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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.

<u>CRAN Task Views</u> 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 <u>check summary</u> (some <u>timings</u> are also available). Additional details for Windows checking and building can be found in the <u>Windows check summary</u>.

Writing Your Own Packages

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

Repository Policies

The manual <u>CRAN Repository Policy</u> [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



R Weekly 2018-19 pkgdown,
tweets, showcase
Highlight
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R in the Real World
Tutorials
R Project Updates

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Live

- OscillatorGenerator Generation of Customizable, Discretized Time Series ofOscillating Species (cran.r-project.org)
- DE Integro-Difference Equation Spatio-Temporal Models (cran.r-project.org)
- HiResTEC Non-Targeted Fluxomics on High-Resolution Mass-Spectrometry Data (cran.r-project.org)

More





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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...

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Created and maintained by <u>Sasha Goodman</u>. Est. 2007. Version 2.0.

Privacy Policy

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)



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CRAN Task Views

<u>Bayesian</u> Bayesian Inference

<u>ChemPhys</u> Chemometrics and Computational Physics
<u>ClinicalTrials</u> Clinical Trial Design, Monitoring, and Analysis

Cluster Analysis & Finite Mixture Models

<u>Differential Equations</u>
<u>Distributions</u>
Differential Equations
Probability Distributions

<u>Econometrics</u> Econometrics

Environmetrics Analysis of Ecological and Environmental Data

Experimental Design of Experiments (DoE) & Analysis of Experimental Data

Extreme Value Analysis

<u>Finance</u> Empirical Finance

<u>FunctionalData</u> Functional Data Analysis

Genetics Statistical Genetics

Graphics Graphic Displays & Dynamic Graphics & Graphic Devices & Visualization

HighPerformanceComputing High-Performance and Parallel Computing with R

Machine Learning & Statistical Learning

Medical Image Analysis

Meta-Analysis Meta-Analysis

<u>ModelDeployment</u> Model Deployment with R <u>Multivariate</u> Multivariate Statistics

Natural Language Processing Natural Language Processing

Numerical Mathematics Numerical Mathematics

<u>OfficialStatistics</u> Official Statistics & Survey Methodology <u>Optimization</u> Optimization and Mathematical Programming

<u>Pharmacokinetics</u> Analysis of Pharmacokinetic Data

Phylogenetics, Especially Comparative Methods

<u>Psychometrics</u> Psychometric Models and Methods

Reproducible Research Reproducible Research





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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 linear Hypothesis() and for nonlinear hypotheses in deltaMethod() in car.
- Robust standard errors: HC and HAC covariance matrices are available in <u>sandwich</u> and can be plugged into the inference functions mentioned above.
- Nonnested model comparisons: Various tests for comparing non-nested linear models are available in limtest
 (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 <u>lmtest</u> 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





About





Featured packages

xgboost

Extreme Gradient Boosting

0.6.4.1, published 3 months ago, by Tong He

shiny

Web Application Framework for R

1.0.5, published 8 months ago, by Winston Chang

feather

R Bindings to the Feather 'API'

0.3.1, published a year ago, by Hadley Wickham

ggplot2

Create Elegant Data Visualisations
Using the Grammar of Graphics

2.2.1, published a year ago, by Hadley Wickham

dplyr

A Grammar of Data Manipulation

0.7.4, published 7 months ago, by Hadley Wickham

devtools

Tools to Make Developing R Packages Easier

1.13.5, published 3 months ago, by Jim Hester

h2o

R Interface for 'H2O'

3.18.0.8, published 5 days ago, by Tom Kraljevic

dbplyr

A 'dplyr' Back End for Databases

1.2.1, published 3 months ago, by Hadley Wickham

knitr

A General-Purpose Package for Dynamic Report Generation in R

1.20, published 3 months ago, by Yihui Xie



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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

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packagemetrics

[™] 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

```
devtools::install_github("ropenscilabs/packagemetrics")
```

Use

```
pkg_df <- package_list_metrics(table_packages) # included vector of table pkgs
ft <- metrics_table(pkg_df)</pre>
```

package	published	${\sf dl_last_month}$	stars	tidyverse_happy	has_tests	vignette	last_commit	last_issue_closed	contributors	depends_count
arsenal	2017-12- 08		6		×	~		0.1	12	2
ascii	2011-09- 29	2056	19		×		33.7	71	0	3
compareGroups	2017-08- 30				×	~				5
condformat	2017-10- 19	346	8	Ĭ	~	~		0.5	5	
desctable	2017-05-		34	Y	×	~	6.9	5.1	2	1

packageMetrics2

Collect Metrics about R Packages

repo status WIP build unknown CRAN not published downloads 0/month codecov unknown

"0" "94.2539388322521"

DEP

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)</pre>
```

DWL

"69747"

"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 <u>https://rseek.org/</u>
- 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 <u>https://ropensci.org/</u> + Journal of Open Source Software
- goodpractice https://github.com/MangoTheCat/goodpractice

