Prognosis rules the Elliot waves

Fraught traders looking for a new software training package can relax. Elwave 6.0 proves to be steadfast and true; it'll come to their emotional rescue says **Andy Webb**

For traders who prefer to base their positions on technical analysis, Elliott wave theory has always tended to arouse mixed feelings. While the basic concept is not particularly hard to grasp, many of the individual rules that make up Elliott wave theory can be fairly obscure. The hassle of mastering this wealth of minutiae and converting it into profitable trading positions is just one reason why so many traders give up on Elliott waves. It is also a fairly subjective science – show five different traders a chart and watch them come up with five completely different wave counts.

These problems have spawned a minor industry devoted to producing software that is capable of automating the process of counting Elliott waves. While fundamentalist Elliotticians may jib at this heresy, many of the programs that perform this function also include extensive back testing of their pattern identification methods for optimum profitability. Though this doesn't guarantee profitable trading, it should at least increase its likelihood.

Elwave 6.0, produced by Prognosis Software Development in the Netherlands, falls into this category and automates the entire wave recognition and counting process. However, it goes a long way beyond this by also including multiple level wave analysis, generating a list of alternative wave recognition possibilities, displaying likely price targets based on Fibonacci ratios and plotting the predicted path of future price action.

When it comes to data, Elwave can read (among other formats) CSI, TechTools, ASCII, TC2000 and MetaStock end-of-day data. The real-time version of Elwave connects to live data feeds using Windows DDE and can therefore be used with any feed capable of providing DDE output. To save time, the help files include samples of the correct DDE

Figure 1
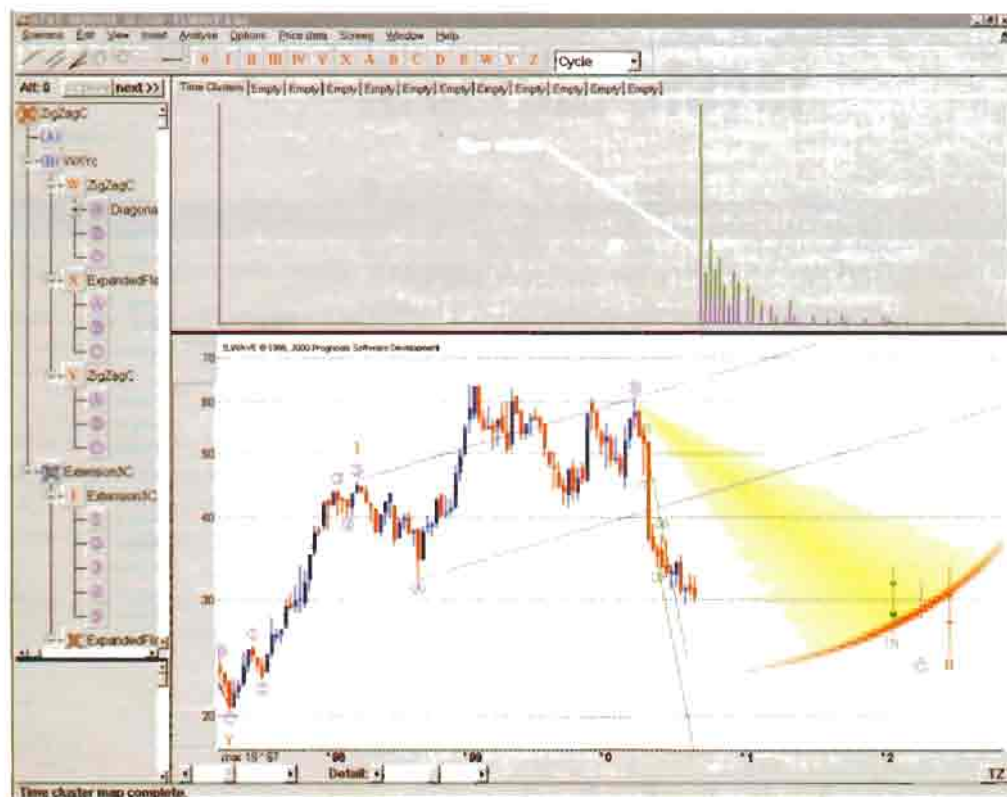
syntax for a number of popular real-time feeds. Though DDE obviously isn't the ideal means of connection, we tested Elwave satisfactorily via this method with both CQG and Reuters. Though we had a bit of bother persuading the software to work directly with some other feeds, such as Satquote, we found that making the connection indirectly via Excel proved a satisfactory, if rather clunky, workaround.

