

Package ‘fabricerin’

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Title Create Easily Canvas in 'shiny' and 'RMarkdown' Documents

Version 0.1.1

Description Allows the user to implement easily canvas elements within a 'shiny' app or an 'RMarkdown' document.

The user can create shapes, images and text elements within the canvas which can also be used as a drawing tool for taking notes.

The package relies on the 'fabricjs' 'JavaScript' library. See <<http://fabricjs.com/>>.

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Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

Imports htmltools, glue

URL <https://github.com/feddelegrand7/fabricerin>

BugReports <https://github.com/feddelegrand7/fabricerin/issues>

NeedsCompilation no

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R topics documented:

fabric_curtail	2
fabric_drawing	3
fabric_image	4
fabric_image_add	6
fabric_shape	7

fabric_shape_add	9
fabric_text	11
fabric_text_add	14
use_fabric	16

Index	17
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fabric_curtail	<i>Add a background or an overlay image to a preexisting canvas</i>
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Description

Add a background or an overlay image to a preexisting canvas

Usage

```
fabric_curtail(cid, imgsrc, type = "background")
```

Arguments

cid	the id of the canvas element
imgsrc	the URL source of the image
type	whether to use an image as a 'background' or as an 'overlay'

Value

a canvas with a background or overlay image

Examples

```
if (interactive()) {
  img <- "https://st.depositphotos.com/1642482/1904/i/950/depositphotos_19049237-stock-photo-leaf.jpg"
  ui <- fluidPage(
    use_fabric(),

    fabric_shape(cid = "canvas123",
                 shapeId = "tri1",
                 shape = "Triangle",
                 fill = "darkblue"),

    fabric_curtail(cid = "canvas123",
                  imgsrc = img,
                  type = "background"
    )
  )
}
```

```
)  
  
server <- function(input, output) {}  
  
shinyApp(ui = ui, server = server)  
}
```

fabric_drawing *Create a canvas element for drawing*

Description

Create a canvas element for drawing

Usage

```
fabric_drawing(  
  cid,  
  cwidth = 800,  
  cheight = 600,  
  cfill = "#FFFFFF",  
  drawingWidth = 2,  
  drawingColor = "#1E1E1E",  
  gumSize = 10  
)
```

Arguments

cid	the id of the canvas element
cwidth	the width of the canvas element
cheight	the height of the canvas element
cfill	the color of the canvas element. Default to #FFFFFF (white)
drawingWidth	the width of the drawing output. Default to 2
drawingColor	the color of the drawing output. Default to #1E1E1E (black)
gumSize	specify the size of the gum. Defaults to 10

Value

an HTML canvas element

Examples

```
if (interactive()) {  
  
  ui <- fluidPage(  
  
    use_fabric(),  
  
    h1("Draw some stuff here"),  
  
    fabric_drawing(cid = "canvas1")  
  
  )  
  
  server <- function(input, output) {}  
  
  shinyApp(ui = ui, server = server)  
  
}
```

fabric_image

Insert external images inside canvas element

Description

Insert external images inside canvas element

Usage

```
fabric_image(  
  cid,  
  cwidth = 800,  
  cheight = 600,  
  cfill = "#FFFFFF",  
  imgId,  
  imgsrc,  
  imgwidth = 500,  
  imgheight = 500,  
  left = 100,  
  top = 100,  
  angle = 0,  
  opacity = 1,  
  strokecolor = "darkblue",  
  strokewidth = 1,  
  selectable = TRUE,  
  isDrawingMode = FALSE  
)
```

Arguments

cid	the id of the canvas element
cwidth	the width of the canvas element. Defaults to 800
cheight	the height of the canvas element. Defaults to 600
cfill	the color of the canvas element
imgId	the id of the image
imgsrc	the URL source of the image
imgwidth	the width of the image. Defaults to 500
imgheight	the height of the image. Defaults to 500
left	the image's position from the left relative to the canvas element. Defaults to 100
top	the image's position from the top relative to the canvas element. Defaults to 100
angle	the angle of rotation of the image. Defaults to 0 (no rotation)
opacity	the opacity of the image (from 0 to 1). Defaults to 1
strokecolor	the stroke color of the image. Defaults to 'darkblue'
strokewidth	the stroke width of the image. Defaults to 1
selectable	logical. If TRUE, the user can modify interactively the image's size, position and rotation. Defaults to TRUE
isDrawingMode	logical. If TRUE, the user can draw inside the canvas element.

