

Formação Cientista de Dados

Pacotes

Packages

- Implementam funções
- Desenvolvidos no mundo inteiro
- Totalmente open source
- Existem mais de 10 mil !!!

Exemplos

- Machine Learning
- Gráficos
- Series Temporais
- Distribuições de Probabilidade
- Finanças
- Genética
- Etc.

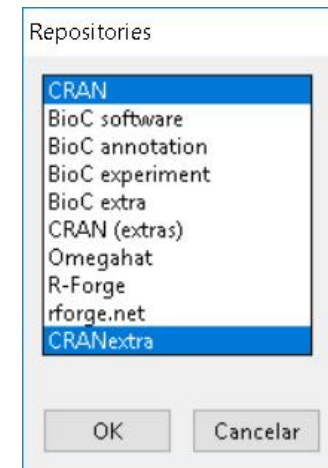
Pacotes populares

- Dplyr: manipulação de dados
- Devtools: desenvolvimento (criação de pacotes)
- Foreign: importar dados de outras ferramentas (SAS, SPSS etc)
- Ggplot2: visualização



Pacotes

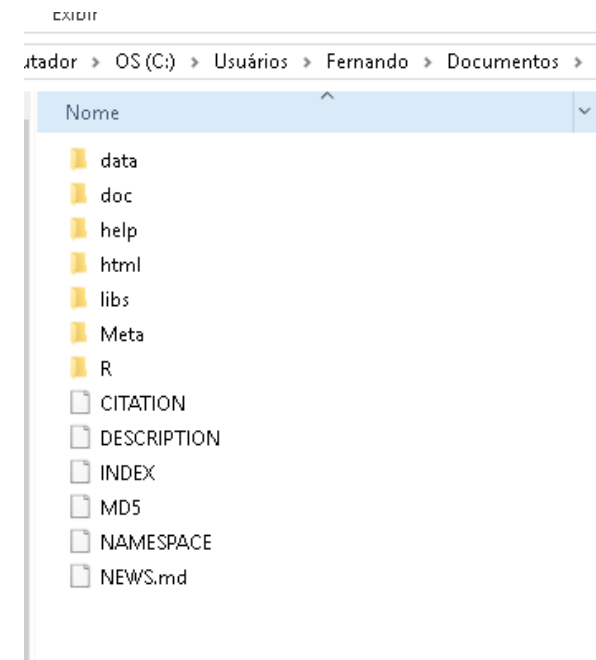
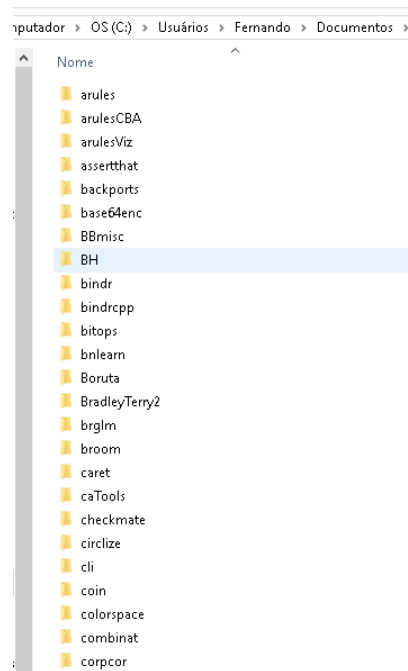
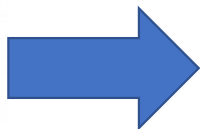
- [The Comprehensive R Archive Network:](https://cran.r-project.org/)
<https://cran.r-project.org/>
- Repositórios e Espelhos (Mirrors)



Pacotes



Pacotes



C:\Users\Fernando\Documents\R\win-library\3.4



Instalação

- Linha de comando
- Manualmente

Instalação – Linha de Comando

- `install.packages("arules", dependencies=TRUE)`
- Seleciona o Espelho do CRAN e aguarda o download
- Verifica a mensagem de instalação ou eventual problema



Instalação Manual: Parte I

- Localiza a página do CRAN do pacote
- Download dos binários conforme SO

arules: Mining Association Rules and Frequent Itemsets

Provides the infrastructure for representing, manipulating and analyzing transaction data and patterns (frequent itemsets and association rules). Also provides C implementations of the association mining algorithms Apriori and Eclat.

Version: 1.5-5
Depends: R ($\geq 3.4.0$), [Matrix](#) ($\geq 1.2-0$)
Imports: stats, methods, graphics, utils
Suggests: [pmmi](#), [XML](#), [arulesViz](#), [testthat](#)
Published: 2018-01-10
Author: Michael Hahsler [aut, cre, cph], Christian Buchta [aut, cph], Bettina Gruen [aut, cph], Kurt Hornik [aut, cph], Ian Johnson [ctb, cph], Christian Borgelt [ctb, cph]
Maintainer: Michael Hahsler <mhahsler@lyle.smu.edu>
BugReports: <https://github.com/mhahsler/arules>
License: [GPL-3](#)
Copyright: The code for apriori and eclat in src/rapriori.c was obtained from <http://www.borgelt.net/> and is Copyright (C) 1996-2003 Christian Borgelt. All other code is Copyright (C) Michael Hahsler, Christian Buchta, Bettina Gruen and Kurt Hornik.
URL: <https://github.com/mhahsler/arules>, <http://lyle.smu.edu/TDA/arules>
NeedsCompilation: yes
Classification/ACM: G.4, H.2.8, I.5.1
Citation: [arules citation info](#)
Materials: [README NEWS](#)
In views: [MachineLearning](#)
CRAN checks: [arules results](#)

