

Package: CTUtemplate (via r-universe)

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Title Example RStudio Project Templates

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Description Templates and functions for use in CTU Bern.

Depends R (>= 3.3.2)

License GPL (>= 2)

Encoding UTF-8

LazyData true

RoxygenNote 7.3.3

Imports bookdown, fs, glue, htmltools, jsonlite, pingr, rstudioapi,
stringr, svDialogs, whisker

Suggests knitr, testthat (>= 3.0.0)

Config/testthat/edition 3

Config/pak/sysreqs cmake make libicu-dev libuv1-dev

Repository <https://dcr-unibe-ch.r-universe.dev>

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add_ctu_header	<i>Insert CTU standard header to the active document This function is not intended to be used in any scripts.</i>
----------------	---

Description

Insert CTU standard header to the active document This function is not intended to be used in any scripts.

Usage

```
add_ctu_header()
```

Value

adds CTU header to the active document

add_gtsummary_n	<i>Insert Ns into gtsummary tables</i>
-----------------	--

Description

gtsummary, by default has suboptimal presentation of number of observations, especially in terms of missing data. This function adds the code at the cursor location of the active document.

Usage

```
add_gtsummary_n()
```

Details

The first part should be placed after a gtsummary::tbl_summary call and the add_by_n function definition should be moved to wherever R functions are defined in your project

This code only needs to be used for grouped tables. For ungrouped tables, use add_overall() |> add_n().

Code modified from [a question on stackoverflow](#)

Value

adds gtsummary code to the active document

coloured_text	<i>Colour specific text in a html document</i>
---------------	--

Description

Colour specific text in a html document

Usage

```
coloured_text(colour, ...)
```

Arguments

colour	colour to use for the content
...	content to be coloured

Details

In quarto/Rmarkdown documents, use the function in an inline R chunk (``r coloured_text(...)``) or in an R chunk with the result set to `asis`

Examples

```
coloured_text("red", "This text should be red")
# also works with multiple contents
coloured_text("red", "This text should be red", "this one too")
# For multiple colours, use multiple calls to the function:
coloured_text("red", "this is red,")
coloured_text("blue", "and this is blue!")
```

install.univ.packages	<i>Install packages from an R-universe</i>
-----------------------	--

Description

R-universes are a little like mini-CRANs. Packages are generally sourced from github and compiled into binaries for easy installation. To install them, though, you have to specify the repository argument in the `install.packages` function. This function removes that requirement.

Usage

```
install.univ.packages(x, univ = "https://dcr-unibe-ch.r-universe.dev")
```

Arguments

x	package(s) to install
univ	universe to install from

Examples

```
# install.univ.packages("randotools")
```

OneStageSS

OneStageSS

Description

Calculates sample size or power for single-stage trials with a binary endpoint according to: Ahern, R. P., Sample size tables for exact single-stage phase II designs. *Statistics in medicine* 20.6 (2001): 859-866.

Usage

```
OneStageSS(p0, p1, power = 0.8, n = NA, alpha = 0.05, nstart = 1)
```

Arguments

p0	Proportion of events under H0
p1	Proportion of events under H1
power	Power, default=0.8
n	Sample size, calculated if NA, otherwise power is calculated
alpha	Alpha, default=0.05
nstart	Number of patients to start iterations, default=1, can be increased to save time

Value

List with number of patients with events for a significant trial (r), number of patients (n), alpha and power.

Examples

```
# Calculate sample size
OneStageSS(p0=0.5,p1=0.6,alpha=0.05,power=0.8)
# Calculate power
OneStageSS(p0=0.5,p1=0.6,alpha=0.05,n=100)
```

report_pdf	<i>Generate PDF report</i>
------------	----------------------------

Description

This is not intended to be run manually... rather via knitting a document

Usage

```
report_pdf(  
  report_template = find_resource("report", "report.tex"),  
  latex_engine = "pdflatex",  
  ...  
)
```

Arguments

report_template	tex template to use
latex_engine	tex engine to use (pdflatex, lualatex, xelatex)
...	options passed to bookdown

template_rando_code	<i>Template randomisation list code</i>
---------------------	---

Description

Open a file with template code to generate a randomisation list (and report).

Usage

```
template_rando_code()
```

Details

This must be used within RStudio.

Value

an R script

Examples

```
# template_rando_code()
```

unibeRed *UNIBE red Get the official UNIBE red colour. Note that the unibeCols package has all of the UNIBE colours.*

Description

UNIBE red Get the official UNIBE red colour. Note that the unibeCols package has all of the UNIBE colours.

Usage

```
unibeRed(alpha = 1)
```

Arguments

alpha alpha for transparency (0 to 1)

Value

hexidecimal colour code

See Also

[unibeCols::unibeRed()]

Examples

```
plot(1:5, col = unibeRed())
```

use_param_report_template

Template files for a parameterized report

Description

Parameterized reports allow to create reports in a loop. Examples might be site specific quality reports or recruitment reports.

Usage

```
use_param_report_template(save_as, open = TRUE, ...)
```

Arguments

save_as	filename to save the files as (do not include extension as multiple files are created)
open	logical indicating whether to open the file
...	other arguments passed to use_template

Details

This function creates 2 files as a barebones template for such parameterized reports. An Rmd file is created (based on the UNIBE template) and an R file containing a small loop. Currently, the you have to supervise this loop, as use_ubreportclo (which relies on usethis::use_template) will not overwrite files without being given explicit permission.

Value

saves two files, an Rmd and an R file

Examples

```
# use_param_report_template("param")
```

use_qmd_html	<i>Use the DCR quarto html template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.</i>
--------------	---

Description

Use the DCR quarto html template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.

