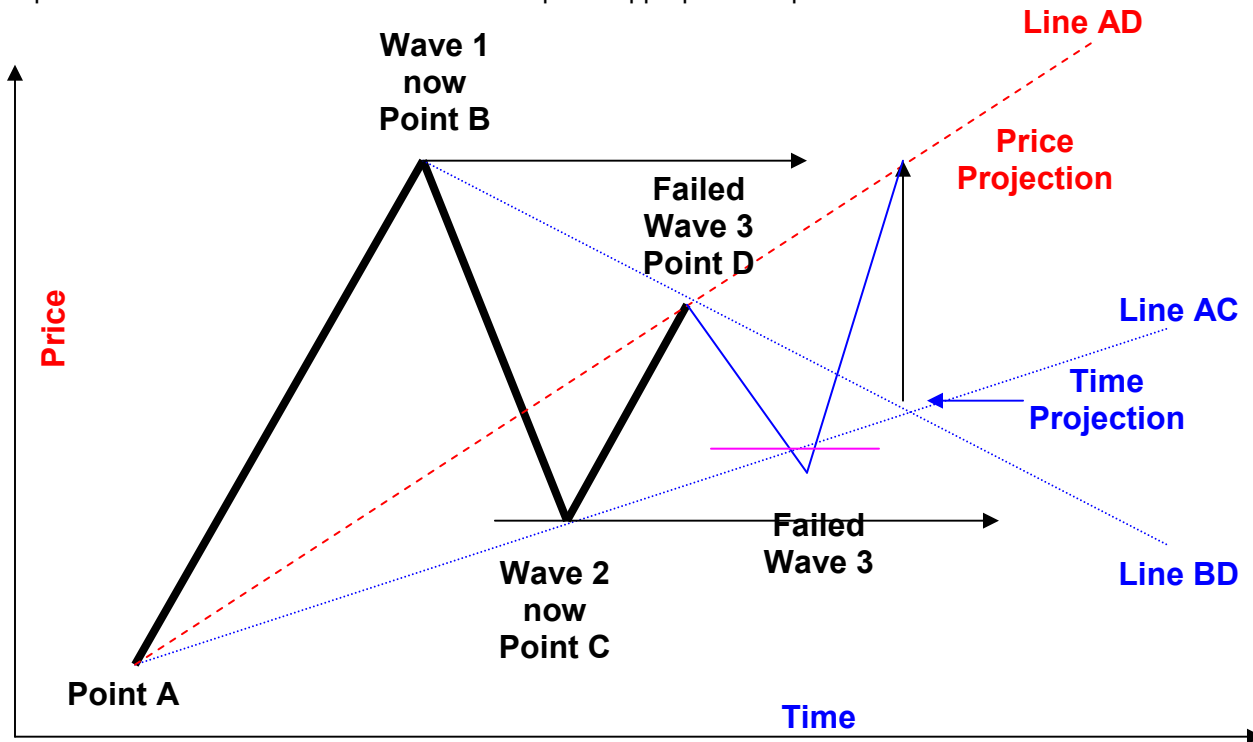


Fig. 9

The time projection is usually not as accurate as the price projection. It is nevertheless a way to trade a triangular pattern although the risk is in my opinion greater because these patterns often fail to develop fully.

Many Elliott Waves software analyse and show irregular ABC patterns. This is an area where many Elliott chartists will disagree on the wave count; many times, the pattern has to complete before the correct nomenclature can be applied. Nevertheless we have in the set two indicators that will detect converging triangles, whether ascending or descending and the Expert can also flag them. One indicator works from the latest data available and will only show the latest formation (cannot back test); the other will display the triangle from the date you select, the date being the latest peak or trough of the triangle formation you want to display for back testing. This pair of indicators approach has been used with price and time projections as well so you track or test depending on the mode you are in.

Note: Remember that the ABC pattern follows the 12345 pattern and that one of these patterns will nest in an impulse, while the next one will nest in the corrective wave. In other words, a cycle overlaps two patterns and once the 5 wave pattern is completed, the wave counter for all sub-waves is reset to 1 and the next sub-wave will be either a 1 or an A. When the main trend changes, all the waves are reset to 1 or A.

Chapter 3

Filtering Waves

Let us deal with the concept of filtering waves discussed earlier. A filter normally eliminates all price movement that is not significant enough to impact on the analysis of the waves. **How do we know that we are not missing a critical wave that could change the count of our pattern?** To evaluate properly, we must first have a visual representation of all possible waves; we then apply our filtered wave count on the same chart. Looking at the chart, we can see that our wave numbers correspond to major peaks and troughs of the red AO ZZ indicator. This indicator will plot the peaks and troughs using the following Elliott rules:

- 1 today's high is higher than yesterday or the low is lower than yesterday's low
- 2 if today is an inside day, use previous day
- 3 if today is an outside day, use high if previous was high or low if previous was low
- 4 if today's high is equal to yesterday high, use high

These rules incorporate inside and outside days, they will plot Elliott's definition of a wave. Experience has shown that inside days, when the high to low range is included in yesterday's range, are not indicative of the trend direction (when filtering waves). Ignoring these days will give better signals and eliminate whipsaws.



Fig. 10

We observe that all major peaks and troughs are captured by the filter since we see the wave numbers at the major turn points. Could the price move in between the filtered and numbered waves change our count for the pattern? If we look at the patterns within each filtered wave, we can see that Elliott patterns of 3 and 5 are present; this is what we would expect otherwise the filter would cut through the pattern leaving us with an incoherent count. As an example, just take a look at the blue ellipse that shows a nice 5 wave pattern. Sometimes a wave will have 7 or 9 legs which cannot form a combination of 3 and 5; the extra leg is an extension of the wave due to the volatility acceleration, where an x wave appears in the count. In conclusion, we can safely assume that the filter does not miss a wave; it will filter out the lesser degree wave patterns. **The red zigzag line is the indicator AO ZZ and can be adjusted for the desired sensitivity.**

Screen Layouts

Using the Simple Screen (From AlphOmega Simple and AOi Simple Templates)

Let's use an example to start an Elliott Waves candidate analysis. Assume that from the exploration of the previous day, came a signal that a wave III of moderate sensitivity was afoot for AAR. Opening the chart right from the exploration window, we can see that the signal is very early due to the volatility of the price. Looking at the volume indicator, we get a confirmation that the security is trading more heavily than usual. Even the 50 day average volume is up. The outlook is bearish per the red bear at the right bottom of the chart. The Elliott Oscillator, that is located in the volume window, is still bearish, the gray bars being below zero.



Fig. 11

Now looking at the top of the chart, we see three indicators in the same window. The red line is the Demand Index that is usually a leading indicator of the pattern. For now, it is turning slightly bullish and but still is in bearish territory so far. The green line is the STORSI indicator also known as the stochastic of the relative strength index. It is just turning around and heading towards bullish territory. The gray bars are the time bars since the start of the wave and the red horizontal lines are the time forecast for terminations of wave. When the gray bars will touch the thin red lines, the pattern could reverse or continue until the next.

Next indicator is the red line across the price window. Known as the Highlighter, it displays a price projection that is based on the preceding pattern. It is a probability and its accuracy is greatly dependant on the fit of the pattern to the norm. This calculation only accounts for price constraint and market sentiment exhibited before the projection; many events taking place after could impact the price and impair the accuracy of the forecast. It is very much like a poll and should factor as such. The blue line is another valuable indicator, it is a trend line drawn between the 2 latest peaks or troughs and in this case it is a bearish crossing. A crossing of a trend line as we have here is very significant. Casting a look at the moving averages tells us what is going on in three different time frames (bearish in the three time frames as price is below all three), the color of the candles and the corner indicator at the bottom of our screen provide additional bearish information.

The bottom of the screen completes the picture with the volume moving average (dark yellow), the Relative Momentum Index (thick red line) is definitely bearish as is the Relative Strength Index (magenta line) and the Dynamic Momentum Index (dark blue line). If we had conflicting signals, we would have a choice of moving to a security with none or gauging the overall value of the present security. This one is definitely bearish and a candidate to trade short.

Before rushing in a trade, a few steps should be taken:

- 1- Check the Fundamentals of the security even if you feel you will hold it only for a short while.
- 2- Figure out your stop loss and your entry price before the trade.
- 3- Set your target price so you can:
 - a) Cash in some of the profit as you go along.
 - b) Move your stop loss so it is tight enough to protect your profit.

Keep in mind that this is not a recommendation to buy or to sell securities. It is educational material and you should do your own due diligence before entering a trade.

The AOi Simple template works exactly the same way and uses similar indicators that are set for sensitivity of 5% as the sensitivity ranges from 1% to 8%. The template is used for Indices or low volatility equities (where the price changes very little when expressed as a percent of the security price). Explorations for intra day securities should be restricted to a small number of candidates as we run it off the quotes server (unless your provider allows you to download intra day data).

The expert used in AOi Simple is the AlphOmega Elliott Waves LV where LV stands for Low Volatility. This expert can be used with Indices, low volatility security or intra day data. The expert does not care about the end use but is very sensitive to price changes. If we use it with the wrong level of sensitivity, say a highly volatile stock, it will display too many waves and signals, will not catch the bigger waves displaying instead an LC (Larger Cycle) label. If it happens all we need to do is call a higher sensitivity expert and attach it to the chart. We do this by either changing template (using AlphOmega Simple) or by clicking on the Expert Advisor®, selecting the NV or HV expert, click on attach and close the expert dialog box.

Another possibility that the sensitivity is not great enough if we are trading say futures or commodities, then we would have another option, that is to call the expert designed for that type of trading. This expert is extremely sensitive; it will detect waves using a sensitivity of 0.3%, one of 0.6%, one of 1% and the last one being 1.6%. We could also use it on intra day securities that have relatively low volatility because as mentioned above, it does not care where it is used (only the percentage of change in price matters).

If you find that when using a template, it takes longer to display properly your chart, you can switch to an Expert that uses fewer calculations to refresh the screen. AlphOmega Elliott Waves Impulse Signals is such an expert. It will only display entry and exit arrows, no wave count. After reviewing a chart with the template expert, you can change the expert to lighten the calculation workload of your chart. See the example below.



Fig. 11a



Fig. 12

Please note that all indicators, templates, experts, systems or explorations only use peak of high and trough of low; to change this default set-up, you must go to the code. However you can change individually the few indicators where the dialog box gives you the option between C and H&L.

Moving Averages, Trend Lines and Other Indicators

In the price window, there are three exponential moving averages; the red line uses the closing price of 13 days while the dark yellow line uses the closing price of 55 days and the red line is at 144 days. These three lines called EMA reflect the trend for the short term at 13 days to the long term at 144 days. Exponential moving averages tell you the trend of different cycles. The crossover of trend lines is the most significant signal in technical analysis. In addition to these lines, there are two horizontal red dotted lines; the top line is at the last peak of the normal (21%) sensitivity while the bottom line is at the last trough of the same. Do not mistake these lines to be support and resistance lines even if they are very close to that. They are significant in that they indicate the point that has to be crossed by the next wave for it to meet the definition of a proper pattern. When the peak or trough does not appear as dotted line, it is because another line is stacked on top of it. Still in the price window, the red horizontal line is the Highlighter for normal (21%) sensitivity. It is a price projection for the wave completing its pattern. It will show only the most common projection and should not be taken as signal to buy or sell when crossed; it can be used to move your stops. The last indicator in the price window is the automatic trend line usually in blue; if there is no trend it will default to the last trough. The trend line acts as a support or resistance for the price; a crossing of line and price is a significant sign of trend changing.

TIP: Why have trend lines when the tool already exists on MetaStock® toolbar? Because when you are cycling through many graphs, you do not want to place manually the trend lines. AlphOmega has a number of automatic indicators that relieve you of the chore of placing them on a chart; these indicators are also tuned specifically to Elliottist needs and their setup will respect accepted technical analysis rules. Among these indicators you have trend lines, pitchfork, price or time projections, Gann angles and Fibonacci cycles.

In the volume window, there is an exponential moving average of the volume for 50 days in dark yellow. The Elliott Oscillator has gray bars that are overlaid without scale. The Elliott Oscillator is the difference between the 5 days EMA of closing price and the 35 days EMA of the same. Obviously, when the bars are positive, we say they are in bullish territory

while if they are negative, they are in bearish territory. The next indicator is the Relative Strength Index of the close for 14 days in magenta. With it, there is also in red the Relative Momentum Index of the close for 20 days, momentum of 5. Both indicators are used to confirm trends, time waves in consolidation periods. **Neither is good at picking trend tops or trend bottoms.** They provide valuable information on the strength of the move and the direction. The horizontal magenta lines across that volume window show the two thresholds of the RSI at 30 and 70. The last indicator in thin blue is the Dynamic Momentum Index and it requires no parameter. All these indicators are laid without scale to preserve the volume and volume MA scale on the right.

TIP: Be careful when trading waves for which the next order of sensitivity is undefined (The wave number for the next order of sensitivity will appear with a **question mark**). Being undefined means that a full cycle of waves has not been completed in the available security data. Some securities may never go through a full cycle of the highest order. The danger is that a deeper impulse could be at play than the order being investigated, carrying the price in unexpected zones.

Orders of sensitivity are ranked by their percent of sensitivity where the lowest percentage is the smallest wave pattern and the highest percentage is the largest wave pattern. When we get too many waves or signals, we move to a higher percentage of sensitivity and the reverse, when we don't get enough waves or signals, we move to a lower percentage of sensitivity.

Triggers

A trigger is the bar where the price has retraced the set percentage of sensitivity or more. From that point, a wave is confirmed and it will end when the price crosses a trigger in the opposite direction. Triggers are confirmation signals and can be used as entry or exit signals. This is the slowest but the most reliable signal we will get from the system in Elliott Waves as far as waves are concerned. Other signals like trend lines and moving averages are not wave specific. There are faster signals that are wave specific such as the price and time projections, Elliott oscillator when adjusted for the wave sensitivity monitored and AO (Trig) that will give you the price to be reached for a confirmation.

Trigger is the most important concept in this set of Elliott wave's tools. The chosen method to display this important signal is the expert highlights that colors the elected bar with a user specified color. We did not use a symbol like for the wave labels because it would conflict with some of the smaller wave labels.



Fig. 13 Only trigger colors are shown on in this chart!

Looking at the figure 13, you will observe that bars take on a different color from time to time. These colors have a meaning that will flag you the important bars. First, let us look at the bar signal for the trigger of the wave. The trigger as mentioned above is the point where the wave indicator acknowledges that the previous wave has ended and the next one is underway (**In other words, the peak or trough is not dynamic anymore, it is set!**); to activate the trigger, the data array selected must make a peak or a trough and retrace a percentage called the sensitivity.

The trigger codes are:

- 8% sensitivity, called fast, is coloured cyan
- 13% sensitivity is coloured magenta
- 21% sensitivity is coloured dark cyan
- 34% sensitivity is coloured dark magenta

Many other patterns are available with the expert; all you have to do is to check the box in the Highlights tab to enable or disable them. An exaggerated use of these will only confuse the interpretation of the chart. When several bars take on coloration, we are looking at a trend developing. *Depending on the version you have*, the blue color is used for a bullish trend while the red means a bearish trend; gray is used for consolidation patterns and orange for failing wave 4.

Nomenclature Used

Throughout the experts, color and style codes have been used to provide a visual key in the chart.

Wave labels:

- Bullish pattern including all of its waves 1 to 5, will be coloured green and bearish will be red.
- The sensitivity will be indicated by using a different font or presentation for the numbers:
 - Fast (8%) sensitivity will use small numbers 1, 2, 3, 4, 5, a, b, c
 - Moderate (13%) sensitivity will use small bracketed numbers (1), (2), (3), (4), (5), (a), (b), (c),(d),(e)
 - Normal (21%) sensitivity will use bold roman numbers **i, ii, iii, iv, v, a, b, c,d,e**
 - Slow (34%) sensitivity will use a combination of symbols and bold capital letters and **circled** numbers **1, 2, 3, 4, 5, A, B, C,D,E**

The **high volatility (HV) expert** uses the similar notation inserting **bracketed bold roman numbers (i), (ii), (iii), (iv),(v), (a), (b), (c), (d) and (e)** as the slow (34%) sensitivity, the combination of symbols and bold capital letters and circled numbers for the very slow (55%) sensitivity.

TIP: *There is a recommendation about the scale to be used for the price indicator. In Elliott Wave’s analysis, the moves are easier to study using a semi-logarithmic scale. This enables you to see the patterns with the price acceleration accounted for; the Fibonacci projections look more appropriate and fit the scale without compressing the price data in a tiny line. The drawback to this scale is that less information points are available; it becomes very difficult to see price without using the pointer to actually display it. You can make yourself a template for the semi-log scale so that when required you just open it. Another alternative is to right click on the scale and select semi-log. If you move to another security without changing back the scale, the previous security will open in semi-log for the next session while the next one in this session, will open with normal scale. For this reason, we opted to stay with the normal scale while we are aware that the semi-logarithmic is preferable. While we could add a template, it would be difficult to manage the number of icons you want to display as well as how many you can remember. So you have the option and it is easy to do!*

Indicators Using Date & Time Input

All the indicators requiring date input have been standardized to accept the date and time in the following format:

1. First the year 2003
2. Second the month, so March as 3
3. Third the day of the month as 01 to 31, so 09
4. Fourth the hour as 09 (If not applicable, you must fill with 00)
5. Fifth the minutes as .30 (Note the decimal point before the minutes. If not applicable, do not fill)

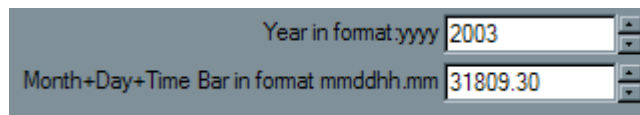


Fig. 14

Although it is not standard, this simple way of entering the date and time will allow you to use the dates in calculations where you need to compare which is the biggest or the smallest, when should a display begin and many more applications. MetaStock® as we all know does not provide date functions other than separate indicators for Year, Month and Day of Month; when you try to group them to simulate a date function, the eight digit limitation of the program makes the data inaccurate. The time input is necessary for intraday charts; *if you do not use intraday, do not forget to add the 00 after the day otherwise your input will be rejected as too small.*

The order in which the inputs are required is also very important as you need to retain sequential relative position for each bar. As an example, let’s assume we will input these two dates December 20, 1999 and January 16, 2001 in the following format:

Month, Day of Month and Year: mmddyyyy 12201999 or 12,201,999 01162001 or 1,162,001

It is easy to see that the biggest number numerically is not the latest date! If you compared these two dates, you would be told that December 20, 1999 is the latest bar. Another problem would take place on certain days where the decimal place would throw the day numeral off. It gets even worst when you need to add the hours and the minutes for intraday charts.

The system AlphOmega is using, checks the year first and separately to overcome 8 digit limitations; it is then building a serial that groups the month and the day and the hours on the integer side; the fractional side has the minutes. In addition, the largest number has only 7 digits keeping it in the accuracy limit of MetaStock®. Look at the Wolf Wave graph that uses the date features to not only start displaying at the right time but also the relevant data before the detected signal (Where the short red line starts). To illustrate, look at a Wolf Wave pattern that uses internally the date indicator to start the display only from the date selected. (Let's add regarding the Wolf Wave pattern, that this pattern is very risky as it expects a normal wave to fail and the pattern to reverse.)

Protection

The formatting of the proprietary indicators and experts is limited by password protection only to avoid mishandling. However, some changes can be made without the password so just be careful that you don't merge your indicators into the background. **A password has been provided with the set to make it an end user flexible tool; be careful of the integrity of the set once the formulas are changed! Make sure you have a back up copy to restore the original set.**

AlphOmega Aget and AOi Aget Templates

These templates are almost the same as the AlphOmega Simple; the difference is with the style of the Elliott Oscillator (style used by popular Elliott Wave software) and the addition of indicators used in the T1 and T2 setups used by Tom Joseph of Trading Techniques. The indicators are AO Elliott Channels(W3W4), AO Elliott Channels(W5), AO W4TRC, AO DMA and AO Elliott W5 Target. All are in the price pane and will display only if the current wave matches the conditions for the normal (21%) sensitivity (must be a wave 3, 4 or 5). The T1 and T2 setups are explained in the annex at the end of this book. The expert is the same as in the AlphOmega Simple template. The AlphOmega Highlighter is removed as well as the Demand Index, the RSI/RMI indicator.

AOi Aget is like the above template but with indicators set for its sensitivity range and the appropriate low volatility expert that is the same as the AOi Simple template. The same comments apply for this template as the ones made for AOi Simple.

To Create a Template with a Different Sensitivity

The template was created for 21% sensitivity only. It is easy to create one for the other sensitivities; to start we need to double click on all the indicators that are sensitivity based, in this case the P&T Duration (gray histogram at the top of our screen), and in the price pane: AO PTF, AO Elliott Channels(W3W4), AO Elliott Channels(W5), AO W4TRC and AO Elliott W5 Target. The Wave Time Projection (21%) (red horizontal lines at the top of the screen) must be deleted and replaced with the desired sensitivity Wave Time Projection.

Note: This procedure can be used for all the template styles provided with the set. It is a good idea to name them differently to avoid an update or upgrade that would overwrite it. We must take care when moving to a different sensitivity, that we have changed all the sensitivity based indicators and that the Elliott Oscillator is in tune with our new sensitivity.

Using the Template

Below is a screenshot of the template and the T2 setup, we are in a wave 5 and the setup requires that we enter as soon as the wave 5 target has been reached and the price crosses below the blue displaced moving average (DMA). So far the price has not really moved into the wave 5 target area but it has been beyond the peak of wave 3. It is also below the displaced moving average. These two factors are pointing to a very short wave 5 and a sell short stop should be placed at the \$3.50 level. If price continues up, the trade will not take place but if it moves down, the trade will be triggered.



Fig. 15

This template is used to get a similar analytical power as in Advanced Get®. The dark cyan parallel lines are the channels for wave 5. The Elliott oscillator has two additional lines (in black) that show the accumulation of bull and bear power. The thick red line at the \$5.60 level is the W5 target. When a wave 4 unfolds (instead of the current 5), the indicator (AO TRC) plots the acceptable retracement indicating a strong probability of a wave 5. The profit taking index (PTI) to gauge wave 4 failures is used in explorations and rarely plotted as you only need the value to be above 35. The thick blue line is the AO DMA (Displaced Moving Average).

AlphOmega Vidya Template



Fig. 16

This template is using Tushar Chande's Vidya indicator (an adaptive moving average). The red and the blue horizontal lines indicate the entry (red) and the stop loss level (blue). Adaptive means that it adapts to the volatility of the recent bars. The trade scenario is rather simple as we are given the entry price and a stop loss, we must be careful not to confuse the blue trend line and the red AlphOmega Highlighter with the Vidya indicator. The best way to prevent this is to

drag our cursor over the lines and read the name of the indicator and the values. All MetaStock® indicators whether custom or native behave the same way when the cursor is pointing to them.

Wolf Wave Template



Fig. 17

Wolf Wave is a triangle formation that lends itself to trading. Like all patterns, it follows some simple rules:

1. The pattern is identified at point 4 that is at the second peak or trough.
2. The trade is triggered from point 5 that is the next trough or peak, the opposite of point 4.
3. Lines are drawn between points 1-3 and 2-4. These lines should converge and touch at the time the target price will be reached.
4. The target price is calculated from the extension of the line between points 1-4.

AlphaOmega shows the extensions of those lines so you can see the crossings or near crossings. In addition, the indicator provides the Estimated Time of Arrival (number of bars to crossing) and the price target. The Expert Commentary also warns of the presence of Wolf Wave patterns and

the target price. We can run an exploration for the pattern at different sensitivities; we will get the bars since the point 4 was discovered and the trend of the pattern, 1 for bullish and -1 for bearish. The indicators do not go beyond the ETA; otherwise we would have the extensions running very high or low and disturbing our price scale. This pattern is not very frequent and although the calculation is easy, ***the results are not reliable***. For more information on this pattern, there is a site that has developed a methodology for correctly assessing the various points and the conditions required to trade the pattern. Please refer to WolfeWave® at <http://wolfewave.com>. They provide the tutorials and some very good samples of patterns in different markets. My approach is from an Elliott Waves perspective although following the same rules; since the pattern is now commonly known by that name, I need to state that I have no knowledge of their specific methodology (only a personal interpretation) and don't know how successful they are with theirs.

Chapter 4

Price and Time Projections

AlphaOmega uses 2 styles of price and time projections; both are based of the same Fibonacci golden ratio but they are used in different conditions. The one we have seen so far is the current price or time projection; it is called current because it can only work on the bars since the latest peak or trough of the same sensitivity. As the price moves to a new peak or trough, the projection will be replaced by a fresh one using the new peak or trough. At times, we will need to see how a security has done versus projections in the past; this is the back testing or historical projection. To use that style, we will need to enter a date and time from which we want the projection to be made. Let's go through an example of each type to understand their use.

Current Projection



Fig. 18

This screen from Agile Software shows the various possibilities for the termination of a wave 3. This screen is generated using the Simple template and adding the Wave Price Projection (21%) indicator to the price window. The Wave Price Projection is available for most sensitivity and these projections are based of Fibonacci ratios; the indicator will only show the projections for a wave termination that fits the definition of the current wave. For an **impulse** wave, it will not show intra-wave projections meaning prices before the previous peak or trough; for a **corrective** wave, it will only show intra-wave. It will also account for displaced end of wave 3 patterns when the initial wave is too short and the Expert detects an extension of it.

A similar indicator, the AlphOmega Highlighter (thick red line) will narrow the range. It has replaced the Wave Price Projection in the Simple template. This is not to be confused with the AlphOmega Similarity of Wave indicator that is an indicator for waves breaking the similarity pattern at the onset.

A third method is used when the preceding wave is not yet confirmed but you suspect it is completed. The indicator is Price Projection PWx where the P stands for potential and the x for the wave number. Its purpose is to enable a price projection *even if the last leg is still dynamic and unconfirmed*. It functions as the preceding one; you enter the date of the suspected beginning of the wave to be projected. Since the projections start from the bar date we entered, we will see only dots if the start bar is the last one on the chart; as bars are added, the lines will lengthen and display normally.

In the top inner window, we can see the Wave Time Projection (21%) for wave iii. This indicator requires more explanations as it deals with bars that will appear in the future and MetaStock® will only display bars for which it has price data. To overcome this problem, we have reversed the time scale; on the price window, the time runs from left to right, each period adding a bar on the right side. In the inner window for time (top of the screen) for each period, we display a vertical bar that grows higher from one bar to the other; the height of the bar represents the total number of bars since the start of the wave (here the wave at 21% sensitivity). Doing this reversal, allows us to display projections at the height corresponding to the different bar numbers we expect the wave to possibly end. See chart below.



Fig. 19

Generally time projections are less accurate than price projections so when the two agree (the price is close to a price projection line and the histogram is close to a time projection line), it is a very strong signal that the price is about to reverse. When there is only one of the price or time that nears a projection line, always prefer the price projection to the time projection.

Historical Projection (for back testing)

The second type is using Price Projection Wx where x stands for the wave number. Then we will need to enter the date of the beginning of the wave to be projected. This is good for studying how close the relationship with Fibonacci ratios is. The same technique is also used for time projections except that it must be displayed in the top inner window where the appropriate scale shows the number of bars.

As can be seen in the chart below, we wanted a price projection for a wave two that started on May 23, 2003; the date was entered according to the convention mentioned previously, that is 052300 for the Month Day Hour Minute field and 2003 for the year field. The price projections are displayed from the input date to today; going back to the origin of the line will always tell us to which wave it is related to (bar when the wave started). Note how close to the end of wave 2 the first projection is. For this indicator, we must pick the wave number we intend to project and the date of the bar where the wave started. The Highlighter cannot be used for historical projections nor the PW series since the wave count is already confirmed.

When we have a good correlation with historical projections, meaning that the price reversals are very close to one of the projection lines, we can expect this correlation to be maintained during the whole cycle. It is preferable to do this kind of back testing when we see drastic price changes across the time frame we are studying; if the correlation is not really good, it might be better to change the sensitivity to a higher number to find the level that it is responsive. AO ZZ is a very good tool to check how well the waves are caught at significant peaks and troughs.



Fig. 20

Special Rules for Applied Fibonacci

As explained earlier, there are four orders of sensitivity or cycles. All these sensitivities are nested so the smaller order starts counting from one at the beginning of a next higher order. There is one exception, which is when there has been a wave 5; it is usually followed by an ABC or ABCDE correction that spans the next order of sensitivity. From version 5.6, the price projection takes in account a wave 3 shorter than wave 1 and followed by an extension of the 3. **In this case the projection includes the combination of the 2 parts of wave 3.** These flawed waves 3 are displayed in gray on your chart.

For all price and time projection indicators that are used in the AlphOmega Simple template, there are corresponding indicators to be used in the AOi Simple template. Actually, the indicators are not template dependant, they could be used wherever we see fit. The templates are synchronized to a main sensitivity and anyone can change it or make a new one for a different sensitivity.

TIP: There is a configurable tool bar from MetaStock® where you can cast your most useful templates. The **AlphOmega Simple template** should be made the default template if you use regularly Elliott Waves. For those who trade intraday, there is a template **AOi Simple** that will provide proper settings and expert. Please note that the two experts overlap on the fast wave sensitivity of 8%. This has been done to provide continuity between the intraday picture and the daily or weekly picture. The labelling of the symbols is such that by dropping the mouse over them, you can tell the exact sensitivity it is addressing. The four Experts are similar and only the percentage filter is changed to correspond to the sensitivity to be scanned.

Price Projection from an Unconfirmed Wave

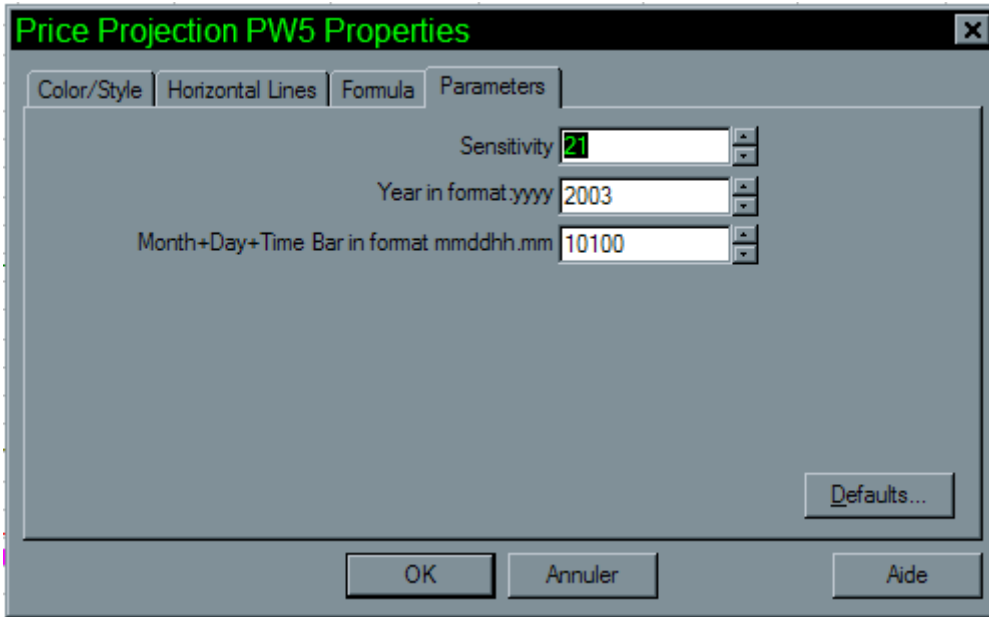


Fig. 21

This screen shows the parameters to be used when projecting prices for a wave at a date when we suspect that the previous is completed but not confirmed. When we want a projection for this type, we must select the right indicator (for the appropriate wave number and PW in the name) for the wave in progress and enter the date of the high/low at the base of the wave. Making sure we enter a date at or after the completion of the high or low; failing to do that will enable the display of the previous pattern projections. We must enter the proper sensitivity for the pattern we are studying. Using

the Zig Zag function or AO ZZ will greatly facilitate our perception. This projection indicator is recommended when the larger order of sensitivity is still undefined or when a full cycle of waves has not been observed (The automated indicator will always start looking for a C wave or a 5. If these waves are undefined, the indicator will not function and it will not display.

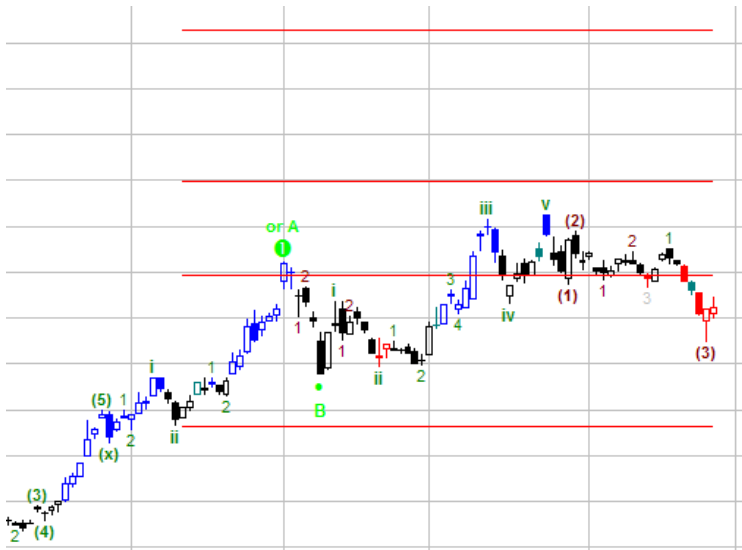


Fig. 22

This price projection shows the point of origin; the lowest red bar and the beginning date (start of red line). The other red lines are the projections based on the Fibonacci relationship between the preceding waves. As a matter of fact, the peak of wave 3 (where the green 1 or A is) took place a shade above the first projection line. The lines will run from the start date to date for look back projection. The display is similar for potential waves or confirmed waves. With the "AO" indicators, we have price projections that are also made from dates and are easy to use. All we have to do is to point our mouse over the peaks and troughs we want to start the projection from, note the dates and input them in the indicator fields. The date is always the peak or trough from where we want to make the projection. Note that the difference between this indicator and the AlphOmega is in the

validation of the pattern made by AlphOmega to apply a full set of projections. The "AO" will make a projection that will have fewer possibilities because it is based only on the previous wave; it ignores the relationship to other waves of the pattern. It is for a fast Fibonacci layout.

Chapter 5

Formula Building

All the tools in this set can be duplicated, then modified to suit our own need or preference. We can even extract portions of formulas to create our own indicators, experts, explorations or systems. The easy way to create our own indicators is by referring to AlphOmega indicators through the formula call and formula variable call functions of MetaStock® language. A list of the available indicators will appear when we use the Function button in the programming of indicators, systems, experts or explorations. All the AlphOmega variables that can be used are labelled with the company name or abbreviation AO so we can recognize them through the list. Indicators that have names like "PW2" or "TW3" or "IDf" or the likes should not be used as they refer to formulas that do not return a usable variable. To understand what the variables refer to is of prime importance to generate code that is meaningful to us. The most important variable in Elliott Waves is the "ID" variable. It is different from "IDf" that is a formula name. The "ID" variable is the wave number as identified in the formula. The sensitivity involved is indicated in the name of the formula such as "f" for the "IDf" that corresponds to 8%. "Trig" is another important variable because it tells you when the wave is recognized by MetaStock®. It is the threshold price that must be crossed before the wave takes a name. The general purpose of these tools is to entice people in building their own trading system using Elliott Waves as a building block. At the end of this document, is a list of the variables you can use and a short description.

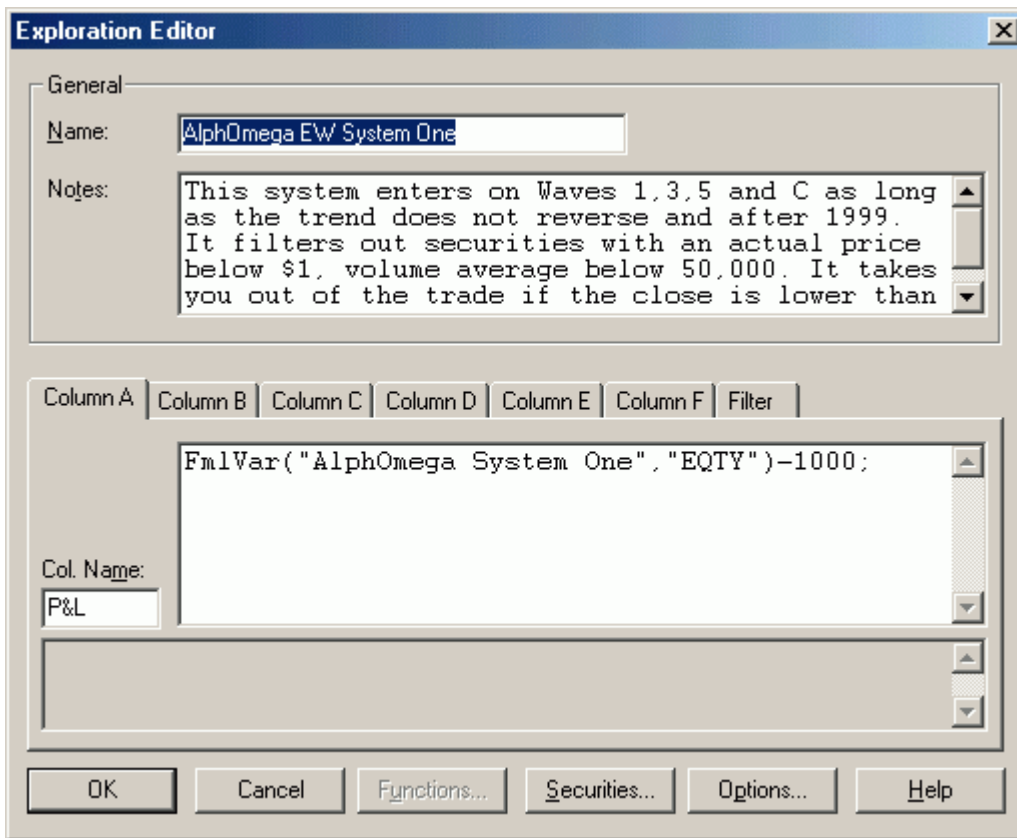


Fig. 23

This is snippet of the code used in one of the system explorations no longer in use. As you can see the formula calls for a variable that we can see when we open the function window in design or edit mode. The names that are used by AlphOmega are mnemonics and we should easily guess their meaning. If in doubt, just e-mail your question and we will answer promptly.

As we get more familiar with the set, we have preferred indicators that are used in specific cases where we need to enter our personal parameters. This is an ideal project to start implementing our own formulas. A safe way is first to copy the indicator we want to modify and save it under a name that AlphOmega will not overwrite in the update process (avoid using AO or AlphOmega). Once the indicator is saved, we can modify to our heart's content the code to suit our needs;

initially we will deal with small modifications like altering the default input parameters so we don't need to input our settings each time we use it.

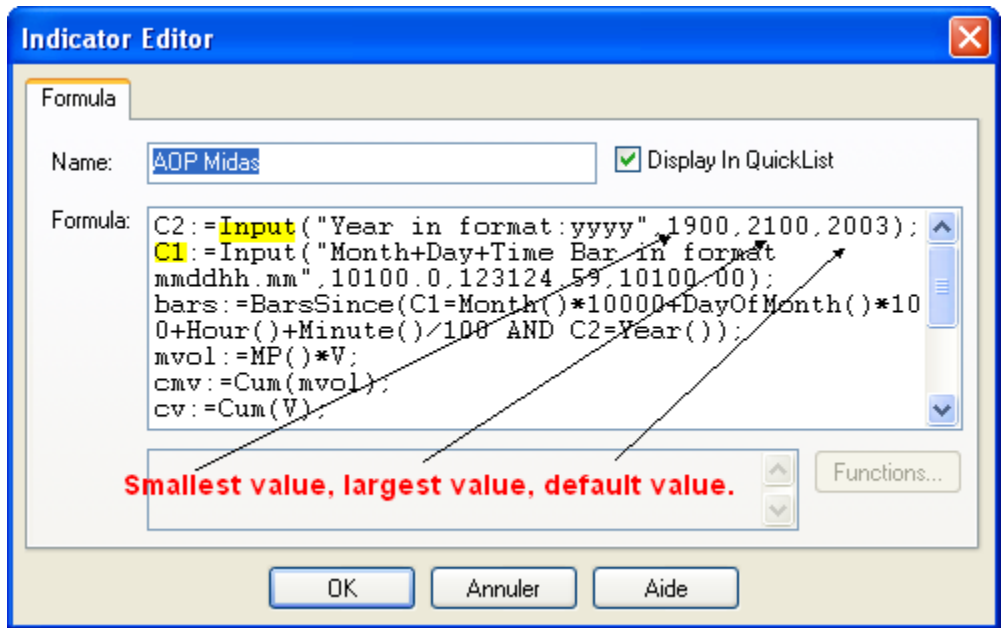


Fig. 24

In the example above, we have the parameters for 2 variables that require a user input, C2 and C1. The key word for an input parameter is **Input**. Then we have three values that drive how the dialog box will request the information. The first 2 control the range within with the user can enter his value (all outside value will produce an error message to the user), the 3rd value is the default value that appears in the dialog box when prompting the user.

