Wave59

WAVE59

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Product: Trading software
Requirements: Intel Quad-Core CPU,
2.66Ghz or higher; 3GB RAM; Windows XP/Vista/7; high-speed Internet
connection
Price: Pro $5,700 plus $90/month
for real-time datafeed or $249/month;
end of day, $2,750 (free Yahoo data,
MetaStock, or ASCII formatted data) or
$149/month; private $7,500 plus $90
for real-time datafeed or $299/month.

by Dennis D. Peterson

Wave59 is easily one of the
most sophisticated technical
analysis tools you'll find on
the market. It does many things, does
them well, and does many things that
no other product does. All of the software is written by CEO Earik Beann
and includes indicators and other tools
created by Beann. His background includes trading commodities as well as
bonds on the Chicago Board of Trade
(CBOT). The graphical user interface
(GUI) is superb and gives you the sense
that something really good is coming.
What prompted Beann to write this
software? He was a solution provider to
TradeStation, but there wasn't a way to
square a chart in a way that mimicked
W.D. Gann's use so he could overlay drawing objects and see how they
might predict market turning points.
Beann thought it would take him six
months, but instead it took him three
years, and this is the result.

GENERAL

The first screen you see after logging on
is a blank area surrounded by movable
menu groups. Example menu groups
are "Chart" with items like "Format,"
"Drawing," "Systems," and so on, or
"Measuring" with icons to display
various measurements such as the bar
count between bars on a chart. You can
move the menus to any location you
want and they will actually shrink if
you put them in a location where some
of the menu items can't be displayed.

What's available in the menus depends on the version of Wave59 you
are using as well as the datafeed. If you
are using the Pro version of Wave59,
it includes a real-time datafeed, and if
you are using the end-of-day version,
you can use free Yahoo! data (if you
check the bottom of the main Yahoo!
Finance page, you'll see that the data
comes from CSI), MetaStock, or ASCII-
formatted data. The real-time datafeed
is proprietary, and you'll need to input
futures, stocks, and so on with a prefix.
For example, Boeing is S.BA and the
emini is F.EPH0. There's a symbol lookup to help you.

To bring up a chart, go to the
main menu and select the leftmost icon, or find the chart menu
group and select one. After selecting a chart, you are shown a
formatting screen that has seven
tabs that lets you set conditions
for your chart.

The chart will come up without volume, but you can add it if
you go to the indicator list. The
list of some 50-plus indicators
includes the familiar (MACD,
Bollinger bands), the vaguely
familiar (fractal trend, Gann
swings), and some not familiar
at all (9-5 count, exhaustion bars
1, exhaustion bars 2). Pay attention to those you aren't familiar
with because indicators like 9-5
count (Wave59 gets its name
from this indicator created by
Earik Beann), which identify potential setups and blowoffs, are
high performers (Figure 1). Then
there are those that might sound
familiar, like an adaptive moving

FIGURE 1: DAILY CHART OF BOEING (BA) WITH OVERLAYS. The price chart is surrounded by menu groups, similar
items grouped together that you can move around. On the left portion of the price bars is a measurement drawing object,
bar count, that displays the number of bars between two price bars. The 9-5 count indicator is shown: blue and red 9s
are setup signals, gold 5s a blowoff signal, and an 8* is a cycle that completes one bar earlier. The last bar on the chart
shows the current cycle count, which in this case is a 9. The day before the last bar had an 8, which means it is getting
close to completing the cycle count.

Wave59 is like a field of diamonds. All you have to do is look under a leaf, and you find one. It's that good.

average (Figure 1: dark blue line going through prices) and has almost no lag, is smooth, and an excellent choice for a moving average crossover. There's also an ultra smooth momentum (USM) indicator that makes reading divergences much easier. And, of course, there are *all* of the usual drawing objects like Fibonacci retracements, Fibonacci time zones, and Gann fans.

When you add indicators, the first thing you might note is that scale is missing (Figure 1). There are two reasons: first, Earik Beann didn't want to crunch the data in the price chart because, as you will see later, there are visuals (built-in or ones you create) that need room, and second, you might be using a squared chart á la Gann. You can move indicators around the screen easily using the magnet icon. There are a number of cursor icons because the software does so much: move drawing objects, rotate geometry, move indicators, act as crosshairs, and show data values, to name a few.

A couple of items should catch your eye when you open a chart and look at the Settings screen. First, if you select a daily chart, a portion of the Settings screen will change, but the rest will remain the same. The portion that has changed is "time frame." In the right-hand corner is a selection called "square." What's unique about the time frame choices is that one of them reads "calendar days," and this allows you to show the weekends in a price chart. Square allows you to assign unit values of price and time to the sides of a square as though you were plotting price data with a square grid.

