Package 'esquisse'

February 21, 2025

Description A 'shiny' gadget to create 'ggplot2' figures interactively with drag-and-

Type Package

Version 2.1.0

Title Explore and Visualize Your Data Interactively

drop to map your variables to different aesthetics.

```
You can quickly visualize your data accordingly to their type, export in various formats,
     and retrieve the code to reproduce the plot.
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```

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bs_theme_esquisse

Bootstrap Theme for Esquisse

Description

Bootstrap Theme for Esquisse

Usage

bs_theme_esquisse()

Value

A bslib::bs_theme().

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build_aes

Build aesthetics to use in a plot

Description

Build aesthetics to use in a plot

Usage

```
build_aes(data, ..., .list = NULL, geom = NULL)
```

Arguments

data	Data to use in the plot.
	Named list of aesthetics.
.list	Alternative to to use a preexisting named list.
geom	Geom to use, according to the geom aesthetics may vary.

Value

An expression

```
# Classic
build_aes(iris, x = "Sepal.Width")
build_aes(iris, x = "Sepal.Width", y = "Sepal.Width")

# Explicit geom : no change
build_aes(iris, x = "Species", geom = "bar")

# Little trick if data is count data
df <- data.frame(
    LET = c("A", "B"),
    VAL = c(4, 7)
)
build_aes(df, x = "LET", y = "VAL", geom = "bar")

# e.g. :
library(ggplot2)
ggplot(df) +
    build_aes(df, x = "LET", y = "VAL", geom = "bar") +
    geom_bar(stat = "summary", fun = "mean")</pre>
```

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dragulaInput

Drag And Drop Input Widget

Description

Drag And Drop Input Widget

Usage

```
dragulaInput(
  inputId,
  label = NULL,
  sourceLabel,
  targetsLabels,
  targetsIds = NULL,
  choices = NULL,
  choiceNames = NULL,
  choiceValues = NULL,
  selected = NULL,
  status = "primary",
  replace = FALSE,
  copySource = TRUE,
  badge = TRUE,
  ncolSource = "auto",
  ncolGrid = NULL,
 nrowGrid = NULL,
  dragulaOpts = list(),
  boxStyle = NULL,
  targetsHeight = NULL,
 width = NULL,
  height = "100px"
)
```

Arguments

inputId The input slot that will be used to access the value.

label Display label for the control, or NULL for no label.

sourceLabel Label display in the source box targetsLabels Labels for each target element.

targetsIds Ids for retrieving values server-side, if NULL, the default, targetsLabels are

used after removing all not-alphanumeric characters.

choices List of values to select from (if elements of the list are named then that name

rather than the value is displayed to the user). If this argument is provided, then choiceNames and choiceValues must not be provided, and vice-versa. The values should be strings; other types (such as logicals and numbers) will be

coerced to strings.

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choiceNames, choiceValues

List of names and values, respectively, that are displayed to the user in the app and correspond to the each choice (for this reason, choiceNames and choiceValues must have the same length). If either of these arguments is provided, then the other must be provided and choices must not be provided. The advantage of using both of these over a named list for choices is that choiceNames allows any type of UI object to be passed through (tag objects, icons, HTML code, ...), instead of just simple text.

instead of just simple text.

selected Default selected values. Must be a list with targetsIds as names.

status If choices are displayed into a Bootstrap label, you can use Bootstrap status to

color them, or NULL.

replace When a choice is dragged in a target container already containing a choice, does

the later be replaced by the new one?

copySource When replace = TRUE, does elements in source must be copied or moved?

badge Displays choices inside a Bootstrap badge. Use FALSE if you want to pass cus-

tom appearance with choiceNames.

ncolSource Number of columns occupied by the source, default is "auto", meaning full

row.

ncolGrid, nrowGrid

Number of columns / rows used to place source and targets boxes, see examples.

dragulaOpts Options passed to dragula JavaScript library (see online documentation on GitHub).

Note that options moves, accepts and invalid must be valid JavaScript code

as they are evaluated on the client.

boxStyle CSS style string to customize source and target container.

targetsHeight Height for the target boxes.

width Width of the input.

height Height of each boxes, the total input height is this parameter X 2 (unless if

targetsHeight is set).

Value

a UI definition

Note

The output server-side is a list with two slots: source and targets.

See Also

updateDragulaInput() to update choices server-side.

Examples

library(shiny)
library(esquisse)

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```
ui <- fluidPage(</pre>
  tags$h2("Demo dragulaInput"),
  tags$br(),
  fluidRow(
    column(
      width = 6,
      dragulaInput(
        inputId = "dad1",
        label = "Default:",
        sourceLabel = "Source",
        targetsLabels = c("Target 1", "Target 2"),
        choices = month.abb,
        width = "100%"
      ),
      verbatimTextOutput(outputId = "result1"),
      tags$br(),
      dragulaInput(
        inputId = "dad3",
        label = "On same row:",
        sourceLabel = "Source",
        targetsLabels = c("Target 1", "Target 2"),
        choices = month.abb,
        width = "100%",
        ncolSource = 1,
        ncolGrid = 3
      ),
      verbatimTextOutput(outputId = "result3")
    ),
    column(
      width = 6,
      dragulaInput(
        inputId = "dad2",
        label = "Two rows:",
        sourceLabel = "Source",
targetsLabels = c("x", "y", "color", "fill", "size", "facet"),
        choices = names(mtcars),
        width = "100%",
        ncolGrid = 3
      ),
      verbatimTextOutput(outputId = "result2"),
      tags$br(),
      dragulaInput(
        inputId = "dad4",
        label = "Two rows not filled:",
        sourceLabel = "Source",
targetsLabels = c("x", "y", "color", "fill", "size"),
        choices = names(mtcars),
```

