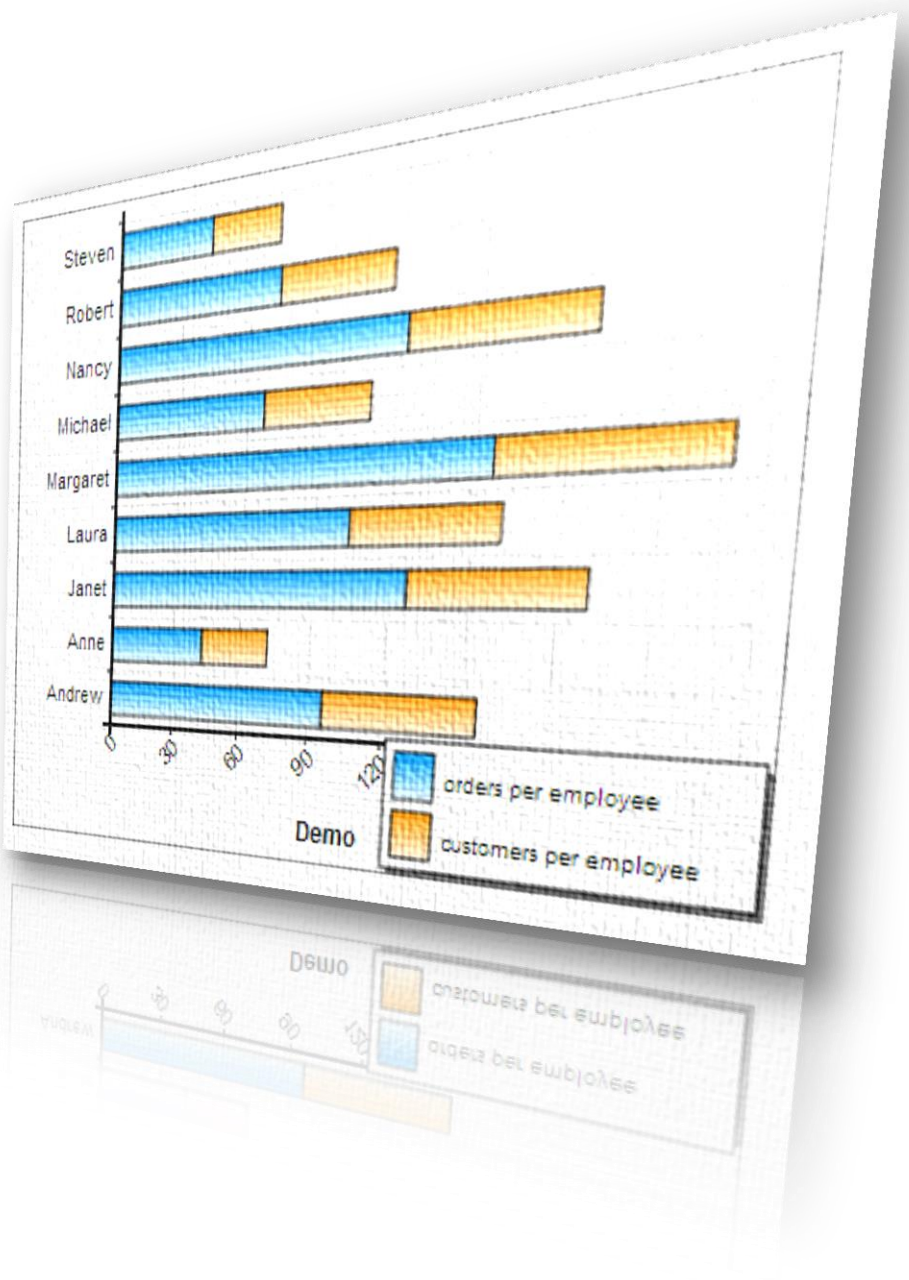

Smart Chart Maker

Version 2.00

http:mysqlreports.com

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Introduction

Smart Chart Maker is far by the best solution to generating and managing an unlimited amount of dynamic charts that are fed directly from a MySQL database and situated around the tables and/or queries.
The **User's Guide** is a documentation regarding to all the features of Smart Chart Maker is. It explains how the program works and gives an opportunity to learn about all its functions.

