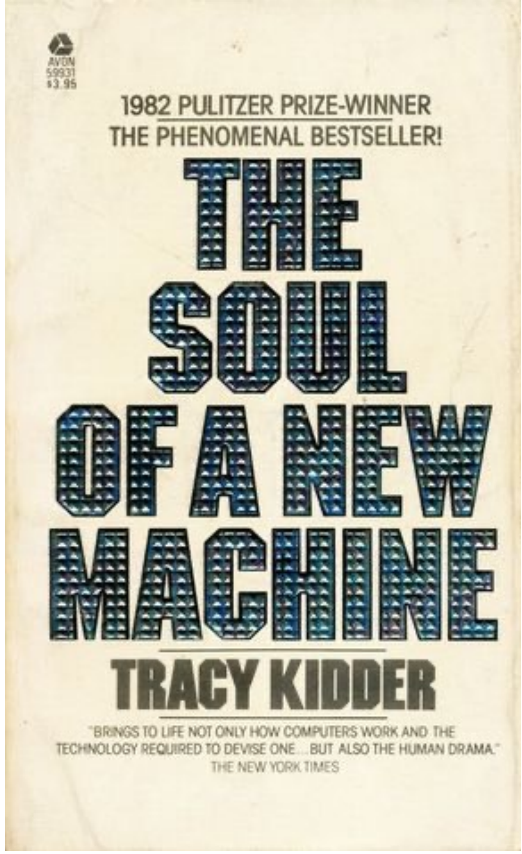
R in the Robot

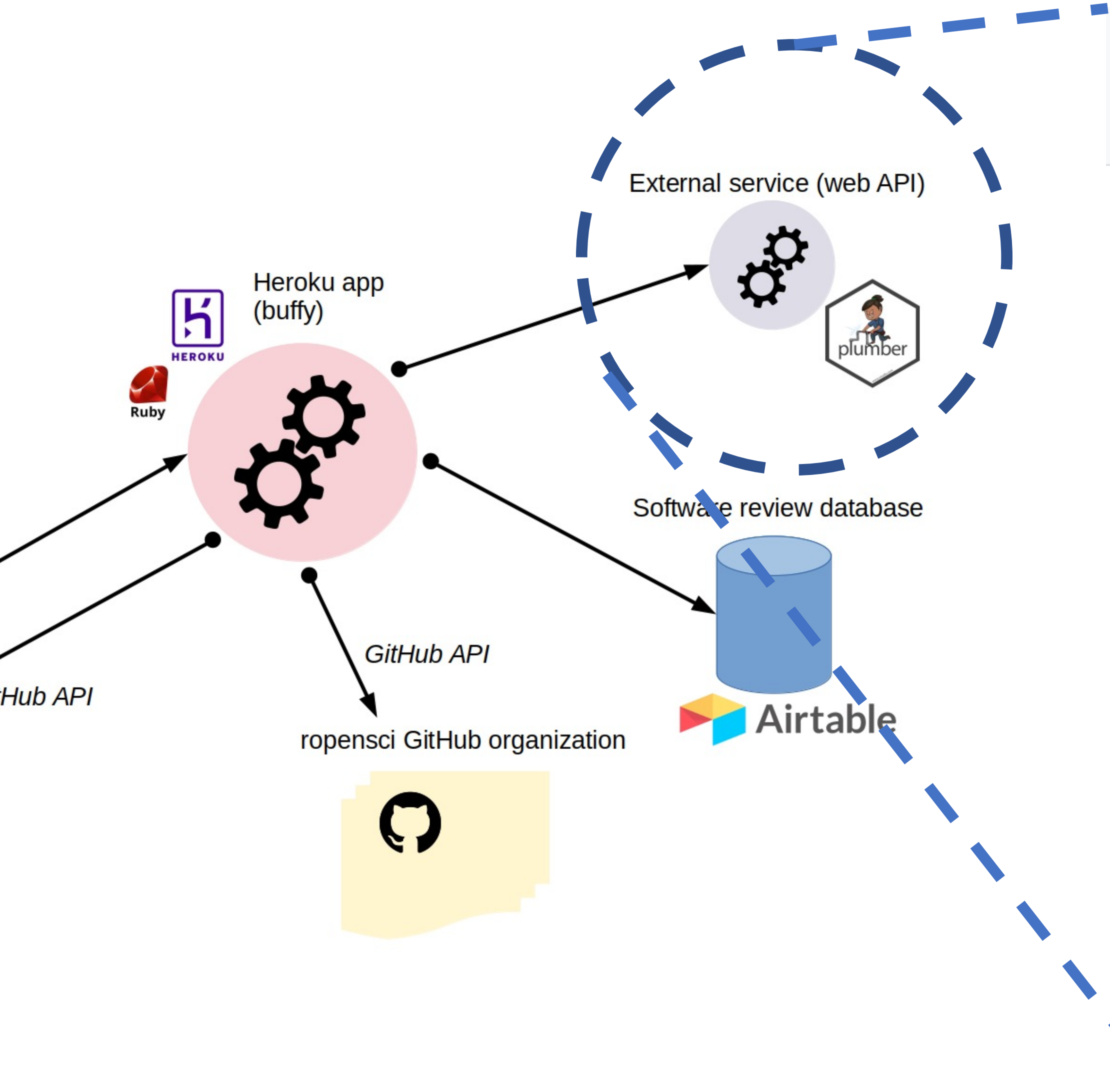
or


AVON 59931 $3.95
1982 PULITZER PRIZE-WINNER
THE PHENOMENAL BESTSELLER!
THE SOUL OF A NEW MACHINE
TRACY KIDDER
"BRINGS TO LIFE NOT ONLY HOW COMPUTERS WORK AND THE TECHNOLOGY REQUIRED TO DEVISE ONE... BUT ALSO THE HUMAN DRAMA."
THE NEW YORK TIMES

noamross @

2021-12-07 rOpenSci
Community Call

rOpenSci



External service (web API)

Heroku app
(buffy)

