

Draw Statements

A DYO can be used to draw lines, circles, ellipses, arcs, and rectangles on a chart to represent trends, support and resistance levels, and target zones.

Some draw line effects can be accomplished using the horizontal line markers found on the Marker drop down list. There are horizontal markers with a short length, long length, and some that extend left or right to the edge of the chart.

A DYO also offers this set of additional draw statements:

These statements conditionally draw when the expression evaluates to True. The Show check box on the row must also be checked.

```
if #2 oper 0 then MoveTo( #3, #4 )
if #2 oper 0 then LineTo( #3, #4 )
if #2 oper 0 then HorzLine( #3, #4 )
if #2 oper 0 then VertLine( #3, #4 )
if #2 oper 0 then Rectangle( #3, #4 )
if #2 oper 0 then Circle( #3, #4 )
if #2 oper 0 then Ellipse( #3, #4 )
if #2 oper 0 then Arc( #3, #4 )
```

Data Point

A data point consists of a horizontal location based on a bar's index, and a vertical location based on a price. Both pieces of information must be provided.

The horizontal index is entered in the Selection #3 field. The price is entered in Selection #4.

If the #3 value is less than 11, then it is an offset from the current bar's index. If the value is greater than or equal to 11, then it is the bar index for the data point. The index for the current bar can be read using the Bar Index selection in the field selection list.

MoveTo

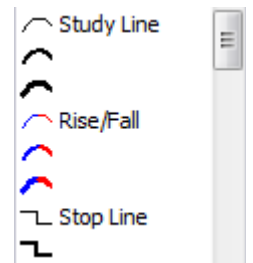
This statement moves the pen to a data point without drawing a line. MoveTo is used as a companion statement with the LineTo, Rectangle, Ellipse, and Arc statements that use two data points for their construction.

The MoveTo statement can also be used to draw a marker at its data point.

LineTo

This statement draws a line from the MoveTo data point to the LineTo data point. The pen location is left at the LineTo data point. The line's color is the color set on the DYO row. The line thickness is based on the marker thickness. One of the first 8 line drawing markers must be selected.

The curve markers will draw a straight line between the 2 points. The stair step markers will draw the line between the 2 points using a stair step.



HorzLine

HorzLine will draw a horizontal line at the #4 price. The line will begin with current bar and extend rightward. The #3 field is used to specify the length of the line. If the #3 value is positive the length of the line is in bar spacing units. If the #3 value is negative, the value is the length of the line in pixels.

VertLine

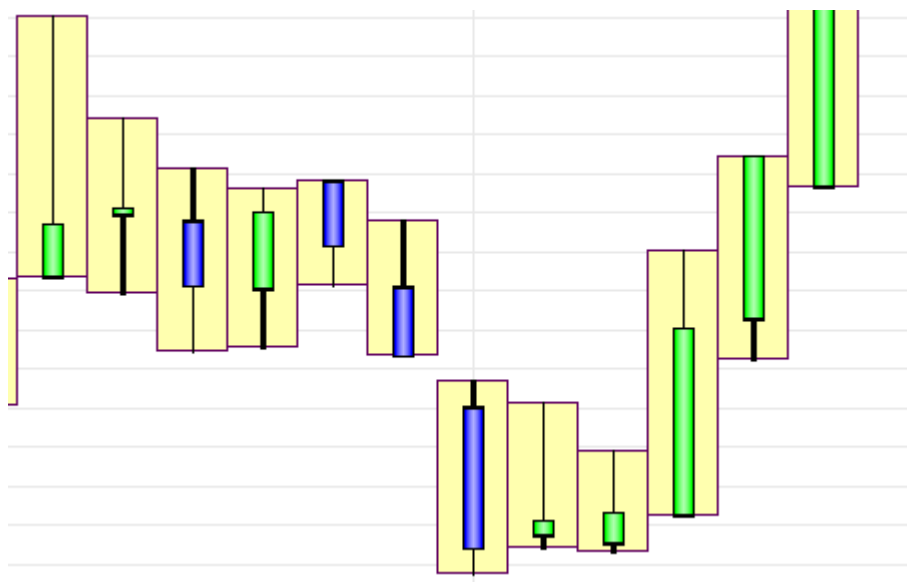
VertLine draws a vertical line between 2 prices. The #3 value is the 1st price, and the #4 value is the 2nd price. The vertical line is aligned with the current bar.

Rectangle

The Rectangle statement draws a frame between the MoveTo data point and the Rectangle data point. The thickness of the frame is based on the marker thickness, the same as discussed for the LineTo statement.

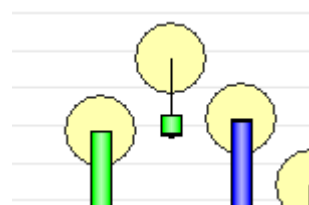
If the marker selected is one of the Rise/Fall curves, then the rectangle will be filled with the color selected on the next DY0 row. This example draws a filled rectangle around each bar. Note the index offset for the MoveTo is a half bar space leftward (-0.5), and the offset for the Rectangle is a half bar space rightward (0.5).

Category	Variable	Selection #1 & #3	Op. [#]	Selection #2 & #4	Offset	Show	Marker	Color
Action	0	= if #2 oper 0 then Rectangle		True	0	<input checked="" type="checkbox"/>		
		(0.5		High	0			
A	Action	if True then MoveTo(-0.5, Low)		<input checked="" type="checkbox"/>				Paint Color
B	Action	if True then Rectangle(0.5, High)		<input checked="" type="checkbox"/>				Study Value
C	Expression			<input type="checkbox"/>				



Circle

The Circle statement is similar to the HorzLine statement. A circle is drawn aligned with the current bar, at the #4 price. The radius of the circle is the #3 value. A positive value for #3 is a radius in bar spacing units. A negative value for #3 is a radius in pixels.



If the marker selected is one of the Rise/Fall curves, then the circle will be filled with the color selected on the next DYO row.

Ellipse

This statement is similar to the discussion for Rectangle. An ellipse is drawn bounded by the rectangle specified by the MoveTo data point and the Ellipse data point. The thickness of the perimeter is based on the marker selected. The ellipse will be filled if a Rise/Fall marker is used. The color for the fill is from the next DYO row.



Arc

Arc is a variation of the ellipse. A section of the ellipse perimeter is drawn. If the Arc price is higher than the MoveTo price, then a bottom arc is drawn. If the Arc price is below the MoveTo price, then a top arc is drawn.

