Package 'ssimparser'

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Type Package

Title Standard Schedules Information Parser

Version 0.1.1

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Description Parse Standard Schedules Information file (types 2 and 3) into a Data Frame.
Can also expand schedules into flights.

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Encoding UTF-8

RoxygenNote 7.1.2

Imports tidyr, dplyr, stringr, airportr, magrittr

NeedsCompilation no

Repository CRAN

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Contents

get_ssim_collist *get_ssim_collist*

Description

Get the list of columns that can be parsed from SSIM.

Usage

```
get_ssim_collist(getall = TRUE)
```

Arguments

getall	Get all columns (TRUE/FALSE).

Value

Vector containing the SSIM columns.

Examples

```
# Get all columns
get_ssim_collist()
# Get some of the most 'useful' columns
get_ssim_collist(FALSE)
```

get_ssim_sample *get_ssim_sample*

Description

Get a test SSIM file for validation and testing.

Usage

```
get_ssim_sample(
  datefrom = as.Date("2020-11-01"),
  dateto = as.Date("2020-12-01"),
  season = "W20",
  creadate = Sys.Date()
)
```

Arguments

datefrom	First date of the sample.
dateto	Last date of the sample.
season	IATA season (W20 = Winter 2020).
creadate	Creation date. Default today.

Value

A character vector containing the SSIM sample.

Examples

```
# Get sample
sample_ssim_str <- ssimparser::get_ssim_sample(datefrom = as.Date("2020-11-01"),
dateto = as.Date("2020-12-01"),
season="W20")

# Parse the sample into a data frame
ssim_sample_df <- ssimparser::load_ssim(ssim_file = sample_ssim_str)
head(ssim_sample_df, 10)
```

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load_ssim *load_ssim*

Description

Load SSIM file into a Data Frame.

Usage

```
load_ssim(
  ssim_file = get_ssim_sample(),
  nested_df = FALSE,
  collist = get_ssim_collist(getall = FALSE),
  clean_col_names = TRUE,
  unpivot_days_of_op = FALSE,
  expand_sched = FALSE
)
```

Arguments

ssim_file	Path to the SSIM file or character vector containing the content to load.
nested_df	Nest SSIM type 3 into type 2 (TRUE/FALSE). Default to FALSE.
collist	List of columns that need to be present in the final Data Frame. get_ssim_collist() to get the full list.

clean_col_names
: Clean column names in the final Data Frame by removing type2/type3 prefixes (TRUE/FALSE). Default TRUE.

unpivot_days_of_op
: Unpivot the schedules by creating a schedule by day of operation (TRUE/FALSE). Default FALSE.

expand_sched
: Expand schedules into flights.

Value

Data Frame (nested or not) containing the schedules (or flights when schedules were expanded).

Examples

```
# Get a sample as a character vector
sample_ssim_string <- ssimparser::get_ssim_sample(datefrom = as.Date("2020-11-01"),
dateto = as.Date("2020-12-01"),
season = "W20",
creadate = as.Date("2020-12-02"))

# Write sample to temp dir
sample_ssim_file <- tempfile()
write(sample_ssim_string, sample_ssim_file, append = FALSE)

# Load sample, expand schedules to flights and display the traffic
# by month and departure airport ICAO
ssimparser::load_ssim(ssim_file = sample_ssim_file,
expand_sched = TRUE) %>%
dplyr::group_by(format(flight.flight_date,"%Y-%m"), adep_icao) %>%
dplyr::summarise(n=dplyr::n())

# Get the unique list of airports ICAO
ssimparser::load_ssim(ssim_file = sample_ssim_file, expand_sched = TRUE,
collist = c("type3.adep_icao", "type3.ades_icao")) %>% unique()

# Nest the type 3 into type 2
ssim_nested <- ssimparser::load_ssim(ssim_file = sample_ssim_file,
expand_sched = FALSE, nested = TRUE)
head(ssim_nested)

# Remove the sample SSIM file
unlink(sample_ssim_file)
```

---

load_ssim_flights *load_ssim_flights*

Description

Load multiple SSIM file, expand to flights, and return the result as a Data Frame.
In case of period overlap for a specific flight date, information from the latest file will be used, so beware of the file order in parameter ssim_files.

Usage

```
load_ssim_flights(
  ssim_files = c("AFR_20201115.txt", "AFR_20201116.txt"),
  collist = get_ssim_collist(getall = FALSE),
  clean_col_names = TRUE
)
```

Arguments

ssim_files	List of SSIM files to load, in the correct order (from the first to load to the last file to load).
collist	List of columns that need to be present in the final Data Frame. get_ssim_collist() to get the full list.
clean_col_names	Clean column names in the final Data Frame by removing type2/type3 prefixes (TRUE/FALSE). Default TRUE.

Value

Data Frame containing the flights.

Examples

```
# Get 3 samples as a character vector
samples <- data.frame(sampleid = c(1:3)) %>%
 dplyr::rowwise() %>%
 dplyr::mutate(
 filename = tempfile(),
 samplestring = ssimparser::get_ssim_sample(datefrom = as.Date("2020-11-01") + (sampleid * 3),
 dateto = as.Date("2020-12-01") + (sampleid * 3),
 season = "W20",
 creadate = as.Date("2020-11-01") + sampleid)
 )
# Write the samples to tempdir
for (i in 1:3)
{
 write(samples[i,]$samplestring, samples[i,]$filename, append = FALSE)
}

# Load the 3 samples and display the total traffic per day
ssimparser::load_ssim_flights(ssim_files = samples$filename) %>%
dplyr::group_by(flight_date = as.Date(flight.flight_date)) %>%
dplyr::summarise(total_flights = dplyr::n()) %>%
dplyr::arrange(desc(flight_date))

# Unlink temp files
for (i in 1:3)
{
  unlink(samples[i,]$filename)
}
```

ssimparser *ssimparser: A Tool for Parsing Standard Schedules Information (Chapter 7).*

Description

Parse SSIM file (types 2 and 3) into a Data Frame.

Bugs report:
https://github.com/sthonnard/ssimparser

ssimparser functions

get_ssim_collist()
Get the list of columns that can be parsed from SSIM.

load_ssim(ssim_file)
Parse SSIM file into a Data Frame.

load_ssim_flights(ssim_files)
Parse multiple SSIM files, expand to flights, and return the result into a Data Frame.

get_ssim_sample()
Get a sample SSIM file as a character vector.

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