

# Package ‘repr’

November 7, 2018

**Title** Serializable Representations

**Version** 0.17

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**Description** String and binary representations of objects for several formats /  
mime types.

**Depends** R (>= 3.0.1)

**Imports** utils, grDevices, htmltools, base64enc

**Suggests** methods, highr, Cairo, stringr, testthat, leaflet

**Enhances** data.table, dplyr, htmlwidgets

**License** GPL-3

**LazyData** true

**Encoding** UTF-8

**Collate** 'generics.r' 'options.r' 'package.r' 'repr\_datatable.r'  
'utils.r' 'repr\_list.r' 'repr\_vector.r' 'repr\_factor.r'  
'repr\_function.r' 'repr\_help\_files\_with\_topic.r'  
'repr\_htmlwidget.r' 'repr\_matrix\_df.r' 'repr\_packageIQR.r'  
'repr\_recordedplot.r'

**RoxygenNote** 6.1.0

**NeedsCompilation** no

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**Repository** CRAN

**Date/Publication** 2018-11-07 14:30:03 UTC

**R topics documented:**

repr-package . . . . .	2
*2repr . . . . .	3
repr . . . . .	3
repr-generics . . . . .	4
repr-options . . . . .	5
repr_*.data.table . . . . .	6
repr_*.factor . . . . .	7
repr_*.function . . . . .	7
repr_*.help_files_with_topic . . . . .	8
repr_*.htmlwidget . . . . .	8
repr_*.list . . . . .	10
repr_*.matrix/data.frame . . . . .	10
repr_*.packageIQR . . . . .	11
repr_*.recordedplot . . . . .	12
repr_*.vector . . . . .	13
repr_text . . . . .	15
<b>Index</b>	<b>16</b>

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repr-package	<i>The repr package</i>
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**Description**

The repr package

**Details**

The LaTeX repr of vectors needs `\usepackage[inline]{enumitem}`

The LaTeX repr of functions with the `repr.function.highlight` option set to `FALSE` needs `\usepackage{minted}`

**See Also**

[repr](#), [repr-options](#), [repr-generics](#), [repr\\_text](#)

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*2repr	<i>Lists mapping mime types (mime2repr) or format names (format2repr) to repr functions</i>
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### Description

Lists mapping mime types (mime2repr) or format names (format2repr) to repr functions

### Usage

mime2repr

format2repr

### Format

Lists of length 10 mapping mime/name to function

### Examples

```
names(mime2repr)
names(format2repr)
```

---

repr	<i>Dynamic representation</i>
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---

### Description

Specify an object and a format to represent it in. Will [stop\(\)](#) if no such format is known.

### Usage

```
repr(obj, format = "text", ...)
```

### Arguments

obj	The object to create a representation for
format	The representation format. <code>repr_&lt;format&gt;</code> is then called. (default: Call <a href="#">repr_text</a> )
...	delegated to the specific <code>repr_&lt;format&gt;</code> function

### Value

A character or raw vector of that format or NULL if none is defined. Only the 'text' format is defined for everything (via [print\(\)](#))

**See Also**

[repr\\_text](#), [repr-generics](#)

---

repr-generics

*Representations for specific formats*

---

**Description**

Representations for specific formats

**Usage**

```
repr_html(obj, ...)
```

```
## Default S3 method:
```

```
repr_html(obj, ...)
```

```
repr_markdown(obj, ...)
```

```
## Default S3 method:
```

```
repr_markdown(obj, ...)
```

```
repr_latex(obj, ...)
```

```
## Default S3 method:
```

```
repr_latex(obj, ...)
```

```
repr_json(obj, ...)
```

```
## Default S3 method:
```

```
repr_json(obj, ...)
```

```
repr_javascript(obj, ...)
```

```
## Default S3 method:
```

```
repr_javascript(obj, ...)
```

```
repr_pdf(obj, ...)
```

```
## Default S3 method:
```

```
repr_pdf(obj, ...)
```

```
repr_png(obj, ...)
```

```
## Default S3 method:
```

```
repr_png(obj, ...)
```

```
repr_jpg(obj, ...)  
  
## Default S3 method:  
repr_jpg(obj, ...)  
  
repr_svg(obj, ...)  
  
## Default S3 method:  
repr_svg(obj, ...)
```

### Arguments

obj	The object to create a repr for
...	parameters of the specific repr_* functions

### See Also

[repr\\_text](#) for the only repr that is always defined

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repr-options	<i>repr options</i>
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### Description

These options are used to control the behavior of repr when not calling it directly. Use `options(repr.* = ...)` and `getOption('repr.*')` to set and get them, respectively.

