Point and Figure (PtFig)

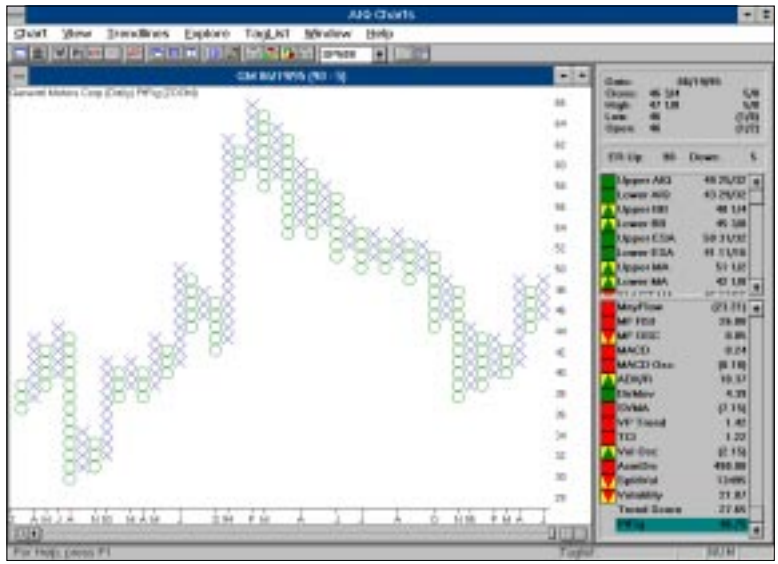
Note
Point and Figure charting is not available for real-time charts.

Point and Figure charting, one of the earliest charting methods used by stock traders, is based on the concept that chart patterns are the result of supply and demand on the price of an equity. The patterns seen on Point and Figure charts are used by analysts to spot opportune buy and sell points and, in some cases, to project the extent of the ensuing advance or decline.

Point and Figure charts differ from other commonly used charts in that the horizontal axis does not represent time. Some describe the P&F chart as one dimensional since both the vertical axis and the horizontal axis are related only to price. Although chronological information is of no importance either to the construction of the P&F chart or to its interpretation, the AIQ Point and Figure charts provide dates on the horizontal axis to help the user establish a frame of reference.

Important
When performing Point and Figure charting, place your mouse cursor on the Point and Figure plot and press the Z key so that the plot fills the entire chart window. Pressing the Z key again restores the plot to its original size.

Price is plotted as a series of vertical columns. The columns represent alternating up and down trends with uptrends shown as columns of X's and downtrends as columns of O's (See example chart). The vertical axis of the chart simply represents price in the usual way. However, the horizontal axis depicts changes in the direction of price with each new column constituting a reversal in price of some specified amount.



Point & Figure chart displaying 3 plus years of price action

Note
The name *Box Size* is taken from the rectangular coordinate graph paper on which P&F charts were originally plotted. In hand plotting, the X's and O's are entered in the equally sized squares or *boxes* that are printed on the graph paper.

The two determining factors in the construction of a P&F chart are:

1. The increment of price that is equivalent to the height of one X or O. This factor, called the *Box Size*, determines the minimum price increase needed to add another X to a column of X's, or the minimum price decrease needed to add another O to a column of O's.
2. The minimum increment of price reversal required for a new column. This factor, called *Reversal*, is specified in terms of the *Box Size*. If *Reversal* is set to 3, price would need to move in the opposite direction (i.e., reverse) by an amount equal to three times the *Box Size* in order to start a new column. This entry also defines the minimum number of X's or O's that can appear in one column.

Since price reversals less than the specified minimum are eliminated, P&F charts can be constructed to depict only significant price moves. However, the smaller the reversal increment (combination of *Box Size* and *Reversal*), the greater the number of price reversals (columns) that will be seen. Also, the smaller the *Box Size*, the greater the number of X's and O's that will appear in each column. Therefore, to display a meaningful P&F chart, it is essential that appropriate values be entered for *Box Size* and *Reversal*.

Point and Figure settings

Box Size Setting

Box size is an important parameter in the construction of a Point and Figure chart. If the box size is too large, the chart will consist of so few columns and boxes that it will be meaningless. If the box size is too small, the number of columns and boxes will be unnecessarily large and analysis of the chart will be difficult.

Note
To accommodate low priced stocks, *Box Size* is entered in eighths of a point on the AIQ charts. For example, the default value for *Box Size* is 8, which is equivalent to a price increment of one point (8 x 1/8 = 1).

