

Package ‘logrx’

January 18, 2023

Title A Logging Utility Focus on Clinical Trial Programming Workflows

Version 0.2.0

Description A utility to facilitate the logging and review of R programs in clinical trial programming workflows.

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URL <https://github.com/pharmaverse/logrx>

BugReports <https://github.com/pharmaverse/logrx/issues>

Encoding UTF-8

LazyData true

RoxygenNote 7.2.3

Imports dplyr, magrittr, purrr, rlang, stats, tidyr, stringr, miniUI,
rstudioapi, shiny, sessioninfo (>= 1.2), stringi, waiter,
tibble, digest, lintr

Suggests testthat (>= 3.0.0), knitr, rmarkdown, withr, covr, pkgdown,
Tplyr, haven, here

VignetteBuilder knitr

Config/testthat/edition 3

Depends R (>= 3.5.0)

NeedsCompilation no

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Repository CRAN

Date/Publication 2023-01-18 17:30:02 UTC

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approved	<i>Approved packages and functions</i>
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Description

A dataset that stores approved packages and functions for use. Each row contains a `library` and `function_name`. This dataset is used to illustrate the data format to be stored in the `log.rx.approved` option.

Usage

```
approved
```

Format

A tibble with 6 rows and 2 variables:

function_name Name of the function

library Name of the package

Examples

```
logrx::approved
```

axecute *Creation of a log and execution of a file*

Description

axecute() creates a log, executes a file, and returns 0 if there are no errors or 1 if there are any errors

Usage

```
axecute(  
  file,  
  log_name = NA,  
  log_path = NA,  
  remove_log_object = TRUE,  
  quit_on_error = TRUE,  
  to_report = c("messages", "output", "result")  
)
```

Arguments

file	String. Path to file to execute
log_name	String. Name of log file
log_path	String. Path to log file
remove_log_object	Boolean. Should the log object be removed after writing the log file? Defaults to TRUE
quit_on_error	Boolean. Should the session quit with status 1 on error? Defaults to TRUE
to_report	String vector. Objects to optionally report, may include as many as necessary: <ul style="list-style-type: none">• messages: any messages generated by program execution• output: any output generated by program execution• result: any result generated by program execution

Value

0 if there are no errors or 1 if there are any errors

Examples

```
dir <- tempdir()  
text <- 'print("Hello, logrxperson!")'  
fileConn <- file(file.path(dir, "hello.R"))  
writeLines(text, fileConn)  
close(fileConn)  
  
axecute(file.path(dir, "hello.R"))
```

build_approved *Build approved packages and functions tibble*

Description

A utility function to help you build your approved packages and functions list. This can be used by logrx to log unapproved use of packages and functions.

Usage

```
build_approved(pkg_list, file = NULL)
```

Arguments

pkg_list	Named list of character vectors: <ul style="list-style-type: none">• Name is the package name• Value is a character vector of approved functions or 'All'
file	String. Name of file where the approved tibble will be written to. If not specified, the tibble is returned Default: NULL Permitted Files: .RDS

Details

For more details see the vignette: `vignette("approved", package = "logrx")`

Value

Tibble with two columns (library, function) and one row per function

Examples

```
approved_pkgs <- list(
  base = c("library", "mean"),
  dplyr = "All"
)

# build and return
build_approved(approved_pkgs)

# build and save
dir <- tempdir()
build_approved(approved_pkgs, file.path(dir, "approved.rds"))
```

log_config	<i>Configuration of the log.rx environment</i>
------------	--

Description

log_config() initialises the log.rx environment, adds its attributes, and sets them

Usage

```
log_config(file = NA, log_name = NA, log_path = NA)
```

Arguments

file	String. Path to file executed. Optional
log_name	String. Name of log file. Optional
log_path	String. Path to log file. Optional

Value

Nothing

Examples

```
dir <- tempdir()
text <- 'print("Hello, Timberperson!")'
fileConn <- file(file.path(dir, "hello.R"))
writeLines(text, fileConn)
close(fileConn)

file <- file.path(dir, "hello.R")

# Initialise and configure the log.rx environment
log_config(file)

# Run the script and record results, outputs, messages, errors, and warnings
logrx:::run_safely_loudly(file)

# Write the log
log_write(file)
```

log_init	<i>Initialisation of the log.rx environment</i>
----------	---

Description

log_init() initialises the log.rx environment

Usage

```
log_init()
```

Value

Nothing

Examples

```
# Initialise the log.rx environment
log_init()

# Remove the log.rx environment
log_remove()
```

log_remove	<i>log.rx object removal</i>
------------	------------------------------

Description

log_remove() removes the log.rx object by setting options("log.rx") to NULL

Usage

```
log_remove()
```

Value

Nothing

Examples

```
# Initialise the log.rx environment
log_init()

# Remove the log.rx environment
log_remove()
```

log_write	<i>Formatting and writing of the log.rx object to a log file</i>
-----------	--

Description

log_write() gets and formats the content of the log.rx before writing it to a log file

Usage

```
log_write(  
  file = NA,  
  remove_log_object = TRUE,  
  to_report = c("messages", "output", "result")  
)
```

Arguments

file	String. Path to file executed
remove_log_object	Boolean. Should the log object be removed after writing the log file? Defaults to TRUE
to_report	String vector. Objects to optionally report; additional information in axecute

Value

Nothing

Examples

```
dir <- tempdir()  
text <- 'print("Hello, Timberperson!")'  
fileConn <- file(file.path(dir, "hello.R"))  
writeLines(text, fileConn)  
close(fileConn)  
  
file <- file.path(dir, "hello.R")  
  
# Initialise and configure the log.rx environment  
log_config(file)  
  
# Run the script and record results, outputs, messages, errors, and warnings  
logrx:::run_safely_loudly(file)  
  
# Write the log  
log_write(file)
```

write_log_header *Formatting of log file section headers*

Description

write_log_header formats a string and returns it as a formatted log file section header

Usage

```
write_log_header(title_string)
```

Arguments

title_string String. Used as section title

Value

Vector of strings. Formatted log file section header

Examples

```
## Not run:  
write_log_header("Section Header")  
  
## End(Not run)
```

write_unapproved_functions
Formats and returns a vector of unapproved functions

Description

write_unapproved_functions() gets log.rx unapproved_packages_functions attribute, formats and returns the list of unapproved functions

Usage

```
write_unapproved_functions()
```

Value

Formatted vector of unapproved functions

Examples

```
## Not run:  
write_unapproved_functions()  
  
## End(Not run)
```

write_used_functions *Formats and returns a vector of used package functions*

Description

write_used_functions() gets log.rx used_packages_functions attribute, formats and returns the list of used package functions

Usage

```
write_used_functions()
```

Value

Formatted vector of used package functions

Examples

```
## Not run:  
write_used_functions()  
  
## End(Not run)
```

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