HEROKU

Ruby

plumber

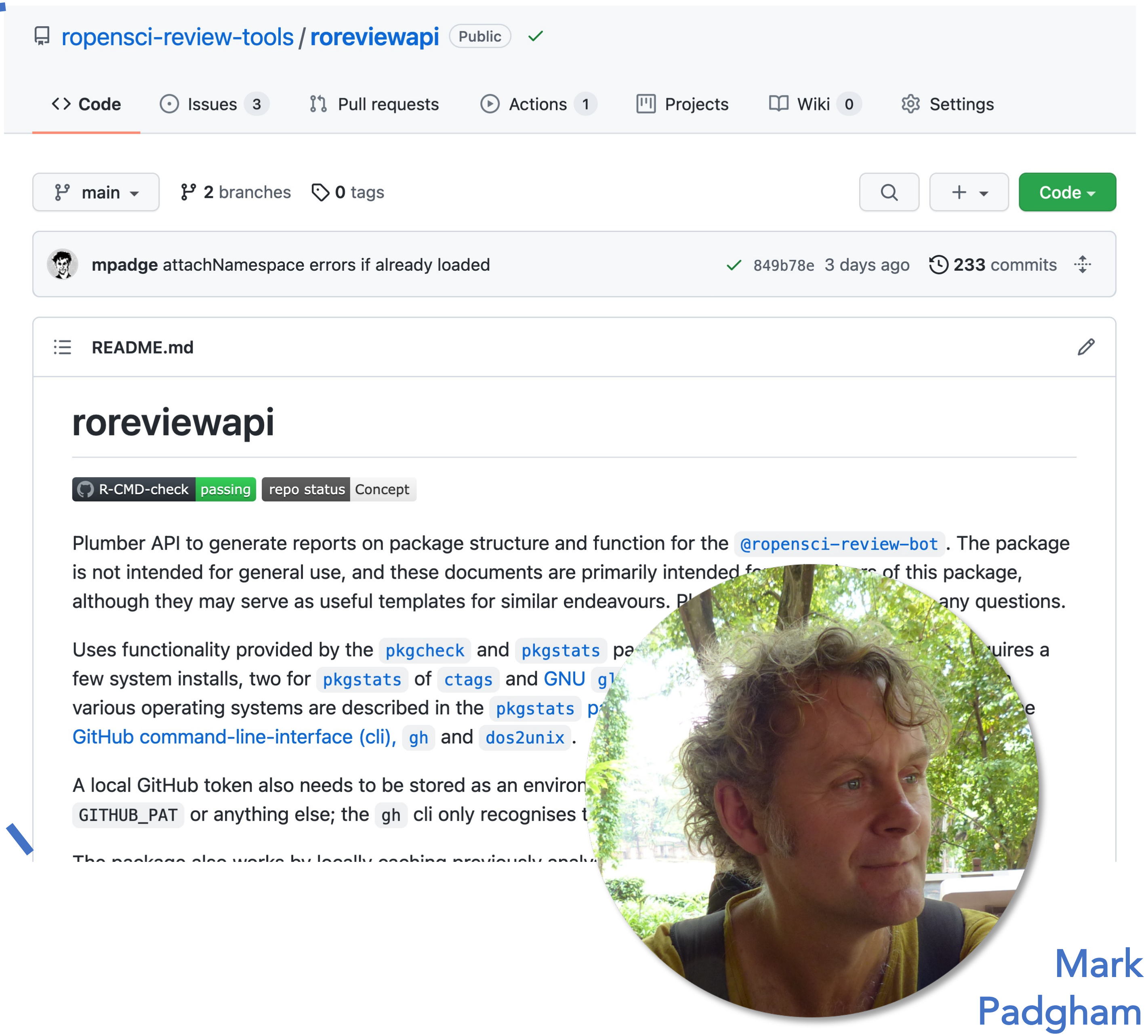
Software review database

Airtable

GitHub API

Hub API

ropensci GitHub organization



ropensci-review-tools / roreviewapi Public ✓

mpadge attachNamespace errors if already loaded ✓ 849b78e 3 days ago 233 commits

README.md

roreviewapi

R-CMD-check passing | repo status Concept

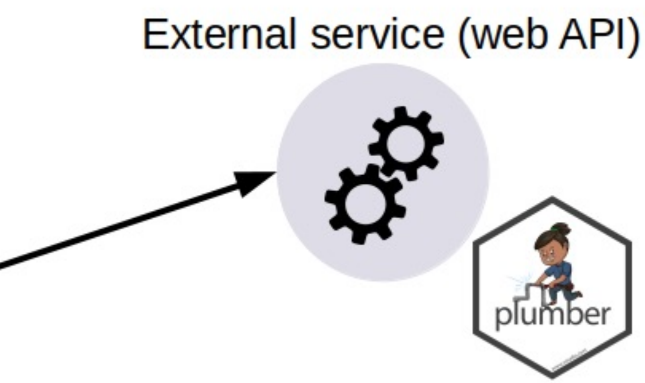
Plumber API to generate reports on package structure and function for the `@ropensci-review-bot`. The package is not intended for general use, and these documents are primarily intended fo rs of this package, although they may serve as useful templates for similar endeavours. Pl any questions.

Uses functionality provided by the `pkgcheck` and `pkgstats` pa uires a few system installs, two for `pkgstats` of `ctags` and GNU `gl` various operating systems are described in the `pkgstats` p e GitHub command-line-interface (cli), `gh` and `dos2unix`.

A local GitHub token also needs to be stored as an environ `GITHUB_PAT` or anything else; the `gh` cli only recognises t

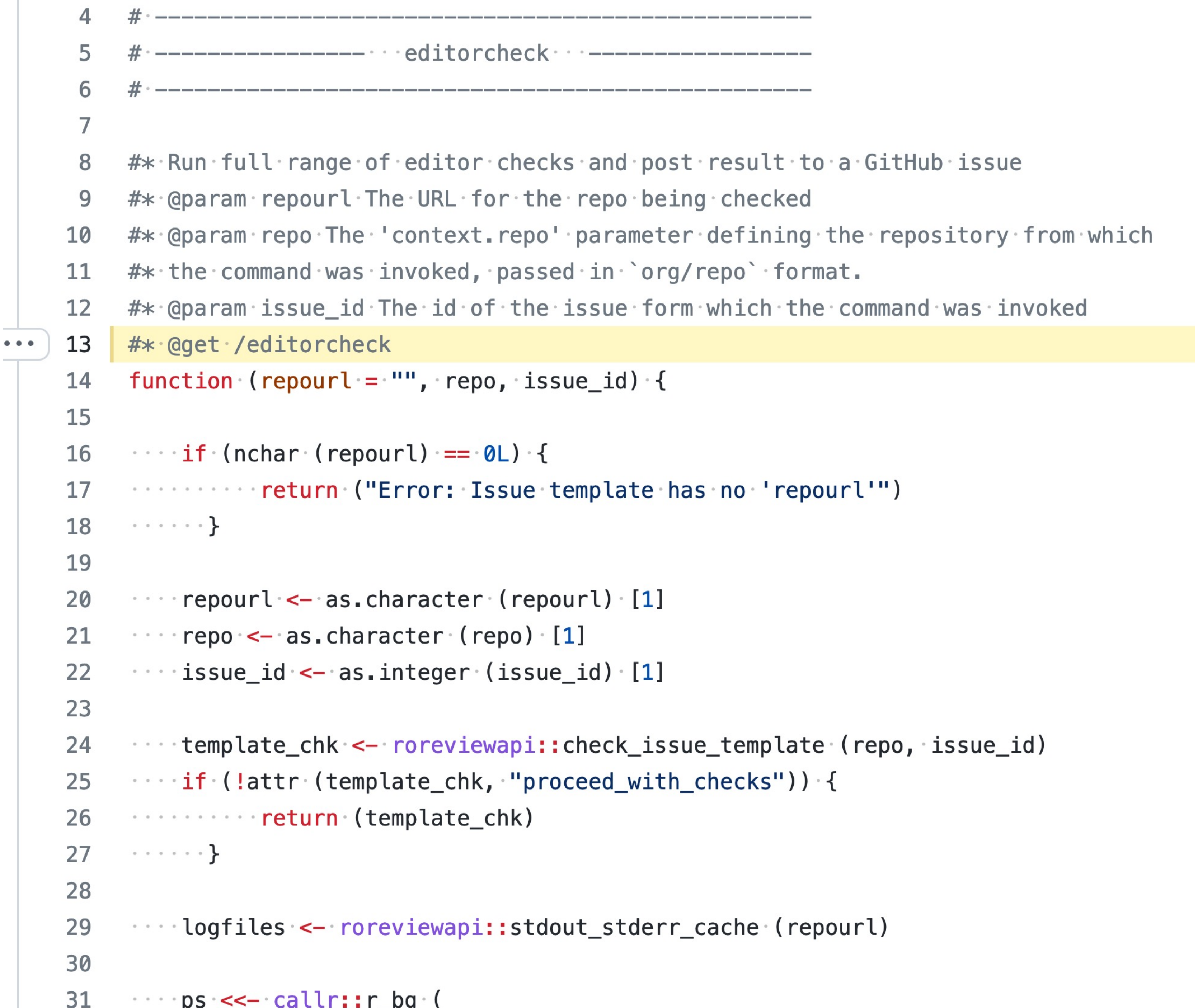
The package also works by locally caching previously analy

Mark Padgham (@bikesRdata)