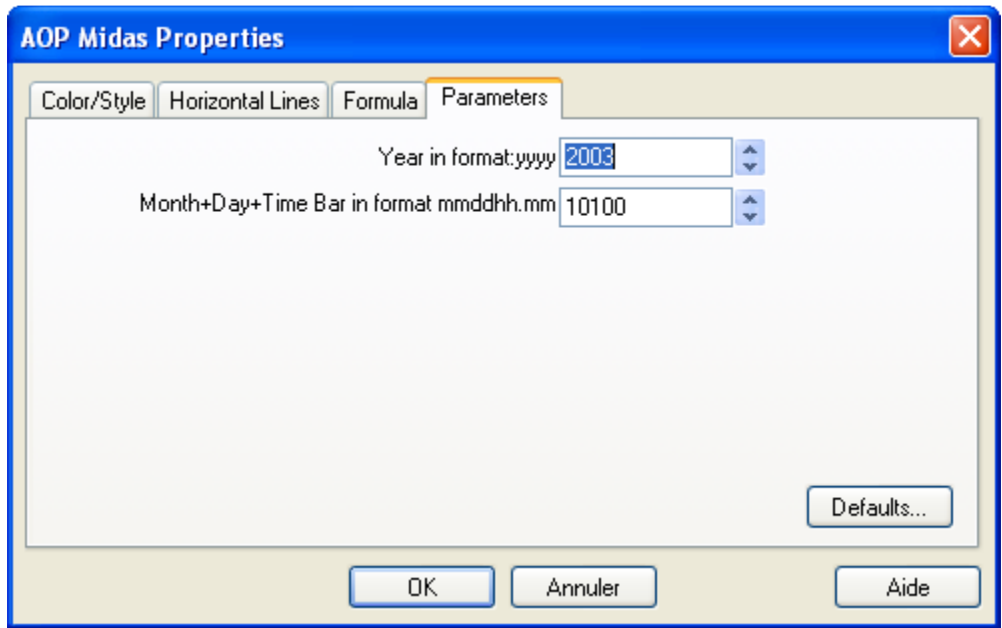


Fig. 25

This is a view of the dialog box produced by the above code. We see the 2003 that is our default value beside the text we chose to prompt the user. It is as easy as described so next year we can change the default value to 2004 instead of 2003. This process for editing formulas applies to experts, explorations, systems and indicators. Templates are merely a collection of expert, indicators and chart settings so that when called it displays precisely the way we want. What is the difference between experts, explorations, systems and indicators?

Experts are responsible for the labels displayed on your chart and the color of the bars; additionally they can display a commentary, a ribbon and a corner indicator. They summarize the information of many indicators providing a readable format and serve as a reminder of things we tend to forget in an overall evaluation. They evaluate a lay out for all bars up to the point they are summoned, ignoring the data after the summon point; this feature is as valuable as back testing.

Indicators will display lines on your chart whether straight or irregular, horizontal or vertical. Indicators can have calculated variables, user input variables, constants, display only under certain conditions. They are the backbone of charting software as we can test all the formulas making up experts, explorations, systems or indicators, first as an indicator to verify their proper functioning and display properties.

Explorations are the trading source and selection center for candidates. Although they never show on a chart, they reproduce in the database what the indicators do on a chart. Sometimes they can be substituted for a system test although this was useful only with the prior MetaStock® version (7.2 and lower). They perform all the screening operations acting as a filter for low traded volume and low priced securities.

System Tests are providing the back testing capabilities necessary to implement a trading system. In the report are grouped all the essential information on the trades, their efficiency, the required capital and drawdown, the entries and exits for each trade, statistics on the system tested as well as a comparison with a buy and keep for long term trade.

A chapter will be devoted to each of these topics later in the book.

Chapter 6

Trend Lines and Other Indicators



Fig. 26

A trend line will show the direction of the trend for the sensitivity we select. Let's look at the chart. The picture shows a trend line coming from peak of wave ii and moving in the same direction as the bearish trend Exar has undergone since the beginning of the year 2001. The trend line is drawn by the indicator **AlphaOmega Trendline**. It will seek to connect the 2 previous peaks or troughs and draw a line with the same slope as long as there is a confirmation of the trend by a 100 day linear regression of Close (in other words, the slope of this average must negative to connect 2 peaks or the reverse for the troughs). It will also adjust if there is a missing peak or trough in between, to avoid giving a counter trend direction to the line. It will continue the line until there is a change in the trend. Looking again at the picture, we see that the trend line was not violated. A bullish trend emerged with some volume activity but never crossed. There is an exploration coupled to the trend line (the green wave 1 in July); with it, we can scan the entire database even if we have not inserted the indicator in our template. It will flag for us the violations and the bars since its occurrence. **AlphaOmega Auto WLR** (Wave Linear Regression) is similar but uses linear regression of all prices closing within a user specified number of bars.

Other Indicators

There are many indicators coming with this set, refer to the appendix for a complete list and description.

1. One inherent limit to these Indicators or Experts is caused by the way MetaStock® handles functions that are not defined. Any formula referring to this undefined function becomes undefined and has no value, not even zero; the indicator simply does not show on the graph. To overcome this, there is a set of indicators that will give us a wave count although the larger order is still undefined. This is done automatically in The Expert Advisor™ but not in The Explorer™ where a special exploration to pick all the securities that are trading in the undefined sensitivity is required. Nowadays we avoid trading the undefined because we could be trading against the trend.
2. To actually display the way a price bar is considered in Elliott methodology, use the **Absolute Elliott** that will display a red line between all selected highs and lows.

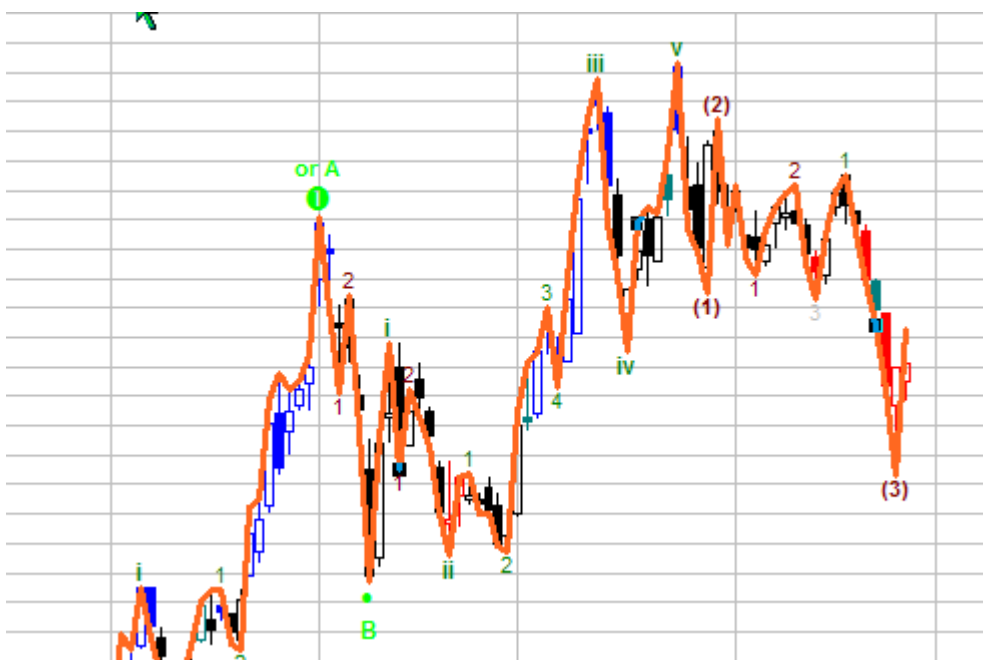


Fig. 27 Absolute Elliott

3. Line indicators such as **Automatic Pitchfork, Trend Resistance and Support, Weekly Pivot Point, Gann Angles, Cycles, and Fibonacci Levels** are part of the offered selection.

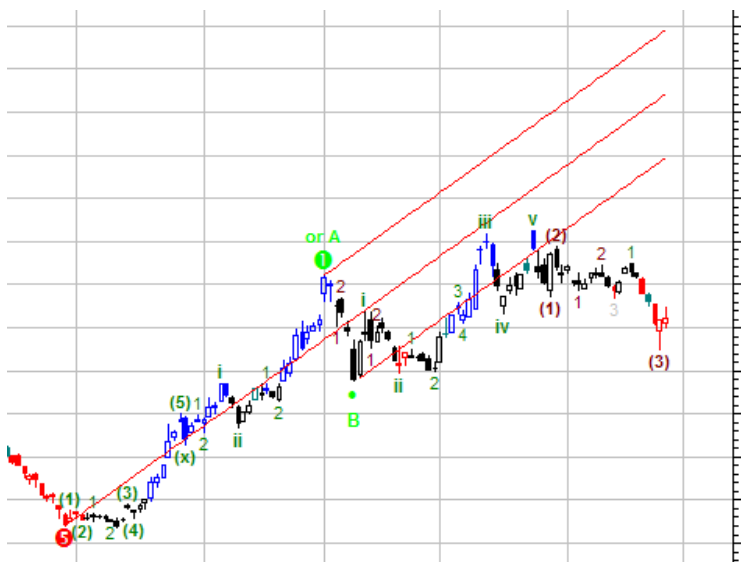


Fig. 28 Pitchfork

The use of the **pitchfork** is like that of a channel; if the price moves out of the pitchfork, the trend is changing. A good pattern should travel from the external forks towards the middle one then to the opposite fork. In the example, the price trend has reversed when wave (3) diverged from the outside fork. This is not unusual when we are dealing with a C wave. The fork will redraw automatically when the trend change is confirmed by a retracement equal to the sensitivity used.

Trend Resistance and Support are like the AO PTF we have seen in the Simple template.



18 Fig. 29 Gann Angles

17
16 The use of **Gann Angles** is the subject of big
15 books but we will try to simplify; Gann theorized
14 that price was trending according to geometrical
13 patterns, if we draw a square, a price move of 1
12 unit would consume 1 unit of time, and thus the
11 slope would be a 1X1 ratio. He proceeded then
10 to identify the most common ratios used by
9 price. Our automatic indicator will compute the
8 slope for 8 of those ratios using the sensitivity to
7 capture the base ratio (1X1) and derive the
6 others from it. So we don't have to modify the
5 space between bars to make a perfect square,
4 the indicator will adjust the slope to maintain the
3 integrity of the ratio. When price starts straying
2 from the ratio it was aligned with, the trend is
1 changing.

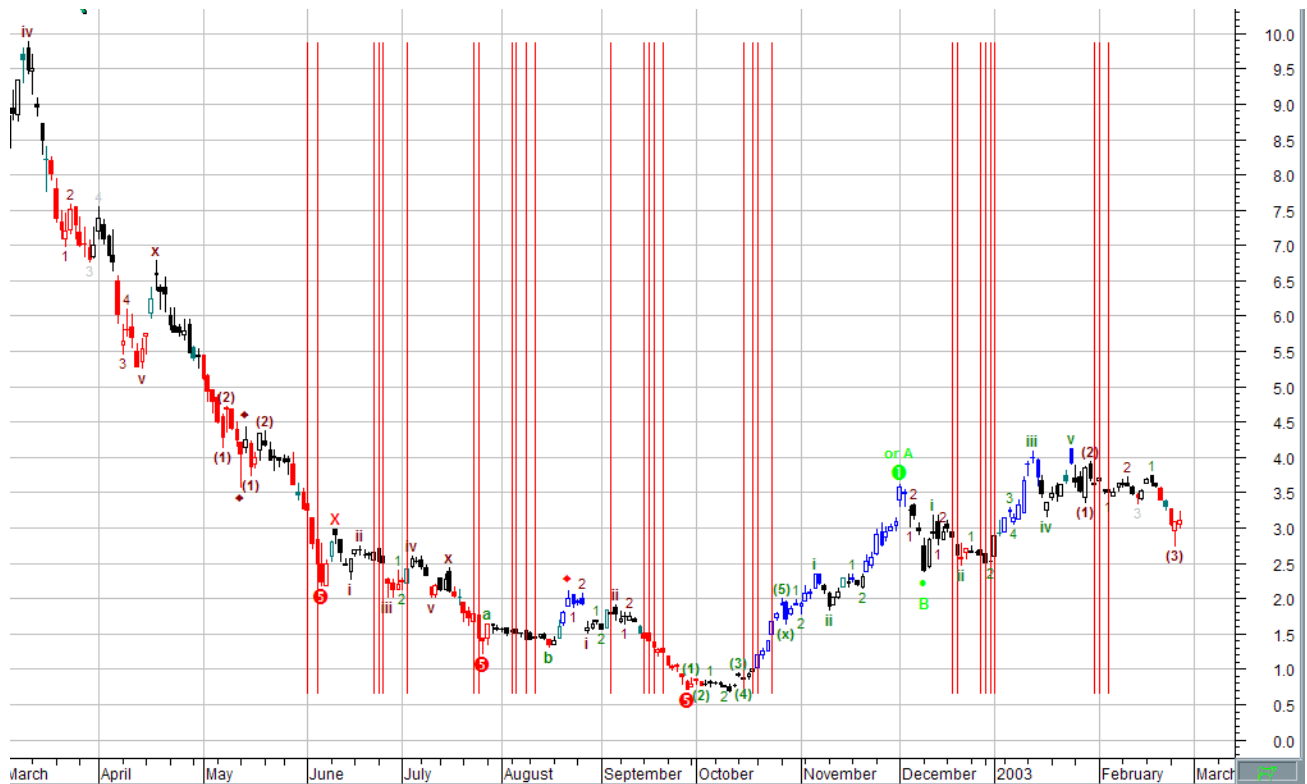


Fig. 30

Gann Cycles

Gann Cycles use a base 8 to divide the progress of a cycle through time. It then seeks to match this length of time to the next waves of the same sensitivity by projecting in time the expected reversal points. Note that the projections for future bars do not display until there is price data for these bars. *To display properly, this indicator must be dragged on the chart and when the properties dialog appears, enter the sensitivity, change the style of line to histogram, when asked which scale to use, select none.* This will make the histogram float freely in the price pane as displayed above.

Gann related indicators: All indicators referring to Gann levels or angles are not displayed in a way that the geometric relationship is apparent. Gann uses symmetry and geometry to measure price progression. To perceive this relationship, the display should have the horizontal and vertical scales in the expected ratio to form square boxes. However the calculations are correct in spite of the appearance.

4. There is an **AlphOmega Consolidation/Triangle** warning indicator. This indicator attempts warning the user that the security is entering a consolidation phase. This indicator is also in the Expert. The indicator is a binary type, it only has a value of 0 or 1.
5. The **AlphOmega Highlighter** is a price projection accounting for the rules of alternance and similarity from Elliott. Simply put, it will look back for extended waves in the pattern; if one is already present, it will assume the alternate wave will not be extended. This indicator is automatic and it is set to work with a set sensitivity only, so use the appropriate one (the sensitivity is in brackets beside the indicator name).
6. The **AlphOmega Similarity of a Wave** is an indicator to measure how a wave matches the expected pattern according to the rules of alternance and similarity from Elliott. It also defines the expected range for the present wave. The rule of similarity and alternance of wave states that often wave 1 will be the same length as wave 5, if wave 2 is made of a zigzag, then wave 4 will be more complex like a triangular pattern. All our projection tools account for that but when we are looking at an incomplete pattern, it is good to know the expected sub pattern and if confirmed, we can place orders faster to ride the completion of the pattern.

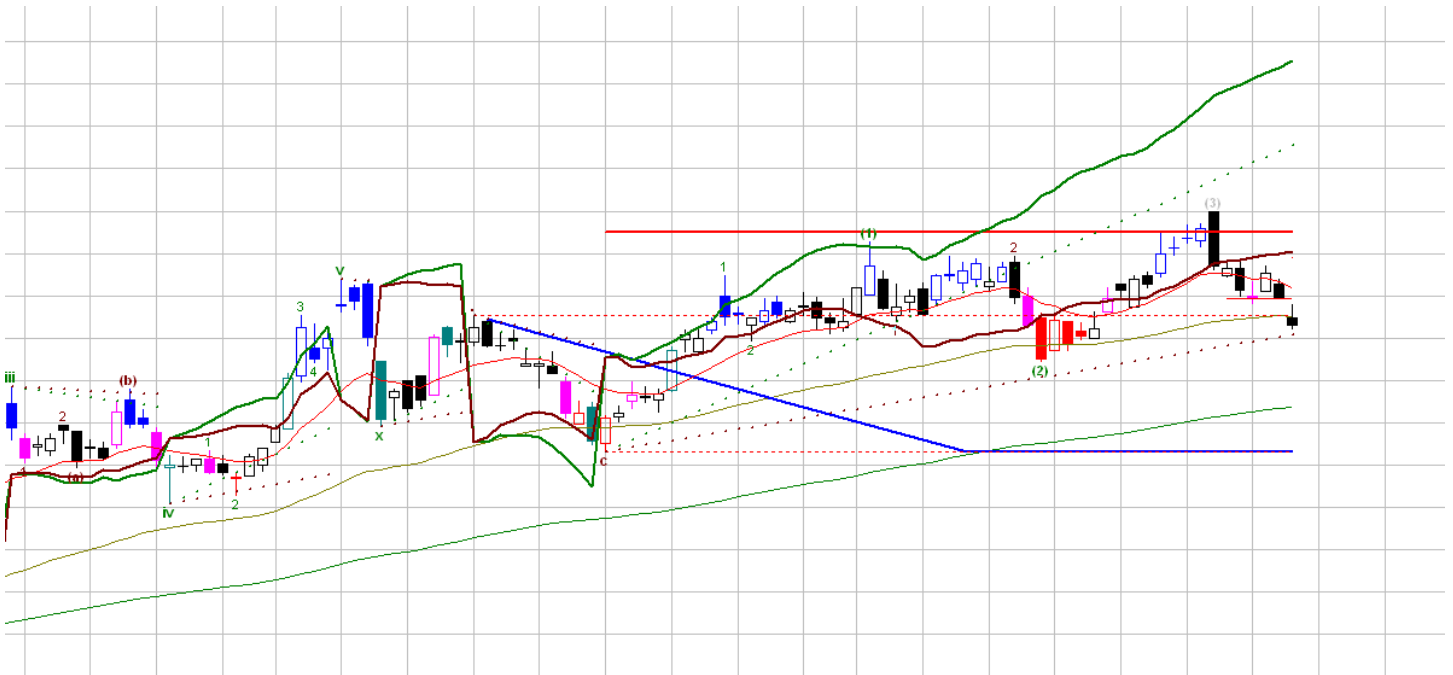


Fig. 31

The number of lines displayed should not rebuke us, the dotted lines correspond to the slope of the previous impulse or correction and the same slope times a safety factor user defined. The solid lines (dark green and dark red) are the cumulative linear regression of a user defined period; the green is the pure LR while the red is the green times a safety factor that is user defined. Basically we are not concerned as long as the price is between the 2 solid lines; when it penetrates the dark red or it is always close to the dotted dark red, it has lost too much momentum to stay with the trade. The bars until the trigger shows are not meaningful, we can discount them. When we apply this indicator, all the lines are identical in color and style; to sort them out, we should assign colors and style similar to the above picture. To do this, select with the cursor the first straight section of a line that is the furthest away from the price, use the dotted style and dark red for the color. Then pick the next straight section closer to the price, select dotted style and dark green for color. Within the same wave, pick the line that is closest to the one we just set, make it dark red and select a thicker line set. Finally we complete with the last line to make it dark green and thicker.

7. There are indicators that are similar to those used by Advanced Get® such as **XTL-Ag** which will indicate trend extension in the expert under the Highlights tab, **AO PTI** that provides a probability of a wave 4 to be followed by a wave 5, **AO W4 TRC** that displays limits for the retracement of a wave 4. All are on a template named **AlphOmega Aget**. The template **AOi Aget** is similar but with the corresponding intra day indicators. What is special with those 2 templates is that they are set to trade Tom Joseph T1 and T2 setups as detailed in the annex at the end of this book. The indicators are named partially as the popular, good but expensive Elliott Waves software that Tom Joseph marketed. Since their indicators are proprietary, we created with our own code

indicators that use the same theory to compute the desired value. As we never owned nor had access to this program, our indicators can plot a slightly different course. Our goal was not to duplicate exactly the proprietary indicators but to open access to the mathematical theory behind them. Of course our indicators are adapted to our own wave definition and measurement.



Fig. 32 AlphOmega AGet Template

This template will display T1 indicators only if the current wave of the selected sensitivity is a wave 4; it will display T2 indicators if the current wave of the selected sensitivity is a wave 5. The indicators specific to this template are:

AO DMA the displaced moving average. The displacement is user defined and the line is a thick blue.

AO W4 TRC is the Trend Ranging Channel that plots the 3 possible reversal points for a wave 4 factoring the time in the calculation. The display is like 3 dotted lines, red, green and blue.

AO Elliott Channels(W3W4) or AO Elliott Channels(W5) is the purple channel that should contain the price while the wave deploys. Only a change in volatility will make the price stray from the channel.

AO Elliott W5 Target is the most likely target for wave 5, after the correction should start opening the possibility for a T2 setup.

AO PTI is the Profit Taking Index that computes the momentum built during wave 3 and compares with the wasted momentum from wave 4. The remainder is an index that should not fall below 35 to have a good probability for a wave 5.

The T1 setup is projecting the point of reversal of the wave 4 to get to trade the wave 5 as soon as it starts. The T2 setup is the next logical step of T1, that is project the point of reversal of wave 5 to get to trade the whole correction (waves ABC) as soon as it starts. See the annex at the end of this book for a detailed explanation.

Note: For your convenience, indicators having the prefix AO are listed in **Appendix – 2** with their graph. They are all related to Waves in one way or another. The required inputs are outlined clearly when you insert them in your chart and their use and interpretation is generally simple if not obvious. **The most important one is the AO ZZ that will display the Zig Zag of the peak of high and trough of low.** Many of the indicators in the AO category have the "auto" label meaning that once laid on a chart, they will update as the data comes in. **Where the name has a "(P)" added to the end, it must be used on the price plot and displayed as a histogram without scale. This will enable the display of vertical lines!!** Some indicators refer to P, no brackets, in their name. This is the P function from MetaStock® that refers to any indicator that you click on a chart. AlphOmega uses the P function to allow you to apply AlphOmega indicators over the variable you pick on the active chart. Usually you just have to drag the indicator from the list to the chart plotted variable and release the mouse button. If there is a required input, a text box will appear to request the missing parameters.

TIP: Of all the indicators provided with the set, only a few should not be displayed in your indicator quick list. All ID's indicators belong to that category as well as the system's, the PW's and the TW's. The Wave Projection and the Time Projection are inserted in layouts and can be ticked off the quick list. **DO NOT ERASE ANY OF THEM!!!**

Chapter 7

Zigzag Dynamics

What is the real profit potential we can expect from a wave? How accurate and timely is the signal? The wave we will study starts on March 30th 2001 to end on September 21st, 2001. At the time we have recognized the beginning, on April 16th, we plot a red line to the date we know the wave has ended, October 11th, 2001. Why do we have a delay? Simply because the price must travel a certain percentage before the peak or the trough is confirmed. This is what MetaStock® calls the dynamic portion of the Zig Zag indicator. While many think that the dynamic portion makes the indicator useless, I believe it to be most useful once understood. It provides a confirmation that the trend has indeed reversed and we must sacrifice the price movement needed for the confirmation. The confirmation process has to occur at both ends of the wave, hence the delay between the dates and the signals. The impact on the price is as follows: the trough started at 9.45 and was confirmed when the price was at 11.34 thus a price move up of 21%. Then the peak occurred at 18.50 but was confirmed only once the price retraced to 14.80 thus another price move down of 21%. While both price moves are of 21%, the base is different. The first base is the trough, so $9.45 + 21\% \text{ of } 9.45 = 11.34$. The second base is the peak, so $18.50 - 21\% \text{ of } 18.50 = 14.80$. So the price move has to be larger when coming down than going up! Does it leave enough price movement for a profit?



Fig. 33

The answer is crucial and explains why many wave traders lose money when using indicators that are not fully understood. The two horizontal blue bars show the profit area included in the wave. Fortunately, this wave is long enough

to allow a 30.4% profit after the confirmation signals. The price appreciation between the trough and the peak is 95.8% measured from the trough. The profit percentage is measured from the entry base of 11.34. Although the profit looks pitiful when compared to the wave, it took 122 bars to reap it. If you annualize the rate, it is the equivalent of 59.8% on a trading year of 240 bars. Can we improve the profit zone by improving the confirmation signals? To ignore the confirmation signal means that we don't know if the wave has really started or ended. The risk is that if it hasn't really started, the price could head in a different direction. At the other end, the price could continue its trend after we have exited. There are tools like Fibonacci and Gann projections to help you evaluate if a peak or trough has been reached. Other indicators such as momentum or trend will also provide valuable information; they are not reliable in every market. If we do not want to compromise on the confirmation signals, is it possible to know which waves will yield enough potential to provide a reasonable profit? There is no absolute knowledge; however there is a necessary condition, **always trade with the market trend!** Waves that take off too quickly can falter early. Back testing with the security will show typical potential. Good wave identification is a solid foundation. This is the area where personal experience will lead over concepts.

Note that this is the most conservative way of trading the waves and that it excludes using price and time projections to anticipate the reversal. There are many tools to get earlier signals with various risk levels. At times we may not want to ride the whole wave but just a quick profit, this entails that we are out of the trade when the price has reached a predetermined target. However most of the time, we worked hard enough to make the selection so we want the most of it. In a recent article, I read that after years of compiling the gain from different systems, the single system that outdid all of the rest, was a cross of moving averages. When we think of it, it makes a lot of sense; the delay caused by the slow reaction of the longest average is akin to the wave confirmation. This is a reason why we like to use exponential moving averages with Elliott waves. They provide a view over different time frames as we vary their length; the same is true about Elliott waves when we look at 4 different sensitivities. Trend lines, support and resistance are very similar in their application to a chart; their main difference is the number of points required to compute them. The points are extremes and the path in between is not accounted for; this is a plus for using them in tandem with the MA because they are more sensitive to a sudden volatility change than the MA that will average down the surge.

The combination of several of these tools will help us pre-empting the confirmation signal to increase the gain potential of a wave. By the same token our risk will also be higher so we need to use a stop loss to prevent a large loss from a counter projection move. It means closer monitoring of our trades and a good discipline to stick to the original plan and dump the trade when it heads the wrong way (even if we believe it will come back on stream).

Incidence of a cycle over a smaller one

Sometimes you will see a pattern where it seems for example that a correction is taking place for the 13% sensitivity. You will be tempted to estimate the reversal point to jump in the next 13% impulse. Before you do that, check that the previous impulse was only a confirmed 13%, in other words not an unconfirmed 21% that has not yet retraced enough. It is good practise to know all the triggers that could become confirmed by the end of the correction. Let's say the price was \$10 at the foot of a bullish impulse, it climbs to \$14 to then drop to \$12.14. At this point you have a confirmed 13% impulse wave because the price has retraced a bit more than 13% from \$14. In fact it could move sideways for a time so you would believe that another impulse of 13% is building up; then the price could drop again by \$2 triggering a confirmation of a 21% wave for the previous impulse. This correction is not finished yet and you are in a trade that is counter trend. Our first assumption was wrong; we should have seen that a \$4 impulse is 40% of the initial price, hence there are two sensitivities above our 13%, the 21% and the 34%, that have not been as ended. In such a case, you should wait for the price to climb above the peak of the previous impulse then you will know it is truly a new impulse for the 13% and the continuation of the 21% and 34% impulse.

The above mentioned problem will also cause confusing label display. As the higher level wave completes its cycle, its label will crush the lesser wave label thus changing the interpretation of the pattern. This point is so important that a graphical example is necessary. The two charts were taken at 22 days interval and they depict very different patterns, the first is a short term bullish where a long position would yield an interesting profit. The red dotted lines on the right side of the chart show the different support levels for a wave b. If one enters early in the coming wave c the minimum target for profit is the peak at wave a, that is \$2.20. Of course the other indicators are showing that the trend is weakening as we would expect from a correction. There is one puzzling element, the size of the wave a spans well over the 21% trigger and in fact it is enough for a 34% trigger. What should we do? A prudent approach would be to wait for the confirmation of a wave b. An even more conservative attitude would have us wait until price moves above peak a but this would leave us with a reduced profit zone. Look at the first chart...



Fig. 33a

The second chart shows the devastating reality, the pattern is extremely bearish. There will not be a c wave, this pattern is a bearish impulse that will take us below the trough at wave 3 at \$1.30. The possible support level for 34% is at \$0.75. Could we have seen this before? There was a slim indication that something was cooking, the previous 34% impulse was wrong in that wave 3 was the shortest! This is not acceptable in Elliott Waves. It leaves us with two alternatives, first the wave 3 is incomplete and the wave 4 is a temporary correction that will be followed by the end of the real wave 3, second the wave 3 is in fact a wave c and the bearish correcting pattern will end there. This later alternative will be followed by a consolidation period that could exit either way, up or down. I conclude saying check all triggers before jumping in.



Fig. 33b

TIP: The AlphaOmega Elliott Waves Expert is providing you with a general commentary of the patterns detected on the active chart. It will display the wave patterns for each sensitivity and when a new wave is confirmed for any sensitivity. **Please note that the wave count disclosed in the commentary may differ from the one on the screen.** This is due to the use of a simplified wave definition in the commentary. It will match the screen 90% of the time but where the volatility is high or a consolidation range is taking place, it will not be able to discard the repeated extensions or the alternation of waves 2.

Points versus Percentage

You will note that until now we have used the zigzag function with its percentage version only. There is a good reason for that. The percentage allows us to deal with all securities without personalization, it does not matter that the price is \$2 or \$10 because all proportions are kept. The zigzag can also work with points instead of percent, for instance you would look at a 3 points change rather than a 3%. However a 3 points change is quite different for a 10\$ versus a \$100 security. It means that you would need to adapt your points to each security to catch properly the waves. So far there is only a disadvantage in using points but is there a disadvantage in using percent? Yes and a rather annoying one, the top and the bottom of a wave are two different bases to which your zigzag percent is applied. This translates in the need for a larger move downwards than upwards for the same percentage. It is not such a big deal when the stock is trending as the proportions must evolve with the price move. But when a stock is consolidating or trading sideways, it could be moving in a corridor that is just the height of the up trigger and too small for the down trigger. The outcome is that the wave pattern has one direction confirmed and not the other thus breaking the sequence of the pattern. It will only be resolved if a larger pattern eventually closes the loop. Let's look at examples...



Fig. 33c

The first example to the left of the chart, shows a down wave i followed by an up wave (1); the i label showed because on the way up after there was enough price movement; the label ii never showed because the price move was only enough to display the lesser sensitivity (1). The consequence is that the pattern ends the big green 1, there are three legs but not one in the same displayed sensitivity; it should have been a i, ii, iii sequence where the last one (iii) would have been replaced by the big green 1. The second example on the right is identical but let's look at the zigzag lines from AO ZZ. The blue line is for the 21% sensitivity while the red one is for 34%, the blue line should have gone through the big red 3

but it goes straight to the big green 1 bypassing the peak at the wave (1). Although it is of no consequence, it messes up the display and forces you to look at the next higher sensitivity.

When this type of pattern occurs, you can switch to points with the zigzag function. You will find out that although Equis zigzag function allows points, none of the zigzag related functions have a point option. AlphOmega has created High to Low zigzag function and its trigger function so you can use points the same way you use percentage.

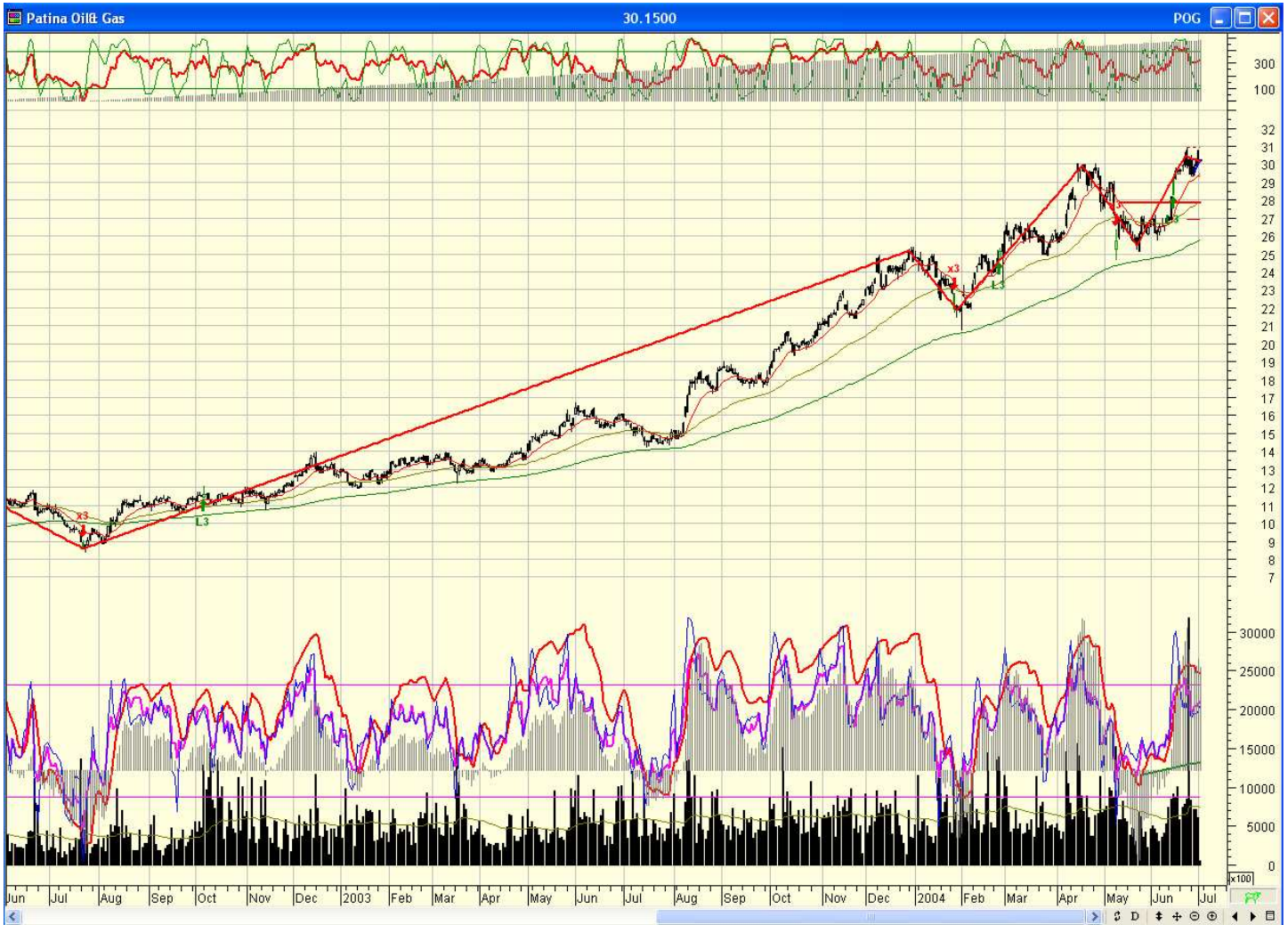
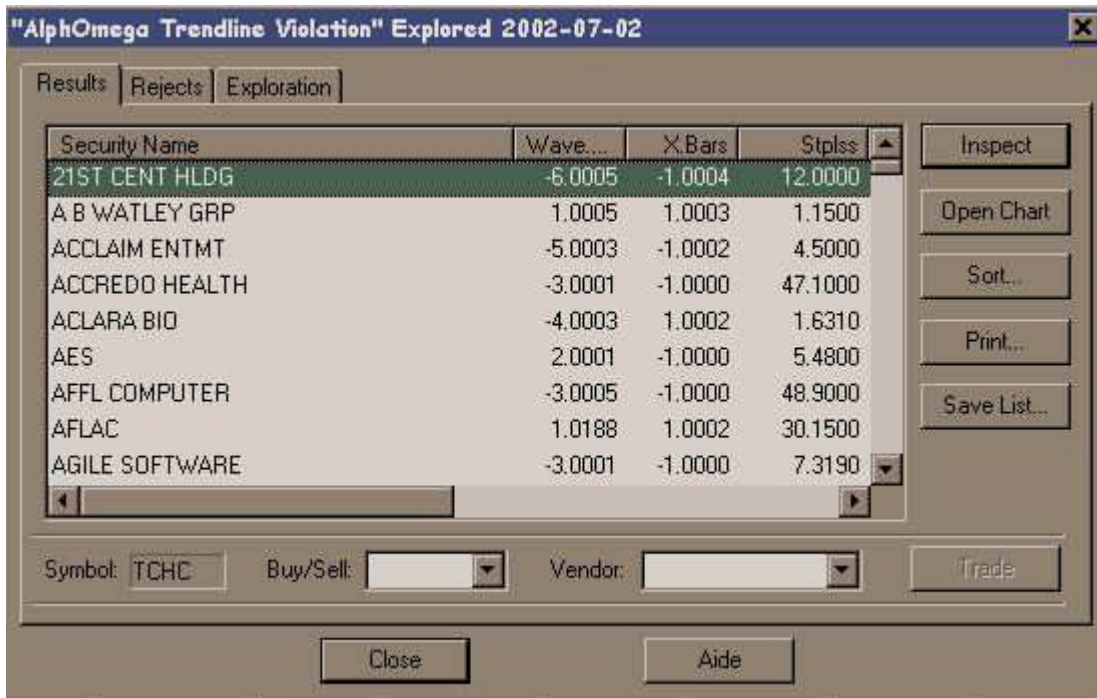


Fig. 33d

Here is a three point zigzag with an expert that shows the trigger entries and exits, AO Elliott Waves Points. As you can see, it can catch some very nice waves. Yet you must adapt the points to the price level of the security. Because that process cannot be automated with MetaStock ® present code, you will need to system test the optimum points for each price range you want to define for your traded securities.

Chapter 8

Explorations



Security Name	Wave...	X.Bars	Stplss
21ST CENT HLDG	-6.0005	-1.0004	12.0000
A B WATLEY GRP	1.0005	1.0003	1.1500
ACCLAIM ENTMT	-5.0003	-1.0002	4.5000
ACCREDO HEALTH	-3.0001	-1.0000	47.1000
ACLARA BIO	-4.0003	1.0002	1.6310
AES	2.0001	-1.0000	5.4800
AFFL COMPUTER	-3.0005	-1.0000	48.9000
AFLAC	1.0188	1.0002	30.1500
AGILE SOFTWARE	-3.0001	-1.0000	7.3190

Fig. 34

This screen shows The Explorer™ window and the output of AlphOmega Trendline Violation. When we run an exploration, a filter is applied to take out securities not meeting selected criteria. For example, in certain explorations, all securities where the wave pattern is counter trend of the corner indicator are discarded. It also discards all securities that are less than one dollar in price and less than 100,000 shares in 50 days MA of volume. The filter can be modified with the

password protecting the code from unwanted changes. In addition, the exploration will not flag up waves for a down trending security and down waves for an up trending security, in other words, the corrective waves unless it is designed for that. This is an additional precaution as waves moving against a long set trend are very short, risky and common sense dictates that we should not trade against the trend. Be careful, not all the explorations have such filters!

There are explorations for all sensitivities such as **AO Elliott Waves Explorations. With those Explorations most filters have been removed** so we will get a list of all the securities we are scanning with all the wave data related to them whether an impulse wave or a corrective wave. Although they are provided, we don't need to run them on a daily basis because without a filter we will have to analyse a lot of data and securities before finding the valuable candidates. Some explorations such as AO Elliott Waves Normal (I) have filters and will display only impulsive waves. Check the text in the exploration box to see the exact purpose of an exploration and details on the report columns.

Under the columns Bull and Bear, we see the wave number and where a 6 refers to a C wave. For waves A or B, the labels 1 and 2 respectively are used. For analytical purposes, a wave one is usually difficult to trade, as we have neither guideline for its end nor any price projection other than a speculative reference to the previous pattern. Some will run long and powerful others will run short. Elliott Wave analysts usually trade waves 3, 5 and C; waves 2, 4 and B are used to time entries or exits. Note that a different wave count could appear under both Bull and Bear column. The highest count is the prime while the lowest is the alternate (Fallback position) when the wave **fails. The alternate count disappears when the threshold confirming the prime count wave is crossed.**

Test: Alternate count **cannot be more than a wave 2**; can you figure out why? Remember that the alternate count is valuable information. Some explorations are very slow to run as they indirectly call on indicators that are not part of the exploration. In the note box of the exploration, there is an indication of the execution speed. All the ones starting with "AO" are usually faster.

Explorations like RSI Trend Violation and Trendline Violation will give you a list of the securities where the RSI or the price has penetrated the trend line. These signals will last for only a few days to avoid listing securities that are too far along the new trend.