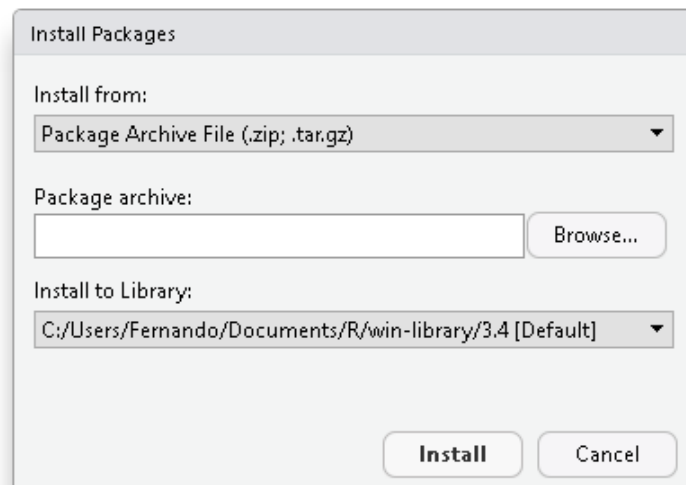
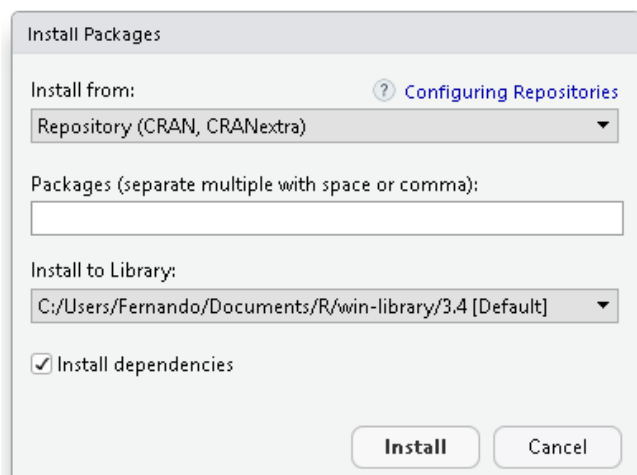
Downloads:

Reference manual: [arules.pdf](#)
Vignettes: [Introduction to arules](#)
Package source: [arules_1.5-5.tar.gz](#)
Windows binaries: r-devel: [arules_1.5-5.zip](#), r-release: [arules_1.5-5.zip](#), r-oldrel: [arules_1.5-4.zip](#)
OS X El Capitan binaries: r-release: [arules_1.5-5.tgz](#)
OS X Mavericks binaries: r-oldrel: [arules_1.5-4.tgz](#)
Old sources: [arules archive](#)



Instalação Manual: Parte II

- RSudio: Acessar menu tools, Install Packages



Carregar e Descarregar Pacote

```
library(arules)
```

```
detach("package:arules", unload=TRUE)
```

CRAN Task Views

CRAN Task Views

Bayesian
ChemPhys
ClinicalTrials
Cluster
DifferentialEquations
Distributions
Econometrics
Environmetrics
ExperimentalDesign
ExtremeValue
Finance
FunctionalData
Genetics
Graphics
HighPerformanceComputing
MachineLearning
MedicalImaging
MetaAnalysis
Multivariate
NaturalLanguageProcessing
NumericalMathematics
OfficialStatistics
Optimization
Pharmacokinetics
Phylogenetics
Psychometrics
ReproducibleResearch
Robust
SocialSciences
Spatial

Bayesian Inference
Chemometrics and Computational Physics
Clinical Trial Design, Monitoring, and Analysis
Cluster Analysis & Finite Mixture Models
Differential Equations
Probability Distributions
Econometrics
Analysis of Ecological and Environmental Data
Design of Experiments (DoE) & Analysis of Experimental Data
Extreme Value Analysis
Empirical Finance
Functional Data Analysis
Statistical Genetics
Graphic Displays & Dynamic Graphics & Graphic Devices & Visualization
High-Performance and Parallel Computing with R
Machine Learning & Statistical Learning
Medical Image Analysis
Meta-Analysis
Multivariate Statistics
Natural Language Processing
Numerical Mathematics
Official Statistics & Survey Methodology
Optimization and Mathematical Programming
Analysis of Pharmacokinetic Data
Phylogenetics, Especially Comparative Methods
Psychometric Models and Methods
Reproducible Research
Robust Statistical Methods
Statistics for the Social Sciences
Analysis of Spatial Data

- <https://cran.r-project.org/web/views/>
- Agrupamentos de pacotes e recursos por assuntos

