Package: repometrics (via r-universe)

March 12, 2025

Title Metrics for Your Code Repository

Version 0.2.0.003

Description Metrics for your code repository. Call one function to generate an interactive dashboard displaying the state of your code.

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URL https://docs.ropensci.org/repometrics/, https://github.com/ropensci-review-tools/repometrics

BugReports https://github.com/ropensci-review-tools/repometrics/issues

Depends R (>= 4.1)

Imports checkmate, cli, dplyr, fs, gert, gh, git2r, httr2, memoise, pbapply, pkgstats

Suggests brio, desc, DT, httptest2, jsonlite, knitr, pkgmatch, quarto, readr, rmarkdown, testthat (>= 3.0.0), tidyr, withr, zoo

Remotes ropensci-review-tools/pkgmatch, ropensci-review-tools/pkgstats

Config/testthat/edition 3

Encoding UTF-8

Language en-GB

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.2

VignetteBuilder knitr

Config/pak/sysreqs git libglpk-dev make libxml2-dev libssl-dev libx11-dev

Repository https://ropensci.r-universe.dev

RemoteUrl https://github.com/ropensci-review-tools/repometrics

RemoteRef main

RemoteSha 34377080d2c11afeba82cb7426824b8bfa22978e

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repometrics_dashboard   *Start quarto dashboard with results of main [repometrics_data_repo](#) function.*

Description

Start quarto dashboard with results of main [repometrics_data_repo](#) function.

Usage

```
repometrics_dashboard(
  data,
  action = "preview",
  ctb_threshold = NULL,
  max_ctbs = NULL
)
```

Arguments

data	Data on repository and all contributors as returned from [repometrics_data](#) function applied to one package.
action	One of "preview", to start and open a live preview of the dashboard website, or "render" to render a static version without previewing or opening.
ctb_threshold	An optional single numeric value between 0 and 1. If specified, contributions are arranged in cumulative order, and the contributor data reduced to only those who contribute to this proportion of all contributions.
max_ctbs	Optional maximum number of contributors to be included. This is an alternative way to reduce number of contributors presented in dashboard, and may only be specified if ctb_threshold is left at default value of NULL.

Value

(Invisibly) Path to main "index.html" document of quarto site. Note that the site must be served with action = "preview", and will not work by simply opening this "index.html" file.

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repometrics_data *Collate 'repometrics' data for a local R package.*

Description

This function collates all data for a local R package or repository needed to create a dashboard with the repometrics_dashboard function. It combines data from both the repometrics_data_repo and repometrics_data_user functions.

Usage

```
repometrics_data(
  path,
  step_days = 1L,
  num_cores = -1L,
  end_date = Sys.Date(),
  nyears = 1
)
```

Arguments

path	Path to local repository containing an R package.
step_days	Analyse package at intervals of this number of days. The last commit for each day is chosen. For example, `step_days = 7L` will return weekly statistics. Values of zero or less will analyse all commits, including potentially multiple daily commits.
num_cores	Number of cores to use in multi-core processing. Has no effect on Windows operating systems, on which calculations are always single-core only. Negative values are subtracted from number of available cores, determined as `parallel::detectCores()`, so default of `num_cores = -1L` uses `detectCores() - 1L`. Positive values use precisely that number, restricted to maximum available cores, and a value of zero will use all available cores.
end_date	Parameter used in some aspects of resultant data to limit the end date of data collection. Defaults to `Sys.Date()`.
nyears	Parameter <= 1 determining fraction of a year over which data up until `end_date` are collected.

Value

A list of five items:

1. "pkgstats" containing statistics on the historical development of package code, derived from the **pkgstats** package;

2. "rm" containing data from GitHub on the repository, including data on contributors, issues, pull requests, and people watching and starring the repository.

3. "contributors" as a named list of data on every individual contributor to the repository, whether by code contributions or GitHub issues or discussions.

4. "cm_metrics" as a list of values for all CHAOSS metrics defined in the output of rm_chaoss_metrics_list.

5. "cm_models" as a list of values for CHAOSS models, derived from aggregating various metrics.

See Also

Other data: `repo_pkgstats_history()`, `repometrics_data_repo()`, `repometrics_data_user()`

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repometrics_data_repo   *Collate code and repository data for a local R package.*

Description

This forms part of the data collated by the main repometrics_data function, along with detailed data on individual contributors extracted by the repometrics_data_user function.

