

DS 3003: R and RStudio Installation

Introduction

Welcome to DS 3003: Communicating with Data!

Note that, for now, I assume students have a laptop or desktop computer on which they can install programs. We will be installing R and RStudio. This should all work on a Mac or Windows machine.

Let's get started!

1. Getting your environment ready

R is an open source statistical analysis/computing environment. **R**'s rapid growth in use places it among the most [popular statistical analysis software](#). Much of **R**'s popularity stems from it being open source (and free!) together with its extensible nature. As a programming language, **R** has become prominent in recent years as a tool for performing high level analytics. As a programming language, **R** has begun borrowing many tools from the programming world. One of the most prominent among them is [R Studio](#), a free, open source and user-friendly [integrated development environment \(IDE\)](#). An integrated development environment is a tool designed specifically for developing code and analyses using a computer language. In the case of RStudio, the environment is specifically designed for developing "data products" using **R**.

For this mini course, we'll be using RStudio for creating open and re-usable code for statistical analysis. You'll need to:

- Install [R for Windows](#) and [R for Mac](#)
- Install [RStudio](#) on your computer.

2. Install R

- i. Click link: [R for Windows \(or R for Mac\)](#) [download most recent R]
- ii. Click download -> Click Save

Note that the most recent R version may be different.

For Windows:

R-4.0.0 for Windows (32/64 bit)

[Download R 4.0.0 for Windows](#) (84 megabytes, 32/64 bit) **1. Click download**

[Installation and other instructions](#)
[New features in this version](#)

If you want to double-check that the package you have downloaded matches the package distributed by CRAN, you can compare the [md5sum](#) of the .exe to the [fingerprint](#) on the master server. You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

Frequently asked questions

- [Does R run under my version of Windows?](#)
- [How do I update packages in my previous version of R?](#)
- [Should I run 32-bit or 64-bit R?](#)

Please see the [R FAQ](#) for general information about R and the [R Windows FAQ](#) for Windows-specific information.

Other builds

- Patches to this release are incorporated in the [r-patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [r-devel snapshot build](#).
- [Previous releases](#)

Note to webmasters: A stable link which will redirect to the current Windows binary release is [<CRAN MIRROR>/bin/windows/base/release.htm](#).

Last change: 2020-04-24

What do you want to do with R-4.0.0-win.exe (83.5 MB)?
From: cran.r-project.org

Run Save ^ Cancel X

2. Click save

For Mac:

R for Mac OS X

This directory contains binaries for a base distribution and packages to run on Mac OS X (release 10.6 and above). Mac OS 8.6 to 9.2 (and Mac OS X 10.1) are no longer supported but you can find the last supported version [here](#). Releases for old Mac OS X systems (through Mac OS X 10.5) and PowerPC Macs can be found in the [old](#) directory.

Note: CRAN does not have Mac OS X systems and cannot check these binaries for viruses. Although we take precautions when assembling binaries, please use the normal precautions with downloaded executables.

Package binaries for R versions older than 3.2.0 are only available from the [CRAN archive](#) so users of such versions should adjust the CRAN mirror setting (<https://cran-archive.r-project.org>) accordingly.

Please check the MD5 checksum of the downloaded image to ensure that it has not been corrupted. In the `Terminal` application print the MD5 checksum for the R-4.0.0.pkg image:

```
pkgutil --check-signature R-4.0.0.pkg
```

R-4.0.0.pkg (notarized and signed)
SHA1 hash: 9f0a9d2726941330246d8484646a50a1641
(ca. 84MB)

1. Click link

2. Click downloaded pkg

3. Click continue

Welcome to the R 4.0.0 for macOS Installer

This installer will guide you through the steps necessary to setup R 4.0.0 (for macOS 10.13 (High Sierra) or higher) on your machine.

Go Back Continue

Binaries for legacy OS X systems:

R 3.6.3 binary for OS X 10.11 (El Capitan) and higher, signed package. Contains R 3.6.3 framework, Rapp GUI 1.70 in 64-bit for Intel Macs, Tcl/Tk 8.6.6 X11 libraries and Texinfo 5.2. The latter two components are optional and can be omitted when choosing "custom install", they are only needed if you want to use the `tcltk` R package or build package documentation from sources.

R 3.3.3 binary for Mac OS X 10.9 (Mavericks) and higher, signed package. Contains R 3.3.3 framework, Rapp GUI 1.69 in 64-bit for Intel Macs, Tcl/Tk 8.6.0 X11 libraries and Texinfo 5.2. The latter two components are optional and can be omitted when choosing "custom install", it is only needed if you want to use the `tcltk` R package or build package documentation from sources.

Note: the use of X11 (including `tcltk`) requires [XQuartz](#) to be installed since it is no longer part of OS X. Always re-install XQuartz when upgrading your OS X to a new major version.

