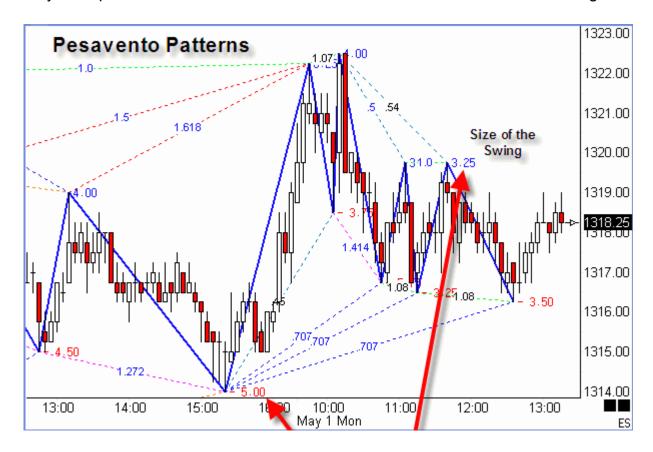
Pesavento Patterns

The Pesavento Patterns study automatically determines the swing lines, and connects peaks with a line and labels the line with the retracement percentage. The study can also do the Fibonacci levels as a forecast for key retracement levels for the current trend. The main parameters are proprietary and cannot be changed by user. Adjust the Min Size and Min Bars parameters until your chart shows just the main swings you want marked. A smaller value for the Minimum Size of the swing will allow minor swings to be marked and may clutter the chart with too many swings. The Pesavento Patterns tool is totally automatic. The swings, triangles and their percentage labels, and the Fibonacci levels are drawn automatically and update in real time as bars are added to the chart and create new swings.



Natural Harmonics

Larry Pesavento uses the proprietary Pesavento Patterns tool in Ensign 10 which draws the swing lines. The study can use the Delta \$ markers to show the size of the swings (change in price from the ends of a trend line). Look for common (similar) sizes of the swings such as the 3.25, 5.25 points and 8.00 points on the ES e-mini chart. The common swing sizes are the natural harmonics for the symbol. To find the higher harmonic numbers, look at the common swing sizes on a 30-minute chart.

The chart example has red arrows pointing to the size of the price swings from the Delta \$ markers. This is an easy way to discover the natural harmonics of a chart.

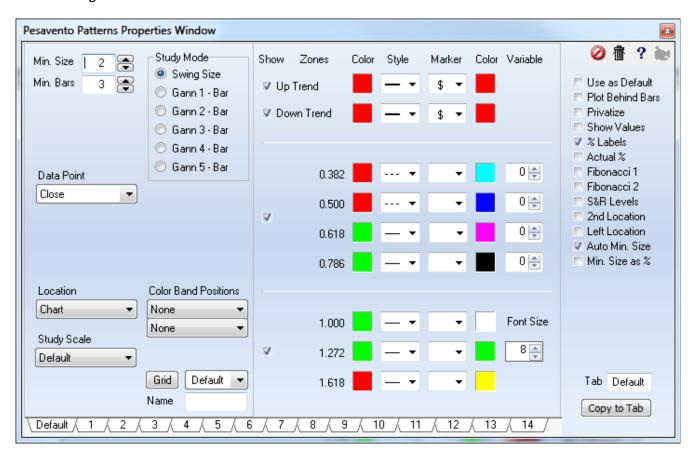


Properties

If you want to exclude from the images a particular Fibonacci level and swing percentage, simply change the Draw Line style for a level to be the first entry in the Style drop down list. The first entry is a blank.

- **Min Size** Enter Zero to include Swing Patterns of any size. Enter a Size amount to limit the Pattern lines to only those swings that are greater than the Size entry.
- **Min Bars** Enter Zero to include all Patterns. Enter minimum Bars amount to exclude all Patterns that do not include at least a minimum number of Bars.
- Auto Min Size This box will cause the study to auto find the best fit for Min Size. This allows you to place the study on any chart and get a good pattern.

For the ES symbol the parameters of 5.00 for Min Size and 3 for Min Bars yield good results. Or, check the Auto Min Size option to have the program determine an appropriate value to use based on the chart's scale range.



Study Mode - Swing Size

The tool is based on logic to find swing points and connect these swing points to make trend lines. The challenge is to identify swing points. The Min Bars parameter is a horizontal requirement for the minimum number of bars in a trend. A Min Bar value of 5 would filter quick 1 to 4 bar wild reversals. The Min Size is a filter wherein a trend must exceed this mininum size vertically. This is a noise filter that prevents minor oscillations from being called a trend when the desire is to mark bigger moves. If Min Size is 2.0 on an ES chart, then a retracement would have to exceed 2.0 points before the prior swing point is locked in as a turning point and a new trend is underway. Until the min size is exceeded, the current trend could resume and put in a more extreme swing point without a retracement trend identified.

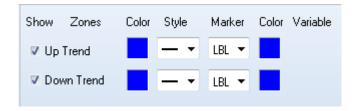
Study Mode - Gann 1, 2, 3, 4, 5 - Bar

An alternate way to identify a new trend is to count the number of bars that have higher highs in an uptrend, or count the lower lows in a downtrend. A new trend is established when the Gann count is reached. Obviously, a Gann 5-bar will filter more minor swings than a Gann 3-bar selection, but also introduce more lag before starting the new trend. The developing counts are shown with small digits above higher highs and below lower lows.

LBL Marker

The LBL Marker selection is often used. It will label the swings with notation such as

- **HH** Higher High
- **LH** Lower High
- **LL** Lower Low
- **HL** Higher Low



Larry Pesavento - 'Fibonacci Ratios with Pattern Recognition', publisher Traders Press, Inc.