




# googleVis

Data Products

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# Google Vis API



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Annotation Charts New!

Area Charts

Bar Charts

Bubble Charts

Calendar Charts New!

Candlestick Charts

Column Charts

Combo Charts

Diff Charts

Gauge Charts

## Chart Gallery

Our gallery provides a variety of charts designed to address your data visualization needs. These charts are based on pure HTML5/SVG technology (adopting VML for old IE versions), so no plugins are required. All of them are interactive, and many are pannable and zoomable. Adding these charts to your page can be done in [a few simple steps](#).

Some additional community-contributed charts can be found on the [Additional Charts page](#).

### Geo Chart



### Scatter Chart



### Column Chart



<https://developers.google.com/chart/interactive/docs/gallery>

# Basic idea

- The R function creates an HTML page
- The HTML page calls Google Charts
- The result is an interactive HTML graphic

# Example

```
suppressPackageStartupMessages(library(googleVis))
```

```
## Warning: package 'googleVis' was built under R version 3.0.3
```

```
M <- gvisMotionChart(Fruits, "Fruit", "Year", options = list(width = 600, height = 400))  
print(M, "chart")
```

# Charts in googleVis

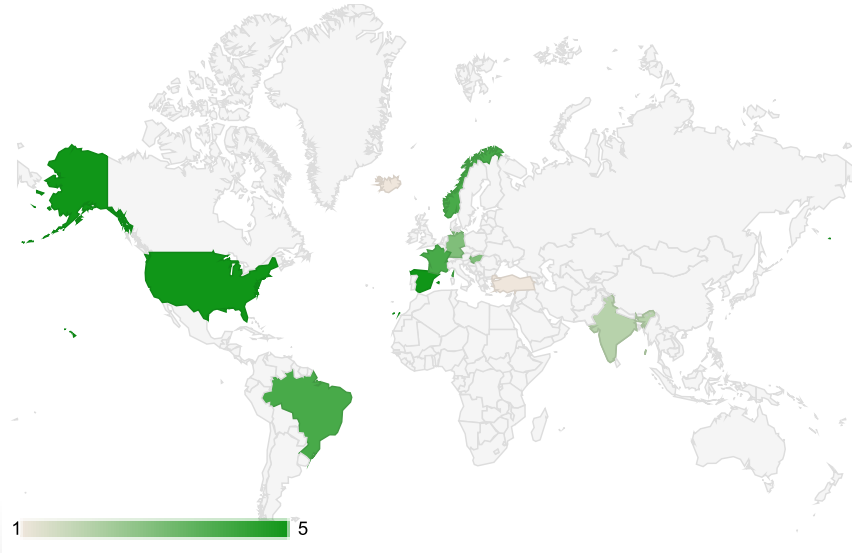
"gvis + ChartType"

- Motion charts: `gvisMotionChart`
- Interactive maps: `gvisGeoChart`
- Interactive tables: `gvisTable`
- Line charts: `gvisLineChart`
- Bar charts: `gvisColumnChart`
- Tree maps: `gvisTreeMap`

<http://cran.r-project.org/web/packages/googleVis/googleVis.pdf>

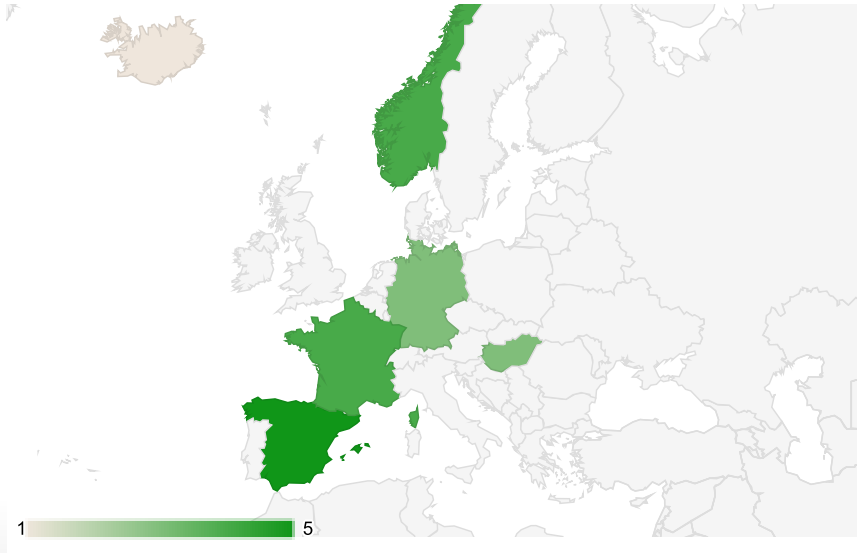
# Plots on maps

```
G <- gvisGeoChart(Exports, locationvar = "Country", colorvar = "Profit", options = list(width = 600,  
  height = 400))  
print(G, "chart")
```