R 3.2.1 legacy binary for Mac OS X 10.6 (Snow Leopard) - 10.8 (Mountain Lion), signed package. Contains R 3.2.1 framework, Rapp GUI 1.66 in 64-bit for Intel Macs.

iii. Click view downloads (or go to downloads folder) and click R-4.0.0-win.exe

R-4.0.0 for Windows (32/64 bit)

[Download R 4.0.0 for Windows](#) (84 megabytes, 32/64 bit)
[Installation and other instructions](#)
[New features in this version](#)

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Last change: 2020-04-24

R-4.0.0-win.exe finished downloading. Run Open folder View downloads ×

R-4.0.0 for Windows (32/64 bit)

[Download R 4.0.0 for Windows](#) (84 megabytes, 32/64 bit)
[Installation and other instructions](#)
[New features in this version](#)

If you want to double-check that the package you have downloaded matches the package distributed by CRAN, you can compare the [md5sum](#) of the .exe to the [fingerprint](#) on the master server. You will need a version of md5sum for windows: both [graphical](#) and [command line versions](#) are available.

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Last change: 2020-04-24

Downloads Open folder Clear all

Past downloads

- R-4.0.0-win.exe
cran.r-project.org

iv. Follow the instructions that appear on your screen for both Windows and Mac

3. Install RStudio

- i. Click link: [RStudio](#)
- ii. Click FREE download

Download RStudio

Choose Your Version

RStudio is a set of integrated tools designed to help you be more productive with R. It includes a console, syntax-highlighting editor that supports direct code execution, and a variety of robust tools for plotting, viewing history, debugging and managing your workspace.

[LEARN MORE ABOUT RSTUDIO FEATURES](#)

RStudio Team

RStudio's new solution for every professional data science team. RStudio Team includes RStudio Server Pro, RStudio Connect and RStudio Package Manager.

[LEARN MORE](#)

Product	License	Price	Action
RStudio Desktop	Open Source License	Free	DOWNLOAD
RStudio Desktop	Commercial License	\$995 /year	BUY
RStudio Server	Open Source License	Free	DOWNLOAD
RStudio Server Pro	Commercial License	\$4,975 /year (5 Named Users)	BUY

- iii. Click Windows or MacOS link -> Click Save

All Installers

Linux users may need to [import RStudio's public code-signing key](#) prior to installation, depending on the operating system's security policy.

RStudio 1.2 requires a 64-bit operating system. If you are on a 32 bit system, you can use an [older version of RStudio](#).

OS	Download	Size	SHA-256
Windows 10/8/7	RStudio-1.3.959.exe	171.41 MB	3d493ae5
macOS 10.13+	RStudio-1.3.959.dmg	148.57 MB	7c5b695d
Ubuntu 16	rstudio-1.3.959-amd64.d	124.57 MB	c2931495
Ubuntu 18/Debian 10	rstudio-1.3.959-amd64.d	126.11 MB	411ab500
Fedora 19/Red Hat 7	rstudio-1.3.959-x86_64.rpm	146.24 MB	a144e4e6
Fedora 28/Red Hat 8	rstudio-1.3.959-x86_64.rpm	150.32 MB	57169bee
Debian 9	rstudio-1.3.959-amd64.deb	126.42 MB	b2d9366f
SLES/OpenSUSE 12	rstudio-1.3.959-x86_64.rpm	119.02 MB	bbc9387e
OpenSUSE 15	rstudio-1.3.959-x86_64.rpm	127.59 MB	a4f404f0

https://rstudio.com/products/rstudio/download/#download

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Fedora 19/Red Hat 7	rstudio-1.3.959-x86_64.rpm	146.24 MB	a144e4e6
Fedora 28/Red Hat 8	rstudio-1.3.959-x86_64.rpm	150.32 MB	57169bee
Debian 9	rstudio-1.3.959-amd64.deb	126.42 MB	b2d9366f
SLES/OpenSUSE 12	rstudio-1.3.959-x86_64.rpm		
OpenSUSE 15	rstudio-1.3.959-x86_64.rpm		

https://download1.rstudio.org/desktop/xenial/amd64/rstudio-1.3.959-amd64.deb

What do you want to do with RStudio-1.3.959.exe (163 MB)?
From: download1.rstudio.org

RunSave^Cancel

1. Click save

iv. Click view downloads (or go to the downloads folder) and click RStudio-1.3.959.exe

https://rstudio.com/products/rstudio/download/#download

All Installers

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OpenSUSE 15	rstudio-1.3.959-x86_64.rpm	127.59 MB	

RStudio-1.3.959.exe finished downloading.










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4. Click view downloads


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All Installers





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 RStudio-1.3.959.exe download1.rstudio.org	
 R-4.0.0-win.exe cran.r-project.org	

- v. Follow the instructions that appear on your screen