Use the DCR quarto revealjs presentation template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.

Use the DCR quarto html recruitment report template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.

Use the DCR quarto html sample size report template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.

Use the DCR quarto typst template This function will download and optionally open the quarto markdown (qmd) file and the other necessary files from github.

Usage

```

use_qmd_html(save_in = ".", open = TRUE, ping = TRUE)

use_qmd_pres(save_in = ".", open = TRUE, ping = TRUE)

use_qmd_htmlrecruitment(save_in = ".", open = TRUE, ping = TRUE)

use_qmd_htmlsamps(i(save_in = ".", open = TRUE, ping = TRUE)

use_qmd_typst(save_in = ".", open = TRUE, ping = TRUE)

```

Arguments

save_in	directory to save the main qmd in
open	logical indicating whether to open the file
ping	logical whether to check for internet connection

Functions

- use_qmd_pres(): revealjs Presentation Template
- use_qmd_htmlrecruitment(): Recruitment Report Template
- use_qmd_htmlsamps(i): Sample Size Report Template
- use_qmd_typst(): Sample Size Report Template

Examples

```

# dir <- tempdir()
# file <- file.path(dir, "filename.qmd")
# use_qmd_html(file, FALSE)
# in practice at CTU:
# use_qmd_html("08_Reports_xx/ReportName.qmd", TRUE)
# dir <- tempdir()
# file <- file.path(dir, "filename.qmd")
# use_qmd_pres(file, FALSE)
# in practice at CTU:
# use_qmd_pres("08_Reports_xx/ReportName.qmd", TRUE)
# dir <- tempdir()
# file <- file.path(dir, "filename.qmd")
# use_qmd_html(file, FALSE)
# in practice at CTU:
# use_qmd_htmlrecruitment("08_Reports_xx/ReportName.qmd", TRUE)
# dir <- tempdir()
# file <- file.path(dir, "filename.qmd")
# use_qmd_html(file, FALSE)
# in practice at CTU:
# use_qmd_htmlrecruitment("08_Reports_xx/ReportName.qmd", TRUE)
# dir <- tempdir()
# file <- file.path(dir, "filename.qmd")
# use_qmd_html(file, FALSE)

```

```
# in practice at CTU:
# use_qmd_typst("08_Reports_xx/ReportName.qmd", TRUE)
```

use_quarto *Get a quarto template from the dcr-unibe-ch quarto repository*

Description

Get a quarto template from the dcr-unibe-ch quarto repository

Usage

```
use_quarto(x, dir, open = TRUE)
```

Arguments

x	branch name of the template in question
dir	folder in which to save the template
open	logical, whether to open the file

Value

a qmd file (and extension file)

Examples

```
#use_quarto("html", ".")
```

use_recreport_template *Open a new recruitment report*

Description

Open a new recruitment report

Usage

```
use_recreport_template(save_as, open = TRUE, ...)
```

Arguments

save_as	filename to save the Rmd as
open	logical indicating whether to open the file
...	other arguments passed to use_template

Value

Creates an Rmd file in the save_as location

Examples

```
# use_recreport_template("rr.Rmd")
```

use_report_template *Open a new report*

Description

Open a new report

Usage

```
use_report_template(save_as, open = TRUE, ...)
```

Arguments

save_as	filename to save the Rmd as
open	logical indicating whether to open the file
...	other arguments passed to use_template

Value

Creates an Rmd file in the save_as location

Examples

```
# use_report_template("foo.Rmd")
```

use_ssreport_template *Open a new sample size report*

Description

Open a new sample size report

Usage

```
use_ssreport_template(save_as, open = TRUE, ...)
```

Arguments

save_as	filename to save the Rmd as
open	logical indicating whether to open the file
...	other arguments passed to use_template

Value

Creates an Rmd file in the save_as location

Examples

```
# use_ssreport_template("ss.Rmd")
```

use_ub_tex_template *Open a new tex template allowing customization*

Description

Open a new tex template allowing customization

Usage

```
use_ub_tex_template(save_as, open = TRUE, ...)
```

Arguments

save_as	filename to save the tex file as (should be the same as in the Rmd header)
open	logical indicating whether to open the file
...	other arguments passed to use_template

Value

Creates an tex file in the save_as location

Examples

```
# use_ub_tex_template("report.tex")
```

 use_ubreportclo

Generate the CLO file for use with the UNIBE tex template

Description

The CLO file contains the information identifying the author, project and institution (although we do not modify that). It is used by the UNIBE CLS file to create the parts of the template.

Usage

```
use_ubreportclo(
  projnum = "xxx",
  projname = "Project YYY",
  reporttype = "Type of report",
  version = "Version",
  sign = "Author name",
  email = "author.name@ctu.unibe.ch",
  job = "Senior Statistician",
  open = FALSE,
  dir = ".",
  ...
)
```

Arguments

projnum	Project number to appear in report
projname	Project name to appear in report
reporttype	The main title of the report
version	Version number or similar
sign	Your name as it should appear
email	your email address
job	your job title
open	open the file or not
dir	directory in which to create the file
...	other options passed to use_template

Value

writes the UNIBE template clo file

Examples

```
# use_ubreportclo(# Personal info
#                 sign = "Alan",
#                 email = "alan.haynes@ctu.unibe.ch",
#                 job = "Senior Statistician",
#                 # Project info
#                 projnum = "1234",
#                 projname = "Project X",
#                 # Report info
#                 version = Sys.Date(),
#                 reporttype = "Recruitment report"
#                 )
```

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