TIP: A useful tip is to sort the results by bars so we look first at the most recent additions to the list. It enables us to focus on the fresh opportunities. If we open our charts from The Explorer™ window, the default template will normally appear instead of the specific template that would fit the exploration. There is a way to overcome this by simply calling the templates we installed earlier. This action will open a chart in addition to the smart chart. I would also recommend applying to this chart, the corresponding AO ZZ indicator to ascertain that it is still moving in the proper direction. It is a lot easier to see how the waves are counted when we have the indicator in front of us. Use the AO ZZ to see Zig Zag from high to low!

Special Exploration

Have you ever entered a trade, based on the signal that your favorite exploration gave, to find out that the last bar on your chart is not yesterday but the day before yesterday? That yesterday was a tremendous rally and today is the correction? Even the best quote providers have their lapses and no matter how keen you are at updating your database, errors will find their way in. The only way to catch such an error is to look for it by comparing the last date in to the date that should be in; as MetaStock® does not have a current system date function, you must provide it.

AlphOmega uses an indicator variable to screen securities that were not updated in the last download. The use of this variable is coded to one exploration but could be added to any. The requirement to use this variable is a daily update of **AO GDate** so that when the explorer is scanning, it finds the correct last date to be validated. The importance of accurate data is key to the trader and since you will spend time scanning your database, the selected candidates should have the most current information. You do not want to enter a trade one or more days after the rest of the market.

Here is a screenshot of it.

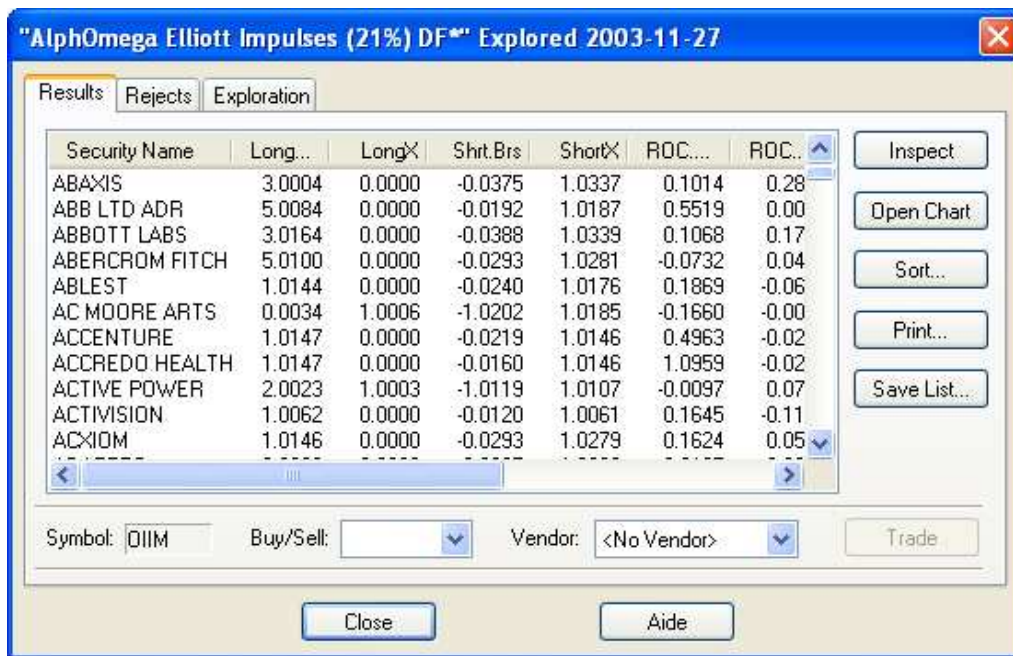


Fig. 34a

AlphOmega Elliott Impulses (21%) DF* will scan the database for bullish or bearish impulses just like some of the other explorations, except that it will select only securities updated to the date value you entered. The asterisk is to remind you to update the global variable in AO GDate before you run the exploration.

Signal Explorations

There is a special exploration labelled "AlphOmega Signal Scan". It will show all the waves in 3 timeframes. We sacrifice some of the information such as the fast sensitivity but we get an overall look. It will take longer to run and will show some N/A where the function is not yet defined for the sensitivity or there is no pattern for that sensitivity. For comparative purpose, it runs 30 minutes for 5,000 securities with a 950-megahertz processor. While these explorations are rather lengthy and will take some time to run on our machine; don't forget it is looking at a lot of records and it does all the screening we would normally do. The output provides us with much information and we can open the most promising

securities right from The Explorer™. The signals will last only for a few days to prevent information overload as explained before.

Another type of signal exploration is AO EW T1 and AO EW T2 that will display a list of securities that meet the conditions set up for these type of trades. T1 is a trade set up for a wave 4 that is almost complete and is about to reverse and start a wave 5 impulse. T2 is a trade set up for a confirmed wave 5 that is nearing its end. A displaced moving average is used to anticipate the trend reversal. **A summary of these trade set ups is provided in the annex at the end of the manual.**

The explorations are provided to demonstrate how the Elliott Waves could be used in trading analysis. We could certainly improve on them by adding our own experience with our preferred indicators. The set is so designed as to enable us to call formula variables into our own formulas. **All the AlphOmega formulas can be used with any system we create and within systems, indicators, experts or explorations. We can also use our password to alter values.**

Explorations can be used for other purposes than finding a list of securities that match the search criteria. We can create an exploration that will give the results of a back test on the whole database. Below is a sample that shows the output of such a back test. These explorations have been removed from the set as the new System Tester of MetaStock® 8.0 simplifies this kind of back testing.

Security Name	P&L	Trades	Winners	Yield %	Posit
1 800 CONTACTS	1358.4155	37.0000	22.0000	135.8416	1.00
1800FLOWERS.COM	2840.0044	31.0000	21.0000	284.0004	1.00
3COM	-518.5494	47.0000	20.0000	-51.8549	-1.00
3D LABS	-872.7666	45.0000	19.0000	-87.2767	-1.00
4 KIDS ENTERTAIN	6602.4644	43.0000	21.0000	660.2465	-1.00
724 SOLUTIONS	1296.2986	46.0000	18.0000	129.6299	1.00
724 SOLUTIONS	-101.6178	41.0000	14.0000	-10.1618	-1.00
99 CENTS STORES	275.2316	32.0000	12.0000	27.5232	1.00
A SCHULMAN	250.3760	23.0000	9.0000	25.0376	1.00

Fig. 35

This is a screen shot of the back testing performed in an exploration no longer provided in the set. We can design such explorations by using the indicators provided with the set. The programming is demanding and the testing must be thorough to avoid signals we could not possibly pick in time for trading purposes.

Please note that many explorations like Fig. 35 will display two different pieces of information where the label will read "ID.Bars" and the column will show 5.6015 for example. The integer part is the wave number while the decimal part is the number of bars since the signal (trigger), so in this case a forming wave 5 that is 15 bars old. This enables the display of more than 6 pieces of information for a single exploration. Another way of displaying more information is using a minus sign on the column data to indicate an exit from the trade; the column heading would then be labelled for example: Close/X. Refer to the description header of the exploration for specifics.

AlphOmega Impulses %GT is an exploration to find how many impulses were profitable between the entry and the exit signal. The report columns display for 3 sensitivities 1) the percentage of good trades over total trades 2) the integer is the number of good trades while the fraction is the number of all trades. This way we know if the percent is meaningful as a good percentage over many trades is more reliable than a 100% on one trade.

Normal %	(n)Trade	Mod %	(m)Trade	Fast %	(f)Trade	Ticker
41.6667	5.0012	46.8750	15.0032	57.8947	22.0038	OIIM
50.0000	6.0012	53.5714	15.0028	52.0833	25.0048	FLWS
38.1818	21.0055	56.0976	46.0082	54.0000	27.0050	TFSM
26.3158	5.0019	35.2113	25.0071	45.2991	53.0117	COMS
100.0000	2.0002	41.6667	5.0012	39.2857	11.0028	MMM
41.6667	5.0012	35.4839	11.0031	46.4286	26.0056	SE
34.4262	21.0061	58.4416	45.0077	60.0000	51.0085	EGHT
66.6667	4.0006	43.4783	10.0023	58.3333	28.0048	NDN
100.0000	5.0005	43.7500	7.0016	68.0000	17.0025	ADS
59.6154	31.0052	47.0588	40.0085	56.4706	48.0085	ASTM
36.8421	14.0038	46.9136	38.0081	48.2014	67.0139	ABAX

Fig. 36

AlphaOmega Normal (I) explores the database for impulses at the 21% sensitivity only. It has a volume and price filter to eliminate securities without real trading volume. The report columns display the wave number and bars since signal, a stop loss computed at signal time, the last close or if there is a minus sign in front of the number it is the exit price, the entry price after the signal, the cumulative profit between the entry price and the close or exit, the percent profit over the entry price. **AlphaOmega Wave Points** does the same thing but using 3 points instead of percentage. It scans the database for triggers. Columns are different though as shown in figure 37a.

Norm...	Stplss	Close/X	Entry	Pft	% Pft	Ticker Sy
3.0046	12.3700	20.3100	12.7700	7.5400	0.5904	XMSR
5.0099	21.0400	22.5900	20.5000	2.0900	0.1020	XTO
1.0011	1.6200	-1.7900	1.9200	0.1700	0.0885	XYBR
1.0032	33.1200	42.2100	33.6100	8.6000	0.2559	YHOO
3.0058	25.8100	32.6800	26.9900	5.6900	0.2108	YELL
-1.0014	2.5000	1.8200	2.0700	0.2500	0.1208	ZTEL
3.0132	33.7900	48.8100	33.6800	11.6200	0.3450	ZLC
-1.0039	53.9933	58.8500	52.4600	-6.3900	-0.1218	ZBRA
-1.0003	8.6000	7.9800	8.0000	0.0200	0.0025	ZIXI
-3.0016	23.8500	19.5900	20.4000	0.8100	0.0397	ZRAN
-3.0091	5.3300	4.7400	5.3500	0.6400	0.1196	ZF

Symbol: XMSR Buy/Sell: Vendor: <No Vendor> Trade

Fig. 37

Security Name	Bull In	Bear In	Clos
3m Company	0.0000	83.0500	83.580
Abercrombie & Fitch	0.0000	35.2200	34.230
Accredited Home Lenders Holding Co.	29.1700	0.0000	30.490
ACE Ltd	0.0000	39.5800	39.580
Advanced Med Optics	40.9700	0.0000	39.550
Affymetrix Inc.	0.0000	28.9400	27.130
Air T Inc.	0.0000	14.1800	14.180
Airtran Hldgs Inc	0.0000	11.8500	11.900
Alcon Inc	0.0000	83.9800	83.980
Ambac Finl Grp Inc	0.0000	70.3100	71.100
Amer Express Inc	0.0000	48.9000	48.350

Symbol: MMM Buy/Sell: Vendor: <No Vendor> Trade

Fig. 37a

AlphOmega RSI Trend Violation is similar to the **AlphOmega Trend Line Violation** exploration shown below. The report columns display the wave number (negative is a bearish pattern), the stop loss at the violation bar, the last close or exit price as the previous exploration, the entry price at the bar following the cross, the expected price target and the percent profit between the entry price and the close or exit.

Norm...	Stplss	Close/X	Entry	Tgt	% Prft	Ticker Syr
-6.0000	6.1400	5.1290	5.1290	2.5760	0.0463	ARXX
-1.0000	1.8300	1.3000	1.3000	-0.1719	0.0143	ATSI
1.0000	0.0100	2.3500	2.3500	0.0262	-0.0097	CDNX:BER
1.0000	0.0100	22.0900	22.0900	0.3983	-0.0060	CX+
1.0000	1.2200	-7.7000	1.4500	39.3101	0.3831	CNH
1.0000	0.5500	25.3000	25.3000	1.3428	0.0034	CERT
1.0000	0.9000	32.5000	32.5000	1.7090	0.0071	CHEL
1.0000	0.0700	1.3700	1.3700	0.1509	-0.0085	DDD
3.0000	0.1800	19.3500	19.3500	0.3156	-0.0068	CFCM
3.0000	4.3800	30.7500	30.7500	0.0000	-0.0100	CMLH
1.0000	0.0900	3.7600	3.7600	0.6948	-0.0031	CPTL

Symbol: ARXX Buy/Sell: [] Vendor: <No Vendor> Trade

Fig. 38

AlphOmega Signal Scan is exploring 3 sensitivities for recent confirmation signals (less than 3 bars). If we look carefully at the report, we can see that at least one of the three sensitivities will be less than 3 bars old. The second column is giving us the percent of change since the signal. So 0.0556 stands for 5.66%.

21% Brs	ROCt...	13% Brs	ROCt...	34% Brs	ROCt...	Ticker Sy...
0.0000	0.0000	-3.0001	0.0000	3.0066	0.0556	ABGX
-3.0005	0.2552	-3.0013	0.3470	-3.0002	0.1686	ACTT
1.0008	0.0330	1.0013	0.1477	3.0003	-0.0053	ACTI
5.0003	-0.0284	1.0003	-0.0284	6.0076	0.7907	ACPW
3.0044	0.4271	3.0002	0.0243	3.0087	0.7045	ACTU
3.0002	0.0185	1.0009	0.1220	0.0000	0.0000	ADCT
3.0002	0.0210	1.0031	0.0561	3.0098	0.2684	ADVS
3.0089	0.1689	5.0003	-0.0184	0.0000	0.0000	AEG
3.0040	0.0086	3.0001	0.0000	3.0113	0.5497	ARXX
3.0003	0.0085	1.0023	0.0776	3.0120	0.3164	AET
6.0001	0.0000	1.0007	0.0443	0.0000	0.0000	ATI

Fig. 39

AlphOmega Vidya is based on Tushar Chande's indicator and it will scan for a cross of the Vidya line. The Vidya indicator is an adaptive moving average so its average accounts for sudden volatility changes. The report columns show Long and Short trades (-1 is a short), the stop loss, the last close or exit price, the entry price, the accumulated profit since the entry, the profit as a percentage of entry price.

L/S.Br	Stplss	Close/X	Entry	Prft	% Prft	Ticl
1.0021	15.2500	16.4530	15.5100	0.9430	0.0608	QIIM
1.0021	8.8000	8.9500	8.8400	0.1100	0.0124	FLW
1.0000	1.6600	-1.7900	1.7000	0.0000	0.0000	TFST
1.0002	5.7700	6.5500	5.9400	0.6100	0.1027	COM
-1.0013	-141.5900	141.9800	140.1500	-1.8300	-0.0131	MMW
1.0002	21.6400	22.8000	21.9000	0.9000	0.0411	KDE
1.0028	11.3700	14.1000	11.5600	2.5400	0.2197	SE
1.0036	0.5000	1.8000	0.5200	1.2800	2.4615	EGH
-1.0010	34.6000	34.3800	33.9800	-0.4000	-0.0118	NDN
1.0022	7.6700	8.8000	7.9500	0.8500	0.1069	AIR
1.0004	22.5000	22.9900	22.5000	0.4900	0.0218	RNT

Fig. 40

AlphOmega Elliott Waves (X%) is the base exploration as it produce the wave count for all waves, corrective and impulsive, for all securities at all prices. The report columns provide 2 wave counts, the highest being the preferred count and the lowest being the alternate count if the wave fails. The alternate is dropped as soon as the wave confirmation signal is given. In addition, the report columns give the stop loss and the entry price.

Bull.Br	Bear...	Bull Stp	Bear Stp	Bull In	Bear In
1.0012	0.0012	14.0000	14.0000	15.3000	15.3000
1.0025	0.0025	18.8100	18.8100	20.1000	20.1000
1.0011	0.0011	7.5000	7.5000	8.5100	8.5100
1.0019	2.0019	19.4000	19.4000	19.8100	19.8100
1.0012	0.0012	17.9900	17.9900	20.2100	20.2100
5.0070	0.0070	21.0000	21.0000	22.7500	22.7500
2.0020	1.0020	26.4990	26.4990	25.6800	25.6800
1.0000	0.0000	20.2500	20.2500	20.8000	20.8000
1.0011	4.0011	13.7000	13.7000	14.2500	14.2500
3.0012	0.0012	16.5110	16.5110	16.8000	16.8000
3.0007	0.0007	1.4500	1.4800	1.5000	1.6200

Fig. 41

AO EW T1 is a setup exploration to detect wave 4 that has a PTI of 35 or more and that has moved into the Trend Range Channel. The report columns display in the integer portion a 4 for bull or bear patterns. The fractional part is the number of bars since the confirmation signal of the wave. Shown also is the Elliott Oscillator value, the PTI (Profit Taking Index), the deepest channel line (W4 TRC) and the last closing price.

Bull.Br	Bear...	Eo	PTI	W4 TRC	Close	Ticker Sy...
4.0014	1.0014	-0.3202	63.0000	10.4186	10.7800	APDG
4.0017	1.0017	-0.2281	68.0000	5.4227	5.9000	AMEX:DMI
4.0012	1.0012	-0.0963	44.0000	2.7331	2.8600	DRODY
4.0016	1.0016	-1.1484	92.0000	20.8993	23.5300	KNSY
4.0016	1.0016	-0.1248	39.0000	8.0464	8.1300	LSCC
4.0013	1.0013	-0.3272	57.0000	11.9303	12.0200	WFR
4.0019	1.0019	-0.2937	88.0000	10.3696	14.1100	NCI
4.0016	1.0016	-0.6783	86.0000	14.4916	15.7100	NEWP
4.0014	1.0014	-0.0946	95.0000	4.8777	6.5200	OIM
4.0016	1.0016	-0.0141	73.0000	3.7660	3.9800	QVDX
4.0006	1.0006	-0.1677	89.0000	2.9883	3.2100	SZ

Fig. 42

AO EW T2 is another setup exploration to detect a wave 5 about to end. The report column displays for the integer a 5 and bars since signal in the fractional part. Other columns are the Elliott Oscillator, the DMA (Displaced Moving Average), the minimum target price for wave 5 and the last closing price.

Bull.Brs	Bear....	Eo	DMA	Min Tgt	Close	Ticker Sy...
5.0027	0.0027	-1.0000	16.5699	17.7000	17.9500	AMEX:AMI
5.0147	0.0147	-1.0000	46.1935	33.7900	45.8700	FDS
5.0149	0.0149	-1.0000	45.8525	39.0000	46.2000	PFCB
5.0134	0.0134	-1.0000	28.6947	24.6700	28.7400	PNM
5.0026	0.0026	-1.0000	2.9404	3.8500	4.1900	SPTN

Fig. 43

AO RSI Divergence is an exploration that scans for divergence between the RSI (Relative Strength Index) and the price. If the divergence is more than 3%, it will be listed. The report columns are the 3% divergence signal, bull or bear divergence, the last closing price and the volume.

3% Div	Bull	Bear	Close	Volume	RSI	Ticker
-1.0000	0.0000	0.0000	75.9300	23359.0000	20.8929	MMM
1.0000	0.0000	0.0000	1.4900	8533.8496	51.7974	ASTM
0.0000	1.0000	0.0000	1.3800	543.0000	26.9596	ACTT
-1.0000	0.0000	0.0000	2.6120	164721.4531	50.9228	ADCT
-1.0000	0.0000	0.0000	55.0000	12305.0000	50.1350	RKY
-1.0000	0.0000	0.0000	69.6500	6820.0000	57.2929	AMG
0.0000	0.0000	-1.0000	62.7500	4705.0000	78.1777	ACV
1.0000	0.0000	0.0000	39.9600	22500.0000	50.6205	AL
-1.0000	0.0000	0.0000	47.6300	34785.0000	54.7682	AXP
-1.0000	0.0000	0.0000	35.8200	1584.0000	59.1933	AMH
-1.0000	0.0000	0.0000	27.1900	12202.3203	43.5671	AMLN

Fig. 44

AO Triangle Exploration is scanning for triangles formed by waves. It scans 3 sensitivities and the report columns provide a signal where minus is bearish triangle and the number of bars since the making of the triangle.

21%	Brs(21%)	13%	Brs(13%)	34%	Brs(34%)	Ticker Sy
-1.0000	155.0000	1.0000	143.0000	0.0000	316.0000	SE
0.0000	75.0000	-1.0000	36.0000	0.0000	264.0000	NDN
-1.0000	35.0000	0.0000	16.0000	0.0000	169.0000	AOS
0.0000	159.0000	1.0000	49.0000	0.0000	255.0000	SHLM
0.0000	68.0000	0.0000	19.0000	1.0000	165.0000	ABB
0.0000	24.0000	-1.0000	14.0000	0.0000	24.0000	ABGX
0.0000	156.0000	-1.0000	92.0000	0.0000	156.0000	ACN
-1.0000	46.0000	0.0000	4.0000	-1.0000	60.0000	ACTT
0.0000	55.0000	0.0000	5.0000	1.0000	104.0000	ACTU
1.0000	156.0000	0.0000	2.0000	1.0000	203.0000	ADEX
0.0000	85.0000	1.0000	54.0000	0.0000	142.0000	ADLR

Fig. 45

AO TSI looks for crossings in the TSI to generate a signal either bullish or bearish. TSI is made of 2 moving averages, a slow and a fast, a signal is issued when they cross while the direction of the crossing gives a bullish or bearish signal. The report columns display the signals and the number of bars since the signal (in the fractional part), the value of the closing price when the signal occurred, the exit signal for bull and bear and the profit (difference between entry price and last close or exit price).

Bull Sig	Bear Sig	SigClose	Bull Xit	Bear Xit	Prft	Ticker Sy...
1.0009	0.0022	9.2700	0.0000	0.0000	0.1300	FLWS
-0.9933	1.0020	29.7500	0.0000	0.0000	-1.8600	AOS
-0.9941	1.0001	5.6400	0.0000	0.0000	0.0000	ABB
-0.9964	1.0001	41.7900	0.0000	0.0000	0.0000	ABT
1.0011	0.0018	30.9000	0.0000	0.0000	-0.9200	ANF
-0.9960	1.0005	14.5800	0.0000	0.0000	0.8600	ABGX
1.0001	0.0027	8.2500	0.0000	0.0000	0.0000	ACG
1.0014	-0.9910	8.6200	0.0000	0.0000	-0.3700	ACTI
0.0012	1.0000	53.1500	1.0000	0.0000	-5.5500	RKY
1.0026	0.0055	59.7500	0.0000	0.0000	1.6100	AET
0.0021	1.0018	22.9900	0.0000	0.0000	-2.3900	AFFX

Fig. 46

AO Wolf Five n-perf scans for wolf wave setups once the last phase is engaged (refer to wolf wave pattern explanation above) for the 21% sensitivity. The report shows the signal (+ or -) and bars since, the target price, the entry price, the expected percent gain, the last close and the percent gain from entry to the last close.

Sig/BrS	Tgt 21%	Entry P	Tgt %	Close	% Profit	Ticke...
1.0012	10.7120	7.6000	0.4095	10.0000	0.3158	FLWS
1.0012	7.6764	4.5400	0.6908	5.0000	0.1013	AETH
1.0043	31.9278	22.6500	0.4096	25.4000	0.1214	ACAS
1.0007	48.3653	27.5400	0.7562	28.7700	0.0447	APPX
1.0012	24.3172	14.5000	0.6771	17.1700	0.1841	AMKR
1.0013	12.8028	5.4900	1.3320	6.3800	0.1621	APHT
1.0011	11.1037	6.9000	0.6092	7.3800	0.0696	ASIA
-1.0003	25.1238	27.3333	-0.0808	28.4900	-0.0423	CELL
1.0015	2.9633	0.9800	2.0238	1.0800	0.1020	CRDM
1.0013	14.6663	10.5000	0.3968	12.0800	0.1505	LENS
-1.0024	0.0114	2.1000	-0.9946	1.2600	0.4000	DRF

Fig. 47

AO WolfWave Normal scans for wolf wave patterns at 21% sensitivity before they engage in the last phase. The report columns show the signal (+ or -), the target price, the last close, the target gain, bars since the wave confirmation signal and bars to the target.

WW ...	Tgt 21%	Close	Tgt R...	Bars 21%	Bars Tgt	Ticker Sy.
-1.0000	0.6020	1.0500	-0.4267	10.0000	32.0000	AMEX:ABP
-1.0000	3.2500	4.4400	-0.2680	9.0000	0.0000	AIQ
1.0000	2.6297	2.0000	0.3149	16.0000	0.0000	AMEX:ALT
-1.0000	0.9960	1.6500	-0.3964	15.0000	0.0000	ANR
-1.0000	1.3644	2.2300	-0.3882	12.0000	32.0000	ARDM
-1.0000	1.3145	2.7700	-0.5255	13.0000	16.0000	ASTT
-1.0000	5.2365	7.3800	-0.2904	11.0000	2.0000	ASIA
-1.0000	0.5941	1.2700	-0.5322	12.0000	45.0000	ATTU
-1.0000	0.0253	1.8190	-0.9861	2.0000	17.0000	BFUN
-1.0000	0.4831	5.4000	-0.9105	13.0000	14.0000	BEAV
-1.0000	1.3204	7.6500	-0.8274	18.0000	44.0000	BMRN

Fig. 48

Note that in explorations where the profit is shown, on the bar that the signal is issued, the profit percent or value will not always be 0. The Explorer™ keeps accumulating the prior data and does not clean the buffer until new data is available. The formula feeds continuously the delta of price to this buffer. After one bar all numbers are correctly restated.

AOi Explorations

The intraday explorations do not work like the other explorations. **They must be run on intraday data.** If you do not store intraday data on your computer, you must select your data provider's database and run the exploration from his server. This is very slow so you should explore only a small number of symbols. These explorations are very sensitive and will yield too many signals on an end of day database.

Once the database issue settled, we can say these explorations are yielding identical report formats and work in the same manner as the end of day explorations. However the volume and price filters have been removed as we cannot expect to have the same volume on intra day bars and the variation is too large from 60 minute to one minute bars. It is easy to set a volume or price filter by entering the edit mode of the exploration and going to the filter tab to add our filters.

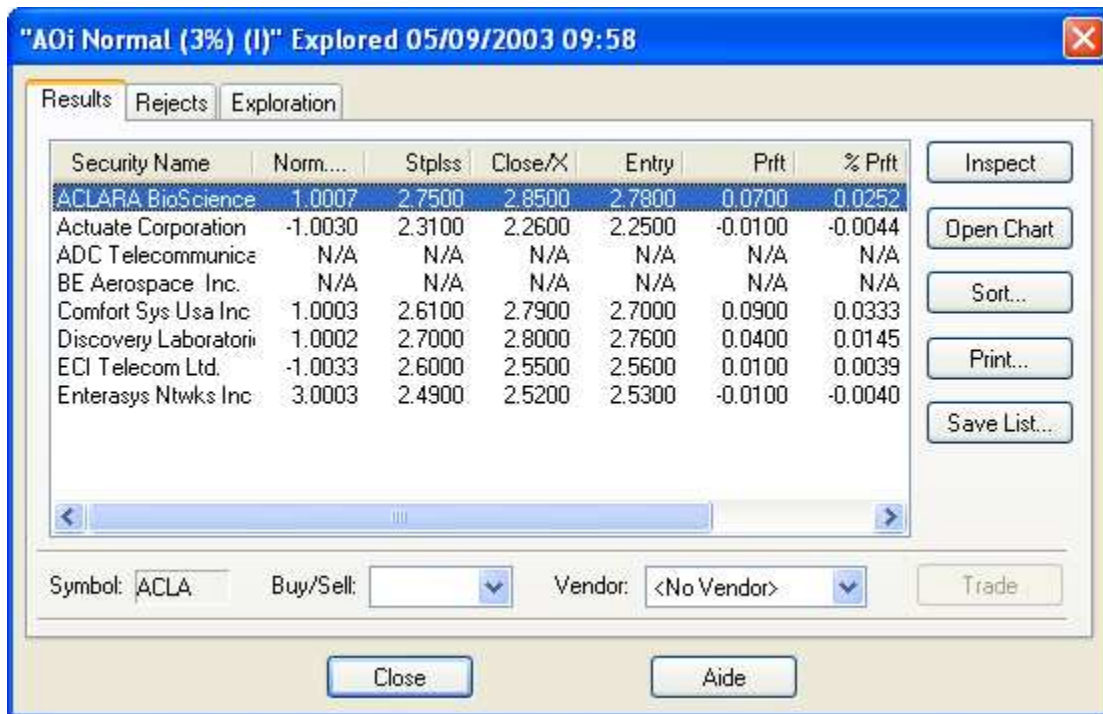


Fig. 48a

AlphOmega Pitchfork Scan and AlphOmega Pitchfork Medians

These explorations are designed to find Andrews Pitchfork using Elliott price retracement like waves. The second provides the median value as the price is approaching.

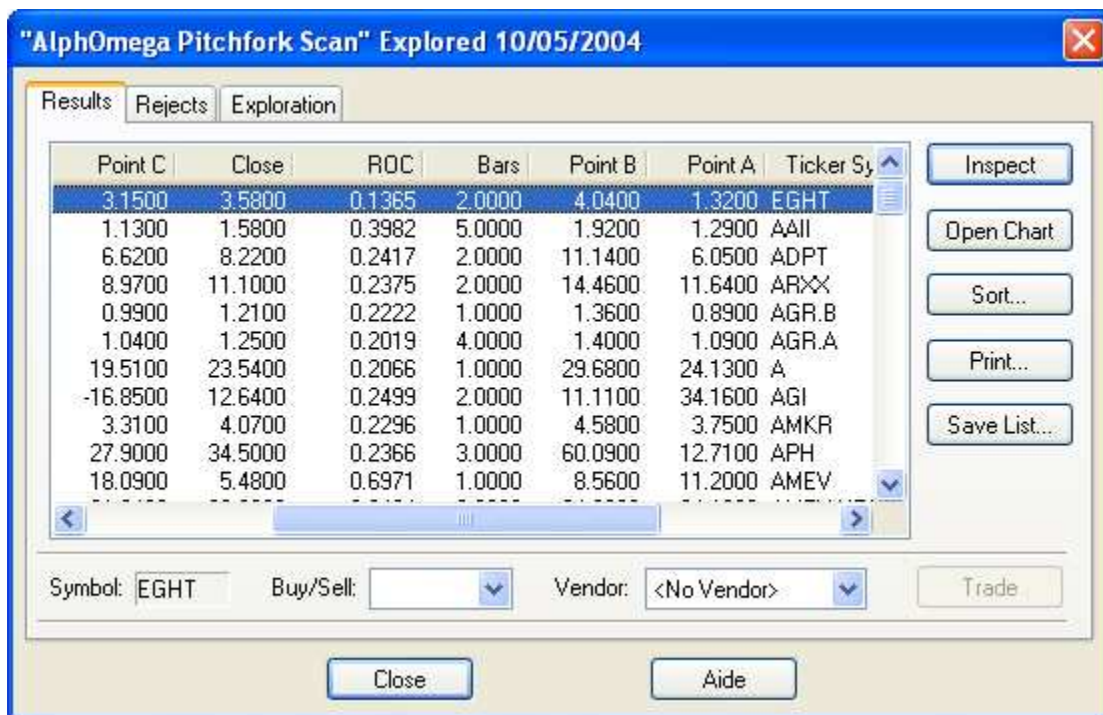


Fig. 48b

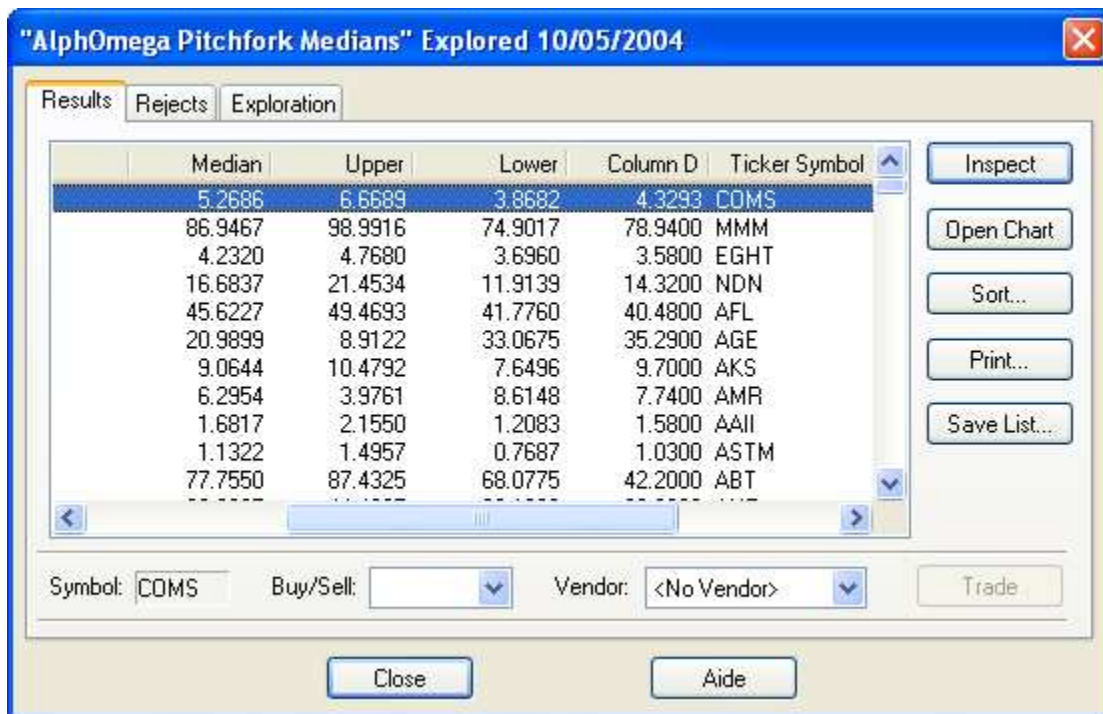


Fig. 48c

AlphOmega wave Points (3)

This exploration provides entry signals for waves measured in points retracement rather than percent. We have used three as an example. This is very useful in trading ranges and consolidation periods. As customary all columns are used to provide as much information as possible so a decision can be made without having to run another exploration.

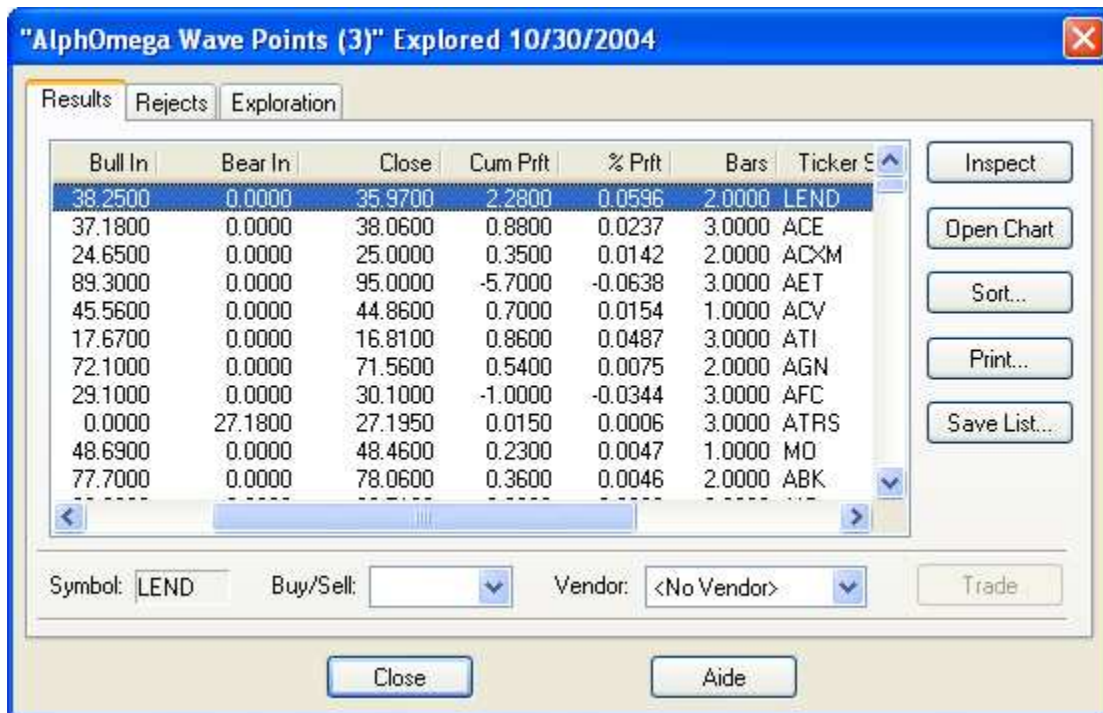


Fig. 48d

AOi Elliott Waves 1% Swing

Similar to all trade signal explorations, this one scans for entry signals (long or short). The first column is not shown but it displays 1 or -1 and the decimal part shows the number of bars since entry. One can actually follow a trade or spot the missed ones!

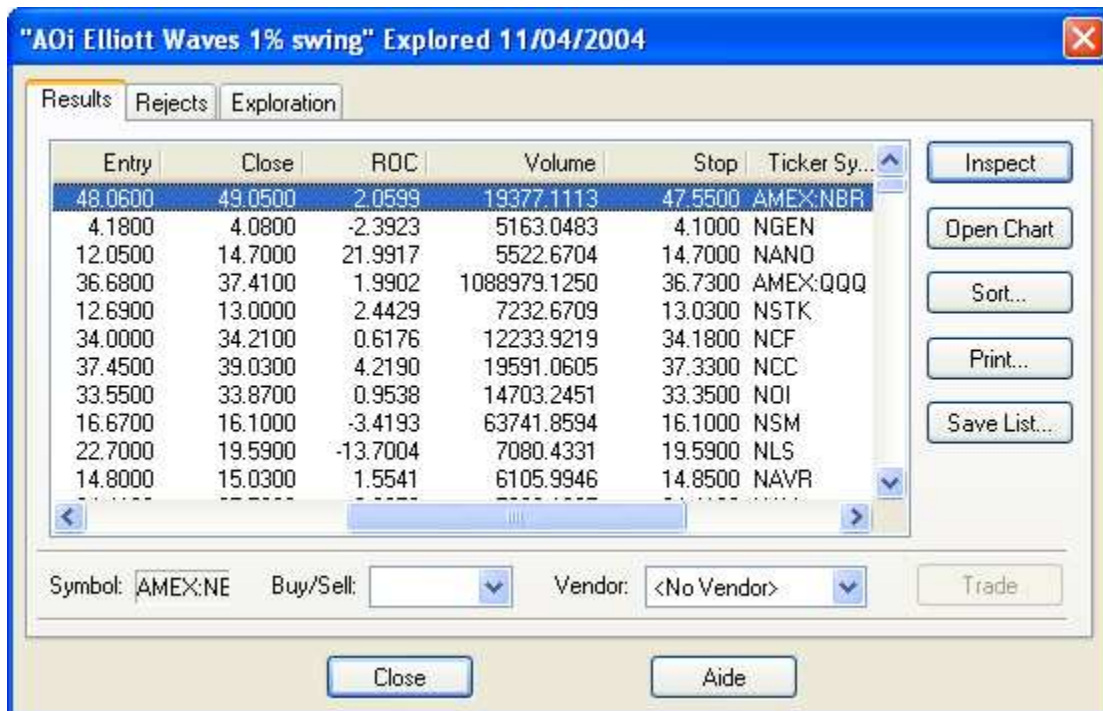


Fig. 48e

Below is a template created for this exploration and the expert. NANO is displayed on the chart. Be cautious about the arrows as they appear only when the next bar is deploying. As soon as the price has moved to the level that confirms the signal, it is issued.



Fig. 48f

AlphOmega Impulses 21% GT by Wave#

A very useful exploration to find the rate of success of previous impulses by wave number. The column 1 provides the percentage of success of profitable trades over total trades. The next column shows the actual number of profitable trades in the whole number part and the total number of impulses (trades) in the decimal part. When sensitivity is undefined or a wave number, N/A is displayed.

A higher percentage when analysed will yield more undefined securities as many have not gone through a full cycle or don't have enough data for an accurate wave count.

The second screenshot is a different sensitivity so we can compare which yields the best results. Note that wave 1 is known to be less profitable not because it is wave 1 but because the system attributes a 1 to all waves that do not fit 2 to C. There is more data available to evaluate a wave 2 and even more for a 3 and so on so forth. Wave 3 and C (6 in the exploration as it does not display letters in the columns) are usually better in terms of reliability. It is good practice to check this kind of exploration before entering a trade with an unfamiliar security.

