

Using R Together with Jupyter Notebook

Set up Jupyter Notebook on local PC

1. Install python and jupyter notebook using anaconda from website
<https://www.continuum.io/downloads>
2. Update pip by typing the command line 'python -m pip install -U pip' in Command Prompt
3. Install Rkernel for jupyter in two ways
 - Type command line 'conda install -c r ipython-notebook r-irkernel' and 'ipython notebook' in Command Prompt
 - Run R script below
install.packages(c('repr', 'IRdisplay', 'crayon', 'pbdZMQ', 'devtools'))
devtools::install_github('IRkernel/IRkernel')
in R 3.3
IRkernel::installspec(name = 'ir33', displayname = 'R 3.3')
in R 3.2
IRkernel::installspec(name = 'ir32', displayname = 'R 3.2')

Transform Rmd to md/ipynb - Notedown

4. Install notedown by typing the command line 'pip install
<https://github.com/aaren/notedown/tarball/master>'
5. Make sure R package 'knitr' has been installed
6. Create your Rmarkdown document
7. Convert Rmarkdown file
 - Rmd to md : typing the command line 'notedown input.Rmd --to markdown > output.md'
 - Rmd to ipynb : typing the command line 'notedown input.Rmd > output.ipynb'

Compare Rmd and ipynb

8. Rmd: you can only execute R code in all chunks by using single version of R at one time; R studio restart is required if changing the version of R.
9. Ipynb: you can switch R kernels without restarting Jupyter Notebook; you can also execute cells by using different R kernels and save the outputs timely