DRAWING OBJECTS: PRICE AND TIME

Wave59 has two types of drawing objects: geometric, and price and time. We'll look at both. Let's start with time and price patterns.

After selecting "Patterns"

from the main menu, choose "Time and price patterns." The first screen asks you how many price swings you want. Responding with "3" will bring up a screen with a menu across the top and a straight line with four nodes, one at the beginning and end of each of the three swing segments. You can now use your cursor to drag each of the nodes to form the shape you want. In Figure 2 in the lower right-hand corner in blue, you can see the shape that was created using three swings.

Once you have the shape you want, the menu lets you add price, time, space, and trendline rules. For the example shown in Figure 2, the price rule that the middle swing = 0.5 of first swing is used. You can name your pattern and it will appear in the list of patterns available. Note in Figure 2 that there are a bunch of prebuilt patterns including head & shoulders as well as congestion. Examining Figure 2, you can see how flexible Wave59 is in fitting a price pattern to a price series. The pattern has been squeezed and

stretched to fit. What did Wave59 use for pivot peaks and valleys to fit the pattern so nicely? Gann swing points. Wave59 lets you adjust the swing strength by letting you set a range with starting and stopping points. In fact, Gann swing points are one of the patterns you can choose.

DRAWING OBJECTS: GEOMETRIC

When we consider using geometric objects, we might think of them as a means to focus attention to a particular part of a price chart. A more powerful use is to predict turning points in software. Gann used square charts in his work. However, there's a catch. You'll need a square chart and you will most likely want to include weekends. As I mentioned before, Wave59 lets you perform both actions.

After selecting patterns, select "Geometric patterns," and from a list of five options, choose "Pattern builder" to construct the pattern of your choice. You are given a series of shapes to use
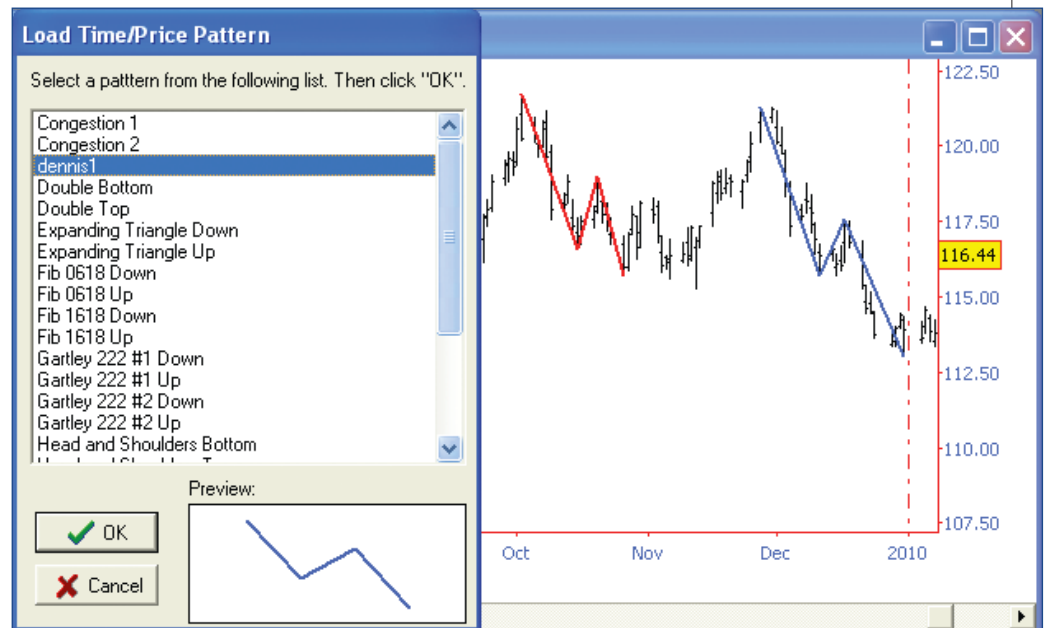

FIGURE 2: TIME AND PRICE PATTERNS. The "load rime/price pattern" screen is overlaid on the price series chart. The highlighted pattern "dennis1" was constructed using the build pattern interface. The preview in the lower left-hand corner shows the shape in blue. The flexibility of the Wave59 software to fit the pattern to a price series can be seen on the right-hand portion of the underlying price chart with the red and blue lines.

