

# RLadies-Philly R for Beginners

## How to download and Install R Studio

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Step 1: go to R website <https://www.r-project.org/>



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**R Project**

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# The R Project for Statistical Computing

## Getting Started

R is a free software environment for statistical computing and graphics. It compiles and runs on a wide variety of UNIX platforms, Windows and MacOS. To [download R](#), please choose your preferred [CRAN mirror](#).

If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.

## News

- [R version 3.3.3 \(Another Canoe\) prerelease versions](#) will appear starting Friday 2017-02-24. Final release is scheduled for Monday 2017-03-06.
- [useR! 2017](#) (July 4 - 7 in Brussels) has opened registration and more at <http://user2017.brussels/>
- Tomas Kalibera has joined the R core team.

# Step 2: Click **CRAN** (Comprehensive R Archive Network)



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# Step 3: Click on R Mirror (For speed of download)

USA

<https://cran.cnr.berkeley.edu/>  
<http://cran.cnr.berkeley.edu/>  
<http://cran.stat.ucla.edu/>  
<https://mirror.las.iastate.edu/CRAN/>  
<http://mirror.las.iastate.edu/CRAN/>  
<https://ftp.ussg.iu.edu/CRAN/>  
<http://ftp.ussg.iu.edu/CRAN/>  
<https://rweb.crmda.ku.edu/cran/>  
<http://rweb.crmda.ku.edu/cran/>  
<https://cran.mtu.edu/>  
<http://cran.mtu.edu/>  
<http://cran.wustl.edu/>  
<http://archive.linux.duke.edu/cran/>  
<http://cran.case.edu/>  
<http://iis.stat.wright.edu/CRAN/>  
<https://ftp.osuosl.org/pub/cran/>  
<http://ftp.osuosl.org/pub/cran/>  
<http://lib.stat.cmu.edu/R/CRAN/>  
<http://cran.mirr y.com/>  
<https://mirrors.n du/cran/>  
<http://mirrors.nics.utk.edu/cran/>  
<https://cran.revolutionanalytics.com/>  
<http://cran.revolutionanalytics.com/>

If you're in PA but choose the R mirror closest to you!

University of California, Berkeley, CA  
University of California, Berkeley, CA  
University of California, Los Angeles, CA  
Iowa State University, Ames, IA  
Iowa State University, Ames, IA  
Indiana University  
Indiana University  
University of Kansas, Lawrence, KS  
University of Kansas, Lawrence, KS  
Michigan Technological University, Houghton, MI  
Michigan Technological University, Houghton, MI  
Washington University, St. Louis, MO  
Duke University, Durham, NC  
Case Western Reserve University, Cleveland, OH  
Wright State University, Dayton, OH  
Oregon State University  
Oregon State University  
Statlib, Carnegie Mellon University, Pittsburgh, PA  
Hoobly Classifieds, Pittsburgh, PA  
National Institute for Computational Sciences, Oak Ridge, TN  
National Institute for Computational Sciences, Oak Ridge, TN  
Revolution Analytics, Dallas, TX  
Revolution Analytics, Dallas, TX

# Step 4: Choose R Package for your operating system

## 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.

### Source Code for all Platforms

Windows and Mac users most likely want to download the precompiled binaries listed in the upper box, not the source code. The sources have to be compiled before you can use them. If you do not know what this means, you probably do not want to do it!

- The latest release (Monday 2016-10-31, Sincere Pumpkin Patch) [R-3.3.2.tar.gz](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only in time periods before a planned release).
- Daily snapshots of current patched and development versions are [available here](#). Please read about [new features and bug fixes](#) before filing corresponding feature requests or bug reports.
- Source code of older versions of R is [available here](#).
- Contributed extension [packages](#)

### Questions About R

- If you have questions about R like how to download and install the software, or what the license terms are, please read our [answers to frequently asked questions](#) before you send an email.