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dropInput

Dropdown Input

Description

A dropdown menu for selecting a value.

Usage

```
dropInput(
  inputId,
  choicesNames,
  choicesValues,
  selected = NULL,
  dropUp = FALSE,
  dropWidth = NULL,
  dropPreScrollable = FALSE,
  btnClass = "btn-link",
  width = NULL
```

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Arguments

inputId The input slot that will be used to access the value.

choicesNames A tagList of HTML tags to show in the dropdown menu.

choicesValues Vector corresponding to choicesNames for retrieving values server-side.

selected The initial selected value, must be an element of choices Values, default to the

first item of choicesValues.

dropUp Open the menu above the button rather than below.

dropWidth Width of the dropdown menu.
dropMaxHeight Maximal height for the menu.

dropPreScrollable

Force scroll bar to appear in the menu.

btnClass Class for buttons in dropdown menu, default is "btn-link", you can use for

example "btn-default" to display regular buttons.

width The width of the input.

See Also

updateDropInput

```
if (interactive()) {
 library(shiny)
 library(esquisse)
 ui <- fluidPage(</pre>
    tags$h2("Drop Input"),
   dropInput(
      inputId = "mydrop",
      choicesNames = tagList(
        list(icon("home"), style = "width: 100px;"),
        list(icon("flash"), style = "width: 100px;"),
        list(icon("cogs"), style = "width: 100px;"),
        list(icon("fire"), style = "width: 100px;"),
        list(icon("users"), style = "width: 100px;"),
        list(icon("info"), style = "width: 100px;")
     choicesValues = c("home", "flash", "cogs",
                         "fire", "users", "info"),
      dropWidth = "220px"
    verbatimTextOutput(outputId = "res")
 server <- function(input, output, session) {</pre>
   output$res <- renderPrint({</pre>
     input$mydrop
```

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

esquisse

Explore and Visualize Your Data Interactively

Description

A 'shiny' gadget to create 'ggplot2' figures interactively with drag-and-drop to map your variables to different aesthetics. You can quickly visualize your data accordingly to their type, export in various formats, and retrieve the code to reproduce the plot.