FIGURE 3: DAILY 30-YEAR TREASURY BOND PRICES. Prices are displayed on a squared chart where each day there is a 0.03125 change in price. The leftmost red line identifies a swing. A blue square geometric shape is as high as the swing is placed at the bottom of the swing. Using the intersection of diagonals, you can identify potential price turning points as seen by the red arrows added to the chart, as well as the right-hand edge of the square.

to create the pattern of your choice. One of the shapes is a square and can be used on squared charts with some success (Figure 3). There are a number of prebuilt geometric shapes such as Fibonacci vortex, flower of life, ellipse, and log spiral. Some people trade almost exclusively using the Fibonacci vortex, so let's take a quick look at that.

GEOMETRY: FIBONACCI VORTEX

If you've read about Fibonacci numbers, you are likely to have come across Fibonacci spirals. The vortex uses the spirals in a specific way. First, you need to have a square chart. The emini is used in this example and the squaring parameters are 0.125 for each

day. Had this been the S&P 500, you might try multiples of 12 points per day; therefore, you would enter a 12 for the number of points and some whole multiple (like 3) for number of bars. Wave59 gives you the flexibility of choosing points per bar, hour, or day when setting up square scaling. You are looking for some sort of harmonic, and the Wave59 interface enhances your trials.

Looking at the results of using the Fibonacci vortex on squared grid (Figure 4), you can see why some traders use it exclusively, and why you can't seem to make it work on charts without squared scaling. If patterns and indicators weren't enough, let's try some analytic techniques in an area that Wave59 calls "artificial intelligence."

ARTIFICIAL INTELLIGENCE: HIVE TECHNOLOGY

Wave 59 offers two features under the heading of artificial intelligence: neural nets and hive technology. You might be familiar with neural nets, but not hive technology, since that is the creation of Earik Beann.

Hive technology lets you input multiple indicators and have the software find which trade is the best. Hive technology has the usual ways you trade two broad classes of indicators built into its logic. The two classes are range-bounded and unbounded. An example of a range-bounded indicator is the relative strength index (RSI) and would typically be traded using different thresholds. An example of an unbounded indicator would be a moving average and a typical way to trade it would be with moving average crossovers. You start by selecting artificial intelligence from the Chart menu and then select hive technology and hive designer. The result is an input screen (Figure 5) where you can
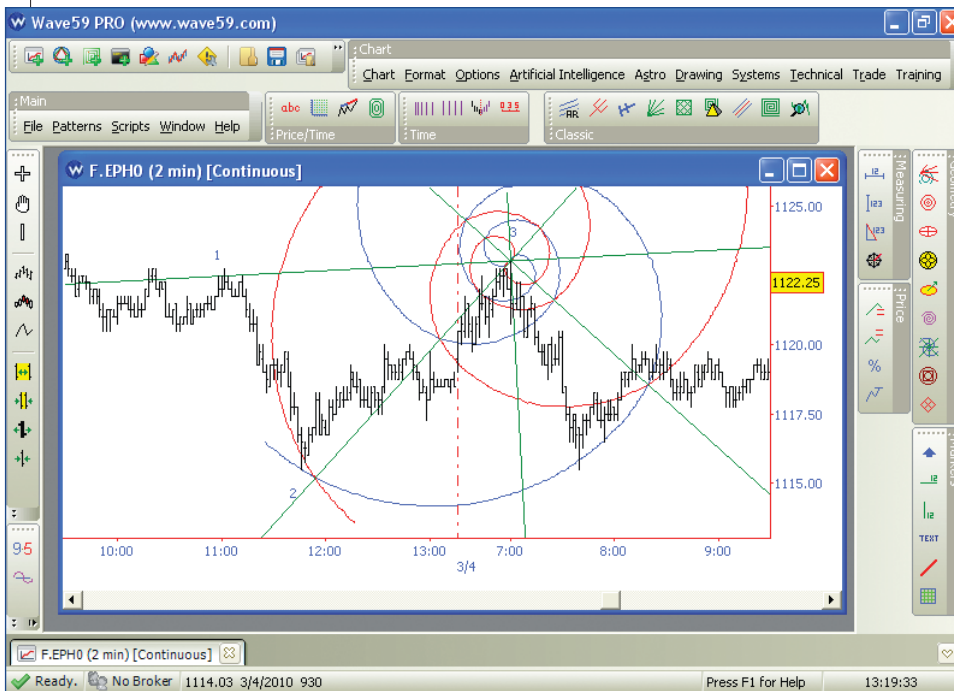

FIGURE 4: FIBONAACI VORTEX APPLIED TO A TWO-MINUTE CHART OF THE EMINI. After identifying a combination of three pivot peaks/valleys (1, 2, and 3), the vortex is centered on 3. Initially, the green lines are vertical and horizontal and are manually rotated until one of the green lines touches the pivot peak, no. 1, while at the same time a spiral is made to touch the pivot valley, no. 2. It is sometimes necessary to hit the 1 or 2 key on your keyboard to make the spirals expand or contract to get them to touch the desired pivot while a green line touches the other pivot. The result, however, is that price is seen to fall from the center of the vortex (pivot no. 3) until it reaches the blue spiral and then turns up.

choose from more than 50 indicators that you want to use.