### Usage

```
repr_option_defaults
```

### Format

An object of class list of length 14.

### Details

Once this package is loaded, all options are set to defaults which weren't set beforehand.

Setting all options set to NULL are reset to defaults when reloading the package (or calling `repr:::load()`).

**Options**

repr.plot.\* Those are for representations of recordedplot instances:

- repr.plot.width Plotting area width in inches (default: 7)
- repr.plot.height Plotting area height in inches (default: 7)
- repr.plot.pointsize Text height in pt (default: 12)
- repr.plot.bg Background color (default: white)
- repr.plot.antialias Which kind of antialiasing to use for for lines and text? 'gray', 'subpixel' or 'none'? (default: gray)
- repr.plot.res PPI for rasterization (default: 120)
- repr.plot.quality Quality of JPEG format in % (default: 90)
- repr.plot.family Vector font family. 'sans', 'serif', 'mono' or a specific one (default: sans)

repr.vector.quote Output quotation marks for character vectors? (default: TRUE)

repr.matrix.max.rows How many rows to display at max. Will insert a row with vertical ellipses to show elision. (default: 60)

repr.matrix.max.cols How many cols to display at max. Will insert a column with horizontal ellipses to show elision. (default: 20)

repr.matrix.latex.colspec How to layout LaTeX tables when representing matrices or data.frames. List of row.head, other col, and end strings. end mainly exists for when you want a vertical line there (default: 'r', 'l', and '')

repr.function.highlight Use the highr package to insert highlighting instructions into the code? Needs that package to be installed. (default: FALSE)

repr.html.deduplicate Use the [html\\_dependencies](#) manager to only include dependencies once? This can greatly reduce notebook size, but fails if e.g. iframes are used (default: FALSE)

---

repr\_\*.data.table      *Representation of data.table objects*

---

**Description**

Representation of data.table objects

**Usage**

```
## S3 method for class 'data.table'
repr_html(obj, ...)

## S3 method for class 'data.table'
repr_text(obj, ...)

## S3 method for class 'data.table'
repr_latex(obj, ...)
```

**Arguments**

obj	The list to create a representation for
...	ignored

---

repr_*.factor	<i>Representations of factors</i>
---------------	-----------------------------------

---

**Description**

Representations of factors

**Usage**

```
## S3 method for class 'factor'
repr_html(obj, ...)
```

```
## S3 method for class 'factor'
repr_markdown(obj, ...)
```

```
## S3 method for class 'factor'
repr_latex(obj, ...)
```

**Arguments**

obj	The factor to create a representation for
...	ignored

---

repr_*.function	<i>Representations of functions</i>
-----------------	-------------------------------------

---

**Description**

Representations of functions

**Usage**

```
## S3 method for class 'function'
repr_html(obj,
  highlight = getOption("repr.function.highlight"), ...)
```

```
## S3 method for class 'function'
repr_latex(obj,
  highlight = getOption("repr.function.highlight"), ...)
```

```
## S3 method for class 'function'
repr_markdown(obj, fenced = TRUE, ...)
```

**Arguments**

obj	Function to create a representation for
highlight	Should code highlighting be performed
...	ignored
fenced	Should a fenced code block instead of an indented one be used?

---

```
repr_*.help_files_with_topic
```

*Representations of help*

---

**Description**

Representations of help

**Usage**

```
## S3 method for class 'help_files_with_topic'
repr_text(obj, ...)
```

```
## S3 method for class 'help_files_with_topic'
repr_html(obj, ...)
```

```
## S3 method for class 'help_files_with_topic'
repr_latex(obj, ...)
```

**Arguments**

obj	Help topic to create a representation for
...	ignored

---

```
repr_*.htmlwidget
```

*HTML widget representations*

---

**Description**

Standalone HTML representation and dummy text representation.



