

Exercises in Empirical Industrial Organization and Consumer Choice

(Presentation: Tuesday, 2018-04-24T14:15 [2:15 p.m.], He18 R120)

To participate meaningfully in the exercise, it is necessary to solve these tasks beforehand and to bring your laptop with you to the exercise. Note that we may most certainly have a shortage in power outlets. Therefore, your laptop should either hold for the full 1.5 hours exercise or you should bring in a multi socket. Speculating to have one of the few seats with direct access to a power outlet is somewhat risky.

Exercise 1 - Setting up R and RStudio

- (a) Download and install *R 3.4.4* and RStudio onto your laptop.

Note: Even if you have already worked with *R*, this step is not optional. We are working with cutting edge technology here - your *R* version of the last semester may most likely break and/or be the reason for unexpected errors.

Solution:

Given you have a fairly modern windows machine with 64Bit the solution is as follows:

1. Go to [the windows section of cran to download the base version](#).
2. Download and install *R*. If you do not wish to have special configurations, you may click through the installing wizard without having to check/uncheck specific options.
3. Download and install *RStudio* onto your laptop. You should download the [RStudio Desktop Edition](#). Again, it is not necessary to check/uncheck special options if you do not want to do so.

- (b) Install the packages specified in *install packages.R* (downloadable via [Moodle](#)) including *RTutor* and *sktools*.

Solution:

1. Start *install packages.R* with RStudio after downloading it.

You may either start it via double click (potentially you have to go through the context menu to start it with RStudio) or via starting RStudio and opening it from within. You should now see the following window:

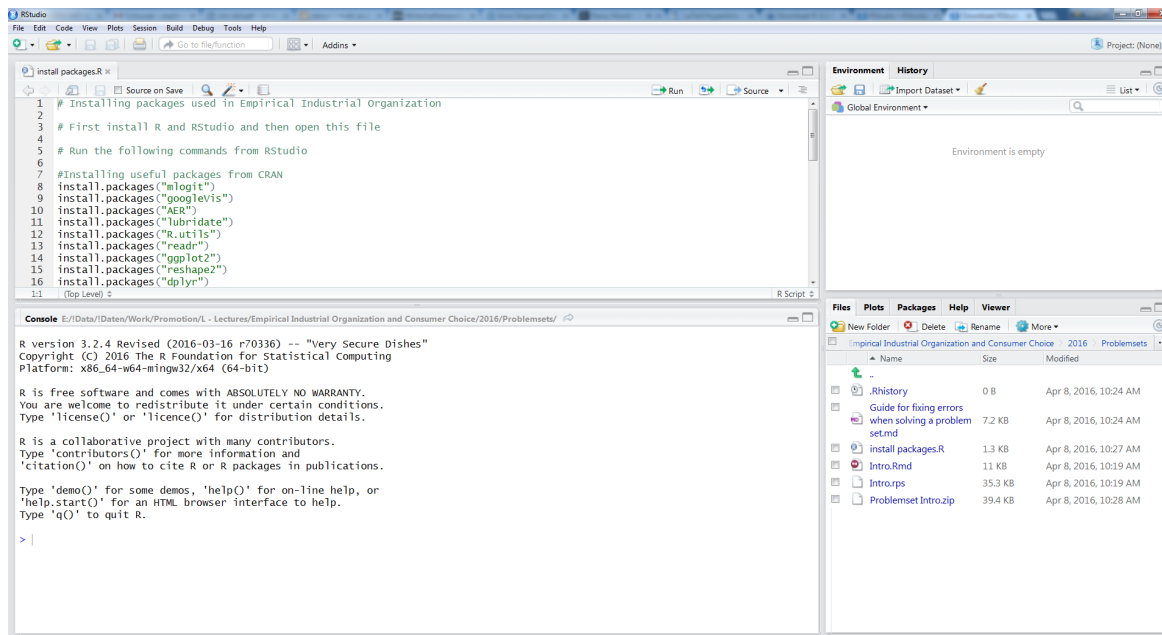


Figure 1: RStudio after a fresh install and opening *install_packages.R*

2. Execute all lines. You may do so by repeatedly pressing CTRL+RETURN or by using the “Run” Button on the top right corner of the top left window. You should do this line by line - in case there are error messages that have to be dealt with.

- (c) Download the first problem set *Intro.zip* and solve the first task.

Solution:

- (a) Download and extract *Intro.zip*

Hint: It is strongly recommended, that you have a dedicated folder where just the problemsets are located - i.e. the `.rmd` and `.rps` files.

- (b) Open *Intro.rmd* out of RStudio.

- (c) Declare your user name, e.g. change

`'ENTER A USER NAME HERE'`

to

`'Martin Kies'`

Your Username should identify you and be exactly the same for each problem set. This includes your usage of upper- and lowercase letters.

(d) Change the following code chunk

```
1  ````{r "1_a"}
2
3  # enter your code here ...
4
5  ````
```

to

```
1  ````{r "1_a"}
2
3  123 + 257
4
5  ````
```

(e) Save your solution (e.g. by pressing CTRL+S)

(f) Start the Addin “Check Problemset”:

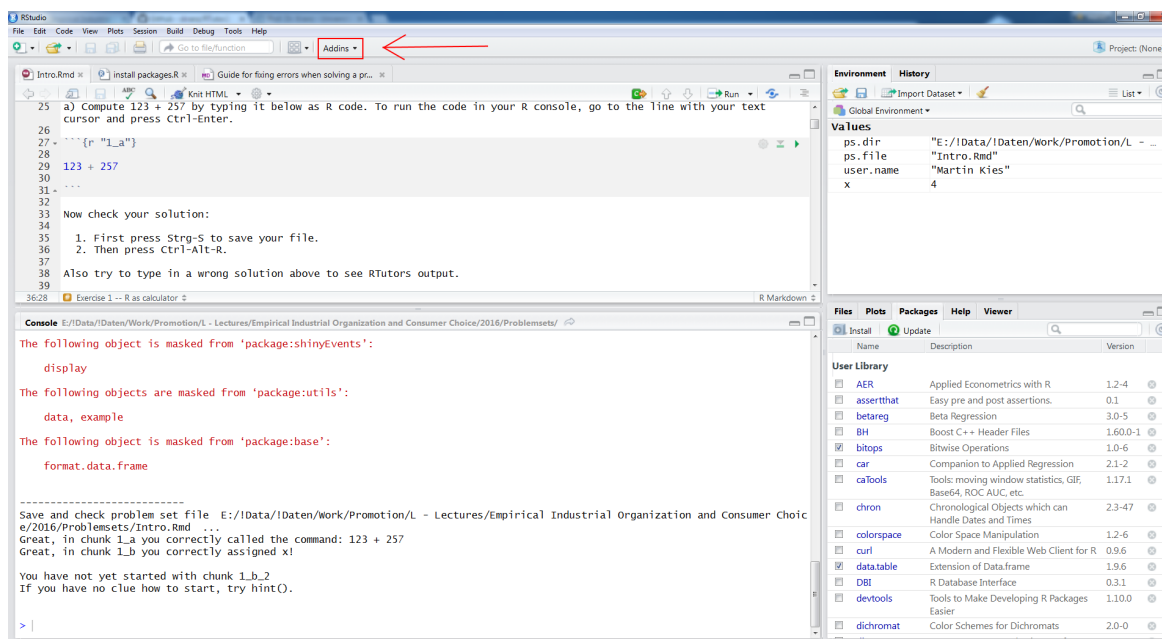


Figure 2: Location of the Addins within RStudio.