GDGraph 2.1 Reference

This document provides a reference of the use of GDGraph 2.1. To get yourself started, first you'll need (obviously) PHP 4.3, or higher, and GD 2, or higher; although it hasn't been tested on other systems, it probably will work with PHP 3 and up, but GD 2 is needed.

The way this class works (for now, comments are welcome), is that it will return an online PNG image to your browser after any of it's functions (*bar_graph*, *pie_graph* or *line_graph*) are called upon, including it's header (so you don't need to call the PHP *header* function before any of them).

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Constructor.

```
GDGraph(width, height [, title [, red_bg [, green_bg [, blue_bg [,
red_line [, green_line [, blue_line [red_font [, green_font [,
blue_font [, legend [, legend_x [, legend_y [, legend_border [,
transparent_background [, line_thickness]]]]]]]]]]]]]]]);
```

Arguments:

width, height	(int, int) Image width and height (required).
title	(string) Graph title. *Default:* blank title
red_bg, green_bg, blue_bg	(int, int, int) [0-255] Red, green and blue components of graph background. *Default:* 255,255,255 (white background)
red_line, green_line, blue_line	(int, int, int) [0-255] Red, green and blue components of all lines. *Default:* 0,0,0 (black lines)
red_font, green_font, blue_font	(int, int, int) [0-255] Red, green and blue components of all strings. *Default:* 0,0,0 (black font)
legend	(boolean) To put a legend or not. *Default:* true (legend included)
legend_x, legend_y	(int, int) [0-width, 0-height] X and Y legend position, if a legend is present (0,0 is top left corner).

	Default: Top right corner.
`legend_border`	(boolean) To put a border around the legend. *Default:* true (border around legend)

`transparent_background`	(boolean) To make the background transparent.
	Because of the fact that GDGraph uses PNG files to paint the graphs, and that Internet Explorer doesn't handle at all transparency in PNGs, ***this feature doesn't work on Internet Explorer 6*** (it will in IE 7.1). *We won't make it work until Microsoft gets it's act together and adds this functionality to IE 6.*
	You're more than welcome to change lines 526 and 527, 839 and 840, and 944 and 945 of gdgraph.php to the following:
	`header('Content-type: image/gif');`
	`imagegif($this->image);`
	which will make GDGraph give a GIF image (instead of a PNG) with which Internet Explorer can handle transparency. You can hold Microsoft responsible for this burden.
	Default: false (solid background)

`line_thickness`	(int) X-axis, y-axis, and grid lines thickness. *Default:* 1

Bar Graph.

```
bar_graph(data, [, x_title [, y_title [, bar_width_percentage [,
grid_presence [, bar_border_presence]]]]]);
```

Returns:

A PNG image with a bar graph of the information contained in *data*.

Arguments:

data	(array) Data from which the graph will be created (required).
	Format:
	`Array(`
	`'bar1'=>Array(value1,red1,green1,blue1,3d1),`
	`'bar2'=>Array(value2,red2,green2,blue2,3d2),...`
	`);`
	Where 'bar1' is the name of the first bar, 'value1' is it's value; 'red1', 'green1', and 'blue1' it's color components, and 3d1 it's 3D thickness (these last four can be ommited, but will default to 0).

