**Point Plots and Dot Plots**

Point plots and dot plots are special versions of SigmaPlot's Scatter/Line and Scatter plots.
The main difference is the way they assign worksheet columns to the symbols of the graph

1. Point plot vs dot plot
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1. Point plot vs dot plot

Point plots display X cells vs Y columns, dot plots display X cells vs Y "rows".
To show which points belong together in the datasets, we have added dotted lines to the plot.
Both plot types are "X Many Y" plots.
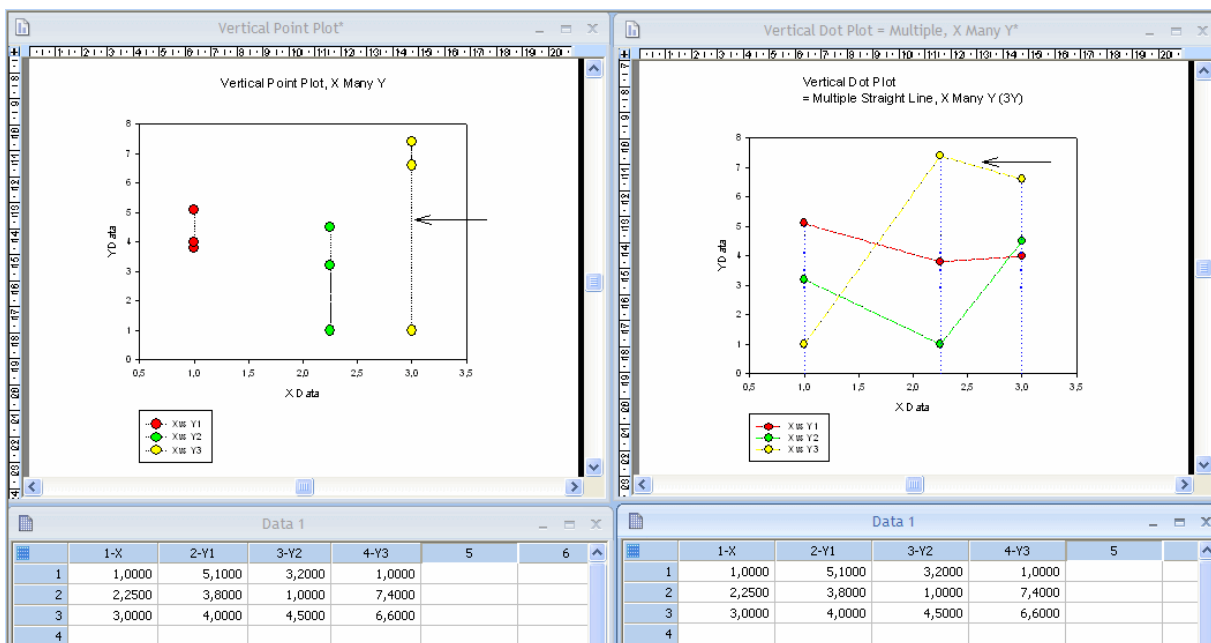
Point plot (left side)
In the point plot, each X cell value is plotted against all values of one Y column.
1,0   vs. 5,1   3,5   4.0
2,25 vs. 3,2   1,0   4.5
3,0   vs. 1,0   7,4   6,6

The first cell of the X column against the (complete) first Y column,
the second X row against the second Y column, etc. -- In short:
X row 1 -- Y column 1
X row 2 -- Y column 2
X row 3 -- Y column 3

Dot plot (right side)
In the dot plot, each X cell value is plotted against all (corresponding) Y values in the same row.
1,0   vs. 5,1   3,2   1.0
2,25 vs. 3,8   1,0   7,4
3,0   vs. 4,0   4,5   6,6

The first cell of the X column against all first row cells of all Y columns,
the second row of the X column against the second row cells of all Y columns, etc. – In short:
X row 1 -- Y1-Yn, row 1
X row 2 -- Y1-Yn, row 2
X row 3 -- Y1-Yn, row 3

The get the same graph when your select Scatter > Multiple Scatter > X Many Y from Create Graph Wizard. By default, the Dot plot adds droplines to the X axis.

2. Types of plot and data setup

These are the types and data setup options for both plot types:

Vertical Point Plot Plots columns of data as Y values. Format data columns as:
 Many Y
 Single X, Many Y
 Many Y Replicates
 Single X, Many Y Replicates

Horizontal Point Plot Plots columns of data as X values. Format data columns as:
 Many X
 Single Y, Many X
 Many X Replicates
 Single Y, Many X Replicates

Vertical Dot Plot Plots a column of data as Y values. Format data columns as:
 Many Y
 Single X Many Y
 XY pairs
 X Category

Horizontal Dot Plot Plots a column of data as X values. Format data columns as:
 Many X
 Single Y, Many X
 YX pairs

When you select the Replicates data setup, the data selection of rows and columns is swapped.
A „Many Y Replicates"- Point Plot corresponds to a „Many Y"- Dot Plot.

3. Statistics results graphs

Point plots are used as statistical result graphs for these procedures:

The **Descriptive Statistics** point plot graphs all values in each column as a point on the graph. The column titles are used as the tick marks for the plot points and default X Data and Y Data axis titles are assigned to the graph.

The **ANOVA on Ranks** point plot graphs all values in each column as a point on the graph. If the graph data is indexed, the levels in the factor column are used as the tick marks for the plot points, and the column titles are used as the X and Y axis titles. If the graph data is in raw or

statistical format, the column titles are used as the tick marks for the plot points and default X Data and Y Data axis titles are assigned to the graph.

The **t-test** point plot graphs all values in each column as a point on the graph.
If the graph data is indexed, the levels in the factor column are used as the tick marks for the plot points, and the column titles are used as the X and Y axis titles. If the graph data is in raw or statistical format, the column titles are used as the tick marks for the plot points and default X Data and Y Data axis titles are assigned to the graph.

The **Rank Sum Test** point plot graphs all values in each column as a point on the graph.
If the graph data is indexed, the levels in the factor column are used as the tick marks for the plot points, and the column titles are used as the X and Y axis titles. If the graph data is in raw or statistical format, the column titles are used as the tick marks for the plot points and default X Data and Y Data axis titles are assigned to the graph.

Example result graph from Descriptive Statistics:

Point and Column Means