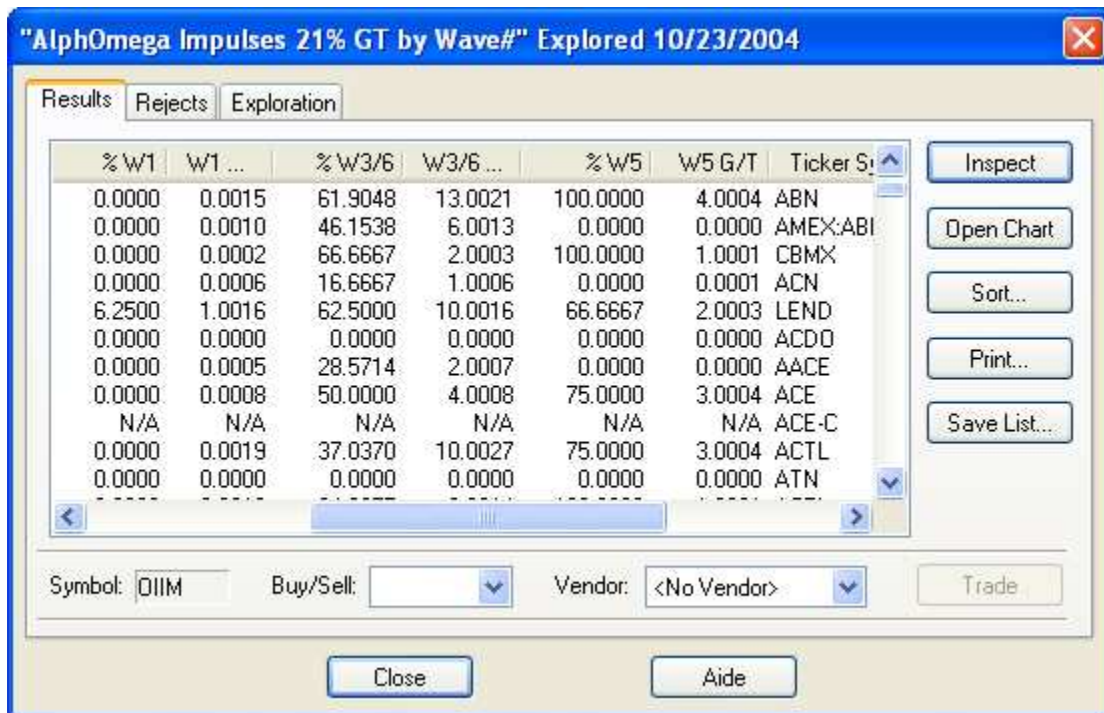


Fig. 48g

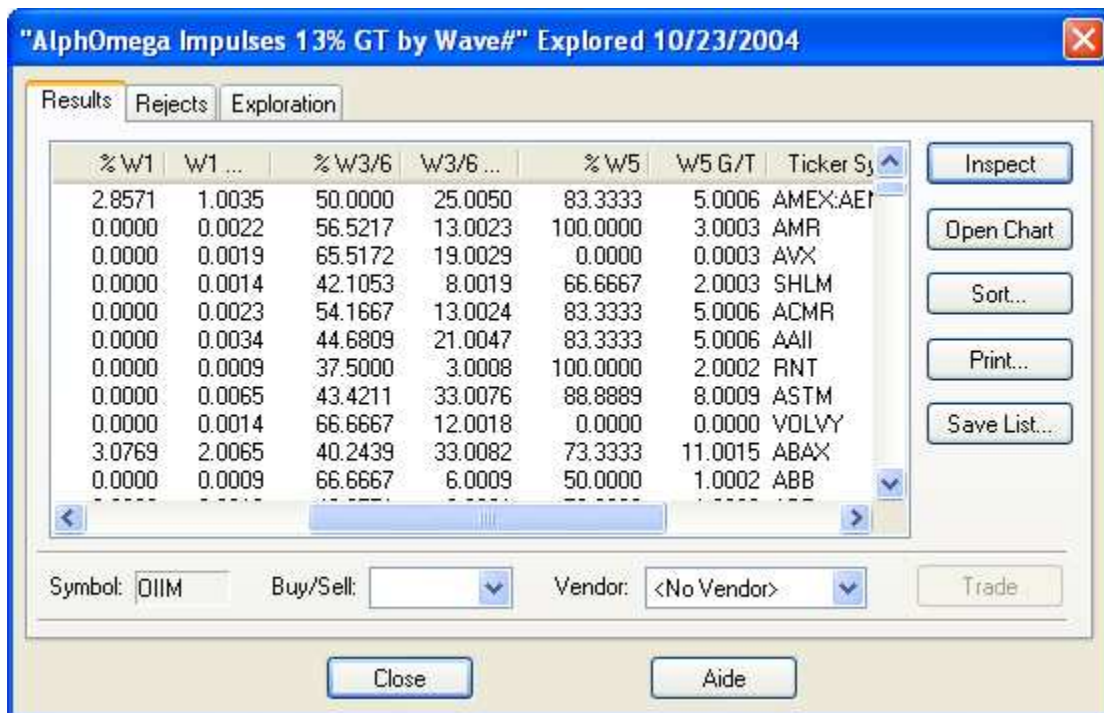


Fig. 48h

Chapter 9

Systems

A word of caution about systems: This feature is there to help us project how our trading system would have performed in the past under the parameters used. We benefit from 100% hindsight. What we should be looking for, is an equity line that is moving steadily up without jerky ups or downs. Even if the system profits from one spectacular trade, it is not good enough. It has to perform on several trades to become acceptable. So when we test different parameters, we don't go for the one that gives us the highest return on one trade: we go for the one with the most winning trades.

There are two types of systems provided with the set. One type addresses all sensitivities; it will tell us how the security behaves within the defined cycles. The second type of system let's us test the desired sensitivity through the use of the optimization so we can fine tune our analysis or select the order of sensitivity that is the closest to the optimization basis.



Fig. 49

This screen shows the result of a normal Elliott wave's system test with the buy and the sell arrows. The result may look impressive but the purpose of showing this screen is to demonstrate that there is a lag between the time of entry and the time of exit. This lag accounts for the time and percentage move necessary before the indicator recognizes the wave. With Elliott waves there is always a time lag for confirmation. The trend of the equity line is upward like you would expect of a good trading system. Nevertheless, some securities will never give good results because the volatility span is too small for us to capture any profit. In the system, the commission fees are calculated at 1% in and 1 % out by default. The system uses long and short trades.

Below is the report from the Enhanced System Tester. The system has not been optimized but used raw to demonstrate the principle with its flaws. The equity has been raised to 1,000,000 because to trade indices that hover in the 9,000, you need more than 10,000 to buy 100 shares. Of eight trades only five were profitable, one long and four short. The system works in both directions and it is crucial in Elliott methodology.

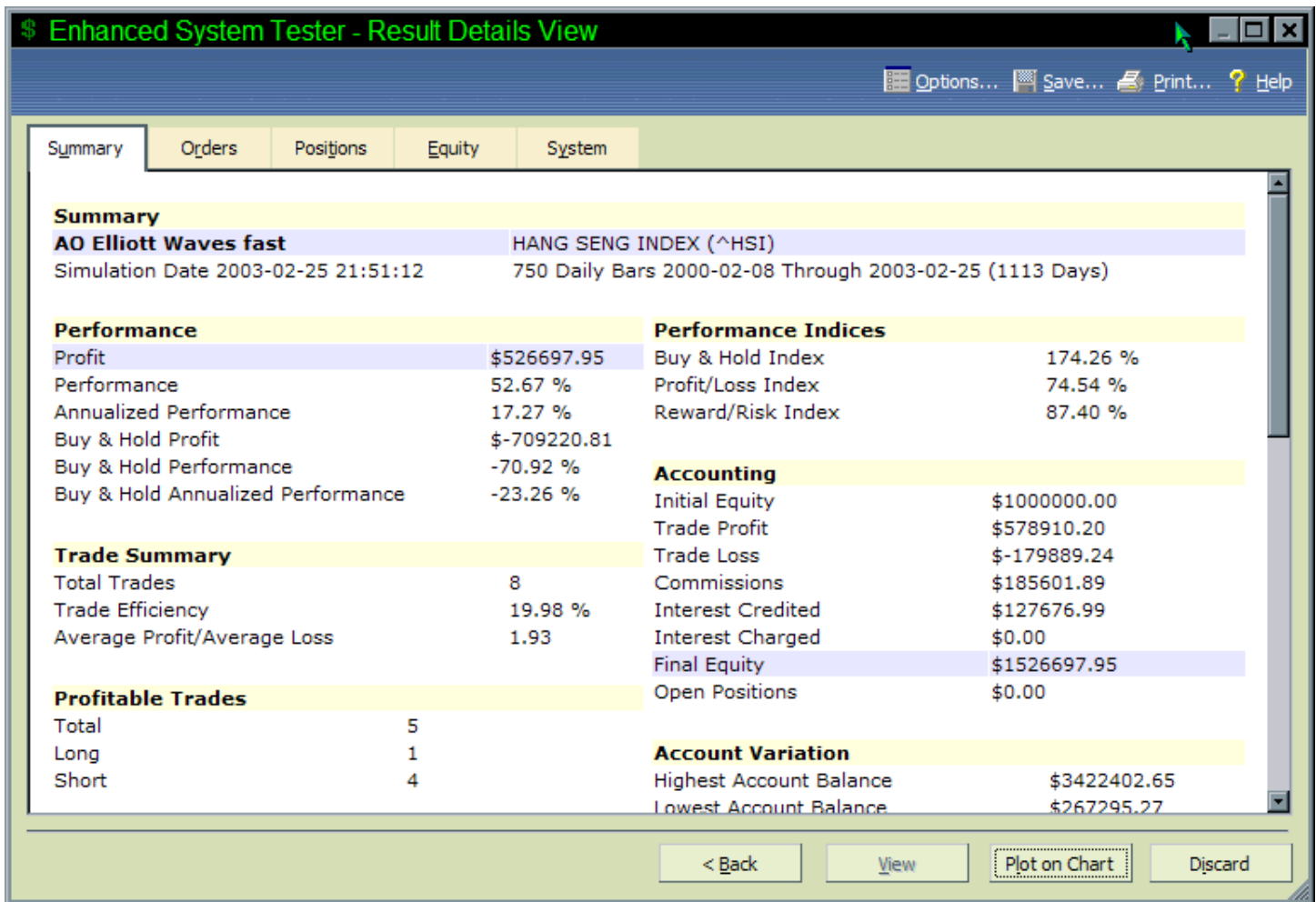


Fig. 50

To bring everything back in perspective with this system, know that if we are in a 21% order of sensitivity, it means that the price must move up or down by at least 21% and then it must change direction and move again at least 21%. For example, this means that if the price goes up 52%, we will know a trough has formed when it crosses the 21% increase in price. We will then know a peak has formed when it goes down by at least 21%. In summary of the 52% upward move, you will take in profit on 10% of the price since it will take 21% going up to know to go in and another 21% to go down to get out.

All our systems are based on the Elliott methodology described earlier. There is no attempt to use a different type of indicator to accelerate the trade signals. The reason for this is to show the naked use of Elliott, where it will give the best results and where it will not perform. As users we have our own predilection for familiar indicators that we can combine in a system and test. Our product is not an automatic profit making system. The risk of losing money is still very real no matter what technique we use.

We should use the system that will ride the waves we are interested in trading. If we are a long term trader, we go for high percentage sensitivity; if we are a day trader, we use an intraday system. All intraday indicators, systems are preceded with an "i" in the sensitivity description. Running a test before making a trade decision will enable us to make sure the security behaves well with the selected sensitivity.

TIP: Let me repeat a way of using the system tester to double-check your analysis of a security. Run the test using the optimizer function. Open the result file and check which value gave the best return i.e. the highest profit or the lowest loss. Then look at the chart using The Expert Advisor™ wave sensitivity that is the closest to the value you just identified. This takes in account the current volatility of the security as well as the historical one. You can observe whether this is a new pattern or if it is a recurring one. It can also indicate that you should not trade such unpredictable security if the return was made on one big transaction instead of several small positive ones. Common sense is always your best counsellor and if you can't understand what is going on with the price, then you should pass!

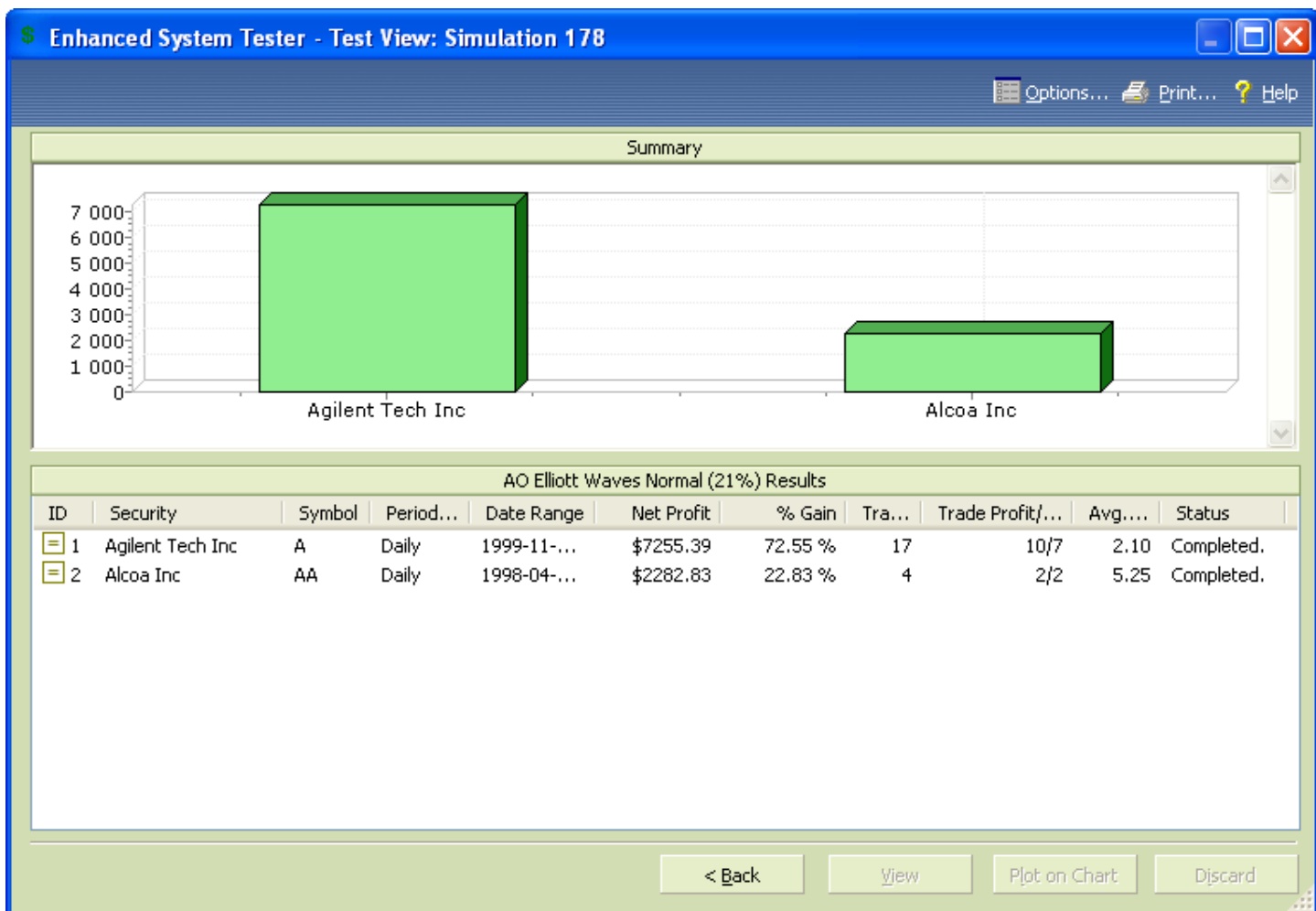


Fig. 51

This is a view of **AO Elliott Waves Normal (21%)** system test on 2 securities. I picked this one to show that even under adverse conditions, it is possible to generate a trading profit. This example tells us that out of 17 trades on Agilent, 10 were profitable and 7 lost money. Yet the overall gain is 72.55% and what explains this is that the losses are smaller than the gains. Wave's failures also account partially for the losing trades. Alcoa is even worse with a 50-50 trade split and again the percent gain is 22.83%. The system parameters are shown in Fig. 51. There is no delay in the execution of the order because the delay is already built in the system code. When looking at the chart in Fig. 47 with the buy and sell signals, it is obvious that a one bar delay is used. The interest rate was realistic at the time the system was run and the same could be said about the commission rate. The closing price is used on all 4 types; technically, the open should be used for long exit and short exit.

Many systems will give a common signal for entering long and exiting short. Unless you set up your system to accept more than one trade per bar, you will miss signals and the results will be wrong. AlphOmega systems use a common signal for in and out, so be careful on how you use them. The systems are not optimized for a market or price range other than the sensitivity base, so if a high sensitivity is used on a non volatile market like indices, there will be no trade. The reverse is also true for you will get too many trades.

A new system test, AlphOmega Elliott Impulses (21%) has been introduced. This system will give a signal for all impulses as soon as the price retracement is attained. It will exit in correction moves. The signals between The Explorer™ and the Enhanced System Tester™ do not always match as they are two different modules and the space allowed for formulas differs; to overcome this problem, the formulas were moved in the Indicator Builder™ and are accessed from the two modules, yielding the same results. The drawback is minimal in the tester as it measures in milliseconds of execution; it is more noticeable in the exploration. For this reason, the change is limited to the new exploration AlphOmega Elliott Impulses (21%) DF* and this system test.

A complete summary is proposed on the next page (Fig. 52). All system tests will produce these reports and it is worth our time to scrutinize them before we blow our horn about a trading system. Optimization should never be used to evaluate

the trading mechanics of a system; optimization is excellent to fine tune our trading signals once we are satisfied that the system executes properly the code (optimization should not mask inefficiencies with its benefits). Many of us will try to use the system tester as signal generator for trades. First we should know that the indicators do not function the same way in the system tester as on the chart; No matter how we write the code, we will never match precisely the buy and sell signals from the system tester to our indicators. In addition to running our indicators, the system tester has its own logic and code to deal with user parameters such as delay, stop loss and more. It cannot deal with 2 signals on the same bar and yet it will exit long and enter short on the same bar. Nevertheless we must strive to make indicators that will issue signals on time and check the system tester code to see if it parallels the indicator signals or is at least reasonably accurate.



Fig. 51a

Summary**AO Elliott Waves Normal (21%)**

Agilent Tech Inc (A)

Simulation Date 2003-06-13 14:03:15

895 Daily Bars 1999-11-18 Through 2003-06-13 (1303 Days)

Performance

Profit	\$7255.39
Performance	72.55 %
Annualized Performance	20.32 %
Buy & Hold Profit	\$-2561.00
Buy & Hold Performance	-25.61 %
Buy & Hold Annualized Performance	-7.17 %

Performance Indices

Buy & Hold Index	383.30 %
Profit/Loss Index	71.26 %
Reward/Risk Index	69.47 %

Trade Summary

Total Trades	17
Trade Efficiency	16.36 %
Average Profit/Average Loss	2.10

Accounting

Initial Equity	\$10000.00
Trade Profit	\$8839.56
Trade Loss	\$-2945.69
Commissions	\$1228.30
Interest Credited	\$1342.69
Interest Charged	\$0.00
Final Equity	\$17255.39
Open Positions	\$1883.00

Profitable Trades

Total	10
Long	5
Short	5
Average Profit	\$883.96
Highest Profit	\$2392.53
Lowest Profit	\$273.07
Most Consecutive	6

Account Variation

Highest Account Balance	\$17948.44
Lowest Account Balance	\$3204.35
Highest Portfolio Value	\$8291.25
Highest Open Drawdown	\$-3189.21
Highest Closed Drawdown	\$-2634.99

Unprofitable Trades

Total	7
Long	3
Short	4
Average Loss	\$-420.81
Highest Loss	\$-878.75
Lowest Loss	\$-25.11
Most Consecutive	5

Account Events

Margin Calls	0
Overdrafts	2

Profitable Timing

Average Trade Length	58
Longest Trade Length	95
Shortest Trade Length	14
Total Trade Length	583

Maximum Position Excursions

Long Favorable	\$2749.57
Short Favorable	\$2589.48
Long Adverse	\$-1361.87
Short Adverse	\$-411.75

Unprofitable Timing

Average Trade Length	18
Longest Trade Length	40
Shortest Trade Length	8
Total Trade Length	127

Trade Efficiency

Average Entry	73.60 %
Average Exit	36.88 %
Average Total	16.36 %

Out of Market Timing

Average	30
Longest	130
Total	184

Average Long Entry	77.83 %
Average Long Exit	25.56 %
Average Long Total	15.88 %
Average Short Entry	69.84 %
Average Short Exit	46.94 %
Average Short Total	16.78 %

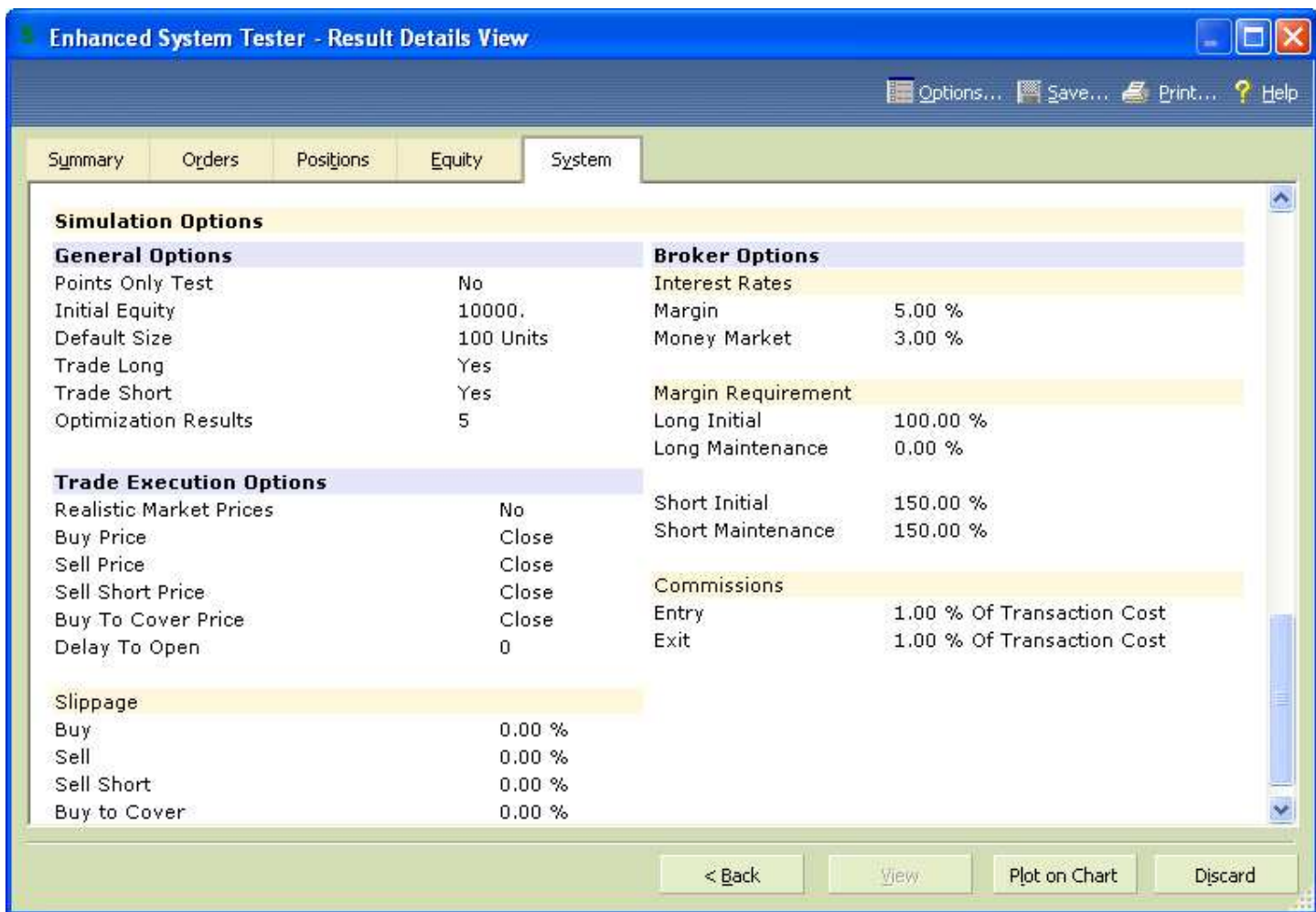


Fig. 53

Other System Tests

AO Elliott (Ind) is a system test that will scan for waves generated by a user specified indicator (not the price). So we could trade on the waves of the RSI for example. This system uses the P variable from MetaStock®.

AO Elliott Waves Normal + EMA is similar to the other system test but will exit on a cross of the exponential moving average. These variations on the base theme seek a faster exit signal.

AO Elliott Waves w/Opt is the same but the sensitivity is optimized with values between 3 and 50% in increments of 1%. Only the triggers are used to enter or exit a trade.

AO Elliott WolfWave is testing the well-known pattern. As mentioned several times, this pattern assumes a wave failure, so its results are mitigated. The sensitivity used is 21%.

AO TSI is the system test of this adaptive moving average (similar to Vidya).

AOi are the same as the system tests described above, only the sensitivity is reduced and in principle the test should be performed on intra day data or very low volatility securities.

Chapter 10

Experts

The Expert is activated from the menu by attaching it to a template or a chart. It is the code that will generate our labels for waves, color the bars according to set conditions, display a commentary as in Fig. 54. The commentary will be adapted to the latest price bar in the active chart. It is a part of the AlphOmega templates. These commentaries are not a substitute for due diligence on the selected security but provide basic information for the specific pattern being detected. If no special pattern is detected, you will nevertheless read about the common indicators such as RSI and RMI or STORSI. The waves for all related sensitivities will be posted. For special patterns such as Inside Day/Narrow Range or a new wave being confirmed, we will see an appropriate commentary disclosing the pattern and its meaning. These will appear only when the conditions are met. It is possible to see the commentary for an older bar by moving to the left, the commentary pointer (upside down black triangle).

There are eight Experts we can use. The first one is the normal volatility for normal stocks and is loaded when we call the AlphOmega Simple template. If the security we are watching is of low volatility, indices or intraday quotes, we will select the low volatility Expert that is loaded normally with the AlphOmega iSimple template. With this later template, we will have the adapted indicators (Usually "i" indicators) that will monitor properly the prices. When volatility picks up we can switch back to the normal volatility one. To provide some continuity between the two Experts, a common cycle is monitored so we can find the same wave numbers from one Expert to the other with that sensitivity. The highest sensitivity for the low volatility Expert is the lowest sensitivity for the daily Expert. Below is a screenshot of the daily Expert.

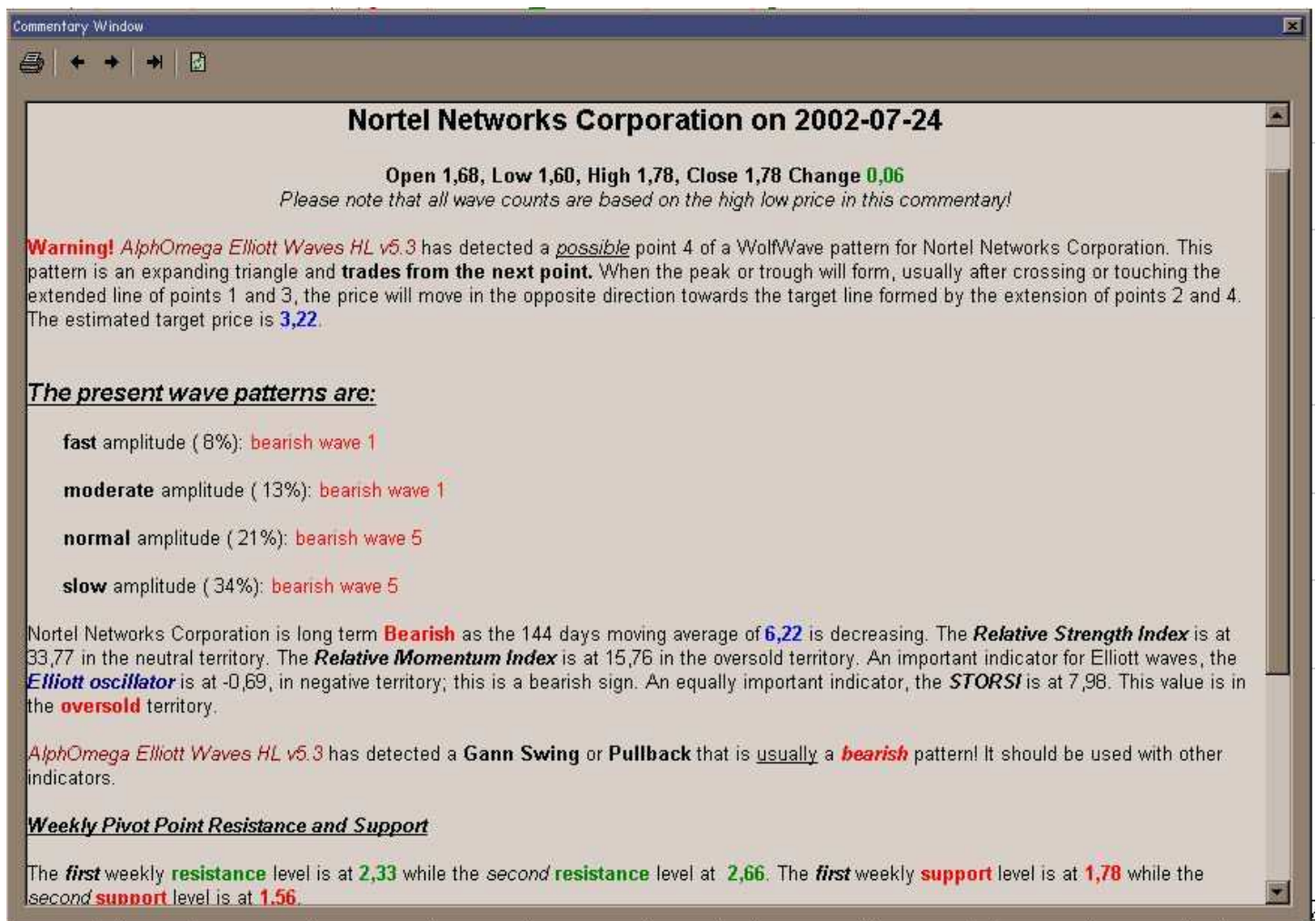


Fig. 54

In the course of time, many analytical comments were added to this expert. The difficulty resides in keeping the essential and to not overload it with trivial observations. Your comments in that respect will be welcome. The real force of these commentaries is to remind the user about things he already knows but will overlook in the frenzy of the action. It also serves as an educational tool for the beginner or occasional analyst. It helps bringing back the focus to the overall picture; not only the Elliott Wave or the opportunity for a quick gain. Another feature of this Expert is the alert it can generate when the special patterns are encountered. This alert will let us know it's specific and to consult the Expert Commentary for further information. So as we rotate through our securities, these alerts will pop up to warn us. Since it could easily become a nuisance to have alerts pop up continually, the alert can be disabled from the Expert dialog. In addition, they have been set only for significant patterns, not for wave confirmation or other things you can view easily from the chart.

The third expert is for high volatility and is identical to normal volatility but for the addition of a very high sensitivity and the modification of the labels to integrate the added information. The last expert is for futures or commodities, its sensitivity is very low (always referring to the percent retracement, not its ability to pick up a signal) at 0.3%. The first four Experts are almost identical except for the range of sensitivities covered. The second Expert is used for low volatility situations such as indices where a price movement expressed in percentage can be very small. The third for very high volatility like penny stocks and the last as mentioned for futures and commodities.

Highlights

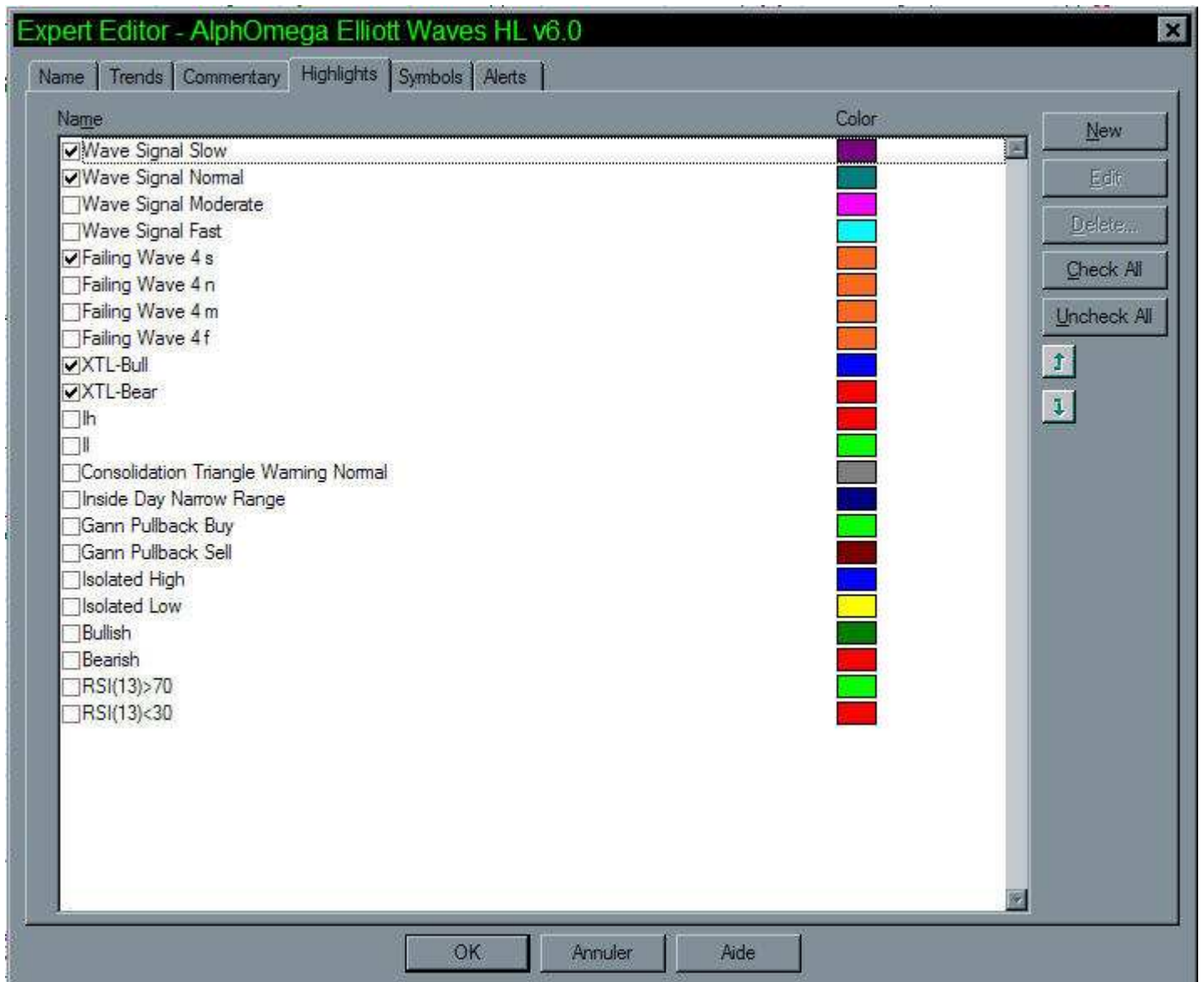


Fig. 55

The highlights are used to color bars according to specific criteria met at that time. They can be used as a signal for entry or exit, indicate a specific market condition and much other information. It is a visual way of displaying information automatically as certain preset conditions are met. The AlphOmega Expert is using a limited number of highlights because the emphasis was put on symbols and highlights should be reserved to situations that you will monitor on an on and off basis. Make sure that you turn on the feature you want to see by checking the box beside the feature name. Turn them off by removing the checkmark, just click on it. You don't need the password to do this.

Fig. 55 is a screenshot of the Highlights tab within the expert. By checking the appropriate box, we can personalize the display. We can change the color of individual highlights. We must be careful that we do not overload our chart with colors. They are good signals as long as we can remember their significance. Certain highlights names come in different sensitivities that are indicated as (8%) f, (13%) m, (21%) n and (34%) s or fast, moderate, normal and slow. Note that the order in which the highlights are listed is important; the wave signals should always have precedence over other indicators. If two highlights are activated during the same bar, only the first one in the list will be displayed.

The highlights are very important for intraday trading. Their signal is generated as the bar meets the conditions set. It is the first warning we receive and it can make the difference between profit and loss or anticipating and reacting. A tool that is equivalent to highlights is the expert alert that is also triggered at a bar meeting the conditions set. The use of both should greatly enhance our day trading.

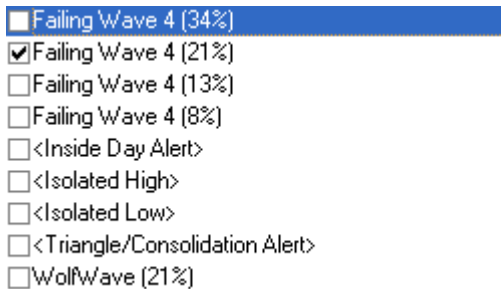


Fig. 56

Above is a list of the alerts available on most experts. As we can see only one alert is activated and it is the failing wave 4. A failing wave 4 has retraced too deeply to be followed by a wave 5. It usually becomes a counter trend wave 1. This prevents us from getting too early in what we could mistake for a wave 5, while it would only be a wave 2 of the counter trend (new trend).

Difference between Intra Day and End of Day

All that was said for daily, weekly or monthly charts applies to intraday as well. The difference lies with two aspects:

- 1) A lower volatility than the other time frames.
- 2) Hours and minutes added to the timeframe reference.

The lower volatility concerns indices and futures even in daily timeframe, so the intraday set can be used to monitor them. To capture waves in a context of low volatility, we use a lower percentage retracement. We must be careful that the sensitivities used can nest properly into each other; this is accomplished by keeping in stride with the Fibonacci number sequence. Then it is a matter of selecting the expert that is the most appropriate for the selected security. While we will capture most of the larger timeframes with the daily set, the stronger moves or spurs of volatility will not be captured by the intraday set; to indicate that the expert is not capturing an out of range move, it will display **LC** (meaning Larger Cycle). When there are many such labels on the chart, we should move to the next expert with higher percentage retracement to make sure that we are not going against a larger trend. To differentiate the intraday set, the letter *i* is used after the prefix AO or associated with the percent number in the naming of the explorations, indicators, systems and templates. The experts are named according to the volatility they monitor, daily with NV (normal volatility), LV (low volatility), Futures (even lower volatility) and the last one penny stocks with HV (high volatility).

What was said earlier about the explorations can also happen with experts, indicators, systems and templates. If the chart is filled with too much information (waves, signals, lines) move to a larger % filter (retracement). If we have a look at figure 57, we see the LC all over the screen; the AOi Simple template was applied to a normal volatility stock. The trend lines are too short because they are set for 3% sensitivity as the rest of the indicators. Figure 58 shows the same template applied to an intraday version of the same stock.

The indicators such as the Trendline and the AlphaOmega Highlighter are displaying properly. The expert does not display LC and clearly monitors the cycles displayed in the chart.

To provide flexibility, all indicators using sensitivity input, have a range from 0.1% to 144%. Keeping that in mind, when we drag in an indicator, let's make sure we replace the default value of 21% by the desired percentage. If we change a formula, know that the templates that use the formula will be reset to the default value as we save our indicator; it is necessary to resave the template with the chosen percentage. Indicators that require a date input must have the hour and minute specified to display properly on an intraday chart. Note that the standard Elliott Indicators like STORSI, Elliott oscillator and the RSI have the same default values in their setup and are used as is in the template. It might be necessary to adapt them to specific market. An RSI at 14 bars could be too slow, just like an Elliott oscillator using the difference between 5 and 35 bar average could be inappropriate. Because it is usually a matter of personal preference, the choice is left to us as to the sensitivity we want to use with them. If we always trade the same market, we should change them to the appropriate level, one that we are comfortable with; otherwise we can use them as is but being alerted that tuning will be needed at times.

When we are using AOi Simple on an intraday chart, we will get a slow down of the screen display. The size of the expert and the use of many indicators will consume a lot of the available memory both graphic and RAM as well as CPU capacity. Going to a larger timeframe, like 2 minute to 5 minute, will improve the situation as MetaStock will recalculate a bit less. Performance is a matter of available RAM, graphic card and processor speed as well as data line speed.

The last four experts fill needs that address a different concern than sensitivity. AlphaOmega Elliott Waves 1% Swing and AlphaOmega Elliott Waves Impulses are system like expert that will display a signal for trading. Because they are lighter in coding, they will not slow down the screen, something that is a nuisance when looking at intraday charts. **The signal that is displayed may at times appear one bar later than where it is shown.** This is a known behavior but it is preferable to display the signal that way rather than matching the bar of entry. If the signal is displayed on the bar of entry, it will appear at the completion of the bar and one bar of the trade will be lost in addition to getting a delayed signal. AlphaOmega Elliott Waves Points is an expert that displays entry and exit signals using points retracement instead of percentage retracement. It is useful with securities that are consolidating or trading in a narrow range. The last one would be a conventional volatility expert if it was not for the use of a global variable for sensitivity. A global variable was created as an indicator that we edit and where we input the base percent retracement and the step between the four sensitivities monitored. This expert is very useful where the regular experts are not catching properly the waves and where the counts are inconsistent; adjusting the sensitivity by a few percent points may make the difference between a count that we can trade and one we cannot. To help you narrow down the base sensitivity, an indicator was added to compute an average rate that would capture efficiently the waves; it is far from perfect but will give a start value that can be refined. The indicator is AO Sensitivity Optimizer and the global variable is AO GSe (where we input the base rate).

