# Draw Tools Manual 

Ensign 10

Last Update: 26 July 2013

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## Ensign Draw Tools

## Draw Tools

Click the Draw Tools button to display a list of draw tools. Click on a tool on the list to add the tool to the chart. The cursor will change to a pencil and you then proceed to construct the tool on the chart by clicking at its construction points. Click elsewhere on the chart to 'Finish' the tool.
Hide - Uncheck the Hide check box to keep the Draw Tools panel showing after a tool has been selected. This permits multiple tools to be quickly added to the chart. Check the Hide box to close the Draw Tools panel after a tool has been selected.
Magnet - Check the Magnet check box to activate the price Magnet feature. When the Magnet is activated the mouse cursor will snap to the closest High, Low, Close, or Open price while applying or adjusting tools on a chart. For example, the Magnet enables you to apply lines and tools exactly on the High or Low price of a bar.
Properties - Click the Properties button to configure which tools are to be shown or hidden on the Draw Tools panel. You may want to display only those tools that you use. Click the Save button that replaces the Properties button to save the changes.
Help - Click the Help button to open the Draw Tools Manual with instructions on how to draw a tool on a chart.
Close - Click the red X button to close the Draw Tools panel.


Tip: The Draw Tools form can be sized so only the icons show.

## Overview

Ensign has an impressive arsenal of Draw Tools. The tools are versatile and easy to use. Draw Tools can be used to indicate support and resistance levels, channel lines, circles, shapes, Pyrapoint, Elliott, Gann, Fibonacci, moon phases, and a variety of price and time forecasts.

## Chart Toolbar

Six draw tools can optionally be shown on the chart's toolbar. The selections are made on a chart's Property form on the Buttons tab. Check the boxes to show the selected tool buttons.

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## How to draw a Tool on a chart

- Open a Chart and click on the Draw Tools button on the chart's toolbar.
- Click on the desired tool on the Draw Tools panel. The mouse cursor will change to a Pencil shape as you move the mouse back over the chart. Each tool requires you to select either 1, 2, or 3 draw points on the chart.
- Move the mouse to a desired starting point ( $1^{\text {st }}$ draw point) and click the left mouse button. If the tool requires 2 points (a start and end point), then move the mouse to the $2^{\text {nd }}$ point and click the left mouse button to mark point 2 . If the tool requires 3 draw points, then move the mouse to the $3^{\text {rd }}$ point and click the left mouse button to mark point 3.
- Holding down the SHIFT key while moving the mouse or while clicking at the $2^{\text {nd }}$ point, will force the $2^{\text {nd }}$ point to be aligned horizontally or vertically with the $1^{\text {st }}$ draw point.
- After selecting the required draw points for the tool, the tool will be in a 'Selected' state. Small square markers will appear at the draw points. To move a draw point to a different location on the chart, point the 'Pencil' cursor at one of the square markers and then hold down the left mouse button. Drag the marker to a new location. To move the entire tool, point the 'Pencil' cursor at a line segment between any of the draw points, hold down the left mouse button and drag the line to a new location.
- Click elsewhere on the chart to 'Finish' the tool and remove the selection boxes.



## Adjusting a Tool

A tool must be selected before adjusting the location or properties of the tool. To select a tool, move the chart cursor and point at the draw points or the lines that connect the draw points, and then click the mouse. When the tool is selected, the chart cursor will change to a pencil, and square boxes will mark the tool's draw points. To adjust a draw point, drag the square markers to a new location. To move a tool, while maintaining its orientation and size, drag a line which connects draw points to a new location.

## Changing the Line Color, Style, Markers, and Defaults

Right-click the mouse while a draw tool is selected to open the Draw Line properties window.

## Repeat Mode

Ensign has an Repeat Mode for use with the draw tools. Repeat mode is where the draw tool will continue to be drawn with mouse clicks without needing to reselect the draw tool.
While the cursor is a pencil, hold down the Ctrl key and start drawing the tool again. Release the Ctrl key and click elsewhere on the chart background to discontinue drawing tools.

## Replicate Mode

Tools drawn on a chart can be replicated on other charts with the same symbol on the current layer by holding down the Alt key when clicking elsewhere to finish the line. To replicate the tool on charts with the same symbol on all layers, hold down both the Shift key and the Alt key and click elsewhere to finish the tool.

Hint: Tools drawn on a lower time frame will find the right bar in a higher time frame. But a tool drawn on a 60-minute chart, such as on the 10:00 bar, will use the 10:00 bar on a 5minute chart, which has 1 chance in 12 of being the bar with the intended price point. Therefore, it is best to draw on a lower time frame and replicate to the higher time frames.

Hint: Tools already drawn can be replicated by reselecting the tool, and then hold down Alt or Shift \& Alt and click elsewhere to finish the line.

Hint: The Ctrl key for the Repeat Mode can be used simultaneously with the Alt key or Shift \& Alt keys for the Replicate Mode. Hold the keys down together and finish the tool.

## Copy Mode

To copy an existing tool, select it so its draw points are marked by the small square boxes. Move the mouse to a new location and press the Space Bar key. The tool will be copied to the new location, and retain its size and orientation.

## Properties



Each of the draw tools has a properties window that allows the user to customize the tool. The properties window can be viewed by clicking on the Chart Object button, selecting the tool, and clicking Properties. The following options appear in each properties window:

- Cancel Button - Click the Cancel button to abort any changes that have been made to the properties screen, and close the window. No changes will appear on the draw line or study tool.
- Delete Button - Click the Delete button to remove this study or draw tool from the chart.
- Help - Click the Help button to display documentation for the tool.
- Video Button -Click the Video button to view a training video on the selected tool.
- Use as Default - Check the Use as Default box to save the current settings as the default for all subsequent uses of the tool.
- Draw Behind Bars - Check to draw the tool behind the bars. Uncheck to draw the tool above the bars.
- Privatize - Check the Privatize box to hide a draw tool's name and parameter settings. A chart will then display the name of the draw tool as 'Custom'. This allows users to develop proprietary settings, systems, and layouts without disclosing the exact studies.


#### Abstract

Show - Check the Show box to display a particular Line feature. The Lines can be extended Ahead or Back. Custom Labels, Standard Deviation Channels, Percentage Channels, and Mirror lines can also be plotted. The Channel Lines are drawn at either fixed Percentage amount above and below the original Line, or a multiple of the Standard Deviation above and below the original line. Specify the Percentage value in the 'Parameters' panel. Enter a value in the '\%' entry box. For example, an entry of 4 would draw channel lines on both sides of the Line ( 4 percent above and 4 percent below the Line). Place a check mark in the 'Std. Dev. Channel' box to display parallel lines based on the Standard Deviation. An entry of 2 in the 'Mult' parameter will draw parallel lines at 2 Standard Deviations from the original line. Each line can have an optional custom label. Enter some text in the 'Custom Label' entry box. The label can be up to 8 characters.


Color - Click on the square Color boxes to select a color for the Line.
Style - Select a Line Style from the Style drop-down lists.
Left Side - Markers can be plotted on the Left Side of the Line.
Right Side - Markers can be placed on the Right Side of the Line.
Horizontal - Place a check mark in the 'Horizontal' box to force a horizontal line to be plotted.
Lock Length - Check the Lock Length box to prevent a line from being adjusted in length (after its initial placement on the chart). This allows you to re-select a line and move the line around a chart, while always maintaining a constant line length.

Slope - If desired, you can manually enter the Slope of the line.
Price - If desired, you can manually enter the Price of the line starting point.
Extend Multiplier - The Extend Multiplier is used to lengthen or shorten the line extensions.
Alarmed - Select one of the sound bullets to activate an Alert for the selected line. The alert will trigger each time the market price crosses above or below the line in either direction. The line alert sound will use the alert sound settings from the Price Alerts window. Click the Alerts button on the main toolbar to change the alert sounds and settings. The alert banner will use the Font and Panel color selections.

When a line is drawn vertically, the alert will become a Time alert that is triggered when the current bar aligns with the draw line's position. The alert message will be 'Time at Draw Line'.

## Tabs

There are 15 Tabs at the bottom of the Draw Line Properties window. These Tabs allow you to save 15 different Line options. Select a Tab to load a previously save Line setting. If your mouse has a Mouse-Wheel, you can spin the Mouse-Wheel up or down while a Line is selected to switch between the TAB settings. To copy a Tab setting to a different Tab, display the Tab setting that you want to copy. Then, click the Copy Tab button. Then, click the Tab that you want to copy to. This will copy the original Tab to the new Tab.

