

# Package ‘boxly’

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**Title** Interactive Box Plot

**Version** 0.1.1

**Description** Interactive box plot using 'plotly' for clinical trial analysis.

**License** GPL (>= 3)

**URL** <https://merck.github.io/boxly/>, <https://github.com/Merck/boxly>

**BugReports** <https://github.com/Merck/boxly/issues>

**Encoding** UTF-8

**LazyData** true

**Depends** R (>= 4.1.0)

**Imports** DT, brew, rlang, crosstalk, ggplot2, htmlwidgets, htmltools,  
metalite, plotly, uuid

**Suggests** covr, knitr, rmarkdown, testthat (>= 3.0.0)

**VignetteBuilder** knitr

**Config/testthat/edition** 3

**RoxygenNote** 7.2.3

**NeedsCompilation** no

**Author** Benjamin Wang [aut, cre],  
Yujie Zhao [aut],  
Yilong Zhang [ctb],  
Nan Xiao [ctb],  
Hiroaki Fukuda [ctb],  
Sarad Nepal [ctb],  
Madhusudhan Ginnaram [ctb],  
Venkatesh Burla [ctb],  
Merck Sharp & Dohme Corp [cph]

**Maintainer** Benjamin Wang <benjamin.wang@merck.com>

**Repository** CRAN

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|       |                                       |
|-------|---------------------------------------|
| boxly | <i>Create an interactive box plot</i> |
|-------|---------------------------------------|

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Description

Create an interactive box plot

Usage

```
boxly(  
  outdata,  
  color = NULL,  
  hover_summary_var = c("n", "min", "q1", "median", "mean", "q3", "max"),  
  hover_outlier_label = c("Participant Id", "Parameter value"),  
  x_label = "Visit",  
  y_label = "Change",  
  heading_select_list = "Lab parameter",  
  heading_summary_table = "Number of Participants"  
)
```

Arguments

- outdata            An outdata object created from prepare\_ae\_forestly().
- color             Color for box plot.
- hover\_summary\_var            A character vector of statistics to be displayed on hover label of box.
- hover\_outlier\_label           A character vector of hover label for outlier.
- x\_label            x-axis label.
- y\_label            y-axis label.
- heading\_select\_list           Select list menu label.
- heading\_summary\_table        Summary table label.

**Value**

Interactive box plot.

**Examples**

```
# Only run this example in interactive R sessions
if (interactive()) {
  library(metalite)

  meta_boxly(
    boxly_adsl,
    boxly_adlb,
    population_term = "apat",
    observation_term = "wk12"
  ) |>
  prepare_boxly() |>
  boxly()
}
```

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boxly\_adeq

*An example ADEG dataset*

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**Description**

Definition of each variable can be found in <https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

**Usage**

boxly\_adeq

**Format**

A data frame with 32139 and 35 variables:

**Source**

<https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

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|            |                                |
|------------|--------------------------------|
| boxly_adlb | <i>An example ADLB dataset</i> |
|------------|--------------------------------|

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**Description**

Definition of each variable can be found in <https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

**Usage**

boxly\_adlb

**Format**

A data frame with 24746 and 24 variables:

**Source**

<https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

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|            |                                            |
|------------|--------------------------------------------|
| boxly_adsl | <i>A Subject Level Demographic Dataset</i> |
|------------|--------------------------------------------|

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**Description**

A dataset containing the demographic information of a clinical trial following CDISC ADaM standard.

**Usage**

boxly\_adsl

**Format**

A data frame with 254 rows and 51 variables.

**Details**

Definition of each variable can be found in <https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

**Source**

<https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

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|           |                                |
|-----------|--------------------------------|
| boxly_adv | <i>An example ADVS dataset</i> |
|-----------|--------------------------------|

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**Description**

Definition of each variable can be found in <https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

**Usage**

```
boxly_adv
```

**Format**

A data frame with 32139 and 34 variables:

**Source**

<https://github.com/phuse-org/phuse-scripts/tree/master/data/adam/cdisc>

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|            |                                          |
|------------|------------------------------------------|
| meta_boxly | <i>Create an example metadata object</i> |
|------------|------------------------------------------|

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**Description**

Create an example metadata object

**Usage**

```
meta_boxly(  
  dataset_adsl,  
  dataset_param,  
  population_term,  
  population_subset = SAFFL == "Y",  
  observation_term,  
  observation_subset = SAFFL == "Y",  
  parameters = unique(dataset_param$PARAMCD)  
)
```

**Arguments**

|                    |                                                                                  |
|--------------------|----------------------------------------------------------------------------------|
| dataset_adsl       | ADSL source dataset.                                                             |
| dataset_param      | Observation level source dataset for boxplot.                                    |
| population_term    | A character value of population term name.                                       |
| population_subset  | An unquoted condition for selecting the populations from ADSL dataset.           |
| observation_term   | A character value of observation term name.                                      |
| observation_subset | An unquoted condition for selecting the observations from dataset_param dataset. |
| parameters         | A chracter vector of parameters defined in dataset_param\$PARAMCD                |

**Value**

A metalite object.

**Examples**

```
meta_boxly(
  boxly_adsl,
  boxly_adlb,
  population_term = "apat",
  observation_term = "wk12"
)
```

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|               |                                              |
|---------------|----------------------------------------------|
| prepare_boxly | <i>Prepare data for interactive box plot</i> |
|---------------|----------------------------------------------|

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**Description**

Prepare data for interactive box plot

**Usage**

```
prepare_boxly(meta, population = NULL, observation = NULL, analysis = NULL)
```

**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.  |
| observation | A character value of observation 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.    |

**Value**

Metadata list with plotting dataset.

Metadata list with plotting dataset

**Examples**

```
library(metalite)

meta <- meta_boxly(
  boxly_adsl,
  boxly_adlb,
  population_term = "apat",
  observation_term = "wk12"
)
prepare_boxly(meta)
```

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