

Package ‘insane’

April 1, 2023

Title INsulin Secretion ANalysEr

Version 1.0.2

Description

A user-friendly interface, using Shiny, to analyse glucose-stimulated insulin secretion (GSIS) assays in pancreatic beta cells or islets.

The package allows the user to import several sets of experiments from different spreadsheets and to perform subsequent steps: summarise in a tidy format, visualise data quality and compare experimental conditions without omitting to account for technical confounders such as the date of the experiment or the technician.

Together, insane is a comprehensive method that optimises pre-processing and analyses of GSIS experiments in a friendly-user interface.

The Shiny App was initially designed for EndoC-betaH1 cell line following method described in Ndiaye et al., 2017 (<[doi:10.1016/j.molmet.2017.03.011](https://doi.org/10.1016/j.molmet.2017.03.011)>).

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URL <https://github.com/mcanouil/insane/>, <https://m.canouil.dev/insane/>

BugReports <https://github.com/mcanouil/insane/issues/>

Depends R (>= 3.6.0)

Imports stats, utils, broom (>= 0.5.6), dplyr (>= 1.0.0), DT (>= 0.13), ggplot2 (>= 3.3.2), ggpubr (>= 0.3.0), ggthemes (>= 4.2.0), glue (>= 1.4.1), patchwork (>= 1.0.1), purrr (>= 0.3.4), readxl (>= 1.3.1), shiny (>= 1.5.0), tidyr (>= 1.1.0)

Suggests covr (>= 3.5.0), roxygen2 (>= 7.1.0), knitr (>= 1.29), testthat (>= 2.3.2), rmarkdown (>= 2.3)

VignetteBuilder knitr

Encoding UTF-8

RoxygenNote 7.2.3

NeedsCompilation no

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deploy	<i>Deploy the Shiny App</i>
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Description

Deploy (copy) the shiny application to the specified directory

Usage

```
deploy(
  directory = "/srv/shiny-server",
  app_name = "insane",
  demo = FALSE,
  overwrite = FALSE
)
```

Arguments

directory	[character] A character vector of one path to the new location.
app_name	[character] A character vector defining the shiny application name in the new location.
demo	[logical] A logical indicating if examples spreadsheets should be copied in the app.
overwrite	[logical] A logical indicating if existing destination files should be overwritten.

Value

[logical](#) A logical indicating whether the deployment is successful (TRUE) or not (FALSE).

Examples

```
deploy(directory = ".")

if (interactive()) {
  shiny::runApp("insane")
}
```

Description

Runs a Shiny application. This function normally does not return; interrupt R to stop the application (usually by pressing Ctrl+C or Esc).

Usage

```
go_insane(  
  demo = FALSE,  
  port = getOption("shiny.port"),  
  launch.browser = getOption("shiny.launch.browser", interactive()),  
  host = getOption("shiny.host", "127.0.0.1"),  
  workerId = "",  
  quiet = FALSE,  
  display.mode = c("auto", "normal", "showcase"),  
  test.mode = getOption("shiny.testmode", FALSE)  
)
```

Arguments

demo	[logical] A logical indicating if examples spreadsheets should be copied in the app.
port	The TCP port that the application should listen on. If the port is not specified, and the shiny.port option is set (with options(shiny.port = XX)), then that port will be used. Otherwise, use a random port between 3000:8000, excluding ports that are blocked by Google Chrome for being considered unsafe: 3659, 4045, 5060, 5061, 6000, 6566, 6665:6669 and 6697. Up to twenty random ports will be tried.
launch.browser	If true, the system's default web browser will be launched automatically after the app is started. Defaults to true in interactive sessions only. The value of this parameter can also be a function to call with the application's URL.
host	The IPv4 address that the application should listen on. Defaults to the shiny.host option, if set, or "127.0.0.1" if not. See Details.
workerId	Can generally be ignored. Exists to help some editions of Shiny Server Pro route requests to the correct process.
quiet	Should Shiny status messages be shown? Defaults to FALSE.
display.mode	The mode in which to display the application. If set to the value "showcase", shows application code and metadata from a DESCRIPTION file in the application directory alongside the application. If set to "normal", displays the application normally. Defaults to "auto", which displays the application in the mode given in its DESCRIPTION file, if any.

`test.mode` Should the application be launched in test mode? This is only used for recording or running automated tests. Defaults to the `shiny.testmode` option, or `FALSE` if the option is not set.

Examples

```
if (interactive()) {  
  library(insane)  
  # Must be run in an interactive R session!  
  go_insane()  
}
```

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