## Removing a Line

Click the Delete button in the Draw Line properties window to remove the selected Line. You can also press the Delete key while the line is selected.
The Chart toolbar also has a Remove Tool button with a garbage can image. Click this button to remove draw tools in the reverse order from how they were added to the chart. The tool drawn last will be the next tool removed when this Remove Tool button is clicked. This button will not remove studies from the chart.

## Slope of a Line

Slope is defined as the Rise over the Run (Rise divided by Run). Two points on a line are necessary to calculate the slope. Ensign uses the slope formula to draw lines on charts. You can manually set the slope of a Line, in the Draw Line Properties window. The value of the slope is equal to the amount of vertical change (Price) divided by the horizontal change (Bars).

## Slope Example

Rise: Given a Line starting price of 120 and an ending price of 150 , the Rise equals 30 price units. Run: If the Line's starting bar count is 2000 and the ending bar is 2060, the Run equals 60 bar units. Slope: The Rise divided by the Run is equal to $30 / 60=0.5$ price units per bar units.
The Line would slope to the upside at a rate of 0.5 price units per bar.
Slope Note: A computerized chart is not a grid paper. The chart can be stretched both vertically and horizontally without changing a Line's reference points of price and bars. The bars can be spread-out wide, or compressed closely together. So, don't try to equate SLOPE with the ANGLE of the Line on the computer screen. The chart is a dynamic rescaling measurement of price and time. Therefore, the idea that a 45 degree Line must have a slope of 1 , does not compute. In the example formula above, the slope was equal to 0.5 on the chart. The ANGLE of the line has no relation to the SLOPE. You can stretch and compress the chart and the SLOPE of the line will remain at 0.5 (the Line's price and bar ratio does not change, even though you resized the chart). However the visual ANGLE of the line, as you stretch the chart, will change a lot. Therefore, don't be surprised if you enter a slope of 1, and the line is not a 45 degree line on your computer screen. Use the 'Circle' draw tool to view constant 45 degree lines.

Note: The Draw Line properties window can also be accessed by clicking the Chart Objects button from the chart Toolbar. The Chart Objects window displays all the studies, lines, and draw tools that are currently drawn on a chart. To access the properties window for a line, select Draw Line from the Chart Objects list, and then click the Properties button.

## Alarmed Lines

Alerts can be set on a Draw Line, Linear Regression line, Fibonacci Levels, Fibonacci Retracements, and Daily Price Lines. Each of the property forms for these draw tools have similar properties for the alarms.


Check the Alert Message box to show a message at the top of the chart when any of the shown lines are crossed by price action. The message will use the Font and Panel colors.

A sound can also be played, and the example show the message text that will be spoken by the computer Voice. When Voice is checked the text in the WAV edit box will be spoken. Reference tags can be embedded in the message text such as [\$S] for the symbol, [\$C] for the current price, and $\left[\$^{*}\right]$ for the default message. See the Reference Tag table in the DYO manual. If the WAV entry is blank, then a default message generated by Ensign will be spoken.

When WAV is checked, then the entry on the WAV line is the path and filename to be played.
Check the Auto Remove Message box if you want the alert message to be hidden when the alert condition is no longer true. The message text is automatically generated by Ensign, and will be similar to the example shown where the text will say Cross Above or Cross Below followed by a name of the line being crossed.
Alerts that are triggered for Price Alert, Study Alerts and Line Alerts are being logged. Click the Yellow Bell button to show the Alerts form. Select which of the three lists you want to view. The example shows the Alert List for Lines with our alert message that the Fibonacci 0 line was crossed at 11:17:06 by a price at 1323.25 on the ES \#F chart.

## E-mail

Check the E-mail check box to have the alert message e-mailed.

## Description

## Alan Square

To draw the Alan Square on a chart, click the Alan Square button. The cursor will change to a pencil while in the draw mode. The tool requires two points on a chart to create a square. Select the 1st point from an important High or Low price (or the opening bar of the day) by moving the cursor to the point, then hold down the left mouse button and drag to the 2nd point. The standard square spans the pre-open through regular trading hours session. The square should encompass the highest High and lowest Low of the previous day. The Alan Square shows possible opportunities, targets, and protection levels.
The major components of the Alan Square are:


## Construction Methods

There are various ways to draw the Alan Square. The implementation of the Alan Square in Ensign Windows is just one more of many reasons to switch to Ensign. Those who do not use Ensign can still draw the square 'the old fashioned way', how Alan drew his square for ten years prior to his getting Ensign Windows.

## Click on one of these excellent links for instructions．

－Ensign Alan Square Draw Tool
－Manually－Lines and Square
－Manually－Box and Parallels（discovery method，link to dacharts）

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## Andrew Pitchfork

To draw the Andrews Pitchfork on a chart, click the Andrews Pitchfork button. The cursor will change to a pencil while in the draw mode. The Pitchfork uses three points on a chart to create a triangle. The three points should be constructed from a key High or Low price, and the next two swings in the market that form a correction. Pitchfork lines extend from the triangle at specified intervals to dissect the market. The Pitchfork shows possible price levels where the market could extend to. Watch for support and resistance on the Pitchfork lines.


## Drawing the Pitchfork

Select the 1st point from an important High or Low price by moving the cursor to the point, then hold down the left mouse button and drag to the 2nd point. The 2nd point should be the High or Low of the subsequent correction. Release the mouse and then move to the 3rd point. The 3rd point will complete the triangle, and is generally the ending point of the correction. Click the left mouse button to mark the 3rd point. The Andrews Pitchfork lines draw to the screen as the three points are selected.

## Adjusting the Pitchfork

Re-selecting the Pitchfork will activate the ability to move and adjust the lines to a different location. Click the mouse on one of the first two original points (or the main Andrews lines) to activate the Pitchfork. Square Bullet marks will highlight the three corner points. Place the mouse on any of the square bullet marks and drag the Pitchfork to a new location. The whole Pitchfork can be moved by dragging the line that connects the first two selected points.

## Properties

To open the Properties window, click the Chart Objects button, select Andrews Pitchfork, and then click Properties. The Properties window can also be opened by re-selecting the Pitchfork lines and then right-clicking the mouse. The Properties window is used to change the Colors, Line Style, and other Defaults.

- Extend A-B - Check the Extend A-B box to extend the Pitchfork lines from points A and B.
- Extend A-C - Check the Extend A-C box to extend the Pitchfork lines from points A and C.
- Parallel B-C - A check mark in the Parallel B-C box will draw Parallel lines using the distance between the vertex point and the B-C midpoint line.
- Diagonal Grid - Place a check mark here to plot diagonal grid lines in the pitchfork.
- Fork Variations - Select Schiff in the list box to draw the pitchfork handle from the vertical mid-point of the first 2 selection points. Select Modified Schiff in the list box to draw the handle of the fork for Modified Schiff Lines from the midpoint of the A-B line. Ensign offers 11 variations for the Andrews Pitchfork handle location.
- Price - The Price of the starting point can be manual adjusted if necessary.
- Extend multiplier - The multiplier allows you to control the length of the fork lines.

| Fork Variations |
| :--- |
| Andrews |
| Andrews |
| Schiff |
| Modified Schiff |
| A-B Horz at B |
| A-B Comer |
| A-C Vertical |
| A-C Midpoint |
| A-C Horz at C |
| A-C Comer |
| A-B Horz at A |
| A-C Horz at A |



## Circle

The Circle tool can be used to draw a Circle, Ellipse, Rectangle, Pentagon, Square or Angle Lines at specified Degrees. To draw a circle on a chart click the Circle button on the Drawing Toolbar. The cursor will change to a pencil while in the draw mode. A center point, and a radius point, are necessary to draw a circle on a chart. Move the cursor to a desired center point and then drag the mouse to the radius point. Circles are placed on charts to mark chart formations.


The distance between the center and outer edge of the circle can be divided to include more circles, including Fibonacci levels. Two vector lines can also be drawn from the middle of the circle. Many traders like these lines to be drawn at forty-five degree angles (upward and downward). The interior area of the circle can be filled-in with color.

