Package 'ready4use'

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Title Standardised Developer Tools for Retrieving and Managing Data in Projects Developed with the Ready4 Suite

Version 0.0.0.9122

Description ready4use provides a set of classes and methods for general data management tasks throughout the ready4 suite of tools for mental health data synthesis and modelling projects. This development version of the ready4use package has been made available as part of the process of testing and documenting the package. The tools contained in this development release automate a number of tasks which MODIFY THE DIRECTORY STRUCTURE OF YOUR LOCAL MACHINE. Therefore you should only trial this software if you feel confident that you understand what it does and have created a sandpit area in which you can safely undertake testing. If you have any questions, please contact the authors (matthew.hamilton@orygen.org.au).

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URL https://ready4-dev.github.io/ready4use/,
https://github.com/ready4-dev/ready4use,
https://ready4-dev.github.io/ready4/

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.1

Imports assertthat,
data.table,
dataverse (>= 0.3.7),
dplyr,
Hmisc,
knitr,
lifecycle,
magrittr,
methods,
purrr,
readxl,
ready4class (>= 0.0.0.9193),
ready4fun (>= 0.0.0.9289),
rlang,

stats,
stringi,
stringr,
testit,
testthat,
tibble,
tidyr,
utils

VignetteBuilder knitr

Depends R (>= 2.10)

Collate 'C3_ready4_dv_import_lup.R'
'C3_ready4_all_import_lup.R'
'C3_ready4_dictionary.R'
'C3_ready4_dist.R'
'C3_ready4_par_struc_mape.R'
'C4_ready4_local.R'
'C4_ready4_local_proc.R'
'C4_ready4_local_raw.R'
'C4_ready4_script_data.R'
'db_abbreviations_lup.R'
'db_fn_type_lup_tb.R'
'db_fns_dmt_tb.R'
'db_prototype_lup.R'
'fn_add.R'
'fn_assert.R'
'fn_get.R'
'fn_make.R'
'fn_read.R'
'fn_remove.R'
'fn_transform.R'
'fn_update.R'
'fn_write.R'
'gnrc_crs_nbr_dbl.R'
'gnrc_merge_with_chr_vec.R'
'gnrc_save_type.R'
'grp_generics.R'
'imp_mthds.R'
'imp_pipe.R'
'mthd_bind_lups.R'
'mthd_get_data.R'
'mthd_get_import_type_ls.R'
'mthd_get_read_fn.R'
'mthd_make_import_xx.R'
'mthd_update_src_loc_to_url.R'
'pkg_ready4use.R'

Remotes iqss/dataverse-client-r,
ready4-dev/ready4class,
ready4-dev/ready4fun

R topics documented:

`ready4use-package` *ready4use: Standardised Developer Tools for Retrieving and Managing Data in Projects Developed with the Ready4 Suite*

Description

ready4use provides a set of classes and methods for general data management tasks throughout the ready4 suite of tools for mental health data synthesis and modelling projects. This development version of the ready4use package has been made available as part of the process of testing and documenting the package. The tools contained in this development release automate a number of tasks which MODIFY THE DIRECTORY STRUCTURE OF YOUR LOCAL MACHINE. Therefore you should only trial this software if you feel confident that you understand what it does and have created a sandpit area in which you can safely undertake testing. If you have any questions, please contact the authors (matthew.hamilton@orygen.org.au).

Details

To learn more about ready4use, start with the vignettes: `browseVignettes(package = "ready4use")`

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- VicHealth [funder]
- Victoria University [funder]

See Also

Useful links:

- https://ready4-dev.github.io/ready4use/
- https://github.com/ready4-dev/ready4use
- https://ready4-dev.github.io/ready4/

abbreviations_lup *Common abbreviations lookup table*

Description

A lookup table for abbreviations commonly used in object names in the ready4usepackage.

Usage

```
abbreviations_lup
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 455 rows and 3 columns.

Details

A tibble

short_name_chr Short name (a character vector)

long_name_chr Long name (a character vector)

plural_lgl Plural (a logical vector)

Source

https://doi.org/10.7910/DVN/2Y9VF9

add_labels_from_dictionary *Add labels from dictionary*

Description

add_labels_from_dictionary() is an Add function that updates an object by adding data to that object. Specifically, this function implements an algorithm to add labels from dictionary. Function argument ds_tb specifies the object to be updated. The function returns Labelled dataset (a tibble).

Usage

```
add_labels_from_dictionary(ds_tb, dictionary_tb, remove_old_lbls_1L_lgl = F)
```

Arguments

`ds_tb`	Dataset (a tibble)
`dictionary_tb`	Dictionary (a tibble)
`remove_old_lbls_1L_lgl`	Remove old labels (a logical vector of length one), Default: F

Value

Labelled dataset (a tibble)

assert_matches_chr *Assert matches*

Description

assert_matches_chr() is an Assert function that validates that an object conforms to required condition(s). If the object does not meet all required conditions, program execution will be stopped and an error message provided. Specifically, this function implements an algorithm to assert matches character vector. Function argument x specifies the object on which assert validation checks are to be performed. Argument match_chr provides the object containing values used for validation tests. The function is called for its side effects and does not return a value.

Usage