## Usage

```
html_dependencies

## S3 method for class 'htmlwidget'
repr_text(obj, ...)

## S3 method for class 'htmlwidget'
repr_html(obj, ...)

## S3 method for class 'shiny.tag'
repr_text(obj, ...)

## S3 method for class 'shiny.tag'
repr_html(obj, ...)

## S3 method for class 'shiny.tag.list'
repr_text(obj, ...)

## S3 method for class 'shiny.tag.list'
repr_html(obj, ...)
```

## Arguments

obj	The htmlwidget, shiny.tag, or shiny.tag.list to create a representation for
...	ignored

## Format

An object of class environment of length 4.

## Details

html\_dependencies is an [environment](#) containing the following functions. `getOption('repr.html.deduplicate')`

`get()` Get the list of added dependencies

`add(dep)` Marks a dependency as added. Call this e.g. after appending a script tag with the dependency.

`clear()` Clear the list as seen dependencies. Now everything will be added again when encountered.

`dir()` Returns the directory in which the dependencies reside.

---

```
repr_*.list           Representations of lists
```

---

**Description**

Representations of lists

**Usage**

```
## S3 method for class 'list'
repr_html(obj, ...)

## S3 method for class 'list'
repr_markdown(obj, ...)

## S3 method for class 'list'
repr_latex(obj, ...)
```

**Arguments**

obj	The list to create a representation for
...	ignored

---

```
repr_*.matrix/data.frame
           Tabular data representations
```

---

**Description**

HTML and LaTeX representations of Matrix-like objects

**Usage**

```
## S3 method for class 'matrix'
repr_html(obj, ...)

## S3 method for class 'data.frame'
repr_html(obj, ...)

## S3 method for class 'matrix'
repr_latex(obj, ...,
           colspec = getOption("repr.matrix.latex.colspec"))

## S3 method for class 'data.frame'
repr_latex(obj, ...,
```

```

    colspec = getOption("repr.matrix.latex.colspec"))

## S3 method for class 'matrix'
repr_markdown(obj, ...)

## S3 method for class 'data.frame'
repr_markdown(obj, ...)

## S3 method for class 'matrix'
repr_text(obj, ...)

## S3 method for class 'data.frame'
repr_text(obj, ...)

```

**Arguments**

obj	The matrix or data.frame to create a representation for
...	ignored
colspec	The colspec for the LaTeX table. The default is given by the option repr.matrix.latex.colspec

**See Also**

[repr-options](#) for repr.matrix.latex.colspec

---

```
repr_*.packageIQR    packageIQR representations
```

---

**Description**

Text representations of packageIQR objects like the list of available example data or vignettes

**Usage**

```

## S3 method for class 'packageIQR'
repr_text(obj, ...)

## S3 method for class 'packageIQR'
repr_html(obj, ...)

```

**Arguments**

obj	The packageIQR obj to create a representation for
...	ignored

**Examples**

```

repr_html(data(package = 'base'))
repr_text(vignette(package = 'highr'))

```

---

repr\_\*.recordedplot     *Plot representations*

---

### Description

repr\_text.recordedplot only returns a small info string containing the title (if any) while the others return a character vector (SVG) or a raw vector (the rest) containing the image data.

### Usage

```
## S3 method for class 'recordedplot'
repr_text(obj, ...)

## S3 method for class 'recordedplot'
repr_png(obj,
  width = getOption("repr.plot.width"),
  height = getOption("repr.plot.height"),
  bg = getOption("repr.plot.bg"),
  pointsize = getOption("repr.plot.pointsize"),
  antialias = getOption("repr.plot.antialias"),
  res = getOption("repr.plot.res"), ...)

## S3 method for class 'recordedplot'
repr_jpg(obj,
  width = getOption("repr.plot.width"),
  height = getOption("repr.plot.height"),
  bg = getOption("repr.plot.bg"),
  pointsize = getOption("repr.plot.pointsize"),
  antialias = getOption("repr.plot.antialias"),
  res = getOption("repr.plot.res"),
  quality = getOption("repr.plot.quality"), ...)

## S3 method for class 'recordedplot'
repr_svg(obj,
  width = getOption("repr.plot.width"),
  height = getOption("repr.plot.height"),
  bg = getOption("repr.plot.bg"),
  pointsize = getOption("repr.plot.pointsize"),
  antialias = getOption("repr.plot.antialias"),
  family = getOption("repr.plot.family"), ...)

## S3 method for class 'recordedplot'
repr_pdf(obj,
  width = getOption("repr.plot.width"),
  height = getOption("repr.plot.height"),
  bg = getOption("repr.plot.bg"),
  pointsize = getOption("repr.plot.pointsize"),
```

```
antialias = getOption("repr.plot.antialias"),
family = getOption("repr.plot.family"), ...)
```

