R Installation HORT / AGRO 4401

March 7, 2017

Introduction

This guide will provide steps for installing R and the quantitative genetics demo.

Installing R

1. Navigate to The R Project website: https://www.r-project.org/



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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) has been released on 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.
- The R Foundation welcomes five new ordinary members: Jennifer Bryan, Dianne Cook, Julie Josse, Tomas Kalibera, and Balasubramanian Narasimhan.
- The R Journal Volume 8/1 is available.
- The useR! 2017 conference will take place in Brussels, July 4 7, 2017.
- R version 3.2.5 (Very, Very Secure Dishes) has been released on 2016-04-14. This is a rebadging
 of the quick-fix release 3.2.4-revised.

2. Click on "download R" (or follow this link: https://cran.r-project.org/mirrors.html)

https://cran.ma.imperial.ac.uk/ http://cran.ma.imperial.ac.uk/ http://mirror.mdx.ac.uk/R/

http://star-www.st-andrews.ac.uk/cran/

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://tweb.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.mirrors.hoobly.com/ Imperial College London Imperial College London Middlesex University London St Andrews University

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

3. Choose a mirror for download. I usually use the Iowa State mirror (or follow this link: https://mirror.las.iastate.edu/CRAN/)



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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

- · 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!

- $\bullet \ \ \text{The latest release (Monday 2017-03-06, Another Canoe)} \ \underline{\text{R-3.3.3.tar.gz}}, \text{read} \ \underline{\text{what's new}} \ \text{in the latest version}.$
- 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 <u>available here</u>. Please read about <u>new features</u> and <u>bug fixes</u> before filing corresponding feature requests or bug reports.
- Source code of older versions of R is available here
- Contributed extension packages

- 4. Choose the download the is most appropriate for your operating system.
 - If using a Mac, click Download R for (Mac) OS X, download the .pkg file and install



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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 release of R for these systems (which is R 1.7.1) 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.

As of 2016/03/01 package binaries for R versions older than 2.12.0 are only available from the <u>CRAN archive</u> so users of such versions should adjust the CRAN mirror setting accordingly.

R 3.3.2 "Sincere Pumpkin Patch" released on 2016/10/31

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

in the Terminal application to print the MD5 checksum for the R-3.3.2.pkg image. On Mac OS X 10.7 and later you can also validate the signature using pkgutil --check-signature R-3.3.2.pkg

Files:

R-3.3.2.pkg MD5-hash: 77e27f760b7559d18e30d69b6f2843ba SHA1-hash: 18446e3f65d31106cc2b62c41ac61cddb50c27ef (ca. 71MB) R 3.3.2 binary for Mac OS X 10.9 (Mavericks) and higher, signed package. Contains R 3.3.2 framework, R.app GUI 1.68 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 ommitted 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 tc1tk) requires $\underline{\text{XOuartz}}$ 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.

• If using a Windows machine, click Download R for Windows, and click install R for the first time. Then click the Download link at the top of the page and install.



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R for Windows

Subdirectories:

Binaries for base distribution (managed by Duncan Murdoch). This is what you want to install R for the first base

Binaries of contributed CRAN packages (for R >= 2.11.x; managed by Uwe Ligges). There is also information on third party software available for CRAN Windows services and corresponding environment and make contrib

variables.

old contrib Binaries of contributed CRAN packages for outdated versions of R (for R \leq 2.11.x; managed by Uwe Ligges). Tools to build R and R packages (managed by Duncan Murdoch). This is what you want to build your own Rtools

packages on Windows, or to build R itself.

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

You may also want to read the RFAQ and R for Windows FAQ.

Note: CRAN does some checks on these binaries for viruses, but cannot give guarantees. Use the normal precautions with downloaded executables.

Installing Shiny

- 1. Once R is installed, open the program.
- 2. Type the following command and press Enter:

install.packages("shiny")