Package: SCIproj (via r-universe)

October 19, 2026

Type Package

Title Creates a Scientific Project Skeleton as an R Package

Version 1.0.1

Description Provides a template for new research projects structured as an R package-based research compendium. Everything - data, R scripts, custom functions and manuscript or reports - is contained within the same package to facilitate collaboration and promote reproducible research, following the FAIR principles.

Language en-US

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Depends R(>= 4.1.0)

Imports usethis (>= 2.0.0), rstudioapi, cli

Suggests knitr, renv, rmarkdown, targets, testthat (>= 3.0.0), withr

VignetteBuilder knitr

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RoxygenNote 7.3.3

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URL https://github.com/saskiaotto/SCIproj

BugReports https://github.com/saskiaotto/SCIproj/issues

Config/pak/sysreqs cmake git make libgit2-dev libuv1-dev libssl-dev libx11-dev

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`create_proj` *Create new data analysis project as R package*

Description

Create all the scaffolding for a new project in a new directory. The scaffolding includes a README file, different folders to hold raw data, analyses, etc, a `_targets.R` pipeline template, renv dependency management, and a `CITATION.cff` file. Optionally, initialize a git repository and/or set up a private or public GitHub repo with GitHub Actions CI.

Usage

```
create_proj(
  name,
  data_raw = TRUE,
  makefile = FALSE,
  testthat = FALSE,
  use_pipe = FALSE,
  add_license = NULL,
  license_holder = "Your name",
  orcid = NULL,
  use_git = TRUE,
  create_github_repo = FALSE,
  private_repo = TRUE,
  ci = "none",
  use_renv = TRUE,
  use_targets = TRUE,
  use_docker = FALSE,
  use_rproj = TRUE,
  setwd_to_proj = TRUE,
  open_proj = FALSE,
  verbose = FALSE
)
```

Arguments

`name`	Character. Name of the new project. Could be a path, e.g. `"~/myRcode/newproj"`. A new folder will be created with that name. The directory name can contain underscores or hyphens (e.g. `"my_project"`) - these will be automatically converted to dots for the internal R package name (e.g. `my.project` in DESCRIPTION).
`data_raw`	Logical. If TRUE (default), adds a `data-raw/` folder for all the raw data files, including a `clean_data.R` script file for generating clean datasets, a `DATA_SOURCES.md` for documenting data provenance (source, license, download date, DOI), and a README.

`makefile` Logical. If TRUE, adds a template `makefile.R` file to the project.

`testthat` Logical. If TRUE, adds testthat infrastructure.

`use_pipe` Logical. If TRUE, adds magrittr's pipe operator to the package. Default is FALSE since R >= 4.1.0 provides the native pipe operator `|>` which is recommended instead.

`add_license` Character. Type of license to add. Options are `"MIT"`, `"GPL"`, `"AGPL"`, `"LGPL"`, `"Apache"`, `"CCBY"`, or `"CC0"`. Default is NULL (no license added).

`license_holder` Character. Name of the license holder / project author. Also used in CITATION.cff. Default is `"Your name"`.

`orcid` Character. ORCID iD of the project author (e.g. `"0000-0001-7986-0308"`). Used in CITATION.cff. Default is NULL.

`use_git` Logical. If TRUE (default), initializes a local git repository.

`create_github_repo`
Logical. If TRUE, creates a GitHub repository. Note this requires some working infrastructure like `git` and a `GITHUB_PAT`. See https://usethis.r-lib.org/articles/articles/usethis-setup.html.

`private_repo` Logical. If TRUE (default), the GitHub repo will be private.

`ci` Character. Type of continuous integration for your GitHub repository. Options are `"none"` (default) or `"gh-actions"` (uses GitHub Actions with R CMD check). Only used when `create_github_repo = TRUE`.

`use_renv` Logical. If TRUE (default), initializes renv for dependency management. Creates a lockfile and `.Rprofile` bootstrap.

`use_targets` Logical. If TRUE (default), adds a `_targets.R` template file for pipeline-based workflow management.

`use_docker` Logical. If TRUE, adds a template `Dockerfile` for building a reproducible computational environment.

`use_rproj` Logical. If TRUE (default), creates an RStudio project file (`.Rproj`). Set to FALSE when working exclusively in IDEs that do not use `.Rproj` files, such as Positron or VSCode. The `.Rproj` file is harmless in these IDEs but simply unused.

`setwd_to_proj` Logical. If TRUE (default), sets the working directory to the new project after creation so you can continue working inside it. Ignored when `open_proj = TRUE` (the new session gets the project; the current session keeps its original WD). Set to FALSE for script-driven workflows where you want to stay in your current working directory - for example, when creating multiple projects in sequence.

`open_proj` Logical. If TRUE, opens the newly created project in a new RStudio or Positron session (ignored in other IDEs). In that case, the current session keeps its original working directory, regardless of `setwd_to_proj`. Default is FALSE.

`verbose` Logical. If TRUE, prints verbose output in the console while creating the new project. Default is FALSE.

Details

SCIproj creates a research compendium that combines **structure** (where files live) with **workflow** (how analyses are reproduced). By default, it sets up:

- `renv` for dependency management (reproducible package versions)
- `targets` for pipeline-based workflow (automatic dependency tracking and caching)
- `CITATION.cff` for machine-readable citation metadata (FAIR)
- `DATA_SOURCES.md` for data provenance documentation

Since R >= 4.1.0, the native pipe operator `|>` is available and recommended over the magrittr pipe `%>%`. The `use_pipe` parameter is therefore set to FALSE by default.

Value

Invisibly returns the path to the new project directory.

Examples

```
## Not run:
library("SCIproj")

# Minimal project (includes renv + targets by default)
create_proj("myproject")

# Names with underscores/hyphens are fine - the R package name is
# auto-cleaned (e.g. "baltic_cod" -> "baltic.cod" in DESCRIPTION)
create_proj("baltic_cod_analysis")

# Full-featured project
create_proj("my_research_project",
  add_license = "MIT",
  license_holder = "Jane Doe",
  orcid = "0000-0001-2345-6789",
  create_github_repo = TRUE,
  ci = "gh-actions"
)

# Minimal without workflow tools
create_proj("myproject", use_renv = FALSE, use_targets = FALSE)

## End(Not run)
```

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