
Git/GitLab for R Users

DIW R User Group, June 7th, 2018

Leibniz

Git: Distributed Version Control System

version control system:

- tracks changes in computer files (text files) and coordinates work on those files among multiple people
























































distributed:

- no central server needed
- but we use a GitLab server, which offers some nice features

Git: (Not) Use Cases

- plain text files, like your R code (or tex files)
- explicitly declare a new version (“commit”) and include a “commit message”
- restore previous versions
- work simultaneously even on the same file
- no collaboration on binary files (e.g. Excel, Stata data, PDF)
 - this would result in “conflicts” which cannot easily be solved
- no need to be always online

Git: Simple Workflow

		git clone		git add git commit git push			git pull		git add git commit git push
Jane			 	 	 		  	   	   
GitLab				 	 	 	  	  	   
Bob				 	 	  	  	  	  
		git clone			git add git commit git push	git pull	git push		

Installation

- Git and DiffMerge via green puzzle
- some initial [configuration](#), also for [DiffMerge](#)
- no additional account needed for git.soep.de
 - use windows credentials
 - if external collaborators need account: email

Using Git/GitLab

```
MINGW64:/d/lokal/diw-r-meetings

kwenzig@DIW-15-032 MINGW64 /
$ cd /d/lokal/

kwenzig@DIW-15-032 MINGW64 /d/lokal
$ git clone https://git.soep.de/DIW-R-Users/diw-r-meetings.git
Cloning into 'diw-r-meetings'...
remote: Counting objects: 112, done.
remote: Compressing objects: 100% (103/103), done.
remote: Total 112 (delta 19), reused 0 (delta 0)
Receiving objects: 100% (112/112), 8.07 MiB | 11.78 MiB/s, done.
Resolving deltas: 100% (19/19), done.

kwenzig@DIW-15-032 MINGW64 /d/lokal
$ cd diw-r-meetings/

kwenzig@DIW-15-032 MINGW64 /d/lokal/diw-r-meetings (master)
$ ls -l
total 16
drwxr-xr-x 1 kwenzig 1049089 0 Jun  7 11:49 2016_06_10_ggplot2/
drwxr-xr-x 1 kwenzig 1049089 0 Jun  7 11:49 2016_09_28_testthat/
drwxr-xr-x 1 kwenzig 1049089 0 Jun  7 11:49 2016_10_10_knitr/
drwxr-xr-x 1 kwenzig 1049089 0 Jun  7 11:49 2016_12_12_datatable/
drwxr-xr-x 1 kwenzig 1049089 0 Jun  7 11:49 2017_06_01_pipe_tidy/
```

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