tdllicor

R package installation and execution

(updated by Erik Erhardt, 10/17/2012)

**Install software**

*R and Perl are required. Rstudio may make your experience more enjoyable.*

1. R (requires R 2.15.1+)
   1. <Windows> (<http://cran.r-project.org/bin/windows/base/>) or
   2. <Mac> (<http://cran.r-project.org/bin/macosx/>)
2. Rstudio
   1. [Rstudio](http://www.rstudio.org/download/) (<http://www.rstudio.org/download/>) nicer GUI
3. Perl
   1. Mac and linux, you already have it installed
   2. Windows
      1. <http://www.activestate.com/activeperl/downloads>
      2. Change the path variable to include c:\Perl\bin (or whatever it is on your machine): <http://www.java.com/en/download/help/path.xml>

**Install the tdllicor package**

*From the shared dropbox folder “./TDL\_R\_scripts/” install the current version of tdllicor.*

The package installation file will appear in a folder named something like

* ./tdllicor\_0.1-21\_20121017-R2.15.1-template4/

and will include two files, such as

* the package: **tdllicor\_0.1-21.tar.gz**
* and the template: **tdllicor\_template4.xls**

There doesn’t seem to be a way to install local packages within R anymore, so it has to be done from the command prompt.

From your shell or command prompt:

1. Windows, open your command prompt (cmd), change to directory with install file, and install it (you need to get the correct path, filename, and R command name).
   1. cd C:\[insert your path here]\TDL\_R\_scripts\tdllicor\_0.1-21\_20121017-R2.15.1-template4
   2. "C:\Program Files\R\R-2.15.1\bin\x64\R" CMD INSTALL tdllicor\_0.1-21.tar.gz
2. Mac, I can’t walk you through this since I don’t have access to a Mac right now, but it’s similar, probably something like this:
   1. cd ~/[insert your path here]/TDL\_R\_scripts/tdllicor\_0.1-21\_20121017-R2.15.1-template4
   2. R CMD INSTALL tdllicor\_0.1-21.tar.gz

Copy the template file to your data directory before you rename and edit it.

*Try to avoid using spaces in your directory and file names.*

**Analyze your TDL and/or Licor data**

1. Create a new data analysis directory, such as **./Name\_WT001**
2. Copy your TDL and Licor files into your new dir
3. Copy the **tdllicor\_template4.xls** into your new dir
4. Append a meaningful suffix to the .xls file, such as **tdllicor\_template4\_Name\_WT001.xls**
5. Edit the .xls file and specify the TDL and Licor filenames, and make any other necessary changes to template inputs.
6. Load the library: (see end of doc for the remaining steps all together)
   1. library(tdllicor)
7. Assign the xls filename to a variable
   1. input.fn <- "tdllicor\_template4\_Name\_WT001.xls"
8. Specify your new dir (using forward slashes for all systems)
   1. Mac, Linux:
      1. path <- "/Users/username/Analysis/Name\_WT001"
   2. Windows:
      1. path <- "C:/Dropbox/Analysis/Name\_WT001"
9. Run the analysis
   1. tdllicor(input.fn, path)
10. It will create an ./out directory where output files are created.
11. Documentation is available with ?tdllicor

*Use a block of code like this, set your file name and directory, and copy/paste into R.*

library(tdllicor)

input.fn <- "tdllicor\_template4\_Name\_WT001.xls"

path <- "/Users/username/Analysis/Name\_WT001" # Mac

path <- "C:/Dropbox/Analysis/Name\_WT001" # Windows

tdllicor(input.fn, path)