Package ‘when’

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Description In Multidimensional Systems the When dimension allows us to express when the analysed facts have occurred. The purpose of this package is to provide support for implementing this dimension in the form of date and time tables for Relational On-Line Analytical Processing star database systems.
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| date_days | Precalculated date set |

Description

Precalculated date set

Usage

date_days

Format

A vector.
define_characteristics

See Also

Other time definition: time_seconds

Usage

define_characteristics(
    td,
    name,
    surrogate_key,
    type,
    locale,
    week_starts_monday
)

## S3 method for class 'when'
define_characteristics(
    td,
    name = NULL,
    surrogate_key = NULL,
    type = NULL,
    locale = NULL,
    week_starts_monday = NULL
)

Arguments

- **td**: A when object.
- **name**: A string, table name.
- **surrogate_key**: A boolean, include a surrogate key in the dimension table.
- **type**: A string, type of calendar (NULL, 'iso', 'epi' or 'time').
- **locale**: A locale, to use for day and month names.
- **week_starts_monday**: A boolean.


**define_instances**

**Details**

The `week_starts_monday` parameter only affects the numbering of days, not weeks.

The week number associated with each date depends on the type of date dimension selected: standard ("date"), ISO 8601 ("iso") or epidemiological ("epi").

The standard week numbers blocks of 7 days beginning on January 1. The last week of the year can be less than 7 days long.

The ISO 8601 week numbers blocks of 7 days from Monday to Sunday. The first and last week of the year can contain days from the previous or next year.

The epidemiological week is like ISO 8601 only that it considers that the week begins on Sunday.

**Value**

A `when` object.

**See Also**

Other dimension definition: `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

**Examples**

```r
td <- when() |>
  define_characteristics(name = 'time', type = 'time')
```

---

**define_instances**

**Define instances**

**Description**

Using this function we can define the instances from which the dimension will be generated according to the rest of its defined characteristics.

**Usage**

```r
define_instances(td, start, end, values)
```

```r
# S3 method for class 'when'
define_instances(td, start = NULL, end = NULL, values = NULL)
```
**generate_table**

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>td</td>
<td>A <code>when</code> object.</td>
</tr>
<tr>
<td>start</td>
<td>A string, start of the period to be included in the dimension.</td>
</tr>
<tr>
<td>end</td>
<td>A string, end of the period to be included in the dimension.</td>
</tr>
<tr>
<td>values</td>
<td>A vector of string.</td>
</tr>
</tbody>
</table>

**Details**

We must indicate dates or date components in ISO 8601 format (yyyy-mm-dd). The times in hh:mm:ss format.

**Value**

A `when` object.

**See Also**

Other dimension definition: `define_characteristics()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

**Examples**

```r

# Define a period from 2020 to 2030
td_1 <- when() |>
  define_instances(start = "2020", end = "2030")

# Define a period from 2020-01-01 to 2030-01-01
td_1 <- when() |>
  define_instances(start = "2020-01-01", end = "2030-01-01")

# Define a period with values 1:5
td_2 <- when(type = 'time') |>
  define_instances(values = 1:5)
```

---

**Description**

Once all the characteristics of the dimension have been defined, we can generate its table according to them using this function.

**Usage**

```r

generate_table(td)

## S3 method for class 'when'
generate_table(td)
```
get_attribute_definition_function

Arguments

td
A when object.

Value

A when object.

See Also

when, get_table

Other obtaining results: get_level_attribute_names(), get_level_names(), get_table_attribute_names(),
set_table_attribute_names()

Examples

td <- when() |> 
generate_table()

get_attribute_definition_function

Get attribute definition function

Description

Each attribute is defined by a function that adds a column to a table based on the parameter that
contains the date or time. This function returns the definition function for the attribute whose name
is given.

Usage

get_attribute_definition_function(td, name)

## S3 method for class 'when'
get_attribute_definition_function(td, name = NULL)

Arguments

td
A when object.

name
A string, attribute name.

Value

A function.
get_day_part

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_day_part()`,
`get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`,
`select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`,
`select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

```r
f <- when() |> get_attribute_definition_function(name = "year")
```

```
    get_day_part       Get day part
```

Description

Get day part.

Usage

```r
get_day_part(td)
```

## S3 method for class 'when'
```r
get_day_part(td)
```

Arguments

- **td** A `when` object.

Value

A named vector.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`,
`select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`,
`select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

```r
dp <- when() |> get_day_part()
```
get_level_attribute_names

*Get level attribute names*

**Description**

Returns the names of the level attributes. We can obtain all the available ones or only the selected ones.

**Usage**

```r
get_level_attribute_names(td, name, selected)
```

```r
## S3 method for class 'when'
get_level_attribute_names(td, name = NULL, selected = FALSE)
```

**Arguments**

- `td` A `when` object.
- `name` A string.
- `selected` A boolean.

**Value**

A string vector.

**See Also**

Other obtaining results: `generate_table()`, `get_level_names()`, `get_table_attribute_names()`, `set_table_attribute_names()`

**Examples**

```r
names <- when() |> get_level_attribute_names()
```
get_level_names

Get level names

Description

Returns the names of the levels. We can obtain all the available ones or only the selected ones.

Usage

get_level_names(td, selected)

## S3 method for class 'when'
get_level_names(td, selected = FALSE)

Arguments

td A when object.

selected A boolean.

Value

A string vector.

See Also

Other obtaining results: generate_table(), get_level_attribute_names(), get_table_attribute_names(), set_table_attribute_names()

Examples

names <- when() |>  
get_level_names()

get_table

Get the table of the dimension

Description

Once all the configuration elements have been defined and the dimension table has been generated, using this function we can obtain it in tibble format.
get_table_attribute_names

Usage

get_table(td)

## S3 method for class 'when'
get_table(td)

Arguments

td A when object.

Value

A tibble, the table.

See Also

when, generate_table

Other getting results: get_table_csv(), get_table_rdb(), get_table_xlsx()

Examples

table <- when() |>  
generate_table() |>  
get_table()

get_table_attribute_names

Get table attribute names

Description

Returns the names of the dimension table attributes as a string vector or in string form, so we can easily use it to rename them if deemed necessary.

Usage

get_table_attribute_names(td, as_string)

## S3 method for class 'when'
get_table_attribute_names(td, as_string = TRUE)

Arguments

td A when object.

as_string A boolean.
get_table_csv

Details
If the table has not been generated yet, returns the attributes it will contain when it is generated.

Value
A string.

See Also
Other obtaining results: \texttt{generate_table()}, \texttt{get_level_attribute_names()}, \texttt{get_level_names()}, \texttt{set_table_attribute_names()}

Examples

```r	names <- when() |>
    get_table_attribute_names()
```

---

get_table_csv  \textit{Store the table in a csv files}

Description
Once all the configuration elements have been defined and the dimension table has been generated, using this function we can obtain it in csv format.

Usage

```r
get_table_csv(td, dir, type)
```

## S3 method for class 'when'
```
get_table_csv(td, dir = NULL, type = 1)
```

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>td</td>
<td>A when object.</td>
</tr>
<tr>
<td>dir</td>
<td>A string, name of a dir.</td>
</tr>
<tr>
<td>type</td>
<td>An integer, 1: uses &quot;.&quot; for the decimal point and a comma for the separator; 2: uses a comma for the decimal point and a semicolon for the separator.</td>
</tr>
</tbody>
</table>

Details
If no dir name is given, stores the table in a temporary one.

Value
A string, name of a file.
See Also

Other getting results: `get_table_rdb()`, `get_table_xlsx()`, `get_table()`

Examples

```r
file <- when() |>
  generate_table() |>
  get_table_csv()
```

---

### get_table_rdb

**Store the table in a relational database**

**Description**

Once all the configuration elements have been defined and the dimension table has been generated, using this function we can obtain it in table format in a Relational DBMS.

**Usage**

```r
get_table_rdb(td, con, overwrite)
```

**S3 method for class 'when'**

```r
get_table_rdb(td, con, overwrite = FALSE)
```

**Arguments**

- `td` A `when` object.
- `con` A `DBI::DBIConnection` object.
- `overwrite` A boolean, allow overwriting tables in the database.

**Value**

Invisible NULL.

**See Also**

Other getting results: `get_table_csv()`, `get_table_xlsx()`, `get_table()`
Examples

```r
my_db <- DBI::dbConnect(RSQLite::SQLite())
when() |> 
generate_table() |> 
get_table_rdb(my_db)

DBI::dbDisconnect(my_db)
```

---

**get_table_xlsx**

*Store the table in a xlsx file*

**Description**

Once all the configuration elements have been defined and the dimension table has been generated, using this function we can obtain it in *xlsx* format.

**Usage**

```r
get_table_xlsx(td, dir)
```

```r
## S3 method for class 'when'
get_table_xlsx(td, dir = NULL)
```

**Arguments**

- `td` : A when object.
- `dir` : A string, name of a dir.

**Details**

If no dir name is given, stores the table in a temporary one.

**Value**

A string, name of a file.

**See Also**

Other getting results: `get_table_csv()`, `get_table_rdb()`, `get_table()`

**Examples**

```r
file <- when() |> 
generate_table() |> 
get_table_xlsx()
```
**get_week_date_range**  
*Get week date range*

**Description**

For weeks between the given dates, gets the date of the first and last day of each week.

**Usage**

```r
get_week_date_range(start = NULL, end = NULL, type = NULL)
```

**Arguments**

- `start`: A string, start of the period to be included in the dimension.
- `end`: A string, end of the period to be included in the dimension.
- `type`: A string, type of calendar (NULL, ‘iso’, ‘epi’ or ‘time’).

**Value**

A tibble.

**See Also**

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

**Examples**

```r
t <- get_week_date_range(start = "2024-01-01", end = "2029-12-31")
```

---

**select_date_levels**  
*Configure date levels*

**Description**

When the dimension is defined as date type, using this function we can select the levels to include in it: day, week, month, quarter, semester and year.
Usage

```r
select_date_levels(
  td,
  include_all,
  exclude_all,
  day_level,
  week_level,
  month_level,
  quarter_level,
  semester_level,
  year_level
)
```

## S3 method for class 'when'
```r
select_date_levels(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  day_level = NULL,
  week_level = NULL,
  month_level = NULL,
  quarter_level = NULL,
  semester_level = NULL,
  year_level = NULL
)
```

Arguments

- **td**: A `when` object.
- **include_all**: A boolean, include all levels.
- **exclude_all**: A boolean, exclude all levels.
- **day_level**: A boolean, include day level.
- **week_level**: A boolean, include week level.
- **month_level**: A boolean, include month level.
- **quarter_level**: A boolean, include quarter level.
- **semester_level**: A boolean, include semester level.
- **year_level**: A boolean, include year level.

Value

A `when` object.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_year_level()`.
select_day_level(), select_time_level(), select_week_level(), select_year_level(),
set_attribute_definition_function(), set_day_part(), when()

Examples

```r
td <- when() |> 
  select_date_levels(week_level = FALSE)
```

---

**select_day_level**: Configure day level

**Description**

When the dimension is defined as a date type, using this function we can select the day level and its attributes to include in it: date, month_day, week_day, quarter_day and year_day.

**Usage**

```r
select_day_level(
  td,
  include_all, 
  exclude_all, 
  date,
  month_day,
  week_day,
  day_name, 
  day_num_name, 
  day_abbr, 
  day_num_abbr, 
  quarter_day, 
  year_day
)
```

```r
## S3 method for class 'when'
select_day_level(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  date = NULL,
  month_day = NULL,
  week_day = NULL,
  day_name = NULL,
  day_num_name = NULL,
  day_abbr = NULL,
  day_num_abbr = NULL,
  quarter_day = NULL,
  year_day
)```
Arguments

td A `when` object.
include_all A boolean, include all fields of the level.
exclude_all A boolean, exclude all fields of the level.
date A boolean, include the date.
month_day A boolean, include the day number in the month.
week_day A boolean, the day number in the week.
day_name A boolean, include the name of the day of the week.
day_num_name A boolean, include the number and name of the day of the week.
day_abbr A boolean, include the name of the day of the week in abbreviated version.
day_num_abbr A boolean, include the number and name of the day of the week in abbreviated version.
quarter_day A boolean, include the number of the day in the quarter.
year_day A boolean, include the number of the day in the year.

Details

The `include_all` and `exclude_all` parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

For the `week_day` we have the day number, its name and the name abbreviation. So that the order of the names corresponds to the alphabetical order, the combination of day number and name and/or abbreviation is included.

Value

A `when` object.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_month_level()`, `select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

td <- when() |> 
  select_day_level(day_abbr = FALSE, 
                  day_num_abbr = FALSE)
select_month_level  Configure month level

Description
When the dimension is defined as a date type, using this function we can select the month level and its attributes to include in it. We can also obtain the combination of the year with the month number.

Usage
```r
select_month_level(
  td,
  include_all,
  exclude_all,
  month,
  year_month,
  month_name,
  month_num_name,
  month_abbr,
  month_num_abbr
)
```

```r
## S3 method for class 'when'
select_month_level(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  month = NULL,
  year_month = NULL,
  month_name = NULL,
  month_num_name = NULL,
  month_abbr = NULL,
  month_num_abbr = NULL
)
```

Arguments
- `td`         A when object.
- `include_all` A boolean, include all fields of the level.
- `exclude_all` A boolean, exclude all fields of the level.
- `month`      A boolean, include the month number.
- `year_month` A boolean, include the year-month combination.
- `month_name` A boolean, include the month name.
- `month_num_name` A boolean, include the month number and name.
- `month_abbr` A boolean, include the month name abbreviated version.
- `month_num_abbr` A boolean, include the month number and name abbreviated version.
select_quarter_level

Details

For the month we have the month number in the year, its name and the abbreviation of the name. So that the order of the names corresponds to the alphabetical order, the combination of month number and name and/or abbreviation is included.

The include_all and exclude_all parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

Value

A when object.

See Also

Other dimension definition: define_characteristics(), define_instances(), get_attribute_definition_function(), get_day_part(), get_week_date_range(), select_date_levels(), select_day_level(), select_quarter_level(), select_semester_level(), select_time_level(), select_week_level(), select_year_level(), set_attribute_definition_function(), set_day_part(), when()

Examples

td <- when() |> 
  select_month_level(month_abbr = FALSE, 
  month_num_abbr = FALSE)

select_quarter_level  Configure quarter level

Description

When the dimension is defined as a date type, using this function we can select the quarter level and its attributes to include in it: quarter number and the combination of the year with it.

Usage

select_quarter_level(td, include_all, exclude_all, quarter, year_quarter)

## S3 method for class 'when'
select_quarter_level( 
  td, 
  include_all = FALSE, 
  exclude_all = FALSE, 
  quarter = NULL, 
  year_quarter = NULL 
)
select_semester_level

Arguments

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>td</td>
<td>A when object.</td>
</tr>
<tr>
<td>include_all</td>
<td>A boolean, include all fields of the level.</td>
</tr>
<tr>
<td>exclude_all</td>
<td>A boolean, exclude all fields of the level.</td>
</tr>
<tr>
<td>quarter</td>
<td>A boolean, include the quarter field.</td>
</tr>
<tr>
<td>year_quarter</td>
<td>A boolean, include the quarter field.</td>
</tr>
</tbody>
</table>

Details

The `include_all` and `exclude_all` parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

Value

A when object.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

```r
td <- when() |> select_quarter_level(quarter = FALSE)
```

select_semester_level Configure semester level

Description

When the dimension is defined as a date type, using this function we can select the semester level and its attributes to include in it: semester number and the combination of the year with it.

Usage

```r
select_semester_level(td, include_all, exclude_all, semester, year_semester)
```

## S3 method for class 'when'
```r
select_semester_level(
  td,
  include_all = FALSE,
```
Arguments

- **td**: A when object.
- **include_all**: A boolean, include all fields of the level.
- **exclude_all**: A boolean, exclude all fields of the level.
- **semester**: A boolean, include the semester field.
- **year_semester**: A boolean, include the semester field.

Details

The `include_all` and `exclude_all` parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

Value

A when object.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_time_level()`, `select_week_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

```r
td <- when() |> 
select_semester_level(semester = FALSE)
```

Description

When the dimension is defined as a time type, using this function we can select the level and its attributes to include in it: time, minute, second and day_part.
select_time_level

Usage

select_time_level(td, include_all, exclude_all, time, minute, second, day_part)

## S3 method for class 'when'
select_time_level(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  time = NULL,
  minute = NULL,
  second = NULL,
  day_part = NULL
)

Arguments

- **td**: A when object.
- **include_all**: A boolean, include all fields of the level.
- **exclude_all**: A boolean, exclude all fields of the level.
- **time**: A boolean, include a field for the time.
- **minute**: A boolean, include the minute level of detail.
- **second**: A boolean, include the second level of detail.
- **day_part**: A boolean, include the parts of the day.

Details

The 'hour' attribute will always be included. If the 'minute' attribute is not included the 'second' attribute will not be included either.

Value

A when object.

See Also

Other dimension definition: define_characteristics(), define_instances(), get_attribute_definition_function(), get_day_part(), get_week_date_range(), select_date_levels(), select_day_level(), select_month_level(), select_quarter_level(), select_semester_level(), select_week_level(), select_year_level(), set_attribute_definition_function(), set_day_part(), when()

Examples

td <- when() |> select_time_level(day_part = FALSE)
**select_week_level**  
*Configure week level*

---

**Description**
When the dimension is defined as a date type, using this function we can select the week level and its attributes to include in it: week and year_week.

**Usage**

```
select_week_level(td, include_all, exclude_all, week, year_week)
```

```r
## S3 method for class 'when'
select_week_level(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  week = NULL,
  year_week = NULL
)
```

**Arguments**

- `td`  
  A when object.
- `include_all`  
  A boolean, include all fields of the level.
- `exclude_all`  
  A boolean, exclude all fields of the level.
- `week`  
  A boolean, include the week number.
- `year_week`  
  A boolean, include the year-week combination.

**Details**

The `include_all` and `exclude_all` parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

For the first and last days of the year, the year associated with the week may be different from the year of the date, depending on the date type selected.

The week number associated with each date depends on the type of date dimension selected: standard ("date"), ISO 8601 ("iso") or epidemiological ("epi").

The standard week numbers blocks of 7 days beginning on January 1. The last week of the year can be less than 7 days long.

The ISO 8601 week numbers blocks of 7 days from Monday to Sunday. The first and last week of the year can contain days from the previous or next year.

The epidemiological week is like ISO 8601 only that it considers that the week begins on Sunday.
Value

A when object.

See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`, `get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`, `select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_year_level()`, `set_attribute_definition_function()`, `set_day_part()`, `when()`

Examples

```r
td <- when() |> 
  select_week_level(year_week = FALSE)
```

---

### select_year_level  Configure year level

Description

When the dimension is defined as a date type, using this function we can select the year level and its attributes to include in it: year and decade.

Usage

```r
select_year_level(td, include_all, exclude_all, year, decade)
```

```
## S3 method for class 'when'
select_year_level(
  td,
  include_all = FALSE,
  exclude_all = FALSE,
  year = NULL,
  decade = NULL
)
```

Arguments

- `td` A when object.
- `include_all` A boolean, include all fields of the level.
- `exclude_all` A boolean, exclude all fields of the level.
- `year` A boolean, include the year field.
- `decade` A boolean, include the decade field.
set_attribute_definition_function

Details

The include_all and exclude_all parameters allow us to include or exclude all attributes, and then specifically exclude or include the ones we need.

Value

A when object.

See Also

Other dimension definition: define_characteristics(), define_instances(), get_attribute_definition_function(), get_day_part(), get_week_date_range(), select_date_levels(), select_day_level(), select_month_level(), select_quarter_level(), select_semester_level(), select_time_level(), select_week_level(), set_attribute_definition_function(), set_day_part(), when()

Examples

td <- when() |> 
  select_year_level(decade = FALSE)

set_attribute_definition_function

Set attribute definition function

Description

Each attribute is defined by a function that adds a column to a table based on the parameter that contains the date or time. This function sets the definition function for the attribute whose name is given.

Usage

set_attribute_definition_function(td, name, f)

## S3 method for class 'when'
set_attribute_definition_function(td, name = NULL, f = NULL)

Arguments

td A when object.
name A string, attribute name.
f A function.

Value

A when object.
See Also

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`,
`get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`,
`select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`,
`select_year_level()`, `set_day_part()`, `when()`

Examples

```r
f <- function(table, values, ...) {
  table[['year']] <- 'Not defined'
  table
}

wd <- when() |> |
  set_attribute_definition_function(name = "year", f)
```

---

### set_day_part

**Set day part**

**Description**

Using this function we can change the name assigned to the hours of the day to designate the parts of the day.

**Usage**

```
set_day_part(td, hour, name)
```

```r
## S3 method for class 'when'
set_day_part(td, hour = NULL, name = NULL)
```

**Arguments**

- `td`: A `when` object.
- `hour`: A number, hour number (between 0 and 23).
- `name`: a string, name of the part of the day.

**Value**

A `when` object.

**See Also**

Other dimension definition: `define_characteristics()`, `define_instances()`, `get_attribute_definition_function()`,
`get_day_part()`, `get_week_date_range()`, `select_date_levels()`, `select_day_level()`, `select_month_level()`,
`select_quarter_level()`, `select_semester_level()`, `select_time_level()`, `select_week_level()`,
`select_year_level()`, `set_attribute_definition_function()`, `when()`
Examples

```r
td <- when() |> set_day_part(hour = c(21:23, 0:4), name = "Night")
```

Description

Set table attribute names

Rename the attributes of the dimension table. It is especially useful if we want to export the table, for example, to a database.

Usage

```r
set_table_attribute_names(td, names)
```

## S3 method for class 'when'

```r
set_table_attribute_names(td, names = NULL)
```

Arguments

- `td` A `when` object.
- `names` A string vector.

Value

A `when` object.

See Also

Other obtaining results: `generate_table()`, `get_level_attribute_names()`, `get_level_names()`, `get_table_attribute_names()`

Examples

```r
wd <- when() |> generate_table()
wd |> get_table_attribute_names()

wd <- wd |> set_table_attribute_names(
  c('id_when',
```
'date',
'month_day',
'week_day',
'day_name',
'day_num_name',
'year_week',
'week',
'year_month',
'month',
'month_name',
'month_num_name',
'year'
)
)

time_seconds  Time in seconds of a day

Description

Time in seconds of a day

Usage

time_seconds

Format

A vector.

See Also

Other time definition: date_days

when  when S3 class

Description

Creates a when object.
when

Usage

when(
    name = NULL,
    type = NULL,
    locale = NULL,
    start = lubridate::today(),
    end = lubridate::today(),
    values = NULL,
    ...
)

Arguments

name A string, table name.
type A string, type of calendar (NULL, 'iso', 'epi' or 'time').
locale A locale, to use for day and month names.
start A string, start of the period to be included in the dimension.
end A string, end of the period to be included in the dimension.
values A vector of string.
... Rest of boolean configuration parameters.

Details

Using the parameters of this function we can configure practically all the elements of the dimension. Alternatively, we can use the configuration functions to define the available options.

We discuss the parameters in each of the specific configuration functions.

Value

A when object.

See Also

generate_table, get_table

Other dimension definition: define_characteristics(), define_instances(), get_attribute_definition_function(),
get_day_part(), get_week_date_range(), select_date_levels(), select_day_level(), select_month_level(),
select_quarter_level(), select_semester_level(), select_time_level(), select_week_level(),
select_year_level(), set_attribute_definition_function(), set_day_part()

Examples

td_1 <- when()

td_2 <- when(type = 'time')
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