The guide is divided into two sections

Installation

The installation process of SCM is very easy, and you can find all required information and references about it here in this guide and in the "ReadMe" file

Getting Started

Smart Chart Maker has easy to use and intuitive wizard style interface that will allow you to choose tables, data and style you require for your chart, so this section in the guide will explain each step in the wizard.
The wizard includes 7 steps which are:

- Connect To Database
- Select Table(s)
- Tables Relations
- Data Filters
- Chart Types
- Axis Options
- Customization

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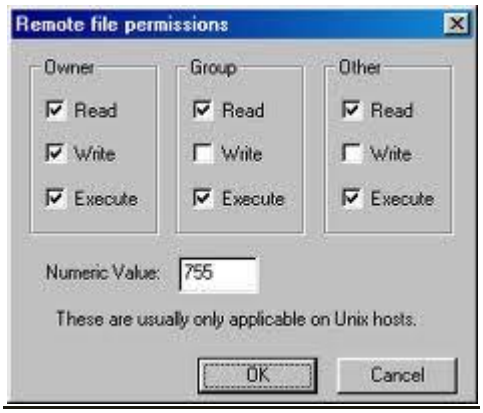
1. Installation

1.1. Upload the folder “SCM” in a sub directory in your server.

** If your charts include confidential data, please password protect the installation directory, this can be done easily from your own hosting control panel, steps can be found here

1.2. Give 755 permission to the charts folder "/SCM/charts/" as in the following image



1.3. Browse to the index page of SCM at : http:your-server-name/path-to-SCM/index.php
1.4. When click to create a new chart, You will be asked for the connection parameters of the database you require for your chart

**Please be aware that only the "Select" permission is required for the user name, further permissions are not recommended.

** To know how to set permission for a MySQL user from your own hosting Control panel please click here

Before getting started it is useful to watch this video tutorial

2. Getting Started

2.1. Connect To Database:

In this step you should enter the connection parameters for the database you require for your charts
Server : Server name or IP
User name: The user name should have only a select permission
Password: Password and user name are used to connect to the MySQL database so they must be

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correct
Database: the database name

2.2. Select Table(s):

In this step you can choose the table(s) you require for your chart

2.3. Table Relations:

In this page you can define inner table relationships, for each relation you should select :

- The parent table from the "Left Table" list
- The primary key from the "Left Field" list
- The related/child table from the "Right table" list
- The foreign key from the "Right Field" list.

The type of joins in all generated relationships is "inner join" which is the default in MySQL databases.

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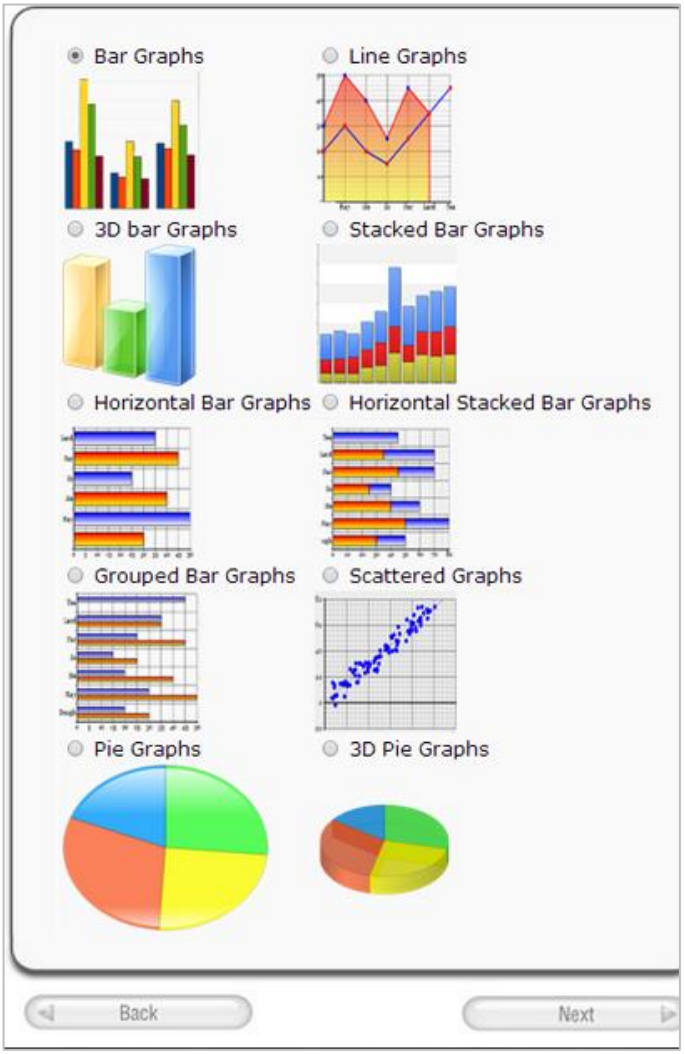
2.4. Data Filters:

For those users who desire more control, you can even create multiple data filters and select the exact data you wish to include in your graph.
Filters depends on the data type of the filtered field, for example if you want to filter a column with a textual data type you will find only texual filters such as like, No like, begin with, etc

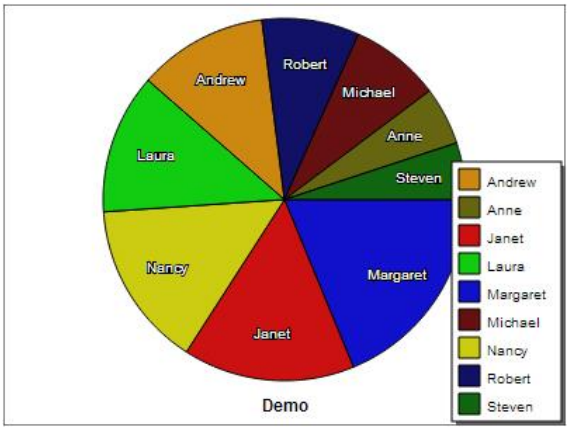
2.5. Chart Type

Many chart types are supported, options include :

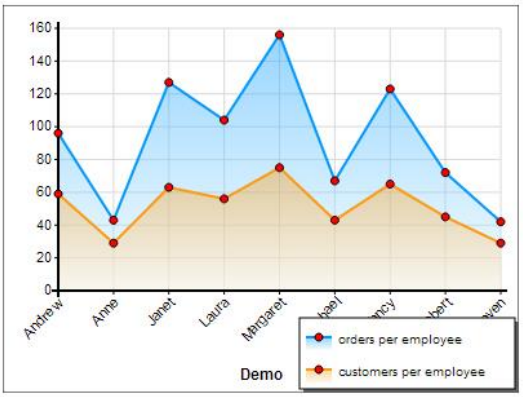
- Bar charts both horizontal and vertical
- 3D bar charts
- Stacked bar charts both horizontal and vertical
- Line charts
- Scattered Charts
- Pie charts



Pie chart



Line chart



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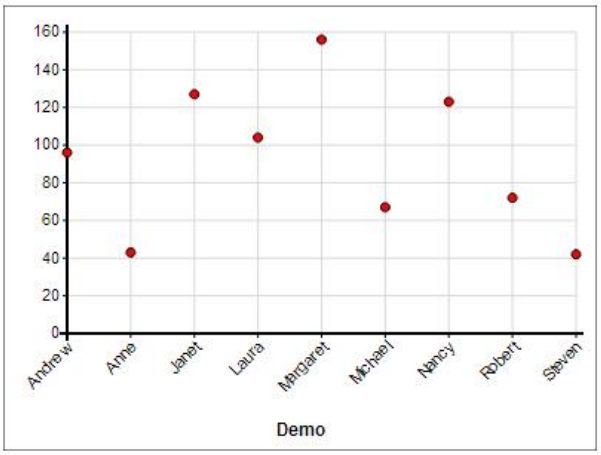
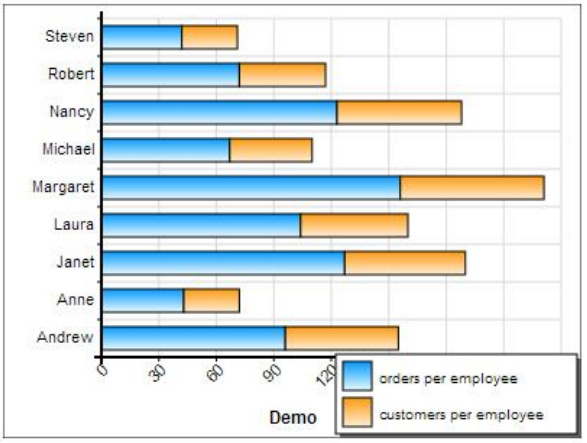
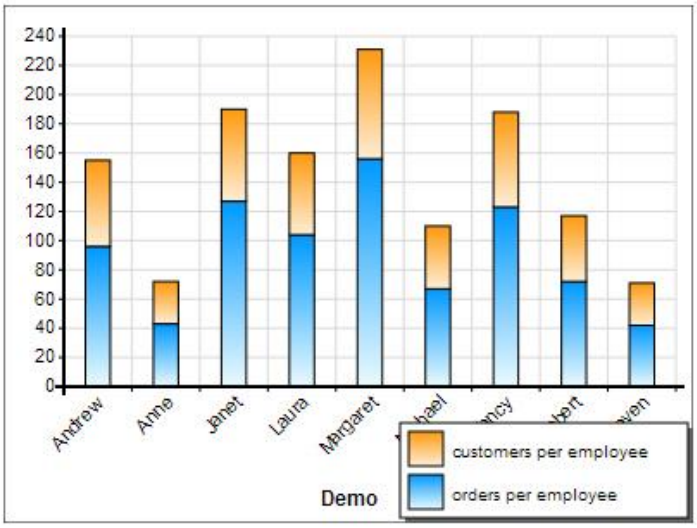
Scattered Chart