The *Change Indicator Constants* dialog box simplifies the determination of the appropriate Point and Figure box size. Although you can enter the box size directly, you are not required to do so. Instead, you can simply select the appropriate price range and the box size is automatically determined for you. The dialog box (see next page) provides a list of price ranges from which you can easily select the range that best matches the range of the charted security. Seven selections representing seven different price ranges are available (see table next page).

When you display a Point and Figure chart and find that the box size needs to be changed (too few or too many columns and boxes), you

can use *Change Indicator Constants* to adjust the box size. The price ranges available in the *Constants* list box are as follows:

Price Range $	**Box Size** 1/8 point	**Box Size** points
0-5	2	1/4
5-20	5	5/8
20-100	8	1
100-500	32	4
500-2004	128	16
2004-5012	256	32
5012+	512	64

Reversal Setting

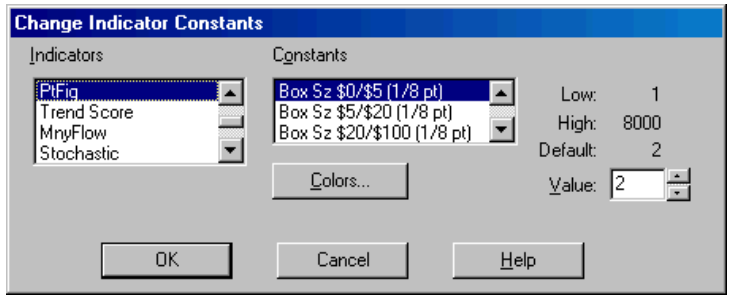
Three is the most commonly used *Reversal* number. Since *Reversal* is expressed in *Box Sizes*, a *Reversal* number of three means that a new column is created in the event of a reverse price move of at least three *Box Sizes* in magnitude. The smaller the *Reversal* number, the more columns that will appear on the chart. In situations where you may want to expand the number of columns, you may need to reduce the Reversal number to as little as one (i.e., one *Box Size*).

Months Setting

The Months setting is used to set the amount of historic data that will be used in constructing the P&F chart. For long-term analysis, Point and Figure charts can encompass up to ten years of data.

To change Point and Figure settings, do as follows:

1. Display the *Change Indicator Constants* dialog box by double clicking the **PtFig** indicator in the Control Panel. The Point and Figure indicator will be selected.



Change Indicator Constants dialog box for Point & Figure indicator

2. To change the box size:
    - In the *Constants* list box, select the appropriate price range for the security you are charting.
    - The box size corresponding to the selected price range will appear in the *Value* text box. For compatibility with lower priced stocks, Box Size is shown in 1/8 point increments.
    - You can make further adjustments to the Box Size by increasing or decreasing the Box Size shown in the *Value* text box.
3. To change the reversal setting:
    - From the *Constants* list box, select **Reversal**.
    - Enter a new Reversal number. The available range is 1 to 100 and the default value is 3.
4. To change the months setting:
    - From the *Constants* list box, select **Months**.
    - Enter the number of months you want the Point and Figure chart to display. The available range is 1 to 120 and the default value is 24.
5. Click **OK** to accept the new settings.

Note
The default value for the *Reversal* setting is 3. The default *Months* setting is 24.

Analysis of Point and Figure charts

The most important aspect of P&F charts are the patterns formed by the columns of X's and O's. Many years of testing have shown that P&F chart patterns can identify, with a high degree of reliability, good buying and selling opportunities.

The Point and Figure chart can be described as a picture of the contest between the forces of supply and demand. The long vertical columns of X's and O's represent periods when supply and demand are not in balance. A column of X's leading upward indicates that demand exceeds supply while a column of O's leading downward indicates exactly the opposite.

When these vertical columns are interrupted by short alternating columns of X's and O's, supply and demand are battling to see which will overcome and determine the next direction of the stock. It is this latter price action, the sideways movement, that is of the greatest significance. The type of pattern made during such periods is what tells us whether the next move will be up or down.

Note
Point and Figure charting can be accomplished only on weekly charts for mutual funds.

Point and Figure chart formations

A complete review of all of the P&F chart formations is beyond the scope of this manual. The following discussion will cover some of the simpler and more common formations.

Double Top and Double Bottom formations

These two basic formations consist of only three vertical columns. All other chart formations are made up of combinations of these two basic patterns.

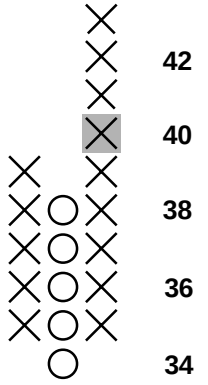
Since all other P&F formations are derived from these two basic patterns, other more complex formations can contain a Double Top or Double Bottom formation within their patterns. For this reason, you may encounter situations where you must decide whether to act on the original breakout or wait for a signal occurring later in the more complex formation.