Hive technology compares the profitability of each traded system and chooses the best based on an analysis of that system's profitability in contrast to the current market environment, in effect dynamically switching between systems as market conditions change. Using three indicators — Bollinger bands, ultrasmooth momentum, and ultrasmooth momentum slope — you can easily develop a profitable system (Figure 6).

EPHEMERIS

Wave59 cautions users that when they come across the astro feature, they may say "What is this stuff?" This is another example of Wave59 extracting the best from an area. If you are familiar with astro applications, you'll be impressed with what's been done. Some background might help calm your concerns.

Trader extraordinaire W.D. Gann used the position of the planets to help in his trading. The Atlanta Federal Reserve has a working paper on the subject that suggests there is a connection between behavior and geomagnetic storms. Using the ephemeris suggests it may be more than just geomagnetic storms.

The goal of ephemeris analysis is to find a time and price at an appropriate confluence of planet positions, including Earth's moon. What's appropriate? There are a number of factors, and unfortunately, trial and error is one of the better solutions. So what's the good news? Wave59 gives you the tools to find the answers with a user-friendly interface to enhance your speed and minimize the time you spend.

EPHEMERIS STEP 1:
PICK AN ASPECT

You start your analysis by clicking on the ephemeris icon on the menu bar, which brings up a screen showing planet positions in an Earth-centric view (Figure 7). Using the aspect column on the far right, choose an aspect with the smallest error. Since these aspect angles have been preselected to
