Creating your Own R Packages

Making research reproducible and transparent is a fundamental scientific principle which is gaining more and more attention in regard to software tools. Besides automated reporting using R Markdown (see separate workshop), bundling up data analyses into a dedicated R package can make a major contribution towards these goals.

R code in packages is easily re-usable, easy to maintain and develop, and avoids error-prone copy & paste workflows. R code in packages is easily re-usable, easy to maintain and develop, and avoids error-prone copy & paste workflows. Functions in your own packages can be documented in the same style as functions in Base R, so that users can call help pages in the usual way.

The R package structure bundles functions and their documentation together, which simplifies application of your own functions for yourself, future-you and your colleagues.

Today, thanks to a number of helper tools, creating your own R package is much easier than you might expect!

Content

- Why and when to create your own R package
- Your first package in five minutes: Folder structure and basic files

- Creating your own functions, integrating them into your package, and documenting them
- Integrating data into a package and documenting it
- Checks and tests
- Best practices, notes on publishing / distributing your package

Preconditions

Please note that this workshop is not suited for total newcomers to R. Participants should be familiar with basic data structures (vectors, data frames), have carried out some data analyses in R and possibly have written or at least seen a user-defined function.

The Introduction to R workshop, coupled with some R practice of your own, should be sufficient preparation.

Trainer: Wolf Riepl

This course will be held in English and online.