Double Top Formation

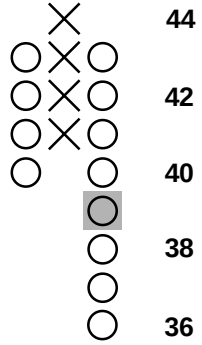
The example chart shows a first top at 39 which is followed by a decline to 34. The security then rallies back to 39. The two tops at 39 constitute the double top. A buy signal (shaded X) is registered when price breaks above the 39 level.

Double Bottom Formation

The example chart shows a first bottom at 40 which is followed by a rally to 44. The security then falls back to 40. The two bottoms at 40 constitute the double bottom. A sell signal (shaded O) is registered when price breaks below the 40 level.



Double Top Formation



Double Bottom Formation

Bullish and Bearish Signal formations

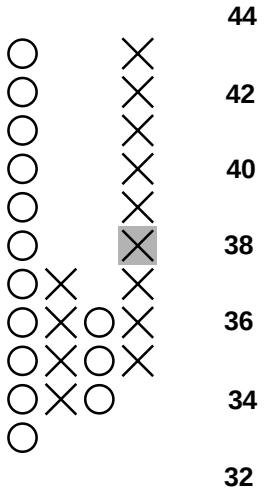
The Bullish and Bearish Signal formations are classic patterns used in the timing of stock trades.

Bullish Signal Formation

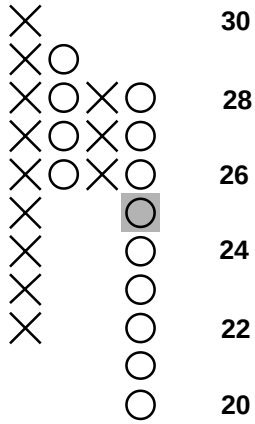
The significant feature of the Bullish Signal formation, which requires four columns, is a higher bottom followed by a higher top. A buy signal is given the first time that a higher top follows a higher bottom. The chart remains bullish as long as price continues to make higher bottoms and higher tops.

The example Bullish Signal formation consists of two down moves, with the first bottoming at 33 and the second at 34, and two up moves, with the first topping at 37 and the second reaching 38. This pattern fits the classic definition of the Bullish Signal as it shows a higher bottom (34 vs. 33) followed by a higher top (38 vs. 37). When the second top was reached at 38, an upside breakout occurred and a buy signal was registered.

Note
In the Point and Figure examples, the price point at which buy or sell signals are given is indicated by a shaded box.



Bullish Signal Formation



Bearish Signal Formation

Bearish Signal Formation

The Bearish Signal formation is the reverse of the Bullish Signal Formation. Look for a lower top followed by a lower bottom. A sell signal is given the first time that a lower bottom follows a lower top.

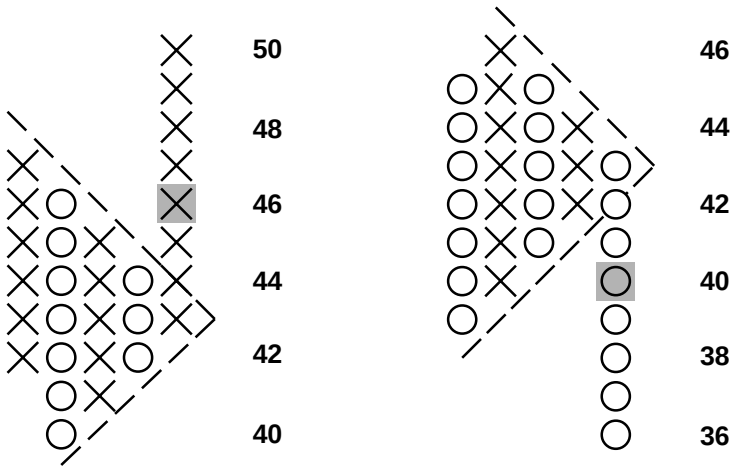
The example Bearish Signal formation consists of two up moves, with the first peaking at 30 and the second at 28, and two down moves, with the first bottoming at 26 and the second reaching 25. This pattern fits the classic definition of the Bullish Signal as it shows a lower top (28 vs. 30) followed by a lower bottom (25 vs. 26). When the second bottom was reached at 25, a downside breakout occurred and a sell signal was registered.

Bullish and Bearish Symmetrical Triangles

These formations are variations of the Bullish and Bearish Signal formations. What distinguishes these formations is that the chart pattern preceding the breakout is in the form of a triangle, a formation that has always played an important role in chart analysis.

