

# Package ‘metalite.sl’

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**Title** Subject-Level Analysis Using 'metalite'

**Version** 0.1.1

**Description** Analyzes subject-level data in clinical trials using the 'metalite' data structure. The package simplifies the workflow to create production-ready tables, listings, and figures discussed in the subject-level analysis chapters of ```R for Clinical Study Reports and Submission``` by Zhang et al. (2022) <<https://r4csr.org/>>.

**Depends** R (>= 4.1.0)

**License** GPL (>= 3)

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---

|                  |                                 |
|------------------|---------------------------------|
| collect_baseline | <i>Count number of subjects</i> |
|------------------|---------------------------------|

---

Description

Count number of subjects

Usage

```
collect_baseline(  
  meta,  
  population,  
  parameter,  
  type = "Subjects",  
  use_na = c("ifany", "no", "always"),  
  display_total = TRUE  
)
```

Arguments

|               |                                                                                                                                            |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| meta          | A metadata object created by metalite.                                                                                                     |
| population    | A character value of population term name. The term name is used as key to link information.                                               |
| parameter     | A character value of parameter term name. The term name is used as key to link information.                                                |
| type          | A character value to control title name, e.g., Subjects or Records.                                                                        |
| use_na        | A character value for whether to include NA values in the table. See the useNA argument in <a href="#">base::table()</a> for more details. |
| display_total | A logical value to display total column.                                                                                                   |

Value

A list containing number of subjects

Examples

```
meta <- meta_sl_example()
meta |> collect_baseline(
  population = "apat",
  parameter = "age"
)
```

---

|           |                         |
|-----------|-------------------------|
| defmt_pct | <i>Deformat percent</i> |
|-----------|-------------------------|

---

Description

Deformat percent

Usage

```
defmt_pct(pct)
```

Arguments

|     |                                |
|-----|--------------------------------|
| pct | string eager to remove percent |
|-----|--------------------------------|

Value

Numeric value without percent

Examples

```
defmt_pct("10.0%")
defmt_pct(c("10.0%", "(11.2%)"))
```

---

|                     |                                                                                             |
|---------------------|---------------------------------------------------------------------------------------------|
| extend_exp_duration | <i>Add cumulative count and summary stats for categories for exposure duration analysis</i> |
|---------------------|---------------------------------------------------------------------------------------------|

---

## Description

Add cumulative count and summary stats for categories for exposure duration analysis

## Usage

```
extend_exp_duration(
  outdata,
  category_section_label = paste0(metalite::collect_adam_mapping(outdata$meta,
    outdata$parameter)$label, " (extend)"),
  duration_category_list = extract_duration_category_ranges(duration_category_labels),
  duration_category_labels =
    levels(outdata$meta$data_population[[metalite::collect_adam_mapping(outdata$meta,
      outdata$parameter)$vargroup]])
)
```

## Arguments

|                          |                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata                  | An outdata object created by <a href="#">prepare_exp_duration()</a> .                                                                                                                                                                                                                                                                                     |
| category_section_label   | A character value of section label. If NULL, the parameter label is used with "(cumulative)".                                                                                                                                                                                                                                                             |
| duration_category_list   | A list of duration category ranges. Must be real numbers and may overlap or be mutually exclusive. A list should be in the form of <code>list(c(low1, high1), c(low2, high2), ...)</code> . If NA is included in the range, it is treated as <code>-Inf</code> or <code>Inf</code> . The range is defined as <code>low &lt;= x &lt; high</code> for each. |
| duration_category_labels | A character vector of internal labels. Labels to be displayed for the <code>duration_category_list</code> values. Must be the same length as <code>duration_category_list</code> .                                                                                                                                                                        |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_exposure_example()
outdata <- meta |> prepare_exp_duration()
outdata |>
  extend_exp_duration(
    duration_category_list = list(c(1, NA), c(7, NA), c(28, NA), c(12 * 7, NA), c(24 * 7, NA)),
    duration_category_labels = c(">=1 day", ">=7 days", ">=28 days", ">=12 weeks", ">=24 weeks")
  )
```

---

|                  |                                                 |
|------------------|-------------------------------------------------|
| format_base_char | <i>Format Baseline Characteristics Analysis</i> |
|------------------|-------------------------------------------------|

---

**Description**

Format Baseline Characteristics Analysis

**Usage**

```
format_base_char(  
  outdata,  
  display_col = c("n", "prop", "total"),  
  digits_prop = 1,  
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")  
)
```

**Arguments**

- outdata            A metadata object created by [prepare\\_sl\\_summary\(\)](#).
- display\_col       Column wants to display on the table. The term could be selected from c("n", "prop", "total").
- digits\_prop       Number of digits for proportion columns.
- display\_stat      A vector of statistics term name. The term name could be selected from c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max").

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()  
  
meta |>  
  prepare_base_char(population = "apat", parameter = "age;gender") |>  
  format_base_char()
```

---

format\_base\_char\_subgroup

*Prepare data for Subgroup Analysis for Baseline Characteristic*


---

## Description

Prepare data for Subgroup Analysis for Baseline Characteristic

## Usage

```
format_base_char_subgroup(
  outdata,
  display = c("n", "prop", "total"),
  display_stat = c("mean", "sd", "median", "range"),
  display_total = TRUE
)
```

## Arguments

|               |                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata       | A metadata object created by <a href="#">prepare_base_char_subgroup()</a> .                                                                                                   |
| display       | Column wants to display on the table. The term could be selected from <code>c("n", "prop", "total")</code> . "total" can display the total column for the first level header. |
| display_stat  | A vector of statistics term name. The term name could be selected from <code>c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max")</code> .          |
| display_total | A logic value of displaying the total column for the second level header.                                                                                                     |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_example()

outdata <- prepare_base_char_subgroup(
  meta,
  population = "apat",
  parameter = "age",
  subgroup_var = "TRTA",
  subgroup_header = c("SEX", "TRTA")
)

outdata |> format_base_char_subgroup()
```

---

|                    |                                    |
|--------------------|------------------------------------|
| format_disposition | <i>Format Disposition Analysis</i> |
|--------------------|------------------------------------|

---

## Description

Format Disposition Analysis

## Usage

```
format_disposition(  
  outdata,  
  display_col = c("n", "prop", "total"),  
  digits_prop = 1,  
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")  
)
```

## Arguments

|              |                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata      | A metadata object created by <a href="#">prepare_sl_summary()</a> .                                                                                                  |
| display_col  | Column wants to display on the table. The term could be selected from <code>c("n", "prop", "total")</code> .                                                         |
| digits_prop  | Number of digits for proportion columns.                                                                                                                             |
| display_stat | A vector of statistics term name. The term name could be selected from <code>c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max")</code> . |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_example()  
  
meta |>  
  prepare_disposition(population = "apat", parameter = "disposition;medical-disposition") |>  
  format_disposition()
```

---

|                     |                                          |
|---------------------|------------------------------------------|
| format_exp_duration | <i>Format Exposure Duration Analysis</i> |
|---------------------|------------------------------------------|

---

## Description

Format Exposure Duration Analysis

## Usage

```
format_exp_duration(
  outdata,
  display_col = c("n", "prop", "n_cum", "prop_cum", "total"),
  digits_prop = 1,
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")
)
```

## Arguments

|              |                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata      | A metadata object created by <a href="#">prepare_sl_summary()</a> .                                                                                                                                                                                                                                             |
| display_col  | Column wants to display on the table. "n_cum", "prop_cum" can additionally be selected. <ul style="list-style-type: none"> <li>• n_cum: Number of subjects created by <code>extend_exp_duration()</code>.</li> <li>• prop_cum: Proportion of subjects created by <code>extend_exp_duration()</code>.</li> </ul> |
| digits_prop  | Number of digits for proportion columns.                                                                                                                                                                                                                                                                        |
| display_stat | A vector of statistics term name. The term name could be selected from <code>c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max")</code> .                                                                                                                                            |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_exposure_example()

meta |>
  prepare_exp_duration(population = "apat", parameter = "expdur") |>
  format_exp_duration(display_col = c("n", "prop", "total"))
```

---

|                   |                                                       |
|-------------------|-------------------------------------------------------|
| format_sl_summary | <i>Prepare data for baseline characteristic table</i> |
|-------------------|-------------------------------------------------------|

---

## Description

Prepare data for baseline characteristic table

## Usage

```
format_sl_summary(  
  outdata,  
  display_col = c("n", "prop", "total"),  
  digits_prop = 1,  
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")  
)
```

## Arguments

|              |                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata      | A metadata object created by <a href="#">prepare_sl_summary()</a> .                                                                                                  |
| display_col  | Column wants to display on the table. The term could be selected from <code>c("n", "prop", "total")</code> .                                                         |
| digits_prop  | Number of digits for proportion columns.                                                                                                                             |
| display_stat | A vector of statistics term name. The term name could be selected from <code>c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max")</code> . |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_example()  
  
meta |>  
  prepare_sl_summary(population = "apat", analysis = "base_char", parameter = "age;gender") |>  
  format_sl_summary()
```

---

format\_trt\_compliance *Format Treatment Compliance Analysis*


---

## Description

Format Treatment Compliance Analysis

Format Treatment Compliance Analysis

## Usage

```
format_trt_compliance(
  outdata,
  display_col = c("n", "prop", "total"),
  digits_prop = 1,
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")
)
```

```
format_trt_compliance(
  outdata,
  display_col = c("n", "prop", "total"),
  digits_prop = 1,
  display_stat = c("mean", "sd", "se", "median", "q1 to q3", "range")
)
```

## Arguments

|              |                                                                                                                                                                      |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata      | A metadata object created by <a href="#">prepare_sl_summary()</a> .                                                                                                  |
| display_col  | Column wants to display on the table. The term could be selected from <code>c("n", "prop", "total")</code> .                                                         |
| digits_prop  | Number of digits for proportion columns.                                                                                                                             |
| display_stat | A vector of statistics term name. The term name could be selected from <code>c("mean", "sd", "se", "median", "q1 to q3", "range", "q1", "q3", "min", "max")</code> . |

## Value

A list of analysis raw datasets.

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_example()

meta |>
  prepare_trt_compliance(parameter = "comp8;comp16") |>
  format_trt_compliance()
meta <- meta_sl_example()
```

```
meta |>
  prepare_trt_compliance(population = "apat", parameter = "comp8;comp16") |>
  format_trt_compliance()
```

---

meta\_sl

---

*Create metadata for subject-level analysis table*


---

## Description

Create metadata for subject-level analysis table

## Usage

```
meta_sl(
  dataset_population,
  dataset_observation = NULL,
  population_term,
  observation_term = NULL,
  parameter_term = "age;race;gender",
  parameter_var = "AGE^AGEGR1;RACE;SEX",
  parameter_labels = NULL,
  analysis_term = "base_char",
  analysis_title = "Participant Baseline Characteristics by Treatment Group",
  population_subset = SAFFL == "Y",
  observation_subset = NULL,
  population_label = "All Participants as Treated",
  treatment_group = "TRT01A"
)
```

## Arguments

|                     |                                                                                                                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| dataset_population  | Source dataset of population.                                                                                                                                                                            |
| dataset_observation | Source dataset of observation                                                                                                                                                                            |
| population_term     | A character value of population term name.                                                                                                                                                               |
| observation_term    | A character value of observation term name.                                                                                                                                                              |
| parameter_term      | A character value of parameter term name. If there are multiple terms, they are separated by the semicolon (;).                                                                                          |
| parameter_var       | A character value of parameter variable name. If there are multiple variables, they are separated by the semicolon (;). A group variable can be specified followed by a variable and the hat symbol (^). |

`parameter_labels` A character vector of parameter label name. The length of vector should be the same as the number of parameter terms. A label from an input data is used if NA for a variable is specified.

`analysis_term` A character value of analysis term name.

`analysis_title` A character value of analysis title name.

`population_subset` An unquoted condition for selecting the populations from dataset of population.

`observation_subset` An unquoted condition for selecting the populations from dataset of observation.

`population_label` A character value of population label.

`treatment_group` A character value of treatment group name.

**Value**

A metalite object.

**Examples**

```
meta_sl(
  dataset_population = r2rtf::r2rtf_adsl,
  population_term = "apat",
  parameter_term = "age;race",
  parameter_var = "AGE^AGEGR1;RACE"
)
```

---

`meta_sl_example`

*Create an example meta\_sl\_example object*

---

**Description**

This function is only for illustration purpose. r2rtf is required.

**Usage**

```
meta_sl_example()
```

**Value**

A metadata object.

**Examples**

```
meta_sl_example()
```

---

```
meta_sl_exposure_example
```

*Create an example meta\_sl\_exposure\_example object*

---

### Description

This function is only for illustration purpose. r2rtf is required.

### Usage

```
meta_sl_exposure_example()
```

### Value

A metadata object.

### Examples

```
meta_sl_exposure_example()
```

---

```
plotly_exp_duration
```

*Create an interactive plot for exposure duration*

---

### Description

Create an interactive plot for exposure duration

### Usage

```
plotly_exp_duration(
  outdata,
  color = NULL,
  display = c("n", "prop"),
  display_total = TRUE,
  plot_type_label =
    c("Comparision of Exposure Duration (> = x days) by Treatment Groups",
      "Comparision of Exposure Duration (> = x days and < y days) by Treatment Groups",
      "Comparision by Exposure Duration (> = x days)"),
  plot_group_label = "Treatment group",
  plot_category_label = "Exposure duration",
  hover_summary_var = c("n", "median", "sd", "se", "median", "min", "max", "q1 to q3",
    "range"),
  width = 1000,
  height = 400
)
```

**Arguments**

|                     |                                                                                                                                                                                            |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata             | An outdata object created from <code>prepare_exp_duration()</code> . <code>extend_exp_duration()</code> can also be applied.                                                               |
| color               | Color for a histogram.                                                                                                                                                                     |
| display             | A character vector of display type. <code>n</code> or <code>prop</code> can be selected.                                                                                                   |
| display_total       | A logical value to display total.                                                                                                                                                          |
| plot_type_label     | A character vector of histogram type. The first element is for the standard histogram. The second element is for the stacked histogram. The third element is for the horizontal histogram. |
| plot_group_label    | A label for grouping.                                                                                                                                                                      |
| plot_category_label | A label for category.                                                                                                                                                                      |
| hover_summary_var   | A character vector of statistics to be displayed on hover label of bar.                                                                                                                    |
| width               | Width of the plot.                                                                                                                                                                         |
| height              | Height of the plot.                                                                                                                                                                        |

**Value**

Interactive plot for exposure duration.

**Examples**

```
# Only run this example in interactive R sessions
if (interactive()) {
  meta <- meta_sl_exposure_example()
  outdata <- meta |>
    prepare_exp_duration() |>
    extend_exp_duration(
      duration_category_list = list(c(1, NA), c(7, NA), c(28, NA), c(12 * 7, NA), c(24 * 7, NA)),
      duration_category_labels = c(">=1 day", ">=7 days", ">=28 days", ">=12 weeks", ">=24 weeks")
    )

  outdata |> plotly_exp_duration()
}
```

---

```
prepare_base_char
```

---

```
Prepare data for baseline characteristic table
```

---

**Description**

Prepare data for baseline characteristic table

**Usage**

```
prepare_base_char(
  meta,
  analysis = "base_char",
  population = meta$plan[meta$plan$analysis == analysis, ]$population,
  parameter = paste(meta$plan[meta$plan$analysis == analysis, ]$parameter, collapse =
    ";")
)
```

**Arguments**

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| meta       | A metadata object created by metalite.                                                       |
| analysis   | A character value of analysis term name. The term name is used as key to link information.   |
| population | A character value of population term name. The term name is used as key to link information. |
| parameter  | A character value of parameter term name. The term name is used as key to link information.  |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()
meta |> prepare_base_char()
```

---

```
prepare_base_char_subgroup
```

*Prepare data for treatment compliance table*

---

**Description**

Prepare data for treatment compliance table

**Usage**

```
prepare_base_char_subgroup(
  meta,
  population,
  analysis = "base_char_subgroup",
  parameter,
  subgroup_var,
  subgroup_header = c(meta$population[[population]]$group, subgroup_var)
)
```

**Arguments**

|                 |                                                                                                                                                      |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| meta            | A metadata object created by metalite.                                                                                                               |
| population      | A character value of population term name. The term name is used as key to link information.                                                         |
| analysis        | A character value of analysis term name. The term name is used as key to link information.                                                           |
| parameter       | A character value of parameter term name. The term name is used as key to link information.                                                          |
| subgroup_var    | A character value of subgroup variable name in observation data saved in meta\$data_observation.                                                     |
| subgroup_header | A character vector for column header hierarchy. The first element will be the first level header and the second element will be second level header. |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()
outdata <- prepare_base_char_subgroup(
  meta,
  population = "apat",
  parameter = "age",
  subgroup_var = "TRTA",
  subgroup_header = c("SEX", "TRTA")
)
```

---

|                     |                                                    |
|---------------------|----------------------------------------------------|
| prepare_disposition | <i>Prepare data for treatment compliance table</i> |
|---------------------|----------------------------------------------------|

---

**Description**

Prepare data for treatment compliance table

**Usage**

```
prepare_disposition(
  meta,
  analysis = "disp",
  population = meta$plan[meta$plan$analysis == analysis, ]$population,
  parameter = paste(meta$plan[meta$plan$analysis == analysis, ]$parameter, collapse =
    ";")
)
```

**Arguments**

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| meta       | A metadata object created by metalite.                                                       |
| analysis   | A character value of analysis term name. The term name is used as key to link information.   |
| population | A character value of population term name. The term name is used as key to link information. |
| parameter  | A character value of parameter term name. The term name is used as key to link information.  |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()
meta |> prepare_base_char()
```

---

prepare\_exp\_duration    *Prepare data for exposure duration table*

---

**Description**

Prepare data for exposure duration table

**Usage**

```
prepare_exp_duration(
  meta,
  analysis = "exp_dur",
  population = meta$plan[meta$plan$analysis == analysis, ]$population,
  parameter = paste(meta$plan[meta$plan$analysis == analysis, ]$parameter, collapse =
    ";")
)
```

**Arguments**

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| meta       | A metadata object created by metalite.                                                       |
| analysis   | A character value of analysis term name. The term name is used as key to link information.   |
| population | A character value of population term name. The term name is used as key to link information. |
| parameter  | A character value of parameter term name. The term name is used as key to link information.  |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_exposure_example()
meta |> prepare_exp_duration()
```

---

|                    |                                                       |
|--------------------|-------------------------------------------------------|
| prepare_sl_summary | <i>Prepare data for baseline characteristic table</i> |
|--------------------|-------------------------------------------------------|

---

**Description**

Prepare data for baseline characteristic table

**Usage**

```
prepare_sl_summary(
  meta,
  population,
  analysis,
  parameter = paste(names(meta$parameter), collapse = ";")
)
```

**Arguments**

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| meta       | A metadata object created by metalite.                                                       |
| population | A character value of population term name. The term name is used as key to link information. |
| analysis   | A character value of analysis term name. The term name is used as key to link information.   |
| parameter  | A character value of parameter term name. The term name is used as key to link information.  |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()
meta |> prepare_sl_summary(population = "apat", analysis = "base_char")
```

---

`prepare_trt_compliance`*Prepare data for treatment compliance table*

---

## Description

Prepare data for treatment compliance table

## Usage

```
prepare_trt_compliance(  
  meta,  
  analysis = "trt_compliance",  
  population = meta$plan[meta$plan$analysis == analysis, ]$population,  
  parameter = paste(meta$plan[meta$plan$analysis == analysis, ]$parameter, collapse =  
    ";")  
)
```

## Arguments

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| <code>meta</code>       | A metadata object created by metalite.                                                       |
| <code>analysis</code>   | A character value of analysis term name. The term name is used as key to link information.   |
| <code>population</code> | A character value of population term name. The term name is used as key to link information. |
| <code>parameter</code>  | A character value of parameter term name. The term name is used as key to link information.  |

## Value

A list of analysis raw datasets.

## Examples

```
meta <- meta_sl_example()  
meta |> prepare_trt_compliance()
```

---

|                 |                                                                                     |
|-----------------|-------------------------------------------------------------------------------------|
| react_base_char | <i>Display interactive baseline characteristic tables with AE subgroup analysis</i> |
|-----------------|-------------------------------------------------------------------------------------|

---

## Description

Display interactive baseline characteristic tables with AE subgroup analysis

## Usage

```
react_base_char(
  metadata_sl,
  metadata_ae,
  population = "apat",
  observation = "wk12",
  display_total = TRUE,
  sl_parameter = "age;gender;race",
  ae_subgroup = c("gender", "race"),
  ae_specific = "rel",
  width = 1200
)
```

## Arguments

|               |                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------|
| metadata_sl   | A metadata created by metalite, which builds the baseline characteristic table                                                    |
| metadata_ae   | A metadata created by metalite, which builds the AE subgroup specific table                                                       |
| population    | A character value of population term name. The term name is used as key to link information.                                      |
| observation   | A character value of observation term name. The term name is used as key to link information.                                     |
| display_total | Display total column or not.                                                                                                      |
| sl_parameter  | A character value of parameter term name for the baseline characteristic table. The term name is used as key to link information. |
| ae_subgroup   | A vector of strubf to specify the subgroups in the AE subgroup specific table.                                                    |
| ae_specific   | A string specifying the AE specific category.                                                                                     |
| width         | A numeric value of width of the table in pixels.                                                                                  |

## Value

An reactable combing both baseline characteristic table and AE subgroup specific tables.

**Examples**

```

if (interactive()) {
  react_base_char(
    metadata_sl = meta_sl_example(),
    metadata_ae = metalite.ae::meta_ae_example(),
    population = "apat",
    observation = "wk12",
    display_total = TRUE,
    sl_parameter = "age;gender;race",
    ae_subgroup = c("age", "race", "gender"),
    ae_specific = "rel",
    width = 1200
  )
}

```

---

|                   |                                                                         |
|-------------------|-------------------------------------------------------------------------|
| react_disposition | <i>Display interactive disposition tables with AE subgroup analysis</i> |
|-------------------|-------------------------------------------------------------------------|

---

**Description**

Display interactive disposition tables with AE subgroup analysis

**Usage**

```

react_disposition(
  metadata_sl,
  metadata_ae,
  analysis = "disp",
  trtvar = metalite::collect_adam_mapping(metadata_sl, population)$group,
  population = metadata_sl$plan$population[metadata_sl$plan$analysis == analysis],
  sl_parameter = paste(metadata_sl$plan$parameter[metadata_sl$plan$analysis == analysis],
    collapse = ";"),
  sl_col_selected = c("siteid", "subjid", "sex", "age", "weightbl"),
  sl_col_names = c("Site", "Subject ID", "Sex", "Age (Year)", "Weight (kg)"),
  ae_observation = "wk12",
  ae_population = population,
  ae_col_selected = c("AESOC", "ASTDT", "AENDT", "AETERM", "duration", "AESEV", "AESER",
    "related", "AEACN", "AEOUT"),
  ae_col_names = c("SOC", "Onset Date", "End Date", "AE", "Duraion", "Intensity",
    "Serious", "Related", "Action Taken", "Outcome"),
  display_total = TRUE,
  width = 1200
)

```

**Arguments**

metadata\_sl      A metadata created by metalite, which builds the baseline characteristic table

|                 |                                                                                                                                   |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------|
| metadata_ae     | A metadata created by metalite, which builds the AE subgroup specific table                                                       |
| analysis        | The analysis label provided in metadata_sl.                                                                                       |
| trtvar          | A character that indicate variable for the treatment group.                                                                       |
| population      | A character value of population term name. The term name is used as key to link information.                                      |
| sl_parameter    | A character value of parameter term name for the baseline characteristic table. The term name is used as key to link information. |
| sl_col_selected | A character vector of variable which will be shown in the participant detail.                                                     |
| sl_col_names    | A character vector for the columns names of the participant detail. Same length as sl_col_selected.                               |
| ae_observation  | The meta parameter of the observation in adverse event listing.                                                                   |
| ae_population   | The meta parameter of the population in adverse event listing.                                                                    |
| ae_col_selected | A character vector of variable which will be shown in the AE detail.                                                              |
| ae_col_names    | A character vector for the columns names of the AE detail. Same length as ae_col_selected.                                        |
| display_total   | Display total column or not.                                                                                                      |
| width           | A numeric value of width of the table in pixels.                                                                                  |

### Value

An reactable combing both baseline characteristic table and AE subgroup specific tables.

### Examples

```
if (interactive()) {
  react_disposition(
    metadata_sl = meta_sl_example(),
    metadata_ae = metalite.ae::meta_ae_example()
  )
}
```

---

rtf\_base\_char

*Baseline characteristic table*


---

### Description

Baseline characteristic table

**Usage**

```
rtf_base_char(
  outdata,
  source,
  col_rel_width = NULL,
  text_font_size = 9,
  orientation = "portrait",
  footnotes = NULL,
  title = NULL,
  path_outdata = NULL,
  path_outtable = NULL
)
```

**Arguments**

|                |                                                                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata        | An outdata object created by <code>prepare_sl_summary()</code> .                                                                                               |
| source         | A character value of the data source.                                                                                                                          |
| col_rel_width  | Column relative width in a vector e.g. <code>c(2,1,1)</code> refers to 2:1:1. Default is NULL for equal column width.                                          |
| text_font_size | Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. <code>c(9,20,40)</code> . |
| orientation    | Orientation in 'portrait' or 'landscape'.                                                                                                                      |
| footnotes      | A character vector of table footnotes.                                                                                                                         |
| title          | Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.                                    |
| path_outdata   | A character string of the outdata path.                                                                                                                        |
| path_outtable  | A character string of the outtable path.                                                                                                                       |

**Value**

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()

meta |>
  prepare_base_char(
    population = "apat",
    analysis = "base_char",
    parameter = "age;gender"
  ) |>
  format_base_char() |>
  rtf_base_char(
    source = "Source: [CDISCpilot: adam-adsl]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )
```

---

rtf\_base\_char\_subgroup

*Subgroup Analysis for Baseline Characteristic*


---

## Description

Subgroup Analysis for Baseline Characteristic

## Usage

```
rtf_base_char_subgroup(
  outdata,
  source,
  col_rel_width = NULL,
  text_font_size = 8,
  orientation = "landscape",
  footnotes = NULL,
  title = NULL,
  path_outdata = NULL,
  path_outtable = NULL
)
```

## Arguments

|                |                                                                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata        | An outdata object created by <a href="#">prepare_base_char_subgroup()</a>                                                                        |
| source         | A character value of the data source.                                                                                                            |
| col_rel_width  | Column relative width in a vector e.g. c(2,1,1) refers to 2:1:1. Default is NULL for equal column width.                                         |
| text_font_size | Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. c(9,20,40). |
| orientation    | Orientation in 'portrait' or 'landscape'.                                                                                                        |
| footnotes      | A character vector of table footnotes.                                                                                                           |
| title          | Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.                      |
| path_outdata   | A character string of the outdata path.                                                                                                          |
| path_outtable  | A character string of the outtable path.                                                                                                         |

## Value

RTF file and source dataset for baseline characteristic table.

**Examples**

```

meta <- meta_sl_example()

outdata <- prepare_base_char_subgroup(
  meta,
  population = "apat",
  parameter = "age",
  subgroup_var = "TRTA",
  subgroup_header = c("SEX", "TRTA")
)

outdata |>
  format_base_char_subgroup() |>
  rtf_base_char_subgroup(
    source = "Source: [CDISCpilot: adam-ads1]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )

```

---

|                 |                          |
|-----------------|--------------------------|
| rtf_disposition | <i>Disposition table</i> |
|-----------------|--------------------------|

---

**Description**

Disposition table

**Usage**

```

rtf_disposition(
  outdata,
  source,
  col_rel_width = NULL,
  text_font_size = 9,
  orientation = "portrait",
  footnotes = NULL,
  title = NULL,
  path_outdata = NULL,
  path_outtable = NULL
)

```

**Arguments**

|               |                                                                                                          |
|---------------|----------------------------------------------------------------------------------------------------------|
| outdata       | An outdata object created by <a href="#">prepare_sl_summary()</a> .                                      |
| source        | A character value of the data source.                                                                    |
| col_rel_width | Column relative width in a vector e.g. c(2,1,1) refers to 2:1:1. Default is NULL for equal column width. |

**text\_font\_size** Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. `c(9,20,40)`.  
**orientation** Orientation in 'portrait' or 'landscape'.  
**footnotes** A character vector of table footnotes.  
**title** Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.  
**path\_outdata** A character string of the outdata path.  
**path\_outtable** A character string of the outtable path.

### Value

A list of analysis raw datasets.

### Examples

```

meta <- meta_sl_example()

meta |>
  prepare_disposition(population = "apat", parameter = "disposition;medical-disposition") |>
  format_disposition() |>
  rtf_disposition(
    source = "Source: [CDISCpilot: adam-adsl]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )

```

---

|                  |                                |
|------------------|--------------------------------|
| rtf_exp_duration | <i>Exposure duration table</i> |
|------------------|--------------------------------|

---

### Description

Exposure duration table

### Usage

```

rtf_exp_duration(
  outdata,
  source = "Source: [CDISCpilot: adam-adsl; adex]",
  col_rel_width = NULL,
  text_font_size = 9,
  orientation = "portrait",
  footnotes =
    c("Each participant is counted once on each applicable duration category row.",
      "Duration of Exposure is the time from the first dose date to the last dose date."),
  title = NULL,
  path_outdata = NULL,
  path_outtable = NULL
)

```

**Arguments**

|                |                                                                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata        | An outdata object created by <code>prepare_sl_summary()</code> .                                                                                               |
| source         | A character value of the data source.                                                                                                                          |
| col_rel_width  | Column relative width in a vector e.g. <code>c(2,1,1)</code> refers to 2:1:1. Default is NULL for equal column width.                                          |
| text_font_size | Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. <code>c(9,20,40)</code> . |
| orientation    | Orientation in 'portrait' or 'landscape'.                                                                                                                      |
| footnotes      | A character vector of table footnotes.                                                                                                                         |
| title          | Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.                                    |
| path_outdata   | A character string of the outdata path.                                                                                                                        |
| path_outtable  | A character string of the outtable path.                                                                                                                       |

**Value**

RTF file and source dataset for baseline characteristic table.

**Examples**

```
meta <- meta_sl_exposure_example()

meta |>
  prepare_exp_duration(population = "apat", parameter = "expdur") |>
  format_exp_duration(display_col = c("n", "prop", "total")) |>
  rtf_exp_duration(
    source = "Source: [CDISCpilot: adam-adsl; adex]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )
```

---

rtf\_sl\_summary

*Baseline characteristic table*


---

**Description**

Baseline characteristic table

**Usage**

```
rtf_sl_summary(
  outdata,
  source,
  col_rel_width = NULL,
  text_font_size = 9,
```

```

orientation = "portrait",
footnotes = NULL,
title = NULL,
path_outdata = NULL,
path_outtable = NULL
)

```

## Arguments

|                |                                                                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata        | An outdata object created by <code>prepare_sl_summary()</code> .                                                                                               |
| source         | A character value of the data source.                                                                                                                          |
| col_rel_width  | Column relative width in a vector e.g. <code>c(2,1,1)</code> refers to 2:1:1. Default is NULL for equal column width.                                          |
| text_font_size | Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. <code>c(9,20,40)</code> . |
| orientation    | Orientation in 'portrait' or 'landscape'.                                                                                                                      |
| footnotes      | A character vector of table footnotes.                                                                                                                         |
| title          | Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.                                    |
| path_outdata   | A character string of the outdata path.                                                                                                                        |
| path_outtable  | A character string of the outtable path.                                                                                                                       |

## Value

RTF file and source dataset for baseline characteristic table.

## Examples

```

meta <- meta_sl_example()

meta |>
  prepare_sl_summary(
    population = "apat",
    analysis = "base_char",
    parameter = "age;gender"
  ) |>
  format_sl_summary() |>
  rtf_sl_summary(
    source = "Source: [CDISCpilot: adam-adsl]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )

```

---

|                    |                                   |
|--------------------|-----------------------------------|
| rtf_trt_compliance | <i>Treatment compliance table</i> |
|--------------------|-----------------------------------|

---

## Description

Treatment compliance table

## Usage

```
rtf_trt_compliance(
  outdata,
  source,
  col_rel_width = NULL,
  text_font_size = 9,
  orientation = "portrait",
  footnotes = NULL,
  title = NULL,
  path_outdata = NULL,
  path_outtable = NULL
)
```

## Arguments

|                |                                                                                                                                                  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| outdata        | An outdata object created by <a href="#">prepare_sl_summary()</a> .                                                                              |
| source         | A character value of the data source.                                                                                                            |
| col_rel_width  | Column relative width in a vector e.g. c(2,1,1) refers to 2:1:1. Default is NULL for equal column width.                                         |
| text_font_size | Text font size. To vary text font size by column, use numeric vector with length of vector equal to number of columns displayed e.g. c(9,20,40). |
| orientation    | Orientation in 'portrait' or 'landscape'.                                                                                                        |
| footnotes      | A character vector of table footnotes.                                                                                                           |
| title          | Term "analysis", "observation" and "population") for collecting title from meta-data or a character vector of table titles.                      |
| path_outdata   | A character string of the outdata path.                                                                                                          |
| path_outtable  | A character string of the outtable path.                                                                                                         |

## Value

A list of analysis raw datasets.

**Examples**

```
meta <- meta_sl_example()

meta |>
  prepare_trt_compliance(population = "apat", parameter = "comp8;comp16") |>
  format_trt_compliance() |>
  rtf_trt_compliance(
    source = "Source: [CDISCpilot: adam-adsl]",
    path_outdata = tempfile(fileext = ".Rdata"),
    path_outtable = tempfile(fileext = ".rtf")
  )
```

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