

# UNIVERSITY OF SÃO PAULO

PPGEP - Graduate Program in Production Engineering

PRO5972 - Business Sustainability

## R LANGUAGE and RSTUDIO

To use bibliometrix and Biblioshiny application, it is necessary to install 02 (two) software: *R Language and RStudio*.

### INSTALLING R LANGUAGE

*The first step*

To use bibliometrix and biblioshiny, it is necessary to install R. Download and install the most recent version of R. Access the link (<https://cran.r-project.org/>). Next, choose the R installation package according to your machine's Operational System.



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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 want one of these versions of R.

- [Download R for Linux \(Debian, Fedora/RHEL, Ubuntu\)](#)
- [Download R for macOS](#)
- [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 (2022-04-22, Vigorous Calisthenics) [R 4.1.0](#) [on CRAN](#), read [what's new](#) in the latest version.
- Sources of [R alpha and beta releases](#) (daily snapshots, created only at 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.

What are R and CRAN?

For Windows users: click on “base”, right after “Download R 4.2.0 for Windows”.  
Execute the downloaded file and install it as usual, with the default settings:

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R for Windows

Subdirectories:

[base](#) Binaries for base distribution. This is what you want to **install R for the first time**.  
Binaries of contributed CRAN packages (for R on Linux)

R-4.2.0 for windows

[Download R-4.2.0 for Windows](#) (79 megabytes, 64 bit)  
[RELEASE](#) on the Windows binary distribution  
[New features in this version](#)

This build requires UCRT, which is part of Windows since Windows 10 and Windows Server 2016. On older systems, UCRT has to be installed manually from [here](#).

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.

Frequently asked questions

- [Does R run under my version of Windows?](#)
- [How do I update packages in my previous version of 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 [patched snapshot build](#).
- A build of the development version (which will eventually become the next major release of R) is available in the [dev 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.html`

Last change: 2022-04-22

## INSTALLING RSTUDIO

*The second step*

On the page <https://rstudio.com> , click on “Download”:

R Studio

Products Solutions Customers Resources About Pricing

DOWNLOAD SUPPORT BLOGS COMMUNITY

Share your R and Python content with  
RStudio Connect.

GET STARTED

Level up your data science training with RStudio Academy

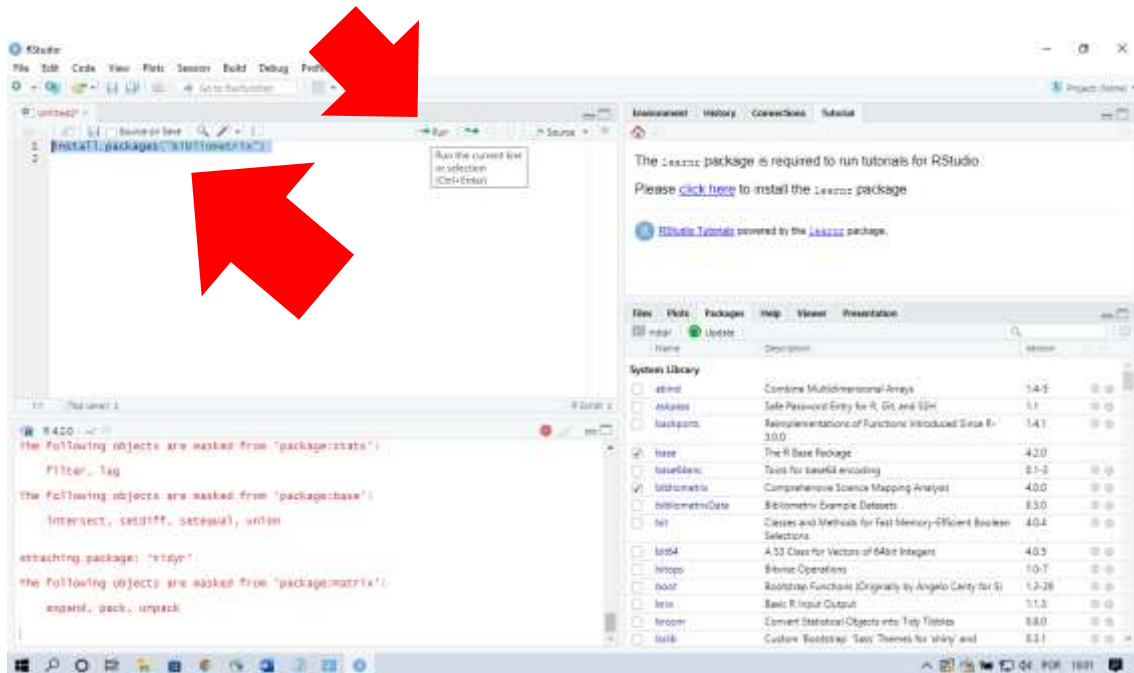
After that, scroll down the page and click on “Download” at the Free version.



Next, click on the link corresponding to the version of the Operational System to be used. After finishing the download, the file must be installed. As usual, keep the default settings.