Author(s)

Fanny Meyer & Victor Perrier (@dreamRs_fr)

See Also

Useful links:

- https://dreamrs.github.io/esquisse/
- https://github.com/dreamRs/esquisse
- Report bugs at https://github.com/dreamRs/esquisse/issues

```
## Not run:
esquisser()
# launch esquisse with specific data:
esquisser(mtcars)
## End(Not run)
```

esquisse-deprecated

Deprecated functions

Description

Deprecated functions

Usage

```
esquisseContainer(...)
```

Arguments

```
... See esquisse_container()
```

Note

The following functions are deprecated and will be removed in next release:

 $\bullet \ \ esquisse Container: replaced \ by \ esquisse_container$

esquisse-exports

esquisse exported operators and S3 methods

Description

esquisse exported operators and S3 methods

esquisse-module

Esquisse module

Description

Use esquisse as a module in a Shiny application.

Usage

```
esquisse_ui(
  id,
  header = esquisse_header(),
  container = esquisse_container(),
  controls = c("options", "labs", "axes", "geoms", "theme", "filters", "code"),
  insert_code = FALSE,
  play_pause = TRUE,
  layout_sidebar = FALSE,
  downloads = downloads_labels(),
  n_geoms = 8
)
esquisse_server(
  id,
  data_rv = NULL,
  name = "data",
  default_aes = c("fill", "color", "size", "group", "facet"),
  import_from = c("env", "file", "copypaste", "googlesheets", "url"),
  n_{geoms} = 8,
  drop_ids = TRUE,
  notify_warnings = NULL
)
esquisse_container(width = "100%", height = "700px", fixed = FALSE)
esquisse_header(
  import_data = TRUE,
  show_data = TRUE,
  update_variable = TRUE,
  create_column = TRUE,
  cut_variable = TRUE,
  update_factor = TRUE,
  settings = TRUE,
  close = TRUE,
  .before = NULL,
  .after = NULL
)
```

Arguments

id Module ID.

header Either TRUE or FALSE to display or not esquisse header, or a named list where

names are: settings, close, import and show_data and values are TRUE or

FALSE to display or not the corresponding button.

container Container in which display the addin, default is to use esquisse_container(), see examples. Use NULL for no container (behavior in versions <= 0.2.1). Must

be a function.

controls Controls menu to be displayed. Use NULL to hide all menus.

insert_code Logical, Display or not a button to insert the ggplot code in the current user

script (work only in RStudio).

play_pause Display or not the play / pause button.

layout_sidebar Put controls in a sidebar on the left rather than below the chart in dropdowns.

downloads Export options available or NULL for no export. See downloads_labels().

n_geoms Number of geoms the user can use.

data_rv Either:

• A shiny::reactiveValues() with a slot data containing a data.frame to use in the module and a slot name corresponding to the name of the data.frame used for the generated code.

• A shiny::reactive() function returning a data.frame. See argument name for the name used in generated code.

A data.frame object.

name The default name to use in generated code. Can be a reactive function return

a single character.

default_aes Default aesthetics to be used, can be a character vector or reactive function

returning one.

import_from From where to import data, argument passed to datamods::import_server(),

use NULL to prevent the modal to appear.

drop_ids Argument passed to datamods::filter_data_server. Drop columns containing

more than 90% of unique values, or than 50 distinct values.

notify_warnings

width, height

See safe_ggplot(). If NULL, the user can make his or her own choice via the

The width and height of the container, e.g. "400px", or "100%"; see htmltools::validateCssUnit().

settings menu, default is to show warnings once.

fixed Use a fixed container, e.g. to use use esquisse full page. If TRUE, width and

height are ignored. Default to FALSE. It's possible to use a vector of CSS unit of

length 4 to specify the margins (top, right, bottom, left).

import_data Show button to import data.

show_data Show button to display data.

update_variable

Show button to update selected variables and convert them.

create_column Show button to create a new column based on an expression.

cut_variable Show button to allow to convert a numeric variable into factor.

update_factor Show button to open window to reorder factor levels and update them.

settings Show button to open settings modal (to select aesthetics to use).

close Show button to stop the app and close addin.

