# *Traders Education Tutorial*
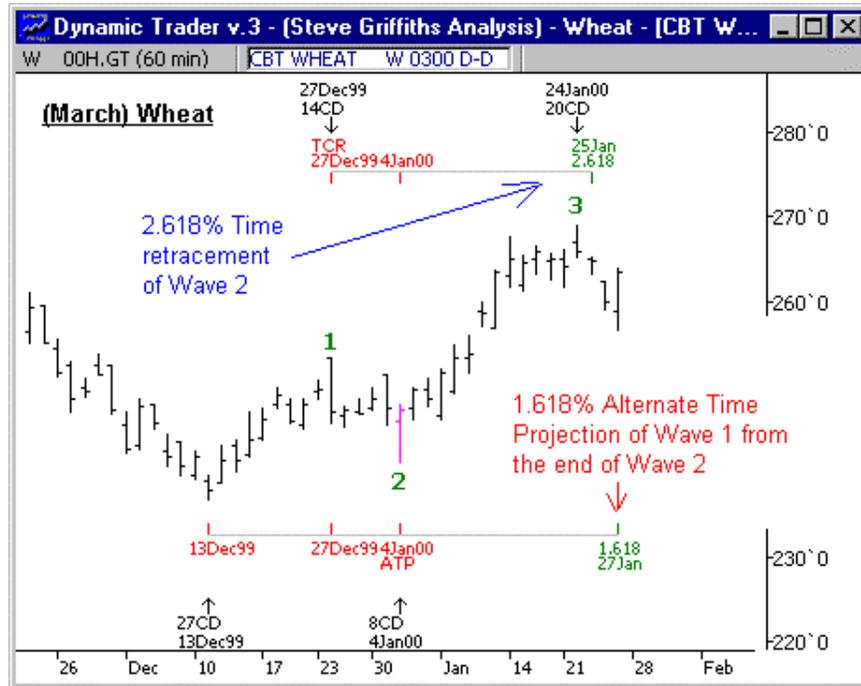2/26/2000

## How To Make Wave 3 Time Targets

This tutorial continues with our series how to identify the pattern, time and price targets that will terminate a Wave-3 trend. Today we will learn how to project the high-probability **time** targets for the termination of Wave-3. If we are in a profitable position and believe a Wave-3 is unfolding, knowing the high probability time targets will help us to develop the protective stop-loss strategy to protect unrealized profits.

### Wave-3 Time Targets

The ideal time targets to terminate a Wave-3 is where Fib time projections from different swings *cluster* together in a relatively tight range. Time projections use most of the same Fib ratios and swing comparisons as the price projections described in the previous tutorial. Lets have a look at our current example on (March) Wheat to demonstrate what I mean:
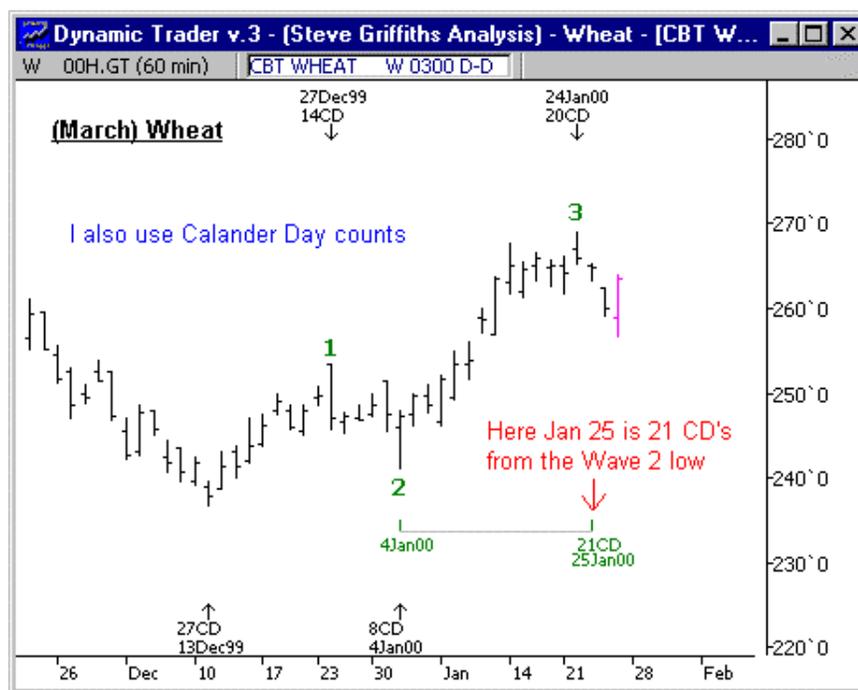
The daily data chart above shows two time projections which include the 162% Alternate Time Projection where the time range of Wave-1 is multiplied times 162% and projected from the end of Wave-2 and the 262% time retracement of Wave-2 where the time range of Wave-2 is multiplied by 262% and projected from the end of Wave-2.

These two projections fall within two trading days of each other on Jan. 25 and Jan. 27.

We call the first calculation an ATP or *Alternate Time Projection*, because it is a projection of the length of the previous wave in the same direction as the current wave. For Wave 3 calculations, this is the length in time of Wave 1 projected forward from the end of Wave 2. We are comparing the potential time range of Wave-3 with the known time range of Wave-1 in the same manner as the price projections except we are using units of time instead of units of price.

The second calculation is called a TCR or *Time Cycle Ratio*, because it is a ratio or proportion of the time range of the previous wave projected forward from the end of the previous wave. For Wave 3 calculations, this is the time retracement of Wave 2 projected forward from the end of Wave 2.

The Fib calendar day counts should also be included for time projections.



Jan 25 is 21 Calendar Day's from the Jan. 4, Wave 2 low. Markets very often make trend changes after 21 day's. Calendar Day counts will be the topic of a future training tutorial.