## Adjusting a Circle

Re-selecting the circle will activate the ability to move and adjust it to a different location. Click the mouse on the center of the circle to activate it. You can always re-select a circle by clicking on the right edge of the Circle (at the midpoint of the circle). The cursor will change to a pencil and square bullets will mark the center and radius points. Drag the square bullets to a new location to adjust the circle.

## Properties

After drawing a circle, click the Chart Objects button, select Circles, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the circle and then right-clicking the mouse. Enter a degrees value in the 'Deg' Level entry box to specify the angle of the 2 optional vector lines. Example, an entry of 60 will plot 60 degree angle lines from the middle of the circle. Place a check mark in the 'Show' box to display the lines.


Degree Fan - Place a check mark in the 'Degree Fan' check box to plot Angle Lines on the chart that draw from the center point. You can specify the desired degrees of each line in the 'Level' entry boxes. Place a check mark next to each entry row that you want to display an Angle Line. The 360 degree radius starts at the right edge of the circle. 90 degrees is straight up. 180 degrees points leftward. 270 degrees points down, etc. The Angle of the Lines will not change if the chart is rescaled.
Shapes - Place a check mark next to 'Ellipse', 'Rectangle', 'Pentagon', 'Arc Segment' or 'Square' to change the shape of the circle. Place a check mark next to 'Fill Interior' if you would like the inside of the shape to be filled.
read more » Integration of Gann, Elliott, and Fibonacci Techniques read more »Ellipses

## Cycles

To use the Cycle lines or Moon Phases tool, click the Cycles button. The cursor will change to a pencil while in the draw mode. Cycle lines mark time cycles from important highs and lows. A bar counter will be displayed while drawing the cycles. This displays how many bars are contained in each cycle. A start and end point are necessary to draw the cycle lines on a chart. The distance between the start and end points will be replicated across the chart. Vertical dashed lines mark each cycle point.


To draw cycles on a chart move the cursor to the starting point and then drag the mouse to the ending time cycle point. The starting point is generally an important high or low on the chart. The ending point is usually the end of an important trend or correction following the starting point. The cycle lines can extend into the future and backwards to indicate possible cycles. Watch for a market to switch directions at the cycle points.

## Adjusting Cycles

Re-selecting the cycles will activate the ability to move and adjust the cycles to a different location. Click the mouse on the bottom of a cycle line to activate it. The cursor will change to a pencil and square bullets will mark the original start and end points. Drag the square bullets to a new location and the cycle lines will adjust.

## Properties

After drawing a cycle, click the Chart Objects button, select Cycles, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the cycle lines and then right-clicking the mouse.


In the properties window, place a check mark next to Pin To Bottom to Pin the Cycles to the bottom of the chart. Place a check mark in the 'Mirror' box to cause the cycle lines to extend in both directions. Place a check mark to in the Show box to show the Cycle Arcs, Vertical Lines, and Moon Phases. Place a check mark in the 1/2 Cycle, 1/3 Cycle, and 1/4 Cycle boxes to plot additional cycle lines which divide the original cycle.
read more >> Tools: Cycles

## Daily Price Lines

The Daily Price Lines tool can draw a variety of price lines on a chart. To apply the tool on a chart click the Daily Price Lines button on the Drawing Toolbar, and then click on the chart.

## Properties

Click the Chart Objects button, select Daily Price Lines, then click the Properties button to open the Properties window for the tool.


Labels Left/ Right - Place a check mark in the 'Labels Left' or 'Labels Right' boxes to display labels for each of the lines. Place a check mark in the 'Day Session' box to calculate the Daily Price Lines using only the Day Session bars. Evening session bars would be ignored.
Daily Price Line Types: The Daily Price Lines tool can plot horizontal lines at the following price levels. Make a selection from the 'Description' drop down list to specify a line type. The \$ (price) Marker or the \% (percent) Marker are often used with these line types.
\% Today - Enter a Percentage in the 'Level' entry box. Example: Enter 50 to plot a line at the midpoint of today's trading range.
\% Yesterday - Enter a Percentage in the 'Level' entry box. A line will plot based on Yesterdays range. Example: Enter 25 to plot at line at the $25 \%$ level of Yesterdays price range.
\% Day 3 - Enter a Percentage in the 'Level' entry box. A line will plot based on the price range of the 3rd day back.
\% Scale - Enter a Percentage in the 'Level' entry box. A line will plot base on the current chart scale from top to bottom. Example: Enter 50 to plot a line in the middle of the chart.
Price - Enter a price in the 'Level' entry box. A horizontal line will plot at the specified price.
Point + Offset - Enter a price in the 'Level' entry box. A horizontal line will plot at the specified price offset from the click point price. Example, an entry of 1.50 will plot a line 1.50 higher than the click point price. Enter a negative price to plot a line that is lower than the click point price.

Point * Percent - Enter a percent value in the 'Level' entry box. A horizontal line will plot at the specified price offset from the click point price by the specified Percent. Example, an entry of 2.00 will plot a line 2 percent higher than the click point price. Enter a negative value to plot a lower line.
read more » Square of Nine
read more » Harmonic Octaves
read more » Gradient Line Styles
read more » Yesterday's High, Low, Close

## Draw Line

Though the Draw Tools panel shows a single entry of Draw Line, the property form can be configured to a variety of Draw Line types. Use the tabs to pre-configure line types.


Check the Extend Ahead box to have the draw line extend beyond the $2^{\text {nd }}$ construction point. Check the Extend Back box to have the draw line extend ahead of the $1^{\text {st }}$ construction point. Check the Custom Label box and enter text in the 2 edit boxes on that line. The text in the left edit box will show ahead of the $1^{\text {st }}$ construction point and the text in the right edit box will show after the $2^{\text {nd }}$ construction point.
Check the Std Dev Channel box to create a channel whose width is based on a multiple of the standard deviation of the bars spanned by the draw line. The next line with the Mult. label holds the multiplier. If this line's box is checked, a $2^{\text {nd }}$ deviation channel at twice the multiple is drawn.

Check the Percent Channel box to create a channel based on a percentage of the price. The
percentage multiplier is entered on the next line. And if the box on this percentage line is checked, a $2^{\text {nd }}$ channel at twice the percentage is drawn.
The Mirror boxes optionally draw a line that is reflected off of a horizontal plane at the $2^{\text {nd }}$ construction point. The angle of reflection can be at double, actual, or half of the draw line's angle. These options create a mini-Gann fan.
Check the Horizontal box to have the line drawn horizontally from the $1^{\text {st }}$ construction point regardless of the $2^{\text {nd }}$ construction point's vertical placement.
Check the H/L Channel box to create a high low channel based on the extremes in the bars the draw line spans.


Check the PTT Channel box to create a Price Time Target formation.


Check the Auto Wedge box to have the tool create wedge lines based on the bars spanned by the draw line. In this example, the blue line was drawn manually.


## Fibonacci Cycle

This tool is a ruler for measuring time by counting bars using the Fibonacci number sequence. Click the mouse at the starting point to place the Fibonacci Cycle tool.


## Properties



## Fibonacci Levels

To draw Fibonacci Levels on a chart, click the Fibonacci Levels button. The cursor will change to a pencil while in the draw mode. Fibonacci Levels indicate possible support and resistance levels from important highs and lows. A start and end point are necessary to draw Fibonacci Levels on a chart. All of the levels can be customized and changed to your desired levels. The distance between the start and end points is divided into Fibonacci Levels which suggest possible support and resistance points. To draw Fibonacci Levels on a chart move the cursor on the chart to the starting point. The starting point is generally an important high or low on the chart. Click the mouse at the starting point and at the ending point of the trend. Watch for the completion of a trend or correction at the Fibonacci Levels.


## Adjusting Fibonacci Levels

Re-selecting the lines will activate the ability to move and adjust them to a different location. Click the mouse on the $0 \%$ or $100 \%$ horizontal lines to re-activate the Fibonacci Levels. The cursor will change to a pencil and square bullets will mark the original start and end points. Drag the square bullets to a new location and the Fibonacci Levels will adjust.

## Properties

After drawing Fibonacci lines on a chart, click the Chart Objects button, select Fibonacci Levels, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the Fibonacci lines and then right clicking the mouse. Click the Delete button in the properties window to remove the lines from the chart.


