Install R and RStudio

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4 January 2022

In SOC6707 we will be using the statistical programming language R through the RStudio environment. You will need to install both R and RStudio onto your computer. This document describes the steps of installation, and provides a test to make sure everything is working properly.

Install R

1. Go to http://cran.utstat.utoronto.ca/
2. Select the download link that is relevant to you: if you have a Mac, select "Download R for (Mac) OS X", if you have a Windows machine, select "Download R for Windows".
3. If you have a Mac, click on the "R-4.0.2.pkg" link. If you have a Windows machine, click on the "base" link, then click on the "Download R 4.0.2 for Windows" link.
4. Open the downloaded file and follow the install instructions on your machine.

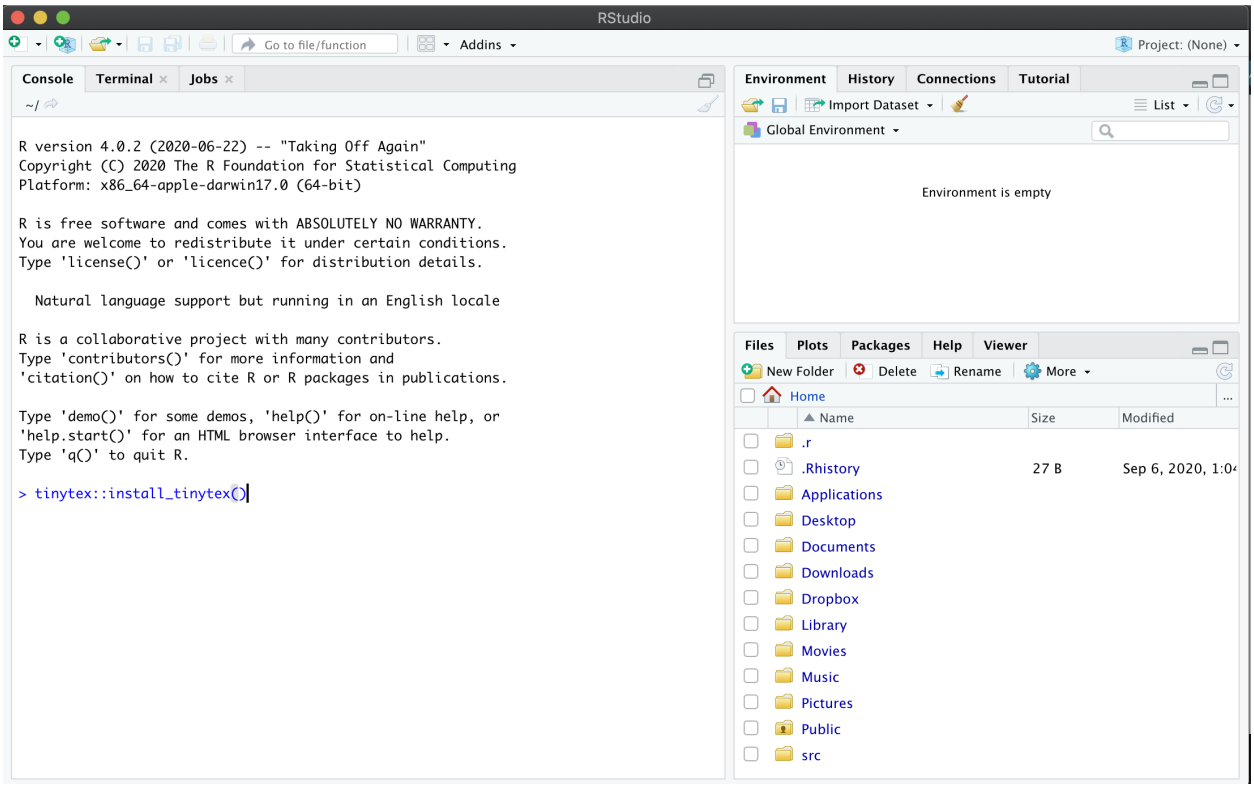
Install RStudio

1. Go to https://rstudio.com/products/rstudio/download/
2. Scroll down and click the "Download" button under "RStudio Desktop Open Source License Free"
3. Click the "Download RStudio" button (it will either say for Mac or Windows)
4. Open the downloaded file and follow the install instructions on your machine.