We now have three different calculations which all cluster together in the relatively narrow time period of <u>Jan 25 to Jan 27.</u>  Hence this is a time period we need to be particularly alert to the **Price** and **Pattern** position of the market for the potential termination of the current Wave 3 rally.

As we can see from the chart above, the Wave 3 rally in (March) Wheat terminated on <u>Jan. 24</u>, just one day before the <u>Jan. 25-27</u> time projection.

We should make each End-of-Wave Time Projections as soon as we identify the wave position of any trend or counter-trend. -In this example, wheat advanced above the Wave-1 high on Jan. 10 signaling the continuation of the bull trend and at that time we would make the End-of-Wave-3 time and price projections. We were prepared for the 3-day period of <u>Jan 25 to Jan 27</u> to terminate the Wave 3 rally **two weeks in advance**!

The example above shows only three of the many calculations that are made to project the End-of-Wave time zones. For years, I did all of the projections with a business calculator which could project dates and later with a simple spreadsheet program to speed up the process immensely. Today, I use the Dynamic Trader software program that allows you to make these time projections very quickly and easily with only a few mouse clicks.

At the end of this tutorial, I will show you how the Dynamic Time Projection routine in Dynamic Trader can make these projections very quickly and have them displayed on your chart well in advance.

### Key Point

While this is an after-the-fact example to illustrate how the projections are made, the time projections are always made *in advance* so you know well in advance what are the high-probability time targets for the current trend. We demonstrate how this is done every week in the Dynamic Trader Report where we make the current high probability trend targets for many of the financial and commodity markets.

### Lessons Learned

1. The high-probability End-of-Wave-3 **Time Targets** are where several Time projections *cluster* together in a relatively tight range.

2. All the calculations are performed from the Wave 2 swing high or low, hence you are prepared **in advance** for the most likely areas when the Wave (3) is likely to terminate.

Robert Miner's *Dynamic Trading* book includes instruction on how to make all of the end-of-wave time projections and includes a handy, quick-reference table for all the time projections for any wave structure.

### Dynamic Trader and Wave 3 Time Projections

The Wave 3 Time tutorial above taught you how to make the high probability Time targets for the end of a Wave 3. This can be accomplished a lot quicker and easier with the Dynamic Trader software program.
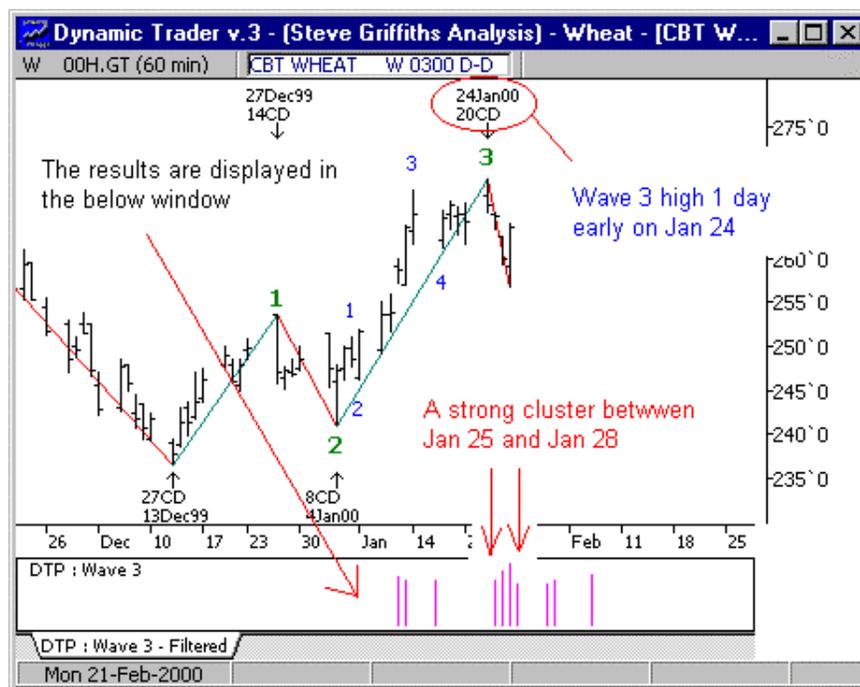
As with the Price example last week where we learned to project the End-of-Wave-3 price targets, we first place a swing file on the chart. We then use the *Dynamic Time Projection* routine to make all of the time calculations for each of the individual swings and plot the results in an easy to view histogram below the current chart.

Let's step though the Wheat example I used in the tutorial above, where we start with a bar chart and a swing file:



We place the vertical marker on the last swing pivot – the wave 2 low in this case as we are looking to project the termination of a Wave 3. Then we select DTP (Dynamic Time Projection) from the menu. We select the End-of-Wave-3 from the Dynamic Time Projection menu (not shown) which plots a histogram showing the score for each day. The higher the score the more individual time projections that fall on that day and hence the highest-probability times to be alert for the end of the Wave-3 and a change in trend.

The histogram may be displayed in the indicator window below the wheat chart:

The highest score fell in the time period of Jan 25 to Jan 28.

The Wave 3 high was made on Jan. 24, as we have already seen, fell just 1 day short of this time period.

It is as easy as that - a few mouse clicks that take less time to perform than it does to read this sentence. Do you believe this is the kind of information that would enhance your trading? Would you like to know for any market and any time frame the high probability Time targets for the potential termination of any trend **in advance**?

If you would like to learn more about the unique features of the Dynamic Trader software program, click here to go to the download page and download the DT software brochure.

Next week I will bring together what we have learned about the time, price and pattern characteristics of a Wave-3 and show that when **Time, Price and Pattern coincide – change is inevitable.**