Horizontal stacked bar chart



Stacked bar charts



2.6. Chart Axis Options

This axis options page is divided in two sections, a section for each axis

The Horizontal axis options : In this section you should select the table and Field which contain the data that you want to display in the horizontal axis

The Vertical axis options : You can add multiple series in the vertical axis , for each series you should enter the following information :

1. The table and Field which contain the data that you want to display in the series.
2. The statistical function which you want to apply on the selected field.
   SCM supports many functions such as Count, Sum, Average, Min, Max and Percentage and you can choose "None" if you don't want to apply any functions.
3. Please be aware that all functions can be applied **on numeric fields only** (for example: you can't sum or average a text field) the only exception is the **count function** , it can be used to count any field regarding of its data type

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Example:

If you want to generate a sales chart for your company to present the count of customers and orders for each country in a graphical way

4. In this example the countries should be displayed in the horizontal axis so in this axis the table should be "customers" and Field should be "Country"

5. In Vertical axis There should be 2 series :
   - **Customers Per Country**

     Table: customers, function: Count, Field: CustomerID
     **In this series both the horizontal and vertical axis are using the 'Customers' table so no table relations are required

   - **Orders Per Country**

     Table: Orders, function: Count, Field: OrderID
     ** in this series horizontal axis is using the "customers" table while the vertical axis is using the "Orders" table so a relationship between these two tables is required, SCM will search for the most suitable relationship(s) from the ones you entered in the table relations step, when finding a valid one, it will notify you about using it .

6. If there are multiple relations in a series SCM will give you the choice of applying the selected function on unique records only (in these cases the distinct SQL keyword will be used)