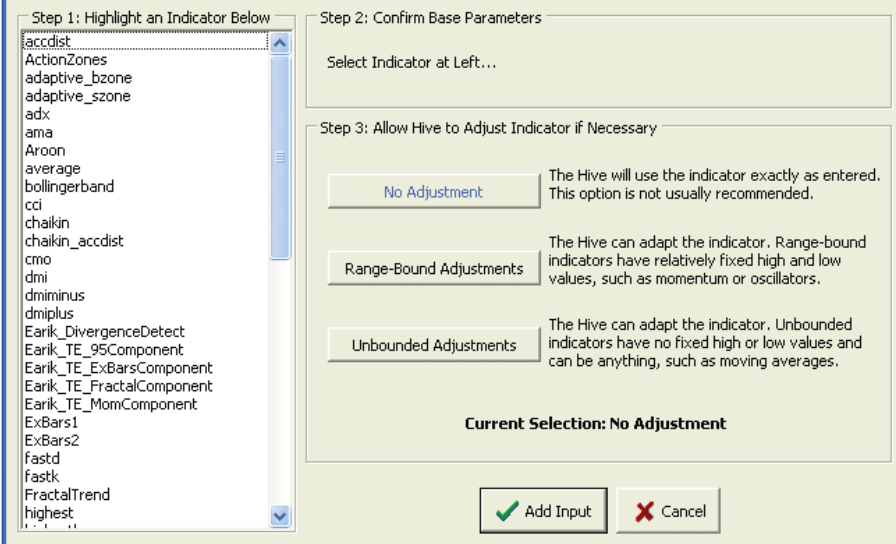
FIGURE 5: HIVE INPUT SCREEN. You can select the indicator you wish to use from the list on the left. The next step allows you to use several versions of the same indicator by changing parameters or bounds of the indicator, using the three buttons labeled "no adjustment," "range-bound adjustments," and "unbounded adjustments."
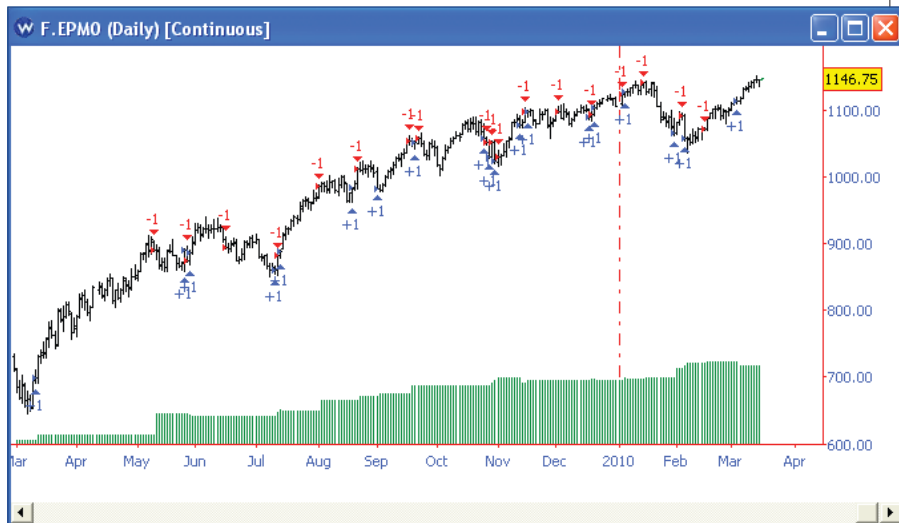
FIGURE 6: DAILY CHART OF EMINI OVERLAID WITH HIVE RESULTS. Using Bollinger bands, ultrasmooth momentum, and ultrasmooth momentum slope as inputs to the hive builder, a system is created and trades are created: long positions are shown as a blue "+1" with a blue arrowhead and shorts as a red "+1" with a red arrowhead. The equity curve is displayed at the bottom.
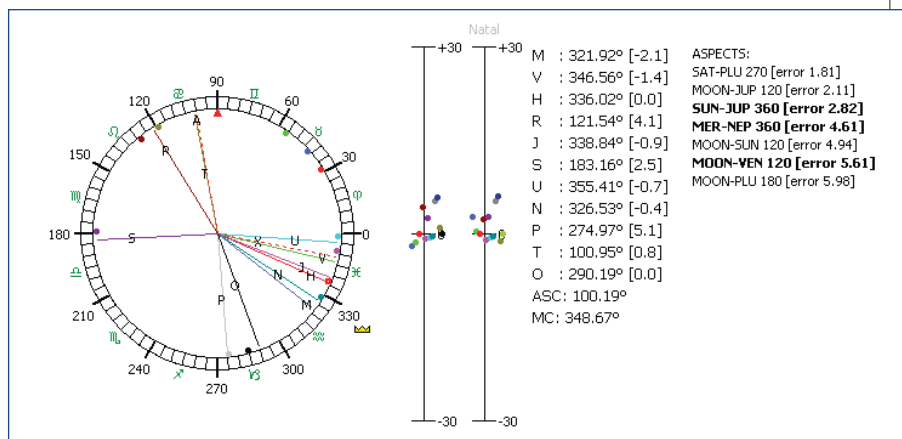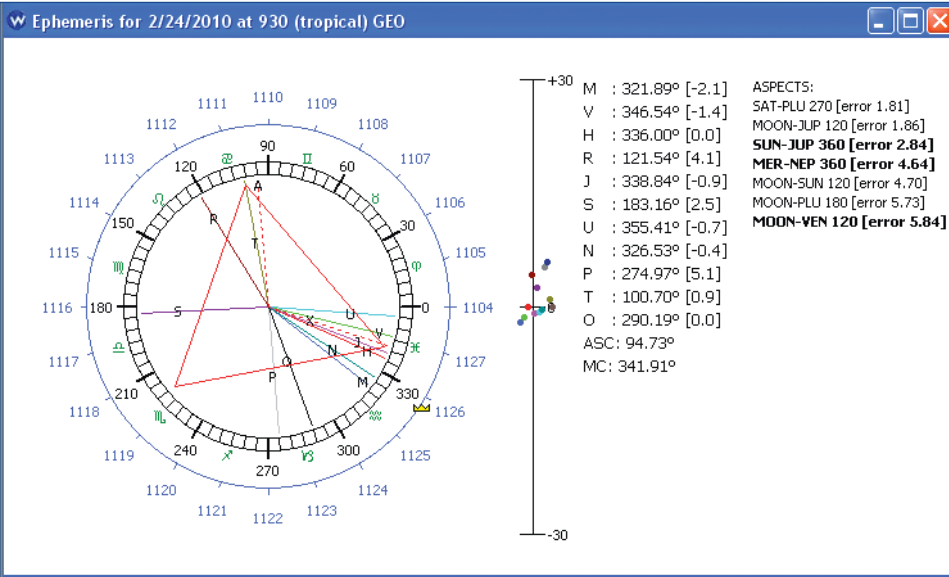
FIGURE 7: EPHEMERIS. On the left is an Earth-centric view of the planets, including Earth's moon. Each of the lines are labeled with a single letter denoting the planet, such as N for Neptune. The moon is labeled as T and the NYSE as X. On the far right is a set of data with the heading "ASPECTS." Under this heading are listed the degrees of separation (aspect) between the planets and/or the moon using an Earth-centric view. The degrees of separation that are multiples of 60 of 90 degrees, with less than a six-degree error in meeting the 60 or 90 multiple (aspects in bold have an error that is decreasing) are the ones listed. In the middle chart are the declinations of planet orbits relative to Earth's orbit.