If necessary, enter a specific price in the anchor 'Price' entry box to specify the starting Fibonacci price level. To extend the length of the Fibonacci lines, enter a Multiplier value in the 'Width Multiplier' box. Use the 'Price Magnet' feature to snap the start and end points to the nearest bar price. Place a check mark in the 'Show Extensions' box to draw Fibonacci lines from both the start and end levels. Example: a Fibonacci entry of 127.2 will draw two lines. The first line will draw up 127.2 percent from the start price. The second line will draw down 127.2 percent from the end price level.

## Setting the Levels, Color, Line Thickness, and Markers

The properties window is also used to change the Fibonacci percent levels, colors, and line thickness. Place a check mark in the 'Display' check box to display a particular line level. Enter Fibonacci percent levels in the 'Level' entry boxes. Click on the 'Color' boxes to adjust the color for each line. Adjust the 'Line Thickness' by selecting a line in the drop down box. Use the marker boxes to label the left and right side of the lines with information such as the percentage and the price.

## Storing Fifteen Different Fibonacci Parameter Sets

The Fibonacci tool can store 15 separate parameter settings. Click on one of the Tabs 1 through 14 at the bottom of the Properties window to switch to a different setting. This allows you to configure several unique combinations of lines, price levels, and colors. Place a check mark in the 'Use as Default' box to save the currently displayed setting as the default.

## Examples





## Fibonacci Retrace

The cursor will change to a pencil while in the draw mode. Fibonacci Retracements indicate possible time and price movements from important highs and lows. A start and end point are necessary to draw Fibonacci Retracements on a chart. The distance between the start and end points is divided into Fibonacci Levels that suggest support and resistance points.
Diagonal time lines mirror the marked trend and suggest the wave time of the next move. To draw Fibonacci Retracements on a chart move the cursor on the chart to the starting point. The starting point is generally an important high or low on the chart. Then drag the mouse to the ending point. The ending point is usually the end of an important trend or correction following the starting point. The retracement levels and time mirror lines will extend on the chart. Watch for the completion of a trend or correction at the Fibonacci Levels. The mirror lines extend at a one-by-one, two-by-one, and one-by- two relation to the slope of the start and end point line.


The same properties window for Fibonacci Levels applies to Fibonacci Retracements.

## Fibonacci Ruler

The Fibonacci sequence involves the use of ratios, and the two ratios that are focused on in this trading tip are 1.618 and 2.618. Time can be forecast by measuring the horizontal time period between two points $A$ and $B$, and multiplying by the Fibonacci ratios. The result is plotted rightward from point A.

Fibonacci time projections can be made from top to top, bottom to bottom, or top to bottom. Because of the multiplicity of swing tops and bottoms, there is the problem of a multitude of possible relationships. One solution to the problem is to use this tool in conjunction with other time-oriented information, such as Elliott wave counts or cycle analysis.
The following chart illustrates three Fibonacci Time Projections. Each time period measured is marked with blue lines and arrows labeled $A$ and $B$. The forecasts are marked with red lines and labeled for the Fibonacci ratio used.


Fibonacci Time Projects are easy to make using the Fibonacci Ruler tool in Ensign Windows. To use the Fibonacci Ruler tool, click the Fibonacci Ruler button. The cursor will change to a pencil while in the draw mode. The Fibonacci Ruler indicates possible time movements from either two or three marked points on a chart. A start point and end point is necessary to draw the Fibonacci ruler on a chart. Vertical ruler lines extend from Fibonacci distances in relation to the start and point, and indicate possible turning points for the current trend or correction.
To draw the Fibonacci Ruler on a chart move the cursor on the chart to the starting point. The starting point is generally an important High or Low on the chart. Click the mouse on the start point and on the end point. Vertical dashed lines will mark the Fibonacci Ruler lines. The lines are based on the distance between the start and end points. The Fibonacci Ruler uses .618, $1.272,1.382,1.5,1.618,2,2.618$, and 4.236 as possible ruler settings. Watch for the completion of a trend or correction at the ruler lines.

## Properties

The percentages, colors and markers are configured on the tool's property form.


After drawing the Fibonacci Ruler on a chart, click the Chart Objects button, select Fibonacci Ruler, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the ruler lines and then right-clicking the mouse.

Use 3 Points - Place a check mark in the 'Use 3 Points' check box if you want the Fibonacci Ruler lines to extend from a 3rd point. In this case, you will need to click on a 3rd point when applying the tool. The Fibonacci values will be calculated from the first two points, and then extend from the 3rd point.

## Adjusting the Fibonacci Ruler

Re-selecting the lines will activate the ability to move and adjust them to a different location. Click the mouse on the bottom of the first ruler line to activate the lines. The cursor will change to a pencil and a square bullet will appear at the bottom of the first cycle line. Drag the square bullet to a new location and the ruler lines will adjust.

## Formations

To draw Formations on a chart, click the Formations button on the Drawing Toolbar. The cursor will change to a pencil while in the draw mode. The tool can be used to draw a variety of patterns, including Elliott Wave ABC corrections, Elliott Wave 12345 thrust moves, 3 Point Fibonacci Levels, Butterfly Patterns, Gartley Patterns, Triangles, Trapezoids, and Parabola.

The tool's properties were configured as shown below to create the Fibonacci Extension formation shown on the next chart. Enter Fibonacci percent levels in the 'Level' entry boxes for any Fib levels that you want to plot. Increase the 'Width Multiplier' to extend the Fibonacci lines horizontally into the future.


## Adjusting the Lines

Re-selecting the lines will activate the ability to move the lines. Click the mouse on either of the first two points (or the Lines between the points) to activate the lines. Square Bullet marks will highlight the three original points. Place the mouse on any of the square bullet marks and drag the lines to a new location.

Price - You can manually enter the price for the first draw point if necessary.

## Fan Lines

When a Fib value is entered as a negative number, the Fibonacci Extensions will sub-divide time to create a Gann Fan line from point $C$. The fan lines extend from point $C$ to the wave C-D price level. The Time that is referenced is the time spanned by wave C-D.
A value of -50 will draw a fan line at $50 \%$ of the time span (shown in the example as a dotted red fan line.) A value of -200 will draw a fan line at $200 \%$ of the time span (shown in the example as a dotted green line.)


## Range Boxes

For the Fibonacci selection, two values can be entered separated by a hyphen to create a range box. The box interior will be filled with the row's color. The frame for the box will use the row's line style and the C-D line color. Change the line style to blank to remove the frame.

The markers used will affect the box width. Markers from the small circle Bullet through the bold $\mathbf{X}$ will use a box width that just spans the diagonal width of the C-D line. The Peg markers will control the width but not be shown.
The Short Line marker and the Long Line marker will create a box whose width is extended out from the C-D line. Other markers or the absense of markers will create a width from point C rightward through the Width Multiplier extension.


The Add ' $B$ ' Markers option will mirror the objects from point $B$ that are drawn from point $C$.

## Properties

Click the Chart Objects button, select Formations Tool, then click the Properties button to open the Properties window for the tool. On the right side of the window is a list of patterns the tool can draw. Place a check mark next to the desired pattern. The pattern options are:

- Gartley - Plots a Gartley Pattern based on the 3 draw points.
- Butterfly - Plots a Butterfly Pattern based on the 3 draw points.
- Triangle - Plots a Triangle based on the 3 draw points.
- Trapezoid - Plots a Trapezoid based on the 3 draw points.
- Fibonacci - Plots a Fibonacci Extension using 3 draw points.
- read more »Fibonacci Extensions
- read more » $A B=C D$ Pattern
- read more» Lightning Bolt (Elliot Wave Patterns)

- Risk | Reward - Displays a tool to measure the price of vertical movement and retracements.
- Vertical Ruler - Plots a vertical line from the start point, as a reference line.
- read more » Vertical Ruler
- Parabola - Plots a parabolic curve through the 3 draw points. A Parabola is drawn for each row of the property form that is checked. Check the Vertical Ruler box to optionally plot a mirror image of the parabola lines.

Risk IReward<br>$\checkmark$ Vertical Ruler<br>$\checkmark$ Parabola



There are 15 Tabs at the bottom of the Properties window. Each Tab can save a unique set of parameter settings. This allows you to have 15 different line settings. The Tab currently being used will have dashes next to the Tab number. In the example below, Tab 1 is the current Tab being used. Click on a Tab to switch to a different setting, or to make changes to the Tab setting. You must click on a Tab in order to make and save changes to the Tab settings. You are encouraged to set up a different tab for each of the possible formations.