Usage

```
repometrics_data_repo(path, step_days = 1L, num_cores = -1L)
```

Arguments

path	Path to local repository containing an R package.
step_days	Analyse package at intervals of this number of days. The last commit for each day is chosen. For example, `step_days = 7L` will return weekly statistics. Values of zero or less will analyse all commits, including potentially multiple daily commits.
num_cores	Number of cores to use in multi-core processing. Has no effect on Windows operating systems, on which calculations are always single-core only. Negative values are subtracted from number of available cores, determined as `parallel::detectCores()`, so default of `num_cores = -1L` uses `detectCores() - 1L`. Positive values use precisely that number, restricted to maximum available cores, and a value of zero will use all available cores.

Value

A list of two items:

1. "pkgstats" Containing summary data from apply pkgstats routines across the git history of the repository.

2. "rm" Containing data used to derive "CHAOSS metrics", primarily from GitHub data.

See Also

Other data: `repo_pkgstats_history()`, `repometrics_data()`, `repometrics_data_user()`

repometrics_data_user *Extract and combine data on all contributors to a repository.*

Description

This forms part of the data collated by the main repometrics_data function, along with data on repository structure and historical developed extracted by the repometrics_data_repo function.

Usage

```
repometrics_data_user(
  login,
  end_date = Sys.Date(),
  nyears = 1,
  n_per_page = 100
)
```

Arguments

login   GitHub login of user

end_date   Parameter used in some aspects of resultant data to limit the end date of data
                 collection. Defaults to Sys.Date ().

nyears   Parameter <= 1 determining fraction of a year over which data up until end_date
                 are collected.

n_per_page   Number of items per page to pass to GitHub GraphQL API requests. This should
                 never need to be changed.

Value

A list of the following data.frame objects:

1. commit_cmt with details of commits made on commits

2. commits with summaries of all repositories to which user made commits

3. followers A list of followers of specified user

4. following A list of other people who nominated user is following

5. general with some general information about specified user

6. issue_cmts with information on all issue comments made by user

7. issues with information on all issues opened by user

See Also

Other data: repo_pkgstats_history(), repometrics_data(), repometrics_data_repo()

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repo_pkgstats_history   *Apply* **pkgstats** *across the git history of a package*

Description

Apply **pkgstats** across the git history of a package

Usage

```
repo_pkgstats_history(path, step_days = 1L, num_cores = -1L)
```

Arguments

path	Path to local repository containing an R package.
step_days	Analyse package at intervals of this number of days. The last commit for each day is chosen. For example, step_days = 7L will return weekly statistics. Values of zero or less will analyse all commits, including potentially multiple daily commits.
num_cores	Number of cores to use in multi-core processing. Has no effect on Windows operating systems, on which calculations are always single-core only. Negative values are subtracted from number of available cores, determined as parallel::detectCores(), so default of num_cores = -1L uses detectCores() - 1L. Positive values use precisely that number, restricted to maximum available cores, and a value of zero will use all available cores.

Value

NULL if path is not an R package, or if no **pkgstats** results are able to be extracted. Otherwise, a list of three items:

- desc_data Containing data from DESCRIPTION files, along with data on numbers of functions.

- loc Containing data on "lines-of-code" for all languages and sub-directories within package.

- stats Containing statistics on (mean, medium, and sum) of various properties of each function in package.

See Also

Other data: repometrics_data(), repometrics_data_repo(), repometrics_data_user()

```
rm_chaoss_metrics_list
```

List all implemented CHAOSS metrics

Description

This function returns a list of internal functions defined within the 'repometrics' package. These internal functions are not intended to be called directly, rather this list is provided for information only, to enable users to know which metrics are implemented.

Usage

```
rm_chaoss_metrics_list()
```

Value

A data.frame with two columns:

1. "fn_names", with the internal function names of all implemented CHAOSS metrics.
2. "url", with the URL to the CHAOSS community web page describing that metric.

Note

Metrics have been adapted in this package, and so may not precisely reflect the descriptions provided in the CHAOSS community web pages linked to in the URLs from this function. Adaptations have in particular been implemented to align metrics with their usage in aggregate "models".

Examples

```
metrics <- rm_chaoss_metrics_list ()
```

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