

# kmaps

François Briatte

February 6, 2013

## Description

This note documents a code snippet that I use to produce maps like the ones on the next page. It might help people working on European country-level data, which is fairly common in comparative politics.

The code works with the companion dataset and ESRI shapefiles, matched by ISO-2 alphabetical country codes; see README for a description of sources. If you find a way to optimize the code, please let me know.

## Packages

You will need R and the `rgeos` package to read the maps and join them to the data with the `fortify` function. You will also need `ggplot2` and a few other packages to draw the maps with maximum gusto.

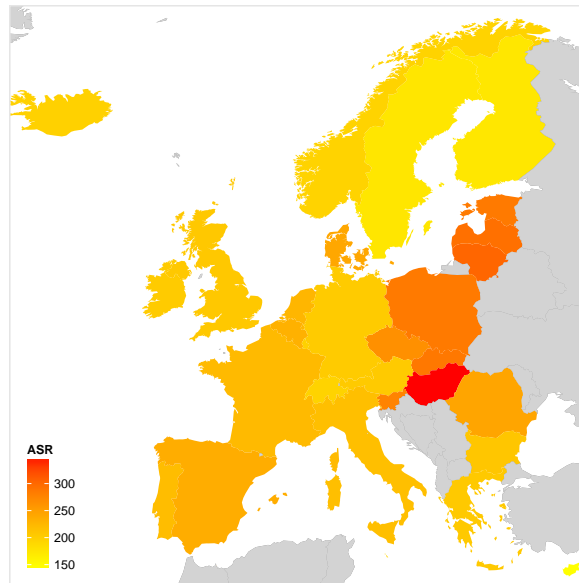
The most important chunk of code follows. It matches the map polygons to the data frame object.

```
map@data$id <- rownames(map@data)
map.points <- fortify(map, region = "id")
map.df <- join(map.points, map@data, by = "id")
map.df <- join(map.df, eco, by = "iso2")
```

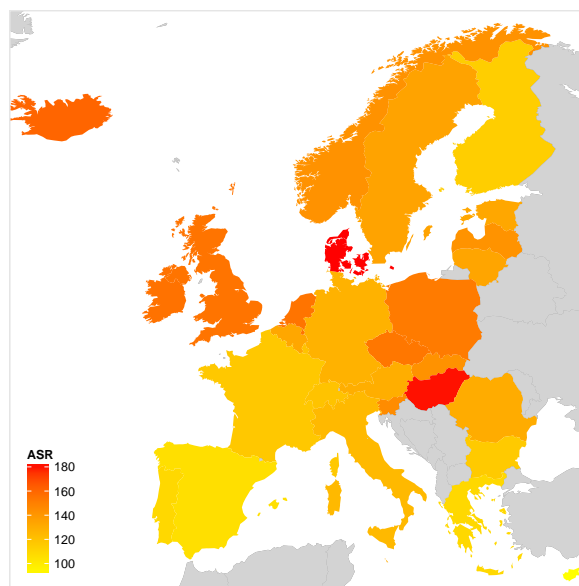
## Coordinates

The map is tentatively centred on the European Union by passing Cartesian coordinates to `ggplot2`. I use a range of  $[-24, 35]$  for longitude and  $[34, 72]$  for latitude.

The next page shows two examples.



(a) Males



(b) Females

Figure 1: Estimated cancer mortality in European countries, 2008. Age-standardised rates for all sites but non-skin melanoma per 100,000 population.

Data: European Cancer Observatory. Maps: GISCO – Eurostat, European Commission, 2006. © [EuroGeographics](#) for the administrative boundaries.

## Credits

Thanks go to [Baptiste Coulmont](#) and [Roger Peng](#) for helping a lot with bugs, to [Joël Gombin](#) and [Éric Verdeil](#) for commenting on early drafts, and to [Osmo Salomaa](#) and [Hadley Wickham](#) for contributing some code fragments.

Typeset with  $\text{\TeX}$  and [knitr](#) in [RStudio](#).