# Specifying a region

```
G2 <- gvisGeoChart(Exports, locationvar = "Country", colorvar = "Profit", options = list(width = 600,  
  height = 400, region = "150"))  
print(G2, "chart")
```



# Finding parameters to set under options

## Configuration Options

Name	Type	Default	Description
backgroundColor	string or object	white	The background color for the main area of the chart. Can be either a simple HTML color string, for example: 'red' or '#00cc00', or an object with the following properties.
backgroundColor.fill	string	white	The chart fill color, as an HTML color string.
backgroundColor.stroke	string	'#666'	The color of the chart border, as an HTML color string.
backgroundColor.strokeWidth	number	0	The border width, in pixels.
colorAxis	Object	null	An object that specifies a mapping between color column values and colors or a gradient scale. To specify properties of this object, you can use object literal notation, as shown here: <pre>{minValue: 0, colors: ['#FF0000', '#00FF00']}</pre>
colorAxis.minValue	number	Minimum value of color column in chart	If present, specifies a minimum value for chart color data. Color data values of this value and lower will be rendered as the first color in the

<https://developers.google.com/chart/interactive/docs/gallery/geochart>



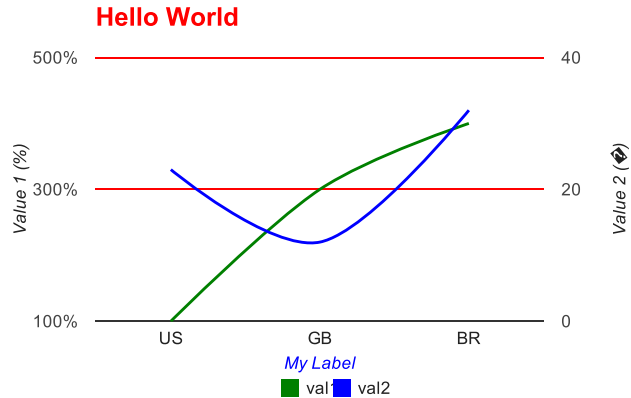
# Setting more options

```
df <- data.frame(label=c("US", "GB", "BR"), val1=c(1,3,4), val2=c(23,12,32))
Line <- gvisLineChart(df, xvar="label", yvar=c("val1","val2"),
  options=list(title="Hello World", legend="bottom",
    titleTextStyle="{color:'red', fontSize:18}",
    vAxis="{gridlines:{color:'red', count:3}}",
    hAxis="{title:'My Label', titleTextStyle:{color:'blue'}}",
    series="[{color:'green', targetAxisIndex: 0},
      {color: 'blue',targetAxisIndex:1}]",
    vAxes="[ {title:'Value 1 (%)', format:'##,#####%'},
      {title:'Value 2 (\U00A3)'} ]",
    curveType="function", width=500, height=300
  ))
```

[https://github.com/mages/Introduction\\_to\\_googleVis/blob/gh-pages/index.Rmd](https://github.com/mages/Introduction_to_googleVis/blob/gh-pages/index.Rmd)

# Setting more options

```
print(Line, "chart")
```



# Combining multiple plots together

```
G <- gvisGeoChart(Exports, "Country", "Profit",options=list(width=200, height=100))
T1 <- gvisTable(Exports,options=list(width=200, height=270))
M <- gvisMotionChart(Fruits, "Fruit", "Year", options=list(width=400, height=370))
GT <- gvisMerge(G,T1, horizontal=FALSE)
GTM <- gvisMerge(GT, M, horizontal=TRUE,tableOptions="bgcolor=\"#CCCCCC\" cellspacing=10")
```

# Combining multiple plots together

```
print(GTM, "chart")
```

# Seeing the HTML code

```
M <- gvisMotionChart(Fruits, "Fruit", "Year", options = list(width = 600, height = 400))
print(M)
```

```
## <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
##   "http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">
## <html xmlns="http://www.w3.org/1999/xhtml">
## <head>
## <title>MotionChartID23187d102a5b</title>
## <meta http-equiv="content-type" content="text/html; charset=utf-8" />
## <style type="text/css">
## body {
##   color: #444444;
##   font-family: Arial,Helvetica,sans-serif;
##   font-size: 75%;
## }
## a {
##   color: #4D87C7;
##   text-decoration: none;
## }
## </style>
```

# Things you can do with Google Vis

- The visualizations can be embedded in websites with HTML code
- Dynamic visualizations can be built with Shiny, Rook, and R.rsp
- Embed them in [R markdown](#) based documents
  - Set `results="asis"` in the chunk options
  - Can be used with [knitr](#) and [slidify](#)

# For more info

```
demo(googleVis)
```

- <http://cran.r-project.org/web/packages/googleVis/vignettes/googleVis.pdf>
- <http://cran.r-project.org/web/packages/googleVis/googleVis.pdf>
- <https://developers.google.com/chart/interactive/docs/gallery>
- <https://developers.google.com/chart/interactive/faq>