FIGURE 8: EPHEMERIS WITH PRICE AND GEOMETRY OVERLAY. A red triangle has been drawn on the inside of the circle and aligned with planet/moon pair "Moon–Jup 120 [error 1.86]" by putting one corner on the moon line (T) and another corner on the Jupiter line. The line with the letter X has been rotated to go through the lower right-hand corner of the triangle. You can input your time zone. After rotating the geometric shape to align on the desired planet/planet or moon/planet pair, the corners point to prices drawn as a blue overlay outside the circle.

be multiples of 60 or 90 degrees, you will be choosing a planet/planet (p/p) or planet/moon (p/m) pair that has, for example, a 120-degree separation such as "Moon-Jup 120 (error 2.11)" (Figure 7: second from top in aspect list).

What you want to know is when (as in time) the exchange of your choice, such as the NYSE, aligns with the p/p or p/m aspect of your choice. If you were to only use the pair, you would end up getting only two price hits during the day. Wave59 has found that there are more price points, and those cor-

respond to geometric shapes that have been aligned with the p/p or p/m pair.

EPHEMERIS STEP 2: ALIGN GEOMETRY

Thus, after picking the p/p or p/m pair, you align the pair with the appropriate geometric shape. If the pair you are using has a 120-degree separation or aspect such as Moon-Jup 120, you'll be looking to align one of the three corners of a triangle or one of the six corners of a hexagon with the pair. Wave59 allows you to manually rotate the geometric shape of your choice or have it automatically align after choosing the shape. When you overlay the wheel with price, the corners of your geometric shape are pointing at the desired price candidates. Now all you have to do is solve for time.

EPHEMERIS STEP 3: SOLVE FOR TIME

Besides having lines for the planets and the moon in the circle, there are lines marked with an X and an A. They correspond to the midheaven (straight up from the geographical location) and ascendent (Eastern horizon point) for the exchange you have chosen. Both the X and A lines move with the passage of time. You can advance time manually (hitting the "2" key) or have it automatically updated with real time. What you now want to do is get the line with the X or A to align with a corner or your geometric shape, and since you have rotated the geometric shape so that one corner is on one of the lines of the p/p or p/m pair, the line with the X or A will also align with another of the lines of a p/p or p/m pair. Again, X corresponds to the midheaven location of the exchange where the trading is occurring and A is the ascendent location.

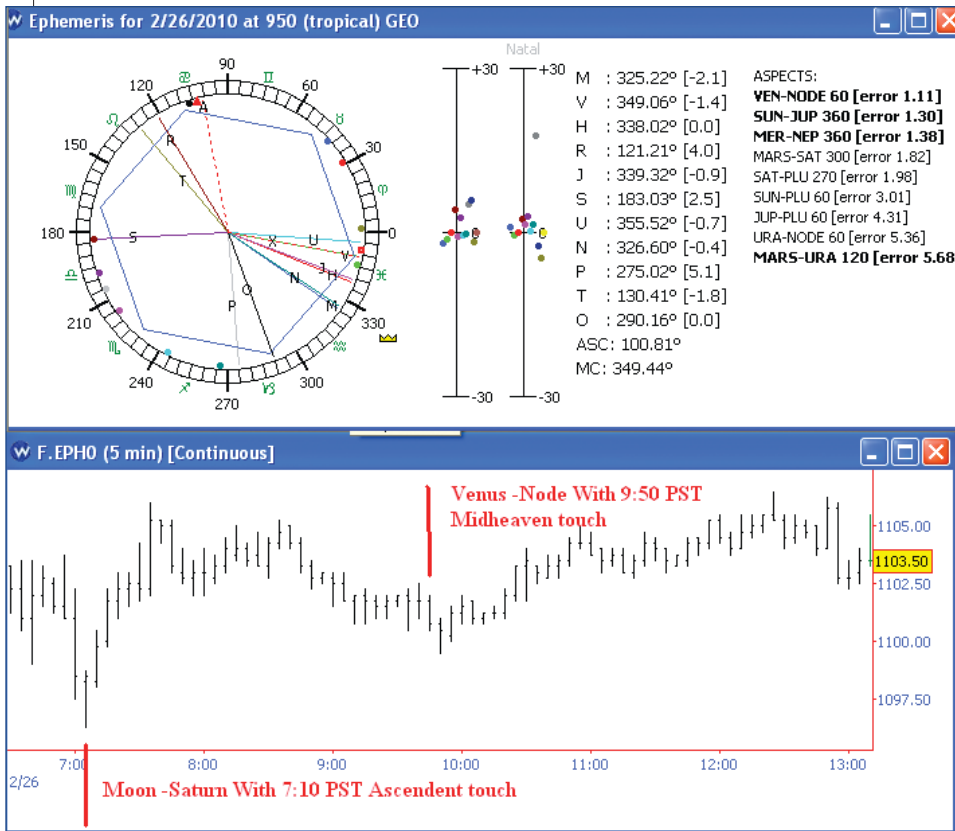Wave59 provides the latitude and longitude of NYSE and Chicago, but you can add other loca-