The software consists of a library of modules, which can be combined to produce the functionality desired, though there are some limitations on which modules can be mixed and matched. Entry level is the standard end-of-day module, which costs $255 and can be upgraded to real-time (via DDE) for an additional $315. An additional $470 buys the Automatic Module, which is capable of selecting a best of breed Elliott wave-based forecast that can be based either as a starting point upon the user's own wave count or can be applied fully automatically to a particular section of data. This automation module comes with two sets of rules – the classic version, which uses only patterns identified by Elliott himself, and modern, which includes those patterns subsequently discovered by other Elliott wave researchers.

Those who own both the basic and automatic modules can add the trading signals module for a further $315, which automatically identifies and highlights possible trading opportunities from the patterns that have been recognised by the Automatic Module. Scanning, which costs $450, is the most recent module to be added to the list, and is available for both end-of-day and real-time

versions of the software. As the name implies, it can scan securities based on certain pre-set criteria, such as conservative/aggressive medium term downtrends/uptrends. The functionality is comprehensive – it is possible, for example, to scan for waves within waves of a higher magnitude, such as a wave II within a larger wave III.

The scanning module is also extensible: it isn't just restricted to scanning pre-set criteria, but can also handle user-defined criteria that can be built by combining functions. These can include the ten size scales of Elliott cycle that Elwave recognises, which range from Super Cycle all the way down to Sub Micro, as well as absolute percentage return or risk/reward ratio. User-defined scanning rules can also reference Elwave's proprietary Easi (Elliott Advanced Signals Indicator), which can give one of three possible readings – positive,

negative or neutral. The most interesting situations arise when several adjacent wave size scales all have a positive or negative Easi reading, as this increases the likelihood that a trading opportunity will emerge in the direction of the trend.

The final Elwave component is the Target Clusters module, which costs $270 and offers two additional techniques. Time clustering highlights periods when major changes in market direction are likely to occur. (insert the pane above the chart window in figure 1). The greater the number of clusters grouped close to a particular date, the greater the probability of a significant market reverse. Time clusters can be based on a user-defined swing filter using Fibonacci ratios or on the patterns identified by the automatic Elliott analysis.

The second tool in the Target Clusters module is

Give us a wave

The main principle of Elliott wave theory is based on the identification of impulsive and corrective waves, which equate to a market either trending or correcting. The impulsive wave formation, which follows the main trend, consists of five distinct price movements, three in the direction of the trend (numbered I, III, and V) and two counter trend (numbered II and IV). A corrective wave formation typically consists of three (but occasionally five)

movements, two in the direction of the main correction (called A and C) and one counter to it (called B).

In the case of a major impulsive wave, each of the three waves in the direction of the trend is itself impulsive and can therefore be subdivided into a further five wave movement. The waves against the trend are corrections and are composed of three waves. However, since waves A and C of this correction are in the direction of a shorter term down trend, they can also be

subdivided into a five wave impulsive sequence.

Elliott waves owes their name to Ralph Nelson Elliott, who in the late 1920s came to the conclusion that financial markets moved in repetitive cycles that reflected the actions and emotions of human activity, and defined these cycles as a series of waves. Elliott's work expanded on Dow theory's wave definitions to take into account the way that waves could be subdivided into further sub-waves on an ever-decreasing scale. For example, an Elliott wave lasting a month can be subdivided into a succession of smaller

waves that last for perhaps a week. Each of these waves can in turn be further subdivided down to an intraday or even tick by tick level.