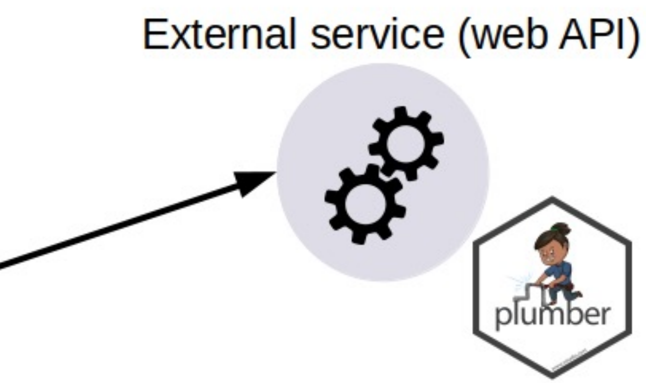


Buffy calls a service running an R-based Plumber API for checking packages

github.com/ropensci-review-tools/roreviewapi



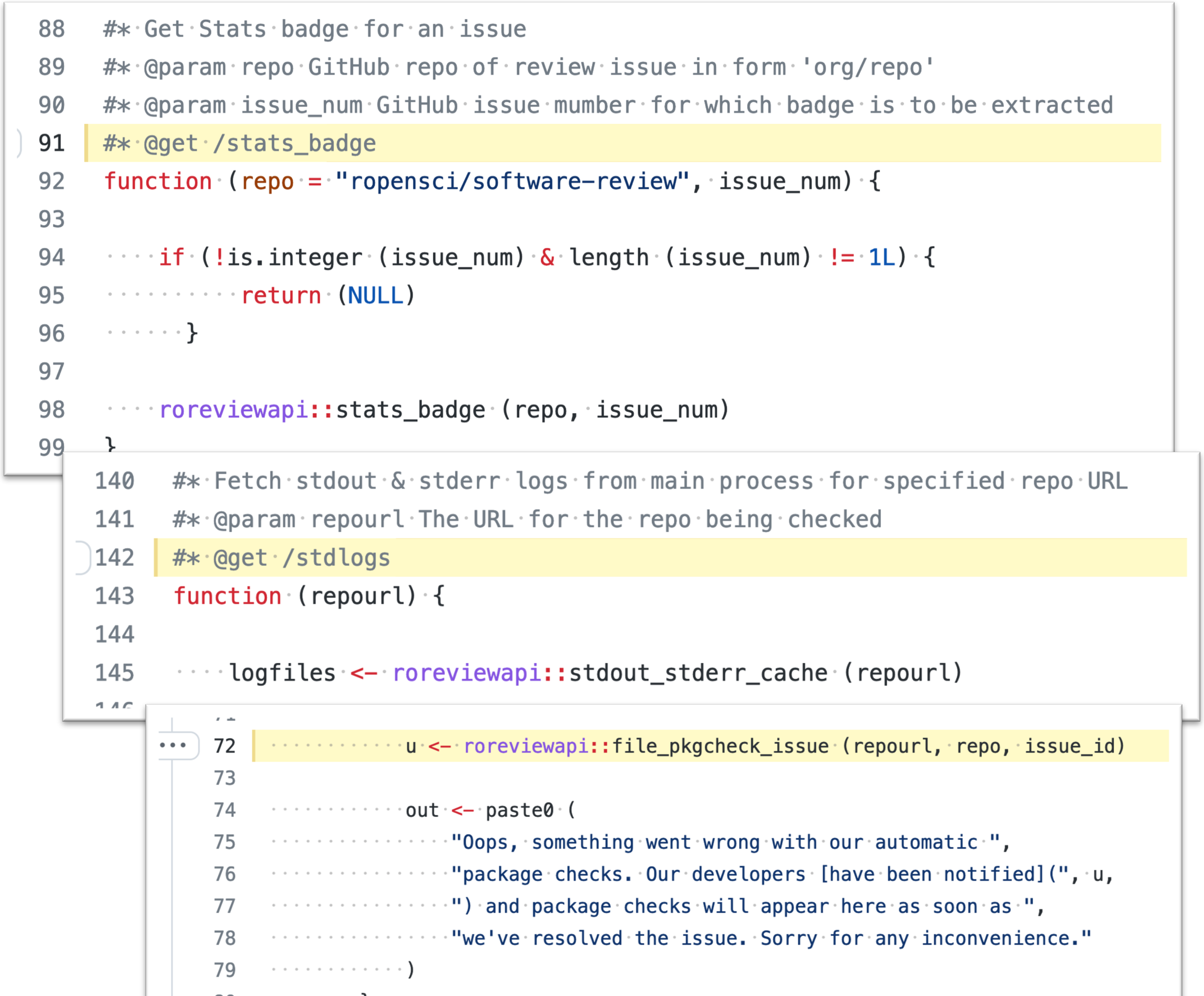
```
# ------------------------------------------------------------
# -------------------   editorcheck   -------------------
# ------------------------------------------------------------

#* Run full range of editor checks and post result to a GitHub issue
#* @param repourl The URL for the repo being checked
#* @param repo The 'context.repo' parameter defining the repository from which
#* the command was invoked, passed in `org/repo` format.
#* @param issue_id The id of the issue form which the command was invoked
#* @get /editorcheck
function (repourl = "", repo, issue_id) {

    if (nchar (repourl) == 0L) {
          return ("Error: Issue template has no 'repourl'")
      }

    repourl <- as.character (repourl) [1]
    repo <- as.character (repo) [1]
    issue_id <- as.integer (issue_id) [1]

    template_chk <- roreviewapi::check_issue_template (repo, issue_id)
    if (!attr (template_chk, "proceed_with_checks")) {
          return (template_chk)
      }

    logfiles <- roreviewapi::stdout_stderr_cache (repourl)

    ps <<- callr::r_bg (
```



External service (web API)

And provides badges, logs, and alerts!

github.com/ropensci-review-tools/roreviewapi



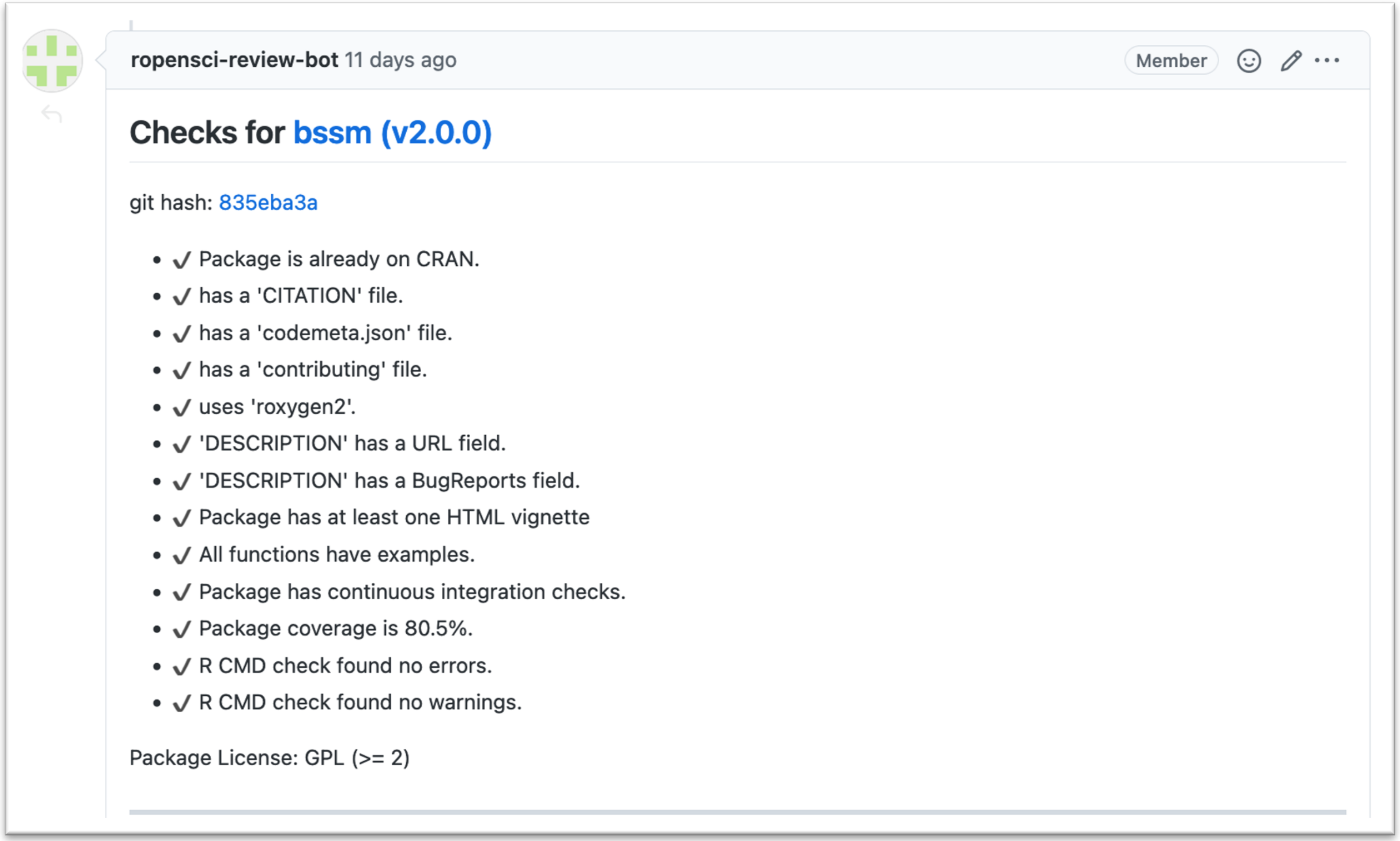
```
#* Get Stats badge for an issue
#* @param repo GitHub repo of review issue in form 'org/repo'
#* @param issue_num GitHub issue mumber for which badge is to be extracted
#* @get /stats_badge
function (repo = "ropensci/software-review", issue_num) {

    if (!is.integer (issue_num) & length (issue_num) != 1L) {
          return (NULL)
      }

    roreviewapi::stats_badge (repo, issue_num)
}
```

```
#* Fetch stdout & stderr logs from main process for specified repo URL
#* @param repourl The URL for the repo being checked
#* @get /stdlogs
function (repourl) {

    logfiles <- roreviewapi::stdout_stderr_cache (repourl)
```

```
            u <- roreviewapi::file_pkgcheck_issue (repourl, repo, issue_id)

            out <- paste0 (
                "Oops, something went wrong with our automatic ",
                "package checks. Our developers [have been notified](", u,
                ") and package checks will appear here as soon as ",
                "we've resolved the issue. Sorry for any inconvenience."
            )
```

