Spreadsheet Graphics and Charts

Graphics can be created using the Graph button in the spreadsheet view or from the sheet listing, which takes the user to **tiki-graph_sheet.php**?sheetId=1 (1 or the numeric id of that sheet). Two simple forms are presented to select the parameters of the graphic.

Select the Graphic Type and Output Format

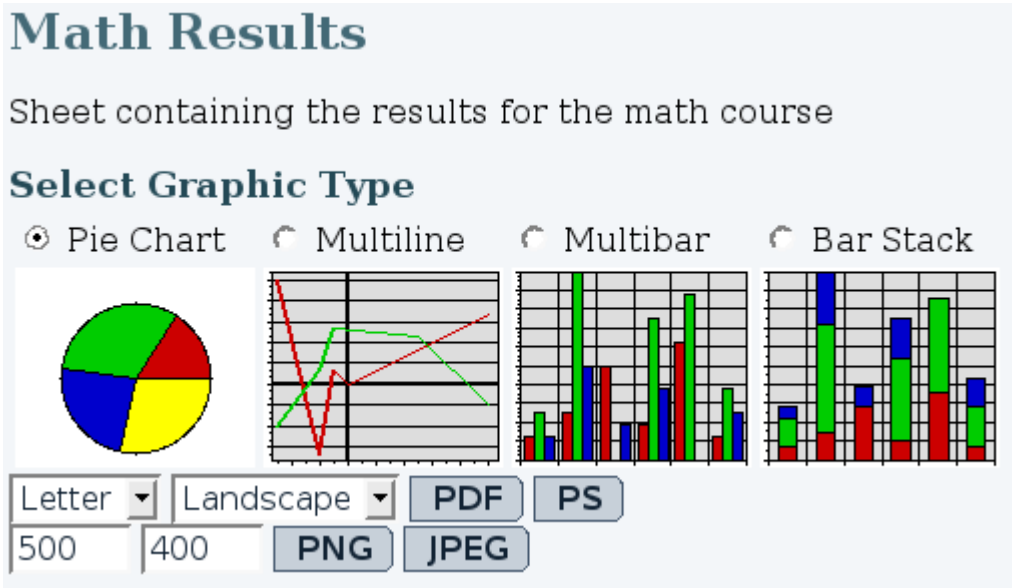


Fig. 1: First form

The radio buttons select the type of graphic to be generated. A first example will be made with the Pie Chart and a second one with Multibar. Multiline and Bar Stack use the same parameters as Bar Stack.

Multiple output formats are available. Depending on the installed extensions on the server, some elements might not be available. PDF and PostScript are printable format and require the paper size and orientation parameters. PNG and JPEG are images and require height and width parameters in pizels.

> If the objective is to include the graphic in a wiki page, the selected format will only be used for the preview.

Parameters

Figure 2 presents the parameters entered to obtain a pie chart from the speadsheet and Figure 3 is the result obtained. The page is divided in three sections:

1. Parameter form
2. Spreadsheet
3. Wiki Plug-in

The parameter form is used to select the elements that will be displayed in the graphic. All parameters under the series label are value ranges from the spreadsheet in A1:Z99 format or comma seperated list of elements (ex: Blue,))LightBlue,LightGreen((). The color and style series require special values:

Color

- Red
- Green
- Blue
- Yellow
- Orange
- LightBlue
- LightGreen

Style

- Thin-LineStroke
- Thin-FillStroke
- Normal-LineStroke
- Normal-FillStroke
- Bold-LineStroke
- Bold-FillStroke
- Bolder-LineStroke
- Bolder-FillStroke

The spreadsheet is available as a reference to select the ranges.

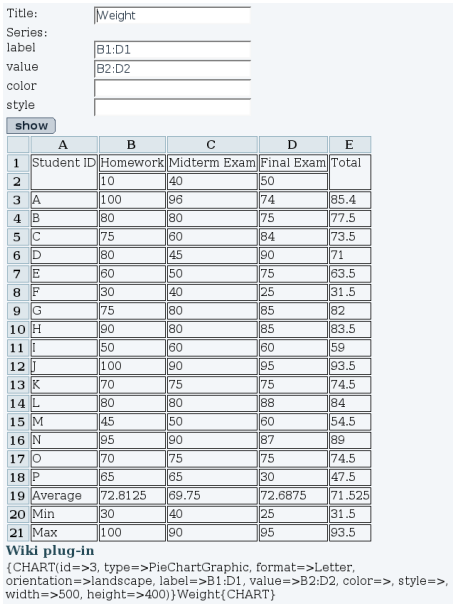
The wiki plug-in is updated as the parameters are changed in the form. The code displayed can be pasted in a wiki page to display the graphic. The plug-in does not consider the selected output format. Instead, it will automatically select the best format available. If possible, it will display an image and link to a printable format. Prefered image format is PNG and prefered printable format is PDF.

Pie Chart Parameters

The following table presents the different field of the form, what they are used for and the behavior if left empty.