Bullish Symmetrical Triangle

The chart shown consists of five columns. The last four columns form the classic bullish pattern of higher bottoms and higher tops. The higher top at 46 signals a buy. The additional element is the extra column on the left which shows a higher top at 47 than the next top which is at 45. When trend lines are drawn along the tops and bottoms of this formation, a symmetrical triangle is apparent.



Bullish Symmetrical Triangle *Bearish Symmetrical Triangle*

Bearish Symmetrical Triangle

The last four columns of the chart above form the classic bearish pattern of lower tops and lower bottoms. The lower bottom at 40 signals a sell. The additional element is provided by the extra

column on the left which shows a lower bottom at 39 than the next bottom which is at 41. When trend lines are drawn along the tops and bottoms of this formation, a symmetrical triangle is apparent.

Triple Top and Triple Bottom formations

The Triple Top and Triple Bottom formations are classic patterns used in the timing of stock trades. They are similar to the Double Top and Double Bottom formations but an additional top or bottom is required prior to breakout.

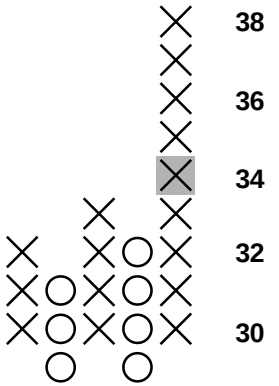
Triple Top

In this pattern, only the action at previous tops is significant. Unlike the Bullish Signal formation, higher bottoms are not required. The only requirement is the two tops prior to the breakout. The establishment of a third top compensates for the absence of a higher bottom.

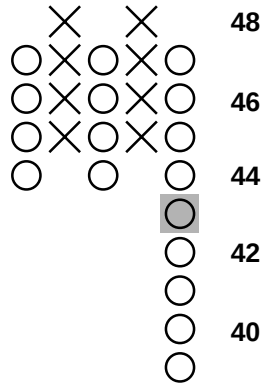
The example below shows a base of accumulation between 29 and 33 with a level bottom at 29. The first two tops are made at 32 and 33 (the second top need not be higher; it may be the same as or lower than the first). The buy signal is given at 34 after the penetration of the two previous highs.

Triple Bottom

In this pattern, only the action at previous bottoms is significant. Unlike the Bearish Signal formation, lower tops are not required. The only requirement is the penetration of the two previous bottoms. The establishment of a third bottom compensates for the absence of a lower top.



Triple Top Formation



Triple Bottom Formation

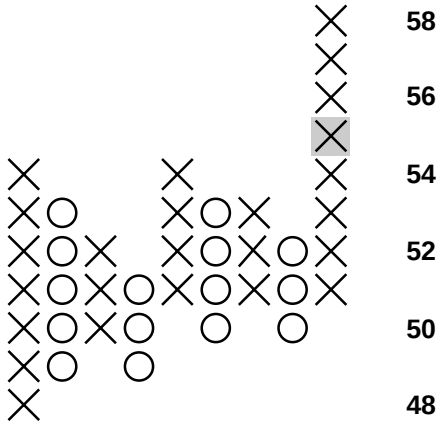
The example shows distribution topping between 44 and 48 with a level top at 48. The first two bottoms are made at 44 (the second bottom need not be the same; it may be lower or higher than the first). The sell signal is given at 43 after the penetration of the two previous lows.

Spread Triple Top and Bottom formations

These are very broad formations which can consist of many columns (six or more) and can require years to develop. Often, buy and sell signals from other formations occur while these patterns are developing. However, many traders prefer to wait for a breakout from this type of pattern before taking action.

Spread Triple Top

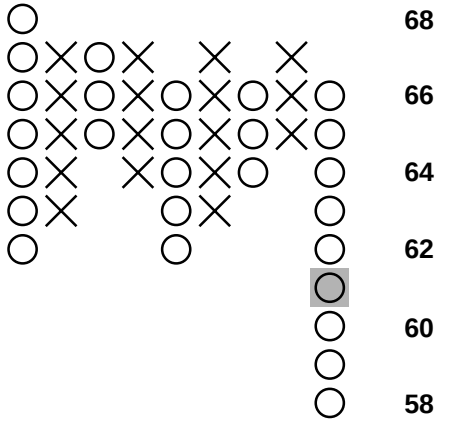
Shown below is an example of a Spread Triple Top. The buy signal is given when the level top at 54 is finally penetrated on the third attempt. Notice that the three tops are not consecutive but are separated by intervening moves.