# Step 5: Download/Install R

R 4.0.0 "Arbor Day" released on 2020/04/24

Please check the MD5 checksum of the downloaded image to ensure that it has not been tampered with or corrupted during the mirroring process. For example type `md5 R-4.0.0.pkg` in the *Terminal* application to print the MD5 checksum for the R-4.0.0.pkg image. On Mac OS X 10.7 and later you can also validate the signature using `pkgutil --check-signature R-4.0.0.pkg`

## Mac 10.13

### Latest release:

[R-4.0.0.pkg](#) (notarized and signed)  
SHA1-hash: 9f0aa69d272694133024fd9af48f6446a5ba1641  
(ca. 84MB)



**R 4.0.0** binary for macOS 10.13 (High Sierra) and higher, signed and notarized package. Contains R 4.0.0 framework, R.app GUI 1.71 in 64-bit for Intel Macs, Tcl/Tk 8.6.6 X11 libraries and Texinfo 6.7. 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.

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 macOS to a new major version.

**Important:** this release uses Xcode 10.1 and GNU Fortran 8.2. If you wish to compile R packages from sources, you will need to download and GNU Fortran 8.2 - see the [tools](#) directory.

## Windows

### R for Windows

Subdirectories:

[base](#)



[contrib](#)

[old contrib](#)

[Rtools](#)

Binaries for base distribution. This is what you want to [install R for the first time](#).

Binaries of contributed CRAN packages (for R >= 2.13.x; managed by Uwe Ligges). There is also information on [third party software](#) available for CRAN Windows services and corresponding environment and make variables.

Binaries of contributed CRAN packages for outdated versions of R (for R < 2.13.x; managed by Uwe Ligges).

Tools to build R and R packages. This is what you want to build your own packages on Windows, or to build R itself.

Please do not submit binaries to CRAN. Package developers might want to contact Uwe Ligges directly in case of questions / suggestions related to Windows binaries.

# Step 5a: Older versions (Mac OS X)

Note: Previous R versions for El Capitan can be found in the [el-capitan/base](#) directory.



## [R-3.6.3.nn.pkg](#) (signed)

SHA1-hash: c462c9b1f9b45d778f05b8d9aa25a9123b3557c4  
(ca. 77MB)

## [R-3.3.3.pkg](#)

MD5-hash: 893ba010f303e666e19f86e4800f1fbf  
SHA1-hash: 5ae71b000b15805f95f38c08c45972d51ce3d027  
(ca. 71MB)

## [R-3.2.1-snowleopard.pkg](#)

MD5-hash: 58fe9d01314d9cb75ff80ccfb914fd65  
SHA1-hash: be6e91db12bac22a324f0cb51c7efa9063ece0d0  
(ca. 68MB)

### 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, R.app 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, R.app 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, R.app GUI 1.66 in 64-bit for Intel Macs. This package contains the R framework, 64-bit GUI (R.app), Tcl/Tk 8.6.0 X11 libraries and Texinfo 5.2. GNU Fortran is **NOT** included (needed if you want to compile packages from sources that contain FORTRAN code) please see [the tools directory](#).

NOTE: the binary support for OS X before Mavericks is being phased out, we do not expect further releases!

Choose older version of R for your OS

# Step 5b: Older versions (Windows)

Windows

R for Windows

Subdirectories:

[base](#)

Binaries for base distribution. This is what you want to [install R for the first time](#).

[contrib](#)

Binaries of contributed CRAN packages (for R >= 2.13.x; managed by Uwe Ligges). There is also information on [third party software](#) available for CRAN Windows services and corresponding environment and make variables.

[old contrib](#)



Binaries of contributed CRAN packages for outdated versions of R (for R < 2.13.x; managed by Uwe Ligges).

[Rtools](#)

Tools to build R and R packages. This is what you want to build your own packages on Windows, or to build R itself.

Please do not submit binaries to CRAN. Package developers might want to contact Uwe Ligges directly in case of questions / suggestions related to Windows binaries.

## Index of /bin/windows/contrib

Name	Last modified	Size	Description
<a href="#">Parent Directory</a>		-	
<a href="#">1.7/</a>	2015-03-25 22:37	-	
<a href="#">1.8/</a>	2005-07-27 14:01	-	
<a href="#">1.9/</a>	2015-03-25 22:37	-	
<a href="#">2.0/</a>	2015-03-25 22:37	-	