Top-Level Summaries

roreviewapi delivers comprehensive, R- and rOpenSci-flavored diagnostics of submissions



Checks for bssm (v2.0.0)

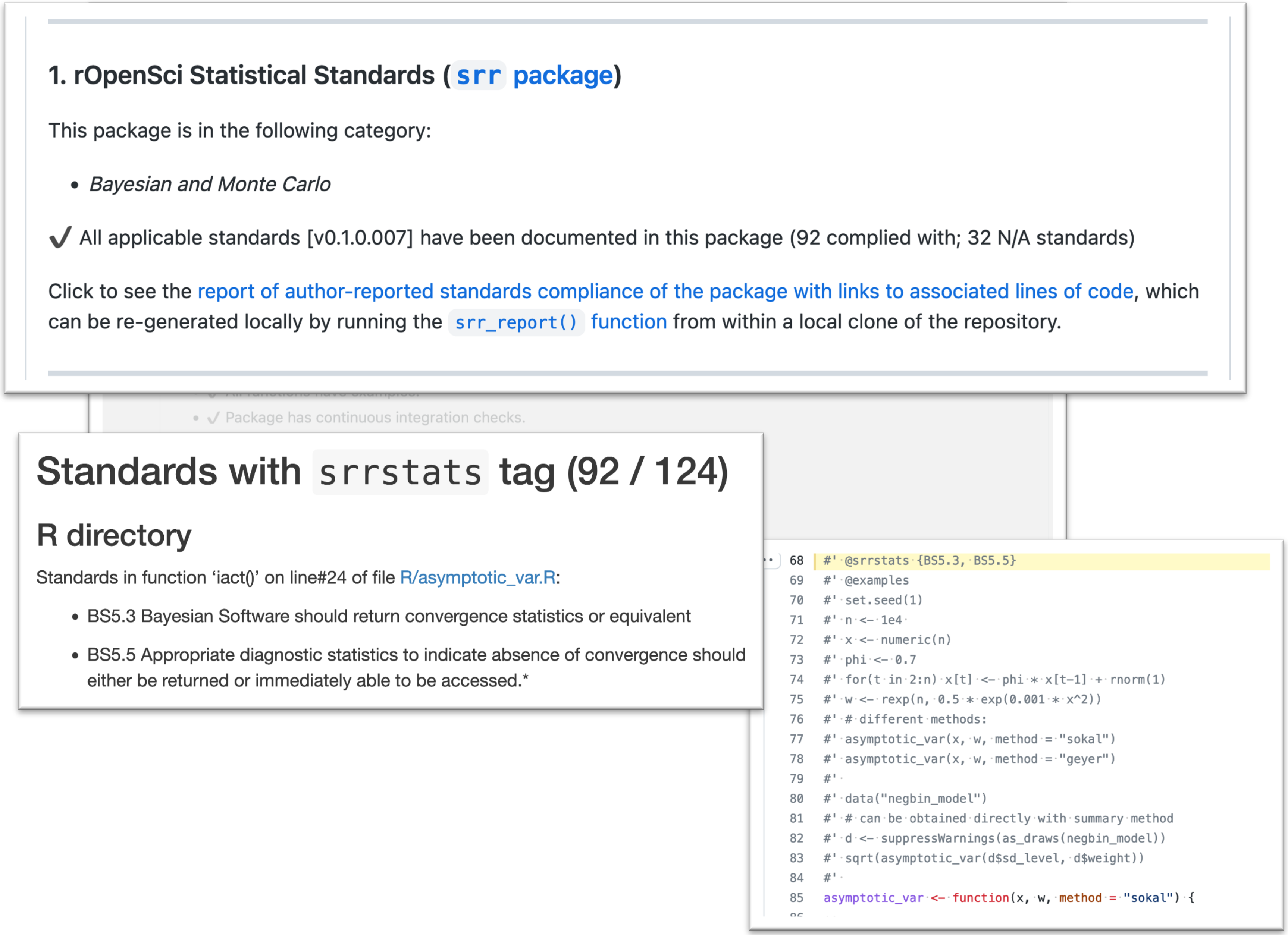
git hash: 835eba3a

- ✓ Package is already on CRAN.
- ✓ has a 'CITATION' file.
- ✓ has a 'codemeta.json' file.
- ✓ has a 'contributing' file.
- ✓ uses 'roxygen2'.
- ✓ 'DESCRIPTION' has a URL field.
- ✓ 'DESCRIPTION' has a BugReports field.
- ✓ Package has at least one HTML vignette
- ✓ All functions have examples.
- ✓ Package has continuous integration checks.
- ✓ Package coverage is 80.5%.
- ✓ R CMD check found no errors.
- ✓ R CMD check found no warnings.

Package License: GPL (>= 2)

Standards Compliance

roreviewapi delivers comprehensive, R- and rOpenSci-flavored diagnostics of submissions



1. rOpenSci Statistical Standards (`srr` package)

This package is in the following category:

- *Bayesian and Monte Carlo*

✓ All applicable standards [v0.1.0.007] have been documented in this package (92 complied with; 32 N/A standards)

Click to see the report of author-reported standards compliance of the package with links to associated lines of code, which can be re-generated locally by running the `srr_report()` function from within a local clone of the repository.

- ✓ Package has continuous integration checks.

Standards with `srrstats` tag (92 / 124)

R directory

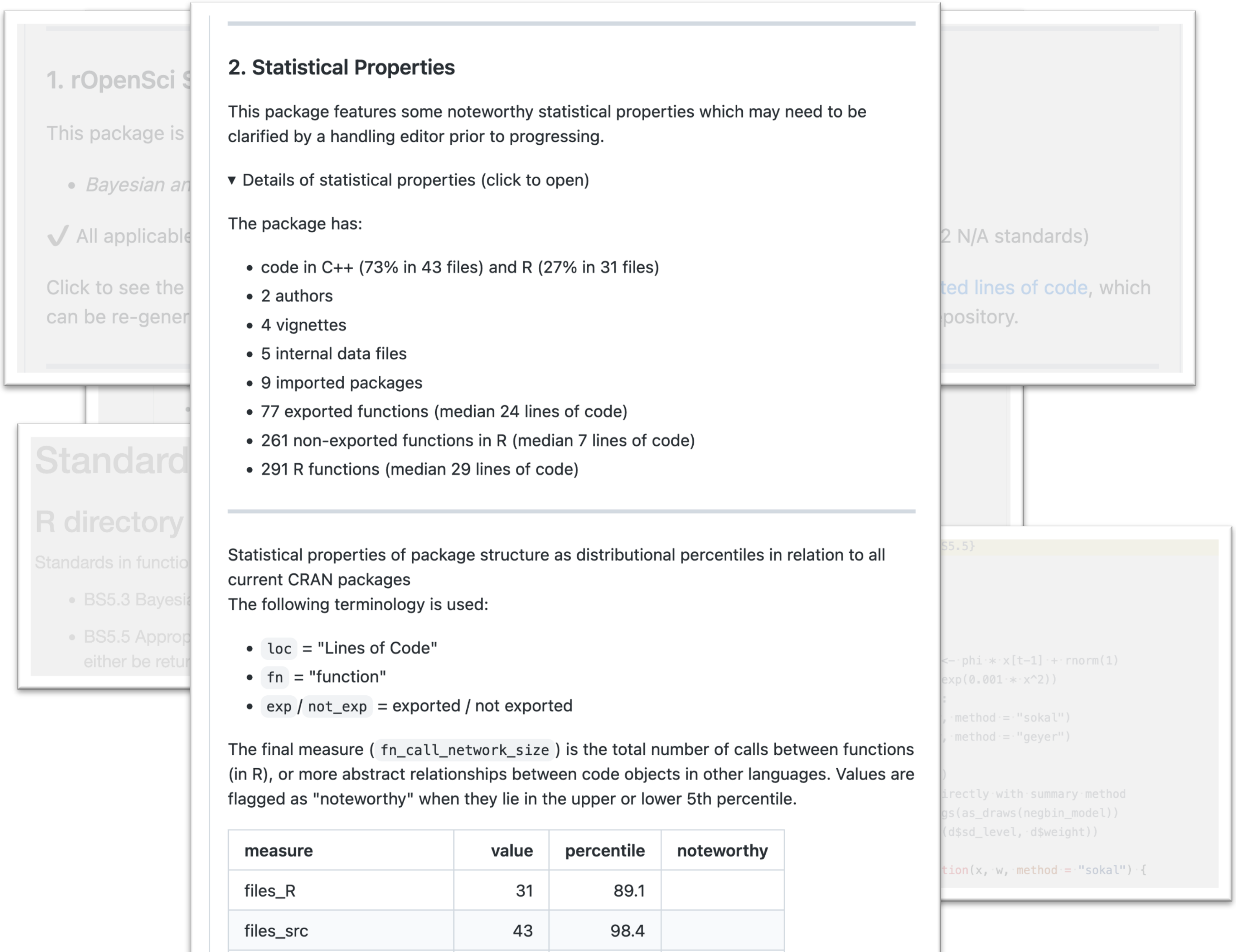
Standards in function ‘iact()’ on line#24 of file R/asymptotic_var.R:

- BS5.3 Bayesian Software should return convergence statistics or equivalent
- BS5.5 Appropriate diagnostic statistics to indicate absence of convergence should either be returned or immediately able to be accessed.*

```r
#' @srrstats {BS5.3, BS5.5}
#' @examples
#' set.seed(1)
#' n <- 1e4
#' x <- numeric(n)
#' phi <- 0.7
#' for(t in 2:n) x[t] <- phi * x[t-1] + rnorm(1)
#' w <- rexp(n, 0.5 * exp(0.001 * x^2))
#' # different methods:
#' asymptotic_var(x, w, method = "sokal")
#' asymptotic_var(x, w, method = "geyer")
#'
#' data("negbin_model")
#' # can be obtained directly with summary method
#' d <- suppressWarnings(as_draws(negbin_model))
#' sqrt(asymptotic_var(d$sd_level, d$weight))
#'
asymptotic_var <- function(x, w, method = "sokal") {
```

Quantitative Code Statistics

roreviewapi delivers comprehensive, R- and rOpenSci-flavored diagnostics of submissions



2. Statistical Properties

This package features some noteworthy statistical properties which may need to be clarified by a handling editor prior to progressing.

▾ Details of statistical properties (click to open)

The package has:

- code in C++ (73% in 43 files) and R (27% in 31 files)
- 2 authors
- 4 vignettes
- 5 internal data files
- 9 imported packages
- 77 exported functions (median 24 lines of code)
- 261 non-exported functions in R (median 7 lines of code)
- 291 R functions (median 29 lines of code)

Statistical properties of package structure as distributional percentiles in relation to all current CRAN packages
The following terminology is used:

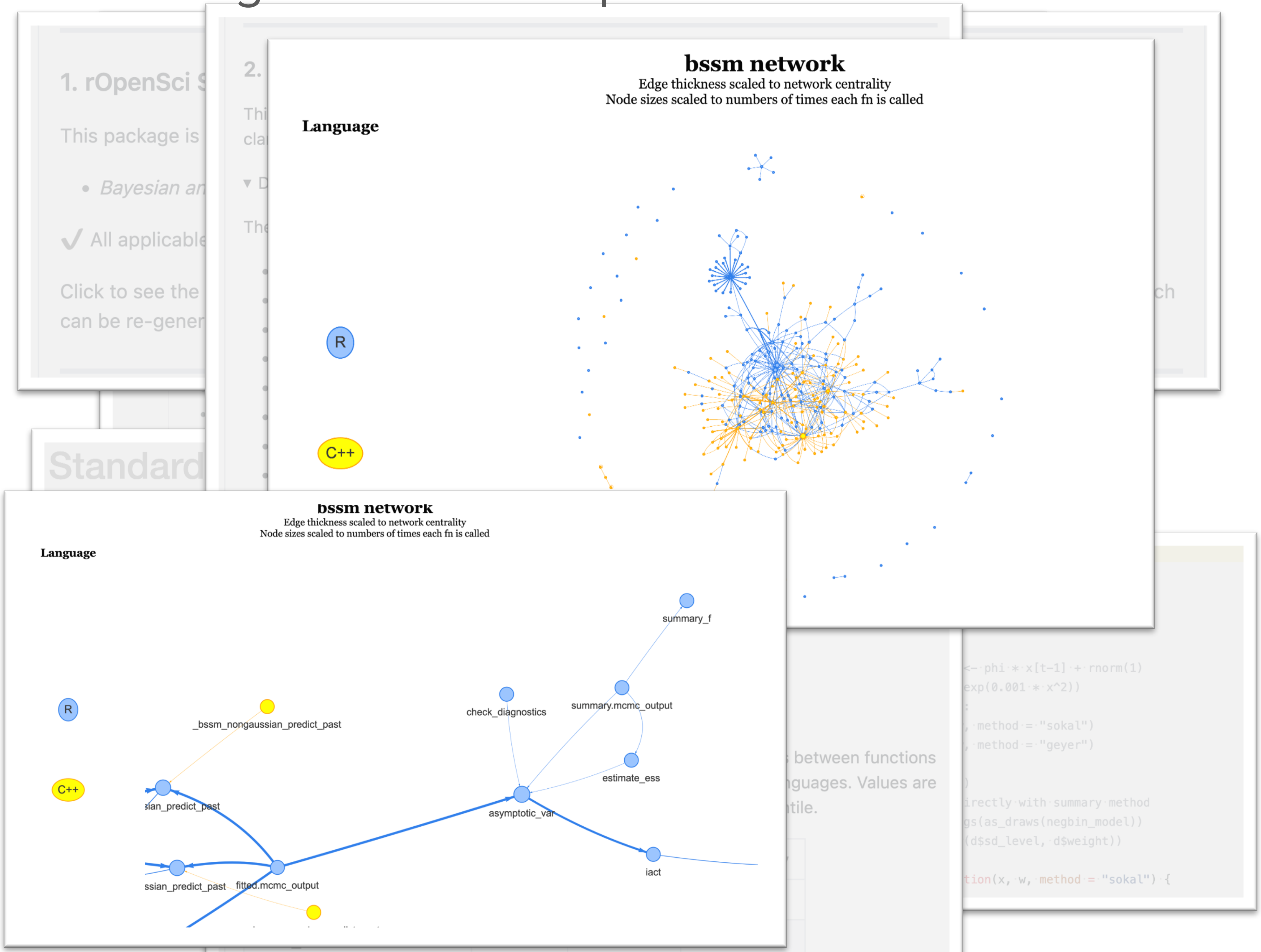
- `loc` = "Lines of Code"
- `fn` = "function"
- `exp` / `not_exp` = exported / not exported

The final measure (`fn_call_network_size`) is the total number of calls between functions (in R), or more abstract relationships between code objects in other languages. Values are flagged as "noteworthy" when they lie in the upper or lower 5th percentile.

measure	value	percentile	noteworthy
files_R	31	89.1	
files_src	43	98.4	

Package Structure Maps

roreviewapi delivers comprehensive, R- and rOpenSci-flavored diagnostics of submissions



bssm network

Edge thickness scaled to network centrality

Node sizes scaled to numbers of times each fn is called

1. rOpenSci S

This package is

- *Bayesian an*

✓ All applicable

Click to see the can be re-gener

2.