```
assert_matches_chr(x, match_chr)
```

Arguments

x	An object
match_chr	Match (a character vector)

assert_single_row_tb *Assert single row*

Description

assert_single_row_tb() is an Assert function that validates that an object conforms to required condition(s). If the object does not meet all required conditions, program execution will be stopped and an error message provided. Specifically, this function implements an algorithm to assert single row tibble. Function argument x specifies the object on which assert validation checks are to be performed. The function is called for its side effects and does not return a value.

Usage

```
assert_single_row_tb(x)
```

Arguments

x	An object

`bind_lups` *Bind lups*

Description

bind_lups() is a Bind Lups generic that rowbinds lookup tables of the same class, removing duplicates based on priority.

bind_lups.ready4_dictionary() is a Bind Lups method that rowbinds lookup tables of the same class, removing duplicates based on priority. This method is implemented for the ready4 s3 class defining a data dictionary tibble.. The function is called for its side effects and does not return a value.

Usage

```
bind_lups(x, ...)

bind_lups.ready4_dictionary(x, new_ready4_dict_r3)

## S4 method for signature 'ready4_dictionary'
bind_lups(x, new_ready4_dict_r3)
```

Arguments

x	An instance of ready4 s3 class defining a data dictionary tibble.
...	Additional arguments
new_ready4_dict_r3	New ready4 dictionary (a ready4 S3)

Value

NA ()

`crs_nbr_dbl` *crs_nbr_dbl*

Description

S4 Generic function to get the value of the slot crs_nbr_dbl

Get the value of the slot crs_nbr_dbl for S4 objects of class ready4_script_data

Usage

```
crs_nbr_dbl(x)

## S4 method for signature 'ready4_script_data'
crs_nbr_dbl(x)
```

Arguments

x	An object of class ready4_script_data

crs_nbr_dbl<- *crs_nbr_dbl<-*

Description

S4 Generic function to set the value of the slot crs_nbr_dbl

Set the value of the slot crs_nbr_dbl for S4 objects of class ready4_script_data

Usage

```
crs_nbr_dbl(x) <- value

## S4 replacement method for signature 'ready4_script_data'
crs_nbr_dbl(x) <- value
```

Arguments

x	An object of class ready4_script_data
value	Value to be assigned to x

download_data *Download data*

Description

download_data() is a Download Data generic that downloads data files.

Usage

```
download_data(x, ...)
```

Arguments

x	An object
...	Additional arguments

fns_dmt_tb *ready4use function documentation table*

Description

A table with the summary information on functions included in the ready4use package.

Usage

```
fns_dmt_tb
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 44 rows and 10 columns.

Details

A tibble

fns_chr Functions (a character vector)

title_chr Title (a character vector)

desc_chr Description (a character vector)

details_chr Details (a character vector)

inc_for_main_user_lgl Include for main user (a logical vector)

output_chr Output (a character vector)

example_lgl Example (a logical vector)

args_ls Arguments (a list)

file_nm_chr File name (a character vector)

file_pfx_chr File prefix (a character vector)

Source

https://ready4-dev.github.io/ready4/

fn_type_lup_tb *Function type lookup table*

Description

A lookup table to find descriptions for different types of functions used within the ready4use package suite.

Usage

```
fn_type_lup_tb
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 44 rows and 6 columns.

Details

A tibble

fn_type_nm_chr Function type name (a character vector)

fn_type_desc_chr Function type description (a character vector)

first_arg_desc_chr First argument description (a character vector)

second_arg_desc_chr Second argument description (a character vector)

is_generic_lgl Is generic (a logical vector)

is_method_lgl Is method (a logical vector)

Source

https://doi.org/10.7910/DVN/2Y9VF9

`get_data` *Get data*

Description

get_data() is a Get Data generic that retrieves data from R objects loaded in memory.

get_data.ready4_dv_import_lup() is a Get Data method that retrieves data from R objects loaded in memory. This method is implemented for the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.. The function is called for its side effects and does not return a value.

Usage

```
get_data(x, ...)

get_data.ready4_dv_import_lup(
  x,
  save_dir_path_1L_chr = "",
  unlink_1L_lgl = T,
  server_1L_chr = Sys.getenv("DATAVERSE_SERVER"),
  key_1L_chr = Sys.getenv("DATAVERSE_KEY")
)