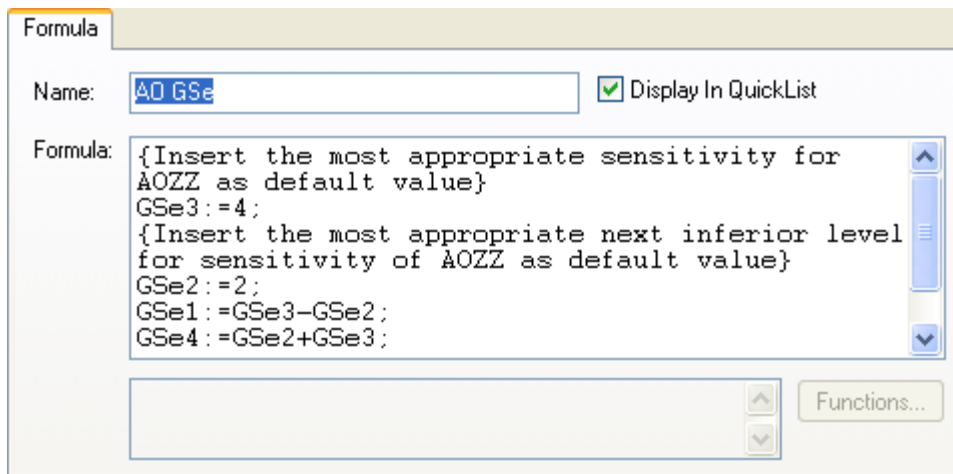


Fig. 58a

The next screenshot is about a new expert that attempts to circumvent the screen slowdown. By displaying less information you use less system resource. A good way of using this expert is to combine it with the regular wave count expert. You first look at the wave count at the daily level, then the interval you normally trade i.e 10 minute bars; then you apply the impulse expert and monitor your trade with the arrows produced by the later expert. If the situation becomes confused, switch back to the wave count expert to reassess the pattern.



Fig. 58b

This screenshot is the AlphOmega Elliott Waves Impulse Signals which purpose is to give timely signals to the trader. While we presented it earlier, the way to use it differs from the other experts. The symbol for each sensitivity must be turned on or off depending on the monitored wave. To leave them all on would overload your chart and their priority ranking would overwrite some signals. The same can be said for long trades versus short trades; if both are displayed, you will eventually miss an exit signal as the entry signal, that has a higher priority than the exit, will crush it. The arrows will show once the price retracement is equal to the sensitivity selected. Once an arrow is displayed, it is not affected by the newer bar information; for each entry, you will have an exit.

The commentary will assist you in selecting the right price projection indicator for your target assessment. The trend indicator and the corner indicator will provide the same information as the normal volatility expert.

The symbols used are more explicit and they provide sensitivity level. The symbols are:

- Long entry: L21
- Long exit: x21
- Short entry: s21
- Short exit: c21

The 21 refers to the sensitivity level (21%) and it varies according to the symbols you have selected.

The expert AlphOmega Elliott Waves 1% Swing is another quick trading expert and the use is rather simple. It is based on a 1% price retracement which is a very sensitive level. The screenshot shows a displaced moving average that could be used to exit a trade although it is not the way the expert swings. It will enter and exit trades based on 1% Elliott impulse waves.



Fig. 58c

Note that the arrows appear one bar later than shown!

The expert AlphOmega Elliott Waves GSe is not shown as it appears like the HV, NV and LV experts. A number of indicators were created to supply the commentary of this expert. Most of these will appear in your quick list followed by an extension L (standing for level). The expert AlphOmega Elliott Waves Points has a commentary that is based on percent retracement; only the symbols and highlights are points retracement based. This is to provide a comparison basis with a percent based wave. The integration or fractal characteristic of Elliott waves is not as good as with percent when you use points. It does not allow for a large change of volatility in the price of the security. However it is more adequate during a consolidation period because the price moves in a known trading range. It is easy then to decide of the number of points retracement we will use.

Special Display for Special Situation

X Wave



Fig. 59

The Expert Advisor™, with its huge capacity for code, allows us to refine and focus on exceptions. A good example is the extension wave that can develop after a wave 5 has peaked. The Expert Advisor™ will detect that the following wave does not retrace enough and will flag it as an x wave. This pattern is risky and the wave 5 can terminate very quickly or carry us to distances unforeseen. However, if we use the other indicators such as AOZZ, we will have a better feel for what is happening. The extension wave itself is a correction within the impulse wave preceding and it resets the calculation for where the new wave five will carry. Sometimes we will see more than one extension to wave five (in fact, we may see a whole new 5 wave pattern); ***this could be indicative that the volatility is measured poorly by the sensitivity percent used in the expert or events of crucial importance took precedence in the market sentiment.*** Try looking at a larger timeframe or sensitivity when we keep having repetitive extension waves will help to overcome this.

Important: Please note that this nomenclature of x wave is specific to AlphOmega and differs from textbook definition. By definition, an extension is a five-wave pattern within one of the impulse waves comprised in a five-wave pattern. From this definition, you can have an extension in any of the 3 impulse waves. Our definition for the x wave is closer to the missing wave of Glenn Neely or simply, like a bridge between the wave 5 and its extension that is a continuation of wave 5! In fact, ***there could be more than one x-extension if the volatility is too high.*** This will happen in times of strong trends. Because the filter cannot cope with the acceleration in price movement, it will display erratic peaks and troughs. The filter is static and cannot be made dynamic for the time being (MetaStock® does not allow a variable in the arguments of that function). Our x wave never takes place after a wave 1 or a wave 3 but a grayed wave 3 and 4 may be followed by an adjusted wave 3 and 4. This situation is detected by the Expert and displayed properly, however the Explorer™ cannot differentiate since it detects the beginning of the wave and not the completed pattern. It will however correctly track the relocated 3 and 4.

When there is a textbook extension in wave 1, 3, or 5, the Expert will display this extension in its cycle as a five wave pattern, followed by an ABC correction pattern: these two patterns are separated by the peak or trough of a larger cycle. Spotting an extension is important because it tells you information about the next impulse(s). Not seeing one in the first 2 impulses will strongly suggest that one is coming in the third impulse. Do not confuse this textbook extension with the x wave.

Interpretation of the Expert Labels



Fig. 60

We will at times see confusing labels within a wave pattern, for example a wave 3 will break before retracing fully the previous wave. It is a case of wave failure. How does the expert handle that? It will assume that the previous wave's count was wrong and it was part of a new pattern; hence the previous wave should have been a wave 1 and the current wave is a 2. This is shown on the above chart in the blue ellipse. It will not amend the previous wave count, only the current wave. There are two reasons for not changing the count, first the count could still be correct if the next wave also fails and the price resumes the initial pattern; the second reason is that the label describes properly the situation at that bar with the information that was available at that time. Failures can be identified and observed throughout the chart. Sometimes we will have a quick double reversal, and then the expert will display **dots** so our screen is not cluttered with meaningless symbols. What we must know is that at all times we can find out the name of a symbol (especially those we don't know) by putting our mouse on it. *We also can turn off this feature and put back numbers instead of dots; edit the symbol tab of the expert and uncheck for the desired sensitivities, all "Wave 2 t" boxes.*

There is one instance where the label could be replaced **after the fact**, when a larger sensitivity pattern is recognized, its label will cover the smaller wave and reset its counter to zero **after that bar**. An example is shown in the green ellipse of Fig. 58. In this case, a 5 was shown until the wave ran over the 13% trigger used for its sensitivity. It does not invalidate the previous count, it only confirms a stronger move completing at the same bar. This approach we selected to respect the hierarchy of waves and always favour the display of the largest and most powerful wave. The alternative is usually to display all wave labels for the same data point, making the chart difficult to read; this alternative is not possible with MetaStock® as only one label can be displayed for a given bar.

The last example we have is related to x waves. We have seen previously that the expert can detect an x wave and when it happens, we should anticipate the trend to resume. Sometimes an x wave will take place although the wave has gone beyond the point where it is normally considered an x. The expert will not flag the x wave since it is past the reversal point; it will however label the next wave properly as a 5. As you know, the extensions can repeat more than once in a pattern. An example is shown in the red triangle. Although the wave is called an "a" (does not happen in version 5.6 and up), because the would-be "b" wave retraces past "a" wave, the expert labels it a 5 (and later a 4 because this higher sensitivity is also completed).

As can be seen from these 3 examples, having the expert display the labels does not mean there is no interpretation to be applied. The wave failures are more frequent in consolidation periods (trading range), while the x waves and extensions occur in strong trending periods. The failure patterns were studied by Elliott chartist who derived construction rules and identified them as various triangular patterns. They are also part of what we call corrective patterns. Below are a few examples:

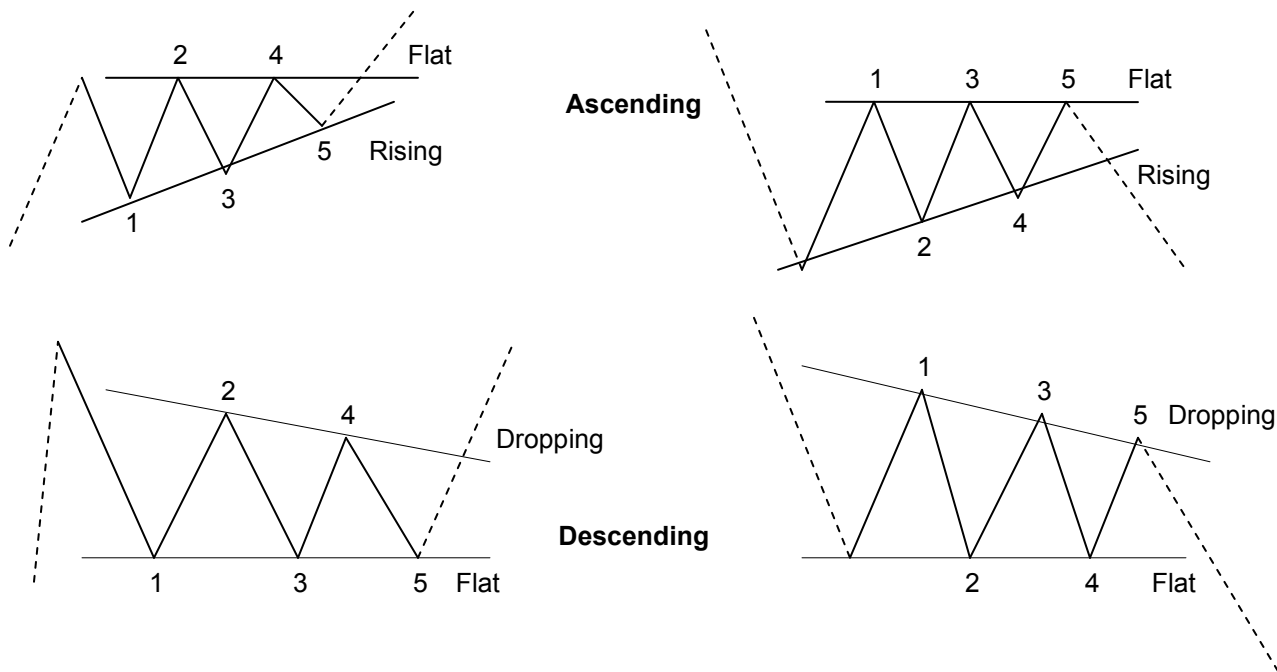


Fig. 61

There are many more, such as contracting or symmetrical, expanding and diagonal. The main thing is that the *trend resumes after the completion of the pattern*. The numbers will never appear as in the sketch above for the simple reason that these patterns do not respect the rules we have set in the expert. With the knowledge provided, we can follow the formation of the triangle and position ourselves accordingly to ride the exit trend. As mentioned earlier, the AO Triangle indicator will detect triangles that have reached at least point 4. Trade either the 5th wave or the breakout of the triangle.

Triangles

AlphOmega has its own triangle pattern indicators. Based on the Elliott Waves methodology, it will detect converging or diverging triangles of various sensitivities, display the whole triangle at its fourth peak or trough. Coupled with these indicators is a twin that will display a triangle from the date we select if the date matches the fourth point of a triangular pattern. Converging triangles are named as such because the two lines, peak to peak and trough to trough, are going to cross at some point in the future. To trade such patterns involves more skill than trending patterns; the triangle pattern usually takes place during a consolidation period. Because the lines are getting closer together, the price range is narrowing. So we can either trade the last fifth wave that could be the breakout or the unusual fifth wave that turns around before breaking in the other direction. To do this type of trade we must use a stop entry. In other words, a buy stop will allow us to enter a trade only if the price goes up past our stop and the reverse for a sell stop. The breakout means that we expect the trend to resume its former direction! Let's look at the chart to understand the forces at play.

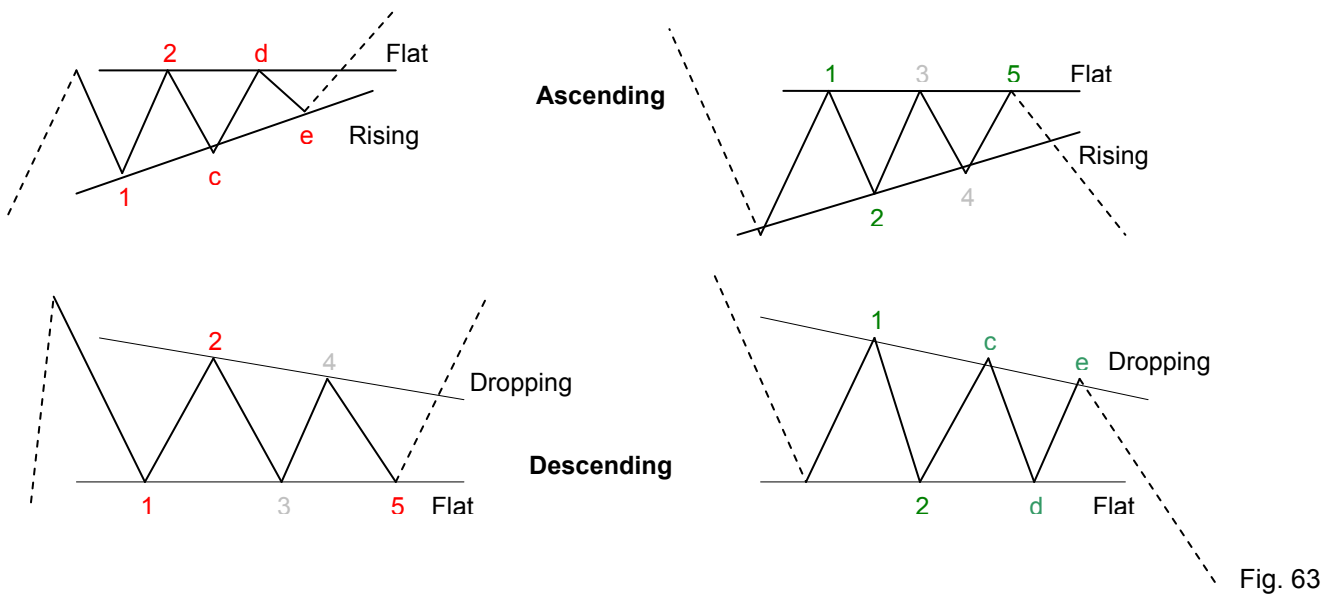


Fig. 62

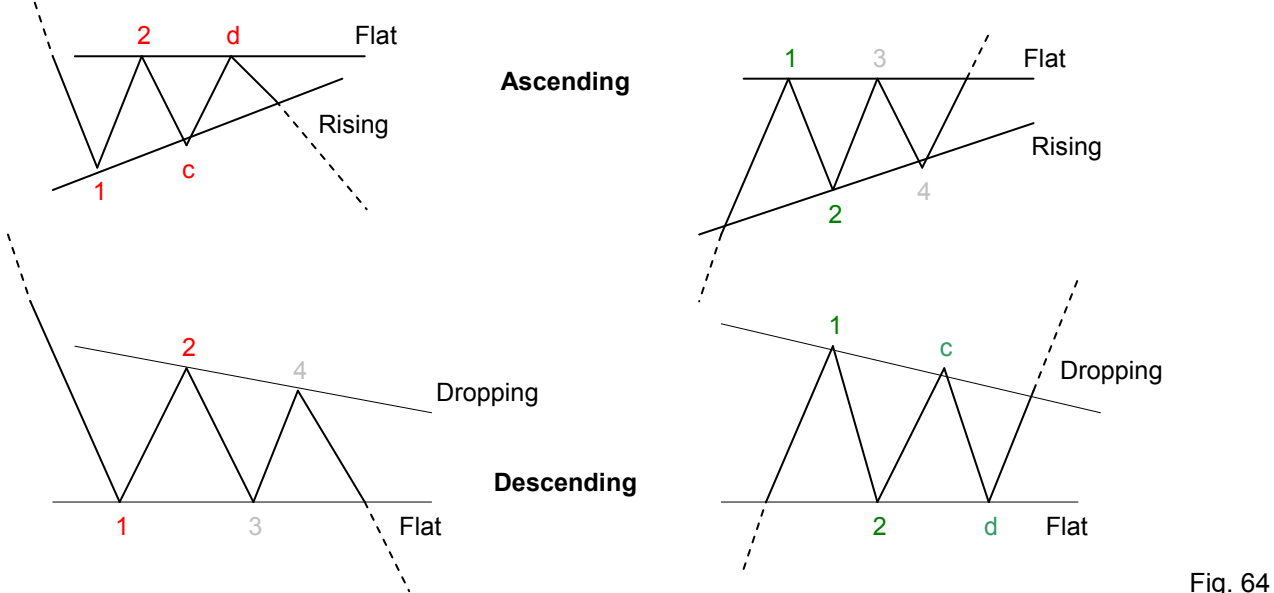
The triangle is automatically and clearly outlined by the blue lines joining the peaks and troughs of the pattern. Elliott says that a triangle should contain 5 segments, no more no less. The dark red roman labels are at the peaks and troughs for this normal sensitivity triangle starting at end of wave ii. The detection of the pattern occurs at the last peak or trough of the pattern, in this case at the trough labeled X. The indicator will display from that moment the triangle as we see it. Note that if the triangular pattern is almost horizontal or flat, the expert will display specific labels that will be discussed later.

From a trading perspective, the problem really starts with the fifth segment; most of the time the last segment will be the one that breaks out of the triangle, while at other times it will bounce one last time against the wall before breaking out. For this reason, the triangle is difficult to trade. In our chart, the fifth segment broke out of the triangle which is very common. The safest way to deal with it, is to wait for the breakout from the triangle (here at \$3.25) before taking a position. Then with appropriate stop loss and parabolic stops, we can make a profitable trade. This pattern (converging triangle) is very similar to the Wolf Wave and the difference is in the fifth segment where the Wolf Wave will touch or penetrate a little the wall to break out the other way. With the indicators come the explorations for various sensitivities. The whole set is easier to use once we understand the nomenclature.

Of all the accepted rules for Elliott, there is one aspect where AlphOmega does not follow the pack. When a triangle, flag or pennant is taking place, a sequence of waves takes place where the labels should run from a to e, w, y and z. These waves do not follow at times our internal definition of a pattern, which is wave three does not top wave 1, wave 5 does not top wave 3. With version 4.3 AlphOmega has created a special set of symbols that will start displaying a converging triangle from wave 3 and the letters c, d and e will be used. Here is how it will look.



As we can see, if the impulsions peak at exactly the same resistance level or troughs at the same support level, the count is correct. Otherwise the count is flawed and we will have waves 1 and 2 followed by a gray wave 3 or a “c”.



The pattern above is different and I have encountered it more often than the previous pattern. The important thing to remember about them is that they usually exit the triangle in the same direction that they entered.

The analysis of triangles is difficult because the confusion with other valid patterns can lead us into different conclusions and we will know the true one only when it is completed. There is still a triangular pattern we have not dealt with, the broadening or diverging triangle. It is very rare and you would get a bunch of alternating red and green waves 1.

More on Interpretation of Labels

There are many instances where the wave count will give us an indication of anomaly in the pattern. There are two types of warnings built in the expert. The first type deals with a wave 3 that is shorter than wave 1 and could become the shortest of the pattern. This is against an Elliott fundamental rule and there are good reasons for such rules to exist. There are exceptions but a system should not thrive on exceptions. AlphOmega will warn us by posting the label in light gray for wave 3 and wave 4; this tells us that if wave 5 is not shorter than wave 3, then disregard wave 3 and 4. Wave 5 is probably a wave 3 and you should expect the pattern to continue into a wave 4 and 5. Look at the chart for an example in the ellipse.



Fig. 65

In the black rectangle, a triangle pattern has been detected and the labels c° and d° appear. They simply mean that the peak at c° is lower than the peak at “a” and the trough at d° is higher than “b”; “a” and “b” are normal waves and the pattern is detected only once c° fails to top “a”. A label e° would have shown if another peak had been lower than c° . In the red parallelogram is an example of how the expert will react to a surge in volatility where the filter will no longer acts properly and will give whipsawed signals. However the next sensitivity will catch properly the end of the wave (As mentioned previously, this feature can be turned off).



The second type is for a wave 4 that retraces in wave 1 territory and will display orange bars for as long as the wave can still be labelled as a 4 and is in the said territory. This rule suffers more exceptions than the short wave 3 and for that reason AlphaOmega has chosen to use a different form of warning. No example necessary for this one.

The next chart is about pattern failure where the count is reset to one. Let's look at Fig. 66.

Fig. 66

The first indication we get that wave 4 may be wrong, is when the price goes into wave 1 territory and then below the trough of wave 2. Since it retraces below wave 2 it is labelled wave 1 in red. The next move is also puzzling as the price moves above the peak of gray 3. The expert reacts by labelling this segment as a green 1 since it matches no other definition. To have two waves 1 in succession tells us the pattern is failing and we should interpret the wave count differently. Hence the correct interpretation is that the two waves 1 cancel each other and the gray wave 3 is ignored. The consequence is that the deploying wave should be a green wave 3. To continue with interpretations, let's have a look at the next chart.



Fig. 67

This last example is an indirect warning that something is foul in the wave count from AlphOmega. We have in the ellipse a succession of x and 5 waves for the largest sensitivity, there should be only one extension. What is happening is caused by the fixed percentage used in the filter. It is obviously off by a few points during this period of high volatility and the threshold for retracement is crossed repeatedly. In the other sensitivities this situation is corrected by checking with the next higher sensitivity and waiting for it to resolve our count. It cannot be done with the largest unless we delay the initial signals by referring to a higher % filter such as 55%. We went halfway and proceeded to refer to the next filter only for x waves; that explains the red lozenge after the middle 5. When we will see a repetitive wave 5 followed by a lozenge, we will know that we should check manually the next level at 55% to resolve when the pattern will terminate. Failing to look at the next level could result in a misinterpretation of the market; when volatility goes to such levels, we should pay attention and heed the warning. We should be aware that if the signal comes after a wave 5 extension, the volatility surge has been on going for quite some time and our focus should be on a potential reversal. The above chart is from Nortel and there is no need to say that many were able to jump in the correction that followed.

Chapter 11

Three Ways to Use Elliott Waves

The AlphOmega set is organized so its use is as simple as possible for a complex methodology. The Experts, Explorations, Indicators, Systems and Templates are divided between daily or normal volatility and intraday or low volatility. **All intraday material is either prefixed AOi or contains a small i in its name.** All material where the filter is a fixed percentage is provided in versions for each sensitivity (Cycle) and labelled as such. Indicators to be used by other AlphOmega indicators do not appear in the MetaStock® indicator list. The Expert label names are as descriptive as possible so that when we place the cursor over the label, we see the description. Indicating the percentage for the sensitivity differs from the accepted nomenclature and should not be interpreted as the % of move but as the % of filter. Finally, the indicators are grouped in AlphOmega, AO, AOi, ID, Price and PW, Time and TW and the W group. Because of the formula space available, it was not possible to keep long names that would have singled out the set indicators from your own. However, it was done with the Expert, Explorations, Systems and Templates.

There are three different approaches to Elliott Waves that will yield results that are commensurate to the risk we are willing to accept.

1. The first method is to place our order **with the appropriate stop** as soon as the wave is identified and to let it run until the wave is exhausted, which is when a wave moving in the opposite direction is confirmed. This method has the merit of letting us ride the wave until all the potential has been deployed. The drawback is that we will lose some of the paper profit accumulated while allowing the reverse wave to build up to the point of recognition. So we need a very strong wave.
2. The second method is to place our order **with the appropriate stop** as soon as the wave is identified and then use the price projection features and the other indicators to forecast the possible turn points. We would then sell when the price crosses one of our turn points whether the price continues in the same direction or not. Obviously this approach will not let us reap all the profit that could spring from the wave, but it will give us what we have targeted. The risk is still that the price will not reach our selected turn point and reverses direction. ***An alternate way to the price projection would be to sell once our profit target is reached even if it is before the marked turn point (For example a fixed percentage profit).***
3. The third is the most speculative in that we base both entry and exit on projections of peak and trough. In this case, once a turn has taken place at the projected level, we enter immediately **with the appropriate stop** even though the signal has not been generated. We exit again based on the projection as soon as the price seems to turn at the expected level. Because there are many levels at which the price can turn around, we take the risk of picking the wrong one for entry; we will then be taken out by our stop. If we picked the wrong one for exit, we will miss on some of the profit. Popular software Advanced Get® uses two set-ups called Type 1 and 2. For our convenience, these set-ups were coded in MetaStock® with the creation of appropriate indicators generating signals *similar* to AdvanceGet (Their indicators are proprietary). Explorations were also written to take advantage of those set-ups.

Generally, the use of stops once the price is moving along the line will protect some of the accumulated wealth. On the other hand, it may kick us out of a position that has not reached its peak or trough yet. It is all a matter of comfort and we should never get into a situation where our emotions will take over from our judgement. There are ground rules for trading discipline to help us cope with our emotions.

Rules

1. We should look at it as running a business and having to make a decision with all the information we can muster. We will not take a risk that could kill our business; we are running a business, not a lottery.
2. Fear and Greed are the two worst enemies.
3. Sticking to our trading plan, no change in midstream.
4. Read the market, do not guess or make it say what we want.
5. Do a minimum fundamental due diligence for the stocks we contemplate buying.
6. Don't put all our eggs in one basket; spread the risk by sticking to our caps per security.
7. Our trading plan includes: risk and reward ratio, entry and target points, always a stop loss.

Step by step Elliott Waves

- 1- Download our EOD quotes after 6PM and make sure they were downloaded properly i.e. we have a price for today on all monitored stocks.
- 2- Run our favourite exploration(s), mine is the **AO Elliott Waves (21%)** or the associated signal explorations. Run all the explorations simultaneously doing it over night if they are time consuming. We can run up to 10 explorations in a night depending on our computer speed (more with over 1 Gigahertz CPU).

"AO Elliott Waves (21%)" Explored 11/14/2004

Results Rejects Exploration

Bull.Brs	Bear...	Bull Stp	Bear Stp	Bull In	Bear In	Tick	
3.0017	0.0036	11.3100	10.2900	11.7000	10.0300	OIIM	Inspect
1.0073	0.0178	12.2600	19.5700	13.6100	18.6500	CTAC	Open Chart
1.0043	4.0097	7.5200	9.6400	8.6310	7.9510	FLWS	Sort...
3.0377	0.0444	14.2100	15.1200	15.4600	14.1900	SRCE	Print...
0.0336	1.0125	14.5100	12.9900	15.2900	12.8000	TW	Save List...
1.0045	0.0065	9.0400	23.2000	11.3600	19.0500	TCHC	
0.0032	1.0004	3.3800	3.3500	3.8500	3.0900	TFSM	
1.0059	4.0137	4.4300	6.5900	4.6300	6.1500	COMS	
3.0157	0.0163	11.1200	11.4100	12.7900	11.0000	TDSC	
1.0047	0.0069	17.7400	20.4100	18.8000	17.5000	KDE	
3.0154	0.0172	15.4600	15.9700	16.6000	14.7500	SE	

Symbol: OIIM Buy/Sell: Vendor: <No Vendor> Trade

Close Aide

After opening the exploration report, the securities are sorted by either symbols or name, our next step will be to sort them by the type of signal we need, so if you prefer long trades you sort the "Bull.Brs" column.

"AO Elliott Waves (21%)" Explored 11/14/2004

Results Rejects Exploration

Bull.Brs	Bear...	Bull Stp	Bear Stp	Bull In	Bear In	Ticker Sy	
6.0579	0.0792	11.1200	12.0000	11.6000	10.7800	SFSW	Inspect
6.0689	0.0702	9.2727	9.8182	9.5455	8.7727	PBIX	Open Chart
6.0578	0.0583	26.5500	27.8000	29.7700	25.9500	RGA	Sort...
6.0521	0.0586	51.9400	51.1000	53.6900	44.7800	WVY	Print...
6.0516	0.0523	23.5300	24.0600	25.9000	21.5500	PEG	Save List...
6.0512	0.0523	35.5800	32.0000	35.6400	30.0000	CZN	
6.0469	0.0532	41.8100	44.1800	44.0500	38.2200	PNC	
6.0456	0.0477	11.0000	11.6200	13.6000	10.8000	PRXL	
6.0428	0.0453	28.8900	26.4500	30.5000	26.1000	NVO	
6.0425	0.0478	13.1000	12.6000	13.8500	12.3500	CRHCY	
6.0415	0.0442	20.5100	19.5000	21.8500	18.6800	FWRD	

Symbol: OIIM Buy/Sell: Vendor: <No Vendor> Trade

Close Aide

- 3- When the results are available, we open the report and sort the Bars column in descending order. We click twice because the first time we get a sort by ascending order. We are looking for the most recent occurrences of Bullish Waves 3, 5 and C (Remember that 6 stand for wave C). This means that the bar count is between 1 and 5 for a large sensitivity and less on small sensitivity such as 8%. Clicking to highlight the first security that has a bull wave of the desired type, we spot a second security, holding down the Ctrl button and clicking on the security (so all the selected ones are highlighted) and so on so forth, until we have a good selection (Not too many because our computer will crash, charts are resources hungry). Press on the Open Chart button and wait until the charts open. To study our charts, we will need to close The Explorer™ by first closing the report and then the program.

- 4- Looking at our screen, we see the last one we selected. We check first the wave pattern to make sure it is what we want and then look at the **Price Projection** looking at the middle projections or grouped projections, never at the extremes because they represent mostly extensions or very conservative estimation based on a corrective wave. One way of pinpointing the most probable one is to look at a cluster of lines. Keeping in mind that we want enough price movement to make a profit even after the wave end is confirmed.

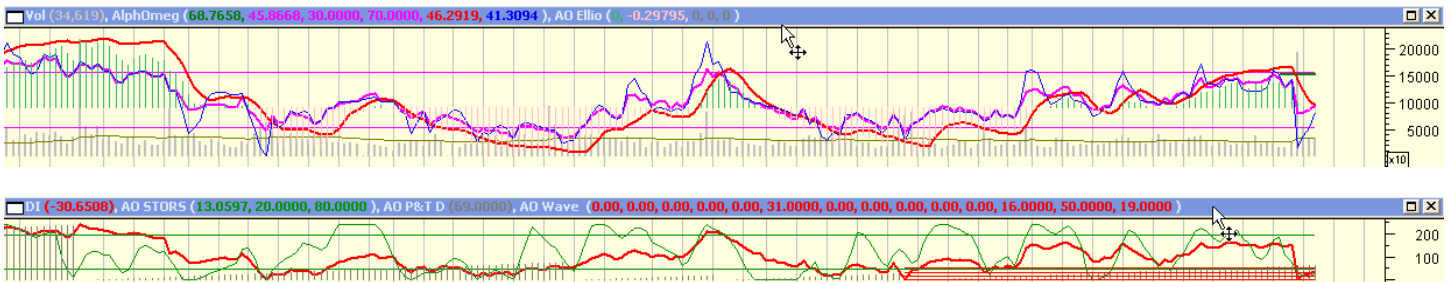


In this example, we can see that there is no room for a price move as the price target is already reached.

- 5- We check the other **cycles** to see if a more powerful wave is propelling or killing our wave. If the projection less the entry price (+ commission) give us the **yield** we are looking for (I look for 21%), we mark the security on our list of candidates. Our goal is not to have the longest list so we discard anything that is doubtful or less performant. We can print the chart if needed. Closing this chart, we go to the next one. We repeat the same

process until we have exhausted the opened charts. If we have charts left from the report of The Explorer™, we go back to The Explorer™ and do the same process as in step 3, opening the other charts. Redo step 4 and add the candidates to the list the chosen securities. *To assist in the selection, just open the Expert commentary. While the information available is limited, it is accurate and helpful. Do not rely solely on the Expert, as the patterns that can be analysed are scant and belong to the most commonly seen. The Expert will only give us a flavour of what is basic technical analysis. As time goes by, we become so proficient that we can skip this step.*

- 6- Now look at our list and **we need to select the best candidate**, not two or three, just one. We will need three rounds to do that. First to help us in our selection, we have indicators such as the RSI, the Stochastic, and Momentum... and the ones we see at the bottom of our AlphOmega template screen. Use them! If the **RSI** is high over 70, it means the stock is overbought; RSI can never pickup a top, it just means the stock could be overbought. But if we have a choice between an overbought and one between 50 and 70, we go for the lower RSI as long as it is not heading down. Next look at the **Elliott Oscillator**, it has to be above 0, not negative. The higher the better. Then look at **volume**, if there is no volume increase in the past days at the onset of the wave, there is nothing to sustain the price movement and eventually all will crumble. So we need a little volume increase. This should weed out quite a few candidates.



A very important indicator is the Demand Index (the thick red line above in the second figure). The Demand Index incorporates momentum and volume so that it is excellent to show tops and bottoms because it does not have a limit in its value.

- 7- Next refining our selection with the second round, we will look at the previous patterns made by each security. We are looking for repetition so we need to see in the past, the same kind of waves completing their pattern. If it is a first and nothing fuels it like rumours or contract news, then it is suspicious even if it finally makes it. To assist us, there is another exploration that compiles the success of previous impulses by security; it is named AlphOmega Impulses %GT.

"AlphOmega Impulses % GT" Explored 11/14/2004

Results Rejects Exploration

21 %	21 Trade	13 %	13 Trade	8 %	8 Trade	Ticker S
33.3333	4.0012	61.5385	16.0026	53.0612	26.0049	A
38.4615	5.0013	55.2632	21.0038	48.8372	42.0086	AEM
42.8571	3.0007	50.0000	8.0016	48.7179	19.0039	AGU
40.0000	2.0005	56.0000	14.0025	40.9091	18.0044	APD
56.8182	25.0044	43.5294	37.0085	39.0411	57.0146	AIRT
50.0000	5.0010	57.1429	20.0035	50.5618	45.0089	ARG
46.6667	7.0015	70.0000	14.0020	64.2857	36.0056	ANS
62.5000	20.0032	57.4074	31.0054	65.5172	38.0058	AIRN
55.5556	5.0009	37.0370	10.0027	44.4444	12.0027	AAI
42.8571	18.0042	58.6207	34.0058	61.7647	42.0068	AKAM
60.0000	15.0025	55.3191	26.0047	52.0000	39.0075	ALDN

Symbol: A Buy/Sell: Vendor: <No Vendor> Trade

Inspect Open Chart Sort... Print... Save List... Close Aide

We see that the selected security, Agilent, has a very weak record with waves of 21% (33% or 4 out of 12). Next, looking at how strong is the **trend**, we pick the strongest, and we don't count on weak getting stronger later. Strong in weak market will be stronger in strong market. Comparing the 144 days EMA and the 55 days EMA, we look for a price that is above (for long trades) all these averages. Next, if the 55 days EMA is getting further above the 144 days EMA, we have a trend getting stronger! On **volatility**, we don't want too much but we need a minimum if the wave is to come through. Let's avoid securities that are in a consolidation mode, they make waves that move within a narrow range. Finally, we check the **Time Projections** to see if the pattern is running out of character and out of time (is it in long winded extension?). Looking at the chart below, we see that there are no time projection not yet met by the histogram. This round will require a lot of practice but let's not forget that it is a selection within the best; our risk should be very small at this point if we misinterpret the charts.



Fig. 68

- 8- Third and last round is comparing the **fundamentals** of the remaining candidates. We cannot do serious trading not knowing what we are buying. We don't need to plough through tons of annual reports; just to go to a good Internet financial information site and compare key financial information. Earnings per Share (EPS), capitalization, Sales and Earnings forecast, Debt/Equity ratio and Cash. This step will prevent us from buying an almost bankrupt stock. This will take away all the would-be candidates and leave with the best at hand today. Yet we don't have to take it; maybe all of them should be discarded! If not, then go for it. Beware that we are not looking for the same signals if we are **short selling**, we want a company that is in trouble!
- 9- Having selected our best candidate, we now make a trading plan. We determine an entry price, a **stop loss** and a **target** price before placing an order. Most AlphOmega explorations will give us most of that information. Once we're in the money (our stock is better than our entry cost (price + commission)), we can move our stop loss higher to protect our profit (if we are long). I like to get out when I made my target even if there is still some action. **Managing our investment is as important as selecting it.** We don't leave it to others to tell us when to exit, we want to be in control. Using the **Signal Scan** exploration to make sure we did not forget to exit a position that is ripe by looking for the fresh exit signal (if we were in a wave 3, then a wave 4 signal should trigger our exit). It is better if we do not use an exploration for an exit signal. MetaStock® is not a portfolio manager. If it is the only tool we have, we then create an alert that will warn us that the price target or the stop loss has been reached. This can be done with an indicator, The Expert Advisor™ or with the Enhanced System Tester™.
- 10- Monitoring all the securities for which we have a position to make sure the patterns are progressing as foreseen. Sometimes a broader pattern will have developed since our entry, this is the time to reassess whether we want to ride the larger wave or stick with the initial. Preferably we should adhere to our initial trading plan.

Well, here it is! We tried to keep it simple not to be overwhelmed with information that is not critical at this point. Once again, this is the way I do it; it may not be the best. It can be seen why I developed all these indicators when you revisit the steps. **If this method is too complicated, look at the alternative detailed in a little document from the Advanced Get® software writers. It uses two types of set-up (summary provided at the end of the manual) and explains very well how to benefit from each. You can download the complete document from: <http://tradingtech.com> .** The indicators required for these set-ups are already in the AlphOmega set and although the PTI (Profit Taking Index) is proprietary, a similar one has been coded for our use. There are two explorations that will search for the patterns and give us the key indications for making our choice. Note that the set-ups apply only to a wave five beginning or ending.

Day Traders

For day trader the obvious difference is that we have only a limited use for an exploration although there are some in the set. Yet we certainly can spot the ideal candidates from an exploration but as the day grows these results are no

longer appropriate. From step 3 to the end, we can verify our choice and prepare our trades. Many indicators are suited for intraday application and they will accept hour and minute input, so we can monitor the trade on the real-time screen. These indicators are labelled with an “i” in their name. Candlesticks are also very useful in short term analysis and it is the reason we opted for that format in our default template. MetaStock® provides a candlestick expert as well as good documentation in the User Manual. Please refer to them to get familiar with candlestick formation. Day traders must use alerts within the expert to be warned of a specific condition taking place. This is the best use I have found for the alerts however be forewarned that only the active window will display an alert; make sure you cycle through your day portfolio at regular intervals to give a chance to each window to display it.

This is an extract of guidance given to a client who suggested I should write a step-by-step approach for newcomers to Elliott Waves. Please note that there are excellent sites on Internet that will provide better and more in depth guidance on the methodology. My favourite is Robert Miners at www.dynamictrading.com . There are many others but this one has the merit of simplifying the concepts without losing the essential. Note that I have no connection with Robert Miners or his site; his information is public knowledge. If you are interested in an academic approach, then you will want to visit the Elliotticians in Australia. The approach is a lot more detailed from a descriptive point of view of the theory; it is not as good from an application standpoint. What I mean is that it is more difficult to extract a process that you will be able to follow to select your investment portfolio. The site is at <http://www.elliottwave.com> .

For those who wish to learn about indicators and use of MetaStock®, there is an Australian site that I strongly recommend: <http://www.stockcentral.com.au> . It is well managed compared to the forums available from Yahoo!, not meaning that Yahoo! is responsible for what their customers are doing. Spammers are a plague on any forum.

Conclusion

These simple explanations should enable you to use immediately your Experts, Indicators, System and Explorations. With MetaStock® and your quotes you don't need anything else to select from thousands of securities, the ones that offer trading potential. If you like using the set, tell your friends so they can order it. If you don't like the set, take the time to drop E-mail to roberttasse@videotron.ca. I will reply and take in consideration your comments in order to improve the tool and satisfy if possible your demand. There will be no advertising for this product other than good reputation; we are trying to keep the price low so everyone who owns MetaStock® can enjoy the set. Put your money in the Market, not in hardware and software.

If you would like to see improvement or specific features you have in mind, please write or E-mail to the address above. There is a section called Commentary at the GoEmerchant Storefront for AlphOmega, it will be updated regularly to provide insights on the use of Elliott Waves. The first one is included in your set of files.

This booklet is not about recommending buying or selling but rather a guideline to interpreting the specified methodology. This information should only be used by investors who are aware of the inherent risk in securities trading. AlphOmega Inc. and Robert Tassé accept no liability whatsoever for any loss arising from any use of this product or its contents.

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Site: <http://AlphOmegaEW.com>

AlphOmega Inc.