Thi cla

▼ D

The

Standard

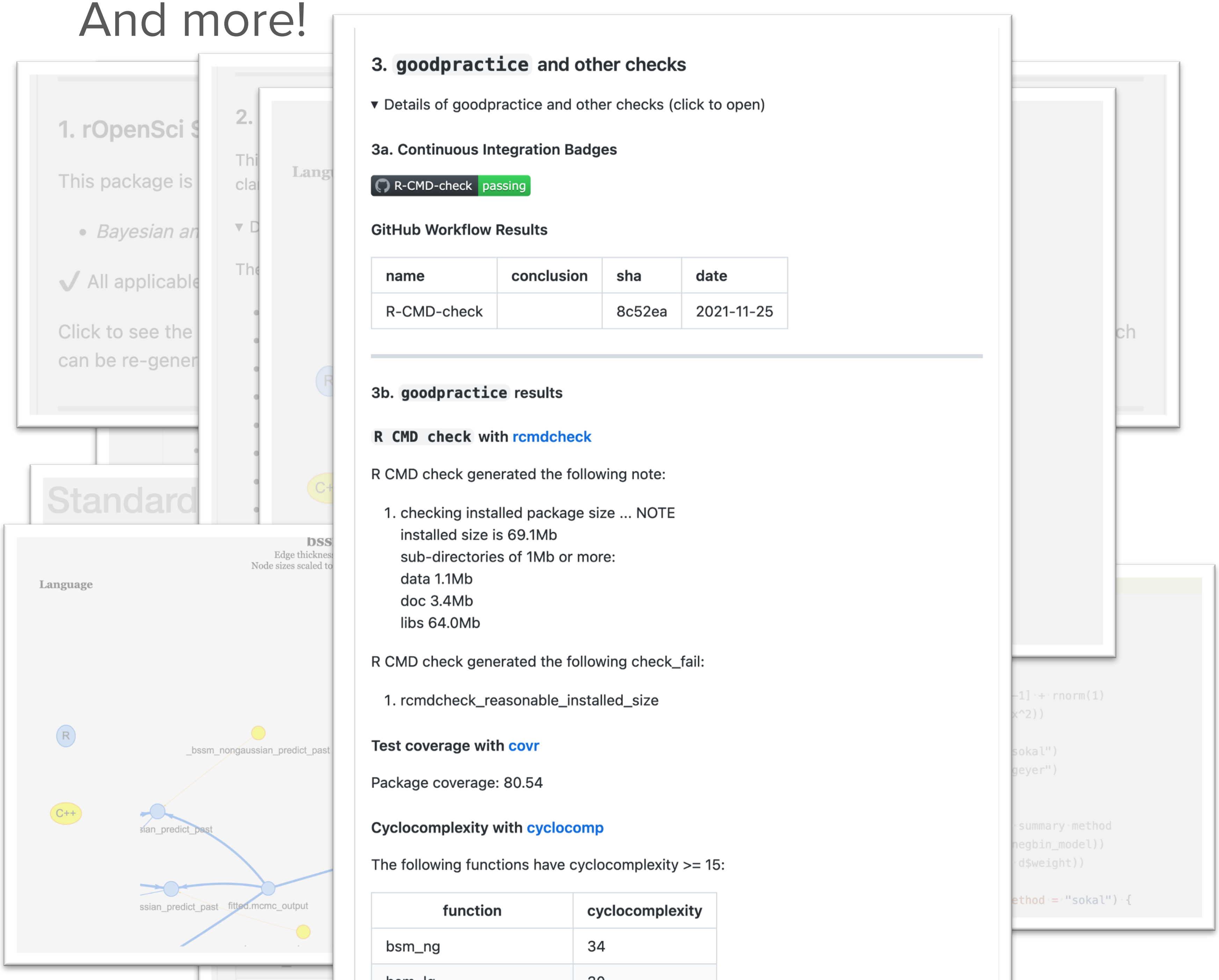
ch

between functions nguages. Values are tile.

```
<- phi * x[t-1] + rnorm(1)
exp(0.001 * x^2))
, method = "sokal")
, method = "geyer")
irectly with summary method
gs(as_draws(negbin_model))
(d$sd_level, d$weight))
tion(x, w, method = "sokal") {
```

And more!

roreviewapi delivers comprehensive, R- and rOpenSci-flavored diagnostics of submissions



3. `goodpractice` and other checks

▾ Details of goodpractice and other checks (click to open)

3a. Continuous Integration Badges

R-CMD-check passing

GitHub Workflow Results

name	conclusion	sha	date
R-CMD-check		8c52ea	2021-11-25

3b. `goodpractice` results

`R CMD check` with rcmdcheck

R CMD check generated the following note:

1. checking installed package size ... NOTE
   installed size is 69.1Mb
   sub-directories of 1Mb or more:
   data 1.1Mb
   doc 3.4Mb
   libs 64.0Mb

R CMD check generated the following check_fail:

1. rcmdcheck_reasonable_installed_size

Test coverage with covr

Package coverage: 80.54

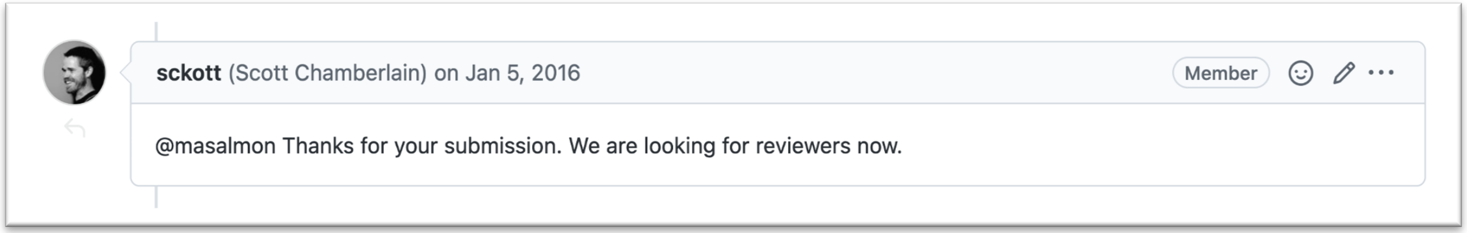
Cyclocomplexity with cyclocomp

The following functions have cyclocomplexity >= 15:

function	cyclocomplexity
bsm_ng	34

Automated checks provide a huge leap in efficiency and comprehensiveness over previous, manual checks

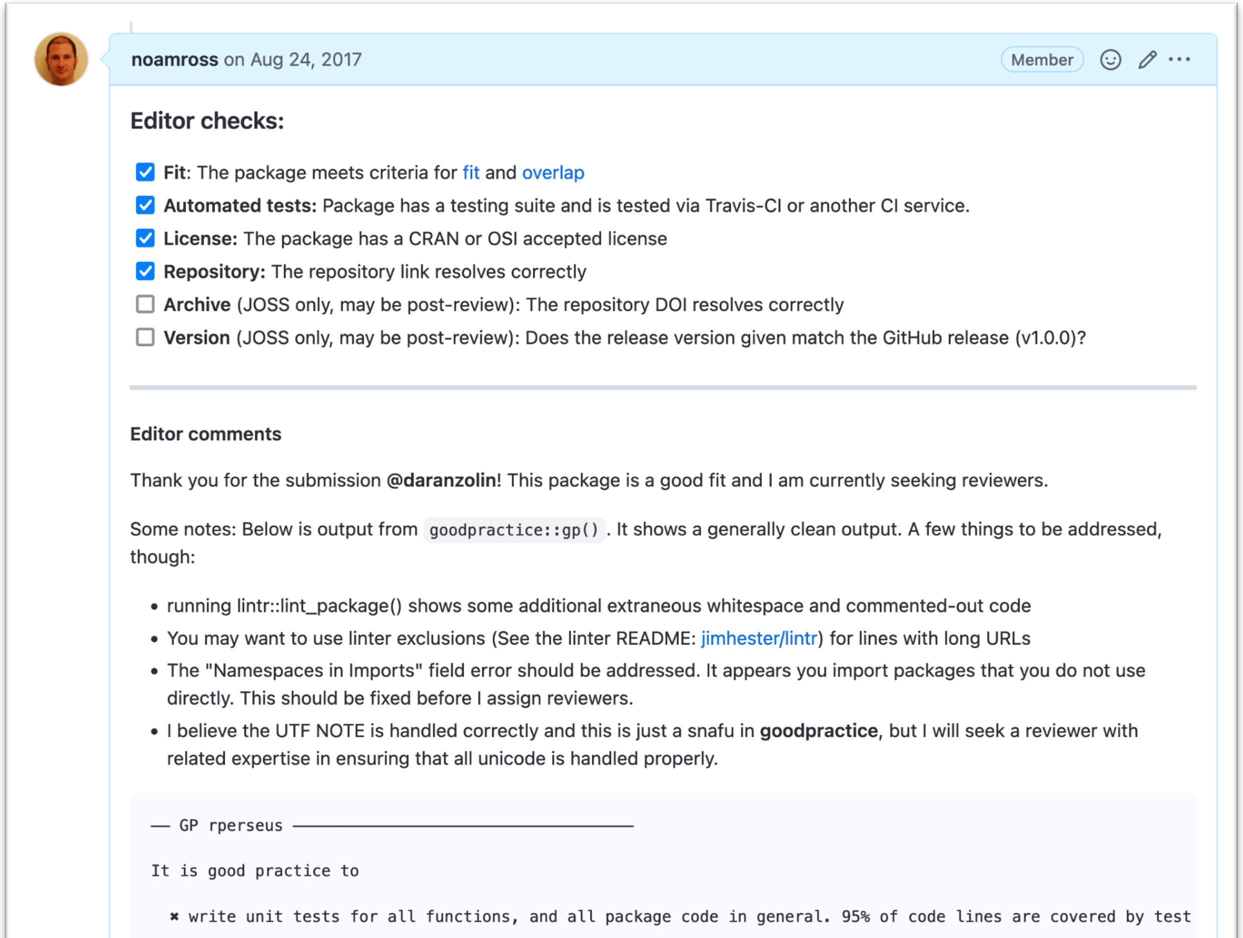
v1: “Looks good”



sckott (Scott Chamberlain) on Jan 5, 2016

@masalmon Thanks for your submission. We are looking for reviewers now.

v2: Local goodpractice()



noamross on Aug 24, 2017

Editor checks:

- ☑ **Fit:** The package meets criteria for fit and overlap
- ☑ **Automated tests:** Package has a testing suite and is tested via Travis-CI or another CI service.
- ☑ **License:** The package has a CRAN or OSI accepted license
- ☑ **Repository:** The repository link resolves correctly
- ☐ **Archive** (JOSS only, may be post-review): The repository DOI resolves correctly
- ☐ **Version** (JOSS only, may be post-review): Does the release version given match the GitHub release (v1.0.0)?

