

A brief intro

The scripting environment R offers a cosmos of methods for dealing with data. Nevertheless R is also a major player for the utilization of spatial data. Most GI user will consider this to be the domain of GIS software. This assessment is certainly reliable for a lot of developing and interactive GI-tasks. The major players like QGIS or Grass are powerful tools for scientific and applied issues. Nevertheless using R will open your mind to a much more lightweight, but equally effective toolbox. This becomes even more important if one deals with big data or a lot of different and not well organized data sources typically integrated in more or less complex analytical workflow and modeling approaches.

The power of R relies mostly on it's flexibility and on an incredible number of add-on packages.

The most ugliest task in an spatial scientist life is probably the never-ending task of data pre- and postprocessing. It takes on average more than half of the workflow and the tendency is increasing. There are some nasty aspects of using spatial data within the analytical workflow. To name the most important ones:

- countless defined but nevertheless complicated data formats.
- even more data that is poorly structured as text or if you are lucky as tables
- countless projections and spatial approaches to localize this data
- steadily increasing amount of data that has to be integrated in near real time or real time

If you want to work somewhere at the cutting edge you have to deal with this issues. R is offering the most effective environment for non programmers as geographers ecologists biologists and so on.

The micro-tut series. tries to offer an opportunity to dive into R from an very applied point of view. It provides chunks of code that deal with real micro problems and that offers one reliable solution.

Some remarks

For everybody's convenience all example data is from the real world. So you have to download and integrate data sets as you will find them in wildlife. We will integrate this task into the tuts as well as the installation and modifications of the R packages and versions.

Nevertheless please mention that especially R is a cosmos of highly diverse approaches to solve a problem, so we do not claim that the shown solutions are the best, or most effective, or the most R style ones....

We just claim that they work 😊 - nonetheless any contribution is highly appreciated!

Have fun!

— [Christoph Reudenbach](#) 2014/12/27 11:39

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