Title	Used as the title of the graphic	No title
Label	Caption in the legends	No legend
Value	Values used in the chart	Required
Color	Colors used for the elements	Automatically selected
Style	Change border type	Normal-FillStroke

The amount of elements in every range must be the same.



Title: Weight
Series:
label B1:D1
value B2:D2
color
style
show

	A	B	C	D	E
1	Student ID	Homework	Midterm Exam	Final Exam	Total
2		10	40	50	
3	A	100	96	74	85.4
4	B	80	80	75	77.5
5	C	75	60	84	73.5
6	D	80	45	90	71
7	E	60	50	75	63.5
8	F	30	40	25	31.5
9	G	75	80	85	82
10	H	90	80	85	83.5
11	I	50	60	60	59
12	J	100	90	95	93.5
13	K	70	75	75	74.5
14	L	80	80	88	84
15	M	45	50	60	54.5
16	N	95	90	87	89
17	O	70	75	75	74.5
18	P	65	65	30	47.5
19	Average	72.8125	69.75	72.6875	71.525
20	Min	30	40	25	31.5
21	Max	100	90	95	93.5

Wiki plug-in

```
{CHART(id=>3, type=>PieChartGraphic, format=>Letter, orientation=>landscape, label=>B1:D1, value=>B2:D2, color=>, style=>, width=>500, height=>400)}Weight{CHART}
```

Fig. 2: Parameters for the pie chart.

Fig. 3: Resulting pie chart.

Multibar Parameters

Figure 4 presents the parameters used to create the graphic in Figure 5. Note that different size parameters have been used to suite the large amount of data. Here is the table presenting the different parameters.

Title	Title of the graphic	No title
Independant Scale	Determines if the graphic is vertical or horizontal	
Horizontal Scale	Location of the horizontal scale	
Vertical Scale	Location of the vertical scale	
Label	Caption of the different elements in the legend	No legend
Color	Colors used in the legend	Automatically selected
Style	Border type used	Normal-FillStroke
X	Independant scale range	Required.
Y0	First dependant range	Required.
Y1-Y4	Additional dependant range	

The amount of elements in the Label, Color and Style ranges must be equal to the amount of Y ranges used. The amount of elements in the X range and all Y ranges must be the same.

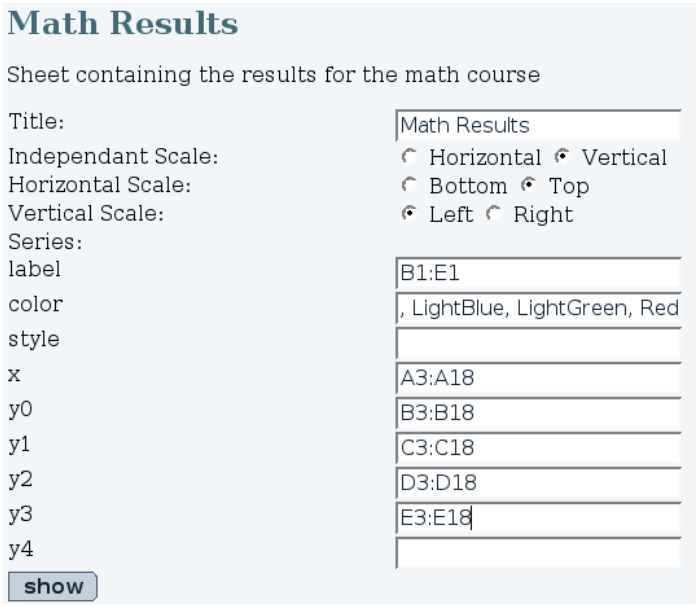


Fig. 4: Parameters for the multibar graphic

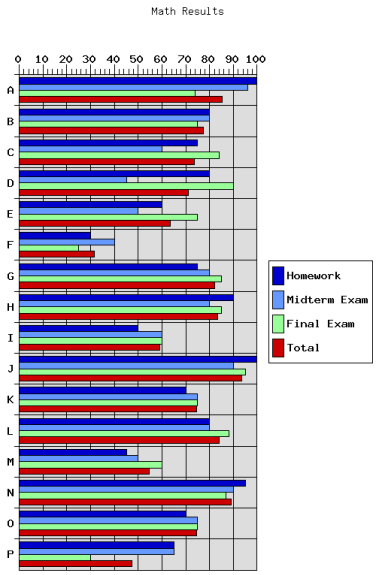


Fig. 5: Resulting multibar graphic

Spreadsheet JQ Charts

Another option is to make the charts reusing the raphael.js charting library embedded in the jquery spreadsheet. See:

Chart Type	Example	Chart	Data	Month	Year
Vertical Bar	"=BARCHART(D2:D13)		Jan		2001
Horizontal Bar	"=HBARCHART(D2:D13)		Feb		2002
Pie	"=LINECHART(D2:D8, F2:F6)"		Mar		2003

Line	"=PIECHART(D2:D8, E2:E8)"	Apr	2004	
		8.2	May	2005
		9.1	Jun	2006
		14.1	Jul	2007
		16	Aug	2008
		17.9	Sep	2009
		22	Oct	2010
		30	Nov	2011
		32	Dec	2012