### Arguments

obj	The plot to create a representation for
...	ignored
width	Plot area width in inches (default: 7)
height	Plot area height in inches (default: 7)
bg	Background color (default: white)
pointsize	Text height in pt (default: 12)
antialias	Which kind of antialiasing to use for for lines and text? 'gray', 'subpixel' or 'none'? (default: gray)
res	For PNG and JPEG, specifies the PPI for rasterization (default: 120)
quality	For JPEG, determines the compression quality in % (default: 90)
family	Font family for SVG and PDF. 'sans', 'serif', 'mono' or a specific one (default: sans)

### Details

All parameters can also be specified using the eponymous `repr.plot.*repr-options`.

### Examples

```
dev.new()
dev.control(displaylist = 'enable')
plot(sqrt, main = 'Square root')
p <- recordPlot()
dev.off()

repr_text(p)
```

---

repr\_\*.vector

*Representations of vectors*


---

### Description

Representations of vectors

**Usage**

```
## S3 method for class 'logical'  
repr_html(obj, ...)
```

```
## S3 method for class 'integer'  
repr_html(obj, ...)
```

```
## S3 method for class 'complex'  
repr_html(obj, ...)
```

```
## S3 method for class 'numeric'  
repr_html(obj, ...)
```

```
## S3 method for class 'character'  
repr_html(obj, ...)
```

```
## S3 method for class 'Date'  
repr_html(obj, ...)
```

```
## S3 method for class 'logical'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'integer'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'complex'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'numeric'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'character'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'Date'  
repr_markdown(obj, ...)
```

```
## S3 method for class 'logical'  
repr_latex(obj, ...)
```

```
## S3 method for class 'integer'  
repr_latex(obj, ...)
```

```
## S3 method for class 'complex'  
repr_latex(obj, ...)
```

```
## S3 method for class 'numeric'  
repr_latex(obj, ...)
```

```
## S3 method for class 'character'  
repr_latex(obj, ...)  
  
## S3 method for class 'Date'  
repr_latex(obj, ...)
```

### Arguments

obj	The vector to create a representation for
...	ignored

---

repr_text	<i>Text representation</i>
-----------	----------------------------

---

### Description

The only representation defined per default for everthing (via [print\(\)](#))