## Gann Fan

Gann Fans are lines which project outward from a single starting point. The starting point is usually a major High or Low turning point on the chart. The lines are drawn at specified levels and suggest possible support and resistance levels based on time and price. To draw a Gann Fan on a chart, click the Gann Fan button. The cursor will change to a pencil while in the draw mode.
There are two ways to apply a Gann Fan to a chart, 1) Manual mode, and 2) Automatic mode.

## Manual Mode

When applying a Gann Fan to a chart in Manual mode, you must select a starting and ending point with the mouse cursor. Move the cursor on the chart to a starting point and click on it. Then click on the ending point. The ending point is usually the end of an important trend or correction following the starting point. The Gann lines will extend on the chart. The line created by the start and end point will be the one-by-one line.

## Automatic Mode

The Gann Fan can be applied to a chart with just a starting point (if Automatic Mode is activated). The Gann Fan will automatically determine the proper angle of the fan lines based on time and price. To enable Automatic Mode, open the Properties window for the Gann Fan and place a check mark in the 'Automatic' box (then click the 'Use as Default' box).
Watch for the completion of a trend or correction at the fan levels.


Read more >> Timing with Gann Angles

## Properties



After drawing a Gann Fan on a chart, click the Chart Objects button, select Gann Fan, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the Gann lines and then right-clicking the mouse.

- Automatic - Enables Automatic Mode. The Gann Fan will determine an optimized angle for you.
- 45 Degrees - This will snap the $1 \times 1$ line to a 45 degree angle. The line will remain at a 45 degree angle regardless of the chart scaling.
- Label Lines - Will label each Gann fan line with its Gann label (example: 1x1, $2 \times 1,4 \times 1$, etc).
- Half Fan Only - Will only plot half of the Gann fan lines (up to and including the middle $1 \times 1$ line).
- Mirror Fan - Mirror the fan lines on the other side of the horizontal line.
- Price - You can manually enter the price for the first draw point if necessary.
- Extend Multiplier - Enter a number to specify the length of the Gann lines.
- Horizontal - Place a check mark in the 'Horizontal' box to display a horizontal line from the start point.


## Gann Square

The Gann Square tool in Ensign Windows is very flexible and can be used to show trends, timing, and price levels. Gann Squares indicate possible time and price movements from important highs and lows. To draw a Gann Square on a chart, click the Gann Square button on the toolbar, then move the cursor on the chart to the starting point. The starting point is generally an important High or Low on the chart. Click the mouse on the start and end points which will be the corners of the square. The end point is often to the right of the chart bars.


Price: A Gann Square can draw horizontal lines at the price levels shown in the Horizontal check list. These price levels are similar to those that could be constructed using the Fibonacci Price Levels draw tool. Tip: Watch for trends to change directions at the Gann Square price levels.
Time: A Gann Square can draw vertical lines at the intervals shown in the Vertical check list. These vertical lines are similar to those that could be constructed using the Cycles draw tool. Tip: Watch for trends to change at the Gann Square time intervals. A Gann Square with both horizontal price levels and vertical time intervals is shown below.

## Properties

After drawing a Gann Square on a chart, click the Chart Objects button, select Gann Square, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the Gann square and then right-clicking the mouse.


- Fan Lines - Place a check mark in the 'Fan Lines' box to plot diagonal fan lines connecting the corners and levels. See next example chart.
- \% of Price - The Gann Square can also be used to plot Percent Levels. Place a check mark in the '\% of Price A' checkbox to activate this feature. Enter Percent Levels that you want to plot in the 'Level' entry boxes. For example, enter 90 if you want a line plotted at $90 \%$ of the price of your starting point (Price A).
- Price - The 'Price' box displays the price of the starting point. This can be fine tuned if necessary.
- Horizontal - Place a check mark in the 'Horz' box to display a horizontal lines
- Vertical - Place a check mark in the 'Vert' box to display a vertical lines
- Level - Enter Gann angle numbers for each line.

read more » Gann Grid


## Gartley Butterfly

One of the formations that Larry Pesavento looks for is the Gartley pattern, which is named after H. M. Gartley who wrote 'Profits in the Stock Market' in 1935. The following chart shows a Gartley Sell formation.


The market has had a sizeable move up to put in a top at point $X$, which is now considered a potential turning point. The Gartley pattern is one with an initial correction to point $A$, and then a 3 wave retest back towards the turn at point $X$. The 3 waves back up are labeled in the example as B-C-D. There should be symmetry in the retrace, namely A-B equals C-D. Point $D$ should be around 0.618 of the X -A distance. The example shows point D at the 0.707 retrace distance. The principle is to sell point $D$ with a protective stop above point $X$.
Keep in mind you do not initially pick $X$ as the top. You wait for selling to move the market to point $A$, and then sell on the retracement approach back to $X$, looking for a three wave retracement pattern that fulfills a 0.618 retracement distance.

The inverse pattern at potential bottoms would be the Gartley Buy formation. Buy the retest approach to the bottom turn at the 0.618 retrace level, with a protective stop below the bottom turn price. The next example shows a very nice move up after the Gartley Buy formation.


## How to Draw

The pattern is marked by clicking the left mouse button at point $X$, clicking at point $A$, and clicking on point $D$. The tool will automatically find points $B$ and $C$ between points $A$ and $D$, and draw the lines as shown, fill the two triangle interiors with a shade color, and label the retracement percentages. The tool could also show extensions of the C-D leg, or reactions from point $D$ to create a $D-E$ line that is parallel to the $x-A$ line.

## Properties

Click the Chart Objects button, select Gartley / Butterfly , then click the Properties button to open the Properties window for the tool.


- \% Labels - Select this box to display percentage labels on the Gartley lines.
- Actual \% - Select this box to display actual percentages instead of the nearest Fib number.
- Triangle - Plots a Triangle based on the 3 draw points.
- Marker @ AB = CD - Plots a Marker at the price and time point where the move would end if $A B=C D$.
- Confluence Zone - Plots 2 lines on the chart that measure Fibonacci retracements of . 382 and .618.
- Price A - You can manually enter the price for the first draw point if necessary.


## Linear Regression

To draw a Linear Regression line on a chart, click the Linear Regression button. The cursor will change to a pencil while in the draw mode. Move the cursor pencil to a starting bar and then click the left mouse button and click again at an ending bar point. The line will stay selected until the mouse is clicked somewhere else on the screen. At that point, the regression line will be calculated and the line will be repositioned. The price levels for the starting and ending points will be determined by the Linear Regression formula. The formula uses the bar prices between the start and end points to calculate a straight line best fit using the least squares method. Line parameters can be set to extend the regression line forward and back, to mirror at different angles, and to change the color.

## Adjusting a Line

Re-selecting the Regression Line will activate the ability to move and adjust it to a different location. Click the mouse on the Line to activate it. The cursor will change to a pencil and square bullets will mark the start and end points. Drag the square bullets to a new location and the Line will adjust. Drag the line from the center to move the whole line at once.

## Properties

After drawing a Regression Line on a chart, click the Chart Objects button, select Linear Regression, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the line and then right-clicking the mouse. The following options are available on the right side of the properties window:

- Use MidPoint - Uses the Midpoint of the bar (High+Low)/2 instead of the close, for calculations
- Auto Tracking - Will move the Regression line to the right as each new bar is completed. The start and end points remain a constant distance apart. For example, a 10 bar Regression line will recalculate to the most current 10 bars at the completion of each new bar.
- Auto Extending - Will leave the start point in place, and extend the end point to the most recently completed bar. The distance between the start and end point will increase as new bars are completed.
- H/L Channel - Place a check mark here to plot parallel lines from the High and Low points surrounding the Regression line. This makes a nice set of channel lines. The color of the channel lines can be changed with the 'Std Dev Channel' and 'Mult' color boxes.
- PTT Channel - A Price Time Target line can be plotted on the chart by selecting this box. Ensign will find a swing point between the start and end points of the Regression line, and plot a parallel line from this swing point.
- Points Channel - Parallel channel lines can be plotted by selecting this box, and the 'Show' box for points channel. Specify the price distance in the 'Pts.' entry box. Lines will be drawn at this price distance away from the main Regression line. This box will toggle the lines between 'Percent Channel lines' and 'Points Channel lines'.
- Extend Multiplier - Enter a multiplier. The Regression line will be extended forward/back by this multiplier amount.
- Custom Label - Place a check mark in this box to display custom labels. Enter the label text in the entry boxes in the Left Side and Right Side marker columns (on the Custom Label row).
- Above/Below - Causes the custom labels to print above or below the line (adjusts the location)


See the documentation for the Draw Line tool, as these tools have similar property forms.
A Linear Regression (LR) line is a trend line that is drawn mathematically so that is represents the 'best fit' for the data points it passes through. The formulas use the least squares method to determine the line's placement. This minimizes the distances between the data points and the trend line.