FIGURE 9: EPHEMERIS WITH FIVE-MINUTE CHART OF EMINI. The top chart shows an ephemeris wheel using hexagon geometry with a result that a turning might occur at 9:50 PST. The emini did hit a turning point at 9:55. Earlier in the day, the ephemeris wheel showed a possible turning at 7:10 using Moon–Saturn and the emini did turn.

FIGURE 10: FIVE-MINUTE CHART OF QQQQ OVERLAID WITH ASTRO DATA. Vertical data are the planet rise/transit/set times. Each is marked with a letter for the planet it represents. If the letter is lower case, the planet is passing underneath, and if a capital letter, the planet is passing overhead. Capital letters with a line underneath denote the planet is rising over the eastern horizon, and capital letters with a line above denote the planet is setting under the western horizon. The blue colored oscillator on the bottom is the planet rise harmonic Index.

tions to the table. In Figure 8 the line marked with an X (NYSE) rotates until it strikes the corner of the triangle. Time changes in the banner of the ephemeris screen as you align the X or A line. Thus, you get two times, one corresponding to X and the other with A.

The steps are as follows: rotate the appropriate geometric shape so that two corners of the shape are on the p/p or p/m pair you have selected, then solve for time by either manually advancing the X or A lines or waiting for real-time updates that will align the X or A line on a corner of the geometric shape. A geometric shape has the degrees of separation that fits the aspect you want.

You need to overlay price on the ephemeris circle using the formatting screen, and input the price range and appropriate divisor. The result is a price overlay (Figure 8: blue numbers outside of ephemeris circle), with the corners of your geometric shape pointing to candidate prices. In the instructional videos, 36 is used as the appropriate divisor, but Beann has found that 24 works better in his trading of the emini.

February 24, 2010, chosen to illustrate (Figures 7 and 8) the ephemeris wheel analysis, wasn't one that resulted in identifying a strong turning point. A better one is just two days later, February 26, 2010. There are two times of interest. The one with smallest aspect error is Venus–node (the intersection of Moon's orbit and Earth's orbit around the sun) at 9:50 PST (Figure 9), but earlier in the day with market open, Moon–Saturn at 7:10 PST is present.

When inspecting the aspect list of the ephemeris list at 9:50 PST (Figure 9), you don't see Moon–Saturn. The reason is that its error is greater than six degrees, and
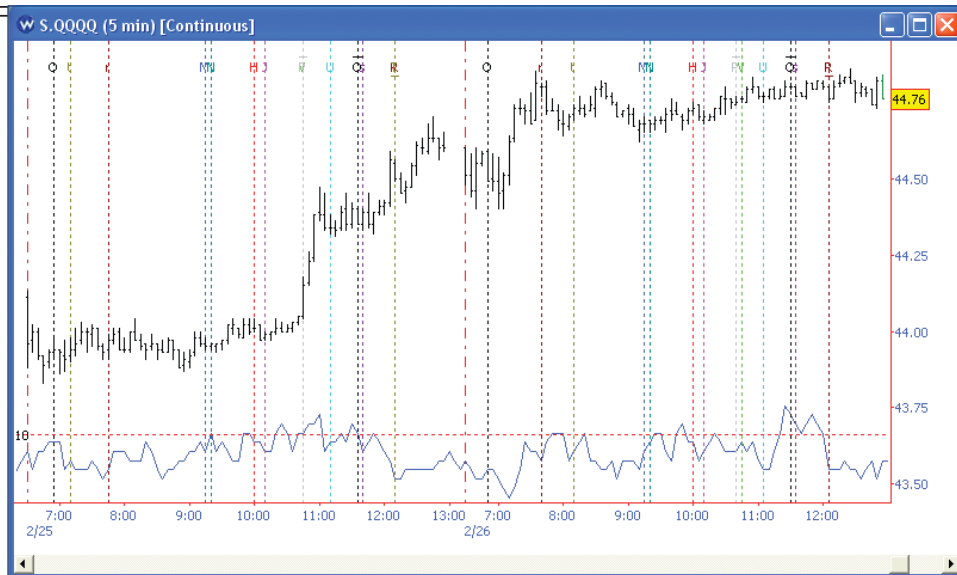
Wave59 only lists those aspects that are less than six degrees in error. However, the influence of the moon is always of interest and when you're looking at the emini at 7:10, it's hard to argue.