Choose older version of R for your OS

## Index of /bin/windows/contrib/1.7

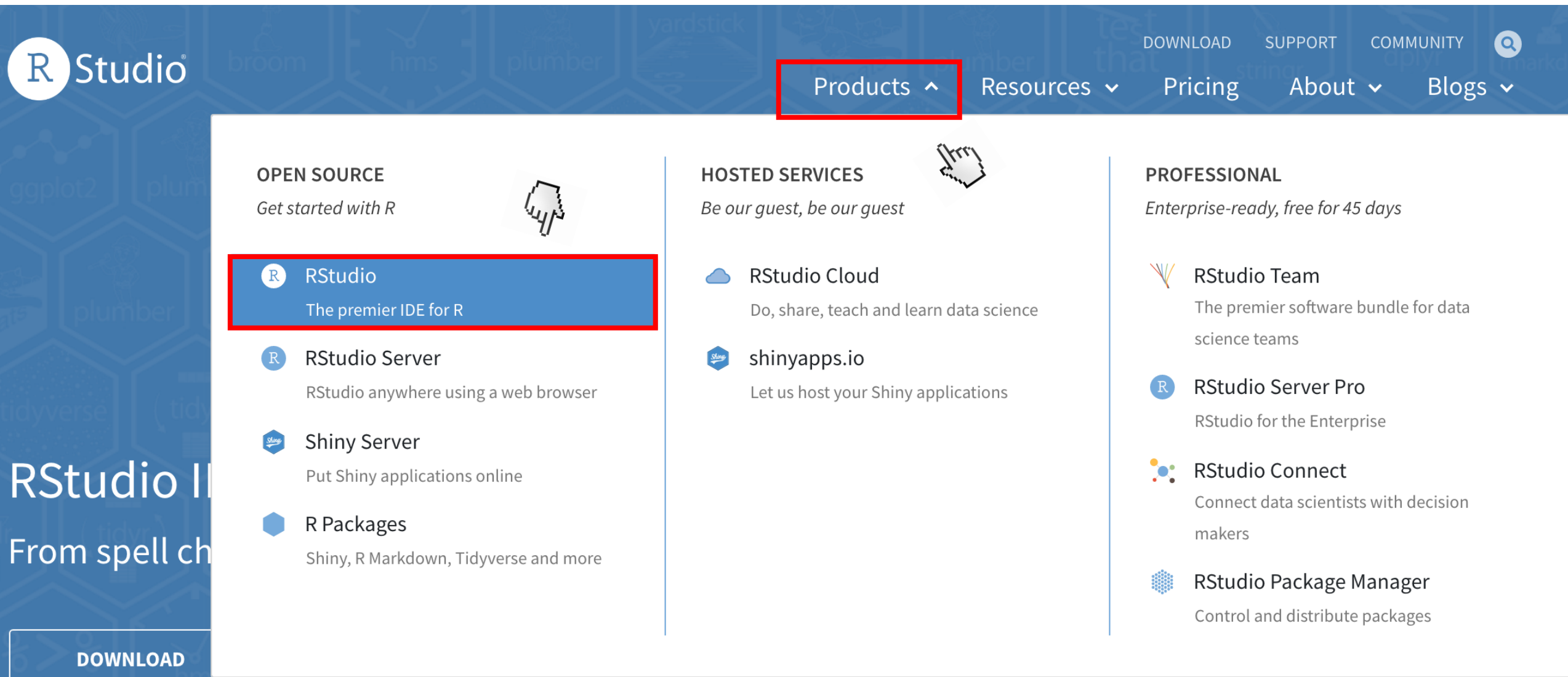
Name	Last modified	Size	Description
<a href="#">Parent Directory</a>		-	
<a href="#">@ReadMe</a>	2004-12-11 17:31	2.3K	
<a href="#">AnalyzeFMRI 1.0-8.zip</a>	2004-10-01 20:05	332K	
<a href="#">Bhat 0.9-07.zip</a>	2004-10-01 20:05	76K	
<a href="#">CGIwithR 0.51.zip</a>	2004-10-01 20:06	192K	
<a href="#">CircStats 0.1-7.zip</a>	2004-10-01 20:07	199K	
<a href="#">CoCoAn 1.0-2.zip</a>	2004-10-01 20:05	30K	



Choose an older package of R to download



Step 6: Go to [www.rstudio.com](https://www.rstudio.com) and click **RStudio** under Products



The screenshot shows the RStudio website with a blue header. The 'Products' menu is open, and the 'RStudio' option is highlighted with a red box. A hand cursor is pointing at the 'RStudio' option. The 'Products' menu is also highlighted with a red box. The 'RStudio' option is highlighted with a red box. The 'RStudio' option is highlighted with a red box.

