

Tools for Reproducible Research

Week 1 Homework

1. Install a bunch of software on your laptop.

(a) Windows

- **R**
- **Rtools** (includes **make**)
- **RStudio**
- **Git Bash**
- An editor, such as **Notepad++**
- **MikTeX** (for LaTeX)
- Add `c:\Program Files\R\R-3.1.2\bin` to your PATH variable (for example, see [this page](#)).

(b) Mac

- **R**
- **RStudio**
- Xcode command line tools (see [this page](#))
- **git** (via **Homebrew**: `brew install git`)
- Perhaps **iTerm2**
- An editor, such as **Sublime Text**
- **MacTeX** or **BasicTeX** (for LaTeX)

2. Download the course repository.

(a) Open a terminal window.

(b) Type `git clone git://github.com/kbroman/Tools4RR`

3. Try out GNU Make.

(a) Change to the Lec 1 examples directory:

```
cd Tools4RR/01_Intro/Examples
```

(b) Create a subdirectory for the figures:

```
mkdir Figs
```

(c) Use **make** to create `Figs/fig1.pdf`:

```
make Figs/fig1.pdf
```

(d) Make the whole paper:

```
make
```

(e) Use the `Makefile_fancy` file to remove all the pdfs:

```
make -f Makefile_fancy clean
```