Contributed Packages

Available Packages

Currently, the CRAN package repository features 12513 available packages.

Table of available packages, sorted by date of publication

Table of available packages, sorted by name

Installation of Packages

Please type help("INSTALL") or help("install.packages") in R for information on how to install packages from this repository. The manual R Installation and Administration (also contained in the R base sources) explains the process in detail.

CRAN Task Views allow you to browse packages by topic and provide tools to automatically install all packages for special areas of interest. Currently, 36 views are available.

Package Check Results

All packages are tested regularly on machines running Debian GNU/Linux, Fedora, OS X, Solaris and Windows.

The results are summarized in the check summary (some timings are also available). Additional details for Windows checking and building can be found in the Windows check summary.

Writing Your Own Packages

The manual Writing R Extensions (also contained in the R base sources) explains how to write new packages and how to contribute them to CRAN.

Repository Policies

The manual CRAN Repository Policy [PDF] describes the policies in place for the CRAN package repository.

Related Directories

Archive

Previous versions of the packages listed above, and other packages formerly available.

Orphaned
Finding the right package for your task

- I want to do X – which package(s) can I use?
- I found several suitable packages – which one do I pick?
Typical workflow

- Find packages with right functionality
- Narrow down selection via high-level comparison
- Explore that selection in a more in-depth comparison
- Make your choice
RcppGSL 0.3.4
May 7, 2018
By Thinking inside the box

A minor update version 0.3.4 of RcppGSL is now on CRAN. It contains an improved Windows build system (thanks, Jeroen!) and updates the C++ headers by removing dynamic exception specifications which C++11 frowns upon, and the compilers lets us know th...
Welcome
to crantastic, a community site for R packages where you can search for, review and tag CRAN packages.

Most popular packages
1. ggplot 2. rms 3. dplyr 4. fields 5. PairwiseD ... more!

Recent activity
- OscillatorGenerator was released (about 1 hour ago)
- KRIS was released (about 1 hour ago)
- IDE was released (about 1 hour ago)
CRAN Task Views

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

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
Model Deployment with R
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
CRAN Task View: Econometrics

Maintainer: Achim Zeileis
Contact: Achim.Zeileis at R-project.org
Version: 2018-04-24
URL: https://CRAN.R-project.org/view=Econometrics

Base R ships with a lot of functionality useful for computational econometrics, in particular in the stats package. This functionality is complemented by many packages on CRAN, a brief overview is given below. There is also a considerable overlap between the tools for econometrics in this view and those in the task views on Finance, SocialSciences, and TimeSeries. Furthermore, the Finance SIG is a suitable mailing list for obtaining help and discussing questions about both computational finance and econometrics.

The packages in this view can be roughly structured into the following topics. If you think that some package is missing from the list, please contact the maintainer.

Basic linear regression

- *Estimation and standard inference*: Ordinary least squares (OLS) estimation for linear models is provided by `lm()` (from stats) and standard tests for model comparisons are available in various methods such as `summary()` and `anova()`.
- *Further inference and nested model comparisons*: Functions analogous to the basic `summary()` and `anova()` methods that also support asymptotic tests (z instead of t tests, and Chi-squared instead of F tests) and plug-in of other covariance matrices are `coeftest()` and `waldtest()` in `lmtest`. Tests of more general linear hypotheses are implemented in `linearHypothesis()` and for nonlinear hypotheses in `deltaMethod()` in `car`.
- *Robust standard errors*: HC and HAC covariance matrices are available in `sandwich` and can be plugged into the inference functions mentioned above.
- *Nonnested model comparisons*: Various tests for comparing non-nested linear models are available in `lmtest` (encompassing test, J test, Cox test). The Vuong test for comparing other non-nested models is provided by `nonnest2` (and specifically for count data regression in `pscl`).
- *Diagnostic checking*: The packages `car` and `lmtest` provide a large collection of regression diagnostics and diagnostic tests.

