

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.

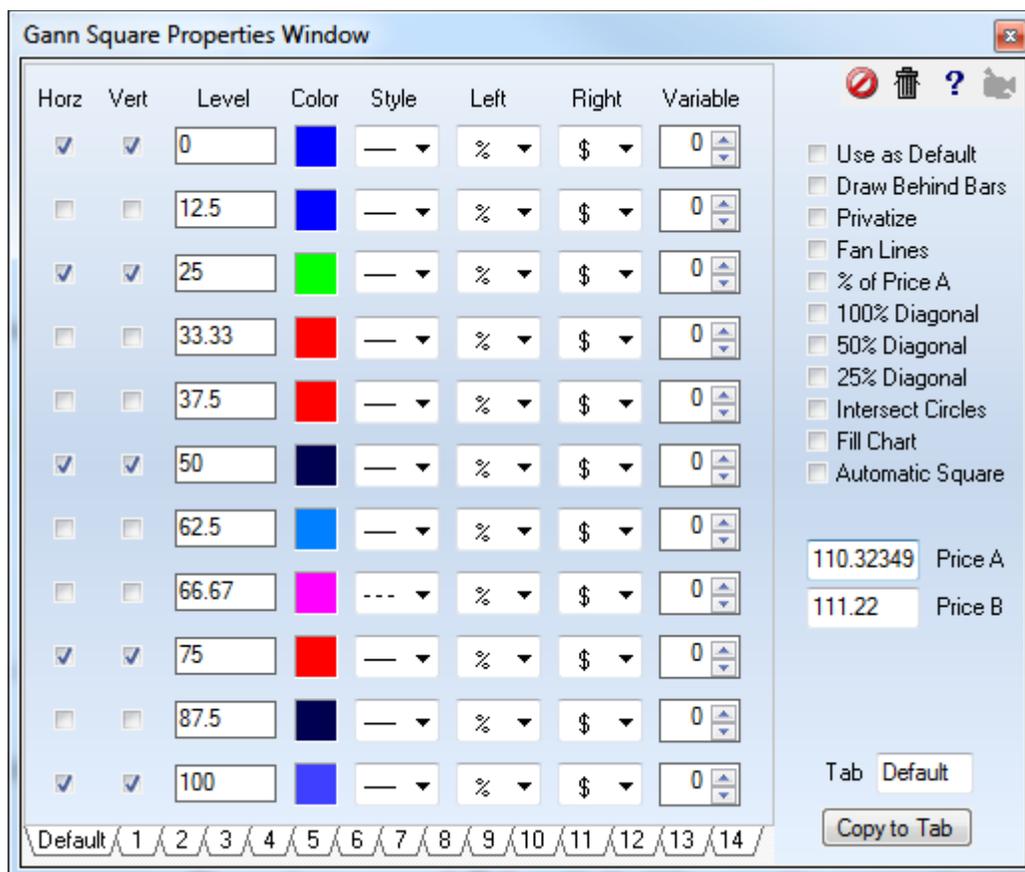


Price: A Gann Square can draw horizontal lines at the price levels shown in the Horizontal check list. These price levels are similar to those that could be constructed using the Fibonacci Price Levels draw tool. Tip: Watch for trends to change directions at the Gann Square price levels.

