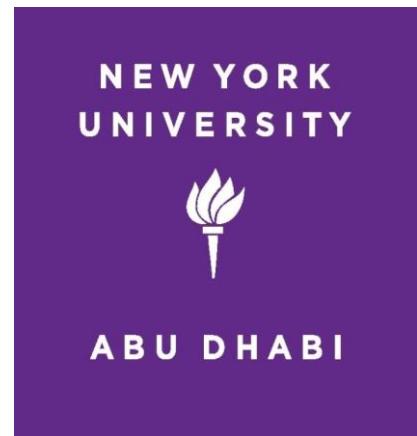


Install Packages in R & RStudio

Amar Ahmad

New York University in Abu Dhabi



Open RStudio

The screenshot shows the RStudio interface with the following components:

- Header Bar:** RStudio, File, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, Help.
- Toolbar:** Addins, Go to file/function, Addins.
- Console Pane:** Displays the R startup message and workspace loading information.
- Environment Pane:** Shows the Global Environment, which is currently empty.
- Files Pane:** Displays a file list in the Home directory.

Console Output:

```
R version 4.2.2 (2022-10-31 ucrt) -- "Innocent and Trusting"
Copyright (C) 2022 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.

[Workspace loaded from ~/.RData]

> |
```

Environment Pane:

Global Environment

Environment is empty

Files Pane:

	Name	Size	Modified
	.RData	2.5 KB	Jan 18, 2023, 9:37 AM
	.Rhistory	91 B	Feb 10, 2023, 5:54 PM
	Biomarker Statistical Analysis Plan_ASA.doc	89.5 KB	Oct 8, 2022, 5:49 PM
	Custom Office Templates		
	desktop.ini	402 B	Sep 26, 2022, 9:40 AM
	dugong.txt	392 B	Oct 15, 2022, 8:08 PM
	My Music		
	My Pictures		
	My Videos		
	SAP_AA.doc	89.5 KB	Oct 8, 2022, 5:47 PM
	Zoom		

Installing packages in R

- To install an R package, one can use the R function

`install.packages()`

- For example, to install the R package `readr`, one can use the following command

`install.packages("readr")`

- Write the `install.packages("readr")` in the R console

Then hit the enter key on keyboard

The screenshot shows the RStudio interface with the following components:

- Console Pane:** Displays the R startup message and the command `> install.packages("readr")`.
- Environment Pane:** Shows the Global Environment tab with the message "Environment is empty".
- Files Pane:** Shows the contents of the current workspace, including files and folders like .RData, .Rhistory, and Biomarker Statistical Analysis Plan_ASA.doc.

Console Terminal x Background Jobs x

R 4.2.2 · ~/

Type 'q()' to quit R.

[Workspace loaded from ~/.RData]

> install.packages("readr")

WARNING: Rtools is required to build R packages but is not currently installed. Please download and install the appropriate version of Rtools before proceeding:

<https://cran.rstudio.com/bin/windows/Rtools/>Installing package into 'C:/Users/asa12/AppData/Local/R/win-library/4.2'
(as 'lib' is unspecified)

There is a binary version available but the source version is later:

binary source needs_compilation
readr 2.1.3 2.1.4 TRUE

Binaries will be installed

trying URL 'https://cran.rstudio.com/bin/windows/contrib/4.2/readr_2.1.3.zip'
Content type 'application/zip' length 1194963 bytes (1.1 MB)
downloaded 1.1 MB

package 'readr' successfully unpacked and MD5 sums checked

Warning in install.packages :

cannot remove prior installation of package 'readr'

Warning in install.packages :

problem copying C:/Users/asa12/AppData/Local/R/win-library/4.2\00LOCK\readr\libs\x64\readr.dll to C:/Users/asa12/AppData/Local/R/win-library/4.2\readr\libs\x64\readr.dll: Permission denied

Warning in install.packages :

restored 'readr'