Microeconometrics

- *Generalized linear models (GLMs)*: Many standard microeconometric models belong to the family of generalized linear models and can be fitted by `glm()` from package stats. This includes in particular logit and probit models for modeling choice data and Poisson models for count data. Effects for typical values of regressors in these models can be obtained and visualized using `effects`. Marginal effects tables for certain GLMs can be obtained using the `mfx` and `margins` packages. Interactive visualizations of both effects and marginal effects are possible in `LinRegInteractive`. 
METACRAN: Search and browse all CRAN/R packages

**Featured packages**

**xgboost**
Extreme Gradient Boosting
0.6.4.1, published 3 months ago, by Tong He

**ggplot2**
Create Elegant Data Visualisations Using the Grammar of Graphics
2.2.1, published a year ago, by Hadley Wickham

**h2o**
R Interface for 'H2O'
3.18.0.8, published 5 days ago, by Tom Kraljevic

**shiny**
Web Application Framework for R
1.0.5, published 8 months ago, by Winston Chang

**dplyr**
A Grammar of Data Manipulation
0.7.4, published 7 months ago, by Hadley Wickham

**dbplyr**
A 'dplyr' Back End for Databases
1.2.1, published 3 months ago, by Hadley Wickham

**feather**
R Bindings to the Feather 'API'
0.3.1, published a year ago, by Hadley Wickham

**devtools**
Tools to Make Developing R Packages Easier
1.13.5, published 3 months ago, by Jim Hester

**knitr**
A General-Purpose Package for Dynamic Report Generation in R
1.20, published 3 months ago, by Yihui Xie

**Most downloaded**
High Level Comparison

- Is it stable?
- Is it actively maintained?
- What about tests?
- What about documentation?
- Who wrote the package?
High Level Comparison

• Is it stable?
• Is it actively maintained?
• What about tests?
• What about documentation?
• Who wrote the package?
About packagemetrics

The packagemetrics project was a part of the 2017 rOpenSci Unconference. With over 10,000 packages on CRAN - and thousands more on GitHub and Bioconductor - a user needs a way to navigate this wealth of options. There are many existing tools that are helpful for finding packages, but few ways to quickly compare differences between packages. We set out to create tools for comparing a set of related and potentially overlapping packages through a combination of standardized packagemetrics and an expert review process. More information about our project can be found in this post.

Team packagemetrics:

Lori Shepherd, Hannah Frick, William Ampeh, Erin Grand, Sam Firke, Becca Krouse

Installation

develtools::install_github("ropenscilabs/packagemetrics")

Use

pkg_df <- package_list_metrics(table_packages) # included vector of table pkgs
ft <- metrics_table(pkg_df)

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</table>
packageMetrics2

Collect Metrics about R Packages

This package is used to collect metrics about CRAN, BioConductor or other packages, for Valid-R.

Installation

remotes::install_github("mangothecat/packageMetrics2")

Usage

library(packageMetrics2)

metrics <- package_metrics("remotes")

head(metrics)

#> ARR   ATC   DWL
#> "0"   "94.2539388322521"   "69747"
#> DEP   DPD   CCP
#> "4"   "2"   "2.68939393939394"
Package review

• Try it out!
• Academic journals, e.g., Journal of Statistical Software and R Journal
• rOpenSci review and Journal of Open Source Software
• goodpractice package
All the links

Discover
• R-bloggers https://www.r-bloggers.com/
• R Weekly https://RWeekly.org/
• Rseek https://rseek.org/
• Crantastic! https://crantastic.org/
• CRAN Task Views https://cran.r-project.org/web/views/
• METACRAN https://www.r-pkg.org/

Compare
• packagemetrics https://github.com/ropenscilabs/packagemetrics
• packageMetrics2 https://github.com/MangoTheCat/packageMetrics2

Review
• Journal of Statistical Software https://www.jstatsoft.org/
• R Journal https://journal.r-project.org/
• rOpenSci https://ropensci.org/ + Journal of Open Source Software
• goodpractice https://github.com/MangoTheCat/goodpractice