. before, .after Custom content to put in the header, typically buttons.

Value

A reactiveValues with 4 slots:

- ggobj: the ggplot object
- code_plot: code to generate plot.
- code_filters: a list of length two with code to reproduce filters.
- data: data. frame used in plot (with filters applied).

```
### Part of a Shiny app ###
library(shiny)
library(esquisse)
ui <- fluidPage(
  theme = bs_theme_esquisse(),
  tags$h1("Use esquisse as a Shiny module"),
  radioButtons(
    inputId = "data",
    label = "Data to use:",
   choices = c("iris", "mtcars"),
   inline = TRUE
  ),
  checkboxGroupInput(
    inputId = "aes",
   label = "Aesthetics to use:",
   choices = c(
      "fill", "color", "size", "shape",
      "weight", "group", "facet", "facet_row", "facet_col"
   ),
   selected = c("fill", "color", "size", "facet"),
   inline = TRUE
  ),
  esquisse_ui(
    id = "esquisse",
   header = FALSE, # dont display gadget title
   container = esquisse_container(height = "700px")
  tags$b("Output of the module:"),
  verbatimTextOutput("out")
)
server <- function(input, output, session) {</pre>
  data_rv <- reactiveValues(data = iris, name = "iris")</pre>
  observeEvent(input$data, {
```

```
if (input$data == "iris") {
      data_rv$data <- iris</pre>
      data_rv$name <- "iris"</pre>
    } else {
      data_rv$data <- mtcars</pre>
      data_rv$name <- "mtcars"</pre>
    }
  })
  esquisse_out <- esquisse_server(</pre>
    id = "esquisse",
    data_rv = data_rv,
    default_aes = reactive(input$aes)
  output$out <- renderPrint({</pre>
    str(reactiveValuesToList(esquisse_out), max.level = 1)
  })
}
if (interactive())
  shinyApp(ui, server)
### Whole Shiny app ###
library(shiny)
library(esquisse)
# Load some datasets in app environment
my_data <- data.frame(</pre>
  var1 = rnorm(100),
  var2 = sample(letters[1:5], 100, TRUE)
ui <- fluidPage(
  theme = bs_theme_esquisse(),
  esquisse_ui(
    id = "esquisse",
    header = esquisse_header(
      close = FALSE, # hide the close button
      .after = actionButton( # custom button
        inputId = "open_modal",
        label = NULL,
        icon = icon("plus")
      )
    ),
    container = esquisse_container(fixed = TRUE),
    play_pause = FALSE,
   controls = c("settings", "labs", "axes", "geoms", "theme", "filters", "code", "export"),
    layout_sidebar = TRUE
```

```
)
server <- function(input, output, session) {</pre>
  esquisse_server(id = "esquisse")
  observeEvent(input$open_modal, {
    showModal(modalDialog("Some content"))
  })
}
if (interactive())
  shinyApp(ui, server)
## You can also use a vector of margins for the fixed argument,
# useful if you have a navbar for example
library(shiny)
library(esquisse)
library(datamods)
ui <- navbarPage(</pre>
  title = "My navbar app",
  theme = bs_theme_esquisse(),
  tabPanel(
    title = "esquisse",
    esquisse_ui(
      id = "esquisse",
      header = FALSE,
      container = esquisse_container(
        fixed = c(55, 0, 0, 0)
      )
    )
 )
)
server <- function(input, output, session) {</pre>
  # lauch import data modal
  import_modal(
    id = "import-data",
    from = c("env", "file", "copypaste"),
    title = "Import data"
  data_imported_r <- datamods::import_server("import-data")</pre>
  data_rv <- reactiveValues(data = data.frame())</pre>
  observeEvent(data_imported_r$data(), {
    data_rv$data <- data_imported_r$data()</pre>
```

