

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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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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- Thomas Neitman (Original creator of the package)

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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  
)
```

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 or 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")
```

get_filter	<i>Get a Filter Definition</i>
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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"))
```

get_filters	<i>Get Multiple Filter Definitions</i>
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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")
```

<code>list_all_filters</code>	<i>List All Filters</i>
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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()
```

load_filters	<i>Load Filter Definitions</i>
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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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