Package 'filters'

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Type Package

Title A ``Snake_case'' Filter System for R

Version 0.3.1

Description Enables filtering datasets by a prior specified identifiers
which correspond to saved filter expressions.

Imports magrittr, plyr, yaml

Suggests dplyr, random.cdisc.data, testthat

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Encoding UTF-8

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R topics documented:

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filters-package   *filters Package*

Description

Enables filtering datasets by a prior specified identifiers which correspond to saved filter expressions.

Author(s)

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- F. Hoffmann-La Roche AG [copyright holder, funder]

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add_filter   *Add a New Filter Definition*

Description

Add a new filter definition or overwrite an existing one

Usage

```
add_filter(
  id,
  title,
  target,
  condition,
  character_only = FALSE,
  overwrite = FALSE
)
```

Arguments

id	character The id or name of this filter, e.g. "SE".
title	character The title of the filter
target	character The target dataset of the filter
condition	The filter condition
character_only	logical. Is condition a string? Defaults to FALSE.
overwrite	logical Should existing filters be overwritten? Defaults to FALSE.

Value

The function returns a `list` of `title`, `target` and `condition` invisibly

Author(s)

Thomas Neitmann (`neitmant`)

Examples

```
add_filter(
  id = "CTC5",
  title = "Grade 5 Adverse Event",
  target = "ADAE",
  condition = AETOXGR == "5"
)

add_filter(
  id = "CTC4",
  title = "Grade 4 Adverse Event",
  target = "ADAE",
  condition = "AETOXGR == '4'",
  character_only = TRUE
)

add_filter(
  id = "IT",
  title = "ITT Population",
  target = "ADSL",
  condition = ITTFL == "Y",
  overwrite = TRUE
)

add_filter(
  id = "5PER",
  title = "Adverse Events with a Difference of at Least 5% between Treatment Arms",
  target = "adae",
  condition = 1 == 1,
  overwrite = TRUE
)
```

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apply_filter   *Apply a Filter to a Dataset or List of Datasets*

Description

Apply a Filter to a Dataset or List of Datasets

Usage

```
apply_filter(data, ...)

## Default S3 method:
apply_filter(data, ...)

## S3 method for class 'data.frame'
apply_filter(data, id, target = deparse(substitute(data)), verbose = TRUE, ...)

## S3 method for class 'list'
apply_filter(data, id, verbose = TRUE, ...)
```

Arguments

`data`	`data.frame` of `list` of `data.frames`
`...`	Not used.
`id`	character. The ID of a filter defined with `add_filter()`
`target`	character. The name of the dataset, e.g. ADSL or ADTTE
`verbose`	`logical`. Should informative messages be printed? Defaults to `TRUE`.

Value

A new `data.frame` or `list` of `data.frames` filtered based upon the condition defined for `id`

Author(s)

Thomas Neitmann (`neitmant`)

Examples

```
adsl <- random.cdisc.data::cadsl
adae <- random.cdisc.data::cadae
datasets <- list(adsl = adsl, adae = adae)

add_filter("REL", "Related AEs", "ADAE", AEREL == "Y", overwrite = TRUE)

apply_filter(adsl, "SE")
apply_filter(adae, "SER_REL")
apply_filter(datasets, "SER_REL_SE")
```

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get_filter *Get a Filter Definition*

Description

Get a Filter Definition

Usage

```
get_filter(id)
```

Arguments

id   character. The filter ID

Value

A list with elements title, target and condition

Author(s)

Thomas Neitmann (neitmant)

Examples

```
get_filter("SE")
get_filter("SER")

## Filter `FOO` does not exist
try(get_filter("FOO"))
```

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get_filters *Get Multiple Filter Definitions*

Description

Get Multiple Filter Definitions

Usage

```
get_filters(ids)
```

Arguments

ids   character. The filter IDs as a single string separated by underscores

Value

A named `list` of filter definitions

Author(s)

Thomas Neitmann (`neitmant`)

Examples

```
get_filters("REL_SER")
get_filters("OS_IT")
```

`list_all_filters`	*List All Filters*

Description

List all available filters

Usage

```
list_all_filters()
```

Value

A `data.frame` with columns `id`, `title`, `target` and `condition`

Author(s)

Thomas Neitmann (`neitmant`)

Examples

```
list_all_filters()
```

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load_filters   *Load Filter Definitions*

Description

Load filter definitions from a yaml file

Usage

```
load_filters(yaml_file, overwrite = FALSE)
```

Arguments

yaml_file   character. A path to a yaml file containing filter definitions

overwrite   logical. Should existing filter definitions be overwritten? Defaults to FALSE.

Value

On success, load_filters() returns TRUE invisibly

Author(s)

Thomas Neitmann (neitmant)

Examples

```
filter_definitions <- system.file("filters.yaml", package = "filters")
if (interactive()) file.edit(filter_definitions)
load_filters(filter_definitions, overwrite = TRUE)
```

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