The algebraic expression for a straight line is: $y=b * x+a \quad$ where $b$ is the slope of the line and $a$ is the $y$-intercept. The linear regression formula calculate both the $b$ and the $a$ values.
One technique is to draw equally spaced channel lines at a distance based on Standard Deviation. The Linear Regression draw tool in Ensign Windows has a multiplier parameter for the Standard Deviation offset. The following example shows red channels lines drawn at 2 times the Standard Deviation. Prices that stay outside of the regression channel indicate a change in trend.


## Marker

Markers can be placed on charts to mark bars or formations. A common use is to indicate where a trade was entered or exited. To place a marker on a chart, click the Arrow Marker on the Draw Tools panel.

The cursor will change to a pencil while in draw mode. Move the pencil to the location for the marker, and click the left mouse button. A default marker will appear on the chart. You can now click the right mouse button to display a properties form to change the marker shape or the text that appears adjacent to the marker.


Markers can be drawn in a huge variety of shapes. Use the drop down Marker list to select a marker shape. Optionally, various words like 'Long', 'Short' and 'Out' can be displayed with the marker either above or below, on the left or the right side of the marker.

Tip: Select the marker that you use most frequently, and then check the 'Use as Default' box on the properties form. Your choice will display as the default when a new marker is placed on a chart.

The preview window shows how the marker will look on the chart. The example shows custom text positioned above the marker made up of four differently colored dots.

Markers can be repositioned by clicking the left mouse button down on the marker, and dragging the object to a new position. The pencil is displayed when a marker is reselected. When a marker is selected, you can click the right mouse button to display its properties form.
Tip: A marker can be placed quite easily on the chart with the mouse. This price can be manually edited to place the marker exactly on a price, instead of just close to a specific price.

## Horizontal Lines

Any of the horizontal line markers in the Right side position make a great tool for quickly putting horizontal lines on a chart. Text can be optionally shown on the right side of the line, regardless of the length of the horizonal line marker. This makes for a very clean and easy way to put a horizontal line on the chart at the point where the mouse is clicked, and to also include a custom label on the right side of the line.

Tip: If drawing horizontal lines is something you do often, consider doing so using the Marker object instead of the Draw Line object. Set the Default to be a horizontal line that is the length most often used. Configure tab 1 to have similar settings but with a shorter length line marker. Configure tab 2 as a horizontal line that is a bit longer, and tab 3 a longer line, and tab 4 with the line marker that extends to the right edge of the chart. Then you can quite quickly put on the marker, and use the mouse wheel to scroll through the first several tabs of the marker object which dials in the length of the line you seek.

This sequence of charts illustrates the 4 different horizontal markers suggested for tab 1, tab 2 , tab 3 and tab 4.


Use a horizontal marker and custom text to label gaps, swings points, yesterday values, etc. For labels oft repeated, consider setting up one of the tabs on the marker to show the oft used label, and then use the mouse wheel to select the tab without going to the object's property form to obtain the line and the label you seek.

Tip: Have the Price Magnet enabled and then the point where you seek to place this horizonal line snaps to the price you are nearest on the bar. In the examples, the line has snapped to the low of the swing bar just to the left of the horizontal line.
Tip: When a label is used with the marker that draws rightward to the scale, have the margin space wide enough to show the entire label. If the margin is too narrow, then as the chart moves leftward, the portion of the label that overlaps the bars will be repeated, which is not as clean as it could be.

## Notes

Use the Notes tool to write notes on charts. The note can have a variety of frames, colors, markers, shadows, and circles. The note can be Pinned to the chart, or float over the chart. The note will use the settings from the specified Tab selection and can contain up to 378 characters.

Click the mouse at each desired chart location, and enter some text. The note will be applied to the chart using the Default setting from the Properties window. Use the mouse wheel to scroll to a different tab of properties. Hold down the CTRL key and click elsewhere on the chart to type in another note without having to reselect Notes on the Draw Tool panel.
The Note tool can display text on a chart in a wide variety of shapes and formats as illustrated here.


## Re-selecting and Moving A Note

A chart Note must be selected before moving it to a new location. To reselect a Note, click the mouse on the first character of the Note text. The chart cursor will change to a pencil. Drag the Note to a new location. The Note will leave a trail of text across the screen while dragging, but will clean-up after clicking the mouse.

## Properties

Right-click the mouse while a Note is selected and the cursor looks like a pencil to open the Note Properties window. The properties window is used to change the Note's text, Options, Colors, and Defaults. The following options are available. This is the property window that created the Yellow Right Arrow example.


- Pinned - Place a check mark in the box to Pin the note to the chart. Pinned notes will align with chart bars, and will move with the bars. Unpinned notes will remain in a fixed chart window position.
- Pin Price - Place a check mark in the 'Pin Price' box to pin the note to a selected price level.
- Center Text - Center the text in the Note.
- Bold Font - Place a check mark her to cause the font to display in Bold.
- Show - Place a check mark in the Show check box to display a particular Note option. The Note can have Frames, Shadows, and Circles as optional borders.
- Color - Click on the square Color boxes to select a color for each Note feature.
- Style - Select a Line Style, or Font Size from the Style drop-down lists.
- Left/Bottom - Select Markers that can be placed on the Left or Bottom of a Note.
- Right/Top - Select Markers that can be placed on the Right or Top of a Note.

Notes may contain reference tags which are resolved with prices and variable values. See the Reference Tags listed in the Appendix of the DYO manual. Example: Last = [\$C]

## Arrows

Arrow points can be added to the 4 sides of a note by selecting the small arrow markers as shown in this example. The markers to select are highlighted in the red frame.

## Price $=\mathbf{1 . 3 0 8 8 0}$



The example shows the text 'Price = ' and a reference tag of [\$C] for the current price. The arrow tip on the right side is created by having the small rightward pointing arrow on the row for the Right Frame.
The font is 18 point Bold using the color Black on a Yellow background.

## Parallel Lines

To use the Parallel Lines tool on a chart, click the Parallel Lines button. The cursor will change to a pencil while in the draw mode. Parallel Lines are used to mark channel lines in trending markets. They are also useful for marking support and resistance points. Three points are necessary to draw Parallel Lines on a chart.

To draw Parallel Lines on a chart click on the 1st point from an intermediate High or Low by moving the cursor to the point, then click on the 2 nd point. The 2 nd point should be a subsequent High or Low in the same trend pattern. This can form the top or bottom line of a channel. Now click on the 3rd point. The 3rd point is the point that a parallel line will be drawn from. The distance between the 2nd and 3rd points can be divided for additional parallel lines if desired. The entire formation can also be encapsulated to form a parallelogram. If the SHIFT key on the keyboard is held down when the lines are deselected, then the lines will be plotted either perfectly horizontal or vertical (which ever they are nearest to) regardless of the last point.

One of my Favorites - works with Gaps. Ms. Ws and Congestion


## Adjusting Parallel Lines

Re-selecting the lines will activate the ability to move and adjust them to a different location. Click the mouse on the end of the top or bottom line to activate the lines. The cursor will change to a pencil and square bullets will mark the original three points. Drag the square bullets to a new location and the lines will adjust.

## Properties

After drawing Parallel Lines on a chart, click the Chart Objects button, select Parallel Lines, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the lines and then right-clicking the mouse. The following options are available in the properties window:


- Ellipse - Place a check mark in the 'Ellipse' box to change the formation to an Ellipse.
- Arc - Place a check mark in the 'Arc' box to change the formation to an Arc.
- Mirror Lines - Place a check mark in the 'Mirror Lines' box to cause a Mirror Image of the lines to appear.
- Horizontal - Place a check mark in the 'Horizontal' box to display a horizontal lines
- Alternate C - Changes the starting location of the 3rd draw point
- Fill Interior - Fills the parallelogram with the Fill Color.
- Price A - Manually enter the price for the first draw point, if desired.
- Price B - Manually enter the price for the second draw point, if desired.
- Extend Multiplier - Enter a number to specify the length of the lines.