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```
data_rv$name <- data_imported_r$name()
})
esquisse_server(id = "esquisse", data_rv = data_rv)
}
if (interactive())
shinyApp(ui, server)</pre>
```

esquisser

An add-in to easily create plots with ggplot2

Description

Select data to be used and map variables to aesthetics to produce a chart, customize common elements and get code to reproduce the chart.

Usage

```
esquisser(
  data = NULL,
  controls = c("options", "labs", "axes", "geoms", "theme", "filters", "code"),
  viewer = getOption(x = "esquisse.viewer", default = "dialog")
)
```

Arguments

data a data. frame, you can pass a data. frame explicitly to the function, otherwise

you'll have to choose one in global environment.

controls Controls menu to be displayed. Use NULL to hide all menus.

viewer Where to display the gadget: "dialog", "pane" or "browser" (see viewer).

Value

NULL. You can view code used to produce the chart, copy it or insert it in current script.

```
if (interactive()) {
# Launch with :
    esquisser(iris)
# If in RStudio it will be launched by default in dialog window
# If not, it will be launched in browser
# Launch esquisse in browser :
    esquisser(iris, viewer = "browser")
```

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```
# You can set this option in .Rprofile :
options("esquisse.viewer" = "viewer")
# or
options("esquisse.viewer" = "browser")

# esquisse use shiny::runApp
# see ?shiny::runApp to see options
# available, example to use custom port:
options("shiny.port" = 8080)
esquisser(iris, viewer = "browser")
}
```

geoms

Potential geometries according to the data

Description

From the data and variable used in aesthetics, decide which geometry can be used and which one is used by default.

Usage

```
potential_geoms(data, mapping, auto = FALSE)
potential_geoms_ref()
```

Arguments

data A data.frame

mapping List of aesthetic mappings to use with data.

auto Return only one geometry.

Value

A character vector

```
library(ggplot2)
# One continuous variable
potential_geoms(
   data = iris,
   mapping = aes(x = Sepal.Length)
)
# Automatic pick a geom
```

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```
potential_geoms(
  data = iris,
  mapping = aes(x = Sepal.Length),
  auto = TRUE
)
# One discrete variable
potential_geoms(
  data = iris,
  mapping = aes(x = Species)
)
# Two continuous variables
potential_geoms(
  data = iris,
  mapping = aes(x = Sepal.Length, y = Sepal.Width)
# Reference used by esquisse to select available geoms
# and decide which one to use by default
potential_geoms_ref()
```

ggcall

Generate code to create a ggplot2

Description

Generate code to create a ggplot2

Usage

```
ggcall(
  data = NULL,
 mapping = NULL,
  geom = NULL,
  geom_args = list(),
  scales = NULL,
  scales_args = list(),
  coord = NULL,
  coord_args = list(),
  labs = list(),
  theme = NULL,
  theme_args = list(),
  facet = NULL,
  facet_row = NULL,
  facet_col = NULL,
  facet_args = list(),
  xlim = NULL,
  ylim = NULL
)
```

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Arguments

Character. Name of the data. frame. data List. Named list of aesthetics. mapping Character. Name of the geom to use (with or without "geom_"). geom geom_args List. Arguments to use in the geom. scales Character vector. Scale(s) to use (with or without "scale_"). scales_args List. Arguments to use in scale(s), if scales is length > 1, must be a named list with scales names. Character. Coordinates to use (with or without "coord_"). coord coord_args Arguments for coordinates function. List. Named list of labels to use for title, subtitle, x & y axis, legends. labs Character. Name of the theme to use (with or without "theme_"). theme Named list. Arguments for ggplot2::theme(). theme_args facet Character vector. Names of variables to use in ggplot2::facet_wrap. facet_row Character vector. Names of row variables to use in ggplot2::facet_grid(). facet_col Character vector. Names of col variables to use in ggplot2::facet_grid(). Named list. Arguments for ggplot2::facet_wrap(). facet_args xlim A vector of length 2 representing limits on x-axis. A vector of length 2 representing limits on y-axis. ylim

Value

a call that can be evaluated with eval.