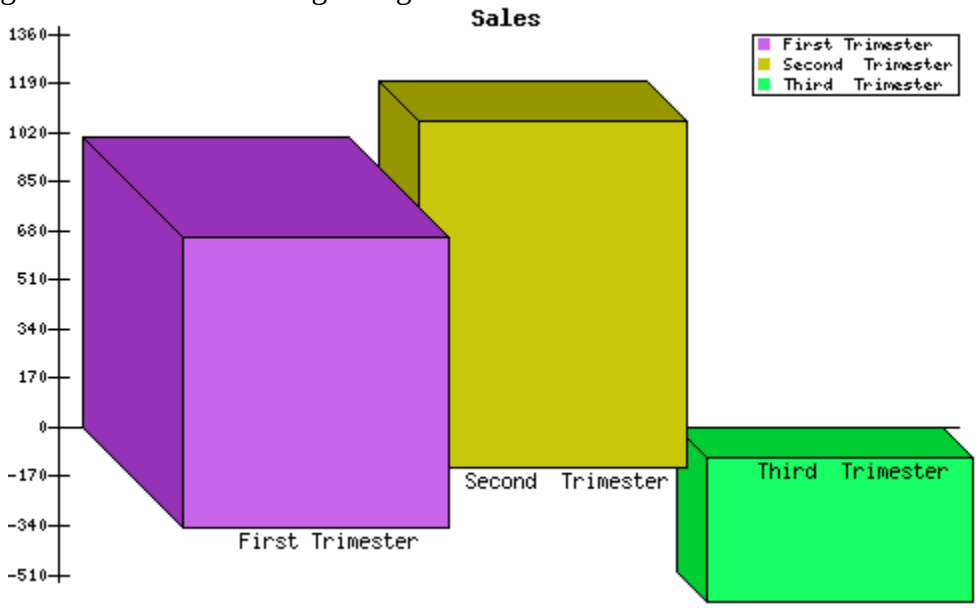
x_title, y_title	(string, string) Graph x axis and y axis title. *Default:* blank titles
bar_width_percentage	(int) [0-100] Percentage of the space given to a certain bar that that bar will occupy. *Default:* 90 (90% occupancy)
grid_presence	(int) [0-10] Presence of grid, 0 being none and 10 being a solid line (see Example 2 for further explanation). *Default:* 0 (no grid)
bar_border_presence	(boolean) Presence of border around bars. *Default:* true (border present)

Example 1:

```
<?
     require_once("gdgraph.php");
     $gdg = new GDGraph(500,300,"Sales");
     $arr = Array(
                    'First Trimester' => Array(1000,200,100,1000,50),
                    'Second  Trimester' => Array(1200,200,200,10,20),
                    'Third  Trimester' => Array(-500,23,255,100,15)
                    );

     $gdg->bar_graph($arr);  //Line A
?>
```

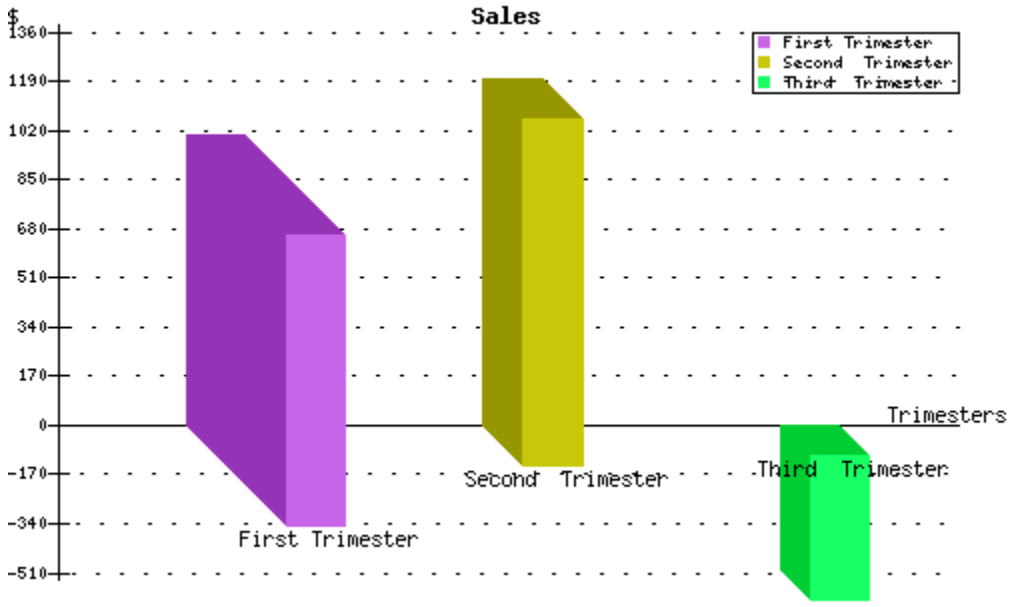
Will give out the following image:



Example 2:
If we change Line A to:

```
$gdg->bar_graph($arr, "$", "Trimesters", 20, 5, false); //Line A
```

It will give out the following image:



Pie Graph.

```
pie_graph(data, [, pie_fill_percentage [, pieces_labels [,
starting_degree [, outline [, 3D_thickness]]]]]);
```

Returns:

A PNG image with a pie graph of the information contained in *data*.