## S4 method for signature 'ready4_dv_import_lup'
get_data(
  x,
  save_dir_path_1L_chr = "",
  unlink_1L_lgl = T,
  server_1L_chr = Sys.getenv("DATAVERSE_SERVER"),
  key_1L_chr = Sys.getenv("DATAVERSE_KEY")
)
```

Arguments

x	An instance of ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.
...	Additional arguments
save_dir_path_1L_chr	Save directory path (a character vector of length one), Default: ”
unlink_1L_lgl	Unlink (a logical vector of length one), Default: T
server_1L_chr	Server (a character vector of length one), Default: Sys.getenv("DATAVERSE_SERVER")
key_1L_chr	Key (a character vector of length one), Default: Sys.getenv("DATAVERSE_KEY")

---

get_fl_id_from_dv_ls *Get file identity from dataverse*

Description

get_fl_id_from_dv_ls() is a Get function that retrieves a pre-existing data object from memory, local file system or online repository. Specifically, this function implements an algorithm to get file identity from dataverse list. Function argument ds_ls specifies the where to look for the required object. The function returns Identity (a character vector of length one).

Usage

```
get_fl_id_from_dv_ls(ds_ls, fl_nm_1L_chr, nms_chr = NA_character_)
```

Arguments

ds_ls	Dataset (a list)
fl_nm_1L_chr	File name (a character vector of length one)
nms_chr	Names (a character vector), Default: ’NA’

Value

Identity (a character vector of length one)

---

get_import_type_ls *Get import type list*

Description

get_import_type_ls() is a Get Import Type List generic that retrieves data about the type of import to be processed.

get_import_type_ls.ready4_all_import_lup() is a Get Import Type List method that retrieves data about the type of import to be processed. This method is implemented for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.. The function is called for its side effects and does not return a value.

Usage

```
get_import_type_ls(x, ...)

get_import_type_ls.ready4_all_import_lup(
  x,
  inc_script_lgl = T,
  forced_choice_chr = NA_character_
)

## S4 method for signature 'ready4_all_import_lup'
get_import_type_ls(x, inc_script_lgl = T, forced_choice_chr = NA_character_)
```

Arguments

x	An instance of ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.
...	Additional arguments
inc_script_lgl	Include script (a logical vector), Default: T
forced_choice_chr	Forced choice (a character vector), Default: 'NA'

---

get_local_path_to_dv_data

Get local path to dataverse data

Description

get_local_path_to_dv_data() is a Get function that retrieves a pre-existing data object from memory, local file system or online repository. Specifically, this function implements an algorithm to get local path to dataverse data. Function argument save_dir_path_1L_chr specifies the where to look for the required object. The function returns Path (a character vector).

Usage

```
get_local_path_to_dv_data(save_dir_path_1L_chr, fl_nm_1L_chr, save_fmt_1L_chr)
```

Arguments

save_dir_path_1L_chr	Save directory path (a character vector of length one)
fl_nm_1L_chr	File name (a character vector of length one)
save_fmt_1L_chr	Save fmt (a character vector of length one)

Value

Path (a character vector)

get_r3_from_dv_csv *Get ready4 S3 from dataverse comma separated variables file*

Description

get_r3_from_dv_csv() is a Get function that retrieves a pre-existing data object from memory, local file system or online repository. Specifically, this function implements an algorithm to get ready4 s3 from dataverse comma separated variables file. Function argument file_name_chr specifies the where to look for the required object. The function returns Tibble ready4 S3 (a ready4 S3 extension of tibble).

Usage

```
get_r3_from_dv_csv(
  file_name_chr,
  data_repo_db_ui_chr,
  data_repo_ui_chr = NA_character_,
  r3_fn = ready4_all_import_lup
)
```

Arguments

file_name_chr	File name (a character vector)
data_repo_db_ui_chr	Data repo database ui (a character vector)
data_repo_ui_chr	Data repo ui (a character vector), Default: 'NA'
r3_fn	Ready4 S3 (a function), Default: ready4_all_import_lup

Value

Tibble ready4 S3 (a ready4 S3 extension of tibble)

get_read_fn *Get read function*

Description

get_read_fn() is a Get Read Function generic that retrieves a read function.

get_read_fn.ready4_dv_import_lup() is a Get Read Function method that retrieves a read function. This method is implemented for the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.. The function is called for its side effects and does not return a value.

Usage

```
get_read_fn(x, ...)

get_read_fn.ready4_dv_import_lup(x)

## S4 method for signature 'ready4_dv_import_lup'
get_read_fn(x)
```

Arguments

x	An instance of ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.
...	Additional arguments

---

import_data *Import data*

Description

import_data() is an Import Data generic that imports data from saved files and loads them into memory as R objects.

Usage

```
import_data(x, ...)
```

Arguments

x	An object
...	Additional arguments

---

is_ready4_all_import_lup *Is ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.*

Description

Check whether an object is a valid instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Usage

```
is_ready4_all_import_lup(x)
```

Arguments

x	An object of any type

Details

ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Value

A logical value, TRUE if a valid instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

is_ready4_dictionary *Is ready4 s3 class defining a data dictionary tibble.*

Description

Check whether an object is a valid instance of the ready4 s3 class defining a data dictionary tibble.

Usage