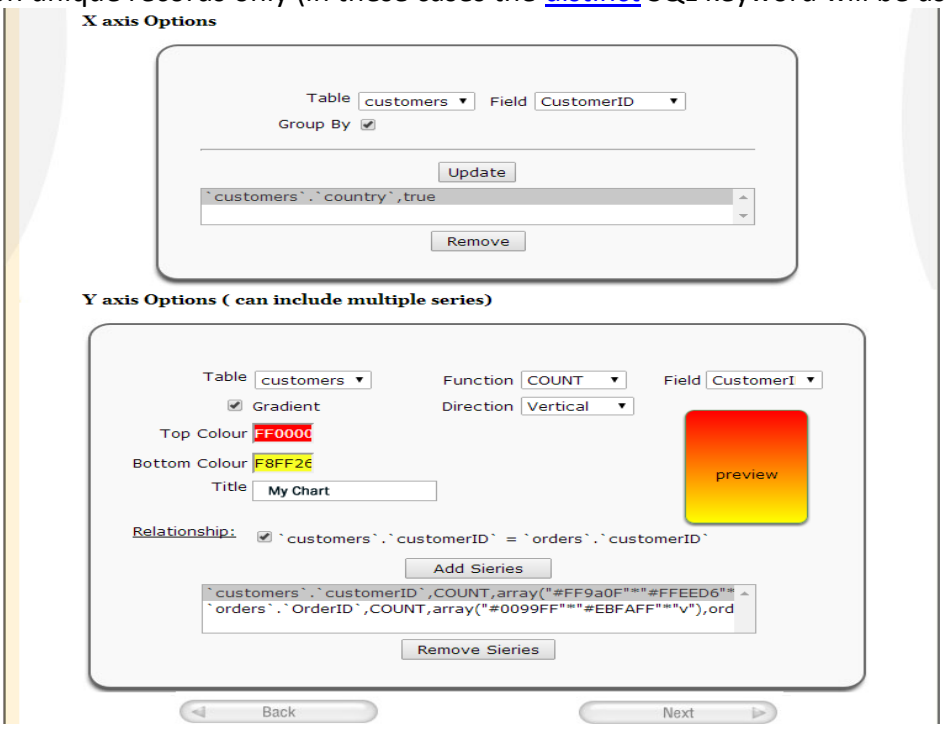

Chart Axis Options

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1.1. Chart Customization

Of course you can customize your chart types in styles, customization options step are grouped in 4 categories: General, Axis, Scale, Legend and Tooltip as Shown in the next image

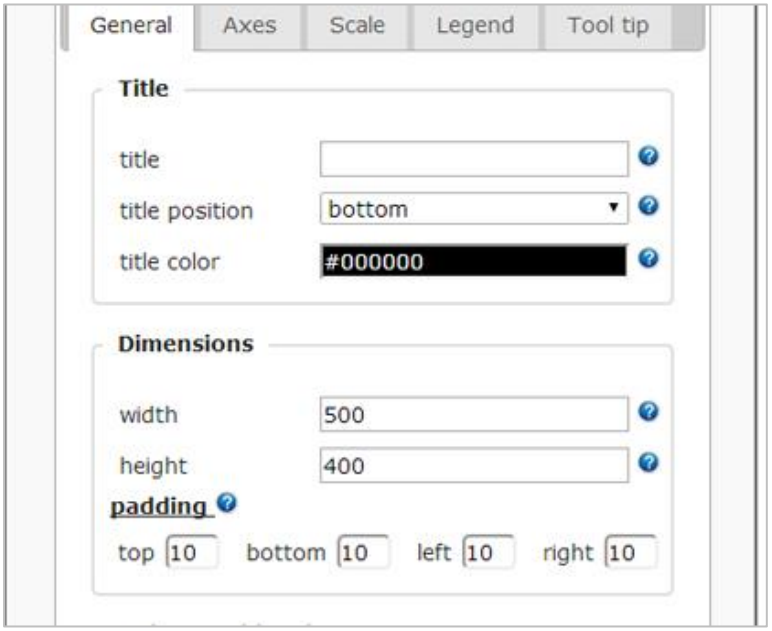
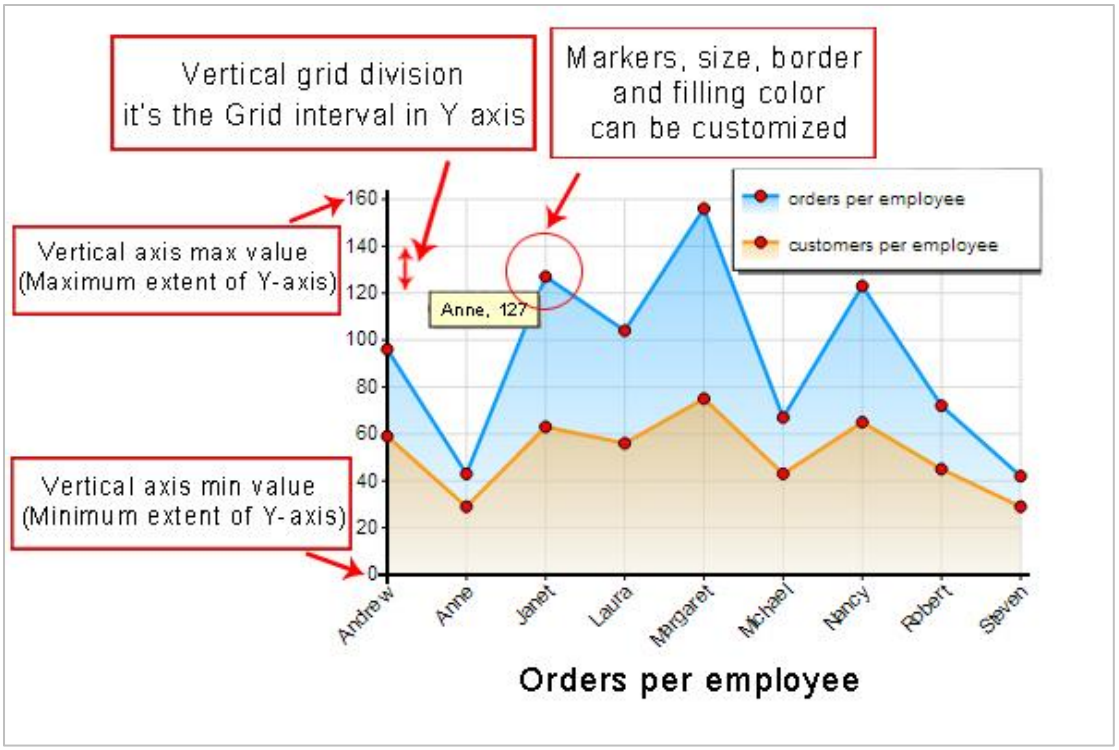