## Pyrapoint

The ideas behind the PyraPoint Tool were developed by Don Hall. For more information regarding PyraPoint and how to trade the tool, you can order Don's PyraPoint Book. The book explains all the details, calculations, and gives training on how to trade with the PyraPoint tool.

The PyraPoint Tool is a Gann based tool that uses Time and Price. Vertical and Horizontal lines are drawn on a chart. Display a chart in Ensign Windows and click the Draw Tools button to show the Draw Tools panel.
The cursor will change to a pencil while in the draw mode. Move the cursor to an important High or Low turning point on the chart and then click the left mouse button. The Horizontal lines represent potential support and resistance levels. The Vertical lines represent probable turning points based on Time. Diagonal lines are used to intersect the Horizontal and Vertical lines. The market will often "walk' up and down the diagonal lines. Pyrapoint will appear using an appropriate degree of rotation parameter selected by Ensign's proprietary artificial intelligence algorithm.


## Adjusting

Re-selecting the PyraPoint tool will activate the ability to move it to a different location. Click the mouse on the Zero starting point to re-select it. The cursor will change to a pencil. Drag the mouse from the Zero starting point to a new location and the PyraPoint lines will move. Click the mouse again to complete the draw phase.

## Properties

To view the properties window click the Chart Objects button, select PyraPoint, then click the Properties button to open the Properties window for the tool.


Normalize 4 digits - Place a check mark in this box to prevent the Pyrapoint from automatically adjusting the horizontal width of the PyraPoint squares when a market is at or near 1000 in price.
Normalize 2 digits - Place a check mark in this box to normalize the prices on 2 digits.
Round Prices - Check this box to place the horizontal lines on tradeable prices.
Price - The 'Price' box shows the exact price where the Pyrapoint is anchored. The Price can be edited if necessary.
Degrees - Click the Up and Down selection arrows to change the Degrees setting. The Degrees setting will effect the number of lines that are drawn on the Pyrapoint tool and how closely they are spaced apart.
Click the up or down spinner arrow to double or halve the Degree of Rotation parameter. 45 degrees is shown in the example. Clicking the up arrow will change it to 90 degrees. Clicking
the down arrow will change it to 22.5 degrees. Also, you can enter any degree in the edit box. Entering a value greater than or equal to 1 will be treated as degrees. Any value between 0 and 1 will be treated as a percent of 180 degrees. A value of 0.5 is the same as 90 degrees. After selecting your preferred colors, Line Thickness and Line Style, check the Use as Default box to save the parameters as the default.
Columns - This spinner controls how many box columns are shown for the study. An entry of 0 will show the tool through the right edge of the chart. Enter a value of 1 to show a single column of boxes. 2 will show 2 columns, etc.

To fully understand Pyrapoint, its mathematics, implementation, design, use and how to trade with Pyrapoint, you need to buy Don Hall's Pyrapoint Book or Pyrapoint CD. The Book is a professionally published 234-page hard cover book.

## Example

Here is a daily chart of JNPR with the construction started on the highest high. All price levels, time intervals, and trend lines are constructed mathematically from two pieces of information: the price $\$ 244.50$ on the date 10-16-2000.

read more >> Tools: Pyrapoint

## Speed Lines

Speed Lines use three points on a chart to create a triangle. The first two points mark a trend line from a major low to a major high, or vice versa. The third point marks a vertical line from the 2nd point. Speed lines are drawn from the 1st point to intersect the chart at selected intervals. To draw Speed Lines on a chart, click the Speed Lines button. The cursor will change to a pencil while in the draw mode. Move the cursor to an important High or Low on the chart, then click on each ending point. The ending point is usually the end of an important trend or correction following the starting point. The Speed Lines will extend on the chart. Click the left mouse button once to finish the tool.


## Adjusting Speed Lines

Re-selecting the Speed Lines will activate the ability to move them to a different location. Click the mouse on the starting point of the fan (or the main Speed Lines) to activate the lines. The cursor will change to a pencil and square bullets will mark the three points of the triangle. Drag the square bullets to a new location and the Speed Lines will adjust. Move the whole fan by dragging the line that connects the first two select points.

## Properties

After drawing Speed Lines on a chart, click the Chart Objects button, select Speed Lines, and then click Properties to view the properties window. The properties window can also be displayed by re-selecting the lines and then right-clicking the mouse.

- Price - The 'Price' box displays the price of the starting point. This can be fine tuned if necessary.
- Extend Multiplier - Enter a number to specify the length of the lines.


## Support \& Resistance

The Support and Resistance tool uses specified chart prices to calculate Support and Resistance lines. The High, Low, and Close prices of a daily range are often used as 3 input prices. To apply the Support and Resistance tool on a chart click the Support and Resistance button. The cursor will change to a pencil while in the draw mode. Click on the 1st point from a high point (usually the High of a bar), then click on the 2nd point. The 2nd point should be the Low of the bar or trading range. Now click on the 3rd point. The 3rd point is the point where the market is currently trading, or the Closing point of the range. Click the left mouse button once to mark the 3rd point.


Place a check mark on the tools' property form in the 'Find H-L-C' box to automatically find the Pivot value using the indicated prices in the drop-down list box. The drop-down list box allows you to choose a few variations on which prices to use for the Pivot calculation. Make sure that you place a check mark in the 'Find H-L-C' box if you want to use the prices indicated in the drop-down list box. Example, if you select $(\mathrm{H}+\mathrm{L}+\mathrm{C}+\mathrm{O}) / 4$ from the listbox, the tool will auto-find these prices for you.

## Adjusting Support and Resistance Lines

Re-selecting the lines will activate the ability to move the lines. Click the mouse on either of the first two points to activate the lines. Square Bullet marks will highlight the three original points. Place the mouse on any of the square bullet marks and drag the lines to a new location.

## Properties

Click the Chart Objects button, select Support \& Resistance, then click the Properties button to open the Properties window for the tool.


Find H-L-C - Place a check mark in the 'Find H-L-C' box to automatically find the Pivot value using the indicated prices in the drop-down list box. The drop-down list box allows you to choose a few variations on which prices to use for the Pivot calculation. Make sure that you place a check mark in the 'Find H-L-C' box if you want to use the prices indicated in the dropdown list box. Example, if you select $(\mathrm{H}+\mathrm{L}+\mathrm{C}+\mathrm{O}) / 4$ from the list box, the tool will auto-find these prices for you.
Labels Left/Right - Place a check mark in the 'Labels Left' box to print the labels on the Left of the lines. Place a check mark in the 'Labels Right' box to print the labels on the Right of the lines. Place a check mark in the 'Show Mid Lines' box to plot midpoint lines between the specified lines.
Day Session - Use only the Day Session chart bars for the calculation.
The 'Price' boxes can be used to enter specific prices for the 3 entry points. Increase the 'Extend Multiplier' to make the lines longer. Support and Resistance lines are plotted based on the calculated Pivot point. The lines indicate possible support and resistance levels. Watch for support and resistance on the lines. NOTE: The first 4 Support and Resistance lines can be accessed by the Alerts Trading System draw tool.

## Formula

- Pivot $=$ (High Point + Low Point + Close Point) / 3 (example)
- Range $=$ High Point - Low Point
- 4R [4th Resistance] = 2R + Range
- 3R [3rd Resistance] = 1R + Range
- 2R [2nd Resistance] = Pivot + Range
- 1R [1st Resistance] = Pivot + (Pivot - Low)
- H [Yesterday's High]
- P [Pivot Price, i.e. Midpoint]
- L [Yesterday's Low]
- 1S [1st Support] = Pivot $-($ High-Pivot $)$
- 2S [2nd Support] = Pivot - Range
- 3S [3rd Support] = 1S - Range
- 4S [4th Support] = 2S - Range


## Pivot Price

The pivot price is always contained within the range of the High and the Low points. When the formula for the Pivot is (High+Low+Close) $/ 3$ then the Pivot will be in the middle third of the High-Low range. The highest pivot price would be when the Close is at the High, wherein the Pivot is at $66.7 \%$ of the daily range. The lowest pivot price would be when the Close is at the Low, wherein the Pivot would be at $33.3 \%$ of the daily range. The illustration shows the maximum extremes of the pivot price for the oft used

# Range High 

Maximum Pivot Price

Minimum Pivot Price
1
Range Low formula of Pivot $=(H+L+C) / 3$.