```
is_ready4_dictionary(x)
```

Arguments

x	An object of any type

Details

ready4 s3 class defining a data dictionary tibble.

Value

A logical value, TRUE if a valid instance of the ready4 s3 class defining a data dictionary tibble.

is_ready4_dist *Is ready4 S3 class for list object that summarises the parameters of each distribution*

Description

Check whether an object is a valid instance of the ready4 S3 class for list object that summarises the parameters of each distribution

Usage

```
is_ready4_dist(x)
```

Arguments

x	An object of any type

Details

ready4 S3 class for list object that summarises the parameters of each distribution

Value

A logical value, TRUE if a valid instance of the ready4 S3 class for list object that summarises the parameters of each distribution

`is_ready4_dv_import_lup` *Is ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.*

Description

Check whether an object is a valid instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Usage

```
is_ready4_dv_import_lup(x)
```

Arguments

x	An object of any type

Details

ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Value

A logical value, TRUE if a valid instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

`is_ready4_par_struc_mape` *Is ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.*

Description

Check whether an object is a valid instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Usage

```
is_ready4_par_struc_mape(x)
```

Arguments

x	An object of any type

Details

ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Value

A logical value, TRUE if a valid instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

---

make_dv_import_lup *Make dataverse import lookup table*

Description

make_dv_import_lup() is a Make Dataverse Import Lookup Table generic that makes a Dataverse import lookup table

Usage

```
make_dv_import_lup(x, ...)
```

Arguments

x	An object
...	Additional arguments

---

make_import_xx *Make import output object of multiple potential types*

Description

make_import_xx() is a Make Import Output Object of Multiple Potential Types generic that makes an output object of multiple potential classes.

make_import_xx.ready4_all_import_lup() is a Make Import Output Object of Multiple Potential Types method that makes an output object of multiple potential classes. This method is implemented for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.. The function is called for its side effects and does not return a value.

Usage

```
make_import_xx(x, ...)

make_import_xx.ready4_all_import_lup(
  x,
  forced_choice_chr = NA_character_,
  script_args_ls = NULL
)

## S4 method for signature 'ready4_all_import_lup'
make_import_xx(x, forced_choice_chr = NA_character_, script_args_ls = NULL)
```

Arguments

x	An instance of ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.
...	Additional arguments
forced_choice_chr	Forced choice (a character vector), Default: 'NA'
script_args_ls	Script arguments (a list), Default: NULL

---

make_new_ready4_all_import_lup

Make new ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Description

Create a new unvalidated instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Usage

```
make_new_ready4_all_import_lup(x)
```

Arguments

x	A prototype for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Details

ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Value

An unvalidated instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

---

make_new_ready4_dictionary

Make new ready4 s3 class defining a data dictionary tibble.

Description

Create a new unvalidated instance of the ready4 s3 class defining a data dictionary tibble.

Usage

```
make_new_ready4_dictionary(x)
```

Arguments

x	A prototype for the ready4 s3 class defining a data dictionary tibble.

Details

ready4 s3 class defining a data dictionary tibble.

Value

An unvalidated instance of the ready4 s3 class defining a data dictionary tibble.

---

make_new_ready4_dist *Make new ready4 S3 class for list object that summarises the parameters of each distribution*

Description

Create a new unvalidated instance of the ready4 S3 class for list object that summarises the parameters of each distribution

Usage

```
make_new_ready4_dist(x)
```

Arguments

x	A prototype for the ready4 S3 class for list object that summarises the parameters of each distribution

Details

ready4 S3 class for list object that summarises the parameters of each distribution

Value

An unvalidated instance of the ready4 S3 class for list object that summarises the parameters of each distribution

`make_new_ready4_dv_import_lup`

Make new ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Description

Create a new unvalidated instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Usage

```
make_new_ready4_dv_import_lup(x)
```

Arguments

x	A prototype for the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Details

ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Value

An unvalidated instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

`make_new_ready4_par_struc_mape`

Make new ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Description

Create a new unvalidated instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Usage

```
make_new_ready4_par_struc_mape(x)
```

Arguments

x	A prototype for the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Details

ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Value

An unvalidated instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

`make_pt_ready4_all_import_lup`

Make prototype ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Description

Create a new prototype for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Usage