```
# Default:
ggcall()

# With data and aes
ggcall("mtcars", list(x = "mpg", y = "wt"))

# Evaluate the call
library(ggplot2)
eval(ggcall("mtcars", list(x = "mpg", y = "wt")))

# With a geom:
ggcall(
   data = "mtcars",
   mapping = list(x = "mpg", y = "wt"),
   geom = "point"
)

# With options
```

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```
ggcall(
  data = "mtcars",
  mapping = list(x = "hp", y = "cyl", fill = "color"),
  geom = "bar",
  coord = "flip",
  labs = list(title = "My title"),
  theme = "minimal",
  facet = c("gear", "carb"),
  theme_args = list(legend.position = "bottom")
)
# Theme
ggcall(
  "mtcars", list(x = "mpg", y = "wt"),
  theme = "theme_minimal",
  theme_args = list(
   panel.ontop = TRUE,
   legend.title = rlang::expr(element_text(face = "bold"))
  )
)
# Theme from other package than ggplot2
ggcall(
  "mtcars", list(x = "mpg", y = "wt"),
  theme = "ggthemes::theme_economist"
)
# One scale
ggcall(
  data = "mtcars",
  mapping = list(x = "mpg", y = "wt", color = "qsec"),
  geom = "point",
  scales = "color_distiller",
  scales_args = list(palette = "Blues")
)
# Two scales
ggcall(
  data = "mtcars",
  mapping = list(x = "mpg", y = "wt", color = "qsec", size = "qsec"),
  geom = "point",
  scales = c("color_distiller", "size_continuous"),
  scales_args = list(
   color_distiller = list(palette = "Greens"),
    size\_continuous = list(range = c(1, 20))
  )
)
# Coordinates
ggcall(
  data = "mtcars",
```

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```
mapping = list(x = "mpg", y = "wt"),
  geom = "point",
  coord = "fixed"
)
ggcall(
  data = "mtcars",
  mapping = list(x = "mpg", y = "wt"),
  geom = "point",
  coord = "fixed",
  coord_args = list(ratio = 5)
)
```

ggplot-output

Render ggplot module

Description

Display a plot on the client and allow to download it.

Usage

```
ggplot_output(
  id,
  width = "100%",
 height = "400px",
  downloads = downloads_labels(),
)
downloads_labels(
  label = ph("download-simple"),
  png = tagList(ph("image"), "PNG"),
 pdf = tagList(ph("file-pdf"), "PDF"),
  svg = tagList(ph("browsers"), "SVG"),
  jpeg = tagList(ph("image"), "JPEG"),
 pptx = tagList(ph("projector-screen"), "PPTX"),
 more = tagList(ph("gear"), i18n("More options"))
)
render\_ggplot(
  id,
  expr,
  ...,
  env = parent.frame(),
  quoted = FALSE,
  filename = "export-ggplot",
  resizable = FALSE,
  use_plotly = reactive(FALSE),
```

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```
width = reactive(NULL),
height = reactive(NULL)
```

Arguments

id	Module ID.
width, height	Width / Height of the plot, in the server it has to be a shiny::reactive() function returning a new width/height for the plot.
downloads	Labels for export options, use downloads_labels() or NULL to disable export options.
•••	Parameters passed to $shiny::plotOutput()$ (ggplot_output) or $shiny::renderPlot()$ (render_ggplot).
label	Main label for export button
png, pdf, svg, jpe	eg, pptx
	Labels to display in export menu, use NULL to disable specific format.
more	Label for "more" button, allowing to launch export modal.
expr	An expression that generates a ggplot object.
env	The environment in which to evaluate expression.
quoted	Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable.
filename	A string of the filename to export WITHOUT extension, it will be added according to type of export.
resizable	Can the chart size be adjusted by the user?
use_plotly	A shiny::reactive() function returning TRUE or FALSE to render the plot with

Value

Server-side, a reactiveValues with the plot.

Examples

```
library(shiny)
library(ggplot2)
library(esquisse)

ui <- fluidPage(
   tags$h2("ggplot output"),
   selectInput("var", "Variable:", names(economics)[-1]),
   ggplot_output("MYID", width = "600px")
)

server <- function(input, output, session) {
   render_ggplot("MYID", {</pre>
```

plotly::ggplotly() or not.

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```
ggplot(economics) +
    geom_line(aes(date, !!sym(input$var))) +
    theme_minimal() +
    labs(
        title = "A cool chart made with ggplot2",
        subtitle = "that you can export in various format"
    )
})
}
if (interactive())
    shinyApp(ui, server)
```

ggplot_to_ppt

Utility to export ggplot objects to PowerPoint

Description

You can use the RStudio addin to interactively select ggplot objects, or directly pass their names to the function.

Usage

```
ggplot_to_ppt(gg = NULL)
```

Arguments

gg

character. Name(s) of ggplot object(s), if NULL, launch the Shiny gadget.

Value

Path to the temporary PowerPoint file.

```
# Shiny gadget
if (interactive()) {
ggplot_to_ppt()

# Or with an object's name
library(ggplot2)
p <- ggplot(iris) +
   geom_point(aes(Sepal.Length, Sepal.Width))
ggplot_to_ppt("p")
}</pre>
```

input-colors

Picker input to select color(s) or palette

Description

Select menu to view and choose a color or a palette of colors.

Usage

```
colorPicker(
  inputId,
  label,
  choices,
  selected = NULL,
  textColor = "#000",
  plainColor = FALSE,
 multiple = FALSE,
 pickerOpts = list(),
 width = NULL
)
updateColorPicker(
  session = getDefaultReactiveDomain(),
  inputId,
  choices,
  textColor = "#000",
  plainColor = FALSE,
 multiple = FALSE
)
palettePicker(
  inputId,
  label,
  choices,
  selected = NULL,
  textColor = "#000",
  plainColor = FALSE,
 pickerOpts = list(),
  width = NULL
)
updatePalettePicker(
  session = getDefaultReactiveDomain(),
  inputId,
  choices,
  selected = NULL,
  textColor = "#000",
```

```
plainColor = FALSE
)
```

Arguments

inputId The input slot that will be used to access the value. label Display label for the control, or NULL for no label. List of values to select from. Values must be valid Hex colors. If elements of choices the list are named then that name rather than the value is displayed to the user. selected The initially selected value (or multiple values if multiple = TRUE). If not specified then defaults to the first value for single-select lists and no values for multiple select lists. Color of the text displayed above colors, can be a vector of the same length as textColor choices. plainColor Color the full space of the choice menu. multiple Is selection of multiple items allowed? Options for pickerInput. pickerOpts width The width of the input: 'auto', 'fit', '100px', '75%'. session Shiny session.

Value

A select control that can be added to a UI definition.

```
# colorPicker ------
library(shiny)
library(esquisse)
library(scales)
ui <- fluidPage(</pre>
 tags$h2("colorPicker examples"),
 fluidRow(
   column(
     width = 3,
     colorPicker(
       inputId = "col1",
       label = "With a vector of colors:",
       choices = brewer_pal(palette = "Dark2")(8)
     verbatimTextOutput("res1"),
     colorPicker(
       inputId = "col5",
       label = "Update colors:",
       choices = brewer_pal(palette = "Blues", direction = -1)(8),
```