Chart customization options

Example :



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Example of a customized chart

The following table presents the main settings of the multi-line graph Shown above:

Category	*Settings*	*Value*	*Notes*
General	Title	*Orders Per Employee*	
General	Title Position	*Bottom*	Position of the title relative to the graph area
General	width	400	
General	Height	300	
Axis	Text angle h	-45	employee names On Horizontal axis are inclined
Axis	Text angle V	0	Sales Numeric values On Vertical axis are not inclines
Scale	Vertical Axis Min	0	Min extend of Vertical axis
Scale	Vertical Axis Max	0	In this case it is set to the maximum value n the database
Scale	Vertical Grid division	20	Grid interval in Vertical axis
Scale	Marker Type	*Circle*	Markers are the data points on the line graph
Scale	Marker Size	3	
Scale	Marker Color	Red	
Scale	Fill Under	True	the area under the line is filled with color or gradient

Details of chart customization options:

1. General Settings:

Title:	This title will be displayed on the chart.
Title position:	Position of the title relative to the chart area
Title Color:	Font Color of the title.
Width:	Width of the chart.
Height:	height of the chart.
Padding:	Space between the graph area and the container image. Title and Labels should appear in this space
Stroke color:	Color of the chart lines, for example if the chart is a bar chart then it is border Color of each bar the fill Color of each bar is set in a previous step
Stroke width:	Thickness of chart lines, for example for bar charts it is border thickness of each bar, 0 disables line drawing.
Background Color:	The background Color of the chart
Rounded Corner:	Radius of rounded background edge to make rounded corners

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Stroke width:	Thickness of chart border
Stroke Color:	Color of the chart border in case you want to get a Colored border

2. AXIS Settings

Show divisions:	Enables Axis division points
Show subdivisions:	Enables Axis subdivisions
Axis Color:	Color of Axis both horizontal and vertical
Axis stroke width:	Thickness of Axis both horizontal and vertical
Axis font:	Font of Axis division
Axis font size:	Font size of Axis division
Axis text angle v:	Angle of vertical Axis text in case you want an inclined text
Axis text angle h:	Angle of horizontal Axis text in case you want an inclined text
Axis text position:	Position of Axis text for horizontal and vertical Axis relative to Grid area inside or outside
Axis text Color:	Font Color of Axis division text
Label V:	Vertical axis Label
Label H:	Horizontal axis Label
Label Color:	Labels font Color
Label font:	font of Labels
Label font size:	Labels font size
Label font weight:	Labels font weight
Show Grid:	Grid on/off option
Show Grid v:	Show vertical Grid lines
Show Grid h:	Show horizontal Grid lines
Grid Color:	Color of Grid lines

3. Scale

Axis min v:	**Minimum extent of Y-Axis**
Axis max v:	Maximum extent of Y-Axis
Grid division v:	Grid interval on Y-Axis
Subdivision v:	Subdivision Grid interval on Y-Axis
Axis min h:	Minimum extent of X-Axis
Axis max h:	Maximum extent of X-Axis
Grid division h:	Grid interval on X-Axis
Subdivision h:	Subdivision Grid interval on X-Axis

