

# Package ‘ready4use’

April 7, 2021

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

**Version** 0.0.0.9119

**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](mailto: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/>

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data.table,  
dataverse (>= 0.3.7),  
dplyr,  
Hmisc,  
knitr,  
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magrittr,  
methods,  
purrr,  
readxl,  
ready4class (>= 0.0.0.9193),  
ready4fun (>= 0.0.0.9289),  
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stats,  
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 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'  
 'grp\_generics.R'  
 'gs\_crs\_nbr\_dbl.R'  
 'gs\_merge\_with\_chr\_vec.R'  
 'gs\_save\_type.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:**

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ready4use-package	<i>ready4use: Standardised Developer Tools for Retrieving and Managing Data in Projects Developed with the Ready4 Suite</i>
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## 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](mailto:matthew.hamilton@orygen.org.au)).

## Details

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

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- 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	<i>Common abbreviations lookup table</i>
-------------------	--

---

**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 295 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>

---

assert_matches_chr	<i>Assert matches</i>
--------------------	-----------------------

---

**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**

<code>x</code>	An object
<code>match_chr</code>	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 lookup tables*

---

### Description

bind\_lups() is a Bind Lookup Tables generic that rowbinds lookup tables of the same class, removing duplicates based on priority.

bind\_lups.ready4\_dictionary() is a Bind Lookup Tables 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        PARAM\_DESCRIPTION

### Value

NA ()

---

```
crs_nbr_dbl-ready4_script_data
  crs_nbr_dbl
```

---

**Description**

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

**Usage**

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

**Arguments**

`x` An object of class `ready4_script_data`

---

```
crs_nbr_dbl<-ready4_script_data
  crs_nbr_dbl<-
```

---

**Description**

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

**Usage**

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

**Arguments**

`x` An object of class `ready4_script_data`

---

```
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 43 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 34 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\_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	<i>Get read function</i>
-------------	--------------------------

---

**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	<i>Import data</i>
-------------	--------------------

---

**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	<i>Is ready4 S3 class for list object that summarises the parameters of each distribution</i>
----------------	---

---

**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	<i>Is ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.</i>
-------------------------	--

---

**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	<i>Make import output object of multiple potential types</i>
----------------	--

---

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

---

### 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_cat_chr = character(0),  
  var_desc_chr = character(0),  
  var_type_chr = character(0)  
)
```

**Arguments**

<code>var_nm_chr</code>	Var name (a character vector), Default: <code>character(0)</code>
<code>var_cat_chr</code>	Var cat (a character vector), Default: <code>character(0)</code>
<code>var_desc_chr</code>	Var description (a character vector), Default: <code>character(0)</code>
<code>var_type_chr</code>	Var type (a character vector), Default: <code>character(0)</code>

**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 min (a double vector), Default: numeric(0)  
 mape\_10\_yr\_min\_dbl Mape 10 yr min (a double vector), Default: numeric(0)  
 mape\_15\_yr\_min\_dbl Mape 15 yr min (a double vector), Default: numeric(0)  
 mape\_05\_yr\_max\_dbl Mape 05 yr max (a double vector), Default: numeric(0)  
 mape\_10\_yr\_max\_dbl Mape 10 yr max (a double vector), Default: numeric(0)  
 mape\_15\_yr\_max\_dbl Mape 15 yr max (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-ready4\_local  
*merge\_with\_chr\_vec*

---

**Description**

Get the value of the slot merge\_with\_chr\_vec for S4 objects of class ready4\_local



**Usage**

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

**Arguments**

x                    An object of class ready4\_local

---

```
merge_with_chr_vec<-ready4_local
merge_with_chr_vec<-
```

---

**Description**

Set the value of the slot merge\_with\_chr\_vec for S4 objects of class ready4\_local

**Usage**

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

**Arguments**

x                    An object of class ready4\_local

---

```
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 19 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	<i>ready4 S3 class for list object that summarises the parameters of each distribution</i>
-------------	--

---

**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	<i>ready4 S3 class for tibble object lookup table of files to be imported from a dataverse.</i>
----------------------	---

---

**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	<i>ready4_local</i>
--------------	---------------------

---

**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	<i>ready4_local_proc</i>
-------------------	--------------------------

---

**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	<i>ready4_local_raw</i>
------------------	-------------------------

---

**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	<i>Save raw</i>
----------	-----------------

---

**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-ready4_local_raw	
	<i>save_type</i>

---

**Description**

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**

```
## 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<-ready4_local_raw
      save_type<-
```

---

**Description**

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**

```
## 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

---

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	PARAM_DESCRIPTION
urls_vec_chr	PARAM_DESCRIPTION
...	Additional arguments

---

update_this	<i>Update this</i>
-------------	--------------------

---

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

---

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

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