```
make_pt_ready4_all_import_lup(
  file_type_chr = character(0),
  file_name_chr = character(0),
  data_repo_chr = character(0),
  data_repo_ui_chr = character(0),
  data_repo_db_ui_chr = character(0),
  data_repo_file_ext_chr = character(0),
  data_repo_save_type_chr = character(0),
  local_file_src_chr = character(0),
  path_to_make_script_chr = character(0),
  download_url_chr = character(0),
  inc_file_main_chr = character(0),
  inc_fls_to_rename_ls = list(),
  new_nms_for_inc_fls_ls = list()
)
```

Arguments

`file_type_chr`	File type (a character vector), Default: character(0)
`file_name_chr`	File name (a character vector), Default: character(0)
`data_repo_chr`	Data repo (a character vector), Default: character(0)
`data_repo_ui_chr`	Data repo ui (a character vector), Default: character(0)
`data_repo_db_ui_chr`	Data repo database ui (a character vector), Default: character(0)
`data_repo_file_ext_chr`	Data repo file ext (a character vector), Default: character(0)
`data_repo_save_type_chr`	Data repo save type (a character vector), Default: character(0)
`local_file_src_chr`	Local file source (a character vector), Default: character(0)
`path_to_make_script_chr`	Path to make script (a character vector), Default: character(0)

download_url_chr
: Download url (a character vector), Default: character(0)

inc_file_main_chr
: Include file main (a character vector), Default: character(0)

inc_fls_to_rename_ls
: Include files to rename (a list), Default: list()

new_nms_for_inc_fls_ls
: New names for include files (a list), Default: list()

Details

ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Value

A prototype for ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

---

make_pt_ready4_dictionary

Make prototype ready4 s3 class defining a data dictionary tibble.

Description

Create a new prototype for the ready4 s3 class defining a data dictionary tibble.

Usage

```
make_pt_ready4_dictionary(
  var_nm_chr = character(0),
  var_ctg_chr = character(0),
  var_desc_chr = character(0),
  var_type_chr = character(0)
)
```

Arguments

var_nm_chr	Variable name (a character vector), Default: character(0)
var_ctg_chr	Variable category categories (a character vector), Default: character(0)
var_desc_chr	Variable description (a character vector), Default: character(0)
var_type_chr	Variable type (a character vector), Default: character(0)

Details

ready4 s3 class defining a data dictionary tibble.

Value

A prototype for ready4 s3 class defining a data dictionary tibble.

`make_pt_ready4_dist` *Make prototype ready4 S3 class for list object that summarises the parameters of each distribution*

Description

Create a new prototype for the ready4 S3 class for list object that summarises the parameters of each distribution

Usage

```
make_pt_ready4_dist(
  distribution_chr = character(0),
  dist_param_1_dbl = numeric(0),
  dist_param_2_dbl = numeric(0),
  dist_param_3_dbl = numeric(0),
  dist_param_4_dbl = numeric(0),
  transformation_chr = character(0)
)
```

Arguments

`distribution_chr`
: Distribution (a character vector), Default: character(0)

`dist_param_1_dbl`
: Dist param 1 (a double vector), Default: numeric(0)

`dist_param_2_dbl`
: Dist param 2 (a double vector), Default: numeric(0)

`dist_param_3_dbl`
: Dist param 3 (a double vector), Default: numeric(0)

`dist_param_4_dbl`
: Dist param 4 (a double vector), Default: numeric(0)

`transformation_chr`
: Transformation (a character vector), Default: character(0)

Details

ready4 S3 class for list object that summarises the parameters of each distribution

Value

A prototype for ready4 S3 class for list object that summarises the parameters of each distribution

`make_pt_ready4_dv_import_lup` *Make prototype ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.*

Description

Create a new prototype for the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Usage

```
make_pt_ready4_dv_import_lup(
  file_type_chr = character(0),
  file_name_chr = character(0),
  data_repo_chr = character(0),
  data_repo_ui_chr = character(0),
  data_repo_db_ui_chr = character(0),
  data_repo_file_ext_chr = character(0),
  data_repo_save_type_chr = character(0)
)
```

Arguments

`file_type_chr`	File type (a character vector), Default: character(0)
`file_name_chr`	File name (a character vector), Default: character(0)
`data_repo_chr`	Data repo (a character vector), Default: character(0)
`data_repo_ui_chr`	Data repo ui (a character vector), Default: character(0)
`data_repo_db_ui_chr`	Data repo database ui (a character vector), Default: character(0)
`data_repo_file_ext_chr`	Data repo file ext (a character vector), Default: character(0)
`data_repo_save_type_chr`	Data repo save type (a character vector), Default: character(0)

Details

ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Value

A prototype for ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

make_pt_ready4_par_struc_mape *Make prototype ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.*

Description

Create a new prototype for the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Usage

