

Package ‘packageRank’

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Type Package

Title Computation and Visualization of Package Download Counts and Percentile Ranks

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Description Compute and visualize the cross-sectional and longitudinal number and rank percentile of package downloads from Posit/RStudio's CRAN mirror.

URL <https://github.com/lindbrook/packageRank>

BugReports <https://github.com/lindbrook/packageRank/issues>

Depends R (>= 3.5)

License GPL (>= 2)

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Suggests knitr, rmarkdown

NeedsCompilation no

Author Peter Li [aut, cre]

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packageRank-package *packageRank*

Description

Compute and Visualize Package Download Counts and Percentile Ranks.

Details

- Download counts via `cranDownloads()`.
- Percentiles ranks of download counts via `packageRank()` and `packageLog()`.
- Download count inflation filters.
- Availability of results via `logInfo()`.
- Reverse lookup of counts, ranks and percentile ranks.
- Data fixes for early logs and a later instance of double/triple counting of R application downloads.
- Note Sunday and Wednesday spikes in Windows R Application Nov 2022 - Mar 2023.
- Country code top-level domains, memoization and internet connection timeout problem.

Author(s)

Maintainer: Peter Li <lindbrook@gmail.com>

See Also

Useful links:

- <https://github.com/lindbrook/packageRank>
- Report bugs at <https://github.com/lindbrook/packageRank/issues>

annualDownloads	<i>Count Total CRAN Download.</i>
-----------------	-----------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
annualDownloads(start.yr = 2013, end.yr = 2023)
```

Arguments

start.yr	Numeric or Integer.
end.yr	Numeric or Integer.

Note

A way around Gateway Timeout (HTTP 504). This takes a while since it computes each year separately.

bioconductorDownloads	<i>Annual/monthly package downloads from Bioconductor.</i>
-----------------------	------------------------------------------------------------

Description

Annual/monthly package downloads from Bioconductor.

Usage

```
bioconductorDownloads(packages = NULL, from = NULL, to = NULL,
  when = NULL, unit.observation = "month")
```

Arguments

packages	Character. Vector of package names.
from	Start date as yyyy-mm or yyyy.
to	End date as yyyy-mm or yyyy.
when	"last-year", or "year-to-date" or "ytd".
unit.observation	"year" or "month".

Examples

```

## Not run:
# all packages
bioconductorDownloads()

# entire history
bioconductorDownloads(packages = "clusterProfiler")

# year-to-date
bioconductorDownloads(packages = "clusterProfiler", when = "ytd")
bioconductorDownloads(packages = "clusterProfiler", when = "year-to-date")

# last 12 months
bioconductorDownloads(packages = "clusterProfiler", when = "last-year")

# from 2015 to current year
bioconductorDownloads(packages = "clusterProfiler", from = 2015)

# 2010 through 2015 (yearly)
bioconductorDownloads(packages = "clusterProfiler", from = 2010, to = 2015,
  unit.observation = "year")

# selected year (yearly)
bioconductorDownloads(packages = "clusterProfiler", from = 2015, to = 2015)

# selected year (monthly)
bioconductorDownloads(packages = "clusterProfiler", from = "2015-01", to = "2015-12")

# June 2014 through March 2015
bioconductorDownloads(packages = "clusterProfiler", from = "2014-06", to = "2015-03")

## End(Not run)

```

bioconductorRank *Package download counts and rank percentiles.*

Description

From bioconductor

Usage

```

bioconductorRank(packages = "monocle", date = "2019-01",
  count = "download")

```

Arguments

packages	Character. Vector of package name(s).
date	Character. Date. yyyy-mm
count	Character. "ip" or "download".

Value

An R data frame.

Examples

```
## Not run:  
bioconductorRank(packages = "cicero", date = "2019-09")  
  
## End(Not run)
```

blog.data

Blog post data.

Description

archive.pkg_ver
archive.pkg_ver.filtered
cran.pkg_ver
cran.pkg_ver.filtered
dl.ct
dl.ct2
pkg.ct
pkg.ct2
oct.data
cholera.data
ggplot2.data
VR.data
smp1
smp1.histories
smp1.archive
smp1.archive.histories
ccode.ct
crosstab_2019_10_01
percentiles
top.n.oct2019
top.n.jul2020
download.country
october.downloads
july.downloads

```
cran.pkgs.oct
arch.pkgs.oct
cran.pkgs.jul
arch.pkgs.jul
pkg.history
```

Usage

