

# Package: **htmlreportR** (via r-universe)

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**Title** 'HTML' Reporting Made Simple(R)

**Version** 1.0.0

**Description** Create compressed, interactive 'HTML' (Hypertext Markup Language) reports with embedded 'Python' code, custom 'JS' ('JavaScript') and 'CSS' (Cascading Style Sheets), and wrappers for 'CanvaXpress' plots, networks and more. Based on <https://pypi.org/project/py-report-html/>, its sister project.

**License** GPL (>= 3)

**Encoding** UTF-8

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**Depends** R (>= 3.5.0)

**Imports** methods, mime, ggplot2, knitr, xfun, grDevices, utils,  
jsonlite

**Suggests** testthat (>= 3.0.0)

**Config/testthat/edition** 3

**URL** <https://github.com/AEstepanMar/htmlreportR>

**BugReports** <https://github.com/AEstepanMar/htmlreportR/issues>

**NeedsCompilation** no

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**RemoteUrl** <https://github.com/aestebanmar/htmlreportr>

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add\_header\_row\_names *Add Header and Row Names to Data Frame for HTML Report table*

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### Description

This function modifies a data frame to include specific column and row names.

### Arguments

`data_frame`      The data frame to be modified.

`options`          A list of options controlling the modification of column and row names.

**Details**

Add Header and Row Names to Data Frame for HTML Report table

This function checks the options provided and manipulates the column and row names of the input data frame accordingly. If the 'header' option is set to true, it assigns the first row of the data frame as column names and removes that row from the data frame. If the 'row\_names' option is true, it assigns the first column of the data frame as row names and removes that column from the data frame. If either option is not true, it assigns sequential numbers as column or row names, respectively.

**Value**

The modified data frame with updated column and/or row names.

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barplot-htmlReport-method

*Build CanvasXpress barplot from R data frame*

---

**Description**

Loads data frame and CanvasXpress options for barplot, then calls canvasXpress\_main to build it.

**Arguments**

options            list with options.

**Details**

CanvasXpress barplot

**Value**

HTML code for CanvasXpress bar plot of data.

---

build-htmlReport-method

*Build HTML report from template*

---

**Description**

This function builds an HTML report from a given template file for an object of class "htmlReport".

**Arguments**

template            A character string specifying the file path of the template.

**Details**

Build HTML report from template

This function reads the contents of the template file, sets up Knitr options for rendering, renders the template using Knitr, and constructs the HTML report by combining the rendered template with the existing report content in the "htmlReport" object.

**Value**

A new instance of the htmlreportR class

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build_body	<i>Build HTML Report Body</i>
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**Description**

This method builds the body of an HTML report by appending the specified body text to an htmlReport object.

**Arguments**

body\_text      A character string containing the body text to be appended to the HTML report.

**Details**

Build HTML Report Body

**Value**

An updated htmlReport object with the specified body text appended to its body.

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compress_data	<i>encode and compress data json</i>
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**Description**

compress\_data

**Arguments**

data            string indicating object id

**Value**

encoded and compressed json

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concat	<i>Custom addition operator for combining htmlReport objects</i>
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---

**Description**

This function defines a custom addition operator for combining two strings.

**Arguments**

value            An object of any type that can be coerced to character.

**Details**

Custom addition operator for combining htmlReport objects

**Value**

An object of class "htmlReport" with an updated @all\_report which includes at the end the "value" string.

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density-htmlReport-method	<i>Build CanvasXpress density plot from R data frame</i>
---------------------------	--

---

**Description**

Loads data frame and CanvasXpress options for density plot, then calls canvasXpress\_main to build it.

**Arguments**

options            list with options.

**Details**

CanvasXpress density plot

**Value**

HTML code for CanvasXpress density plot of data.

---

extract_data	<i>Retrieve Data from htmlReport Object</i>
--------------	---

---

**Description**

This method retrieves data from an htmlReport object based on specified options.

**Arguments**

options            A list containing options for data retrieval.

**Details**

Retrieve Data from htmlReport Object

**Value**

A list containing the retrieved data and additional information.

---

get_data	<i>Retrieve Data from htmlReport Object</i>
----------	---

---

**Description**

This method retrieves data from an htmlReport object based on specified options.

**Arguments**

options            A list containing options for data retrieval.

**Value**

A list containing the retrieved data and additional information.

---

get_data_for_plot	<i>Get Data for Plotting from htmlReport Object</i>
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---

**Description**

This method retrieves data suitable for plotting from an `htmlReport` object based on specified options.

**Arguments**

options	A list containing options for data retrieval.
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**Details**

Get Data for Plotting from `htmlReport` Object

**Value**

A list containing the retrieved data, attributes, samples, and variables.

---

get_plot	<i>Get Plot from htmlReport Object</i>
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---

**Description**

This method generates and retrieves a plot from an `htmlReport` object. This code writes the plot to a temporal png, then it loads the png in base64 encoding and then displays the plot within the HTML report.