Arguments:

data	(array) Data from which the graph will be created (required).
	Format:
	`Array(`
	`'pie1' => Array(value1,red1,green1,blue1),`
	`'pie2' => Array(value2,red2,green2,blue2),...`
	`);`
	Where 'pie1' is the name of the first slice, 'value1' is it's value, and 'red1', 'green1', and 'blue1' it's color components (these last three can be ommited, but will default to 0).
	All values (value1, value2, etc.) are absolute, meaning that they don't have to be percentages, GDGraph will turn them into percentages for you.

pie_fill_percentage	(int) [0-100] Percentage of the image space filled by the pie graph. *Default:* 100 (fill whole image)
pieces_labels	(boolean) To put each piece label or not. *Default:* true (labels included)
starting_degree	(int) The starting point from which the pie will be drawn. *Default:* 0 (horizontal, from the right clockwise)
outline	(boolean) To put the outline around the pie pieces. *Default:* true

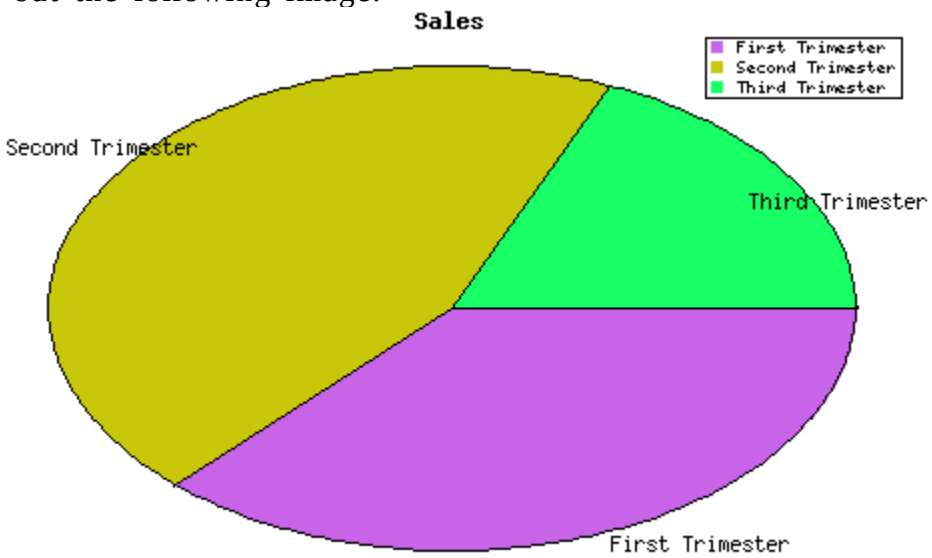
3D_thickness	(array) How thick each piece will be.
	Format:
	`Array(`
	`'pie1' => thick1, 'pie2' => thick2,...`
	`);`
	Where 'pie1' is the name of the first slice and

	'thick1' is it's thicknesss in pixels. If a slice it's ommited from this array, it's thickness will default to 0.

Example 1:

```
<?
     require_once("gdgraph.php");
     $gdg = new GDGraph(500,300,"Sales");
     $arr = Array(
                    'First Trimester' => Array(1000,200,100,1000),
                    'Second  Trimester' => Array(1200,200,200,10),
                    'Third  Trimester' => Array(500,23,255,100)
                    );
     $gdg->pie_graph($arr);  //Line A
?>
```

Will give out the following image:



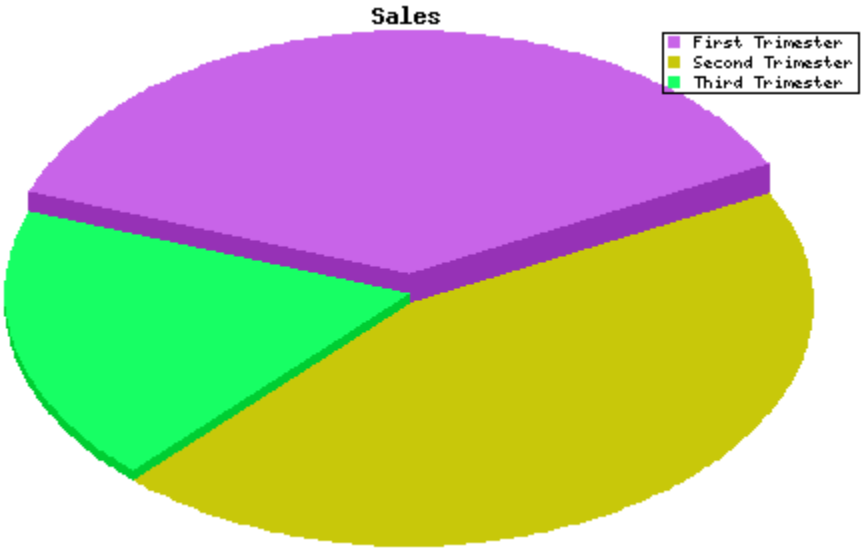
Example 2:
If we add the following before the Line A:

```
     $arr_3D = Array(
                    'First Trimester' => 15,
                    'Second Trimester' => 0,
                    'Third Trimester' => 5
                    );
```