### Usage

```
repr_text(obj, ...)  
  
## Default S3 method:  
repr_text(obj, ...)
```

### Arguments

obj	The object to <a href="#">print</a> and then return the output
...	ignored

### See Also

[repr-generics](#) for other generics

# Index

- \*Topic **datasets**
  - \*2repr, 3
  - repr-options, 5
  - repr\_\*.htmlwidget, 8
- \*2repr, 3
- 'repr.html.deduplicate', 9
- environment, 9
- format2repr (\*2repr), 3
- getOption, 5
- html\_dependencies, 6
- html\_dependencies (repr\_\*.htmlwidget), 8
- mime2repr (\*2repr), 3
- options, 5
- print, 3, 15
- repr, 2, 3
- repr-generics, 2, 4, 4, 15
- repr-options, 2, 5, 11, 13
- repr-package, 2
- repr\_\*.data.table, 6
- repr\_\*.factor, 7
- repr\_\*.function, 7
- repr\_\*.help\_files\_with\_topic, 8
- repr\_\*.htmlwidget, 8
- repr\_\*.list, 10
- repr\_\*.matrix/data.frame, 10
- repr\_\*.packageIQR, 11
- repr\_\*.recordedplot, 12
- repr\_\*.shiny.tag (repr\_\*.htmlwidget), 8
- repr\_\*.vector, 13
- repr\_html (repr-generics), 4
- repr\_html.character (repr\_\*.vector), 13
- repr\_html.complex (repr\_\*.vector), 13
- repr\_html.data.frame (repr\_\*.matrix/data.frame), 10
- repr\_html.data.table (repr\_\*.data.table), 6
- repr\_html.Date (repr\_\*.vector), 13
- repr\_html.factor (repr\_\*.factor), 7
- repr\_html.function (repr\_\*.function), 7
- repr\_html.help\_files\_with\_topic (repr\_\*.help\_files\_with\_topic), 8
- repr\_html.htmlwidget (repr\_\*.htmlwidget), 8
- repr\_html.integer (repr\_\*.vector), 13
- repr\_html.list (repr\_\*.list), 10
- repr\_html.logical (repr\_\*.vector), 13
- repr\_html.matrix (repr\_\*.matrix/data.frame), 10
- repr\_html.numeric (repr\_\*.vector), 13
- repr\_html.packageIQR (repr\_\*.packageIQR), 11
- repr\_html.shiny.tag (repr\_\*.htmlwidget), 8
- repr\_javascript (repr-generics), 4
- repr\_jpg (repr-generics), 4
- repr\_jpg.recordedplot (repr\_\*.recordedplot), 12
- repr\_json (repr-generics), 4
- repr\_latex (repr-generics), 4
- repr\_latex.character (repr\_\*.vector), 13
- repr\_latex.complex (repr\_\*.vector), 13
- repr\_latex.data.frame (repr\_\*.matrix/data.frame), 10
- repr\_latex.data.table (repr\_\*.data.table), 6
- repr\_latex.Date (repr\_\*.vector), 13
- repr\_latex.factor (repr\_\*.factor), 7
- repr\_latex.function (repr\_\*.function), 7
- repr\_latex.help\_files\_with\_topic (repr\_\*.help\_files\_with\_topic),



- 8
- repr\_latex.integer (repr\_\*.vector), 13
- repr\_latex.list (repr\_\*.list), 10
- repr\_latex.logical (repr\_\*.vector), 13
- repr\_latex.matrix
  - (repr\_\*.matrix/data.frame), 10
- repr\_latex.numeric (repr\_\*.vector), 13
- repr\_markdown (repr-generics), 4
- repr\_markdown.character
  - (repr\_\*.vector), 13
- repr\_markdown.complex (repr\_\*.vector), 13
- repr\_markdown.data.frame
  - (repr\_\*.matrix/data.frame), 10
- repr\_markdown.Date (repr\_\*.vector), 13
- repr\_markdown.factor (repr\_\*.factor), 7
- repr\_markdown.function
  - (repr\_\*.function), 7
- repr\_markdown.integer (repr\_\*.vector), 13
- repr\_markdown.list (repr\_\*.list), 10
- repr\_markdown.logical (repr\_\*.vector), 13
- repr\_markdown.matrix
  - (repr\_\*.matrix/data.frame), 10
- repr\_markdown.numeric (repr\_\*.vector), 13
- repr\_option\_defaults (repr-options), 5
- repr\_pdf (repr-generics), 4
- repr\_pdf.recordedplot
  - (repr\_\*.recordedplot), 12
- repr\_png (repr-generics), 4
- repr\_png.recordedplot
  - (repr\_\*.recordedplot), 12
- repr\_svg (repr-generics), 4
- repr\_svg.recordedplot
  - (repr\_\*.recordedplot), 12
- repr\_text, 2–5, 15
- repr\_text.data.frame
  - (repr\_\*.matrix/data.frame), 10
- repr\_text.data.table
  - (repr\_\*.data.table), 6
- repr\_text.help\_files\_with\_topic
  - (repr\_\*.help\_files\_with\_topic), 8
- repr\_text.htmlwidget
  - (repr\_\*.htmlwidget), 8
- repr\_text.matrix
  - (repr\_\*.matrix/data.frame), 10
- repr\_text.packageIQR
  - (repr\_\*.packageIQR), 11
- repr\_text.recordedplot
  - (repr\_\*.recordedplot), 12
- repr\_text.shiny.tag
  - (repr\_\*.htmlwidget), 8
- stop, 3