Intermediate meta-analysis of data from animal studies in R: Pre-Course Setup Guide

Below are instructions on how to set-up R, RStudio and Git on your laptop. Please note, university-managed laptops may require administrative permissions to install software, please contact your IT department.

If this is the first time you are using R, and you would like to actively contribute to the code-along sessions during the workshop, then we recommend getting familiar with the basics of R with a free short course (4hrs) on DataCamp. Make a free user account and start learning here: https://www.datacamp.com/courses/free-introduction-to-r

Installation Instructions: R & RStudio

Step 1: Install R

Go to the CRAN website: https://cran.r-project.org

Choose your operating system (Windows, macOS, Linux) and follow the installation instructions.

Step 2: Install RStudio

Visit https://www.rstudio.com/products/rstudio/download/

Download the free desktop version and install it.

Step 3: Open RStudio and Install Required Packages

Open RStudio and run the following command in the Console:

install.packages(c("metafor", "meta", "tidyverse"))

This installs the three main packages used in the course.

Step 4: Test the Installation

Run this code in RStudio to check everything is working:

library(metafor)
library(meta)
library(tidyverse)

If no errors appear, you're good to go!

Troubleshooting Tips

- If you get an error about permissions, try running RStudio as administrator.

- For macOS, you may need to allow installations from "identified developers" in your system preferences.

- Join the drop-in session or ask for help via Slack/Discord if anything doesn't work.

Installation Instructions: Github & Git

Step 5: Set Up Git and Connect to GitHub

To fully use GitHub with RStudio, follow the guide from Happy Git with R:

1. **Install Git**:
   a. Windows: https://git-scm.com/download/win
   b. macOS: Git is often pre-installed, or use `xcode-select --install`
   c. Linux: Use your package manager, e.g., `sudo apt install git`
2. **Configure Git**: Open RStudio Console and run:

```
usethis::use_git_config(user.name = "Your Name", user.email =
"you@example.com")
```

3. **Create a GitHub account**: https://github.com/join
4. **Generate a personal access token** and set it up in RStudio using:

```
usethis::create_github_token()
```

Then store it securely with:

```
gitcreds::gitcreds_set()
```

Refer to the full walkthrough here: https://happygitwithr.com/

Step 6: Access the Course GitHub Repository

We will use the following GitHub repository for course materials:

https://github.com/camaradesberlin/Intermediate-MA-workshop

To clone the repository (recommended):

1. Open RStudio.
2. Go to *File > New Project > Version Control > Git*.

3. Paste this URL: https://github.com/DanielSchulzeIbike/learnIAD-MA
4. Choose a folder on your computer to save the project.
5. Click **Create Project**.

This will allow you to run R scripts directly from the course repo in RStudio.

If you're not using Git:

- Simply go to the GitHub page and click the green **"Code"** button > **"Download ZIP"**.
- Unzip the folder and open it in RStudio.

Troubleshooting Tips

- Check Git installation: run `git --version` in your terminal or shell.
- For issues with credentials or GitHub connection, follow Happy Git with R
- Ask for help during the drop-in sessions or via Slack/Discord.

If you have any questions or need further assistance or information, please do not hesitate to contact us at camarades.berlin@charite.de.