**R Studio**

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**OPEN SOURCE**  
*Get started with R*

**RStudio**  
The premier IDE for R

**RStudio Server**  
RStudio anywhere using a web browser

**Shiny Server**  
Put Shiny applications online

**R Packages**  
Shiny, R Markdown, Tidyverse and more

**HOSTED SERVICES**  
*Be our guest, be our guest*

**RStudio Cloud**  
Do, share, teach and learn data science

**shinyapps.io**  
Let us host your Shiny applications

**PROFESSIONAL**  
*Enterprise-ready, free for 45 days*

**RStudio Team**  
The premier software bundle for data science teams

**RStudio Server Pro**  
RStudio for the Enterprise

**RStudio Connect**  
Connect data scientists with decision makers

**RStudio Package Manager**  
Control and distribute packages

**DOWNLOAD**

# Step 7: Click RStudio Desktop

## RStudio

### Take control of your R code

RStudio is an integrated development environment (IDE) for R. It includes a console, syntax-highlighting editor that supports direct code execution, as well as tools for plotting, history, debugging and workspace management. [Click here to see more RStudio features.](#)

RStudio is available in **open source** and **commercial** editions and runs on the desktop (Windows, Mac, and Linux) or in a browser connected to RStudio Server or RStudio Server Pro (Debian/Ubuntu, Red Hat/CentOS, and SUSE Linux).

There are two versions of RStudio:



RStudio Desktop

Run RStudio on your desktop




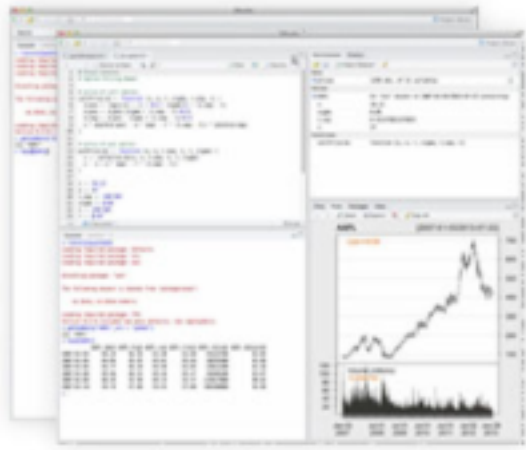
RStudio Server

Centralize access and computation

# Step 8: Click **Download RStudio Desktop**



	Open Source Edition	RStudio Desktop Pro
Overview	<ul style="list-style-type: none"><li>• Access RStudio locally</li><li>• Syntax highlighting, code completion, and smart indentation</li><li>• Execute R code directly from the source editor</li><li>• Quickly jump to function definitions</li><li>• Easily manage multiple working directories using projects</li><li>• Integrated R help and documentation</li><li>• Interactive debugger to diagnose and fix errors quickly</li><li>• Extensive package development tools</li></ul>	<p>All of the features of open source; plus:</p> <ul style="list-style-type: none"><li>• A commercial license for organizations not able to use AGPL software</li><li>• Access to priority support</li><li>• <a href="#">RStudio Professional Drivers</a></li><li>• Connect directly to your RStudio Server Pro instance remotely</li></ul>
Support	Community forums only	<ul style="list-style-type: none"><li>• Priority Email Support</li><li>• 8 hour response during business hours (ET)</li></ul>
License	AGPL v3	<a href="#">RStudio License Agreement</a>
Pricing	Free	\$995/year
	 <a href="#">DOWNLOAD RSTUDIO DESKTOP</a>	<a href="#">DOWNLOAD FREE RSTUDIO DESKTOP PRO TRIAL</a>



## Choose Your Version of RStudio

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.](#)

## Step 9: Scroll down and click **Rstudio package** for your operating system 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.

