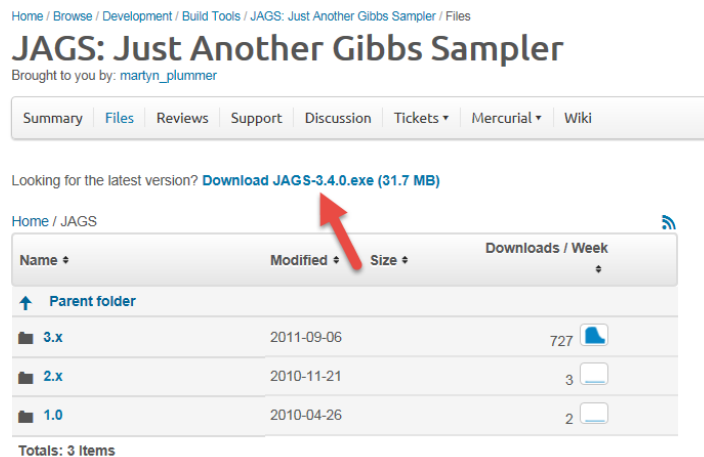


How to install the R-package “crmPack” for model-based dose escalation in R

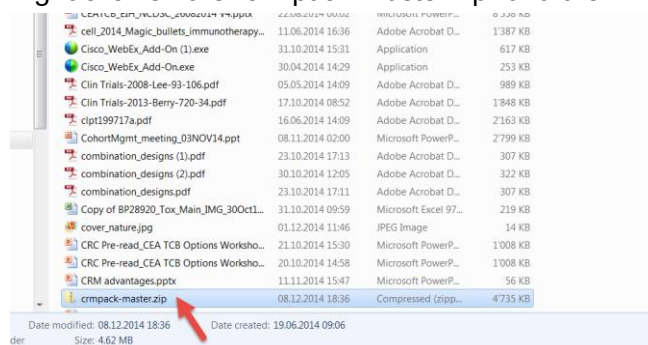
Daniel Sabanes

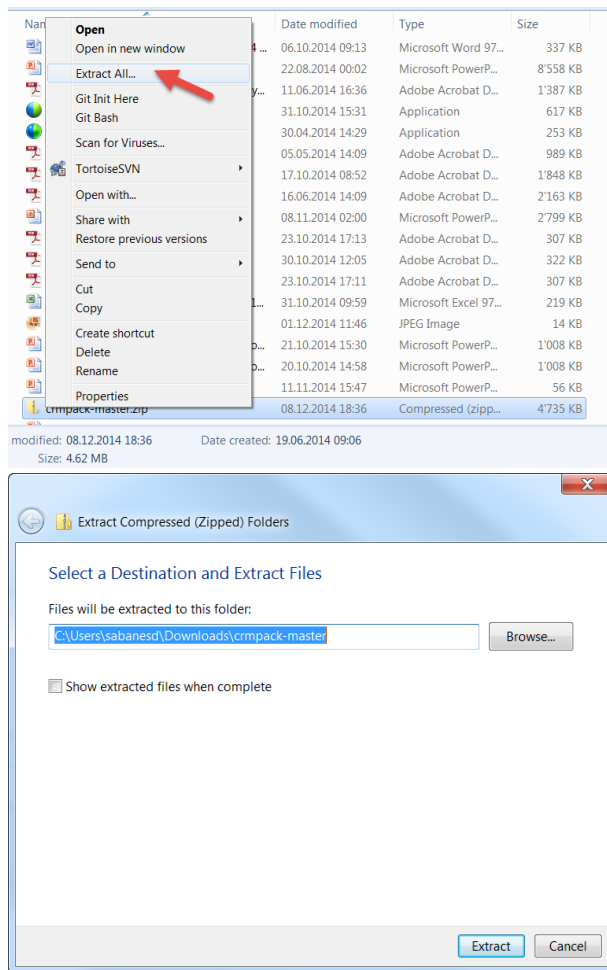
Version 1.0 (December 2014)

1. First, you have to install JAGS (“Just Another Gibbs Sampler”).
 - a. Click on the following link to visit the JAGS webpage:
<http://sourceforge.net/projects/mcmc-jags/files/JAGS/>
 - b. Download the JAGS installation program suitable for your computer by clicking on the top link in the JAGS webpage:



- c. Run the JAGS installation program by executing the downloaded file, and clicking through and confirming all installation setup steps.
(Note that this requires you to have administrative rights on your machine.)
2. Now we will download the latest version of the R-package “crmPack”.
 - a. Download the R-package zip-file from the following link:
<https://stash.intranet.roche.com/stash/plugins/servlet/archive/projects/RSTAT/repos/crmPack?at=refs%2Fheads%2Fmaster>
Save the zip-file crmpack-master.zip to your downloads directory.
 - b. In your file manager, go to your downloads directory.
Right click on the “crmpack-master.zip” and then “Extract all”:





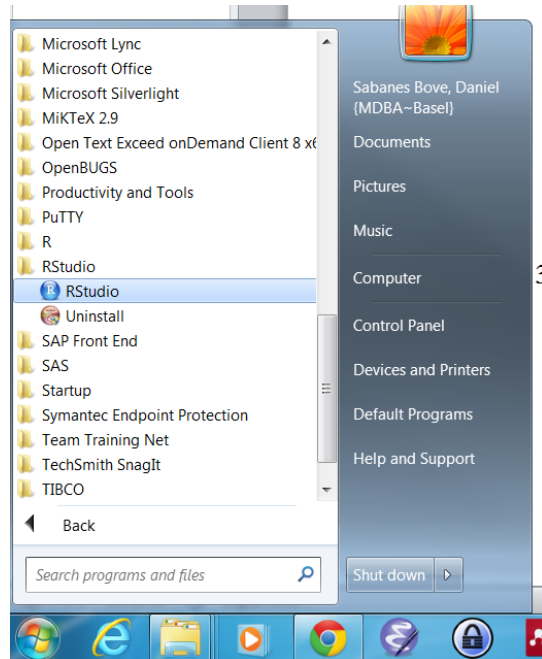
Here the directory path is already selected, please copy it to a note file (or email). We will need it later.

- c. Only after copying the directory path to your note file, click “Extract”. You obtain the folder crmpack-master:

Name	Date modified	Type	Size
Applications	16.10.2014 15:44	File folder	
Bayesian sample size calculations in phas...	11.09.2014 14:59	File folder	
BP28920	16.12.2013 08:30	File folder	
bugs	22.05.2014 15:05	File folder	
crmpack-master	08.12.2014 18:41	File folder	
egg-master	19.06.2014 12:33	File folder	
MulticLean_V2.1.0_WithFX4.0	30.04.2014 10:20	File folder	
phase1b-master	20.11.2014 15:57	File folder	
Shiny HangOut via WebEx - Session 1-20...	08.11.2014 04:21	File folder	
.roche,1805058624,-2087053197,MC,0-0,S...	26.11.2014 15:19	Application	185 KB
0_CEA TCB_08_Oct_2014_agenda.doc	07.10.2014 15:21	Microsoft Word 97...	53 KB

3. Now we will install the R-package “crmPack” into your R library.

- a. Open R-Studio.



- b. First you have to install some required packages, with the following command – please copy it into your R console:

```
install.packages(c("Rcpp", "RcppArmadillo", "rjags", "ggplot2", "gridExtra", "GenSA", "BayesLogit", "mvtnorm"),  
dependencies=TRUE)
```

Please be patient as this may take a minute.

- c. Copy the following line into the R console:

```
install.packages("xxx", repos=NULL, type="source")
```

and replace **xxx** by the directory name from your note file (see Step 2 b). Please replace the backslashes \ by forward slashes /. Otherwise it will not work!

It should look like this:

```
Console ~\ - RStudio

R version 3.1.0 (2014-04-10) -- "Spring Dance"
Copyright (C) 2014 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)

R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.

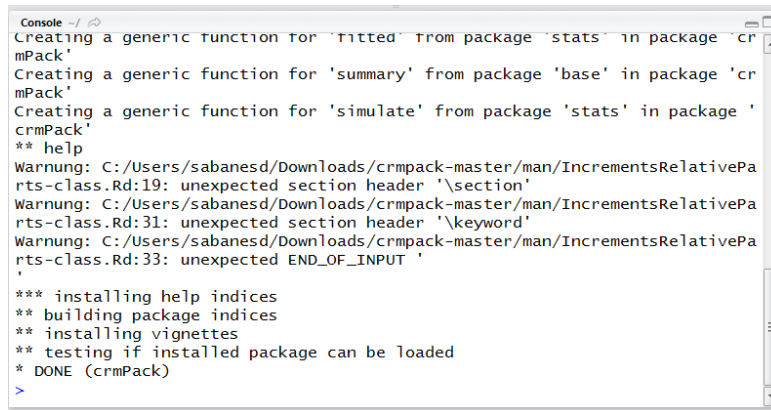
R is a collaborative project with many contributors.
Type 'contributors()' for more information and
'citation()' on how to cite R or R packages in publications.

Type 'demo()' for some demos, 'help()' for on-line help, or
'help.start()' for an HTML browser interface to help.
Type 'q()' to quit R.

> install.packages("C:/Users/sabanesd/Downloads/crm-pack-master", repos=NULL,  
type="source")
```

Press Enter then.

d. The successful installation looks like this:



```
Console ~/
Creating a generic function for 'fitted' from package 'stats' in package 'crmPack'
Creating a generic function for 'summary' from package 'base' in package 'crmPack'
Creating a generic function for 'simulate' from package 'stats' in package 'crmPack'
** help
Warning: C:/Users/sabanesd/Downloads/crmPack-master/man/IncrementsRelativePa
rts-class.Rd:19: unexpected section header '\section'
Warning: C:/Users/sabanesd/Downloads/crmPack-master/man/IncrementsRelativePa
rts-class.Rd:31: unexpected section header '\keyword'
Warning: C:/Users/sabanesd/Downloads/crmPack-master/man/IncrementsRelativePa
rts-class.Rd:33: unexpected END_OF_INPUT '
'
*** installing help indices
** building package indices
** installing vignettes
** testing if installed package can be loaded
* DONE (crmPack)
>
```

4. Before you can use the R-package “crmPack”, you have to load it into your R session, by typing the command

```
library("crmPack")
```

into your console.

Note that you have to do *this again* for each *new R session*!

On the other hand, you only have to do the *installation* process *once* on your machine.