Install tinytex

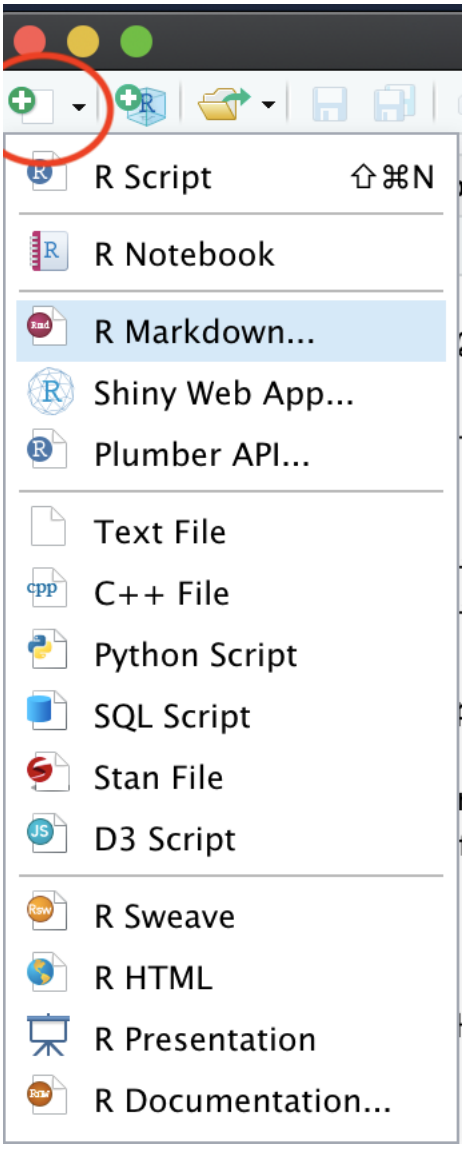
You may need to install a TeX distribution (you probably will). If you're not sure if you have one, go to the next step ("Check everything worked by knitting a RMarkdown document"), and if it doesn't work, you will need to install tinytex.

1. Open RStudio
2. Click in the Console window (on the left)
3. Type `install.packages('tinytex')` after the `>` and press return
4. Type `tinytex::install_tinytex()` after the `>` and press return (see below)


RStudio
Go to file/function
Addins
Project: (None)
Console
Terminal
Jobs
~/
R version 4.0.2 (2020-06-22) -- "Taking Off Again"
Copyright (C) 2020 The R Foundation for Statistical Computing
Platform: x86_64-apple-darwin17.0 (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.
Natural language support but running in an English locale
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.
> tinytex::install_tinytex()
Environment
History
Connections
Tutorial
Import Dataset
List
Global Environment
Environment is empty
Files
Plots
Packages
Help
Viewer
New Folder
Delete
Rename
More
Home
Name
Size
Modified
.r
.Rhistory
27 B
Sep 6, 2020, 1:0
Applications
Desktop
Documents
Downloads
Dropbox
Library
Movies
Music
Pictures
Public
src

Check everything worked by knitting a RMarkdown document

1. Open RStudio
2. click the picture of the document with a green cross in the top left hand side
3. Select R Markdown



4. Under "Default Output Format" select PDF and press OK
5. Go File > Save and save the document
6. In the Menu bar above the document, click "Knit". This should result in a PDF document that looks like below.

Untitled

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04/01/2022

R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist       
##  Min.   : 4.0   Min.   :  2.00  
##  1st Qu.:12.0   1st Qu.: 26.00  
##  Median :15.0   Median : 36.00  
##  Mean   :15.4   Mean   : 42.98  
##  3rd Qu.:19.0   3rd Qu.: 56.00  
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example: