

Package ‘sketchy’

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Type Package

Title Create custom research compendiums

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Description Provides functions to create and manage research compendiums for data analysis.

License GPL (>= 2)

Imports knitr, stringi, crayon, packrat, git2r

Depends R (>= 3.5.0)

LazyData TRUE

URL <https://github.com/maRce10/sketchy>

BugReports <https://github.com/maRce10/sketchy/issues>

NeedsCompilation no

Suggests testthat, formatR

VignetteBuilder knitr

RoxygenNote 7.1.1

Repository CRANs

Language en-US

R topics documented:

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add_to_gitignore	<i>Add entries to gitignore</i>
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Description

add_to_gitignore adds entries to gitignore files

Usage

```
add_to_gitignore(add.to.gitignore = FALSE, cutoff = NULL, extension = NULL)
```

Arguments

add.to.gitignore	Logical to control if files are added to 'gitignore' or just printed on the console.
cutoff	Numeric. Defines the file size (in MB) cutoff used to find files (i.e. only files above the threshold would returned). 99 (MB) is recommended when hosting projects at github as the current file size limit is 100 MB.
extension	Character string to define the file extension of the files to be searched for.

Details

The function can be used large size files h.

Value

Prints the name of the files matching the searching parameters. If `add.to.ignore = TRUE` the files matching the search parameters ('cutoff' and/or 'extension') would be added 'gitignore' (a file used by git to exclude files form version control, including adding them to github). Hence this can be used to avoid conflicts when working with large files or just avoid adding non-binary files to remote repositories.

Author(s)

Marcelo Araya-Salas (<marcelo.araya@ucr.ac.cr>)

References

Araya-Salas, M., Willink, B., Arriaga, A. (2020), sketchy: research compendiums for data analysis in R. R package version 1.0.0.

See Also

[compendiums](#), [make_compendium](#)

Examples

```
{
  data(compendiums)

  make_compendium(name = "my_compendium", path = tempdir(),
    format = compendiums$basic$skeleton, force = TRUE)

  # must start git monitoring at this point
  # add_to_gitignore(add.to.gitignore = TRUE)
}
```

compendiums

List with compendium skeletons

Description

compendiums is a list containing the format of 13 different project folder skeletons. For each format 3 elements are provided: ‘\$skeleton’ (folder structure), ‘\$comments’ and ‘\$info’ (reference to the original source).

Usage

```
data(compendiums)
```

Format

A list with 13 compendium formats:

basic basic sketchy format

figures similar to basic, but including output/figures folders

project_template following Kenton White’s [ProjectTemplate](#)

pakillo following Francisco Rodriguez-Sanchez’ [template](#)

boettiger following Carl Boettiger’s [blog](#)

wilson following Wilson et al. (2017) format

small_compendium following Marwick et al (2018) small compendium format

medium_compendium following Marwick et al (2018) medium compendium format

large_compendium following Marwick et al (2018) large compendium format

vertical following Vuorre *et al.* (2018) [R package vertical](#)

rrtools following Marwick (2018) ([R package rrtools](#))

rdir following folder structure described on this [r-dir blog post](#)

workflowr following Blischak *et al.* (2019) [R package workflowr](#)

References

- Blischak, J. D., Carbonetto, P., & Stephens, M. 2019. *Creating and sharing reproducible research code the workflow way*. F1000Research, 8.
- Marwick, B. 2018. *rrtools: Creates a reproducible research compendium*.
- Marwick, B., Boettiger, C., & Mullen, L. 2018. *Packaging data analytical work reproducibly using R (and friends)*. The American Statistician, 72(1), 80-88.
- Vuorre, Matti, and Matthew J. C. Crump. 2020. *Sharing and Organizing Research Products as R Packages*. PsyArXiv. January 15.
- Wilson G, Bryan J, Cranston K, Kitzes J, Nederbragt L. & Teal, T. K.. 2017. *Good enough practices in scientific computing*. PLOS Computational Biology 13(6): e1005510.

make_compendium	Generate folder structures for research compendiums
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Description

make_compendium generates the folder structure of a research compendium.

Usage

```
make_compendium(name = "research_compendium", path = ".", force = FALSE,
format = compendiums$basic$skeleton, comments = NULL, packrat = FALSE, git = FALSE, clone = NULL)
```

Arguments

name	character string: the research compendium directory name. No special characters should be used. Default is "research_compendium".
path	Path to put the package directory in. Default is current directory.
force	Logical controlling whether existing folders with the same name are used for setting the folder structure. The function will never overwrite existing files or folders.
format	A character vector with the names of the folders and subfolders to be included. Default is 'compendiums\$basic\$skeleton'. Take a look at 'compendiums' for examples.
comments	A character string with the comments to be added to each folder in the graphical representation of the folder skeleton printed on the console.
packrat	Logical to control if packrat is initialized (packrat::init()) when creating the compendium. Default is FALSE.
git	Logical to control if a git repository is initialized (git2r::init()) when creating the compendium. Default is FALSE.
clone	Path to a directory containing a folder structure to be cloned. Default is NULL. If provided 'format' is ignored. Folders starting with ^\\.git ^\\.Rproj.user ^\\.\\..Rcheck will be ignored.
readme	Logical. Controls if a readme file (in Rmd format) is added to the project. The file has predefined fields for documenting objectives and current status of the project.

Details

The function takes predefined folder structures to generate the directory skeleton of a research compendium.

Value

A folder skeleton for a research compendium. In addition the structure of the compendium is printed in the console. If the compendium format includes a "manuscript" or "doc(s)" folder the function saves a manuscript template in Rmarkdown format ("manuscript_template.Rmd") and APA citation style file ("apa.csl") inside that folder.

Author(s)

Marcelo Araya-Salas (<marcelo.araya@ucr.ac.cr>)

References

Araya-Salas, M., Willink, B., Arriaga, A. (2020), sketchy: research compendiums for data analysis in R. R package version 1.0.0.

Marwick, B., Boettiger, C., & Mullen, L. (2018). Packaging Data Analytical Work Reproducibly Using R (and Friends). American Statistician, 72(1), 80-88.

Alston, J., & Rick, J. (2020). A Beginners Guide to Conducting Reproducible Research.

See Also

[compendiums](#), [print_skeleton](#)

Examples

```
{
  data(compendiums)

  make_compendium(name = "mycompendium", path = tempdir(), format = compendiums$basic$skeleton,
  force = TRUE)
}
```

print_skeleton

Print folder structures

Description

print_skeleton prints the folder structure of a research compendium.

Usage

```
print_skeleton(path = ".", comments = NULL)
```

Arguments

path	path to the package directory to be printed. Default is current directory.
comments	A character string with the comments to be added to each folder in the graphical representation of the folder skeleton printed on the console.

Details

The function prints the folder structure of an existing project.

Value

The folder skeleton is printed in the console.

Author(s)

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References

Araya-Salas, M., Willink, B., Arriaga, A. (2020), sketchy: research compendiums for data analysis in R. R package version 1.0.0.

See Also

[compendiums](#), [make_compendium](#)

Examples

```
{
data(compendiums)

make_compendium(name = "my_other_compendium", path = tempdir(), format = compendiums$basic$skeleton)

print_skeleton(path = file.path(tempdir(), "mycompendium"))
}
```

sketchy

sketchy: quantifying habitat-induced acoustic signal degradation

Description

‘sketchy’ is intended to facilitate the use of research compendiums for data analysis in the R environment. Standard research compendiums provide a easily recognizable means for organizing digital materials, allowing other researchers to inspect, reproduce, and build upon that research.

Details

The main features of the package are:

- Creation of (customized) folder structure
- Simplify the inclusion of big data files with version control software and online collaborative platforms (e.g. github)

License: GPL (≥ 2)

Author(s)

Marcelo Araya-Salas, Beatriz Willink & Andrea Arriaga

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