

# 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.

**License** MIT + file LICENSE

**Encoding** UTF-8

**RoxygenNote** 7.1.2

**Imports** tidy, dplyr, stringr, airportr, magrittr

**NeedsCompilation** no

**Repository** CRAN

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get\_ssim\_collist      *get\_ssim\_collist*

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**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*

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**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).
create_date	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	<i>load_ssim</i>
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**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. <code>get_ssim_collist()</code> 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_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)
```

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`load_ssim_flights`      *load\_ssim\_flights*

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**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. <code>get_ssim_collist()</code> 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).*

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**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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