Longueuil, Canada

Phone (450) 651-8181 or Fax (450) 651-0557

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Appendix - 1

AlphOmega Elliott Waves 5.6

Partial List of Indicators for MetaStock for Windows

(This is not an exhaustive list, only the key indicators are shown. For a complete list see page 80.)

AlphOmega Absolute Elliott: This indicator provides the waves as defined by Elliott in an absolute manner; the trend is established as soon as the high is higher than the day before or the low lower than the day before. There is no filtering of waves and the indicator goes from highs to lows; the close or the open are not used. Its main use is to show which array (open, close, high or low) is selected according to the rules of the set.

AlphOmega ADI: This indicator provides the accumulation distribution index of the security using moving averages. This is not compared to another index or issue. The variable "ADI" can be used in a formula.

AlphOmega Auto WLR and (L): This indicator provides the linear regression of the security using the closing price since the start of the wave. There is a sensitivity input and it has a variable "Tlr" to be used in formulas. You can select the sensitivity to match the time frame or wave size you want to study.

AlphOmega Bars since Signal: The purpose of this indicator is to tell you how many bars since the wave was recognized. It incorporates a few variables such as "BarsO" that is the bar count, "TotSig" is a cumulative count of the signals i.e. waves. You can select the sensitivity for the waves to align your indicator to the expert used.

AlphOmega Consolidation/Triangle and (L): This indicator requires an input for the sensitivity of the waves investigated. The output is binary and tells you the security could be entering a consolidation or triangle pattern. It is not trending at that point. You want to adjust the sensitivity for the waves to the expert used.

AlphOmega DI/Storsi Trend: This indicator generates automatically a trend line on either the Demand Index or the Storsi. It uses Peak or Low functions so that the sensitivity should be adjusted to your preference. If there is no trend, the line is flat at the last peak or trough.

AlphOmega Elliott Retracement: This indicator is a measurement of the retracement of the actual wave versus the previous. It has three variables: "Prime" is the retracement percentage, "Second" is the third wave from the start retracement versus its preceding wave, "Combi" is the sum of "Prime" and "Second".

AlphOmega Gann Price: This indicator plots price levels of the next wave using Gann geometry. In this case, a line is drawn at each eighth of the price range of the previous wave. Many other types are available through the AO indicators where you input the date from which the calculation must start; however this indicator is fully automatic and requires only a sensitivity input.

AlphOmega Highlighter (8%)(13%)(21%)(34%)(1%)(3%)(5%)(L1 to L4): This indicator provides the price projection based on the Fibonacci numbers and integrating the rules of alternance and similarity from Elliott. It does not provide a range but a single value that fits best the rules. It can be used in combination with the AlphOmega Similarity of a Wave. The variable "AOHL" can be used in a formula to refer to the output of the indicator.

AlphOmega Pitchfork: This indicator plots the Andrew's Pitchfork lines for the sensitivity you selected. Other than the sensitivity, no input is required; the indicator will adjust for incoming data. It is very useful to plot the channel in which the price action will take place; should it move out of the fork, you know whether a new trend is taking place or it is getting stronger in the same direction or it is changing direction. Using forks at different sensitivities can help pinpointing the smallest trend change.

AlphOmega RSI/RMI Trend: This indicator generates automatically a trend line on either the RSI or the RMI. It uses Peak or Low functions so that the sensitivity should be adjusted to your preference. If there is no trend, the line is flat at the last peak or trough. It is useful to flag a significant change of trend in the above indicators that are usually very changing at a small scale; when there is a violation of the trend line, you know the trend has reversed.

AlphOmega Similarity of a Wave: This indicator provides the range in which the price should plot if the pattern follows the rules of alternance and similarity from Elliott. If the error range is violated, an alarm signal is given. This indicator

requires a number of input that are: the sensitivity of waves under scrutiny, the number of standard deviation for volatility, the error tolerance level to be accepted, the rate of change in percent that is a threshold, the regression periods. The variables to be used in a formula are: "W1" for the expected course and "W11" for the error course. It is useful to detect waves that start with a powerful thrust or those that linger below expected level. It will give fewer signals than most of the indicators because of the added selection criteria. The adjustment of the parameters varies greatly from a market to another, the volatile equities being the most suitable.

AlphOmega Trend Resistance and Trend Support: This indicator calculates the resistance or the support based on the previous wave patterns. It is fully automatic and only requires a sensitivity input; it will adjust to new input meaning that once the trend is broken and a new peak or trough of the chosen sensitivity has formed. Its slope changes as data for its sensitivity accumulates. It will tend to adjust to volatility surges by maintaining a safe distance from the price line.

AlphOmega Trendline and (i) and (L): This indicator is using the previous peaks or troughs to establish the trend. The trend is also confirmed by a 100-days linear regression on the Close. The indicator uses Highs and Lows to draw the line. When the indicator has nothing to show, it reverts to a moving average of 50-days instead of showing a zero that would change the scale display of your graph. "T1" stands for trend hence T and line with L. This is the variable you can use in formulas. When the price crosses the trend line, it usually means that a change in trend is taking place. There is an exploration that scans for violations of trend lines.

AlphOmega Weekly Pivot Point: This indicator provides the resistance and support levels based on the weekday Highs or Lows as per published formulas from Guppy site. The variables that can be used in a formula are: "R1", "R2", "S1" and "S2". Because the pivot is updated only once a week with the highest and lowest for that week, it makes the resistance and support display for the whole week.

AO ID (All Sens.) and (L): These indicators are for identifying the wave pattern and do not plot anything but the wave number. The variable associated with them is "Trig" and it displays the value of the price after which the wave is identified. The price must move to a certain value before MetaStock® will accept it with either the Zigzag or the Peak or Trough functions. The variable "Trig" is not to be confused with AO T that is also displaying the trigger but as a binary signal, thus on or off. AO T does not appear on the indicator drop down list. It is used internally by other indicators.

AO Price Projection W2, Price Projection W3, Price Projection W4, Price Projection W5, and Price Projection WC: These indicators will allow you to plot a price projection for any wave of the corresponding number in the past. You need to input the sensitivity of the wave and the date in the format described before. The use of this indicator is best in testing the projection of prices against waves for which you already know the results. It helps establish if there is a correlation between the price movement of a security and the Fibonacci projections.

AO PW2 (All Sens.), AO PW3 (All Sens.), AO PW4 (All Sens.), AO PW5 (All Sens.), AO PWC (All Sens.) and (L) for all: These indicators are the wave definitions for price projection. They are providing information for other indicators and as such do not display information. However they calculate variables that can be used in formulas. "P1..." are variables that represent the price projection possibilities for each wave. They vary according to the wave number. "W1..." is another array that measures the price move of a wave. Hence you can compute percents or other formulas from these variables. When you program the calls for these variables, the function button will list all that are available so you will know if there are four or five projections available and what wave are measured. For example, if you see "W13" it refers to wave 1 to 3 price movement (The sum of all but keeping in mind the direction of the move measured).

AO Time Projection W2, AO Time Projection W3, AO Time Projection W4, AO Time Projection W5, and AO Time Projection WC: These indicators are similar to the Price Projection above. They work the same way with the same inputs. What they will plot is a solid line at the number of bars the wave is expected to end. Used against the bar chart of bars since the wave started, it will suit your needs to know when. You can select the data array for the waves to align your indicator to the expert used.

AO TW2 (All Sens.), AO TW3 (All Sens.), AO TW4 (All Sens.), AO TW5 (All Sens.), AO TWC (All Sens.) and (L) for all: These indicators are the wave definitions for time projections. They are similar to the PW series above and provide information on time (duration) to other indicators. The variables are "T1..." and represent time projection that can be used like the price projection above. The "W1..." are expressed in bar move instead of price.

AO Vertical Line: Used to display a vertical line on the chart. Plot as no scale and as a histogram in Price window. Useful to point to a particular bar on the chart, like an entry date or the extremes of a cycle, it will plot for the date you will input.

AO Wave 4 Failing (All Sens.) and (L): This binary indicator will flag a wave 4 that retraces in the price zone of wave 1. This is not against an Elliott rule but rather uncommon and often the prelude to a wave failure. The wave 4 turns into an impulse of opposite direction from the previous trend.

AO Wave Performance Monitor: Similar to AlphOmega Rate of Impulse it computes the percent progress against the past peak or trough after you input the sensitivity. It does not have a variable and can only be used for display purposes. If the function is undefined, it will display 0.

AO Wave Price Projection (All Sens.) and (L): These indicators are automatic price projection displaying the projection for the latest wave detected. They do not work backwards. They call their variables from other indicators so that if you use these variables, being second hand, your system will be very slow. These projections are more detailed than the AlphOmega Highlighter but do not factor in the rule of alternance and similarity, hence the lack of discrimination in the projections presented.

AO Wave Three Rule (All Sens.) and (L): This particular indicator is used internally by the expert to flag a wave three that is shorter than the wave one. It triggers a light gray display for waves 3 and 4. A different version is used in explorations and systems as these modules do not allow as much formula space.

AO Wave Time Projection (All Sens.) and (L): They are the same as Wave Price Projection but applied to time projections.

AO Weekly Support and Resistance: Uses beginning of week data to plot support and resistance level using the highest and lowest of the previous week.

AO Weekly Histogram: Plots a histogram that increments weekly from the input date. This indicator is to be used in charts that are daily or shorter, the idea being to be able to see both time frames on the same chart.

AO XTL-Ag: Extended trend indicator. This indicator is based on the Commodities Channel Index and it points to an established trend, bullish or bearish, or to the absence of trend.

AO ZZ: Core indicator that plots Elliott's zigzag to be used for waves. This indicator uses the high or low of the bar, accounting for inside or outside bars, the zigzag running from the low to the high and high to low.

Please note that all indicators in dark red do not plot a graph. They provide information to other indicators and their variables can be used in formula design.

Some indicators can be used in explorations or systems while others will only plot if there is an input from the user, such as dates. Many times, you can overcome the input problem by removing the input function and substituting a fixed value, usually the coded default. Before interpreting the resulting information, you should document yourself on Fibonacci and Gann theories. Although the goal is always to forecast a turn point, there are rules to be followed when using these tools. Some circumstances may invalidate the result of the plot.

Appendix - 2

AlphaOmega Elliott Waves 5.6

List of AO Indicators for MetaStock for Windows

This is not an exhaustive list, only the key indicators are shown.

The AO Indicators

All indicators starting with "AO" were created and adapted to Elliott wave's application. These indicators are the tools of the trade for Elliott Waves analysts; they provide valuable information when you study a chart. They are added tools to facilitate the interpretation, the trading and the detection of particular setups encountered in the markets we trade. Some are more frequently used and tend to be applied in almost every circumstance. They were described earlier in the book and do not need additional explanation but were placed here so a full list is at hand. For most AO indicators displayed in the price pane, the scale of display should match that of the price to plot properly; where it is different; a note will describe the required setup.

Here are the ones you already know from the templates:

AO Elliot Oscillator: This is basically the difference between a 5-day and a 35-day exponential moving average. It comes in two styles: AlphaOmega and Aget that is a smoothed version of the first. On top, the Aget version, usually displayed as a histogram, it is the difference between 2 moving averages. The parameters are long and short MA, style and 8 bars MA.

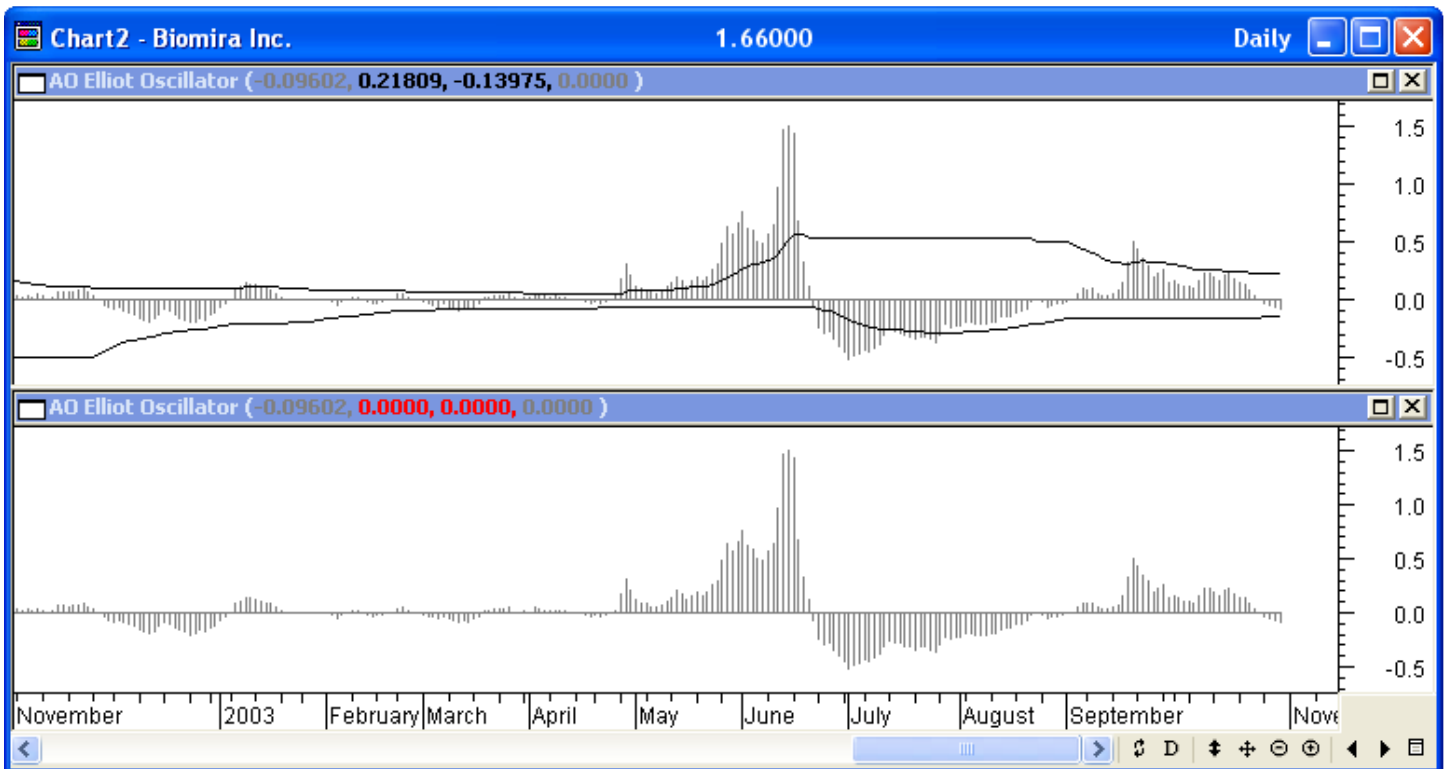


Fig. 69

AO P&T Duration and (L): This indicator plots the bars since the peak or the trough for the sensitivity you have entered. Bar graph gives a better feel for this indicator and allows time projections by placing horizontal lines at the proper scale. When the bars touch a line, a reversal could take place. It has a sensitivity input to be matched to the wave sensitivity you trade.

AO PTF and (L): This indicator plots a line across your graph at the latest peak high and the latest trough low. You can input the sensitivity of the wave. You can also select either Fibonacci retracement (.382, .5 and .618) or extension (1.382, 1.5 and 1.618) to gauge the price progression. This is a very versatile tool and the options are accessed by a right click on. In the chart below (Fig. 70), you can see the Fibonacci retracement levels since we are looking at a wave 2.



Fig. 70

AO STORSI: This indicator is a combination of the RSI (Relative Strength Indicator) and the Stochastic. You must input the number of periods for the RSI, the number of look back periods and the slowing periods to get smoother data. If you don't know just rely on the defaults which will be used automatically. There is no variable to be called but the whole indicator can be used in a formula. It comes in two styles: AlphOmega and DT that is a smoothed version of the first. The DT version is shown on top while the AlphOmega is at the bottom.

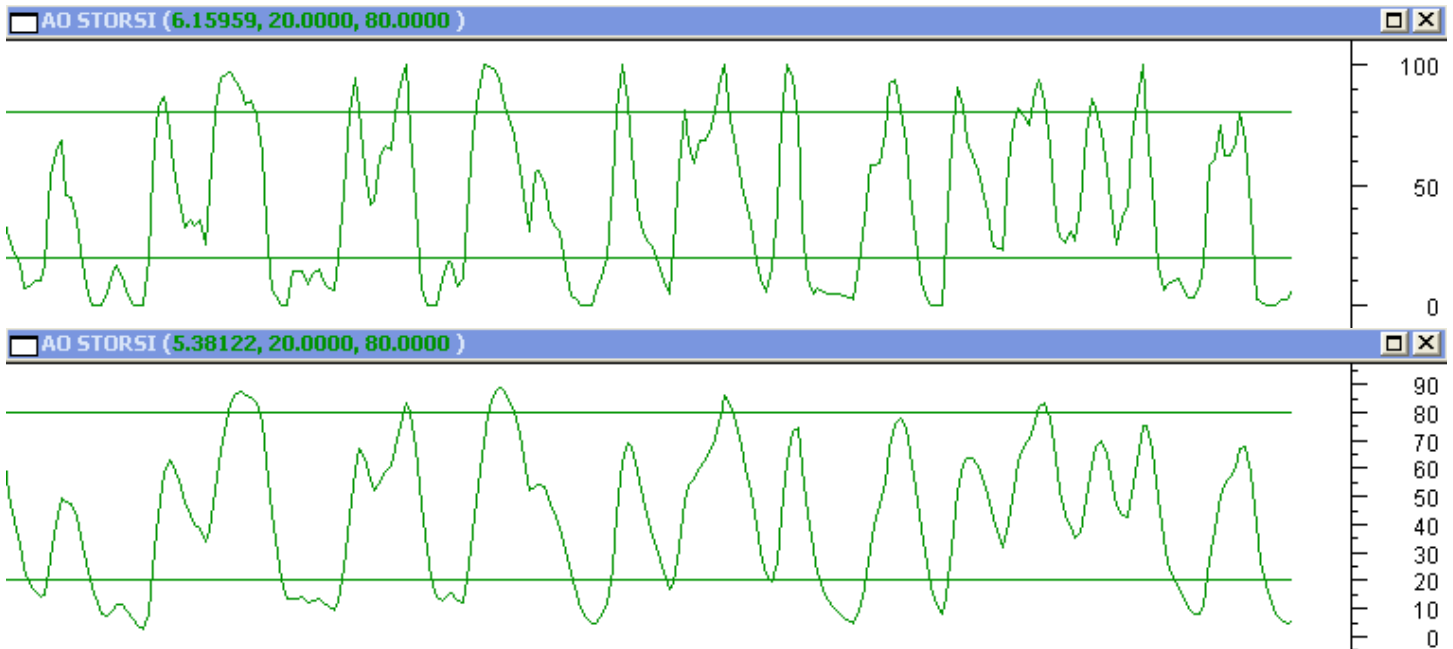


Fig. 71

AO ZZ is very special and almost the foundation of this set. **Do not tamper with it! Many indicators use it for their calculation.**

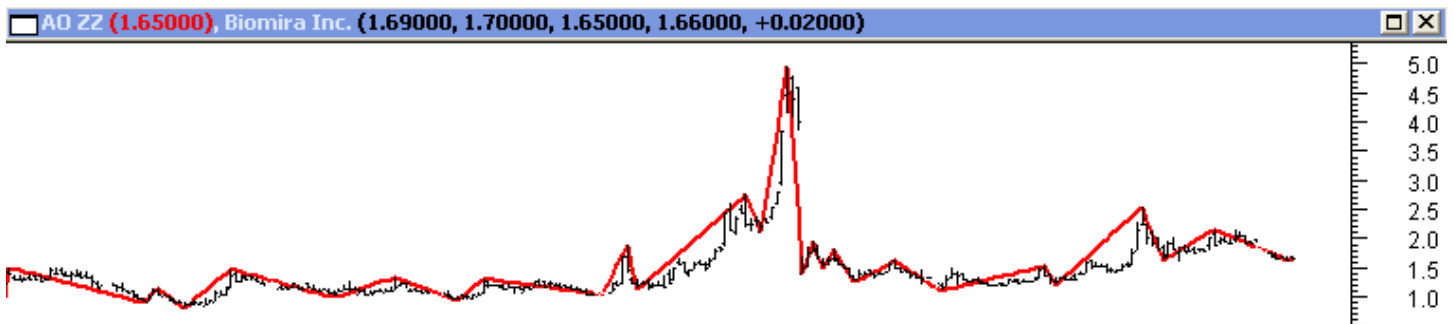
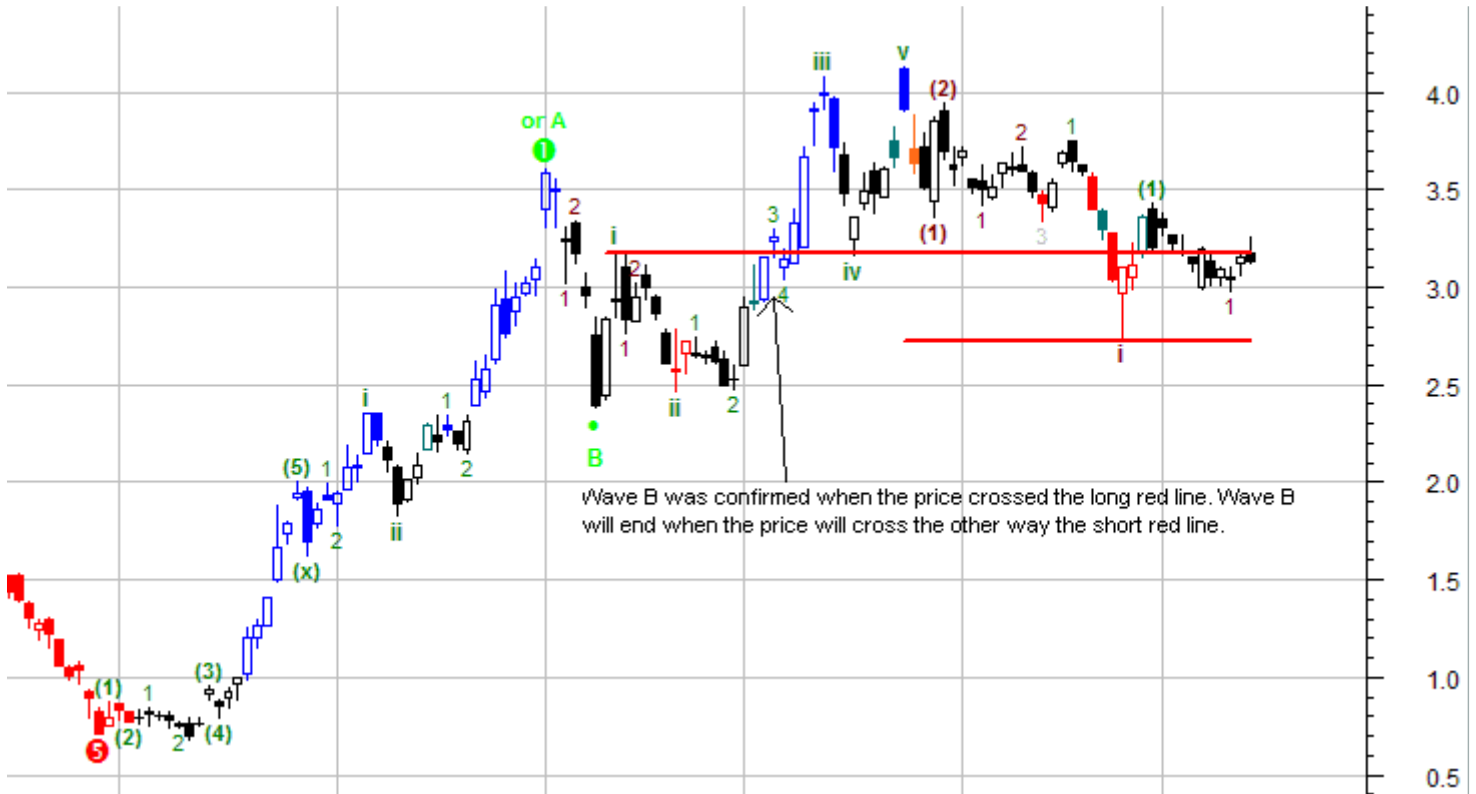


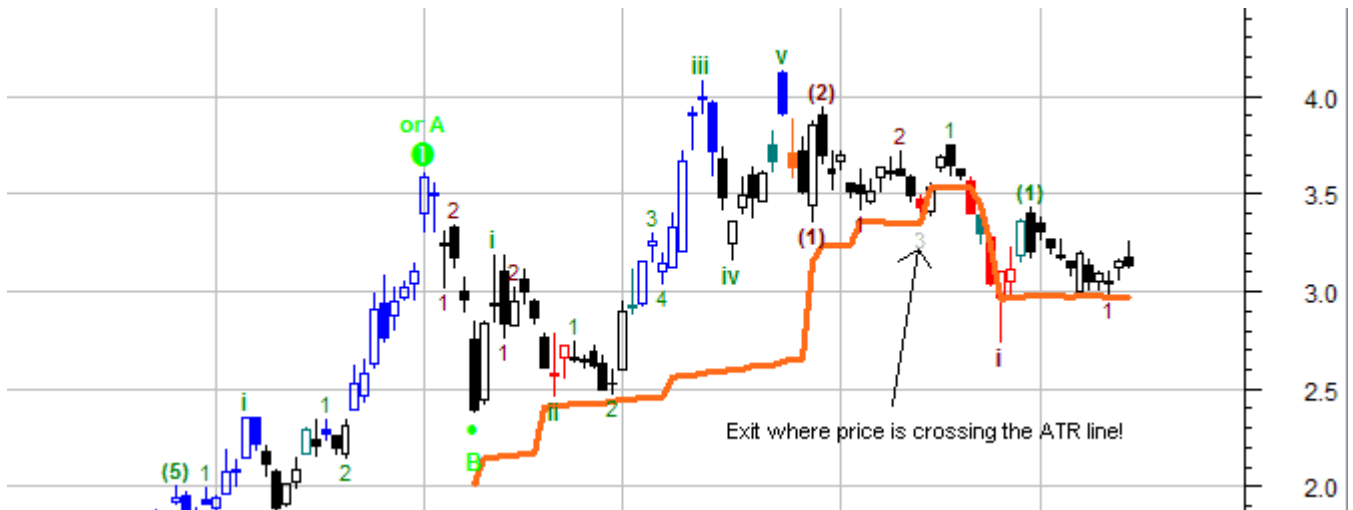
Fig. 72

Alphabetical Index of the all other AO Indicators

AO (Trig): This indicator is used to show the trigger level of a wave and the required retracement to confirm its end. It has a sensitivity input and is dynamic for the short segment, which is the line that will display at the selected retracement percent applied to the lowest or highest price value since the beginning of that wave. As long as there is no higher or lower value, it will display until the price crosses it giving a confirmation signal; then the short line will be replaced by the long one and a new short will trail the highest or lowest. To know from which value the short segment computes, look at the bar where the short line starts. On bar 1 you will hardly see a dot but as bars go by, the line gets longer.



AO ATR Ratchet: This indicator is used to show the stop price level of a transaction initiated at the specified date. It is a self adaptive average that reacts to volatility. The parameters are sensitivity, date, look back periods and acceleration factor. Shown below is the ratchet at 34%, note it does not disappear after a violation so it must be removed when no longer needed.

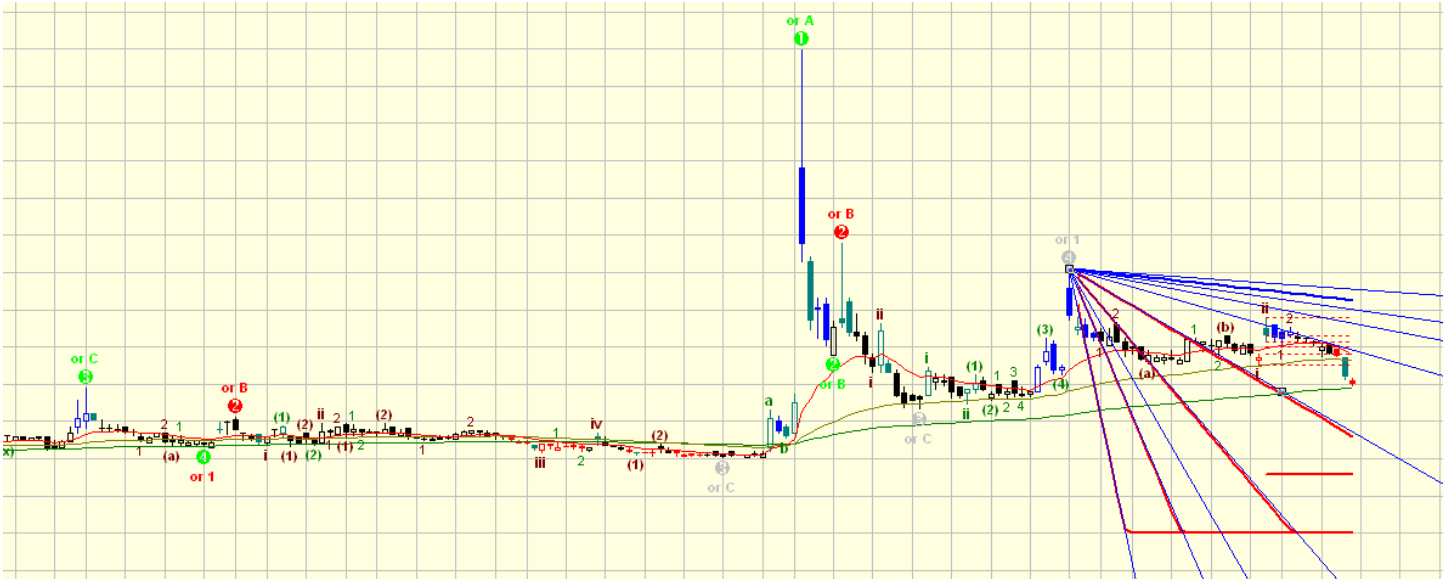


the price pane and should be displayed as a histogram using no scale so it floats freely.

AO Auto Gann Angles: This indicator plots automatically the Gann angles for the specified sensitivity. Here we selected the 34% sensitivity and where the lines reach zero, they become flat to avoid displaying negative values that would compress the rest of the chart.



To visualize the starting point and the accuracy, you can superpose Gann Angles from Equis over AlphOmega. Here is an example...



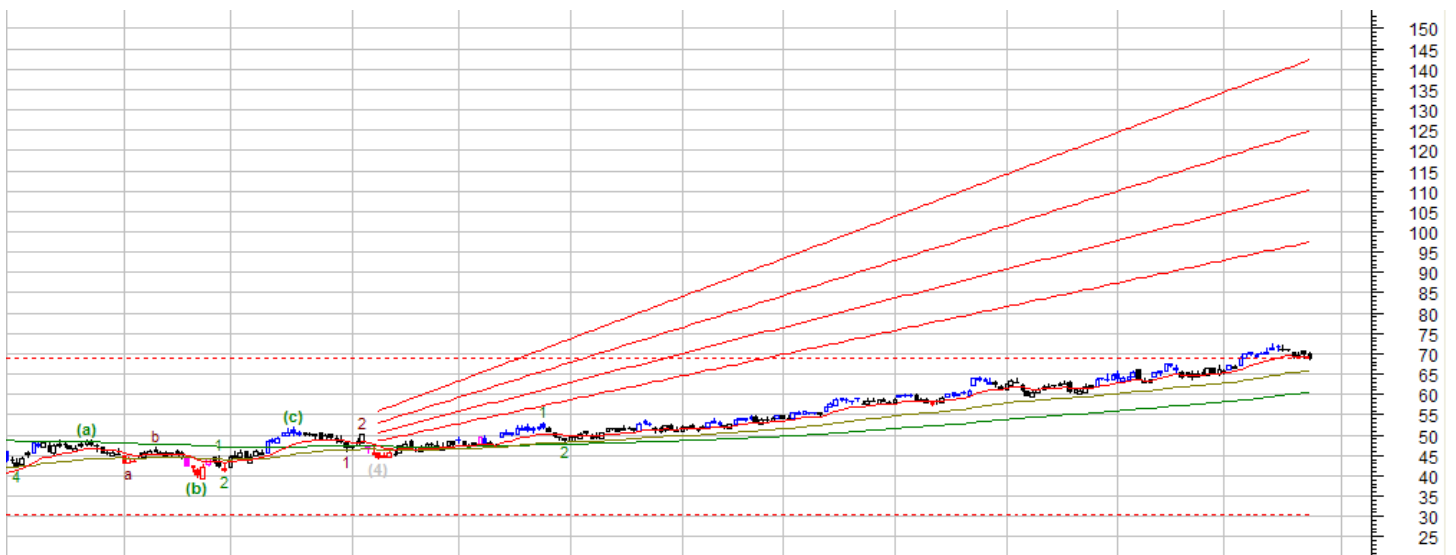
Note that the useless information is automatically discarded, that is only the angles containing the pattern are displayed. Once the pattern moves out of the Equis middle projection, it becomes another pattern.

AO Auto Gann Cycles: This indicator plots the Gann Cycles for the specified sensitivity on the price window. There is a selection of angle set, 30° or 45°, it drives the other angles to be displayed. As the previous one, set alike the display.

The Gann Cycle refers to the large amplitude as indicated by the arrows.

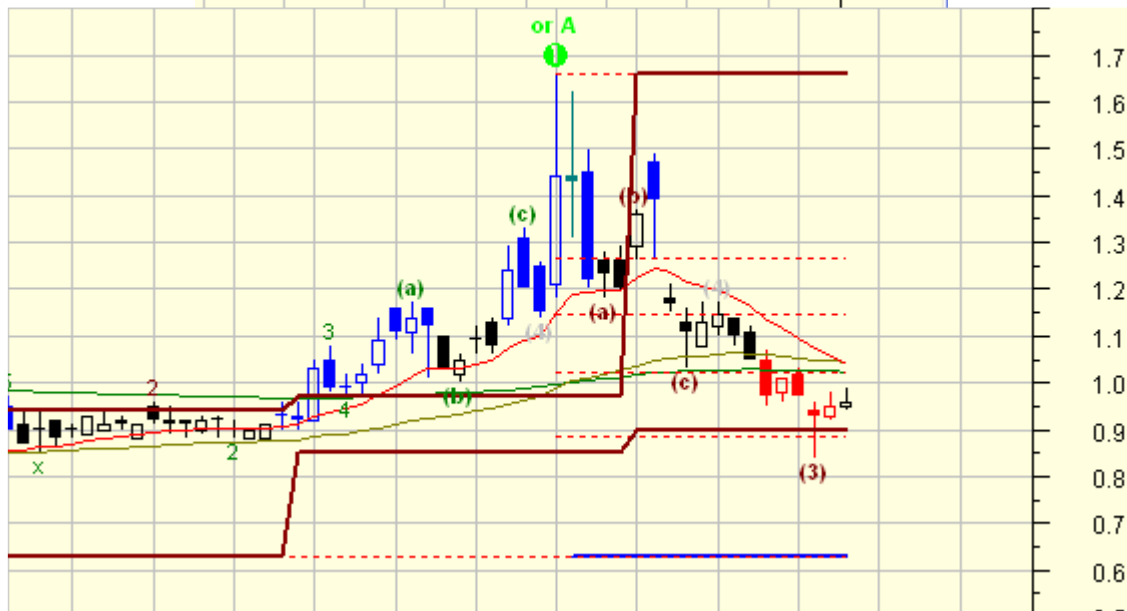


AO Auto Gann Fan: This indicator displays the Gann angles based on the trend for the selected sensitivity. It needs



three swing points, the origin is the oldest point and the angles divide the distance between the other two points, dividing in eights. Only the most conservative angles are shown, no more than 4. Another parameter is the choice of using the close or the high and low.

AO Auto Timeframe R&S and AO Timeframe R&S: This indicator computes the resistance and support levels from a said timeframe in a chart using a different time frame. You can compute monthly weekly or daily r&s for these timeframes. Here a monthly resistance and support level is shown in a daily timeframe. The indicator picks the highest high and the lowest low of the selected timeframe. For example, it has picked the highest high of the previous month and displays in the current month, week or day.



Current versus continuous version

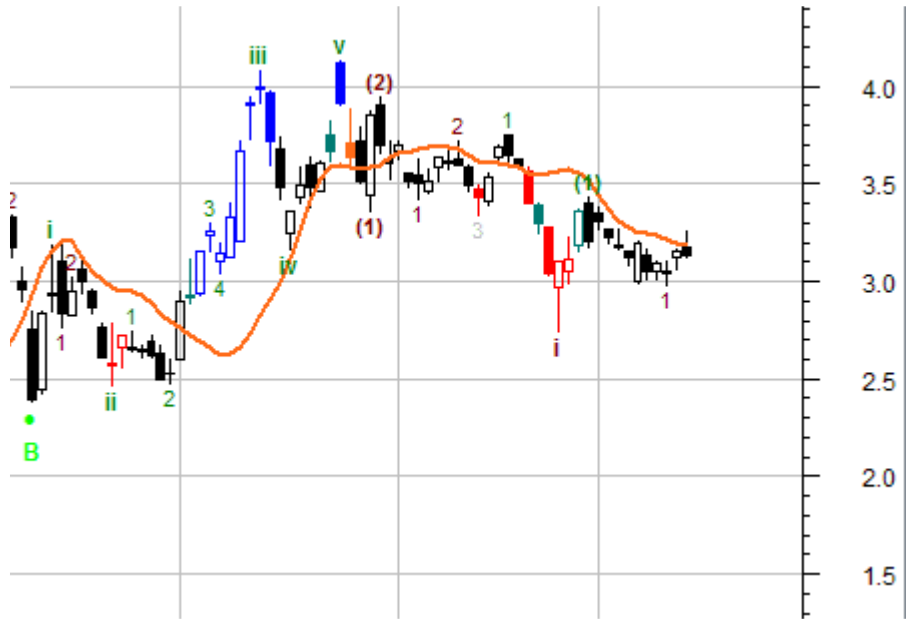
AO Auto Timeframe MA and AO Timeframe MA: This indicator computes the moving average from a said timeframe in a chart using a different time frame. You can compute monthly weekly or daily moving averages for these timeframes. Here a monthly moving average is shown in a daily timeframe (the brown thick line). The indicator picks the close of each bar of the selected timeframe and computes the moving average for the selected number of periods with the selected type (simple or exponential). For example, it has picked the close of the previous month and displays an exponential line that bridges it to the second previous month in the current month, week or day.



The difference between the two versions is the option to display only one moving average versus all for the Auto version. The use of averages or support and resistance of a different timeframe than the current chart is to assist finding strong support or resistance that could not be seen otherwise as they are computed with only a portion of the available data. For example, the monthly support and resistance uses the highest high and the lowest low of the previous month; the monthly moving average uses the closing price of last month and that of the previous and so on so forth for the selected number of periods, then it links these values by filling the gap of one moving average to the next using the exponential or simple curve. This method is used to provide a continuous value to something that change value only at the end of the month thus displaying a horizontal line for the month and an almost vertical line to the next point.

The crossing by the price of these particular lines is very significant as it implies either a change in the trend or in its momentum. The crossing of the lines themselves is also a key to the direction the new trend is about to take. In Elliott waves the trend is confirmed by a trigger that sets the wave's direction; the moving averages do almost the same thing and thus have a great bearing in the analysis of an Elliott pattern

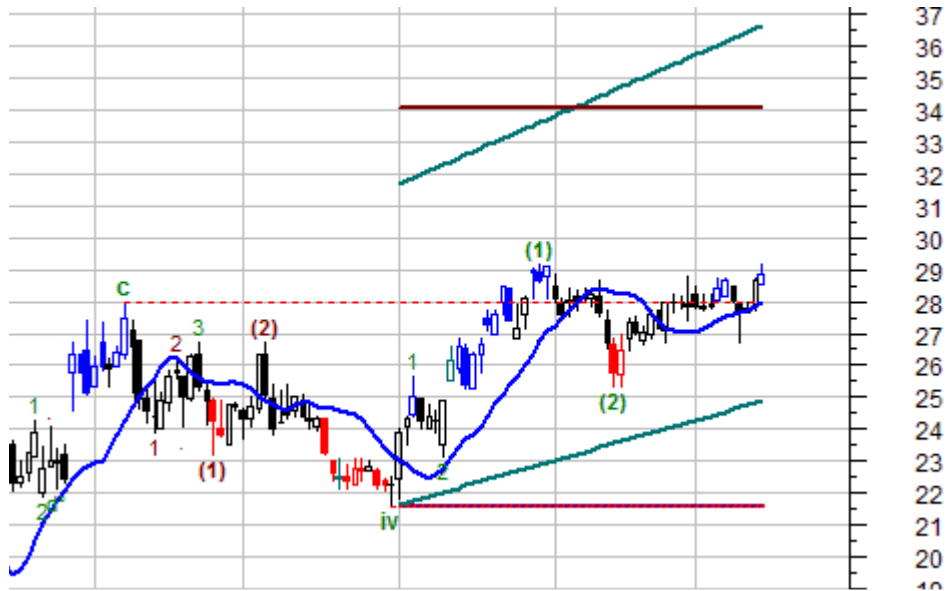
AO DMA: This indicator is a displaced moving average to help locating the end of a wave 5 in a T2 type of setup. There are three parameters: periods, forward displacement and data array (i.e. AO ZZ or the close of the bar or the high and the low). This indicator can also be used as an exit signal when price crosses over or under as it is more or less adaptive to volatility. It is used as such in one of the system test.



