

Step 1: Download R and install R:
<https://cran.rstudio.com/>

Step 2: Download and install Rstudio **after you install R**:
<http://www.rstudio.com/products/rstudio/download/>

For some potentially useful tips, see:
<http://socserv.mcmaster.ca/jfox/Courses/R/ICPSR/R-install-instructions.html>

From: <http://socserv.mcmaster.ca/jfox/Courses/R/ICPSR/R-install-instructions.html>

Installing R on Windows

Instead of installing R in the standard location, C:\Program Files\R\R-3.1.1, I suggest that you use C:\R\R-3.1.1. This will allow you to install packages without running R with administrator privileges and will avoid problems that sometimes occur when there are spaces in paths.

<https://cran.rstudio.com/> Download and install R first

The Comprehensive R Archive Network

Download and Install R

Precompiled binary distributions of the base system and contributed packages, **Windows and Mac** users most likely want one of these versions of R:

- [Download R for Linux](#)
- [Download R for \(Mac\) OS X](#)
- [Download R for Windows](#)

R is part of many Linux distributions, you should check with your Linux package management system in addition to the link above.

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About R
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<http://www.rstudio.com/products/rstudio/download/>

R Studio

Installers for Supported Platforms

Installers	Size	Date	MD5
RStudio 1.0.136 - Windows Vista/7/8/10	81.9 MB	2016-12-21	93b3e307f547c3327a4db4e114099b3a
RStudio 1.0.136 - Mac OS X 10.8+ (64-bit)	71.2 MB	2016-12-21	1206d5ade0203a2fce66fe3d6a65c1ae
RStudio 1.0.136 - Ubuntu 12.04+/Debian 8+ (32-bit)	85.5 MB	2016-12-21	0a20eb89d8aeb39b329a640ddadd2c5
RStudio 1.0.136 - Ubuntu 12.04+/Debian 8+ (64-bit)	92.1 MB	2016-12-21	2a73b88a12a9f0bf96251cccf8b41340
RStudio 1.0.136 - Fedora 19+/Redhat 7+/openSUSE 13.1+ (32-bit)	84.7 MB	2016-12-21	e66179a7855bf0e939a34c169da45fd
RStudio 1.0.136 - Fedora 19+/Redhat 7+/openSUSE 13.1+ (64-bit)	85.7 MB	2016-12-21	2b3a148ded380b704e58496bed55545

To download Rstudio
 Scroll down until
 you get to installers

RStudio

Environment History

Global Environment

Environment is empty

Files Plots Packages Help Viewer

Console

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.

[Workspace loaded from ~/.RData]

> ← This is where you type commands

If you would like to learn R or statistics or data analysis via Swirl:

<http://swirlstats.com/students.html>

Install swirl

Open RStudio (or just plain R if you don't have RStudio) and type the following into the console:

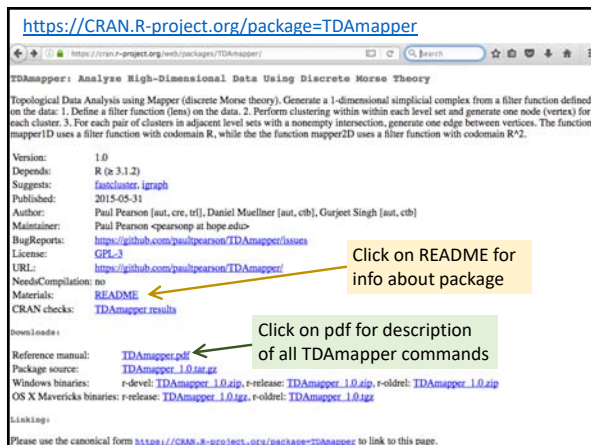
```
> install.packages("swirl")
```

Note that the > symbol at the beginning of the line is R's prompt for you type something into the console. We include it here so you know that this command is to be typed into the console and not elsewhere. The part you type begins after >.

After you have installed a package using
 > install.packages("swirl")
 You can load the package using the library command:
 > library(swirl)
 Use the following to install Swirl courses:
 > install_from_swirl("Course Name Here")
 The following will start swirl:
 > swirl()
 For a list of courses:
https://github.com/swirldev/swirl_courses#swirl-courses
<http://swirlstats.com/scn/title.html>

Some notes:

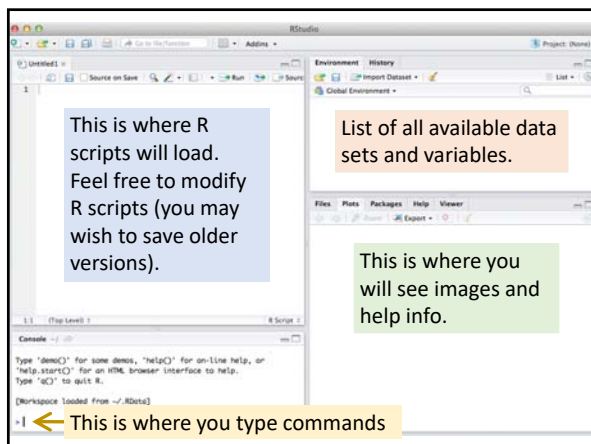
- 1.) Normally you only need to install a package once.
 e.g > install.packages("TDAmapper")
- 2.) If you want to use a package, you must load it
 e.g > library("TDAmapper")
 You only need to do this once per session.
- 3.) If you want to repeat a command, you can use the up-arrow on your keyboard to obtain previously typed commands in the console.
- 4.) When you start typing commands, R will show you some choices. You can click on the one you want.



If you click on a .r file, it will load in the upper left box of R-studio.

You should download the following files from:
http://homepage.divms.uiowa.edu/~idarcy/COURSES/TDA/SPRING18/LAB1_Rintro

You can download some data files from
<http://homepage.divms.uiowa.edu/~idarcy/COURSES/TDA/SPRING18/Data>



To run an R file:

- 1.) Select the section you want to run and click run
 Run blue highlighted portion
- 2.) Click on the line you want to run and click run. Continue clicking run to run the code line by line.
 Run line 8