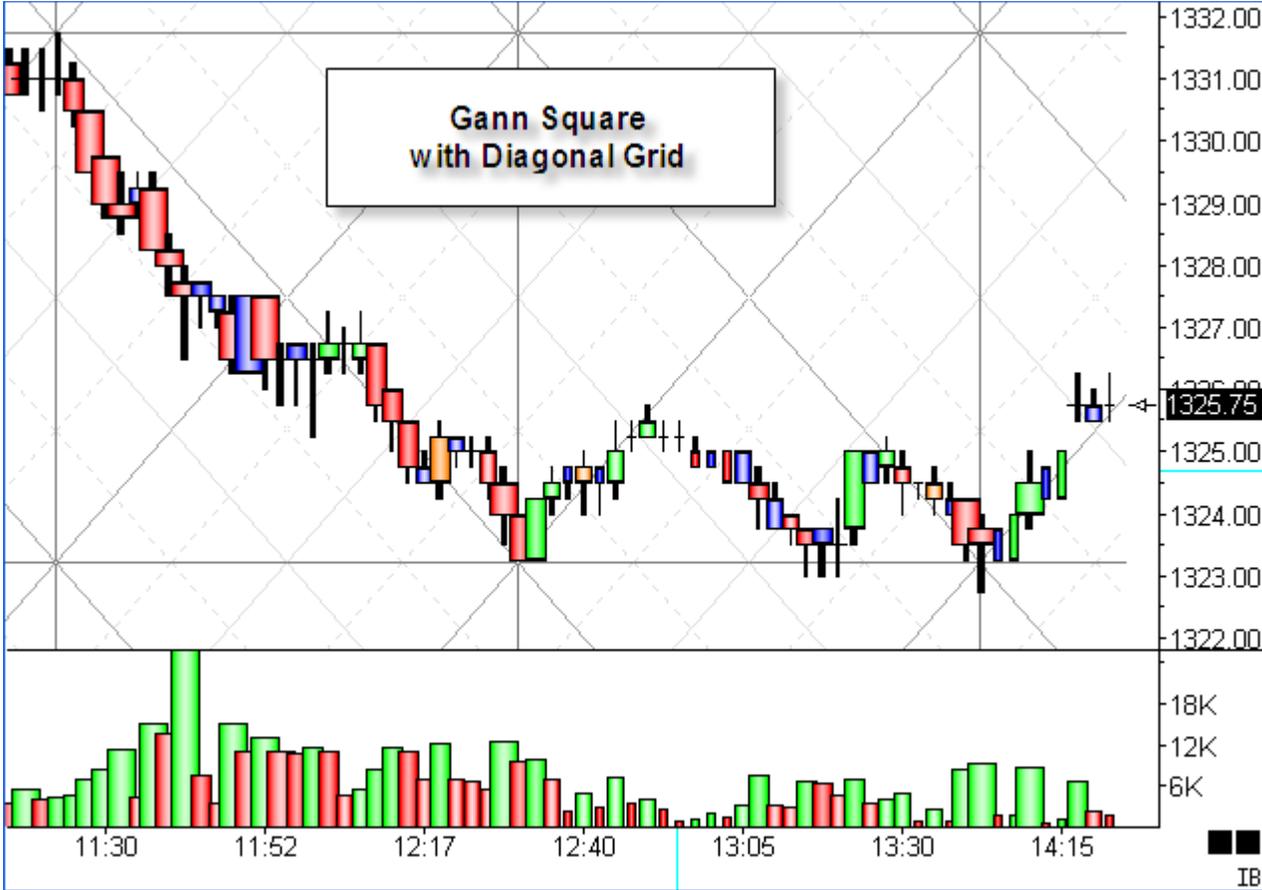
Time: A Gann Square can draw vertical lines at the intervals shown in the Vertical check list. These vertical lines are similar to those that could be constructed using the Cycles draw tool. Tip: Watch for trends to change at the Gann Square time intervals. A Gann Square with both horizontal price levels 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 the Gann Square Fan Lines section.
- **% 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.



Gann Percent

Gann would mark price levels that were a percent of the price at a swing top or bottom. Use the Gann Square tool in Ensign 10 to draw horizontal lines that are a percent of the 1st construction point price. Check the '% of Price A' box on the Gann Square property form.

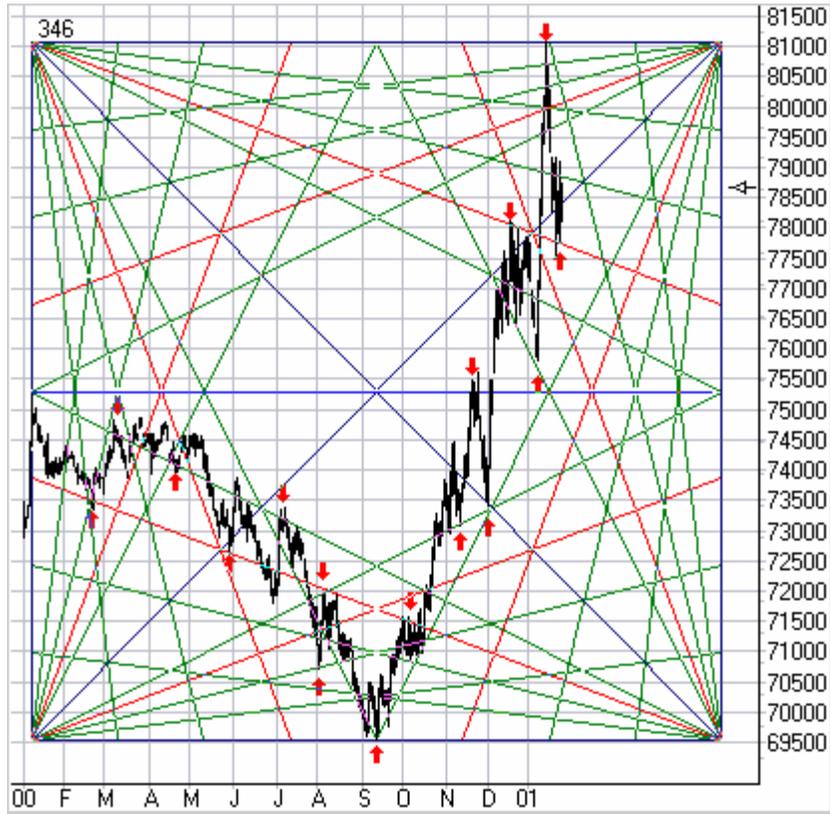
Note: Any percentage less than 10 needs to be entered as the decimal number. Example, use 0.0625 to enter the 6.25% value.