Value

an image inside a canvas element

Examples

```

if (interactive()) {

img <- "https://upload.wikimedia.org/wikipedia/commons/thumb/1/1b/R_logo.svg/724px-R_logo.svg.png"

ui <- fluidPage(

use_fabric(),

fabric_image(cid = "cimage",
             cfill = "lightblue",
             imgId = "Rimg",
             imgsrc = img)

)

server <- function(input, output) {}

```

```
shinyApp(ui = ui, server = server)
}
```

`fabric_image_add` *Add an image to a preexisting canvas element*

Description

Add an image to a preexisting canvas element

Usage

```
fabric_image_add(
  cid,
  imgId,
  imgsrc,
  imgwidth = 500,
  imgheight = 500,
  left = 100,
  top = 100,
  angle = 0,
  opacity = 1,
  strokecolor = "darkblue",
  strokewidth = 1,
  selectable = TRUE
)
```

Arguments

<code>cid</code>	the id of the canvas element you want to add your image to
<code>imgId</code>	the of the image
<code>imgsrc</code>	the URL source of the image
<code>imgwidth</code>	the width of the image. Defaults to 500
<code>imgheight</code>	the height of the image. Defaults to 500
<code>left</code>	the image's position from the left relative to the canvas element. Defaults to 100
<code>top</code>	the image's position from the top relative to the canvas element. Defaults to 100
<code>angle</code>	the angle of rotation of the image. Defaults to 0 (no rotation)
<code>opacity</code>	the opacity of the image (from 0 to 1). Defaults to 1
<code>strokecolor</code>	the stroke color of the image. Defaults to 'darkblue'
<code>strokewidth</code>	the stroke width of the image. Defaults to 1
<code>selectable</code>	logical. If TRUE, the user can modify interactively the image's size, position and rotation. Defaults to TRUE

Value

an image inside a preexisting canvas element

Examples

```
if (interactive()) {  
  
  img1 <- "https://upload.wikimedia.org/wikipedia/commons/thumb/1/1b/R_logo.svg/724px-R_logo.svg.png"  
  img2 <- "https://raw.githubusercontent.com/rstudio/hex-stickers/master/PNG/dplyr.png"  
  ui <- fluidPage(  
  
    use_fabric(),  
  
    fabric_image(cid = "cimage",  
                imgId = "Ring",  
                imgsrc = img1,  
                imgheight = 200,  
                imgwidth = 200),  
  
    fabric_image_add(cid = "cimage",  
                    imgId = "rstudioimg",  
                    imgsrc = img2,  
                    imgwidth = 200,  
                    imgheight = 200,  
                    left = 400)  
  )  
  
  server <- function(input, output) {}  
  
  shinyApp(ui = ui, server = server)  
  
}
```

fabric_shape

Create shapes inside a canvas

Description

Create shapes inside a canvas

Usage

```
fabric_shape(  
  cid,  
  cwidth = 800,  
  cheight = 600,  
  cfill = "#FFFFFF",
```

```

    shapeId,
    shape = "Rect",
    left = 100,
    top = 100,
    fill = "red",
    width = 200,
    height = 200,
    angle = 0,
    opacity = 1,
    strokecolor = "darkblue",
    strokewidth = 5,
    selectable = TRUE,
    isDrawingMode = FALSE,
    radius = NULL,
    polx = NULL,
    poly = NULL
)

```

Arguments

cid	the id of the canvas element
cwidth	the width of the canvas element. Defaults to 800
cheight	the height of the canvas element. Defaults to 600
cfill	the color of the canvas element
shapeId	the id of the shape object
shape	the shape of the object. Choices include 'Circle', 'Triangle' and 'Rect'. Defaults to 'Rect'
left	the shape's position from the left relative to the canvas element. Defaults to 100
top	the shape's position from the top relative to the canvas element. Defaults to 100
fill	the color of the shape. Defaults to 'red'
width	the width of the shape. Defaults to 200
height	the height of the shape. Defaults to 200
angle	the angle of rotation of the shape. Defaults to 0 (no rotation)
opacity	the opacity of the shape (from 0 to 1). Defaults to 1
strokecolor	the stroke color of the shape. Defaults to 'darkblue'
strokewidth	the stroke width of the shape. Defaults to 5.
selectable	logical. If TRUE, the user can modify interactively the shape's size, position and rotation. Defaults to TRUE
isDrawingMode	logical. If TRUE, the user can draw inside the canvas element.
radius	mandatory if the chosen shape is a 'Circle'. Defaults to NULL
polx	a vector of the coordinate points of the polygon, from the left.
poly	a vector of the coordinate points of the polygon, from the top