```
blog.data
```

Format

A list with 29 elements.

countryDistribution *Tabulate package downloads by country.*

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
countryDistribution(date = NULL, all.filters = FALSE, ip.filter = FALSE,
  small.filter = FALSE, sequence.filter = FALSE, size.filter = FALSE,
  memoization = TRUE, multi.core = FALSE)
```

Arguments

date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
sequence.filter	Logical.
size.filter	Logical.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

countryPackage	<i>Tabulate a country's package downloads.</i>
----------------	------------------------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
countryPackage(country = "HK", date = NULL, all.filters = FALSE,
  ip.filter = FALSE, small.filter = FALSE, sequence.filter = FALSE,
  size.filter = FALSE, sort.count = TRUE, memoization = TRUE)
```

Arguments

country	Character. country abbreviation.
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
sequence.filter	Logical. Set to FALSE.
size.filter	Logical. Set to FALSE.
sort.count	Logical. Sort by download count.
memoization	Logical. Use memoization when downloading logs.

Note

"US" outlier 10 min with all filters!

countsRanks	<i>Counts v. Rank Percentiles for 'cholera' for First Week of March 2020.</i>
-------------	-------------------------------------------------------------------------------

Description

Document code for blog graph.

Usage

```
countsRanks(package = "cholera", size.filter = FALSE)
```

Arguments

package	Character.
size.filter	Logical.

cranDistribution	<i>CRAN distribution (prototype).</i>
------------------	---------------------------------------

Description

From Posit's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
cranDistribution(date = NULL, all.filters = FALSE, ip.filter = FALSE,  
  small.filter = FALSE, memoization = TRUE, multi.core = FALSE)
```

Arguments

date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

cranDownloads	<i>Daily package downloads from the RStudio CRAN mirror.</i>
---------------	--------------------------------------------------------------

Description

Enhanced implementation of `cranlogs::cran_downloads()`.

Usage

```
cranDownloads(packages = NULL, when = NULL, from = NULL, to = NULL,  
  check.package = TRUE, dev.mode = FALSE, fix.cranlogs = TRUE,  
  pro.mode = FALSE)
```

Arguments

packages	A character vector, the packages to query, or NULL for a sum of downloads for all packages. Alternatively, it can also be "R", to query downloads of R itself. "R" cannot be mixed with packages.
when	last-day, last-week or last-month. If this is given, then from and to are ignored.
from	Start date as yyyy-mm-dd, yyyy-mm or yyyy.
to	End date as yyyy-mm-dd, yyyy-mm or yyyy.
check.package	Logical. Validate and "spell check" package.
dev.mode	Logical. Use validatePackage0() to scrape CRAN.
fix.cranlogs	Logical. Use RStudio logs to fix 8 dates with duplicated data in 'cranlogs' results.
pro.mode	Logical. Faster but fewer checks/features. Closer to cranlogs::cran_downloads() but with cranDownloads()'s plot method.

Examples

```
## Not run:
cranDownloads(packages = "HistData")
cranDownloads(packages = "HistData", when = "last-week")
cranDownloads(packages = "HistData", when = "last-month")

# January 7 - 31, 2019
cranDownloads(packages = "HistData", from = "2019-01-07", to = "2019-01-31")

# February through March 2019
cranDownloads(packages = "HistData", from = "2019-02", to = "2019-03")

# 2024 year-to-date
cranDownloads(packages = "HistData", from = 2024)

## End(Not run)
```

cranInflationPlot *CRAN inflation plot.*

Description

Document code.

Usage

```
cranInflationPlot(dataset = "october")
```

Arguments

dataset Character. "october" or "july" for October 2019 or July 2020.

cranMirrors	<i>Scrape CRAN Mirrors data.</i>
-------------	----------------------------------

Description

<https://cran.r-project.org/mirrors.html>

Usage

```
cranMirrors(description = FALSE)
```

Arguments

description Logical. Mirror details.

currentTime	<i>Compute Current Time in Selected Time Zone.</i>
-------------	----------------------------------------------------

Description

Compute Current Time in Selected Time Zone.

Usage

```
currentTime(tz = "Australia/Sydney")
```

Arguments

tz Character. Local time zone. See OlsonNames() or use Sys.timezone().

downloadsCountry	<i>Compute Downloads by Country Code.</i>
------------------	-------------------------------------------

Description

Compute Downloads by Country Code.

