Package 'siera'

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Type Package

Title Generate Analysis Results Programmes Using ARS Metadata

Version 0.4.0

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Description Analysis Results Standard (ARS), a foundational standard by CDISC (Clinical Data Interchange Standards Consortium), provides a logical data model for metadata describing all components to calculate Analysis Results. <https://www.cdisc.org/standards/foundational/analysis-results-standard> Using 'siera' package, ARS metadata is ingested (JSON or Excel format), producing programmes to generate Analysis Results Datasets (ARDs).

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Encoding UTF-8

RoxygenNote 7.3.2

Imports magrittr, dplyr, tibble, tidyr, jsonlite, stringr, readxl

Suggests knitr, rmarkdown

VignetteBuilder knitr

URL https://clymbclinical.github.io/siera/, https://github.com/clymbclinical/siera

BugReports https://github.com/clymbclinical/siera/issues

NeedsCompilation no

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Repository CRAN

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`ARD_script_example` *Get path to example ARD scripts, auto-generated by siera*

Description

siera comes bundled with some example ARD-producing scripts in its ‘inst/script‘ directory. This function make them easy to access.

Usage

```
ARD_script_example(path = NULL)
```

Arguments

`path`	Name of R file. If ‘NULL‘, the example files will be listed.

Value

A list of example R files (if path is NULL), or a file itself if path is used.

Examples

```
ARD_script_example()
ARD_script_example("ARD_Out14-1-1.R")
```

`ARS_example` *Get path to ARS example files*

Description

siera comes bundled with some example files in its ‘inst/extdata‘ directory. This function make them easy to access.

Usage

```
ARS_example(path = NULL)
```

Arguments

`path`	Name of file. If ‘NULL‘, the example files will be listed.

Value

A list of example files (if path is NULL), or a file itself if path is used.

Examples

```
ARS_example()
ARS_example("ARS_V1_Common_Safety_Displays.json")
```

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readARS *Ingest ARS (Analysis Results Standard) metadata, produce ARD (Analysis Results Dataset) code for each output*

Description

Ingest JSON or xlsx ARS (Analysis Results Standard) metadata, and meta-programme R scripts that could be run as-is to produce Analysis Results Datasets when ingesting ADaM datasets

Usage

```
readARS(JSON_ARS, output_path = tempdir(), adam_path = tempdir())
```

Arguments

JSON_ARS	A JSON file containing ARS metadata for a reporting event
output_path	Path to store .R ARD scripts
adam_path	Path to folder containing ADaM datasets, to be run in ARD program

Value

R programmes generating ARDs - one for each output specificied in the ARS JSON

Examples

```
# path to JSON file containing ARS metadata

json_path <- ARS_example("ARS_V1_Common_Safety_Displays.json")

# output path for R programs
output_dir = tempdir()

# folder containing ADaM datasets
adam_folder = tempdir()

# run function, write to temp directory
readARS(json_path, output_dir, adam_folder)
```

readARS_xl *Ingest ARS (Analysis Results Standard) metadata, produce ARD (Analysis Results Dataset) code for each output*

Description

Ingest ARS (Analysis Results Standard) metadata, and meta-programme R scripts that could be run as-is to produce Analysis Results Datasets when ingesting ADaM datasets

Usage

```
readARS_xl(
  ARS_path,
  output_path = tempdir(),
  adam_path = tempdir(),
  spec_output = "",
  spec_analysis = ""
)
```

Arguments

ARS_path	A file containing ARS metadata for a reporting event
output_path	Path to store .R ARD scripts
adam_path	Path to folder containing ADaM datasets, to be run in ARD program
spec_output	The output ID for a specific output to be run from the metadata
spec_analysis	The analysis ID for a specific analysis to be run from the metadata

Value

R programmes generating ARDs - one for each output (or analysis from an output) specified in the ARS metadata

Examples

```
# path to file containing ARS metadata

ARS_path <- ARS_example("Common_Safety_Displays_cards.xlsx")

# output path for R programs
output_dir = tempdir()

# folder containing ADaM datasets
adam_folder = tempdir()

# run function, write to temp directory
readARS_xl(ARS_path, output_dir, adam_folder)
```

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