And change Line A to:

```
     $gdg->pie_graph($arr,90,false,200,false,$arr_3D);   //Line A
```

It will give out the following image:


Sales
First Trimester
Second Trimester
Third Trimester

Line Graph.

```
line_graph(data, [, colors [, x_labels [, x_title [, y_title [,
paint_dots [, lines_thickness [, x_lower_value [, x_upper_value [,
y_lower_value [, y_upper_value]]]]]]]]]);
```

Returns:

A PNG image with a line graph of the information contained in *data*.

Arguments:

data	(array) Data from which the graph will be created (required).
	Format:
	`Array(`
	`'lin1' => Array(t1,t2,t3,t4,t5,t6,t7, ...),'lin2' => Array(t1,t2,t3,t4,t5,t6,t7, ...),...`
	`);`
	Where 'lin1' is the name of the first line, and 't1', 't2', 't3', etc. are it's values going through time. Obviously, all lines must have the same number of t's, if not, it will only draw until it reaches the end of that line's t's.

colors	(array) Color of each line appearing in the graph.
	Format:
	`Array(`
	`'lin1' => Array(red1,green1,blue1),`
	`'lin2' => Array(red2,green2,blue2),...`
	`);`
	Where 'lin1' is the name of the first line, and 'red1', 'green1', and 'blue1' it's color components. Although these can be ommited and will default to 0, if any line, which is included in *data*, isn't included here, it won't also be included in the legend.

x_labels	(array) X axis labels. **Format:** `Array('t_label1', 't_label2', ...);` Where all t_label's are the label of each it's corresponding t in *data*, counting from left to right. If these aren't included, no labels will appear in the x axis.
x_title, y_title	(string, string) Graph x axis and y axis title

	(optional). *Default:* blank titles
paint_dots	(boolean) To paint the little squares between each break of a line. *Default:* true

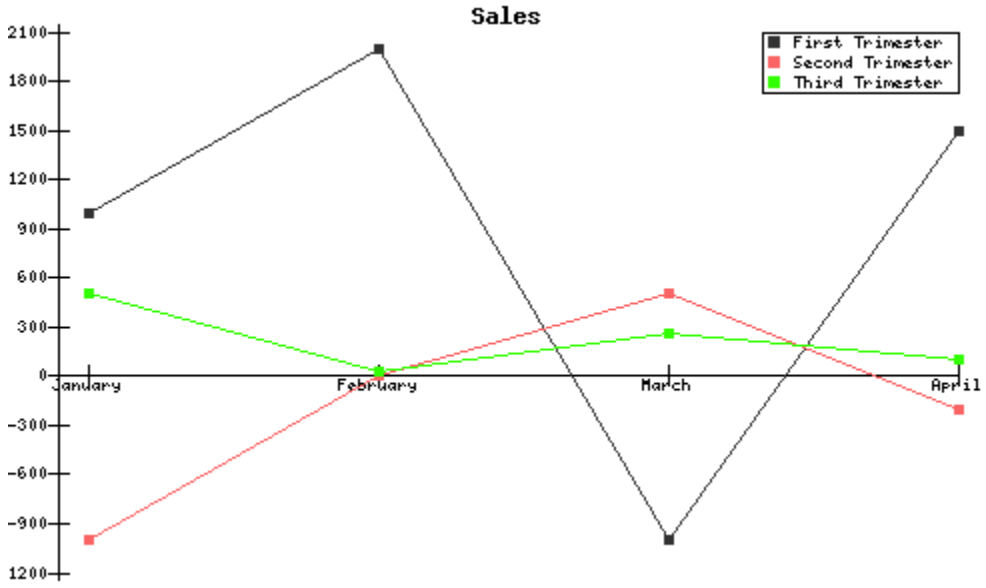
lines_thickness	(array) Thickness of each line.
	Format:
	`Array(`
	`'lin1' => thick1, 'lin2' => thick2, ...`
	`);`
	Where 'lin1' is the name of the first line, and 'thick1' is it's thickness. Any line can be ommited from this array, but it's thickness will default to 1.