Usage

```
downloadsCountry(month_cran_log, multi.core = FALSE)
```

Arguments

month_cran_log Object.

multi.core Logical or Numeric. TRUE uses `parallel::detectCores()`. FALSE uses one, single core. You can also specify the number logical cores to use. Note that due to performance considerations, the number of cores defaults to one on Windows.

filteredDownloads	<i>Filtered package downloads from the RStudio CRAN mirror (prototype).</i>
-------------------	-----------------------------------------------------------------------------

Description

ip, small, sequence and size filters.

Usage

```
filteredDownloads(packages = "HistData", date = NULL, all.filters = TRUE,
  ip.filter = FALSE, small.filter = FALSE, sequence.filter = FALSE,
  size.filter = FALSE, check.package = TRUE, memoization = TRUE,
  multi.core = FALSE)
```

Arguments

packages	Character. Vector of package name(s).
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
sequence.filter	Logical.
size.filter	Logical.
check.package	Logical. Validate and "spell check" package.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

inflationPlot	<i>Inflation plots of effects of "small" downloads and prior versions for October 2019: 'cholera', 'ggplot2', and 'VR'.</i>
---------------	-----------------------------------------------------------------------------------------------------------------------------

Description

Document code for blog graph.

Usage

```
inflationPlot(package = "cholera", filter = "size",
  legend.loc = "topleft")
```

Arguments

package	Character.
filter	Character. Size, version, or size and version
legend.loc	Character. Location of legend.

inflationPlot2	<i>Inflation plots of effects of "small" downloads on aggregate CRAN downloads for October 2019 and July 2020.</i>
----------------	--------------------------------------------------------------------------------------------------------------------

Description

Document code.

Usage

```
inflationPlot2(dataset = "october", filter = "small", wed = FALSE,
  subtitle = TRUE, legend.loc = "topleft")
```

Arguments

dataset	Character. "october" or "july" for October 2019 or July 2020.
filter	Character. "small", "ip", or "ip.small".
wed	Logical.
subtitle	Logical.
legend.loc	Character. Location of legend.

ipCount	<i>Count number of IP addresses.</i>
---------	--------------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
ipCount(date = NULL, memoization = TRUE, sort.count = TRUE)
```

Arguments

date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
memoization	Logical. Use memoization when downloading logs.
sort.count	Logical. Sort by download count.

ipDownloads	<i>Unique package download counts by IP address.</i>
-------------	------------------------------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
ipDownloads(date = NULL, memoization = TRUE)
```

Arguments

date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
memoization	Logical. Use memoization when downloading logs.

ipPackage	<i>Tabulate an IP's package downloads.</i>
-----------	--------------------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
ipPackage(ip = 10, date = NULL, all.filters = FALSE, ip.filter = FALSE,
  small.filter = FALSE, sequence.filter = FALSE, size.filter = FALSE,
  sort.count = TRUE, memoization = TRUE, multi.core = FALSE)
```

Arguments

ip	Numeric. ip_id. Positive integer.
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
sequence.filter	Logical.
size.filter	Logical.
sort.count	Logical. Sort by download count.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Note

ip = 10 is a tw top-level domain on 2020-07-09.

localTime	<i>Compute Local Time from Coordinated Universal Time (UTC/GMT).</i>
-----------	----------------------------------------------------------------------

Description

Compute Local Time from Coordinated Universal Time (UTC/GMT).

Usage

```
localTime(date = "2021-1-1", time = "12:00", tz = Sys.timezone())
```

Arguments

date	Character. Date "yyyy-mm-dd".
time	Character. Local time "hh:mm" or "hh:mm:ss".
tz	Character. Local time zone. See OlsonNames() or use Sys.timezone().

logDate	<i>Compute Effective CRAN Log Date Based on Local and UTC Time (prototype).</i>
---------	---------------------------------------------------------------------------------

Description

RStudio CRAN Mirror Logs for previous day are posted at 17:00:00 UTC.

Usage

```
logDate(date = NULL, check.url = TRUE, tz = Sys.timezone(),
        upload.time = "17:00", warning.msg = TRUE, fix.date = TRUE)
```

Arguments

date	Character. Date of desired log "yyyy-mm-dd". NULL returns date of latest available log.
check.url	Logical.
tz	Character. Time zone. See OlsonNames().
upload.time	Character. UTC upload time for logs "hh:mm" or "hh:mm:ss".
warning.msg	Logical. TRUE uses warning() if the function returns the date of the previous available log.
fix.date	Logical. Fix date when directly accessing RStudio logs.

Value

An R date object.

logInfo	<i>Compute Availability, Date, Time of "Today's" Log.</i>
---------	-----------------------------------------------------------

Description

Also checks availability of Posit/RStudio logs and 'cranlogs' data.

Usage