Editor comments

Thank you for the submission **@daranzolin**! This package is a good fit and I am currently seeking reviewers.

Some notes: Below is output from `goodpractice::gp()` . It shows a generally clean output. A few things to be addressed, though:

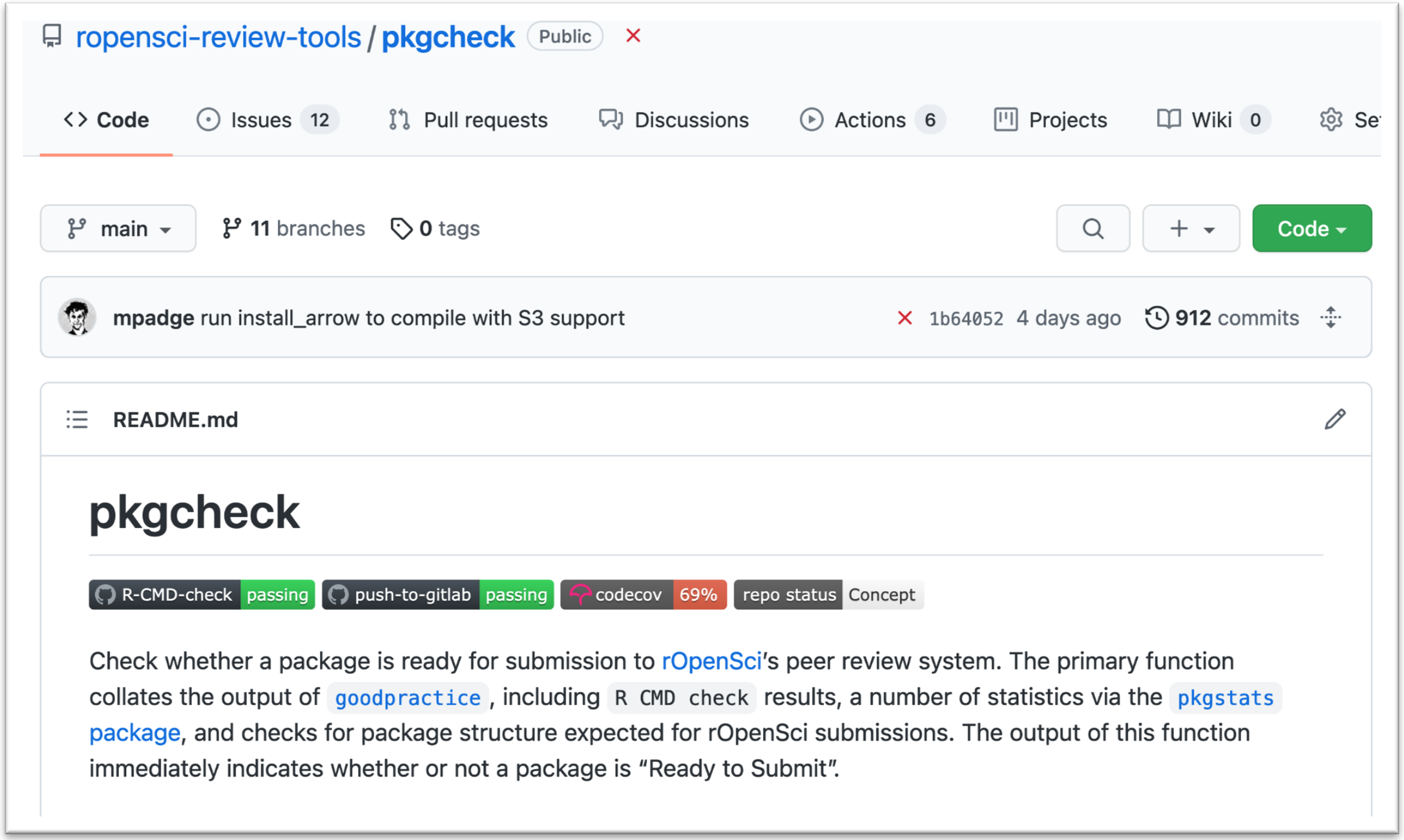
- running lintr::lint_package() shows some additional extraneous whitespace and commented-out code
- You may want to use linter exclusions (See the linter README: jimhester/lintr) for lines with long URLs
- The "Namespaces in Imports" field error should be addressed. It appears you import packages that you do not use directly. This should be fixed before I assign reviewers.
- I believe the UTF NOTE is handled correctly and this is just a snafu in **goodpractice**, but I will seek a reviewer with related expertise in ensuring that all unicode is handled properly.

```
── GP rperseus ──────────────────────────────────

It is good practice to

  ✖ write unit tests for all functions, and all package code in general. 95% of code lines are covered by test
```

pkgcheck lets you run check submission-readiness

What’s inside **roreviewapi?**

More packages you can use!



mpadge run install_arrow to compile with S3 support ✕ 1b64052 4 days ago

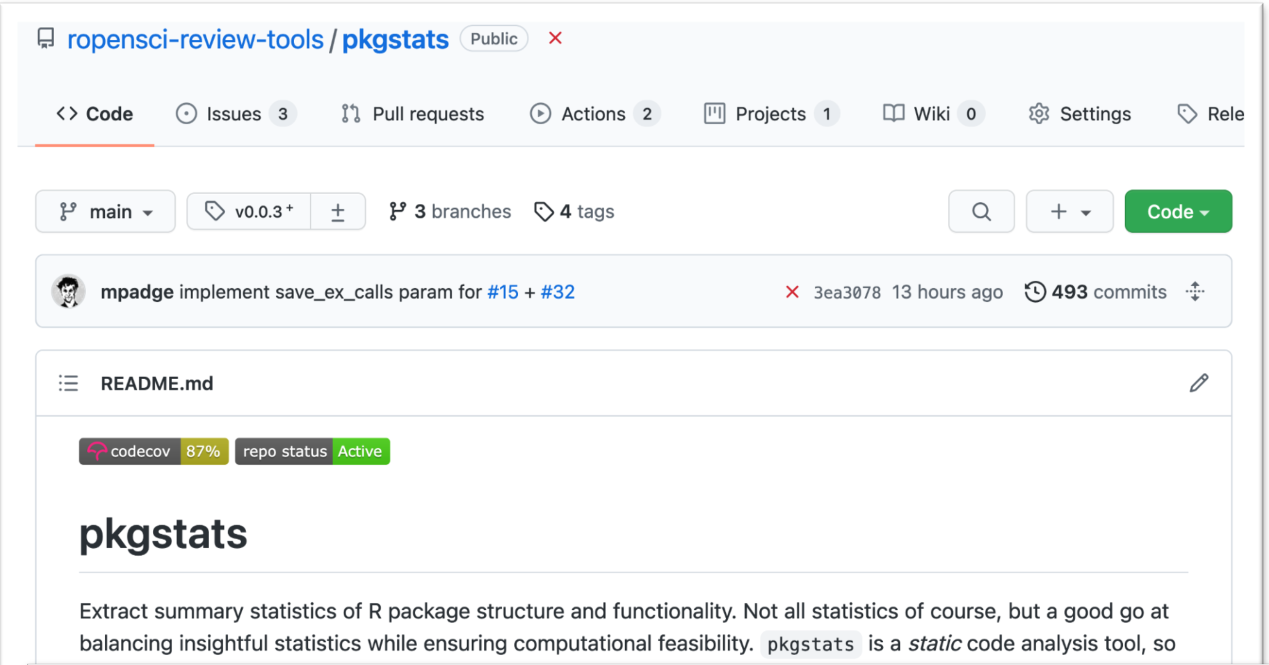
pkgcheck

Check whether a package is ready for submission to rOpenSci’s peer review system. The primary function collates the output of `goodpractice`, including `R CMD check` results, a number of statistics via the `pkgstats` package, and checks for package structure expected for rOpenSci submissions. The output of this function immediately indicates whether or not a package is “Ready to Submit”.