4. Type related settings

1. bar, 3D bar, horizontal, and stacked bar graphs

Show bar Labels:	Displays the value of each bar directly above it
Bar Label font size:	Size of bar Label font
Bar Label Color:	Color of bar Label text

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Units Label:	Units Shown after value in bar Label, for example pounds, cm, calories, or any other units
Units before Label:	Units Shown before value in bar Label, for example pounds, cm, calories, $,or any other units
Group space:	Space between bars of group
Show bar totals:	Displays the total value for the bar in a Label above the bar
Bar total font size:	Font Size of bar total Label
Bar total Color:	Font Color of bar total Label

2. Line and scattered graphs

Marker size:	Size of points on the line or scattered graph
Marker type:	Shape of points on the line or scattered graph the available Marker shapes are circle, square, triangle, cross, x, pentagon, diamond, hexagon, octagon, asterisk, star, threestar, fourstar and eightstar
Marker Color:	Color of points on the line or scattered graph
Marker stroke width:	Thickness of of points on the line or scattered graph
Marker stroke Color:	Border Color of Color of points on the line or scattered graph
line stroke width:	Thickness of graph line
Line dash:	Enables line dash pattern
Fill under:	If true, the area under the line is filled with Color or gradient
Fill opacity:	Opacity of the filled area
best fit:	Set to straight to draw a best-fit line through the data points
Best fit Color:	Color of the best-fit line
Best fit width:	Width of the best-fit line in pixels
Best fit dash:	Dash pattern for the best-fit line

3. Pie Graph, pie 3D Graph

Aspect ratio:	Ratio of height/width or auto to fill area
Sort:	Sorts the pie slices, largest first
Reverse:	Slices are drawn anti-clockwise instead of clockwise
Start angle:	Angle in degrees to start the first slice at
Show Labels: Slice	Labeling on/off option
Show Label key:	Display slice index or name
Show Label amount:	Display slice value
Pie units Label:	Units Shown after value in Label, for example pounds, cm, calories, $,or any other units
Pie units before Label:	Units Shown before value in Label, for example pounds, cm, calories, $,or any other units
Show Label percent:	Display slice percentage
Label percent decimals:	Number of decimal places in percentage
pie Label Color:	Color of Label text
Label back Color:	Label background Color
Pie Label font:	Font for Labels
Pie Label font size:	Label font size

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pie Label font weight:	Label font weight
Label fade in speed:	Speed to fade in Labels 0-100, 0 disables
Label fade out speed:	Speed to fade out Labels, if fading in is enabled Just for 3D
Depth:	Depth of the pie slice

Legend

Legend title:	Title for Legend
Legend title Color:	Font Color of Legend title
Legend title font:	Font of Legend title
Legend title font size:	Font size of Legend title
Legend title font weight:	Font weight of Legend title
Legend position:	Position of the Legend
Legend padding:	Amount of spacing between entries in Legend
Legend entry width:	Width of Legend entry box
Legend entry height:	Height of Legend entry box
Legend font:	Font for Legend entries
Legend font size:	Font size for Legend entries
Legend font weight:	Font weight for Legend entries
Legend Color:	Color of Legend entries text
Legend back Color:	Color of Legend background
Legend round:	Radius of rounded corners for Legend border
Legend stroke Color:	Color of Legend border
Legend stroke width:	Thickness of Legend border
Legend shadow opacity:	How dark the shadow is 100% = black, none = no shadow
Legend text side:	Which side of the entry box the text should be on left or right
Legend draggable:	Makes the Legend draggable with the mouse
Legend autohide:	Makes the Legend hide when the cursor is over it

Tool tip

Show Tooltips:	Enables display of Tooltips over graph Markers
Tooltip font:	Font for Tooltips
Tooltip font size:	Tooltip font size
Tooltip font weight:	Tooltip font weight
Tooltip Color:	Tooltip text/border Color
Tooltip stroke width:	Tooltip border thickness
Tooltip round:	Radius of rounded Tooltip corner
Tooltip back Color:	Tooltip rectangle background Color
Tooltip padding:	Tooltip rectangle padding
Tooltip shadow opacity:	Opacity of Tooltip shadow none-100%, none disables shadow

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