## 1st Support and 1st Resistance

The 1st Support and 1st Resistance levels are created by inverting the daily range vertically about the pivot point. I guess that is where the pivot point gets its name. This illustration shows the effect of pivoting the 1st bar which is shown in two colors to illustrate the part that is above the pivot and the part that is below the pivot. The 2nd bar is the 1st bar inverted about the pivot point, and it shows where the 1st Support and the 1st Resistance levels come from.


## 2nd Support and 2nd Resistance

These two levels are calculated by adding the daily range to the pivot price and subtracting the daily range from the pivot price. The daily range is shown graphically as the vertical blue lines above and below the pivot price.


## 3rd Support and 3rd Resistance

These two levels are similar to the 2nd S\&R levels. The daily range is added to the 1st Resistance level and subtracted from the 1st Support level. The graphical illustration of this is shown using the orange lines to measure the daily range.


## Other Formulas

There are other variations of the above theme for calculating Support and Resistance levels. The most common variation is to use a different formula for the Pivot Price. Ensign Windows supports the following variations through the use of the drop down listbox to select the Pivot Price formula. The most commonly used formula for the Pivot is the $(H+L+C) / 3$ selection.

| $(\mathrm{H}+\mathrm{L}+\mathrm{C}) / 3$ |
| :--- |
| $(\mathrm{H}+\mathrm{L}+\mathrm{C}) / 3$ |
| $(\mathrm{H}+\mathrm{C}+\mathrm{O} / 3$ |
| $(\mathrm{H}+\mathrm{C}+\mathrm{C}+\mathrm{O}) / 4$ |
| $(\mathrm{H}+\mathrm{C}+\mathrm{C}) / 4$ |
| $(\mathrm{H}+\mathrm{L}+\mathrm{O}+\mathrm{O}) / 4$ |
| $(\mathrm{H}+\mathrm{L}) / 2$ |
| $(\mathrm{H}+\mathrm{C}) / 2$ |
| $(\mathrm{~L}+\mathrm{C}) / 2$ |
| $(\mathrm{OHLCC}) / 5$ |

Other formula may look different that what has been presented in this article. More often than not, algebraic rearrangement of the formula terms simplify the formulas to those given in this article.
read more >> Support and Resistance Color Zones

## Markers

177 Marker selections are available for use in DYOs, Studies and Draw Tools. They can create special visual effects.

None - Select the $1^{\text {st }}$ entry of None when you do not want to display a Marker.
Curves - The $1^{\text {st }}$ eight selections would be used for plotting a study curve. The Rise/Fall selections use 2 colors which come from the row with the marker selection and the row which follows. The $1^{\text {st }}$ color is used when the study curve is ascending, and the $2^{\text {nd }}$ color is used when the study curve is descending.

The line thickness can be 1, 2 or 3 pixels in width.


## Example

Arrows - The chevrons, large arrows and small arrows will draw relative to the marker's point.


Arrow Icons - The arrow icons differ from the arrow markers in that a frame is drawn in black and the interior is filled with the selected color. The default size is 16 pixels.

For the 'Action | if \#\# then marker in column \#2' selection only, the Offset entry controls the size of these icons. An Offset of 0 selects the 16 pixel icon size. An Offset of 1 selects a 24 pixel icon. An Offset of 2 selects a 32 pixel icon.

Size examples:


Bands - 4 block markers of different thicknesses are available. These blocks will draw full bar width so that they make a continuous band when used on a fixed Marker Location such as Top Row 1. Example

Shapes - A large variety of shapes are available. They include bullets, pegs, squares, stars, digits, upper and lower case letters. These markers could be used in lieu of a line in plotting a study. Example


Icons - A variety of icons are available. Icons draw as shown in a default size of 16 pixels using multiple colors. Therefore, the icons ignore the color selection.

For the 'Action | if \#\# then marker in column \#2' selection only, the Offset entry controls the size of these icons. An Offset of 0 selects the 16 pixel icon size. An Offset of 1 selects a 24 pixel icon. An Offset of 2 selects a 32 pixel icon.


Size examples:
Fills - The study fill markers do a solid fill from the top of the window, center, bottom or between 2 values. When 2 values are needed, the 1 st value comes from the row with the marker and the 2 nd value comes from the next row.

Hint: For a channel study, put the bow tie study fill marker on the Lower Band row.

The 2 Color Fill markers also do a solid fill, but use 2 colors for when the study curve is ascending or descending. The 1st color will come from the row with the marker, and the 2nd color comes from the next row.

## Example Study Fill Example Bottom Fill Example Spread Fill

Histograms - A variety of histogram markers are available with different bar thicknesses. The histogram can be drawn down from the top of a window, drawn above and below the center of a window, or drawn from the bottom of a window. Example Center Histogram

Four of the Histogram markers which draw from the bottom of a window can be offset slightly leftward or rightward from the normal alignment with the center of the bar. This permits more than one histogram to be shown by interleaving the histogram bars. Example Interleaved Histograms

Swing Labels - These markers are used by the Pesavento Patterns study for labeling swing highs and lows when the LBL marker is selected. LH stands for lower high. =H means equal high. HH stands for higher high. Example

LH Swing Labels
= H
HH
HL
$=\mathrm{L}$
LL


II Spread Fills


山 Histograms


Horizontal Lines - Line markers are available with different horizontal lengths. The line marker with an arrow head will draw the line to that edge of the chart.

Bar Styles - Four markers are available that can draw a Bar, Candlestick, Ensign Rocket, or Ensign Flute. The marker needs 4 values in the order of High, Low, Open, and Close on 4 adjacent DYO rows. Place the marker on the 4 th row with the Close value. Example 1 Example 2

BAR - Show the number of bars between the 2 ends of a draw line. Example
CAL - Show the number of calendar days between the 2 ends of a draw line. For use on a daily chart.

DEG - Show the slope of the line in Degrees, like reading an angle on a protractor held to the screen.

SLP - Shows the Slope of a line segment.
STY - A Study Alert can use this marker to change the line color of a referenced Study.

UNIT - Show the length of a diagonal draw line in Units of the bar spacing.
VOL \& Ave VOL - These 2 markers sum the bar volumes in the span between the 2 ends of a Draw Line. The Average VOL marker will divide the sum by the number of bars in the span.

BGD - Sets the background color of the chart or of the sub-window. Use cautiously as this can be CPU intensive. Example

HLT - Show a rectangle highlight behind the bar. Example
ZON - Show a vertical zone stripe from the bottom of the chart to the top of the chart. This can be used to color sections of the chart background.

## Example 1 Example 2

Color Bars - Sets the color for the chart's bar or candlestick. Have the Color Bar study selection on Normal so the coloring done by this marker does not conflict or compete with a Color Bar study.
*-- Extended Lines
$\leftarrow$
s. Short Line

L Longer Line
--
$\rightarrow$
$\rightarrow$

1 Bar Styles
日
1

BAR Bar Count
CAL Calendar Days
DEG Degrees
SLP Slope
STY Study Color
UNNT Units
VOL Swing Volume
$\overline{\mathrm{VIL}}$ Volume Ave.
BGD Background
HLT Highlight Bar
ZON Zone Color
H/ ColorBars
A/B
VOL

A/B - Sets the color for the Ask/Bid sub-window histogram bar.
VOL - Sets the color for the Volume histogram bar in the volume sub-window.

## Example 1 Example 2 Example 3

LBL - Use the DYO's Label text as the Marker. This can create interesting effects with a label like "<---->". In the Pesevento Patterns study, LBL will label the swing points with $\mathrm{HH}, \mathrm{LH}, \mathrm{LL}$, and HL. Example 1 Example 2

D:T - Show a bar's date on a daily, weekly, or monthly chart. Show a bar's Time on an intra-day chart.

LBL Label is Token D:T Date or Time $\Delta \$$ Price Change $\% \$$ Percent \& Price \% Percent \$ Price $\$ \Delta$ Dollar Change

Delta \$ - Show the change in price between the 2 ends of a draw line. Example
$\% \$$ - Show both a percentage and a price.
\% - Show a percentage. Example use would be as the right side marker for the Fibonacci Levels draw tool.
\$ - Show a price. Example use would be as the right side marker for a Horizontal draw line. Example

Dollar Delta - Show the price change in dollars between the 2 ends of a draw line. The price change is multiplied by the leverage. Example

