

Package ‘ILSAmerge’

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Type Package

Title Merge and Download International Large-Scale Assessments (ILSA) Data

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Description Merges and downloads 'SPSS' data from different International Large-Scale Assessments (ILSA), including: Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Study (PIRLS), Programme for International Student Assessment (PISA), and others.

License GPL (>= 3.0)

URL <https://github.com/dopatendo/ILSAmerge>

Imports haven

Encoding UTF-8

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 ILSAdownload

 Download ILSA data

Description

Downloads 'SPSS' data from different International Large-Scale Assessments (ILSA). This function supports the following ILSA: 'PISA', 'TIMSS', 'TIMSS Advanced', 'PIRLS', 'ICCS', 'ICILS', 'CIVED', 'REDS', 'RLII', and 'SITES.' Depending on the study, you will need to decide which data to download, and read and accept its terms and conditions to proceed with the download.

Usage

```
ILSAdownload(
  study,
  year,
  outputdir,
  unzip = FALSE,
  maxtime = 999,
  quiet = FALSE,
  agreeLicense = FALSE
)
```

Arguments

<code>study</code>	a string indicating the name of the study. For available studies check the description of this function.
<code>year</code>	a numeric value indicating the year of the study.
<code>outputdir</code>	the directory where the merged data will be saved.
<code>unzip</code>	a logical value indicating if files should be unzipped. Default is FALSE.
<code>maxtime</code>	a numeric value indicating the maximum time allowed for downloading a file. Default is 999.
<code>quiet</code>	a logical value indicating if status of progress should be shown. If a study has sub-studies, e.g. 'PISA' 2009 and this is TRUE, only the main study will be downloaded. Default is FALSE.
<code>agreeLicense</code>	a logical value indicating if you agree with the Disclaimer and License Agreement file from www.iea.nl . If FALSE, you will be prompted to agree with it or else data will not be downloaded. Default is FALSE.

Value

Saves 'SPSS' ILSA data locally.

Examples

```
# For example, to download 'RLII' 1991 data:

# Path were files will be saved
output <- tempdir()

# Downloading 'RLII' 1991 and unzipping files
ILSAdownload(study = "RLII", year = 1991, outputdir = output, unzip = TRUE, agreeLicense = TRUE)
```

ILSAfile.info	<i>ILSA data files information</i>
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Description

Aggregates International Large-Scale Assessments (ILSA) data files information by population.

Usage

```
ILSAfile.info(inputdir)
```

Arguments

inputdir a string indicating the path were ILSA 'SPSS' files are stored.

Value

A data frame with the number of files and MBs per population.

Examples

```
# For example, after downloading 'RLII' 1991 G4 data:

# Downloading 'RLII' 1991 and unzipping files
ILSAdownload(study = "RLII", year = 1991, outputdir = tempdir(), unzip = TRUE, agreeLicense = TRUE)

# Path were raw 'SPSS' files are
input <- file.path(tempdir(), "RLII1991_IDB_SPSS/Data")

# Get file information
ILSAfile.info(inputdir = input)
```

ILSAmerge

*Merge ILSA data***Description**

Merges 'SPSS' data from different International Large-Scale Assessments (ILSA). This function has been tested to behave correctly for: 'TIMSS', 'TIMSS Advanced', 'PIRLS', 'ICCS', 'ICILS', 'CIVED', 'REDS', 'RLII', and 'SITES' (2006).

Usage

```
ILSAmerge(
  inputdir,
  outputdir,
  population = NULL,
  filetype = c("rds", "zsav", "sav"),
  MBlimit = NULL,
  MBlistlimit = 200,
  SPSSlimit = 50,
  quiet = FALSE
)
```

Arguments

inputdir	a string indicating the path where ILSA 'SPSS' files are stored.
outputdir	the directory where the merged data will be saved.
population	a character vector indicating which files should be merged. If NULL (the default), all files will be merged. For more information on available populations, run <code>ILSAfile.info()</code> first.
filetype	a string indicating the type of file to be saved, it can be "rds", "zsav", or "sav".
MBlimit	a numerical value indicating the allowed limit of the combined storage of the files of one type (see <code>ILSAfile.info()</code>). For type files that go over the limit, files will not be merged in R, but an 'SPSS' syntax will be produced via <code>spss.syntax()</code> . If set to NULL, no limit will be used and all files will be merged within R. If speed is a problem, we recommend that this number should not be over 200 and merge the rest in 'SPSS'.
MBlistlimit	a numerical value indicating the allowed limit of the combined storage of the files of one type for merging through a list. Values over the limit will be merged through a matrix, which will be slower but uses less memory. Default is 200.
SPSSlimit	a numerical value indicating the limit of files per command of 'SPSS', typically 50.
quiet	a logical value indicating if status of progress should be shown. Default is FALSE.

Value

Saves merged ILSA data or .sps syntax for merging ILSA data.

Examples

```
# For example, after downloading 'RLII' 1991 G4 data:

# Downloading 'RLII' 1991 and unzipping files
ILSAdownload(study = "RLII", year = 1991, outputdir = tempdir(), unzip = TRUE, agreeLicense = TRUE)

# Path were raw 'SPSS' files are
input <- file.path(tempdir(), "RLII1991_IDB_SPSS/Data")

# Path were merged files will be saved
output <- file.path(tempdir(), "RLII1991_IDB_SPSS")

# Merging 'RLII' 1991, as .rds file
ILSMerge(inputdir = input, outputdir = output, filetype = "rds", quiet = FALSE)
```

justload

Loading ILSA data into a list

Description

Load 'SPSS' data from different International Large-Scale Assessments (ILSA), including: 'TIMSS', 'TIMSS Advanced', 'PIRLS', 'ICCS', 'ICILS', 'CIVED', 'REDS', 'RLII', and 'SITES' into a list.

Usage

```
justload(inputdir, population, justattributes = FALSE)
```

Arguments

inputdir	a string indicating the path were ILSA 'SPSS' files are stored.
population	a character value indicating which files should be merged. For more information on available populations, run <code>ILSAfile.info()</code> first.
justattributes	a logical value indicating if 0 rows should be loaded. This can be used when we just need to check column attributes. Default is FALSE.

Value

A list of tibbles.

Examples

```

# For example, after downloading 'RLII' 1991 G4 data:

# Downloading 'RLII' 1991 and unzipping files
ILSAdownload(study = "RLII", year = 1991, outputdir = tempdir(), unzip = TRUE, agreeLicense = TRUE)

# Path were raw 'SPSS' files are
input <- file.path(tempdir(), "RLII1991_IDB_SPSS/Data")

# Load only attributes
emptylist <- justload(inputdir = input, population = "ASct1", justattributes = TRUE)

# Load complete data
fulllist <- justload(inputdir = input, population = "ASct1", justattributes = FALSE)

```

spss.syntax

'SPSS' merge syntax

Description

Produces and saves an 'SPSS' merge syntax given a list of files.

Usage

```
spss.syntax(filelist, name, outputdir, zsav = TRUE, SPSSlimit = 50)
```

Arguments

filelist	a character vector with the list of files to be merged.
name	a string with the name of the merged file (without any extension).
outputdir	the directory where the .sps file and the merged file will be saved.
zsav	a logical value indicating if the the merged file should be compressed with zsav. Default is TRUE.
SPSSlimit	a numerical value indicating the limit of files per command of 'SPSS', typically 50.

Value

Saves an .sps file with the 'SPSS' syntax for merging the desired files.

Examples

```
# For example, after downloading 'RLII' 1991 G4 data:

# Downloading 'RLII' 1991 and unzipping files
ILSAdownload(study = "RLII", year = 1991, outputdir = tempdir(), unzip = TRUE, agreeLicense = TRUE)

# Path were raw 'SPSS' files are
input <- file.path(tempdir(), "RLII1991_IDB_SPSS/Data")

# Path were merged files will be saved
output <- tempdir()

# List of ASCt1 files to be merged
files <- list.files(path = input, pattern = "ASC.+t1")

# Create 'SPSS' syntax
spss.syntax(filelist = files, name = "ASCt1", outputdir = output, zsav = TRUE)
```

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