```
logInfo(details = FALSE, tz = Sys.timezone(), upload.time = "17:00")
```

Arguments

details	Logical. Check available logs and results.
tz	Character. Local time zone. See OlsonNames() or use Sys.timezone().
upload.time	Character. UTC upload time for logs "hh:mm" or "hh:mm:ss".

monthlyLog	<i>Get CRAN logs for selected month.</i>
------------	------------------------------------------

Description

Compute list of log files, 'lst', for packageVersionPercent().

Usage

```
monthlyLog(yr.mo = "2020-07")
```

Arguments

yr.mo	Character. "yyyy-mm".
-------	-----------------------

Note

This is computationally intensive; you're downloading 30 odd files that are each around 50 MB in size (and creating a ~1.5 GB file)! Parallelization not practical; multiple attempts to connect to website causes problems. Truncates in-progress/future dates to yesterday's date. Automatically takes care of leap days (e.g., monthlyLog("2020-02")).

packageCountry *Package download counts by country.*

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
packageCountry(packages = "cholera", date = NULL, all.filters = FALSE,
  ip.filter = FALSE, small.filter = FALSE, sequence.filter = FALSE,
  size.filter = FALSE, sort = TRUE, na.rm = FALSE, memoization = TRUE,
  check.package = TRUE, multi.core = FALSE)
```

Arguments

packages	Character. Vector of package name(s).
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
sequence.filter	Logical.
size.filter	Logical.
sort	Logical. Sort by download count.
na.rm	Logical. Remove NAs.
memoization	Logical. Use memoization when downloading logs.
check.package	Logical. Validate and "spell check" package.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

packageDistribution *Package Download Distribution.*

Description

Package Download Distribution.

Usage

```
packageDistribution(package = "HistData", date = NULL,
  all.filters = FALSE, ip.filter = FALSE, small.filter = FALSE,
  memoization = TRUE, check.package = TRUE, multi.core = FALSE)
```

Arguments

package	Character. Vector of package name(s).
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
check.package	Logical. Validate and "spell check" package.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

packageHistory	<i>Extract package or R version history.</i>
----------------	----------------------------------------------

Description

Date and version of all publications.

Usage

```
packageHistory(package = "cholera", check.package = TRUE)
```

Arguments

package	Character. Vector of package names (including "R").
check.package	Logical. Validate and "spell check" package.

packageLog	<i>Get Package Download Logs.</i>
------------	-----------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
packageLog(packages = "cholera", date = NULL, all.filters = FALSE,
  ip.filter = FALSE, sequence.filter = FALSE, size.filter = FALSE,
  small.filter = FALSE, memoization = TRUE, check.package = TRUE)
```

Arguments

packages	Character. Vector of package name(s).
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
sequence.filter	Logical.
size.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
check.package	Logical. Validate and "spell check" package.

Value

An R data frame.

packageRank	<i>Package download counts and rank percentiles.</i>
-------------	------------------------------------------------------

Description

From Posit/RStudio's CRAN Mirror (CDN) <http://cran-logs.rstudio.com/>

Usage

```
packageRank(packages = "packageRank", date = NULL, all.filters = FALSE,
            ip.filter = FALSE, small.filter = FALSE, memoization = TRUE,
            check.package = TRUE, rank.ties = TRUE, multi.core = FALSE)
```

Arguments

packages	Character. Vector of package name(s).
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
check.package	Logical. Validate and "spell check" package.
rank.ties	Logical. TRUE uses competition ranking ("1224") for ties. FALSE uses nominal rank (no ties).
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

Examples

```
## Not run:
packageRank/packages = "cholera", date = "2020-01-01")
packageRank/packages = c("h2o", "Rcpp", "rstan"), date = "2020-01-01")

## End(Not run)
```

packageVersionPercent *Compute data for versionPlot().*

Description

packageRank::blog.data or recompute random sample of packages.

Usage

```
packageVersionPercent(lst, yr.mo = "2020-07", multi.core = FALSE)
```

Arguments

lst	Object. List of CRAN download logs data frames. Use monthlyLog().
yr.mo	Character. "yyyy-mo". packageVersionsPercent(NULL, yr.mo)
multi.core	Logical or Numeric. TRUE uses parallel::detectCores(). FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Examples

```
## Not run:
# To resample and recompute, set lst to NULL, specify a yr.mo:
packageVersionPercent(NULL, yr.mo = "2020-07")
```

Otherwise, you must provide a pre-computed lst of logs.

