

Introduction to R Studio

Download R Studio free-ware: (<http://www.rstudio.com/>)

Welcome to RStudio - Open source
and enterprise-ready professional
software for R

Download RStudio

Discover Shiny



NOTE: You can run R Studio, without first running R.
R studio will automatically open and run R.

R Studio Overview

Explore Multiple Windows and Views

The screenshot shows the RStudio interface with the following components:

- Source Editor:** Contains a data frame with 10 observations of 3 variables (year, x, y).
- Environment Pane:** Shows the Global Environment with a data object named 'testdata_cvs' containing 10 observations of 3 variables.
- Console:** Displays the R version (3.0.1) and copyright information.
- Viewer Pane:** Shows the documentation for the 'glm' function, titled 'Fitting Generalized Linear Models'.

year	x	y
1	1	11
2	2	12
3	3	13
4	4	14
5	5	15
6	6	16
7	7	17
8	8	18
9	9	19
10	10	20

History:

```
Environment History
testdata_cvs <- read.csv("C:/Program Files/R/R-3.0.1/working/testdata_
View(testdata_cvs)
setwd("~/")
setwd("C:/Program Files/R/R-3.0.1/working")
library(Rcmdr)
```

Environment:

Global Variables / Package Functions

The screenshot shows the RStudio Environment pane with the following components:

- Global Environment:** Shows a data object named 'testdata_cvs' containing 10 observations of 3 variables.

The screenshot shows the RStudio Environment pane with the following components:

- package:Rcmdr:** Lists various functions and their types.

Function Name	Type
Factors	function (names)
GrabFocus	function (value)
Logwindow	function ()
MacOSXP	function ()
MarkdownP	function ()
Message	function (message, type = c("note", "error", "w...)
Messageswindow	function ()
Numeric	function (names)
OKCancelHelp	function (window = top, helpsubject = NULL, mod...)
Outputwindow	function ()
RExcelSupported	function ()
RappP	function ()
RcmdrPager	function (file, header, title, delete.file)

R Studio Overview

User-friendly Console

Console ~/ ↻

```
R version 3.4.0 (2017-04-21) -- "You Stupid Darkness"  
Copyright (C) 2017 The R Foundation for Statistical Computing  
Platform: x86_64-w64-mingw32/x64 (64-bit)
```

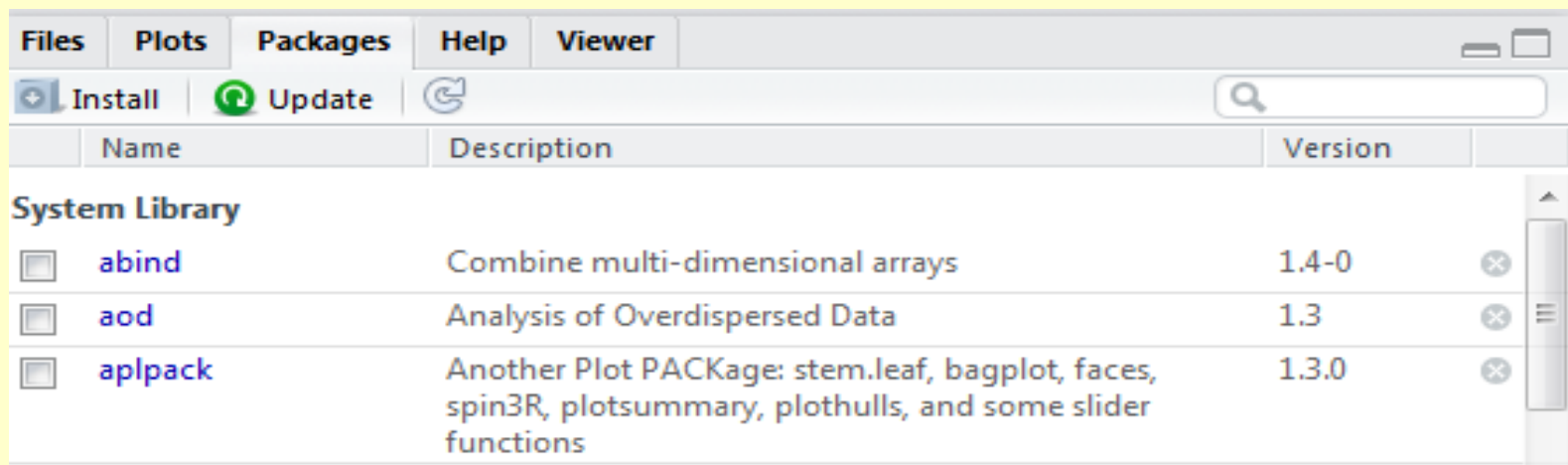
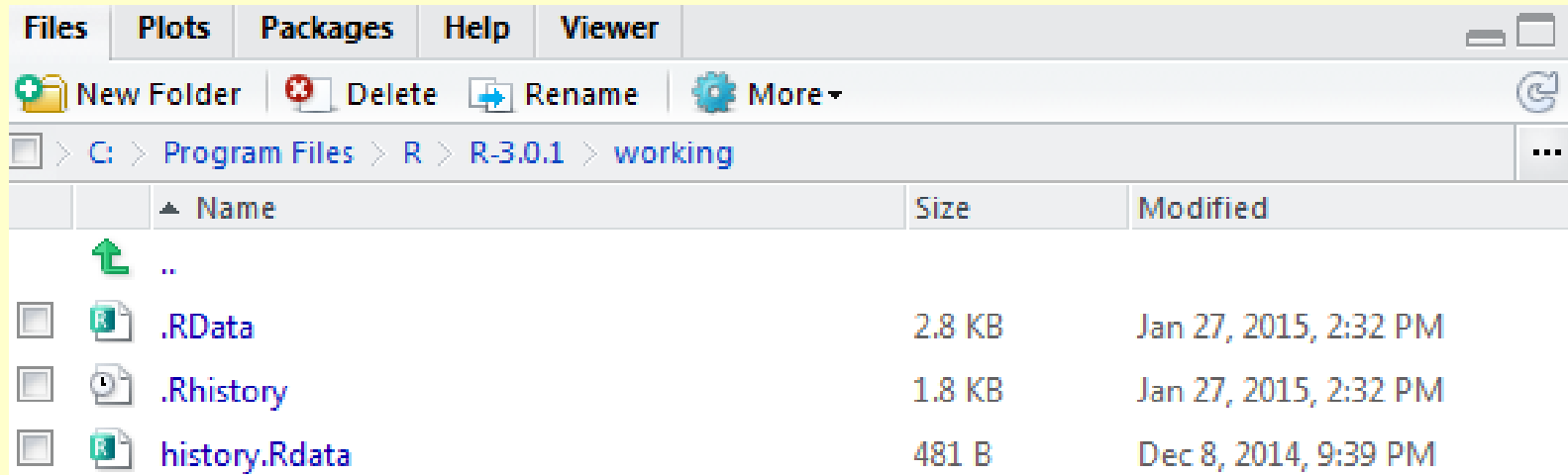
```
R is free software and comes with ABSOLUTELY NO WARRANTY.  
You are welcome to redistribute it under certain conditions.  
Type 'license()' or 'licence()' for distribution details.
```

```
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.
```

