Software Installation - MAC

Introduction

The following instructions will guide you through installing **R**, **RStudio**, and **LaTeX** (MacTex for Mac). Throughout the program you will be asked to turn in assignments in a pdf format. Using R Markdown (.rmd) files in RStudio will allow you to compile files into a pdf. In an R Markdown file you will be able to show written code, outputs from code (including plots), and write like you would in a word processing document. Once you have installed **R**, **RStudio**, and **LaTeX** (MacTex for Mac)open the *RStudio_tutorial.rmd* to test if you can knit the file from .rmd to .pdf.

It is important to download R, before installing RStudio as all versions of RStudio requires users to have downloaded prior to running RStudio.

Note: Instructions were written for macOS Mojave. The new version of R is for macOS El Capitan or higher. Please make sure your computer is up to date before installing software.
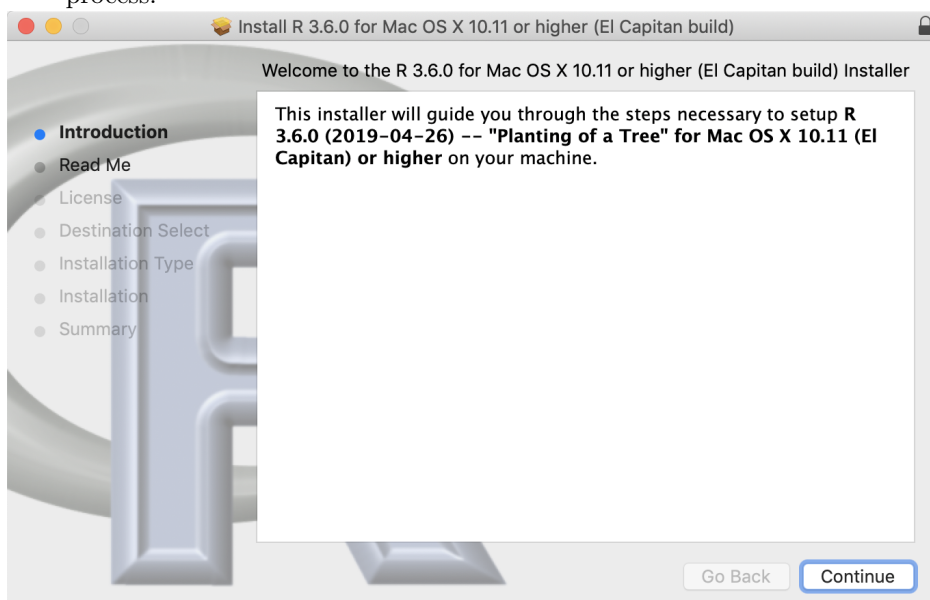
A helpful link for other versions of macOS:
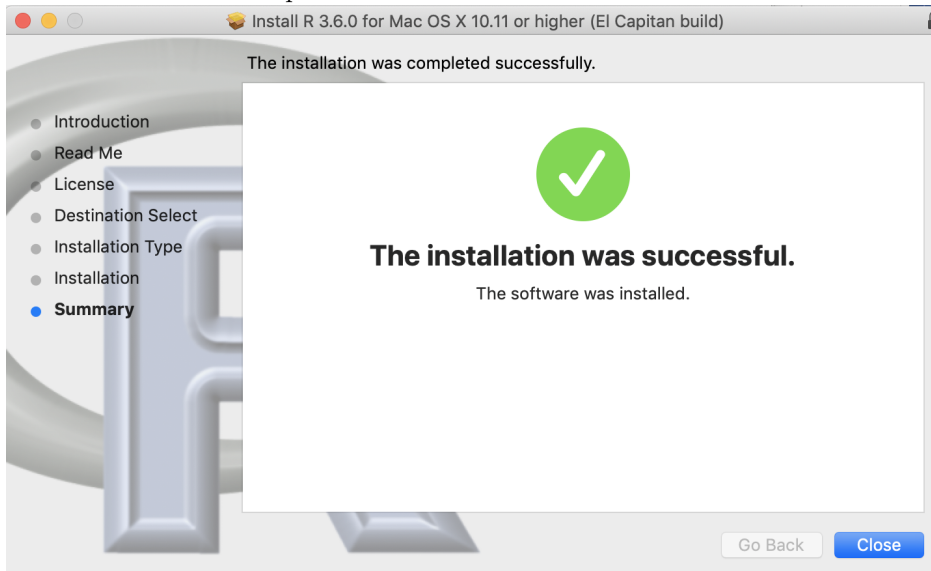https://medium.com/@sorenlind/create-pdf-reports-using-r-r-markdown-latex-and-knitr-on-macos-high-sierra-e7b5705c9fd

1. Download and Install R

If you have R installed please move on to the next step.

- It can be downloaded here: https://cran.rstudio.com/
- Choose the **R-3.6.0.pkg** and follow installation directions
  - The following installation screen should appear. Press continue until the every end of the installation process.