When the 2nd construction point of the Gann Square tool is above the 1st construction point, the percent levels will be added to the Price A. When the 2nd construction point is below the 1st point, the percent levels will be subtracted from the Price A. Example: When Price A is \$100, the horizontal line for 25% would be drawn at either \$125 or at \$75.

Gann Square Fan Lines

I just have to show you the results of placing a Gann Square on the LC1G daily chart with the vertical midpoint on the Jan 7th, 2000, high. The square was placed with the left edge on Jan 7th, and stretched so the horizontal midpoint aligned with the Sept 13th low. The bottom of the square was placed on the Sept 13th low. Those were my decisions for placement of the square.



The fan lines are drawn from the corners to the same eighth points on the square's perimeter used by the horizontal and vertical lines in the previous example. The Horizontal check list will select the points used by the two fans whose vertex is on the left side of the square. The Vertical check list will select the points used by the two fans whose vertex is on the right side of the square. A common configuration for these fan lines would be to keep the two fans on the left side, but eliminate the two fans on the right side by unchecking all parameter boxes in the Vertical list except the Perimeter box.

Measure Time

I placed the left edge on Jan 7th, 2000, and stretched the square so the horizontal midpoint would align with the Sept 13th, 2000, low. What I find interesting is that the Jan 16th, 2001, high is aligned with the 3/4 point of the square! This time is marked by the red arrow above the square pointing to the highest high on the chart.

I also noticed that Jan 6th, 2000, was a New Moon! and Sept 13th was a Full Moon.

Price Support and Resistance

I marked the chart with arrows where I want you to observe the support or resistance provided by the fan lines that extend from the 4 corners of the square. Uncanny! It leads one to conclude that there is a mathematical basis for price movement. Price movement is not purely random.

Reverse Engineering

The application of the Gann square looks great in hindsight. But I want to be empowered with principles that would have enabled me to apply the square back in Feb 2000 as insightfully as can now be done. The Jan 7th, 2000, high of \$75.50 is known. One point up and one point down price forecasts can be made as illustrated in the previous article to use as left side top and bottom corner points aligned with Jan 7th. A one point up forecast price from \$75.50 is \$81.10. A one point down forecast price from \$75.50 is \$70.10. All of that can be done in Feb 2000.

The final piece of information needed is a way to calculate in advance the width of the square. Let's go fishing for clues by reverse engineering the present Gann square application. There are 250 calendar days between Jan 7th and Sept 13th.

That would make the square width 500 calendar days because Sept 13th is the midpoint. Trading days can be estimated from calendar days using: $\text{trading days} = (\text{calendar days} / 7) * 5 - \text{holidays}$. The Gann square I applied is 346 trading days in width. The range between the forecast low and the forecast high is $81.10 - 70.10 = \$11.00$.

So, let's take inventory of the numbers available to work with in Feb 2000 that might lead us to apply the square at a 346 day width, which would then have been a wonderful road map to follow in trading live cattle for the rest of the year. We have the following numbers to work with in hindsight:

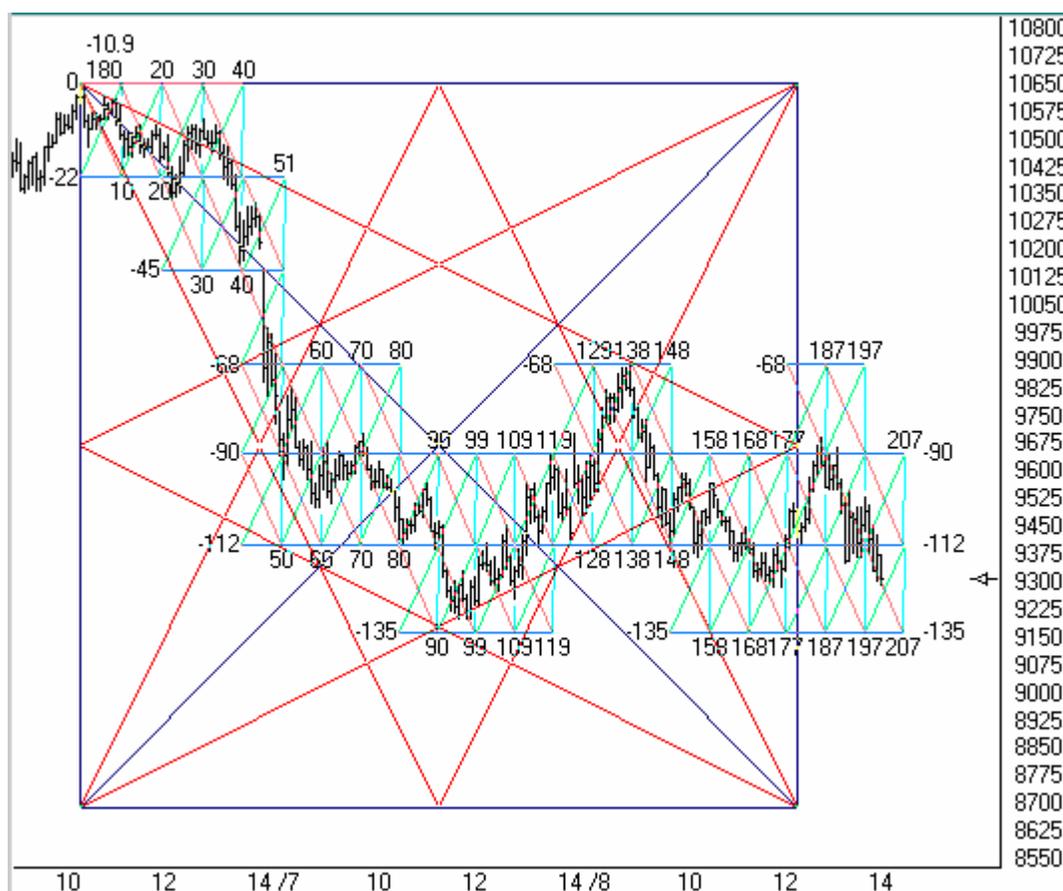
- An actual high price of \$75.50 on Jan 7th, 2000.
- Forecast high of \$81.10, forecast low of \$70.10, and their \$11.00 range.
- Numerology that Gann favored: 45, 60, 90, 120, 144, 180, 240, 270, and 360.
- The square roots of 811, 755, 701, and 11.
- Time: 500 calendar days or 346 trading days.
- Ratios of any of the above numbers.
- Multiples of any of the above numbers, particularly 2, 4, 8 and 16 times.

Try as I might, I am unable to come up with any concrete reason for selecting a square width of 346 bars in advance. The best guess might simply have been to initially construct it using 360 bars since 360 is a favored number, and the number 811 is 360 degrees around a Gann Square of Nine from the number 701. Being stumped by this question, I spent several hours browsing the Internet for more resource material on constructing a Gann Square. I did not find anything I did not already know. I was unable to find any help in determining the 1x1 slope to use. Most sources, if they did indicate a reason for square width said either to use a fixed width of 90 or 144 bars, or to use the price as the number of bars, meaning a price of 400 would use a width of 400 bars. All examples located the square corner on the trend top or bottom. No one showed an example like my example with the trend top placed at the midpoint of the square, and the square's corners located on calculated prices.

In my second example, I applied the Gann Square from a recent minor top on a JNPR 5-minute chart. The high price was \$106.50 on February 6th, 2001. Let's apply our Square Root Theory technique to obtain a forecast price like we did before:

1. Square root of \$106.50 is 10.320
2. Subtract 1 gives 9.320
3. Square of 9.320 is \$86.86

Gann students would observe that the 86.86 price is 180 degrees around Gann's Square of Nine from the 106.50 price. Therefore, because I have two prices that are 180 degrees apart, I will select the width of the square to be 180 bars. This is the result, showing the 1x1, 1x2 and 2x1 fan lines from the four corners of the Gann Square.



The top left corner is on the minor trend high at \$106.50. The lower right corner is on the 180 degree price of \$86.86 and 180 bars to the right. Several things jump out at me from the Gann Square image, such as:

1. The 1x2 red line from the top left corner stopped the retracement at bar 138 at a price of \$98.875.
2. The 1x2 red line from the bottom left corner stopped the crash at bar 97 at a price of \$92.
3. The two 1x2 red lines in 1) and 2) also stop the retracement at bar 186 at a price of \$96.75.
4. The trend rides up and down both of the 2x1 red lines from the right side corners.

The example also shows the Pyrapoint tool located at the same minor trend top. The Pyrapoint construction is the series of horizontal bright blue price levels, light red and green diagonal lines, and vertical lines in cyan.

I admit I do not know all the answers. But, hopefully your thinking has been stretched as I have openly shared with you some of my thoughts, and you will find a refreshing and perhaps novel idea or two in this discussion of Gann Squares.

Article by Howard Arrington