**Arguments**

plot_obj	A plot object like <code>ggplot</code> .
width	plot width
height	plot height
size_unit	units in plot size
img_properties	string including html properties of <code>img</code>
resizable	logical indicating if plot must be resizable

**Details**

Get Plot from `htmlReport` Object

**Value**

Displays the plot within the HTML report.

get\_plot\_data

*Get js Plot from canvasxpress\_obj Object*

---

**Description**

get\_plot\_data

**Arguments**

object\_id      string indicating object id

cvXpress      vanvasXpress\_obj object

**Value**Displays the js code for plot.

---

line-htmlReport-method

*Build CanvasXpress line plot from R data frame*

---

**Description**

Loads data frame and CanvasXpress options for line plot, then calls canvasXpress\_main to build it.

**Arguments**

options      list with options.

**Details**

CanvasXpress line plot

**Value**

HTML code for CanvasXpress line plot of data.



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main_htmlreportR	<i>Build report by loading files from disk and rendering template.</i>
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---

## Description

Main htmlreportR script mode function. Renders a template,

## Usage

```
main_htmlreportR(options)
```

## Arguments

options            list containing all necessary elements to build an htmlReport instance.

## Details

Main htmlreportR scripting function

## Value

None

## Examples

```
## Not run:
options <- list(title = "main_htmlreportR example",
  data_files = "path/to/file1", "path/to/fileN",
  output_file = "path/to/output",
  source_folder = "path/to/package/scripts",
  compress_obj = TRUE,
  css_files = "path/to/custom/css",
  js_files = "path/to/custom/js",
  cdn_css = "path/to/cdn_css",
  cdn_js = "path/to/cdn_js",
  menu = "menu")
main_htmlreportR (options)

## End(Not run)
```

---

 make\_head

*Make HTML Report Head*


---

### Description

This method generates the head section of an HTML report by adding the title to an `htmlReport` object.

### Details

Make HTML Report Head

### Value

An updated `htmlReport` object with the title added to its head section.

---

 parse\_data\_frame-htmlReport-method

*Print data frame in HTML format*


---

### Description

Parses a data frame included in an object of class "htmlReport" and HTML table to include it in `htmlreportR`

### Arguments

<code>data_frame</code>	Data frame to parse
<code>options</code>	list with options
<code>table_id</code>	An integer. Table id in report
<code>row_names</code>	A boolean. <ul style="list-style-type: none"> <li>• TRUE (the default): Parse data frame row names as a column of the HTML table.</li> <li>• FALSE (the default): Do not parse data frame row names.</li> </ul>

### Details

Parse data frame to HTML

### Value

A table in html format.

---

 scatter2D-htmlReport-method

*Build CanvasXpress scatter2D plot from R data frame*


---

### Description

Loads data frame and CanvasXpress options for scatter2D plot, then calls canvasXpress\_main to build it.

### Arguments

options            list with options.

### Details

CanvasXpress scatter2D plot

### Value

HTML code for CanvasXpress scatter2D plot of data.

---

 static\_ggplot\_main-htmlReport-method

*Generate static ggplot for HTML report*


---

### Description

This function generates a static ggplot for inclusion in an HTML report for an object of class "html-Report".

### Arguments

id	A character string specifying the identifier for the element of hash_vars that is taken.
header	Logical, indicating whether the dataset has a header row.
row_names	Logical, indicating whether to include row names.
transpose	Logical, indicating whether to transpose the dataset.
smp_attr	A list of attributes for samples.
var_attr	A list of attributes for variables.
fields	A character vector specifying fields to include in the ggplot.
func	A function to preprocess data before plotting.
plotting_function	A function used for generating the ggplot.

text	Logical, indicating whether to convert table to text or a vector indicating the numeric fields.
width	plot width
height	plot height
size_unit	units in plot size
img_properties	string including html properties of img
resizable	logical indicating if plot must be resizable

### Details

Generate static ggplot for HTML report

This function generates a static ggplot based on the provided data and plot specifications. It first defines a wrapper function for ggplot generation, then calls the `static_plot_main` function to generate the plot and include it in the HTML report object.

---

static\_plot\_main-htmlReport-method

*Generate static plot for HTML report*

---

### Description

This function generates a static plot for inclusion in an HTML report for an object of class "html-Report".

### Arguments

id	A character string specifying the identifier for the plot included in hash_vars.
header	Logical, indicating whether the dataset has a header row.
row_names	Logical, indicating whether to include row names.
transpose	Logical, indicating whether to transpose the dataset.
smp_attr	A list of attributes for samples.
var_attr	A list of attributes for variables.
fields	A character vector specifying the fields to include in the plot.
func	A function to preprocess data before plotting.
plotting_function	A function used for generating the plot.
text	Logical, indicating whether to convert table to text or a vector indicating the numeric fields.
custom_format	Logical, indicating if id correspond to a table or a custom object
width	plot width
height	plot height
size_unit	units in plot size
img_properties	string including html properties of img
resizable	logical indicating if plot must be resizable
classic_R_plot	logical indicating if is using classic plot() R function

**Details**

Generate static plot for HTML report

This function generates a static plot based on the provided data and plot specifications. It first retrieves the data frame for plotting using the provided options, preprocesses the data if a preprocessing function is specified, generates the plot using the provided plotting function, and then adds the plot to the HTML report object.

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write\_report-htmlReport-method

*Write HTML Report*

---

**Description**

This method writes the HTML report generated by an `htmlReport` object to a specified output file path.

**Arguments**

`output_path` A character string specifying the output file path for the HTML report.

**Details**

Write HTML Report

**Value**

Writes the HTML report to the specified output file path and removes temporary files.

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