**User Requirements Specification for R**

**Document Properties**

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# Introduction

This is the user requirements specification for R base installation official distribution (“base R and recommended packages”). It provides high-level requirements to use R and its functions from a user perspective.

Out of scope of this user requirements document are:

* Requirements for R add-on packages
* Requirements for statistical products

# Background Information

The intended use of R is to provide an integrated suite of software facilities (language and environment) for statistical computing (data manipulation & calculation) and graphical display.

# Business Process Requirements

## Business Process Scope

The following processes are in scope of this user requirement specification:

* Data Transfer (import/export of data to/from R).
* Metadata Management (save and export metadata in/from R).
* Install and run add-on packages to/on the R base.

## Business Process 1: Data Transfer

| **Unique ID** | **Summary** | **Description** |
| --- | --- | --- |
| URS-01 | Data Import | **As a** statistician **I want to** be able to import data **So that** I can perform the statistical analysis.  |
| URS-02 | Data Export | **As a** statistician **I want to** be able to export data **So that** I can share it with collaborators. |

## Business Process 2: Metadata Management

| **Unique ID** | **Summary** | **Description** |
| --- | --- | --- |
| URS-03 | Save Metadata | **As a** statistician **I want to** be able to save metadata **So that** I can document those data and ensure reproducibility of analyses.  |
| URS-04 | Export Metadata | **As a** statistician **I want to** be able to export metadata **So that** I can share those data and ensure reproducibility of analyses.  |

## Business Process 3 : Installation of Add-on Packages

| **Unique ID** | **Summary** | **Description** |
| --- | --- | --- |
| URS-05 | Installation of R add-on Packages | **As a** statistician **I want to** be able to install add-on R packages from recognized repositories (e.g., CRAN) **So that** I can use the functions provided by these packages in my analyses.  |
| URS-06 | Run R add-on Packages | **As a** statistician **I want to** be able to run add-on R packages installed from recognized repositories (e.g., CRAN) **So that** I can perform the required analyses.  |

# Glossary / Abbreviations

|  |  |
| --- | --- |
| **Term/ Abbreviation** | **Definition** |
| CRAN | Comprehensive R Archive NetworkCRAN is a network of ftp and web servers around the world that store identical, up-to-date, versions of code and documentation for R. |
| R add-on package | R packages are* extensions to the R statistical programming language and contain code, data, and documentation in a standardised collection format
* provided by members of the R community
* available via CRAN and other distribution repositories
 |
| R meta data | Information about the use of R in a session/product that allows the user to reproduce results. In R this can be extracted from the session-information to include the information on the operating system, the version of R used and the packages (and versions) used in a working session. |
| statistical product | Any deliverable produced using R. Typical statistical products include sample size estimation, statistical analysis plan, an analysis report etc. |

# References

N/A