Spread Triple Top Formation

Spread Triple Bottom

Shown below is an example of a Spread Triple Bottom. The sell signal is given when the level bottom at 62 is finally penetrated on the third attempt. Notice that the three bottoms are not consecutive but are separated by intervening moves.



Spread Triple Bottom Formation

`Bullish` and `Bearish` `Catapult formations`

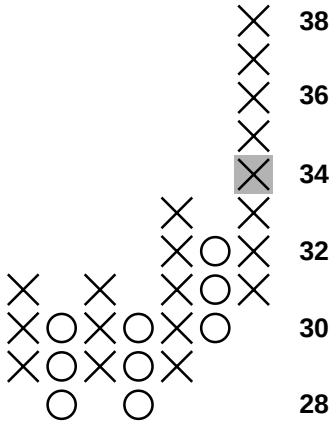
These formations frequently occur following Triple Top or Triple Bottom formations when the original move in the direction of the signal is interrupted by a short reversal move. Another and often more reliable signal is given when a fourth top or bottom is made.

Bullish Catapult

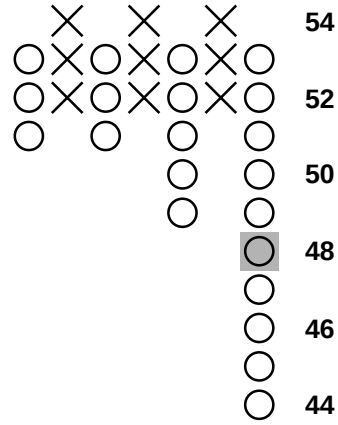
This formation begins with the classical Triple Top. However, the initial rally is brief and is followed by a similarly brief pullback. When a fourth top is made (see example below), a new buy signal is registered.

Bearish Catapult

This formation begins with the classical Triple Bottom. However, the initial decline is brief and is followed by a similarly brief recovery. When a fourth bottom is made (see example below), a new sell signal is registered.



Bullish Catapult Formation

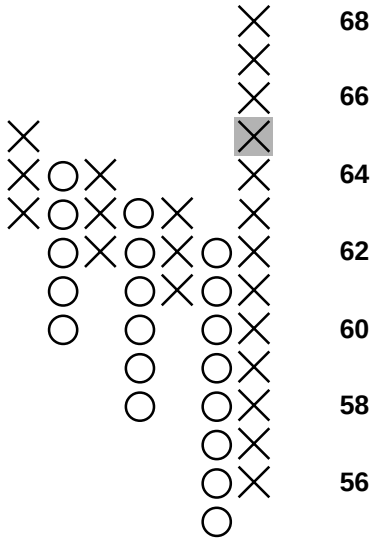


Bearish Catapult Formation

Bullish and Bearish Signal Reversed formations

Bearish Signal Reversed

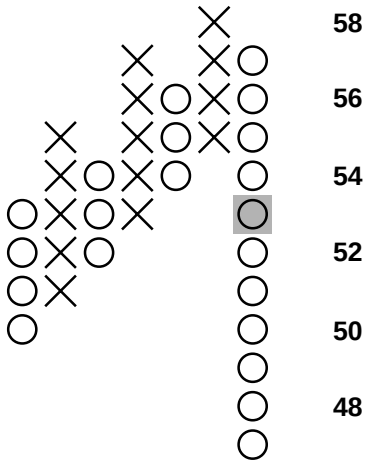
The first six columns of this formation display the classic pattern of lower tops and lower bottoms. Although it starts out looking exactly like a Bearish Signal formation, an unexpected price reversal takes place in the seventh column. The buy signal is given when the first prior top is penetrated. According to A. W. Cohen *(Reference No. 12)*, the momentum of this straight upward reversal in the seventh column usually carries far enough to yield a substantial profit.



Bearish Signal Reversed Formation

Bullish Signal Reversed

The first six columns of this formation display the classic pattern of higher bottoms and higher tops. Although it starts out looking exactly like a Bullish Signal formation, an unexpected price reversal takes place in the seventh column. The sell signal is given when the first prior bottom is penetrated. According to Cohen, the momentum of this straight downward reversal in the seventh column usually carries far enough to yield a substantial profit.



Bullish Signal Reversed Formation

Value shown in Control Panel

The value shown for Point and Figure is the closing price for the date displayed.

Changeable constants

Box Size (1/8 pt)

Price Range ($)	Default	Range
0 to 5	2	1-8000
5 to 20	4	1-8000
20 to 100	8	1-8000
100 to 500	32	1-8000
500 to 2004	128	1-8000
2004 to 5012	256	1-8000
5012+	512	1-8000

	Default	Range
Reversal	3	1-100
Months	24	1-120