There are a number of other choices. For example, you can overlay on any price chart the planet rise/transit/set times and the planet rise harmonic (Figure 10). Some planets seem to have more of an effect than others, and generally speaking, rise and fall times seem to be more significant. Another school of thought says some planets are determined by a p/p or p/m pair with the tightest aspect (smallest error). For the planet rise/transitset overlay, you choose your location such as Chicago or the NYSE. Instructional videos and

books for sale give you guidance on how to use this data.

BACKTESTING

Wave59 has a language similar to TradeStation's EasyLanguage called QScript. You can access a library of prebuilt scripts or just write your own using the script builder. If you put buy or sell statements in your script, you'll see blue up arrows for long entry points, and red down arrows for sell points will appear on your price chart when you execute the script.

You might note that the QScript (Figure 11) doesn't require you to declare whether your variables are integers, floating or logical. It figures it out for you. The buy statement lets you have several different order types, such as market, limit, stop, and next open. Order expiration can be GTC (good till canceled), day, or "onebar," which means the order is only active on the next bar. Maybe you're thinking this is all fine and dandy, but I want to see how this astrological stuff might work. It's all in there as well. You can reference functions such as "astro," which allows plan-

FIGURE 11: Q SCRIPT FOR MOVING AVERAGE CROSSOVER. The top line declares that there are two inputs, namely the number of periods for the short (faster) or long (slower) moving averages: Next, define two variables as the short version of the adaptive moving average (AMA) and long version of AMA. Then, ask if one average crosses over the other, or under, and either buy or sell. Next, plot the two averages in blue and red.

PRODUCT REVIEW

et inputs and returns ephemeris data, as well as "astro declinations," which returns declination data.

SUPPORT

The Help menu has 10 items. Besides "Wave59 Help" there is "Qscript Help," instructional videos, and an online forum. If that's not enough, you can go to YouTube and type in "Wave59" and you'll have 24 videos to choose from. Earik Beann has written four books that I recommend. You can call and talk to Beann directly if you need to, and he can answer any questions, or if you want to, you can create a support ticket.

If you opt to buy the EOD product to save some money, ask specifically what astro items you are getting such as the natal forecast, since Wave59 has learned that some techniques only work at intraday levels such as two or five bars and doesn't include them in the EOD product. For this review, the real-time product was used almost exclusively and the EOD to verify connection to Yahoo! Finance data.
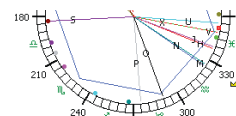
SUMMARY

I found Wave59 to be carefully crafted and usable software equal or superior to the best on the market. Just the ephemeris was worth a separate review. When I thought I was done reviewing all the features, out of curiosity I tapped my cursor on patterns and I had another feature to review. Not only was the construction of the patterns easy and robust, but the way they were fitted to the data was equally impressive. When I clicked on hive technology, I found another feature to review.

Wave59 is like a field of diamonds. All you have to do is look under the leaf of a plant, and you find another diamond. It's that good.

Dennis Peterson is a Staff Writer for STOCKS & COMMODITIES.

SUGGESTED READING
Beann, Earik [2007]. *Trading With Wave59*, Wave59 Technologies.
_____ [2005]. *The Handbook Of Market Esoterica*, Wave59 Technologies.
_____ [2004]. *The Fibonacci Vortex Handbook*, OpenLibrary.org.
Robotti, Cesare, and Anya Krivelyova [2003]. "Playing The Field: Geomagnetic Storms And The Stock Market," Social Science Research Network.
• www.maths.surrey.ac.uk/hosted-sites/R. Knott/ Fibonacci/ fibnat.html#spiral

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