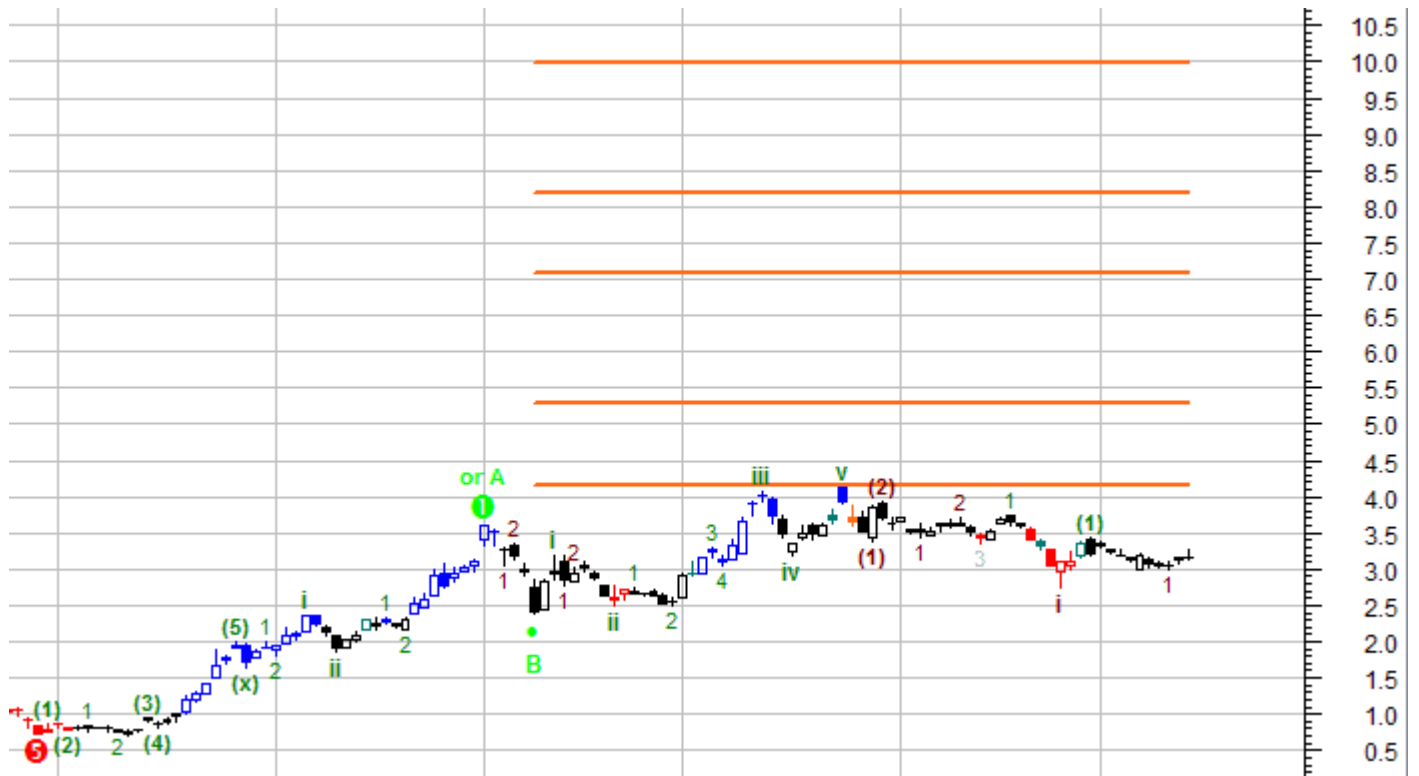
AO Elliott Channels (W3W4): This indicator will plot the channel for a wave 3 or a wave 4 for the specified sensitivity. Shown here is the sensitivity of 34% or waves labelled A and B in light green. When the price moves out of the channel, the trend is either losing or gaining momentum (depending which side of the channel is crossed). The parameter for this indicator is sensitivity. The indicator will not plot a channel if there is not a wave 3 or a wave4 deploying; instead it will default to the latest resistance or support.



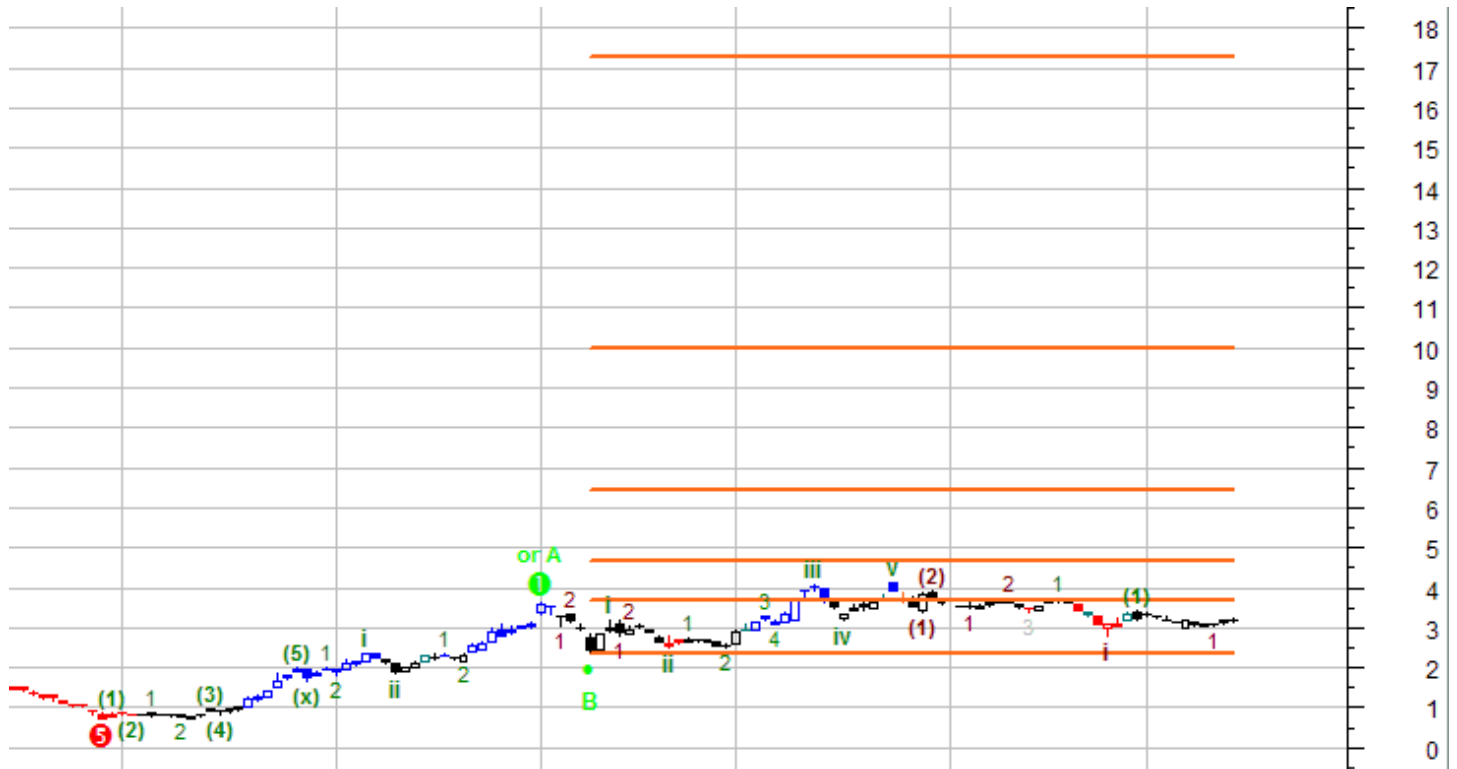
AO Elliott Channels (W5) and Wave 5 Target: This indicator plots the channel for a wave 5 as shown by the dark cyan lines. Shown at the same time is the Wave 5 Target in dark red and the displaced moving average in blue. This is a screenshot of the template Aget. The parameter for this indicator is sensitivity. The indicator will not plot a channel if there is not a wave 5 deploying; instead it will default to the latest resistance or support.



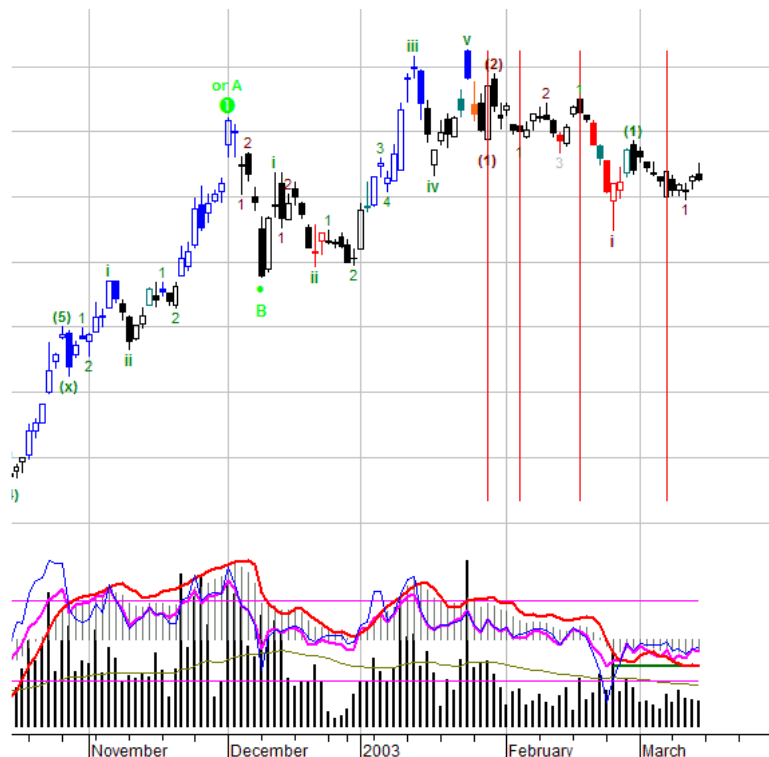
AO Fib Price at Date (P): This indicator will plot the Fibonacci price level from a selected date for a peak or trough and the selected sensitivity. There is a choice of type of projections, between 1- Alternate, 2- Corrective, 3- Extended and 4- Exponential. The lines start at the bar of the selected date. The Fibonacci ratios range from .382 to 2.618 and more with the Exponential type.



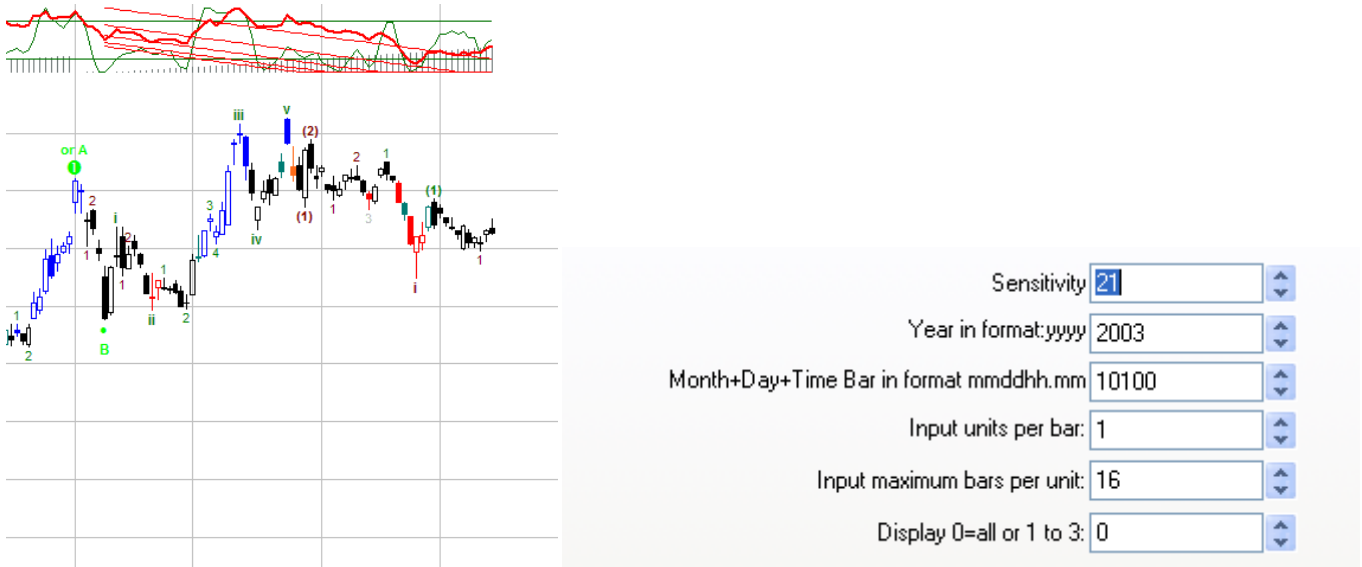
AO Fib Res & Sup at Date: This indicator will plot the Fibonacci resistance and support level from a specified date and for a selected sensitivity. The parameters for this indicator are: sensitivity, date, multiplier, number of lines to display and the type; type can be 1- Extensions, 2- Roots and 3- Quarters.



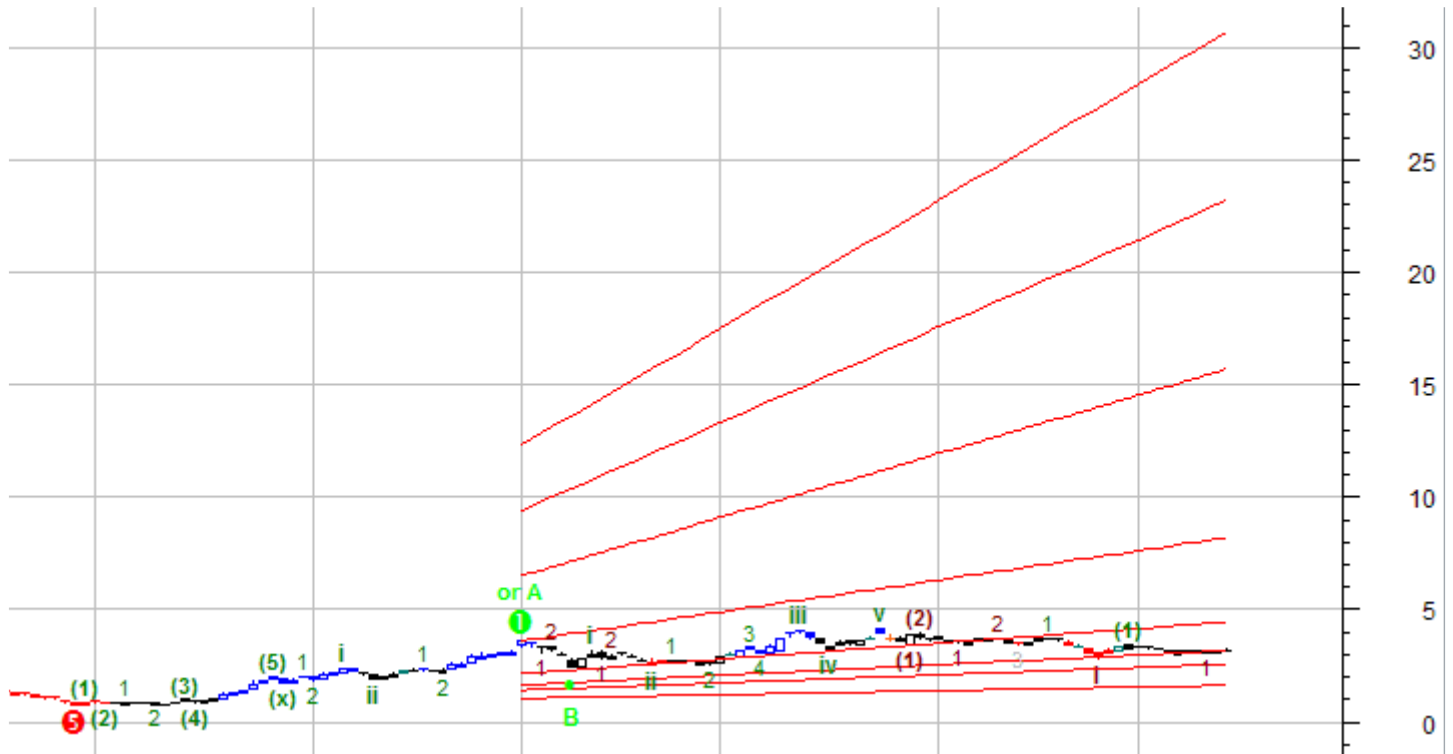
AO Fib Time at Date (P): This indicator will plot the Fibonacci time projections for a selected sensitivity and from the specified date on the price window. In addition you can pick a type: 1- Expanded Fib, 2- Phi Fib and 3- Fibonacci. This indicator must be set as a histogram without a scale in the price pane.



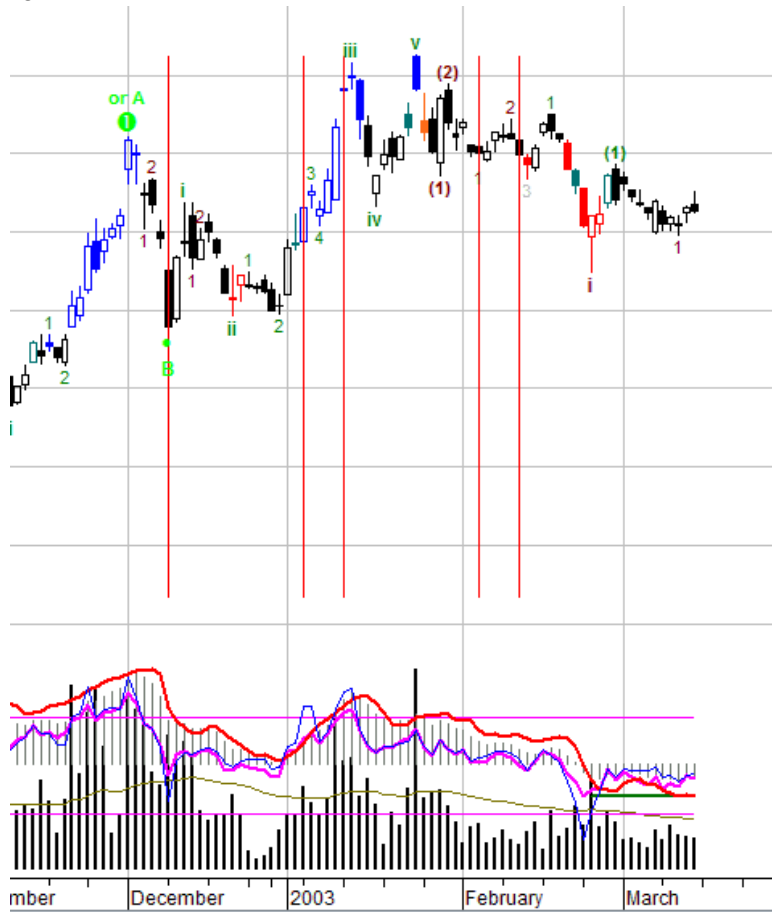
AO Fib Time at Date(T): This indicator will plot the Fibonacci time projection for a selected sensitivity and from a specified date on the time window. You can pick the style as the previous but it is applied to the duration pane (on the bars representing time). When the gray bars touch the red lines, you have a possible reversal. Time projections are not as accurate and do not rank over price projections.



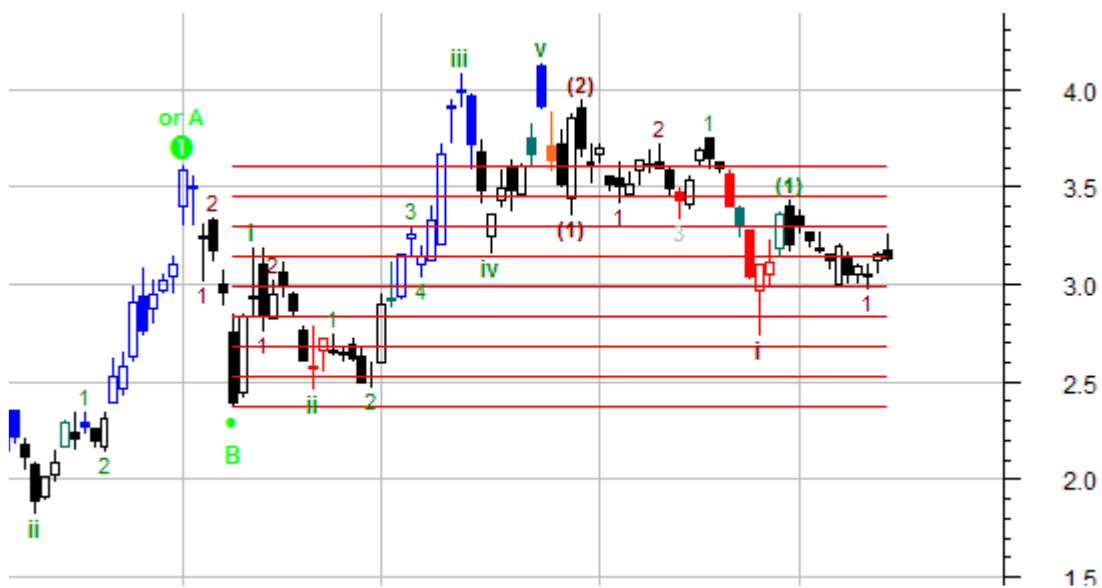
AO Gann Eights Angles: This indicator will plot the Gann angles from a specified date and sensitivity splitting in eights the difference between the last peak and trough. **AO Gann Angles** uses a traditional approach with days and units. The input parameters can be seen above. It is possible to plot any combination of units per bar and bars per unit. This refers to the geometrical representation of the Gann angles. Some combinations are more important, the 1X16, 1X8 and 1X4 are among them. Plotting too many lines will distort your whole chart because the delta between the lines is quite steep as can be seen below.



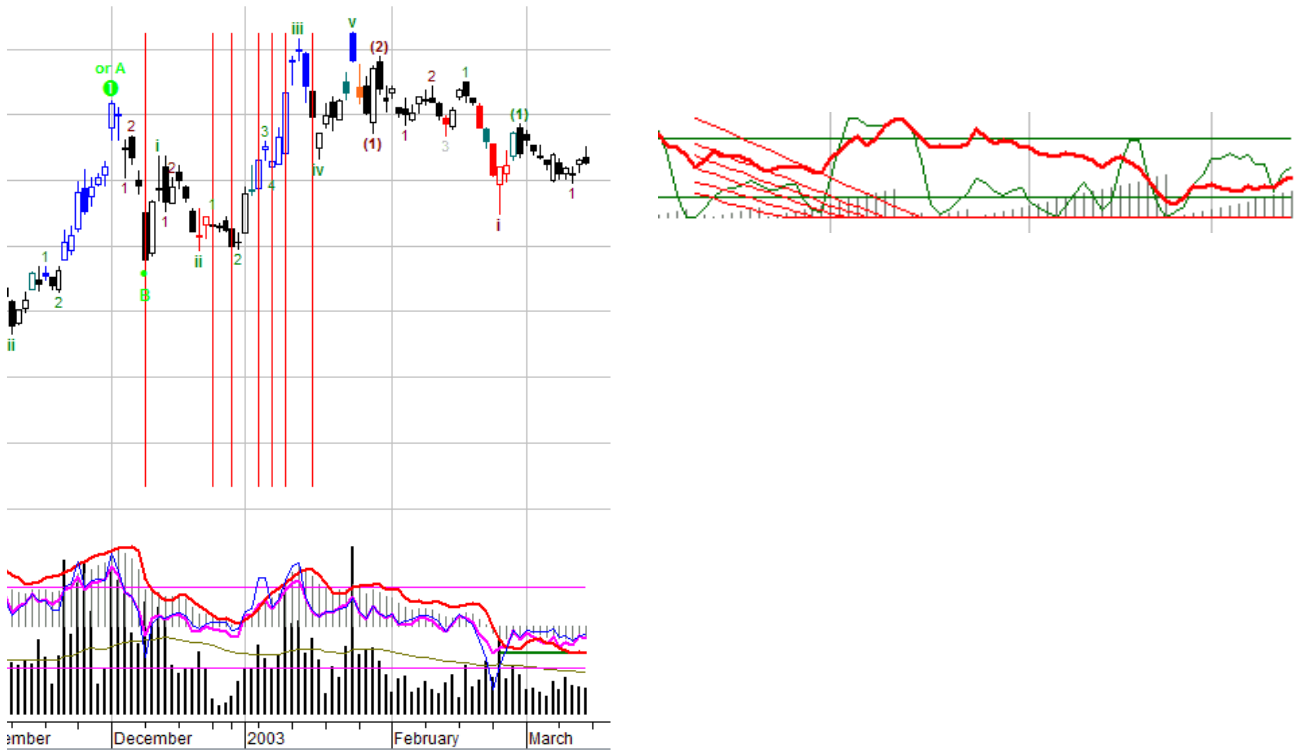
AO Gann Cycles from Date(P): This indicator will plot the Gann Cycles from a specified date and for a selected sensitivity. There are two types: 1- 30° and 2- 45°. Like most cycle indicators, it must be set to display as a histogram without scale in the price pane.



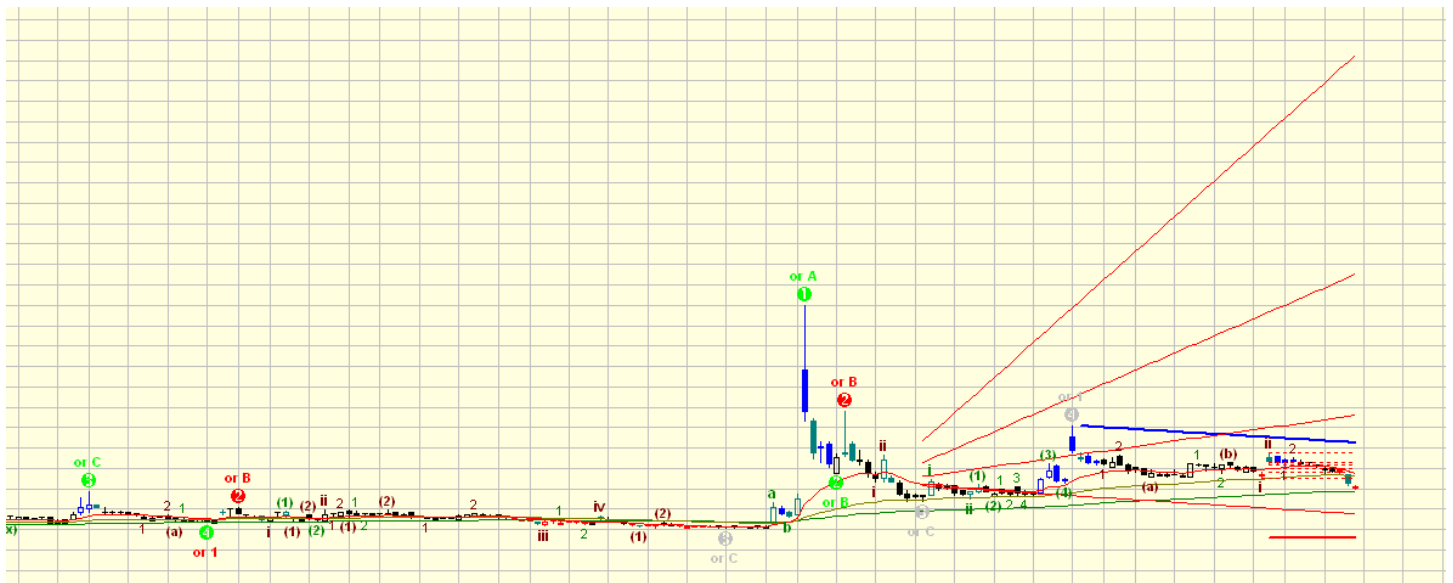
AO Gann Eights Price: This indicator will show the price levels in eights from the last peak or trough of specified sensitivity. The lines start at the input date. The scale must be matched to the price scale to display properly.



AO Gann Eights Time (P) and (T): This indicator will show the time projections in eights from the last peak or trough on price for specified sensitivity. The interpretation for the time projections is the same as mentioned previously, when the gray bars touch the red lines, it is a potential trend reversal. Like most time indicators in the price pane, it must be set to display as a histogram without scale. The (T) being in the duration- time pane must be tied to the duration scale.



AO Gann Fan at Date: Will plot a Gann fan from the date specified for the selected sensitivity.

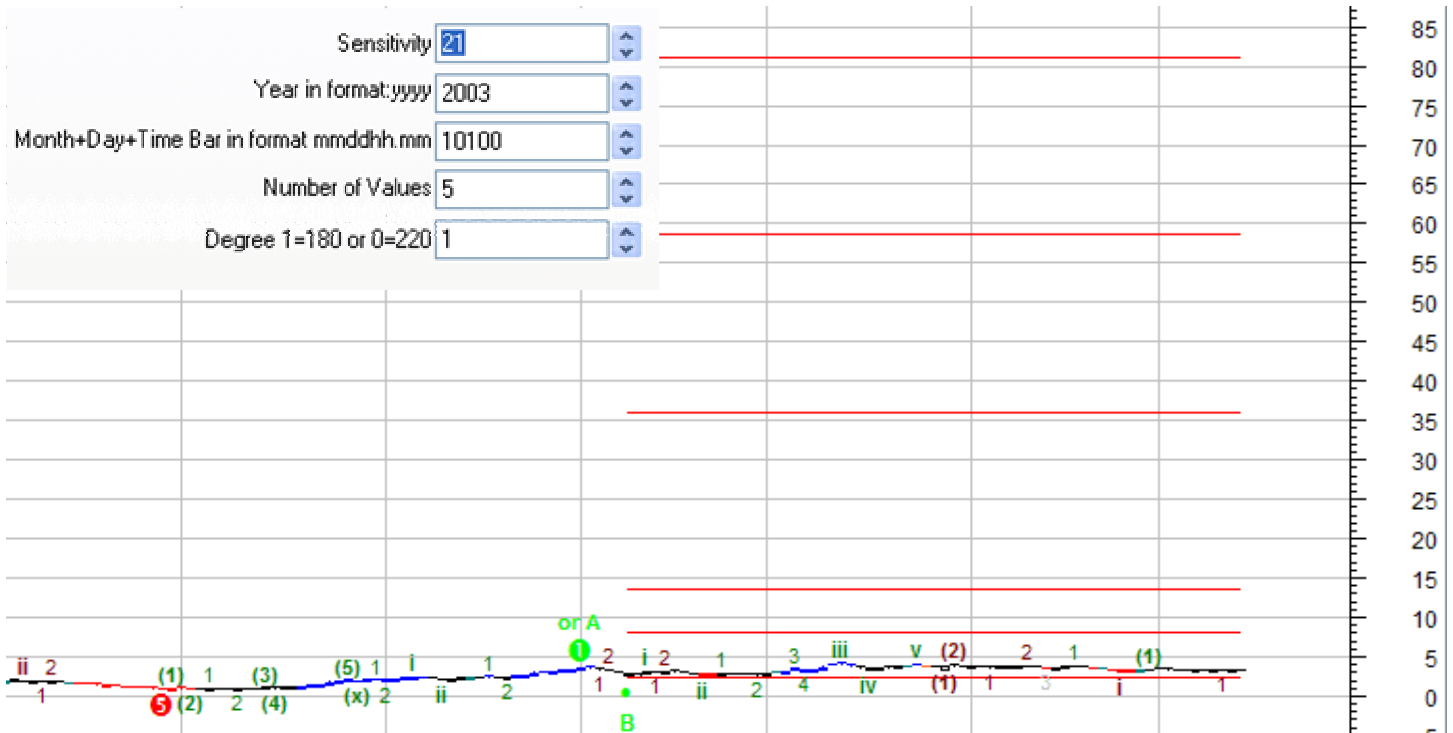


It is useful to check the acceleration of a pattern or a noticeable slowdown of the momentum.

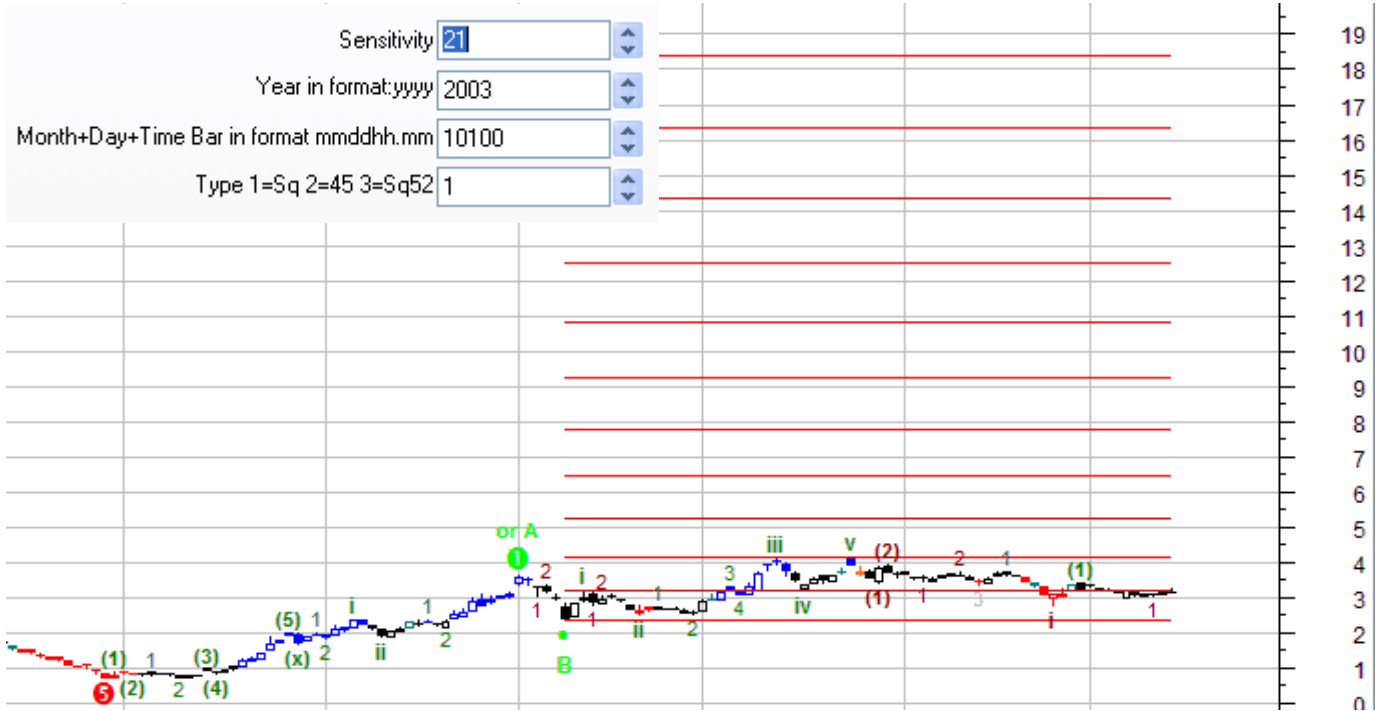
AO Gann Range: This indicator will plot the Gann range in eights for the specified date of the peak or trough of specified sensitivity. The types are shown on the chart below. Note that the displayed settings do not correspond to the displayed chart.



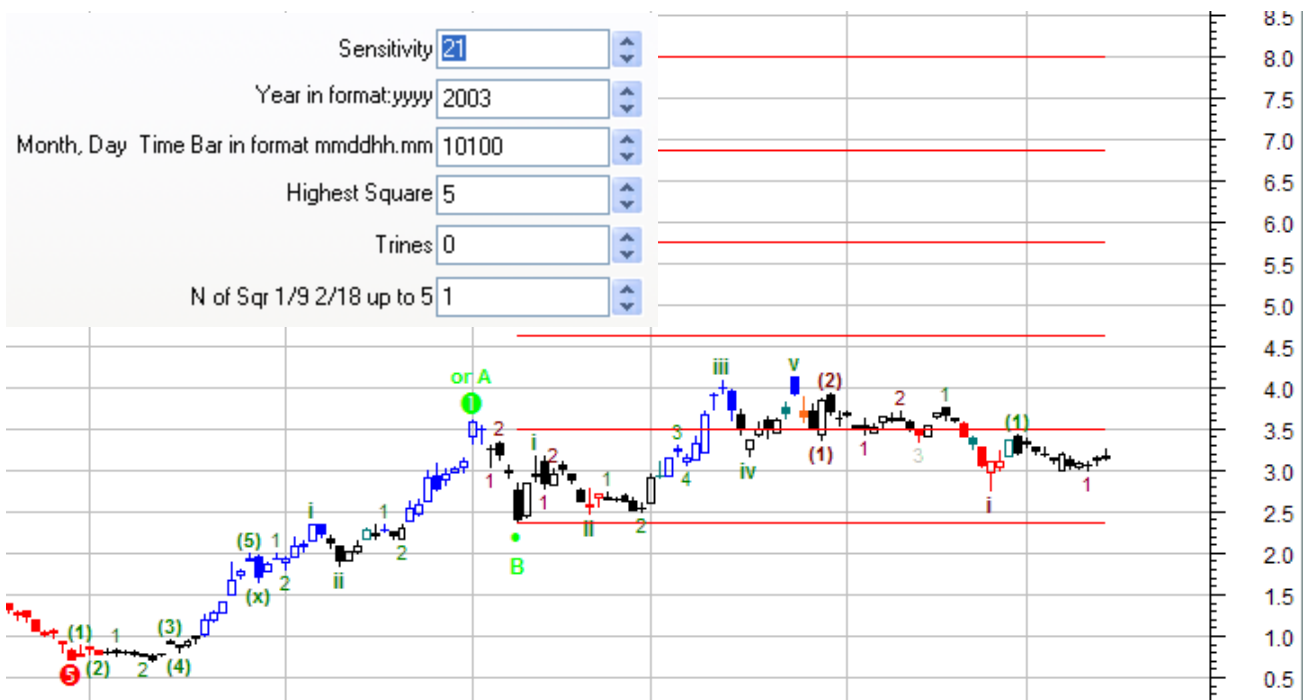
AO Gann Res& Sup: This indicator will plot the resistance and support in Gann levels for the specified date and sensitivity. You can also select the number of lines to display and the type as shown in chart.



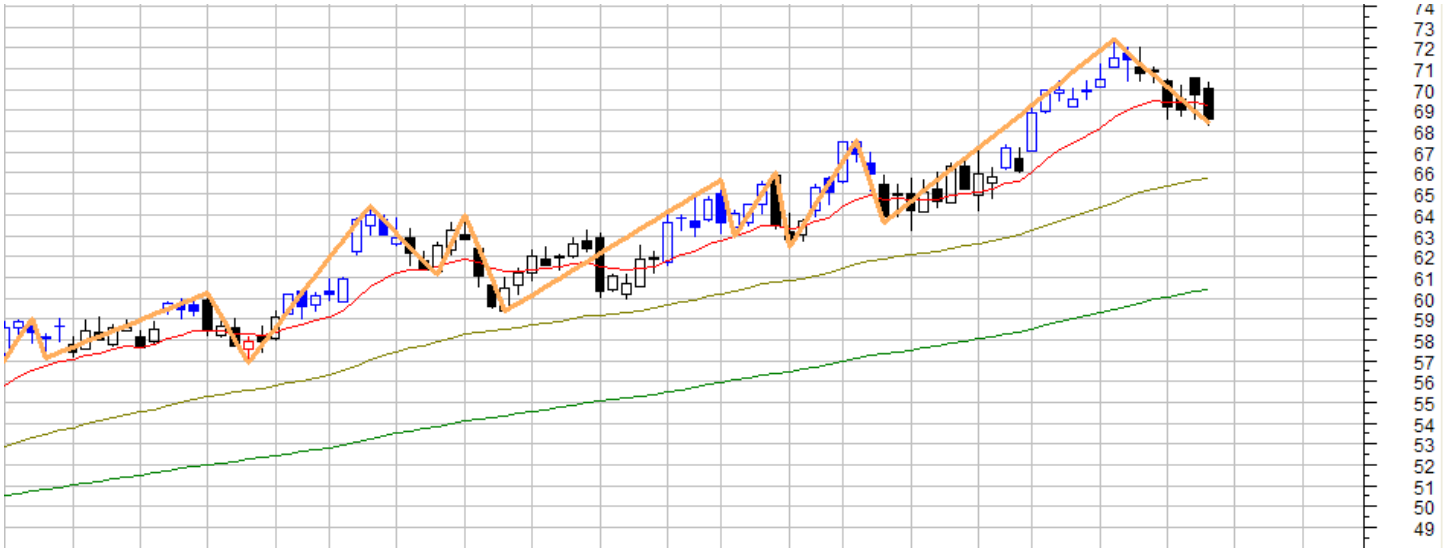
AO Gann Sqr @ degrees: This indicator will plot the price levels for Gann squares and degrees from the date of the peak or trough of specified sensitivity. You can select the type of projection like 45 degrees, square etc...