## INSTALLING THE BIBLIOMETRIX PACKAGE IN RSTUDIO

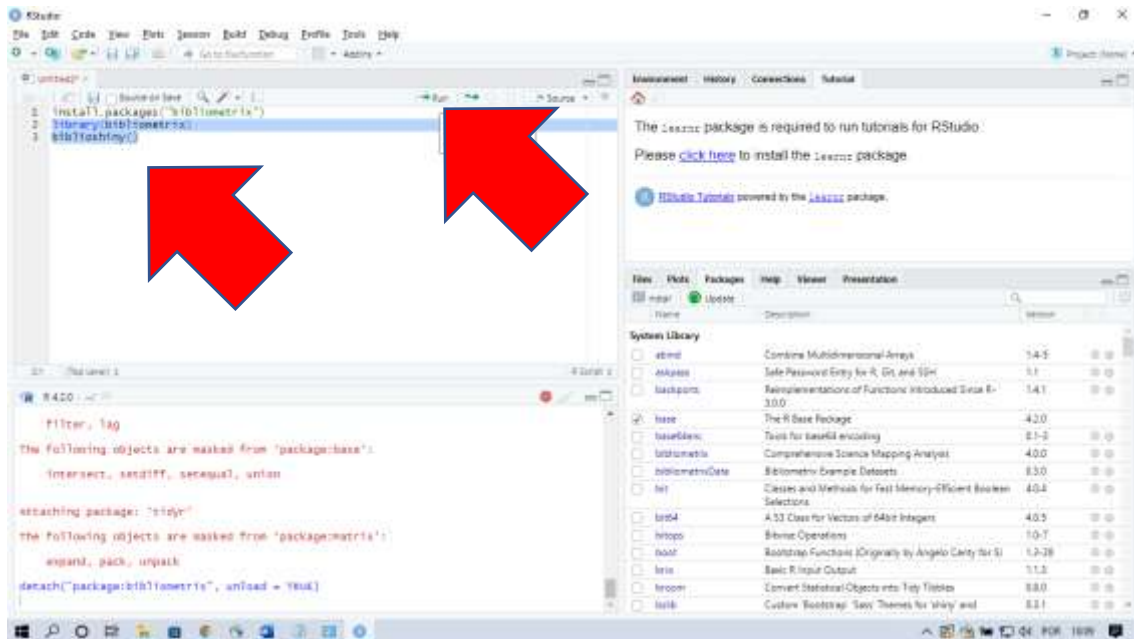
1. Open Rstudio software.
2. Copy and paste the following commands to the terminal:  
line 1: `install.packages("bibliometrix")`
3. Select the first line of code. Click in the **Run button**. This action installs the bibliometrix package in Rstudio and loads the Bibliometrix for the R environment. You only need to install it once! Generally, the installation of the bibliometrix package can take some time; wait until the end of the installation.



## OPENING THE BIBLIOSHINY APP IN THE BROWSER

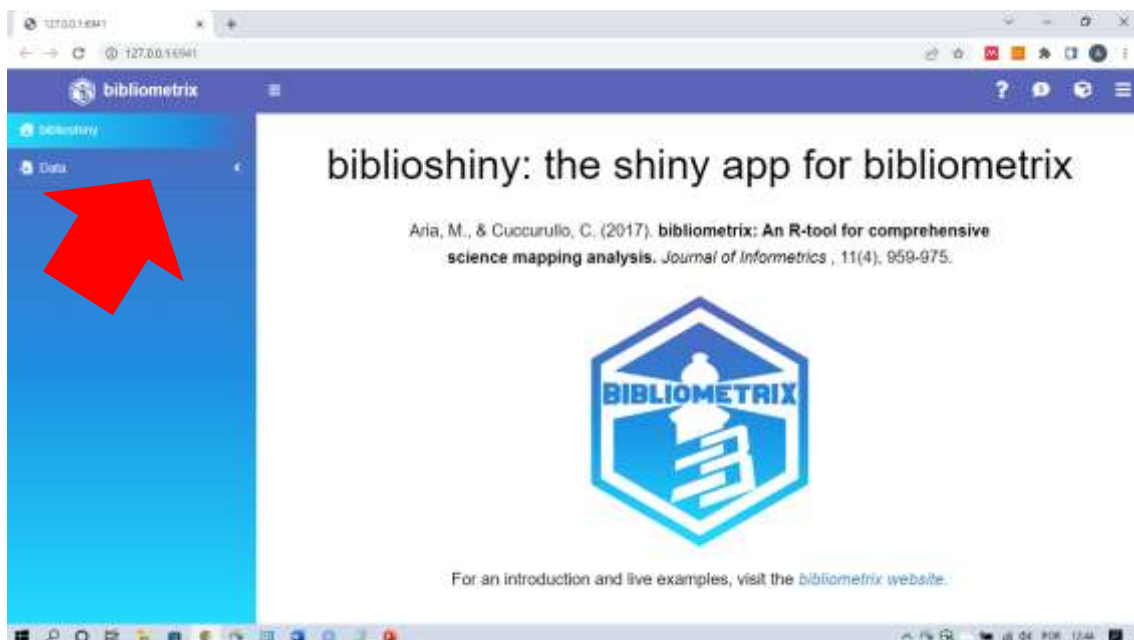
To use the biblioshiny application in your browser, enter the command `library(bibliometrix)` and `biblioshiny()`.

1. Insert the command `library(bibliometrix)` on line 2.
2. Insert the `biblioshiny()` command on line 3.
3. Select lines 2 and 3 and then click Run.



This action will open the biblioshiny application in your browser whenever you need to view your sample's bibliometric information (such as examples, word cloud, co-citation network, etc.).

The biblioshiny app will open in your browser, and you will be able to load files containing bibliometric information and perform bibliometric analysis tasks.



## References

Aria, M. & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis, *Journal of Informetrics*, 11(4), pp 959-975, Elsevier, DOI: 10.1016/j.joi.2017.08.007 (<https://doi.org/10.1016/j.joi.2017.08.007>).

Bibliometrix: Comprehensive Science Mapping Analysis:  
<https://www.bibliometrix.org/home/index.php>

Bibliometrix reference manual:  
<https://cran.r-project.org/web/packages/bibliometrix/bibliometrix.pdf>

Tour of RStudio: <https://rladiessydney.org/courses/ryouwithme/01-basicbasics-1/>