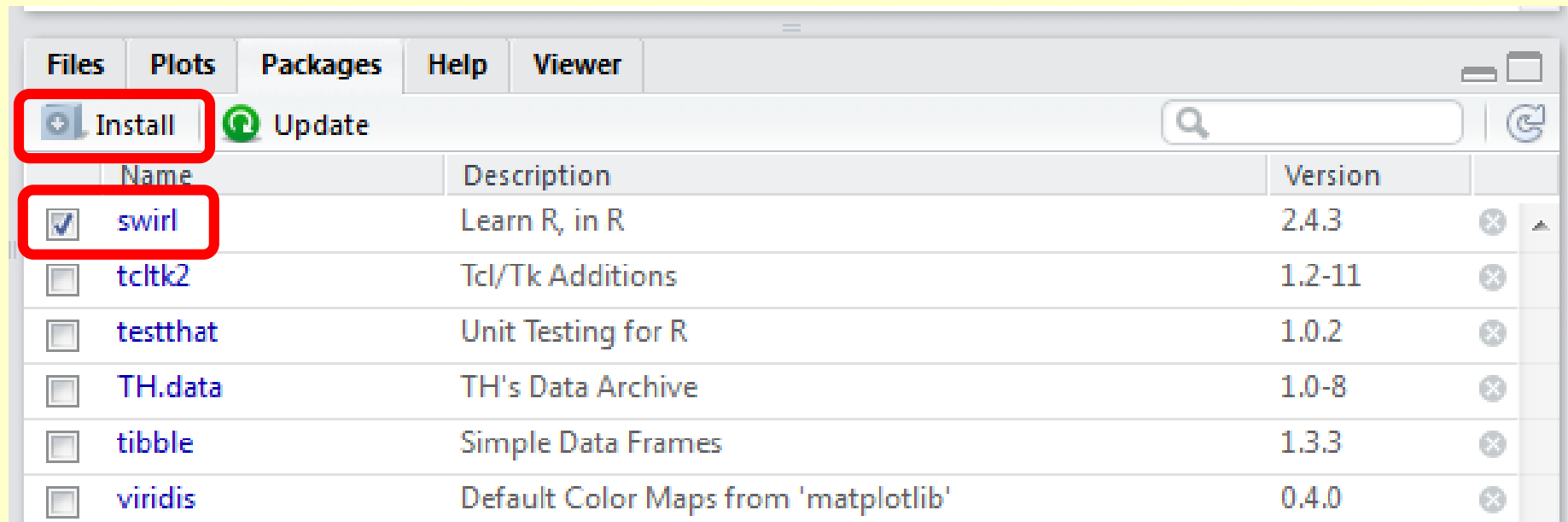
R Studio Overview

Access to Files / Package Library / Help



Install "Swirl" Package

Install and Run Package Swirl using R Studio



| Type `swirl()` when you are ready to begin.

```
> |
```

Run "Swirl" Package

| Please choose a course, or type 0 to exit swirl.

- 1: R Programming
- 2: Take me to the swirl course repository!

Selection: 1

| Please choose a lesson, or type 0 to return to course menu.

- | | |
|-----------------------------|------------------------|
| 1: Basic Building Blocks | 2: workspace and Files |
| 3: Sequences of Numbers | 4: Vectors |
| 5: Missing Values | 6: Subsetting vectors |
| 7: Matrices and Data Frames | 8: Logic |
| 9: Functions | 10: lapply and sapply |
| 11: vapply and tapply | 12: Looking at Data |
| 13: simulation | 14: Dates and Times |
| 15: Base Graphics | |

Selection: 1: R Programming

Tasks

1. Get R and R Studio to run
2. Familiarize yourself with R
(help, history, workspace)
3. Familiarize yourself with R Studio
4. Run Swirl and start familiarizing
yourself with R syntax and functions