```
## End(Not run)
```

plot.annualDownloads *Plot method for annualDownloads().*

Description

Plot method for annualDownloads().

Usage

```
## S3 method for class 'annualDownloads'
plot(x, statistic = "count", pool = TRUE,
     log.y = FALSE, sep.y = FALSE, nrow = 3, smooth = TRUE, f = 1/4,
     span = 3/4, points = FALSE, line.col = "gray", ...)
```

Arguments

x	object.
statistic	Character. "count" or "percent".
pool	Logical. Pool annual data into single time series.
log.y	Logical. Base 10 logarithm of y-axis.
sep.y	Logical. Separate, independent y-scales for each panel.
nrow	Numeric. Number of rows for ggplot2 facets.
smooth	Logical. Add smoother (loess).
f	Numeric. Parameter for lowess.
span	Numeric. Smoothing parameter for geom_smooth(), which uses loess.
points	Logical.
line.col	Character. Color of line
...	Additional plotting parameters.

plot.bioconductorDownloads
Plot method for bioconductorDownloads().

Description

Plot method for bioconductorDownloads().

Usage

```
## S3 method for class 'bioconductorDownloads'
plot(x, graphics = NULL,
     count = "download", cumulative = FALSE, points = "auto",
     smooth = FALSE, f = 2/3, span = 3/4, se = FALSE, log.y = FALSE,
     r.version = FALSE, same.xy = TRUE, multi.plot = FALSE,
     legend.loc = "topleft", ...)
```

Arguments

x	object.
graphics	Character. NULL, "base" or "ggplot2".
count	Character. "download" or "ip".
cumulative	Logical. Use cumulative counts.
points	Character of Logical. Plot points. "auto", TRUE, FALSE. "auto" for bioconductorDownloads(unit.observation = "month") with 24 or fewer months, points are plotted.
smooth	Logical. Add stats::lowess smoother.
f	Numeric. smoother window for stats::lowess(). For graphics = "base" only; c.f. stats::lowess(f)
span	Numeric. Smoothing parameter for geom_smooth(); c.f. stats::loess(span).
se	Logical. Works only with graphics = "ggplot2".
log.y	Logical. Logarithm of package downloads.
r.version	Logical. Add R release dates.
same.xy	Logical. Use same scale for multiple packages when graphics = "base".
multi.plot	Logical. Plot all data in a single window frame.
legend.loc	Character.
...	Additional plotting parameters.

Examples

```
## Not run:
plot(bioconductorDownloads())
plot(bioconductorDownloads/packages = "graph")
plot(bioconductorDownloads/packages = "graph", from = 2010, to = 2015)
plot(bioconductorDownloads/packages = "graph", from = "2014-06", to = "2015-03")
plot(bioconductorDownloads/packages = c("graph", "IRanges", "S4Vectors"), from = 2018)

## End(Not run)
```

plot.bioconductorRank *Plot method for bioconductorRank().*

Description

Plot method for bioconductorRank().

Usage

```
## S3 method for class 'bioconductorRank'
plot(x, graphics = NULL, log.y = TRUE, ...)
```

Arguments

x	An object of class "bioconductor_rank" created by bioconductorRank().
graphics	Character. "base" or "ggplot2".
log.y	Logical. Logarithm of package downloads.
...	Additional plotting parameters.

Value

A base R or ggplot2 plot.

plot.countryDistribution

Plot top 10 package downloads by country domain.

Description

Plot method for countryDistribution().

Usage

```
## S3 method for class 'countryDistribution'  
plot(x, N = 10, ...)
```

Arguments

x	An object of class "countryDistribution" created by countryDistribution().
N	Integer. Top N countries.
...	Additional plotting parameters.

plot.countsRanks

Plot method for countsRanks().

Description

Plot method for countsRanks().

Usage

```
## S3 method for class 'countsRanks'  
plot(x, ...)
```

Arguments

x	object.
...	Additional plotting parameters.

plot.cranDistribution *Plot method for cranDistribution().*

Description

Plot method for cranDistribution().

Usage