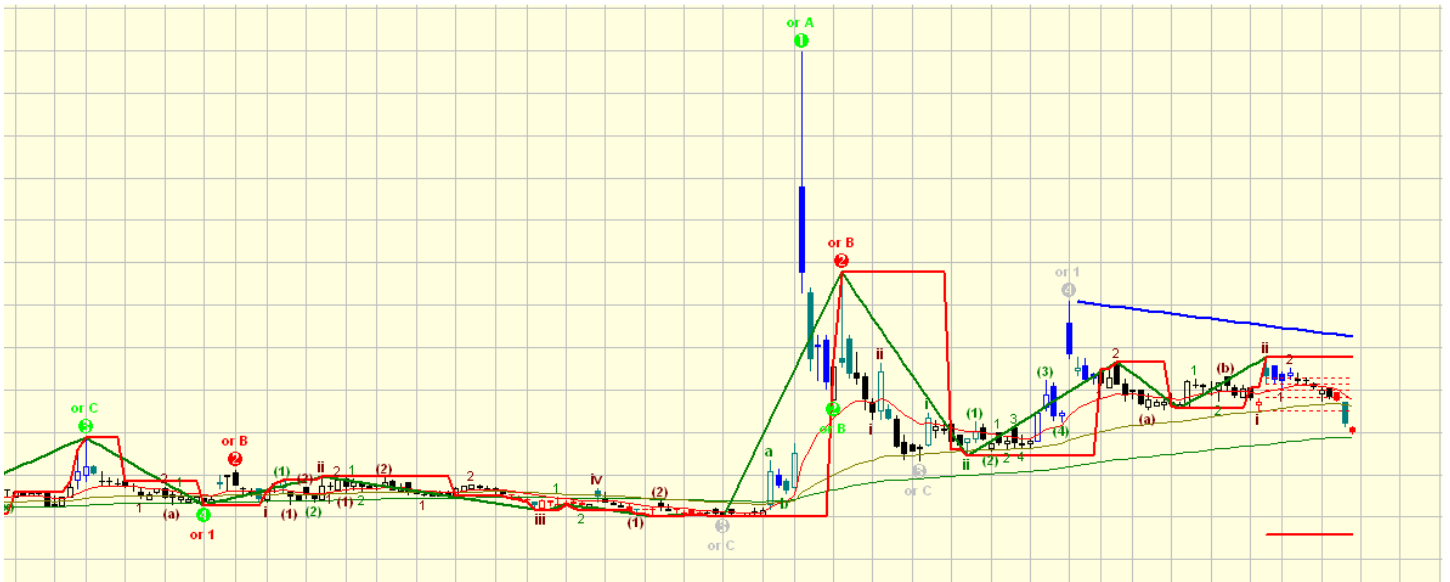
AO Gann Squares: This indicator will plot Gann squares from the date of the peak or trough of specified sensitivity. There are quite a few adjusting parameters to display the type of Gann squares you like. To use this indicator, you should read about the Gann geometry of price. The mathematics behind are simple but the application is far more complex. Feeling your way by testing will at least provide the satisfaction of discovering relationships between price and Gann geometry. Note that Gann always started from the lowest historical low to build up the projections.



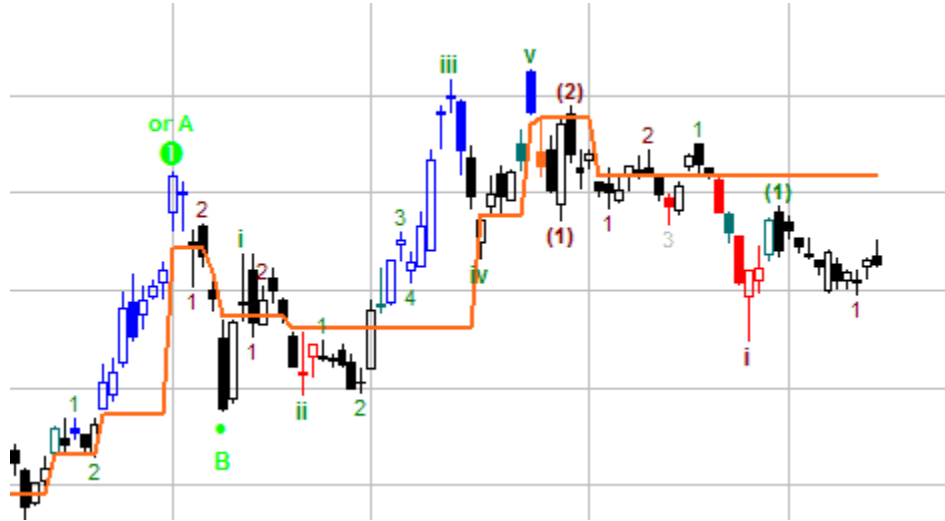
AO Gann Swing: This indicator will plot the Gann swings using two successive days of higher highs or lower lows. There is no sensitivity adjustment, only the possibility of starting from High or Low (default) or Close. Although unusual, this zigzag works very well in slightly trending markets. It is not Elliott swings so don't look for impulse or corrective waves; there is no nesting in this kind of waves, there are absolute unless you change the number of successive highs or lows required.



AO Gann Weekly-RS: This indicator will display the latest weekly support or resistance as well as the zigzag for the selected sensitivity. The red line is the resistance or support while the green line is the zigzag.



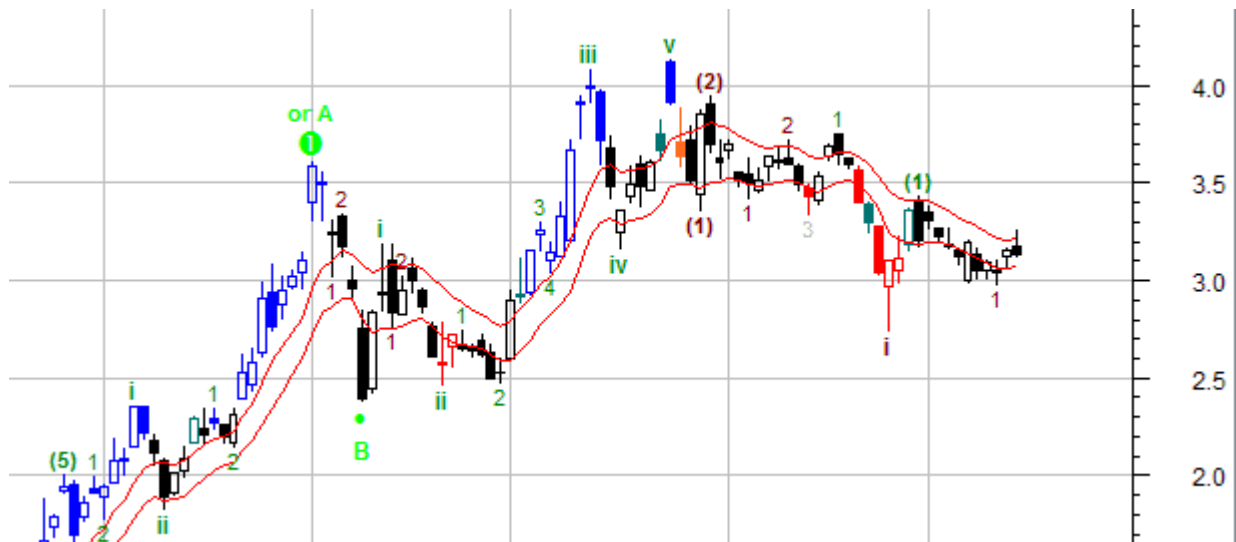
AO Gap Resistance: This indicator will plot the resistance level based on the latest gap. The concept is that until a gap is filled, it is likely to be a resistance or a support. Depending on the type of gap, some will close rapidly while others will take a long time. Exhaustion gaps always close fast while runaway gaps tend to remain open longer.



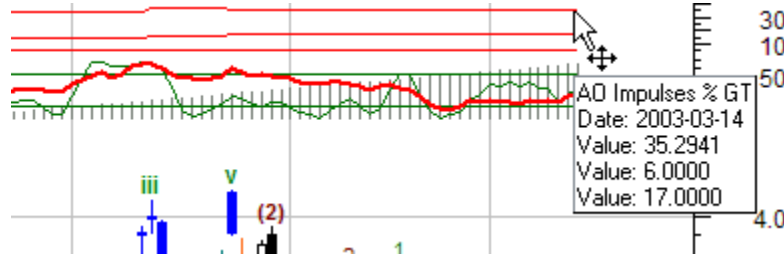
AO GDate: This indicator will store the current date information to be used by The Explorer™. This information must be entered daily by the user. This global variable cannot be used for intraday, only for end of day databases. The indicator does not appear in the Indicator Display list, the update is through the Indicator Builder list.

AO GSe: This indicator will store the edited sensitivity to be used by The Expert Advisor and The Explorer™. This information must be entered by the user. This global variable can be used for intraday or end of day databases. The indicator appears in the Indicator Display list, the update must be through the Indicator Builder list.

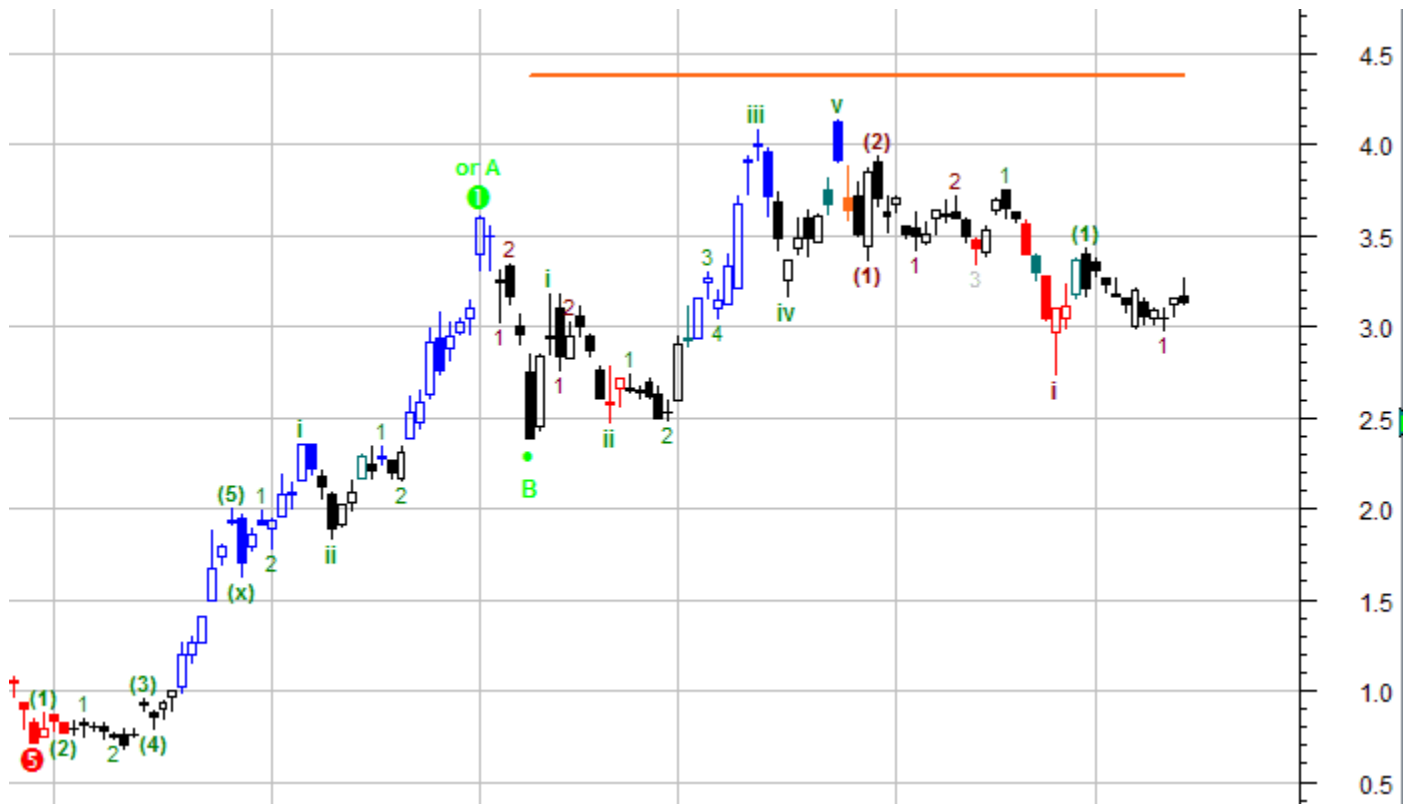
AO HiLo Channel: This indicator will plot an average of the highs and the lows thus forming a channel. This indicator has no parameter but uses 10 periods for the moving averages of the high and low. When price strays from the channel, volatility is higher, the channel almost acts like an ATR.



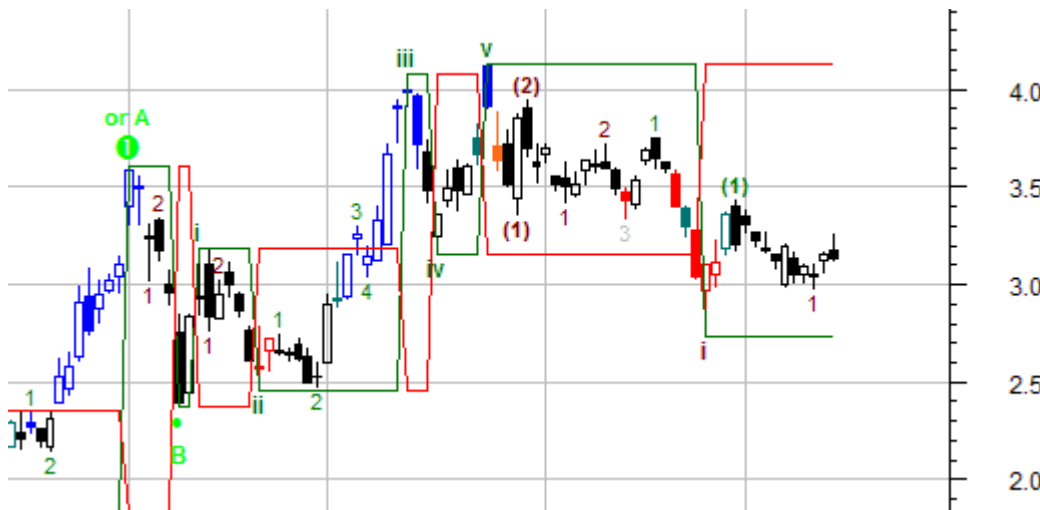
AO Impulses % GT: This indicator will plot the number of good impulses for the specified bars period and the specified sensitivity. It will also provide number of good impulses and total impulses. This is for a quick back test check of the fit of sensitivity to the price action of the security.



AO Input W# Highlighter: This indicator will plot the standard projection for the specified wave number from latest peak or trough at the specified sensitivity. Useful if you want to check different sensitivity without having to drag several indicators in your chart. Make sure the wave is still running otherwise it will not display anything.



AO Latest R&S Boxes: This indicator will plot the latest wave resistance and support level for the specified sensitivity. The resistance and support used are the previous peak or trough of the sensitivity. Its main advantage over the PTF indicator is that it shows the older data so you can find how reliable these supports and resistances have been in the past.



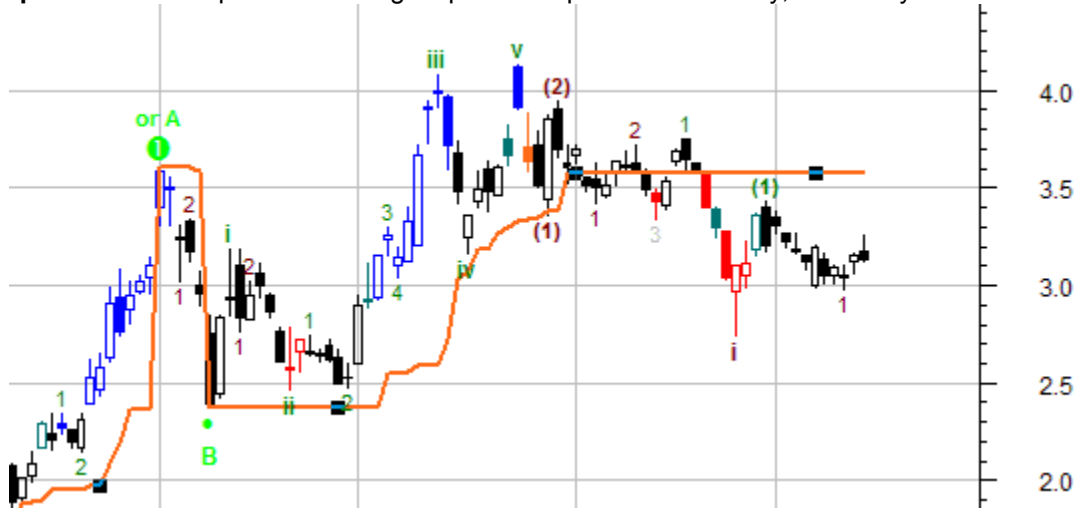
AO T (All Sens.) and (L): These indicators are triggers used by the Expert and although they provide a price value, they would not provide information that is not shown elsewhere to the user. You can select the data array for the waves to align your indicator to the expert used. These indicators do not appear in the indicator quick list and are not intended for plotting.

AO Swing Lines: This indicator will plot the zigzag of three different sensitivities (your choice) based on either % or \$.



AO ZZ(all4) looks very similar in its way of displaying the four selected sensitivities. The main difference is that you can input the starting (lowest) sensitivity and it will compute the next three automatically. With Swing Lines, you input the three different sensitivities in either percent or points.

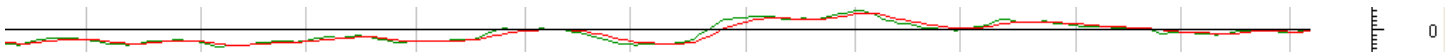
AO Trailing Stop: This indicator plots the trailing stop for the specified sensitivity, and delay for the ratchet action.



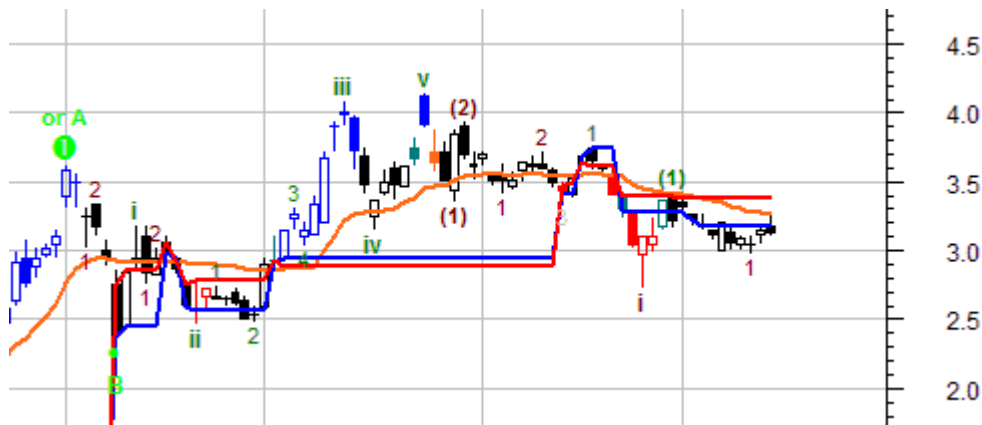
AO Triangle <: This indicator plots triangles based on sensitivity and direction of triangle (this is an expanding).



AO TSI: This indicator is based on the moving average of variations of a moving average. It provides an interesting alternate entry or exit point. Crossovers of lines or of specific levels are the normal signals. The parameters are data array, periods for base average, periods for averaging the base and periods for the signal. The choice of data arrays is between close of the bar or high and low.



AO Vidya: This indicator is based on Tushar Chande's work and is an adaptive moving average. The orange line is the Vidya, while the red is the entry and the blue is the exit level. The parameters are number of periods, smoothing factor and acceleration.



Final Word on the Presentation in the Manual.

As you browse through the manual, you will see that some screenshots are from older releases; the screenshots are replaced only when the input has been modified for the displayed indicator. With time, all screenshots will be refreshed but all efforts are on the product development for the time being. Your comments to make the manual easier to read would be welcome.

Release 4.0 Comments:

The major change in this release is the restructuring of the low volatility expert, the deletion of the option to use the closing price in indicators and the addition of new indicators such as Time display of vertical lines for Fibonacci and Gann Cycles. Simplification of date input using the yyyyymmdd format. There is an improvement of the exploration for Wolf Wave with its corresponding indicator and in the expert. **Most of these changes take advantage of the extra space allowed in formulas by the latest version of MetaStock® 8.0.** If you did not migrate to the 8.0 version, you will not be able to use this revision. MetaStock has changed the way the files are saved so that you can read old version but the new version cannot be read by 7.2 or before. This is very unfortunate and this issue occurs for the third time in a row with Equis. I will maintain both version alive but obviously it would be foolish not to take the enhancements of the latest for the benefit of users.

Release 4.3 Comments:

Completed the integration of recognizing a small wave 3 and other erratic patterns and adjusted the price and time projections accordingly. Created symbols to account for a converging triangle with letters c,d and e. Introduced continuity between the Low Volatility Expert and the Elliott Waves 6.0 Expert. The addition of overlapping sensitivity provides an anchor point from one screen to the other. This version will display more accurately in high volatility periods. A thorough cleanup has been performed in the indicators, systems, explorations and experts. Only those related to the use of Elliott Waves have been kept. For those who would prefer to keep them, just send a note.

Release 4.5 Comments:

The date input function has been modified to accommodate the intraday users who require an hour and minute input. All indicators now reflect this. AOi explorations, systems and templates have been added for intraday data strictly. System Testers have been modified to use the unadorned Elliott methodology (entries and exits should be closely related to triggers).

Release 5.5 Comments:

This release is for MetaStock 9.0 and up! It adds 2 new experts, AlphOmega Elliott Waves Impulse Signals and AlphOmega Elliott Waves Points, 2 new explorations, AlphOmega Elliott Impulses (21%) DF* and AlphOmega Wave Points, and a new system test, AlphOmega Elliott Impulses (21%) with revised formulas to catch all signals either in explorations or system tests. All indicators renamed with either AlphOmega or AO as a prefix, **please delete all previous indicators and experts from AlphOmega.** Uninstalling will not erase the old nomenclature and your database will carry duplicate or obsolete indicators and experts. It is a good practice to compare the detailed list at the end of this manual with your indicator, system, expert, exploration and template lists.

Release 5.6 Comments:

This release has a number of experts, explorations, indicators and templates added. A global variable for sensitivity, AO GSe is used to feed an expert and its related indicators as well as explorations. AlphOmega Elliott Waves 1% Swing and AlphOmega Elliott Waves Points are new experts with trade signals rather than wave counts. New templates were added with AO Auto Timeframe R&S, an indicator that computes the resistance and support for other timeframes such as weekly or monthly levels in a daily chart. There are eight new explorations, four for the L global sensitivity, two for detecting the success rate of a particular wave number for 13 and 21% sensitivities. The two last ones are trade signals exploration for 1% sensitivity and Elliott Oscillator 3 successive bars that are positive after a fourth negative..

Complete list of experts, explorations, indicators, systems and templates.

MetaStock for Windows

Explorations

AlphOmega Elliott Impulses (21%) DF*	AO EW T1
AlphOmega Elliott Waves EO Signal	AO EW T2
AlphOmega Impulses % GT	AO RSI Divergence
AlphOmega Impulses 13% GT by Wave#	AO Triangle Exploration
AlphOmega Impulses 21% GT by Wave#	AO TSI
AlphOmega L3 (I)	AO Wolf Five n-perf
AlphOmega Normal (I)	AO Wolf Wave Norm
AlphOmega Pitchfork Medians	AOi Elliott Waves 1% Swing
AlphOmega Pitchfork Scan	AOi Elliott Waves 1% with DMA exit
AlphOmega RSI Trend Violation	AOi Elliott Waves fast (1%)
AlphOmega Signal Scan and (L)	AOi Elliott Waves Impulses normal (3%)
AlphOmega Trendline Violation	AOi Elliott Waves normal (3%)
AlphOmega Vidya	AOi Elliott Waves slow (5%)
AlphOmega Wave Points (3)	AOi EW T1
AO Elliott Waves (8%) and (L1)	AOi EW T2
AO Elliott Waves (13%) and (L2)	AOi Impulses % iGT (3%)
AO Elliott Waves (21%) and (L3)	AOi Normal (3%) (I)
AO Elliott Waves (34%) and (L4)	AOi Signal Scan
AO Elliott Waves Impulse Signal (3%)	

Experts

AlphOmega Elliott Waves 1% Swing
AlphOmega Elliott Waves Futures
AlphOmega Elliott Waves GSe
AlphOmega Elliott Waves HV
AlphOmega Elliott Waves Impulse Signals
AlphOmega Elliott Waves LV
AlphOmega Elliott Waves NV
AlphOmega Elliott Waves Points

Templates

AlphOmega Aget
AlphOmega Elliott Waves (8%)(13%)(21%)(34%)
AlphOmega Elliott Waves Swing
AlphOmega GSen
AlphOmega Simple
AlphOmega Vidya
AlphOmega Wolf
AO Auto Timeframe R&S
AOi Aget
AOi Aget Futures
AOi Simple

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Indicators

AlphOmega Absolute Elliott
AlphOmega ADI
AlphOmega Auto Trendline
AlphOmega Auto Trendline(i)(f) and (L)
AlphOmega Auto WLR
AlphOmega Bars since Signal
AlphOmega Consolidation/Triangle and (L)
AlphOmega DI/Storsi Trend
AlphOmega Gann Price
AlphOmega Highlighter (0.3% to 144%, L1 to L4)
AlphOmega Pitchfork
AlphOmega RSI/RMI Trend
AlphOmega Similarity of a Wave
AlphOmega Trend Resistance
AlphOmega Trend Support
AlphOmega Weekly Pivot Point
AO (Trig)
AO ATR Ratchet
AO Auto Fib Fan
AO Auto Fib Time(P)
AO Auto Gann Angles
AO Auto Gann Cycles(P)
AO Auto Gann Fan
AO Auto Timeframe MA
AO Auto Timeframe R&S
AO Bear ID
AO Bull ID
AO DMA
AO Elliot Oscillator
AO Elliott Channels(W3W4)
AO Elliott Channels(W5)
AO Elliott W5 Target
AO EWI-Le(21% and L3)
AO EWI-Lx(21% and L3)
AO EWI-Se(21% and L3)
AO EWI-Sx(21% and L3)
AO Fib Fan
AO Fib Price at Date
AO Fib Res & Sup at Date
AO Fib Time at Date(P)
AO Fib Time at Date(T)
AO Gann Angles at Date
AO Gann Cycles from Date(P)
AO Gann Eights Angles
AO Gann Eights Price
AO Gann Eights Time(P)
AO Gann Eights Time(T)
AO Gann Fan at Date
AO Gann Range
AO Gann Res & Sup
AO Gann Sqr @ degrees
AO Gann Squares
AO Gann Swing
AO Gann Weekly-RS
AO Gap Resistance
AO GDate
AO GSe
AO HiLo Channel
AO ID (All Sens.)+ (L1 to L4)
AO Impulses % GT
AO Input W# Highlighter
AO Latest R&S Boxes
AO P&T Duration + (L)
AO Pivots and R&S
AO Points Trig
AO Price Projection PW2
AO Price Projection PW3
AO Price Projection PW4
AO Price Projection PW5
AO Price Projection PWC
AO Price Projection W2
AO Price Projection W3
AO Price Projection W4
AO Price Projection W5
AO Price Projection WC
AO PTF and (L)
AO PTI
AO PW2 (All Sens.)+(L1 to L4)
AO PW3 (All Sens.)+(L1 to L4)
AO PW4 (All Sens.)+(L1 to L4)
AO PW5 (All Sens.)+(L1 to L4)
AO PWC (All Sens.)+(L1 to L4)
AO Sensitivity Optimizer
AO Signal Scan (21 and 34)
AO STORSI
AO Swing Lines
AO T(All sens.)+(L1 to L4)
AO Time Projection W2
AO Time Projection W3
AO Time Projection W4
AO Time Projection W5
AO Time Projection WC
AO Timeframe MA
AO Timeframe R&S
AO Today and (L)
AO Trailing Stop
AO Triangle <
AO Triangle > at Date
AO Triangle >
AO Trig Hist
AO Trig Levels
AO TSI
AO TW2(All Sens.)+(L1 to L4)
AO TW3(All Sens.)+(L1 to L4)
AO TW4(All Sens.)+(L1 to L4)
AO TW5(All Sens.)+(L1 to L4)
AO TWC(All Sens.)+(L1 to L4)
AO Vidya
AO Vidya(s)
AO W4 TRC
AO Vertical Line
AO Vidya
AO W4 TRC
AO Wave 4 Failing (All Sens.)+(L1 to L4)
AO Wave Performance Monitor
AO Wave Price Projection (All Sens.)+(L1 to L4)
AO Wave Three Rule (All Sens.)+(L1 to L4)

AO Wave Time Projection (All Sens.)+(L1 to L4)
AO Week Support and Resistance
AO Weekly Histogram AO Wolf Five
AO WolfWave and (L)
AO WolfWave at Date

AO XTL-Ag
AO ZZ
AO ZZ(all4)
AO ZZ(Points)

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Systems

AO Elliott (ind)
AO Elliott Impulses (21%)
AO Elliott Impulses (L3)
AO Elliott Waves Fast (8%)
AO Elliott Waves Moderate (13%)
AO Elliott Waves Normal (21%)
AO Elliott Waves Normal (L3)
AO Elliott Waves Normal + EMA
AO Elliott Waves w/Opt

AO Elliott WolfWave
AO TSI
AOi Elliott Waves iFast (1%)
AOi Elliott Waves iFast (1%) with DMA exit
AOi Elliott Waves iNormal (3%)
AOi Elliott Waves iSlow (5%)
AOi Elliott Waves w/Opt for i
AOi Elliott Waves w/Opt for i with DMA exit



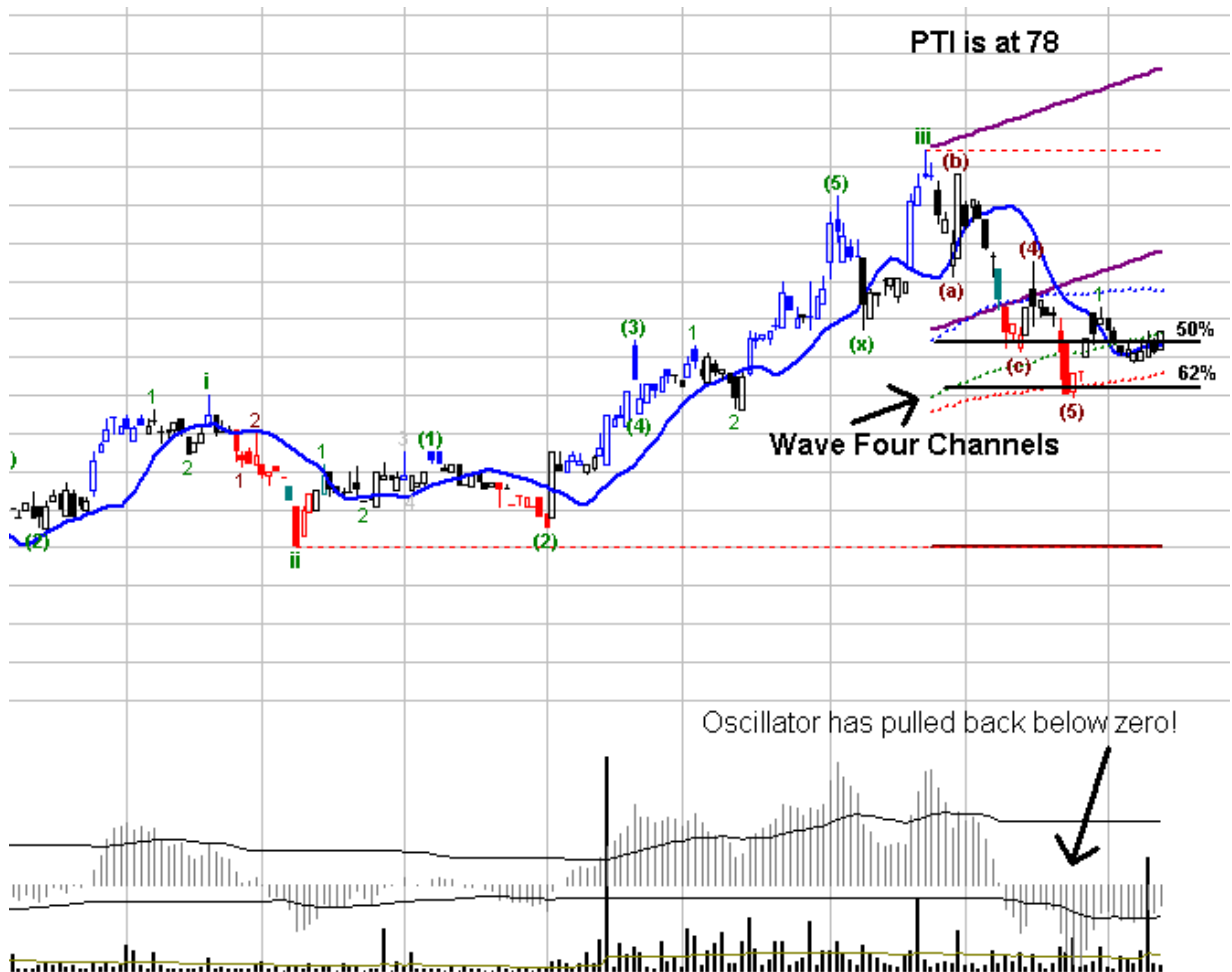
Rules: Type 1 Trade

(Buying at the end of a Fourth Wave retracement)

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Once a Wave Four is confirmed, look for the following conditions:

- I. Look for the Elliott Oscillator to pull back to or below the zero line.
- II. Once the oscillator pulls back to zero, check to see if the prices have retraced at least 38% of the previous Wave Three and less than 62%.
- III. At this time, the PTI must be above 35. The PTI is an indicator that computes a probability for a Wave Five. When the PTI drops below 35, the probability for a Wave Five rally is greatly reduced. In addition, it also increases the possibility for a Fifth Wave failure.



- IV. Retracement should hold above the last Wave Four channels (the red one). Wave Four channels are time sensitive providing thus the timing element for Elliott Wave analysis. A perfect Wave Four should terminate above these channels. Containment of the retracement level above the top two channels provides a higher probability for a confirmed Wave Five.
- V. The stop loss should be either the Trough of Wave Four or 62% retracement of Wave Three.
- VI. Look for a fifth wave projection target given by the Fibonacci indicators. If the potential profit ratio is greater than 50%, the trade is worth considering.

Do the reverse for a declining Five Wave sequence.

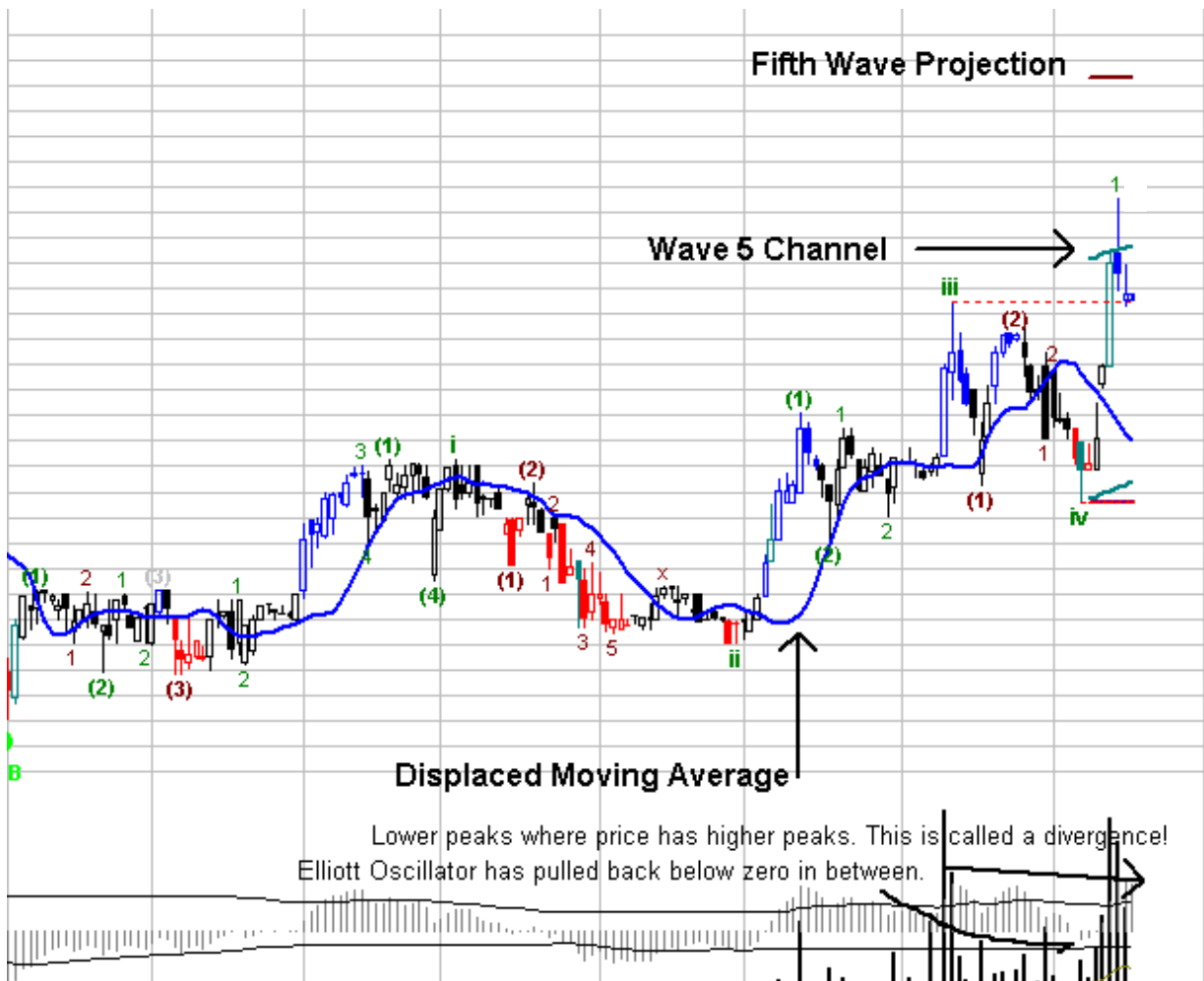
Rules: Type 2 Trade

(Selling at the end of a Fifth Wave rally)

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Once a confirmed Wave Five is detected, look for the following conditions:

- I. Look for prices to be near the Fifth Wave Fibonacci projections.
- II. Make sure the Elliott Oscillator confirms a Fifth Wave by giving a lower high with the Oscillator pulling back to zero in between.



- III. Use a DMA to sell on a price crossover. The DMA is a simple moving average displaced in time or shifted to the right. With the momentum in the market continuing, the DMA keeps below. After the price peaks in Wave Five, it will eventually drop below (*crosses*) the DMA. This provides a confirmation to enter a trade.
- IV. Place a stop loss at the high of the day before the crossing.

Do the reverse for a declining Five Wave sequence.

<i>Introduction (Set-up)</i>	1
<i>Initial Data and Unusual Situations</i>	2
Chapter 1	3
<i>For a quick start using the AlphOmega Simple template</i>	3
<i>Terminology</i>	4
Chapter 2	5
<i>Elliott Waves – A Graphical Overview</i>	5
<i>Elliott Waves - Basic Principle</i>	6
<i>Elliott Waves – Patterns</i>	7
Chapter 3	11
<i>Filtering Waves</i>	11
<i>Screen Layouts</i>	12
<i>AlphOmega Aget and AOi Aget Templates</i>	18
<i>AlphOmega Vidya Template</i>	19
<i>Wolf Wave Template</i>	20
Chapter 4	20
<i>Price and Time Projections</i>	20
Chapter 5	25
<i>Formula Building</i>	25
Chapter 6	27
<i>Trend Lines and Other Indicators</i>	27
Chapter 7	32
<i>Zigzag Dynamics</i>	32
<i>Incidence of a cycle over a smaller one</i>	33
<i>Points versus Percentage</i>	35
Chapter 8	37
<i>Explorations</i>	37
<i>Special Exploration</i>	38
<i>Signal Explorations</i>	38
<i>AOi Explorations</i>	45
<i>AlphOmega Pitchfork Scan and AlphOmega Pitchfork Medians</i>	45

Chapter 9	50
<i>Systems</i>	50
<i>Other System Tests</i>	55
Chapter 10	56
<i>Experts</i>	56
<i>Special Display for Special Situation</i>	63
<i>X Wave</i>	63
<i>Interpretation of the Expert Labels</i>	64
<i>More on Interpretation of Labels</i>	67
Chapter 11	70
<i>Three Ways to Use Elliott Waves</i>	70
<i>Step by step Elliott Waves</i>	71
Conclusion	76
Appendix - 1	77
Appendix - 2	80
<i>Complete list of experts, explorations, indicators, systems and templates.</i>	103
Rules: Type 1 Trade	106
Rules: Type 2 Trade	107