pkgstats provides a database of metrics to compare your package to all of CRAN

What’s inside **roreviewapi?**

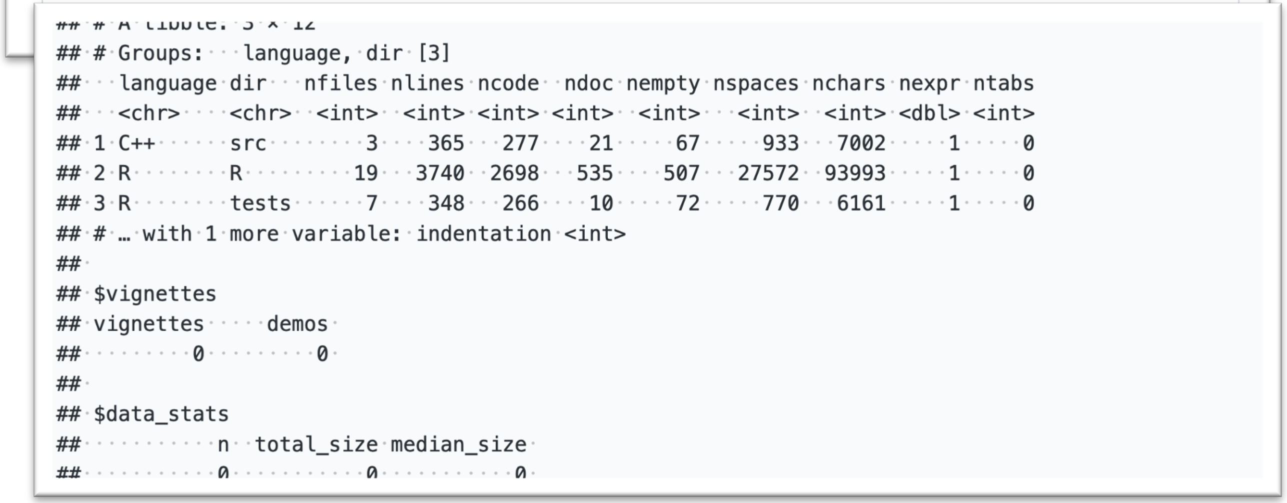
More packages you can use!



mpadge implement save_ex_calls param for #15 + #32 ✕ 3ea3078 13 hours ago 493 commits

pkgstats

Extract summary statistics of R package structure and functionality. Not all statistics of course, but a good go at balancing insightful statistics while ensuring computational feasibility. `pkgstats` is a *static* code analysis tool, so

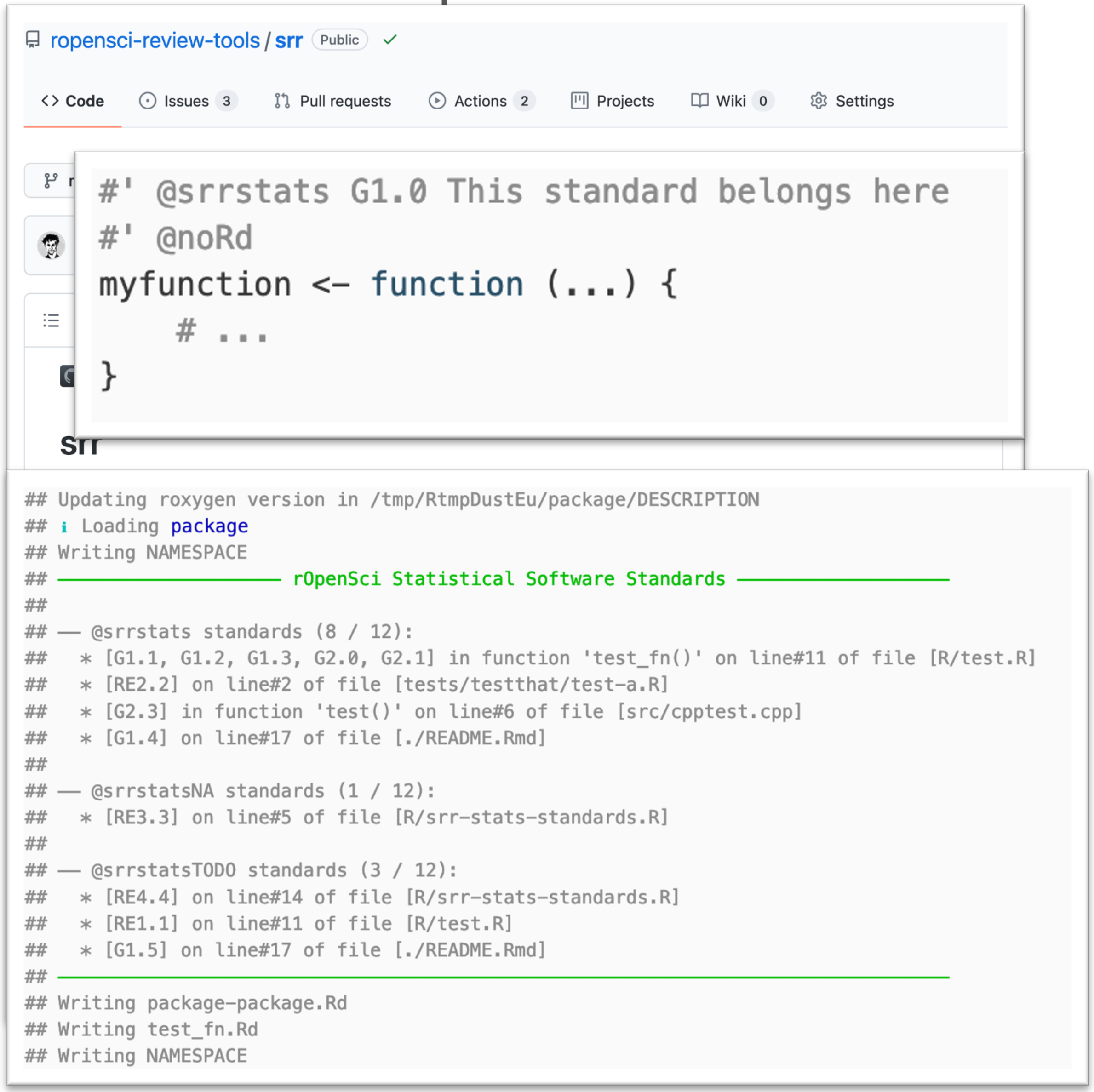


```
## # A tibble: 3 × 12
## # Groups:   language, dir [3]
##   language dir   nfiles nlines ncode  ndoc nempty nspaces nchars nexpr ntabs
##   <chr>    <chr>  <int>  <int> <int> <int>  <int>   <int>  <int> <dbl> <int>
## 1 C++      src        3    365   277    21     67     933   7002     1     0
## 2 R        R         19   3740  2698   535    507   27572  93993     1     0
## 3 R        tests      7    348   266    10     72     770   6161     1     0
## # … with 1 more variable: indentation <int>
##
## $vignettes
## vignettes     demos
##         0         0
##
## $data_stats
##           n  total_size median_size
##           0           0           0
```

srr (**s**oftware **r**eview **r**oclets) documents standards compliance with code annotations

What’s inside **roreviewapi?**

More packages you can use!



```
#' @srrstats G1.0 This standard belongs here
#' @noRd
myfunction <- function (...) {
    # ...
}
```

```
## Updating roxygen version in /tmp/RtmpDustEu/package/DESCRIPTION
## ℹ Loading package
## Writing NAMESPACE
## ──────────────── rOpenSci Statistical Software Standards ────────────────
##
## ── @srrstats standards (8 / 12):
##   * [G1.1, G1.2, G1.3, G2.0, G2.1] in function 'test_fn()' on line#11 of file [R/test.R]
##   * [RE2.2] on line#2 of file [tests/testthat/test-a.R]
##   * [G2.3] in function 'test()' on line#6 of file [src/cpptest.cpp]
##   * [G1.4] on line#17 of file [./README.Rmd]
##
## ── @srrstatsNA standards (1 / 12):
##   * [RE3.3] on line#5 of file [R/srr-stats-standards.R]
##
## ── @srrstatsTODO standards (3 / 12):
##   * [RE4.4] on line#14 of file [R/srr-stats-standards.R]
##   * [RE1.1] on line#11 of file [R/test.R]
##   * [G1.5] on line#17 of file [./README.Rmd]
## ─────────────────────────────────────────────────────────────────────────
## Writing package-package.Rd
## Writing test_fn.Rd
## Writing NAMESPACE
```

Thank you!

rOpenSci

@rOpenSci
ropensci.org

Noam
Ross
@noamross

Mark
Padgham
@bikesRdata

ALFRED P. SLOAN
FOUNDATION