Value

a shape object inside a canvas

Examples

```
if(interactive()){  
  ui <- fluidPage(  
    use_fabric(),  
    h2("Below you'll find a red Rectangle with a darkblue stroke"),  
    fabric_shape(cid = "canvas", shapeId = "shape1", shape = "Rect")  
  )  
  server <- function(input, output) {  
  
  }  
  
  shinyApp(ui = ui, server = server)  
}
```

fabric_shape_add

Add a shape object to a preexisting canvas element

Description

Add a shape object to a preexisting canvas element

Usage

```
fabric_shape_add(  
  cid,  
  shapeId,  
  shape = "Rect",  
  left = "100",  
  top = "100",  
  fill = "red",  
  width = 200,  
  height = 200,  
  angle = 0,  
  opacity = 1,
```

```

    strokecolor = "darkblue",
    strokewidth = 5,
    selectable = TRUE,
    radius = NULL
  )

```

Arguments

cid	the id of the canvas element you want to add your shape to
shapeId	the id of the shape object
shape	the shape of the object. Choices include 'Circle', 'Triangle' and 'Rect'. Defaults to 'Rect'
left	the shape's position from the left relative to the canvas element. Defaults to 100
top	the shape's position from the top relative to the canvas element. Defaults to 100
fill	the color of the shape. Defaults to 'red'
width	the width of the shape. Defaults to 200
height	the height of the shape. Defaults to 200
angle	the angle of rotation of the shape. Defaults to 0 (no rotation)
opacity	the opacity of the shape. Defaults to 1
strokecolor	the stroke color of the shape. Defaults to 'darkblue'
strokewidth	the stroke width of the shape. Defaults to 5.
selectable	logical. If TRUE, the user can modify interactively the shape. Defaults to TRUE
radius	Mandatory if the chosen shape is a 'Circle'. Defaults to NULL

Value

a shape object inside a preexisting canvas element

Examples

```

if (interactive()) {

  ui <- fluidPage(

    use_fabric(),

    fabric_shape(cid = "canvas",
                 shapeId = "shape1",
                 shape = "Rect",
                 left = 130,
                 top = 200),

    fabric_shape_add(cid = "canvas",
                    shapeId = "shapo",
                    shape = "Circle",

```

```
        radius = 30,  
        left = 100,  
        top = 100),  
  
fabric_shape_add(cid = "canvas",  
                 shapeId = "shapa",  
                 shape = "Circle",  
                 radius = 30,  
                 left = 200,  
                 top = 100),  
  
fabric_shape_add(cid = "canvas",  
                 shapeId = "shapox",  
                 shape = "Circle",  
                 radius = 30,  
                 left = 300,  
                 top = 100),  
  
fabric_shape_add(cid = "canvas",  
                 shapeId = "shapor",  
                 shape = "Circle",  
                 radius = 30,  
                 left = 300,  
                 top = 100)  
  
)  
  
server <- function(input, output) {}  
  
shinyApp(ui = ui, server = server)  
  
}
```

fabric_text

Insert text within canvas element

Description

Insert text within canvas element

Usage

```
fabric_text(  
  cid,  
  cwidth = 800,  
  cheight = 600,  
  cfill = "#FFFFFF",  
  textId,  
  text,
```

```

left = 100,
top = 100,
fill = "#2F3941",
angle = 0,
opacity = 1,
fontFamily = "Comic Sans",
fontSize = 40,
fontStyle = "normal",
strokecolor = "#282A36",
strokewidth = 1,
fontWeight = "normal",
underline = FALSE,
linethrough = FALSE,
overline = FALSE,
selectable = TRUE,
shadow = FALSE,
shadowCol = "#FFFAF0",
textAlign = "center",
lineHeight = 1,
textBackgroundColor = NULL,
isDrawingMode = FALSE
)

```

Arguments

cid	the id of the canvas element
cwidth	the width of the canvas element. Defaults to 800
cheight	the height of the canvas element. Defaults to 600
cfill	the color of the canvas element
textId	the id of the text
text	the content of the text
left	the text's position from the left relative to the canvas element. Defaults to 100
top	the text's position from the top relative to the canvas element. Defaults to 100
fill	the text's color. Defaults to '#2F3941' (dark shade of cyan-blue)
angle	the angle of rotation of the text. Defaults to 0 (no rotation)
opacity	text opacity (from 0 to 1). Defaults to 1
fontFamily	the font family of the text. Defaults to 'Comic Sans'
fontSize	text sizing. Defaults to 40
fontStyle	the font style of the text. Either 'normal' or 'italic'
strokecolor	the stroke color of the text Defaults to '#282A36' (Very dark grayish blue)
strokewidth	the stroke width of the text. Defaults to 1
fontWeight	allows the user to make text thicker or thinner. Keywords can be used ('normal', 'bold'), or numbers. Defaults to 'normal'
underline	logical. Whether to underline the text or not. Defaults to FALSE

linethrough	logical. Whether to insert a line through the text or not. Defaults to FALSE
overline	logical. Whether to put a line above the text or not. Defaults to FALSE
selectable	logical. If TRUE, the user can modify interactively the image's size, position and rotation. Defaults to TRUE
shadow	logical. If TRUE a text shadow will be inserted behind the raw text. Defaults to FALSE
shadowCol	the color of the text shadow. Defaults to #FFFAF0 (floral white)
textAlign	the alignment of text. Useful when there are line breaks. Defaults to "center"
lineHeight	the height of the line breaks. Defaults to 1
textBackgroundColor	the background color of the text, defaults to NULL
isDrawingMode	logical. If TRUE, the user can draw inside the canvas element.