```
## S3 method for class 'cranDistribution'  
plot(x, type = "count", ...)
```

Arguments

x	An object of class "cranDistribution" created by cranDistribution().
type	Character. "histogram" or "count".
...	Additional plotting parameters.

Value

A base R plot.

plot.cranDownloads *Plot method for cranDownloads().*

Description

Plot method for cranDownloads().

Usage

```
## S3 method for class 'cranDownloads'  
plot(x, statistic = "count", graphics = "auto",  
     points = "auto", log.y = FALSE, smooth = FALSE, se = FALSE,  
     f = 1/3, span = 3/4, package.version = FALSE, r.version = FALSE,  
     population.plot = FALSE, population.seed = as.numeric(Sys.Date()),  
     multi.plot = FALSE, same.xy = TRUE, legend.location = "topleft",  
     ip.legend.location = "topright", r.total = FALSE, dev.mode = FALSE,  
     unit.observation = "day", multi.core = FALSE, ...)
```


Arguments

x	object.
statistic	Character. "count" or "cumulative".
graphics	Character. "auto", "base" or "ggplot2".
points	Character of Logical. Plot points. "auto", TRUE, FALSE.
log.y	Logical. Logarithm of package downloads.
smooth	Logical. Add smoother.
se	Logical. Works only with graphics = "ggplot2".
f	Numeric. smoother window for stats::lowess(). For graphics = "base" only; c.f. stats::lowess(f)
span	Numeric. Smoothing parameter for geom_smooth(); c.f. stats::loess(span).
package.version	Logical. Add latest package release dates.
r.version	Logical. Add R release dates.
population.plot	Logical. Plot population plot.
population.seed	Numeric. Seed for sample in population plot.
multi.plot	Logical.
same.xy	Logical. Use same scale for multiple packages when graphics = "base".
legend.location	Character.
ip.legend.location	Character. Location of in-progress legend.
r.total	Logical.
dev.mode	Logical. Use packageHistory0() to scrape CRAN.
unit.observation	Character. "year", "month", "week", or "day".
multi.core	Logical or Numeric. TRUE uses parallel::detectCores(). FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.
...	Additional plotting parameters.

Value

A base R or ggplot2 plot.

Examples

```
## Not run:
plot(cranDownloads/packages = c("Rcpp", "rlang", "data.table"))
plot(cranDownloads/packages = c("Rcpp", "rlang", "data.table"), when = "last-month")
plot(cranDownloads/packages = "R", from = "2020-01-01", to = "2020-01-01")
plot(cranDownloads/packages = "R", from = 2020)

## End(Not run)
```

plot.packageDistribution

Plot method for packageDistribution().

Description

Plot method for packageDistribution().

Usage

```
## S3 method for class 'packageDistribution'  
plot(x, ...)
```

Arguments

x An object of class "packageDistribution" created by packageDistribution().
... Additional plotting parameters.

plot.packageRank

Plot method for packageRank() and packageRank0().

Description

Plot method for packageRank() and packageRank0().

Usage

```
## S3 method for class 'packageRank'  
plot(x, graphics = NULL, log.y = TRUE, ...)
```

Arguments

x An object of class "packageRank" created by packageRank().
graphics Character. "base" or "ggplot2".
log.y Logical. Logarithm of package downloads.
... Additional plotting parameters.

Value

A base R or ggplot2 plot.

Examples

```
## Not run:
plot(packageRank(packages = "HistData", date = "2020-01-01"))
plot(packageRank(packages = c("h2o", "Rcpp", "rstan"), date = "2020-01-01"))

## End(Not run)
```

```
plot.packageVersionPercent
```

Plot method for packageVersionPercent().

Description

Plot method for packageVersionPercent().

Usage

```
## S3 method for class 'packageVersionPercent'
plot(x, ...)
```

Arguments

x	An object of class "packageVersionPercent".
...	Additional plotting parameters.

```
plot.weeklyDownloads Plot method for weeklyDownloads().
```

Description

Plot method for weeklyDownloads().

Usage

```
## S3 method for class 'weeklyDownloads'
plot(x, statistic = "percent",
     aggregation = "day", typical.value = "mean", nrow = 3L, ...)
```

Arguments

x	object.
statistic	Character. "count" or "percent".
aggregation	Character. "week" or "day".
typical.value	Character. "mean" or "median".
nrow	Numeric. Number of rows for ggplot2 facets.
...	Additional plotting parameters.

Examples

```
## Not run:  
plot(weeklyDownloads())  
plot(weeklyDownloads(n = 9), aggregation = "week")  
  
## End(Not run)
```

plotDownloadsCountry *Plot Compute Downloads by Country Code.*

Description

Plot Compute Downloads by Country Code.

Usage

```
plotDownloadsCountry()
```

plotTopCountryCodes *Plot Top N Downloads by Country Code.*

Description

Plot Top N Downloads by Country Code.

Usage

```
plotTopCountryCodes(dataset = "october", second.place = FALSE)
```

Arguments

dataset Character.
second.place Logical. Annotate second place country.