```
make_pt_ready4_par_struc_mape(
  param_name_chr = character(0),
  sex_age_band_chr = character(0),
  mape_05_yr_mde_dbl = numeric(0),
  mape_10_yr_mde_dbl = numeric(0),
  mape_15_yr_mde_dbl = numeric(0),
  mape_05_yr_min_dbl = numeric(0),
  mape_10_yr_min_dbl = numeric(0),
  mape_15_yr_min_dbl = numeric(0),
  mape_05_yr_max_dbl = numeric(0),
  mape_10_yr_max_dbl = numeric(0),
  mape_15_yr_max_dbl = numeric(0),
  mape_05_yr_shp_dbl = numeric(0),
  mape_10_yr_shp_dbl = numeric(0),
  mape_15_yr_shp_dbl = numeric(0)
)
```

Arguments

param_name_chr	Param name (a character vector), Default: character(0)
sex_age_band_chr	Sex age band (a character vector), Default: character(0)
mape_05_yr_mde_dbl	Mape 05 yr mde (a double vector), Default: numeric(0)
mape_10_yr_mde_dbl	Mape 10 yr mde (a double vector), Default: numeric(0)
mape_15_yr_mde_dbl	Mape 15 yr mde (a double vector), Default: numeric(0)
mape_05_yr_min_dbl	Mape 05 yr minimum (a double vector), Default: numeric(0)
mape_10_yr_min_dbl	Mape 10 yr minimum (a double vector), Default: numeric(0)
mape_15_yr_min_dbl	Mape 15 yr minimum (a double vector), Default: numeric(0)
mape_05_yr_max_dbl	Mape 05 yr maximum (a double vector), Default: numeric(0)

`mape_10_yr_max_dbl`
: Mape 10 yr maximum (a double vector), Default: numeric(0)

`mape_15_yr_max_dbl`
: Mape 15 yr maximum (a double vector), Default: numeric(0)

`mape_05_yr_shp_dbl`
: Mape 05 yr shp (a double vector), Default: numeric(0)

`mape_10_yr_shp_dbl`
: Mape 10 yr shp (a double vector), Default: numeric(0)

`mape_15_yr_shp_dbl`
: Mape 15 yr shp (a double vector), Default: numeric(0)

Details

ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Value

A prototype for ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

`merge_with_chr_vec` *merge_with_chr_vec*

Description

S4 Generic function to get the value of the slot merge_with_chr_vec

Get the value of the slot merge_with_chr_vec for S4 objects of class ready4_local

Usage

```
merge_with_chr_vec(x)

## S4 method for signature 'ready4_local'
merge_with_chr_vec(x)
```

Arguments

`x`	An object of class ready4_local

merge_with_chr_vec<- *merge_with_chr_vec<-*

Description

S4 Generic function to set the value of the slot merge_with_chr_vec

Set the value of the slot merge_with_chr_vec for S4 objects of class ready4_local

Usage

```
merge_with_chr_vec(x) <- value

## S4 replacement method for signature 'ready4_local'
merge_with_chr_vec(x) <- value
```

Arguments

x	An object of class ready4_local
value	Value to be assigned to x

prototype_lup *Class prototype lookup table*

Description

Metadata on classes used in ready4 suite

Usage

```
prototype_lup
```

Format

An object of class ready4_class_pt_lup (inherits from ready4_class_pt_lup, tbl_df, tbl, data.frame) with 28 rows and 6 columns.

Details

A tibble

type_chr Type (a character vector)

val_chr Value (a character vector)

pt_ns_chr Prototype namespace (a character vector)

fn_to_call_chr Function to call (a character vector)

default_val_chr Default value (a character vector)

old_class_lgl Old class (a logical vector)

ready4_all_import_lup *ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.*

Description

Create a new valid instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Usage

```
ready4_all_import_lup(x = make_pt_ready4_all_import_lup())
```

Arguments

x	A prototype for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import., Default: make_pt_ready4_all_import_lup()

Details

ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Value

A validated instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

ready4_dictionary *ready4 s3 class defining a data dictionary tibble.*

Description

Create a new valid instance of the ready4 s3 class defining a data dictionary tibble.

Usage

```
ready4_dictionary(x = make_pt_ready4_dictionary())
```

Arguments

x	A prototype for the ready4 s3 class defining a data dictionary tibble., Default: make_pt_ready4_dictionary()

Details

ready4 s3 class defining a data dictionary tibble.

Value

A validated instance of the ready4 s3 class defining a data dictionary tibble.

ready4_dist — *ready4 S3 class for list object that summarises the parameters of each distribution*

Description

Create a new valid instance of the ready4 S3 class for list object that summarises the parameters of each distribution

Usage

```
ready4_dist(x = make_pt_ready4_dist())
```

Arguments

x	A prototype for the ready4 S3 class for list object that summarises the parameters of each distribution, Default: make_pt_ready4_dist()

Details

ready4 S3 class for list object that summarises the parameters of each distribution

Value

A validated instance of the ready4 S3 class for list object that summarises the parameters of each distribution

ready4_dv_import_lup — *ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.*

Description

Create a new valid instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Usage

```
ready4_dv_import_lup(x = make_pt_ready4_dv_import_lup())
```

Arguments

x	A prototype for the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse., Default: make_pt_ready4_dv_import_lup()

Details

ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Value

A validated instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

ready4_local *ready4_local*

Description

An S4 class to represent ready4 S4 class defining data to be saved in local directory.

Slots

`merge_with_chr_vec` character

ready4_local_proc *ready4_local_proc*

Description

An S4 class to represent ready4 S4 class defining data to be saved in local directory in a processed (R) format.

Slots

`save_type` character

`merge_with_chr_vec` character

ready4_local_raw *ready4_local_raw*

Description

An S4 class to represent ready4 S4 class defining data to be saved in local directory in a raw (unprocessed) format.

Slots

`save_type` character

`merge_with_chr_vec` character

ready4_par_struc_mape *ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.*

Description

Create a new valid instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Usage

```
ready4_par_struc_mape(x = make_pt_ready4_par_struc_mape())
```

Arguments

x	A prototype for the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors., Default: make_pt_ready4_par_struc_mape()

Details

ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Value

A validated instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

ready4_script_data *ready4_script_data*

Description

An S4 class to represent ready4 S4 class containing data to be passed to a function that constructs a spatial object from a lookup table.

Slots

`crs_nbr_dbl` numeric

`save_type` character

`merge_with_chr_vec` character

save_raw *Save raw*

Description

save_raw() is a Save Raw generic that saves the native version of a file format.

Usage

```
save_raw(x, ...)
```

Arguments

x	An object
...	Additional arguments

save_type *save_type*

Description

S4 Generic function to get the value of the slot save_type

Get the value of the slot save_type for S4 objects of class ready4_local_raw

Get the value of the slot save_type for S4 objects of class ready4_local_proc

Usage

```
save_type(x)

## S4 method for signature 'ready4_local_raw'
save_type(x)

## S4 method for signature 'ready4_local_proc'
save_type(x)
```

Arguments

x	An object of class ready4_local_proc

save_type<- *save_type<-*

Description

S4 Generic function to set the value of the slot save_type

Set the value of the slot save_type for S4 objects of class ready4_local_raw

Set the value of the slot save_type for S4 objects of class ready4_local_proc

Usage

```
save_type(x) <- value

## S4 replacement method for signature 'ready4_local_raw'
save_type(x) <- value

## S4 replacement method for signature 'ready4_local_proc'
save_type(x) <- value
```

Arguments

x	An object of class ready4_local_proc
value	Value to be assigned to x

update_src_loc_to_url *Update source local to url*

Description

update_src_loc_to_url() is an Update Source Local to Url generic that updates data from a local file reference to a URL

update_src_loc_to_url.ready4_all_import_lup() is an Update Source Local to Url method that updates data from a local file reference to a URL This method is implemented for the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.. The function is called for its side effects and does not return a value.

Usage

```
update_src_loc_to_url(x, local_to_url_vec_chr, urls_vec_chr, ...)

update_src_loc_to_url.ready4_all_import_lup(
  x,
  local_to_url_vec_chr,
  urls_vec_chr
)

## S4 method for signature 'ready4_all_import_lup'
update_src_loc_to_url(x, local_to_url_vec_chr, urls_vec_chr)
```

Arguments

x	An instance of ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.
local_to_url_vec_chr	Local to url vector (a character vector)
urls_vec_chr	Urls vector (a character vector)
...	Additional arguments

---

update_this *Update this*

Description

update_this() is an Update this generic that updates and object

Usage

```
update_this(x, ...)
```

Arguments

x	An object
...	Additional arguments

---

validate_ready4_all_import_lup *Validate ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.*

Description

Validate an instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Usage

```
validate_ready4_all_import_lup(x)
```

Arguments

x	An unvalidated instance of the ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Details

ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

Value

A prototpe for ready4 S3 class for tibble object lookup table of sources of raw (un-processed) data to import.

`validate_ready4_dictionary` *Validate ready4 s3 class defining a data dictionary tibble.*

Description

Validate an instance of the ready4 s3 class defining a data dictionary tibble.

Usage

```
validate_ready4_dictionary(x)
```

Arguments

x	An unvalidated instance of the ready4 s3 class defining a data dictionary tibble.

Details

ready4 s3 class defining a data dictionary tibble.

Value

A prototpe for ready4 s3 class defining a data dictionary tibble.

`validate_ready4_dist` *Validate ready4 S3 class for list object that summarises the parameters of each distribution*

Description

Validate an instance of the ready4 S3 class for list object that summarises the parameters of each distribution

Usage

```
validate_ready4_dist(x)
```

Arguments

x	An unvalidated instance of the ready4 S3 class for list object that summarises the parameters of each distribution

Details

ready4 S3 class for list object that summarises the parameters of each distribution

Value

A prototpe for ready4 S3 class for list object that summarises the parameters of each distribution

`validate_ready4_dv_import_lup` *Validate ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.*

Description

Validate an instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Usage

```
validate_ready4_dv_import_lup(x)
```

Arguments

x	An unvalidated instance of the ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Details

ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

Value

A prototpe for ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.

`validate_ready4_par_struc_mape` *Validate ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.*

Description

Validate an instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Usage

