

kmaps

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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, the `maptools` package to read the maps and join them to the data with the `fortify` function of the `gpclib()` library. You will also need `ggplot2` to draw the maps with maximum gusto.

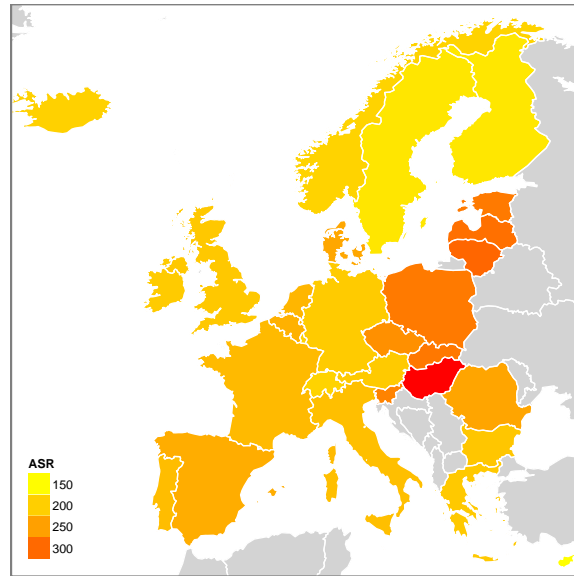
The most important chunk of code follows:

```
# Match.  
map@data$id <- rownames(map@data) # coded by Hadley Wickham (thanks!)  
map.points <- fortify(map, region = "id") # fixed by Roger Peng (thanks!)  
map.df <- join(map.points, map@data, by = "id") # match map and rows  
map.df <- join(map.df, eco, by = "iso2") # match map and data
```

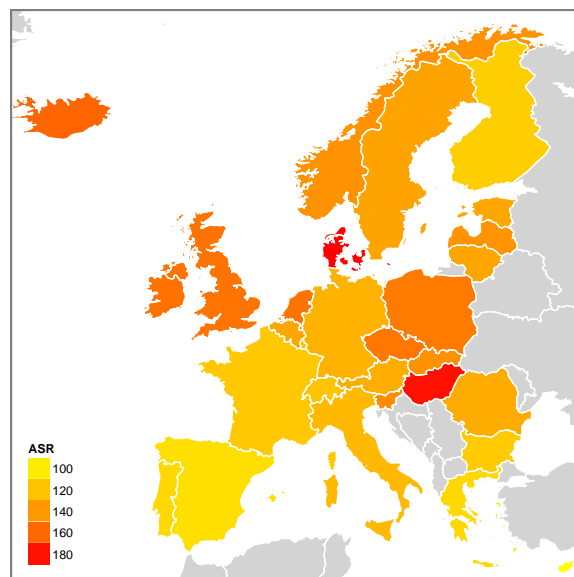
Coordinates

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 a range of `[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.

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.

Additional help was also available at all times from the [Stack Exchange](#) network.

Typeset with \TeX and [knitr](#) in [RStudio](#).