```
print.bioconductorDownloads
```

Print method for bioconductorDownloads().

Description

Print method for bioconductorDownloads().

Usage

```
## S3 method for class 'bioconductorDownloads'  
print(x, ...)
```

Arguments

x	object.
...	Additional parameters.

```
print.bioconductorRank
```

Print method for bioconductorRank().

Description

Print method for bioconductorRank().

Usage

```
## S3 method for class 'bioconductorRank'  
print(x, ...)
```

Arguments

x	An object of class "bioconductor_rank" created by bioconductorRank()
...	Additional parameters.

```
print.countryDistribution
```

Print method for countryDistribution().

Description

Print method for countryDistribution().

Usage

```
## S3 method for class 'countryDistribution'  
print(x, N = 10, ...)
```

Arguments

x	object.
N	Integer. Top N countries.
...	Additional parameters.

```
print.cranDistribution
```

Print method for cranDistribution().

Description

Print method for cranDistribution().

Usage

```
## S3 method for class 'cranDistribution'  
print(x, top.n = 20, ...)
```

Arguments

x	object.
top.n	Numeric or Integer.
...	Additional parameters.

`print.cranDownloads` *Print method for cranDownloads().*

Description

Print method for cranDownloads().

Usage

```
## S3 method for class 'cranDownloads'  
print(x, ...)
```

Arguments

`x` object.
`...` Additional parameters.

`print.packageDistribution`
 Print method for packageDistribution().

Description

Print method for packageDistribution().

Usage

```
## S3 method for class 'packageDistribution'  
print(x, ...)
```

Arguments

`x` An object of class "packageDistribution" created by packageDistribution()
`...` Additional parameters.

```
print.packageRank      Print method for packageRank().
```

Description

Print method for packageRank().

Usage

```
## S3 method for class 'packageRank'
print(x, ...)
```

Arguments

x An object of class "packageRank" created by packageRank()
 ... Additional parameters.

```
queryCount            Query download count.
```

Description

Query download count.

Usage

```
queryCount(count = 1, date = NULL, all.filters = FALSE,
            ip.filter = FALSE, small.filter = FALSE, memoization = TRUE,
            multi.core = FALSE)
```

Arguments

count Numeric or Integer. whole number.
 date Character. Date. "yyyy-mm-dd". NULL uses latest available log.
 all.filters Logical. Master switch for filters.
 ip.filter Logical.
 small.filter Logical. TRUE filters out downloads less than 1000 bytes.
 memoization Logical. Use memoization when downloading logs.
 multi.core Logical or Numeric. TRUE uses parallel::detectCores(). FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

queryPackage	<i>Query package name.</i>
--------------	----------------------------

Description

Query package name.

Usage

```
queryPackage(packages = "packageRank", date = NULL, all.filters = FALSE,
             ip.filter = FALSE, small.filter = FALSE, memoization = TRUE,
             check.package = TRUE, multi.core = FALSE)
```

Arguments

packages	Character..
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
check.package	Logical. Validate and "spell check" package.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

queryPercentile	<i>Percentile-rank query.</i>
-----------------	-------------------------------

Description

Percentile-rank query.

Usage

```
queryPercentile(percentile = 50, lo = NULL, hi = NULL, date = NULL,
                all.filters = FALSE, ip.filter = FALSE, small.filter = FALSE,
                memoization = TRUE, multi.core = FALSE)
```

Arguments

percentile	Numeric. 50 uses median().
lo	Integer.
hi	Integer
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

queryRank	<i>Rank query.</i>
-----------	--------------------

Description

Rank query.

Usage

```
queryRank(num.rank = 1, rank.ties = FALSE, date = NULL,
  all.filters = FALSE, ip.filter = FALSE, small.filter = FALSE,
  memoization = TRUE, multi.core = FALSE)
```

Arguments

num.rank	Numeric or Integer.
rank.ties	Logical. TRUE uses ties. FALSE does not.
date	Character. Date. "yyyy-mm-dd". NULL uses latest available log.
all.filters	Logical. Master switch for filters.
ip.filter	Logical.
small.filter	Logical. TRUE filters out downloads less than 1000 bytes.
memoization	Logical. Use memoization when downloading logs.
multi.core	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

Value

An R data frame.

rLog	<i>Get R Application Download Logs.</i>
------	-----------------------------------------

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
rLog(date = NULL)
```

