When working with different computers at home or work, one of the  
problems I have is installing missing packages across different  
computers. As an example, a script that works in my **work computer** may  
not work in my **home computer**. This is specially annoying when I have a  
fresh install of the operating system or R. In this case, I must  
manually install all packages, case by case. Instead of focusing on the  
script at hand, I spend considerable time finding and installing missing  
packages. When using laptops for teaching R, many times I had to wait  
for the installation of a package before continuing the class. With my  
new package, PkgsFromFiles, I can scan any folder of my computer and  
install all necessary packages **before** using them, as we will soon  
learn.

One of the available solutions to this problem is to use package  
[pacman](https://cran.r-project.org/package=pacman). It includes  
function p\_load that will check if a package is available and, if not,  
install it from CRAN. However, for me, I like using library and  
require as it is consistent with my code format. Also, in a fresh R  
install, I rather install all my required packages in a single run so  
that I don’t have to wait later.

Package PkgsFromFiles solves this issue by finding and parsing all R  
related files (.R, .Rmd, .Rnw) from a given folder. It finds all calls  
to library() and require() and installs all packages that are not  
available locally.

**Installation**

# from cran (soon!)

install.packages('PkgsFromFiles')

# from github

if (!require(devtools)) install.packages('devtools')

devtools::install\_github('msperlin/PkgsFromFiles')

**Usage**

The main function of the package is pff\_find\_and\_install\_pkgs, which  
will search and install missing packages from R files at a given  
directory. As an example, we’ll use my research folder from Dropbox. It  
contains all R script I have ever used in my research work. Let’s try it  
out:

# Evaluation is disable so it passes CRAN CHECKS, but you should be able to run it in your computer

library(PkgsFromFiles)

# target folder

my.dir <- '~/Dropbox/01-Pesquisa/'

df <- pff\_find\_and\_install\_pkgs(folder.in = my.dir)

##

## Searching folder ~/Dropbox/01-Pesquisa/

## Found 32 files in 11 folders

## R Scripts: 32 files

## Rmarkdown files: 0 files

## Sweave files: 0 files

## Checking available pkgs from https://cloud.r-project.org

## Checking and installing missing pkgs

## Installing dplyr Already installed

## Installing stringr Already installed

## Installing GetDFPData Already installed

## Installing xlsx Already installed

## Installing googlesheets Already installed

## Installing dplyr Already installed

## Installing purrr Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing dplyr Already installed

## Installing stringr Already installed

## Installing purrr Already installed

## Installing purrr Already installed

## Installing GetDFPData Already installed

## Installing dplyr Already installed

## Installing stringr Already installed

## Installing BatchGetSymbols Already installed

## Installing lubridate Already installed

## Installing purrr Already installed

## Installing GetDFPData Already installed

## Installing dplyr Already installed

## Installing stringr Already installed

## Installing plm Already installed

## Installing stargazer Already installed

## Installing RoogleVision Instalation failed, pkg not in CRAN

## Installing dplyr Already installed

## Installing rvest Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing XML Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing rvest Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing XML Already installed

## Installing fst Already installed

## Installing furrr Already installed

## Installing stringr Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing genderBR Already installed

## Installing BatchGetSymbols Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing sandwich Already installed

## Installing stargazer Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing plm Already installed

## Installing stargazer Already installed

## Installing lmtest Already installed

## Installing MatchIt Already installed

## Installing stringr Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing genderBR Already installed

## Installing BatchGetSymbols Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing tidyverse Already installed

## Installing furrr Already installed

## Installing fst Already installed

## Installing lubridate Already installed

## Installing ggplot2 Already installed

## Installing GetDFPData Already installed

## Installing plm Already installed

## Installing stargazer Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing furrr Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing furrr Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing GetLattesData Already installed

## Installing furrr Already installed

## Installing tidyverse Already installed

## Installing purrr Already installed

## Installing GetLattesData Already installed

## Installing furrr Already installed

## Installing lubridate Already installed

## Installing tidyverse Already installed

## Installing lubridate Already installed

## Installing lubridate Already installed

## Installing RSelenium Already installed

## Installing stringr Already installed

## Installing RSelenium Already installed

## Installing stringr Already installed

## Installing XML Already installed

## Installing httr Already installed

## Installing stringr Already installed

## Installing XML Already installed

## Installing dplyr Already installed

## Installing stringr Already installed

## Installing tidyverse Already installed

## Installing GetDFPData Already installed

## Installing xlsx Already installed

## Installing stringr Already installed

## Installing XML Already installed

##

## Summary:

## Found 126 packages already installed

## Had to install 0 packages

## Instalation failed for 1 packages

## 1 due to package not being found in CRAN

## 0 due to missing dependencies or other problems

##

## Check output dataframe for more details about failed packages

As you can see, function pff\_find\_and\_install\_pkgs will find all R  
related files recursively in the given folder. In this case, I have all  
packages locally so no installation was required. A summary in text is  
shown at the end of execution.

The output of the function is a dataframe with the details of the  
operation. Have a look:

dplyr::glimpse(df)

## Observations: 127

## Variables: 3

## $ pkg "dplyr", "stringr", "GetDFPData", "xlsx", "goog...

## $ status.message "Already installed", "Already installed", "Alre...

## $ installation TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE, TRUE,...

The package also includes function pff\_find\_R\_files\_from\_folder, which  
will find all packages used in R related files from a given folder. It  
outputs a dataframe with several information about packages used in the  
found scripts.

df.files <- pff\_find\_R\_files\_from\_folder(folder.in = my.dir)

##

## Searching folder ~/Dropbox/01-Pesquisa/

## Found 32 files in 11 folders

## R Scripts: 32 files

## Rmarkdown files: 0 files

## Sweave files: 0 files

dplyr::glimpse(df.files)

## Observations: 32

## Variables: 5

## $ files "/home/msperlin/Dropbox/01-Pesquisa//01-Working Pap...

## $ file.names "01-Build\_Presidents\_Table.R", "02-DownloadPictures...

## $ extensions "R", "R", "R", "R", "R", "R", "R", "R", "R", "R", "...

## $ pkgs "dplyr ; stringr ; GetDFPData ; xlsx", "googlesheet...

## $ n.pkgs 4, 4, 1, 3, 6, 6, 2, 4, 3, 6, 9, 6, 8, 5, 4, 1, 9, ...

I also wrote a simple function for plotting the most used packages for a  
given folder:

# target folder

my.dir <- '~/Dropbox/01-Pesquisa/'

# plot most used pkgs

p <- pff\_plot\_summary\_pkgs(folder.in = my.dir)

##

## Searching folder ~/Dropbox/01-Pesquisa/

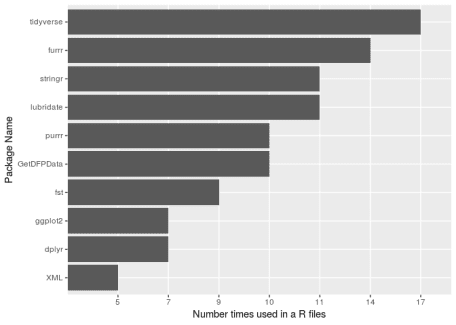
## Found 32 files in 11 folders

## R Scripts: 32 files

## Rmarkdown files: 0 files

## Sweave files: 0 files

print(p)



As you can see, I’m a big fan of the tidyverse!