This subdivision of waves means that Elliott wave theory can be applied to any timeframe and is thus of equal value to traders with time horizons ranging from seconds to years. The downside is that the basic theory appears in a vast range of guises that Elliott defined in numerous diverse pattern groups. Most commercially produced Elliott wave software therefore usually only attempts to identify and interpret a subset of these groups. ❖

Target Zones, which uses a combination of the various possible Elliott wave counts with Fibonacci based time/price targets to display the predicted path of future price movements. It also highlights the area in which prices are most likely to encounter resistance (shown in in yellow and red respectively in figure 1).

The basic analysis process in Elwave is fairly straightforward – load end-of-day or real-time data into a chart and select the "Analyse entire chart" item from the Analyse menu. (If Elliott waves are already displayed on the chart there is also an alternative option to perform analysis on a selected wave rather than the whole chart.) Once the analysis process starts, the price chart starts leaping around as Elwave explores all the possible Elliott wave patterns for the ten possible wave size scales it supports. (Though this only took around 30 seconds for a chart containing several years of daily data, we felt that turning

the screen refresh off in the source code might be a handy idea.)

The way in which the results of this analysis are displayed depends upon which workspace layout has been selected. The most comprehensive option is the Expert layout, which contains three windows in addition to the main chart display – Summary Inspector, Wave Tree and Wave Inspector.

For a quick first cut, the Summary Inspector window is probably the best place to review Elwave's analysis, as it lists just the essential details for the various wave size scales. The most interesting feature here is the Easi mentioned above – particularly when viewed in conjunction with the risk reward parameter. If the risk/reward ratio is above one and the Easi is positive or negative, then the trend is likely to accelerate (unless a major price movement has recently taken place). The Summary Inspector also includes details

of the major prevailing trend along with a price target.

The Wave Tree uses a hierarchical style similar to Windows Explorer to display all the identified wave patterns – double clicking on an item expands the tree and displays the sub items. The software automatically displays what it regards as the best fit Elliott wave count in the Wave Tree, but it is possible to scroll through all the various alternative interpretations via a pair of command buttons at the top of the window.

Potential trading opportunities are highlighted in the Wave Tree with a grey cross, which indicates that the wave pattern is still incomplete. If the Elwave trading signals module has been purchased, double clicking on a wave icon in the tree opens the Signal Inspector (see foreground of figure 2). This displays the appropriate trading indications for the wave together with the critical price level for that signal. At the bottom of the Signal

Inspector box is a description of the specific rule upon which the trading indication is based.

The third window in the Expert layout is the Wave Inspector, which is connected to the Wave Tree, so clicking on a wave in the Wave Tree automatically displays more detailed information about it in the Wave Inspector. The upper section of the Wave Inspector window includes two scrollable panes. One displays the patterns that the software has validated; the other displays those that it has rejected. Selecting an individual pattern automatically displays its details in the lower part of the Wave Inspector window. Apart from a general description, this includes information on the internal structure of the pattern and a series of scores for the pattern as a whole and for its component parts. Beneath this, the

rules for the pattern are listed together with some more general information about it. A useful feature here is that both rules and information are linked to the price chart – clicking on one that refers to a numeric value automatically adds that value as a dotted line to the price chart.

Apart from its automated Elliott analysis tools, Elwave also includes a selection of conventional technical indicators as well as manual commands for various Elliott wave and Fibonacci tools. A drop down list box allows Elliott numbers/letters to be selected for particular wave size scales, which can then be dragged and dropped onto a price chart to display the user's own interpretation of the Elliott wave count. This interpretation can then be checked with Elwave's internal models via the "check wave count" command in the

Analyse menu, which displays a critique of the user's interpretation in the Wave Inspector window.

A price of $2,075 for all of Elwave's modules is hardly going to break the budget. While it may not be every trading desk's cup of tea, the number of highly priced expert Elliott wave commentaries carried by the various data feeds indicates that there is significant interest out there. For those technical analysts and traders who prefer to roll their own analysis, it could rather neatly fit the bill. ❖