Arguments

date	Character. Date. "yyyy-mm-dd". NULL uses last available log.
------	--------------------------------------------------------------

rstudio.logs	<i>Eight RStudio Download Logs to Fix Duplicate Logs Errors in 'cran-logs'.</i>
--------------	---------------------------------------------------------------------------------

Description

October 6-8, 2012; October 11, 2012; December 26-28; and January 1, 2013.

Usage

```
rstudio.logs
```

Format

```
date
time
size
r_version
r_arch
r_os
package
version
country
ip_id
```

summary.bioconductorDownloads

Summary method for bioconductorDownloads().

Description

Summary method for bioconductorDownloads().

Usage

```
## S3 method for class 'bioconductorDownloads'  
summary(object, ...)
```

Arguments

object	Object.
...	Additional parameters.

summary.bioconductorRank

Summary method for bioconductorRank().

Description

Summary method for bioconductorRank().

Usage

```
## S3 method for class 'bioconductorRank'  
summary(object, ...)
```

Arguments

object	Object. An object of class "bioconductor_rank" created by bioconductorRank()
...	Additional parameters.

Note

This is useful for directly accessing the data frame.

```
summary.cranDistribution  
      Summary method for cranDistribution().
```

Description

Five number (+ mean) summary of download count distribution

Usage

```
## S3 method for class 'cranDistribution'  
summary(object, ...)
```

Arguments

object An object of class "cranDistribution" created by cranDistribution().
... Additional plotting parameters.

Value

A base R vector

```
summary.cranDownloads Summary method for cranDownloads().
```

Description

Summary method for cranDownloads().

Usage

```
## S3 method for class 'cranDownloads'  
summary(object, ...)
```

Arguments

object Object.
... Additional parameters.

Note

This is useful for directly accessing the data frame.

summary.packageRank *Summary method for packageRank().*

Description

Summary method for packageRank().

Usage

```
## S3 method for class 'packageRank'
summary(object, ...)
```

Arguments

object Object. An object of class "packageRank" created by packageRank()
 ... Additional parameters.

Note

This is useful for directly accessing the data frame.

topCountryCodes *Compute Top N Downloads by Country Code.*

Description

Compute Top N Downloads by Country Code.

Usage

```
topCountryCodes(month_cran_log, top.n = 5L, multi.core = FALSE)
```

Arguments

month_cran_log Object.
 top.n Integer.
 multi.core Logical or Numeric. TRUE uses parallel::detectCores(). FALSE uses one, single core. You can also specify the number logical cores to use. Note that due to performance considerations, the number of cores defaults to one on Windows.

utc	<i>Compute Coordinated Universal Time (UTC/GMT) for Your Local Time.</i>
-----	--------------------------------------------------------------------------

Description

Compute Coordinated Universal Time (UTC/GMT) for Your Local Time.

Usage

```
utc()
```

utc0	<i>Compute Coordinated Universal Time (UTC/GMT) for Specified Local Time.</i>
------	-------------------------------------------------------------------------------

Description

Compute Coordinated Universal Time (UTC/GMT) for Specified Local Time.

Usage

```
utc0(date = "2020-01-01", time = "12:00:00", tz = "Europe/Vienna")
```

Arguments

date	Character. Date "yyyy-mm-dd".
time	Character. Local time "hh:mm" or "hh:mm:ss".
tz	Character. Local time zone. See OlsonNames() or use Sys.timezone().

versionPlot	<i>Version Plot.</i>
-------------	----------------------

Description

Document code for blog graph.

Usage

```
versionPlot()
```

weeklyDownloads *Sample Weekly CRAN Downloads Data.*

Description

From RStudio's CRAN Mirror <http://cran-logs.rstudio.com/>

Usage

```
weeklyDownloads(start.yr = 2013, n = 50, multi.core = FALSE)
```

Arguments

<code>start.yr</code>	Numeric or Integer.
<code>n</code>	Numeric or Integer. Number of weeks (samples).
<code>multi.core</code>	Logical or Numeric. TRUE uses <code>parallel::detectCores()</code> . FALSE uses one, single core. You can also specify the number logical cores. Mac and Unix only.

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