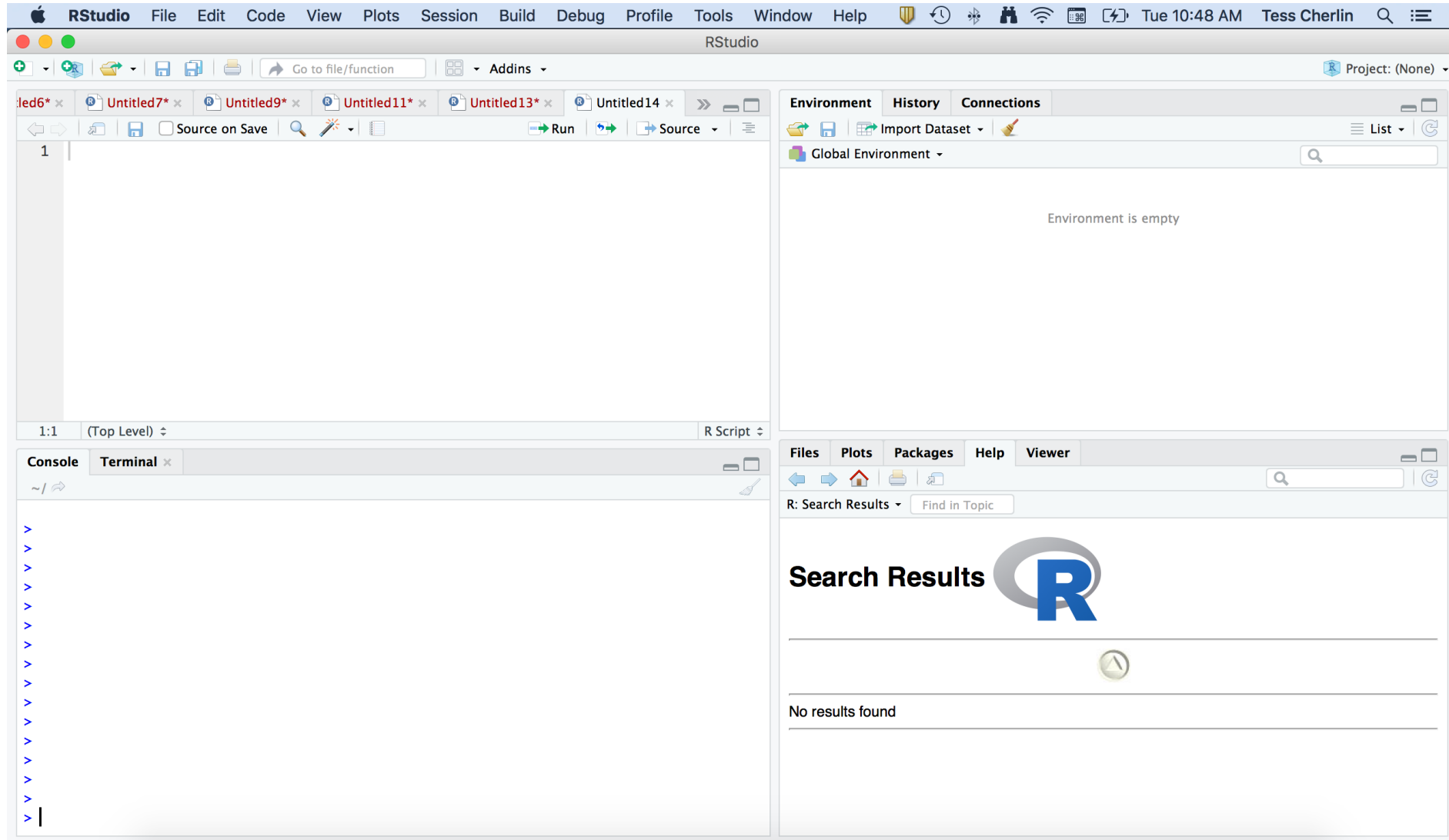
RStudio 1.2 requires a 64-bit operating system. If you are on a 32 bit system, you can use an [older version of RStudio](#).

OS	Download	Size	SHA-256
Windows 10/8/7	 <a href="#">RStudio-1.3.959.exe</a>	171.41 MB	<a href="#">3d493ae5</a>
macOS 10.13+	 <a href="#">RStudio-1.3.959.dmg</a>	148.57 MB	<a href="#">7c5b695d</a>
Ubuntu 16	 <a href="#">rstudio-1.3.959-amd64.deb</a>	124.57 MB	<a href="#">c2931495</a>





# Step 10: Move RStudio to Applications Folder and open it... should look like this



Email [tess.cherlin@jefferson.edu](mailto:tess.cherlin@jefferson.edu) if you have any problems with this tutorial.