

Vol. 1: Basics in R

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Chapter 1

Introduction

This is the first volume in the eBook encyclopedia.

Chapter 2

Software Installation

Here is where we talk about installing software.

2.1 R

2.1.1 First Time Installation

2.1.2 Periotic Updating

2.2 R Studio

2.2.1 First Time Installation

2.2.2 Periotic Updating

2.2.3 Panel Layout

2.3 TeX (optional)

2.3.1 TinyTeX

2.3.2 MAc

2.3.3 Windows

Chapter 3

Packages Management

We describe packages and their management

3.1 What are packages

3.2 How to install packages

3.3 Updating packages

3.4 Suggested packages

Chapter 4

Data Management

How do you get data into R, view and work with in, and then save it for later use.

4.1 Importing Data From Various Formats

4.1.1 Text Format (.csv, tab-delimited, ect.)

Use `read.csv()`

4.1.2 Excel Format (.xls, .xlsx)

Use `haven::read.spss()`

4.1.3 SPSS Format (.sav)

Use `readxl::read.excel()`

4.1.4 REDCap (API directly)

4.2 Viewing Data Within R Studio

4.2.1 The Environment Tab

4.2.2 Notebook Display

4.3 Saving Data in R Format

Use `save(..., file = "name.RData")`

Chapter 5

Data Wrangling

5.1 Subsetting Data

5.1.1 Select Variables (columns)

Use `dplyr::select()`

5.1.2 Select Observations (rows)

Use `dplyr::filter()`

5.2 Symbol Opporators

5.2.1 Logical Opporators

5.2.1.1 Inequalities (<, >, <=, >=)

5.2.1.2 AND (&)

5.2.1.3 OR (|)

5.2.1.4 Within a List (%in%)

5.2.2 The Assignemnt Opporator (<-)

5.2.3 The Pipe Opporator (%>%)