– Installation is complete when you see the following image. You can remove installation files to Trash after this step.
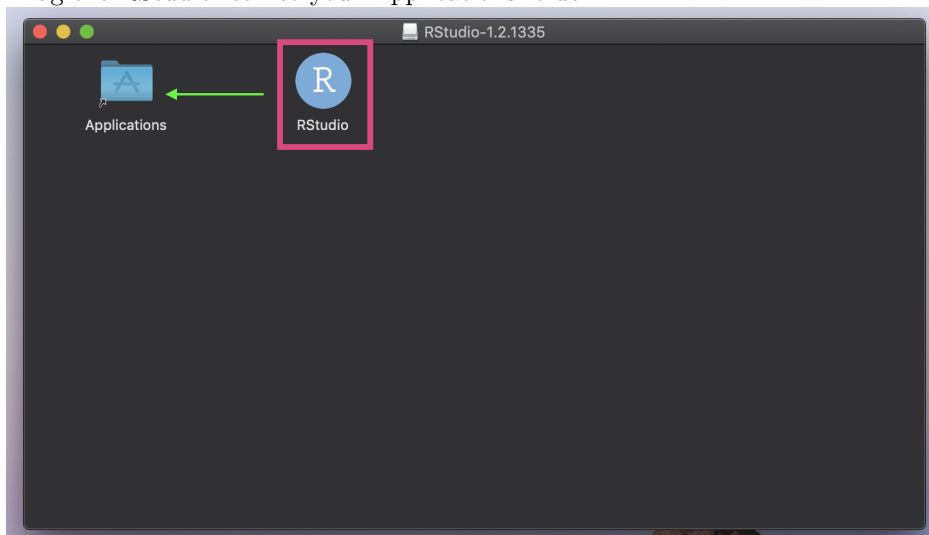
2. Download and Install RStudio

- Go to https://www.rstudio.com/products/rstudio/download/#download in your web browser

- Scroll past the comparison chart to the Installers for Supported Platforms section and choose **RStudio 1.2.1335 - Mac OS X 10.12+ (64-bit)**

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.2.1335 - Windows 7+ (64-bit)	126.9 MB	2019-04-08	d0e2470f1f8ef4cd35a669aa323a2136
RStudio 1.2.1335 - Mac OS X 10.12+ (64-bit)	121.1 MB	2019-04-08	6c570b0e2144583f7c48c284ce299eef
RStudio 1.2.1335 - Ubuntu 14/Debian 8 (64-bit)	92.2 MB	2019-04-08	c1b07d0511469abfe582919b183eee83
RStudio 1.2.1335 - Ubuntu 16 (64-bit)	99.3 MB	2019-04-08	c142d69c210257fb10d18c045fff13c7
RStudio 1.2.1335 - Ubuntu 18 (64-bit)	100.4 MB	2019-04-08	71a8d1990c0d97939804b46cfb0aea75
RStudio 1.2.1335 - Fedora 19+/RedHat 7+ (64-bit)	114.1 MB	2019-04-08	296b6ef88969a91297fab6545f256a7a
RStudio 1.2.1335 - Debian 9+ (64-bit)	100.6 MB	2019-04-08	1e32d4d6f6e216f086a81ca82ef65a91
RStudio 1.2.1335 - OpenSUSE 15+ (64-bit)	101.6 MB	2019-04-08	2795a63c7efd8e2aa2dae86ba09a81e5
RStudio 1.2.1335 - SLES/OpenSUSE 12+ (64-bit)	94.4 MB	2019-04-08	c65424b06ef6737279d982db9eefcae1

- After choosing this, you will see a .dmg file (disk image) download. Double click the .dmg file (likely named RStudio-1.2.1335.dmg)

- Drag the RStudio icon to your Applications folder

- Now you are ready to use RStudio! It is in your Applications folder.

- To remove the RStudio disk image from your Desktop drag the file to your Trash.

3. Download and Install MacTeX

Downloading MacTex is necessary for knitr to create a LaTeX file that will then create a pdf.

- Download MacTeX from this link (it is recommended to download with Safari) :
  http://www.tug.org/mactex/mactex-download.html
  – Click on **MacTeX.pkg**

<div align="center">

Downloading MacTeX 2019

To obtain the distribution, click the link below.
While downloading, please skim read the rest of the page.
Users who run into trouble often write us without noticing that the solution is on this very page.

MacTeX-2019 requires macOS 10.12, 10.13, or 10.14
Sierra, High Sierra, or Mojave

MacTeX.pkg

[approximately 3.9G - 08 May 2019]
The md5 sum is **927a9bcd8864789c7f33dbd01f8eb8c9**
Download with Safari *strongly recommended*

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  * This package is rather larger (~3.9 Gb) and will approximately 15 minutes (possibly longer)
    to download.
  * It is recommended to have your computer charging when downloading large files from the
    internet.
  * Do **not** download smaller *BasicTeX* package. You need the entire package for knitr to work
    properly in RStudio. *BasicTeX* does not install all LaTeX packages which is necessary for
    knitr to work properly.
  – Click on the **mactex-20190508.pkg** file to begin the installation process. (Note: this assumes
    you have macOS Sierra or higher)
    * The installation will require you to have at least 10 Gbs of space on your hard drive. You will
      also need to enter your password for the installation.
    * When the program finishes installing, click Close and the installer package can be moved to
      the Trash.