The downloaded binary packages are in

C:/Users/asa12/AppData/Local/Temp/Rtmp4A64wj/downloaded_packages

> |

Environment History Connections Tutorial

Import Dataset | 169 MiB

R | Global Environment

Environment is empty

Files Plots Packages Help Viewer Presentation

New Folder | New Blank File | Delete | Rename | More

Home

	Name	Size	Modified
<input type="checkbox"/>	.RData	2.5 KB	Jan 18, 2023, 9:37 AM
<input type="checkbox"/>	.Rhistory	91 B	Feb 10, 2023, 5:54 PM
<input type="checkbox"/>	Biomarker Statistical Analysis Plan ASA.doc	89.5 KB	Oct 8, 2022, 5:49 PM
<input type="checkbox"/>	Custom Office Templates		
<input type="checkbox"/>	desktop.ini	402 B	Sep 26, 2022, 9:40 AM
<input type="checkbox"/>	dugong.txt	392 B	Oct 15, 2022, 8:08 PM
<input type="checkbox"/>	My Music		
<input type="checkbox"/>	My Pictures		
<input type="checkbox"/>	My Videos		
<input type="checkbox"/>	SAP_AA.doc	89.5 KB	Oct 8, 2022, 5:47 PM
<input type="checkbox"/>	Zoom		

Installing packages in R

- R may ask you to specify a [CRAN mirror](#).
- This is because there are several CRAN mirror worldwide, which are frequently located at universities
- Please select our [NYUAD CRAN mirror](#)

```
R version 4.2.1 (2022-06-23 ucrt) -- "Funny-Looking Kid"  
Copyright (C) 2022 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.
```

```
Natural language support but running in an English locale
```

```
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.
```

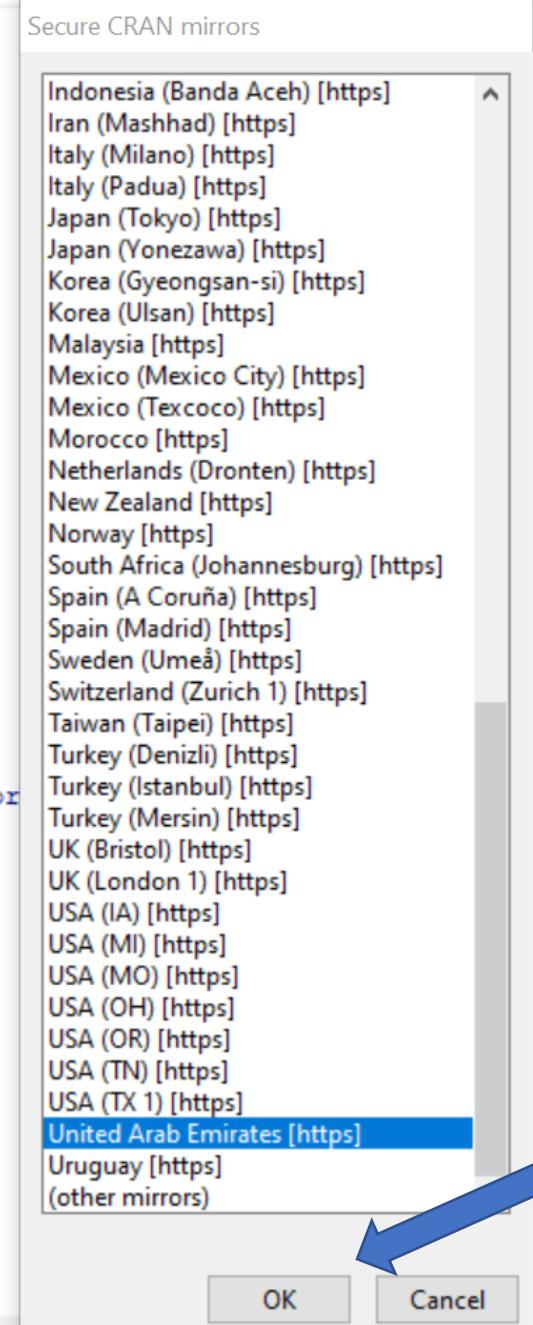
```
Type 'demo()' for some demos, 'help()' for on-line help, or  
'help.start()' for an HTML browser interface to help.
```

```
Type 'q()' to quit R.
```

```
[Previously saved workspace restored]
```

```
> install.packages("readr")
```

```
Installing package into 'C:/Users/asal2/AppData/Local/R/win-libr  
(as 'lib' is unspecified)  
--- Please select a CRAN mirror for use in this session ---
```



Then click the OK key

Loading an R package

- You load the R package `readr` as following

```
> library(readr)
```

```
>
```