Value

a text object within a canvas element

Examples

```

if (interactive()) {

  ui <- fluidPage(

    use_fabric(),

    fabric_text(cid = "can",
               textId = "text",
               text = "But A Hero Is A Guy Who Gives Out The Meat To Everyone Else.",
               cfill = "#DD5347",
               left = 120,
               shadowCol = "blue",
               fontSize = 20,
               fontWeight = "bold",
               lineHeight = 3
            )
  )
  server <- function(input, output) {}

  shinyApp(ui = ui, server = server)

}

```

fabric_text_add *Add text within preexisting canvas element*

Description

Add text within preexisting canvas element

Usage

```
fabric_text_add(  
  cid,  
  textId,  
  text,  
  left = 100,  
  top = 100,  
  fill = "#2F3941",  
  angle = 0,  
  opacity = 1,  
  fontFamily = "Comic Sans",  
  fontSize = 40,  
  fontStyle = "normal",  
  strokecolor = "#282A36",  
  strokewidth = 1,  
  fontWeight = "normal",  
  underline = FALSE,  
  linethrough = FALSE,  
  overline = FALSE,  
  selectable = TRUE,  
  shadow = FALSE,  
  shadowCol = "#324C63",  
  textAlign = "center",  
  lineHeight = 1,  
  textBackgroundColor = NULL  
)
```

Arguments

cid	the id of the canvas element
textId	the id of the text
text	the content of the text
left	the text's position from the left relative to the canvas element. Defaults to 100
top	the text's position from the top relative to the canvas element. Defaults to 100
fill	the text's color. Defaults to '#2F3941' (dark shade of cyan-blue)
angle	the angle of rotation of the text. Defaults to 0 (no rotation)
opacity	text opacity (from 0 to 1). Defaults to 1

fontFamily	the font family of the text. Defaults to 'Comic Sans'
fontSize	text sizing. Defaults to 40
fontStyle	the font style of the text. Either 'normal' or 'italic'
strokecolor	the stroke color of the text Defaults to '#282A36' (Very dark grayish blue)
strokewidth	the stroke width of the text. Defaults to 1
fontWeight	allows the user to make text thicker or thinner. Keywords can be used ('normal', 'bold'), or numbers. Defaults to 'normal'
underline	logical. Whether to underline the text or not. Defaults to FALSE
linethrough	logical. Whether to insert a line through the text or not. Defaults to FALSE
overline	logical. Whether to put a line above the text or not. Defaults to FALSE
selectable	logical. If TRUE, the user can modify interactively the image's size, position and rotation. Defaults to TRUE
shadow	logical. If TRUE a text shadow will be inserted behind the raw text. Defaults to FALSE
shadowCol	the color of the text shadow. Defaults to #FFFAF0 (floral white)
textAlign	the alignment of text. Useful when there are line breaks. Defaults to "center"
lineHeight	the height of the line breaks. Defaults to 1
textBackgroundColor	the background color of the text, defaults to NULL

Value

a text object within a preexisting canvas element

Examples

```

if (interactive()) {

ui <- fluidPage(

use_fabric(),

fabric_shape(cid = "canvas123",
             cfill = "lightblue",
             cwidth = 1000,
             shapeId = "tri1",
             shape = "Triangle",
             fill = "darkblue"),

fabric_text_add(cid = "canvas123",
               textId = "txt1",
               text = "This is a darkblue Triangle !",
               left = 350
               )
}

```

```
    )  
  server <- function(input, output) {}  
  shinyApp(ui = ui, server = server)  
  
}
```

use_fabric

Activate the fabricjs library

Description

This function activates the javascript library fabricjs. You should put it at the beginning of your Rmd document or Shiny UI. Note that you'll need to be connected to the internet.

Usage

```
use_fabric()
```

Value

called for the side effect of activating the fabricjs library

Index

[fabric_curtail](#), 2
[fabric_drawing](#), 3
[fabric_image](#), 4
[fabric_image_add](#), 6
[fabric_shape](#), 7
[fabric_shape_add](#), 9
[fabric_text](#), 11
[fabric_text_add](#), 14

[use_fabric](#), 16