grid_presence	(int) [0- 10] Presence of grid, 0 being none and 10 being a solid line (see Example 2 for further explanation). *Default:* 0 (no grid)
x_lower_value, x_upper_value, y_lower_value, y_upper_value	(int) Zoom area. If these values aren't NULL, GDGraph will substitute it as the lower (or upper) value in the X or Y axis which the graph will show. If any of them are NULL, GDGraph will use the biggest (or lowest) quantity found in the data array for that specific value. For the X axis values, no negatives are allowed, and the axis starts at 0. For further explanation, take a look at Example 3. *Default:* NULL (autofit)

Example 1:

```
<?
     require_once("gdgraph.php");
     $gdg = new GDGraph(500,300,"Sales");
     $arr = Array(
                    'First Trimester' => Array(1000,2000,-1000,1500),
                    'Second Trimester' => Array(-1000,0,500,-200),
                    'Third Trimester' => Array(500,23,255,100)
               );
     $colors = Array(
                    'First Trimester' => Array(50,50,50),
                    'Second Trimester' => Array(250,100,100),
                    'Third Trimester' => Array(50,255,0)
               );
     $x_labels = Array('January','February','March','April');
     $gdg->line_graph($arr, $colors, $x_labels); //Line A
?>
```

Will give out the following image:



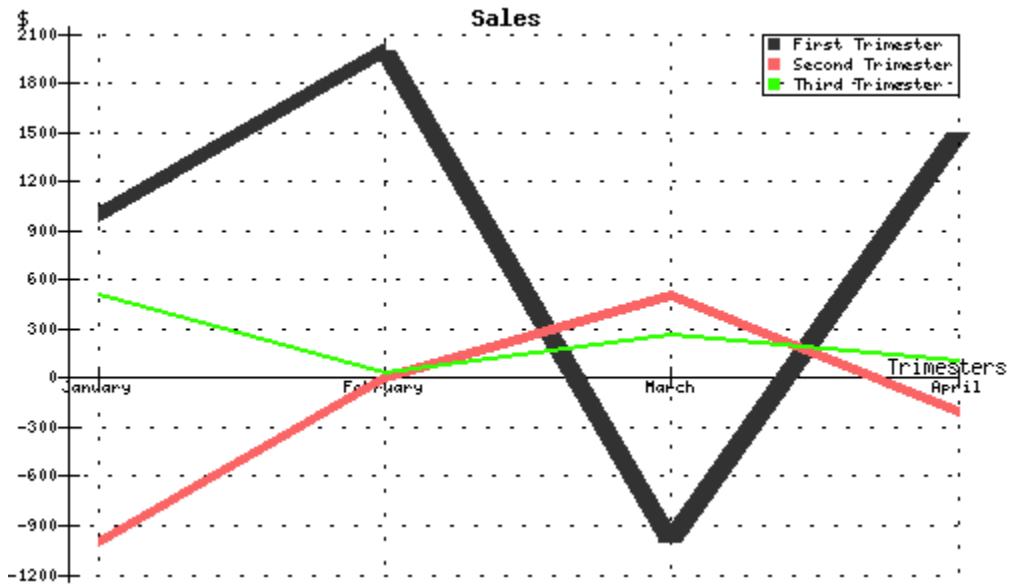
Example 2:
If we add the following before the Line A:

```
$thicknesses = Array(
                'First Trimester' => 10,
                'Second Trimester' => 6,
                'Third Trimester' => 3
            );
```

And change Line A to:

```
$gdg->line_graph($arr, $colors, $x_labels,"Trimesters","$", false,
$thicknesses, 5);  //Line A
```

It will give out the following image:



Example 3:
Change Line A to:

```
    $gdg->line_graph($arr, $colors, $x_labels,"Trimesters","$", false,
$thicknesses, 5, 0, 2, -900, 900);    //Line A
```

It will give out the following image: