

# Package ‘boxly’

June 12, 2026

**Title** Interactive Box Plot

**Version** 0.1.2

**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** 7.3.3

**NeedsCompilation** no

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**Date/Publication** 2026-06-12 15:20:09 UTC

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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 <code>prepare_ae_forestly()</code> .
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. A label from an input data is used if NA for a variable is specified.
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_ads1,
    boxly_ad1b,
    population_term = "apat",
    observation_term = "wk12"
  ) |>
  prepare_boxly() |>
  boxly()
}
```

---

boxly\_adeq

*An example ADEG dataset*

---

**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 character 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"
)
```

---

<code>prepare_boxly</code>	<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,
  filter_var = "PARAM",
  hover_var_outlier = c("USUBJID", metalite::collect_adam_mapping(meta, analysis)$y)
)
```

**Arguments**

<code>meta</code>	A metadata object created by <code>metalite</code> .
<code>population</code>	A character value of population term name. The term name is used as key to link information.
<code>observation</code>	A character value of observation term name. The term name is used as key to link information.
<code>analysis</code>	A character value of analysis term name. The term name is used as key to link information.
<code>filter_var</code>	A character value of variable name used for filtering. Default is "PARAM".
<code>hover_var_outlier</code>	A character vector of hover variables for outlier.

**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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