```
validate_ready4_par_struc_mape(x)
```

Arguments

x	An unvalidated instance of the ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Details

ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

Value

A prototpe for ready4 S3 class for tibble object that stores simulation structural parameters relating to Mean Absolute Prediction Errors.

---

write_fls_to_dv_ds *Write files to dataverse dataset*

Description

write_fls_to_dv_ds() is a Write function that writes a file to a specified local directory. Specifically, this function implements an algorithm to write files to dataverse dataset. The function returns Dataset (a list).

Usage

```
write_fls_to_dv_ds(
  dss_tb,
  dv_nm_1L_chr,
  ds_url_1L_chr,
  wait_time_in_secs_int = 5L,
  make_local_copy_1L_lgl = F,
  parent_dv_dir_1L_chr,
  paths_to_dirs_chr,
  inc_fl_types_chr = NA_character_,
  key_1L_chr = Sys.getenv("DATAVERSE_KEY"),
  server_1L_chr = Sys.getenv("DATAVERSE_SERVER")
)
```

Arguments

dss_tb	Datasets (a tibble)
dv_nm_1L_chr	Dataverse name (a character vector of length one)
ds_url_1L_chr	Dataset url (a character vector of length one)
wait_time_in_secs_int	Wait time in secs (an integer vector), Default: 5
make_local_copy_1L_lgl	Make local copy (a logical vector of length one), Default: F
parent_dv_dir_1L_chr	Parent dataverse directory (a character vector of length one)
paths_to_dirs_chr	Paths to directories (a character vector)
inc_fl_types_chr	Include file types (a character vector), Default: 'NA'
key_1L_chr	Key (a character vector of length one), Default: Sys.getenv("DATAVERSE_KEY")
server_1L_chr	Server (a character vector of length one), Default: Sys.getenv("DATAVERSE_SERVER")

Value

Dataset (a list)

write_paired_ds_fls_to_dv

Write paired dataset files to dataverse

Description

write_paired_ds_fls_to_dv() is a Write function that writes a file to a specified local directory. Specifically, this function implements an algorithm to write paired dataset files to dataverse. The function is called for its side effects and does not return a value. WARNING: This function writes R scripts to your local environment. Make sure to only use if you want this behaviour

Usage

```
write_paired_ds_fls_to_dv(
  ds_tb,
  fl_nm_1L_chr,
  desc_1L_chr,
  ds_url_1L_chr = "https://doi.org/10.7910/DVN/2Y9VF9",
  pkg_dv_dir_1L_chr = "data-raw/dataverse",
  data_dir_rt_1L_chr = ".",
  key_1L_chr = Sys.getenv("DATAVERSE_KEY"),
  server_1L_chr = Sys.getenv("DATAVERSE_SERVER")
)
```

Arguments

ds_tb	Dataset (a tibble)
fl_nm_1L_chr	File name (a character vector of length one)
desc_1L_chr	Description (a character vector of length one)
ds_url_1L_chr	Dataset url (a character vector of length one), Default: 'https://doi.org/10.7910/DVN/2Y9VF9'
pkg_dv_dir_1L_chr	Package dataverse directory (a character vector of length one), Default: 'data-raw/dataverse'
data_dir_rt_1L_chr	Data directory root (a character vector of length one), Default: '.'
key_1L_chr	Key (a character vector of length one), Default: Sys.getenv("DATAVERSE_KEY")
server_1L_chr	Server (a character vector of length one), Default: Sys.getenv("DATAVERSE_SERVER")

write_pkg_dss_to_dv_ds_csvs

Write package datasets to dataverse dataset comma separated variables files

Description

write_pkg_dss_to_dv_ds_csvs() is a Write function that writes a file to a specified local directory. Specifically, this function implements an algorithm to write package datasets to dataverse dataset comma separated variables files. The function returns Dataset (a list).

Usage

```
write_pkg_dss_to_dv_ds_csvs(
  pkg_dss_tb,
  dv_nm_1L_chr,
  ds_url_1L_chr,
  wait_time_in_secs_int = 5L,
  dev_pkg_nm_1L_chr = ready4fun::get_dev_pkg_nm(),
  parent_dv_dir_1L_chr = "../../../../Data/Dataverse",
  key_1L_chr = Sys.getenv("DATAVERSE_KEY"),
  server_1L_chr = Sys.getenv("DATAVERSE_SERVER")
)
```

Arguments

pkg_dss_tb	Package datasets (a tibble)
dv_nm_1L_chr	Dataverse name (a character vector of length one)
ds_url_1L_chr	Dataset url (a character vector of length one)
wait_time_in_secs_int	Wait time in secs (an integer vector), Default: 5
dev_pkg_nm_1L_chr	Development package name (a character vector of length one), Default: ready4fun::get_dev_pkg_nm(
parent_dv_dir_1L_chr	Parent dataverse directory (a character vector of length one), Default: '../../../../Data/Dataverse'
key_1L_chr	Key (a character vector of length one), Default: Sys.getenv("DATAVERSE_KEY")
server_1L_chr	Server (a character vector of length one), Default: Sys.getenv("DATAVERSE_SERVER")

Value

Dataset (a list)

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