```
textColor = "#FFF"
     ),
     verbatimTextOutput("res5"),
     radioButtons(
        "update", "Colors", c("Blues", "Greens", "Reds"),
        inline = TRUE
     )
   ),
   column(
     width = 3,
     colorPicker(
       inputId = "col2",
       label = "Change text color:",
       choices = brewer_pal(palette = "Blues")(8),
       ),
     verbatimTextOutput("res2")
   ),
   column(
     width = 3,
     colorPicker(
       inputId = "col3",
       label = "With a list of vector of colors:",
       choices = list(
          "Blues" = brewer_pal(palette = "Blues")(8),
          "Reds" = brewer_pal(palette = "Reds")(8),
          "Greens" = brewer_pal(palette = "Greens")(8)
       )
     ),
     verbatimTextOutput("res3")
   ),
    column(
     width = 3,
     colorPicker(
       inputId = "col4",
       label = "Plain color & multiple choices:",
       choices = brewer_pal(palette = "Paired")(8),
       plainColor = TRUE,
       multiple = TRUE,
       pickerOpts = list(`selected-text-format`= "count > 3")
     ),
     verbatimTextOutput("res4")
   )
 )
)
server <- function(input, output, session) {</pre>
 output$res1 <- renderPrint(input$col1)</pre>
 output$res2 <- renderPrint(input$col2)</pre>
 output$res3 <- renderPrint(input$col3)</pre>
 output$res4 <- renderPrint(input$col4)</pre>
```

```
output$res5 <- renderPrint(input$col5)</pre>
 observeEvent(input$update, {
   updateColorPicker(
     inputId = "col5",
     choices = brewer_pal(palette = input$update, direction = -1)(8),
     textColor = "#FFF"
   )
 })
}
if (interactive()) {
 shinyApp(ui, server)
}
# palettePicker ------
library(shiny)
library(esquisse)
library(scales)
ui <- fluidPage(
 tags$h2("pickerColor examples"),
 fluidRow(
   column(
     width = 4,
     palettePicker(
       inputId = "pal1",
       label = "Select a palette:",
       choices = list(
         "Blues" = brewer_pal(palette = "Blues")(8),
         "Reds" = brewer_pal(palette = "Reds")(8)
       )
     ),
     verbatimTextOutput("res1"),
     palettePicker(
       inputId = "pal4",
       label = "Update palette:",
       choices = list(
         "Blues" = brewer_pal(palette = "Blues")(8),
         "Reds" = brewer_pal(palette = "Reds")(8)
       )
     ),
     verbatimTextOutput("res4"),
     radioButtons(
       "update", "Palettes:", c("default", "viridis", "brewer"),
       inline = TRUE
     )
   ),
   column(
     width = 4,
```

```
palettePicker(
        inputId = "pal2",
        label = "With a list of palette:",
        choices = list(
          "Viridis" = list(
            "viridis" = viridis_pal(option = "viridis")(10),
            "magma" = viridis_pal(option = "magma")(10),
            "inferno" = viridis_pal(option = "inferno")(10),
            "plasma" = viridis_pal(option = "plasma")(10),
            "cividis" = viridis_pal(option = "cividis")(10)
          ),
          "Brewer" = list(
            "Blues" = brewer_pal(palette = "Blues")(8),
            "Reds" = brewer_pal(palette = "Reds")(8),
            "Paired" = brewer_pal(palette = "Paired")(8),
            "Set1" = brewer_pal(palette = "Set1")(8)
          )
        ),
        textColor = c(
          rep("white", 5), rep("black", 4)
      ),
      verbatimTextOutput("res2")
   ),
    column(
      width = 4,
      palettePicker(
        inputId = "pal3",
        label = "With plain colors:",
        choices = list(
          "BrBG" = brewer_pal(palette = "BrBG")(8),
          "PiYG" = brewer_pal(palette = "PiYG")(8),
          "PRGn" = brewer_pal(palette = "PRGn")(8),
          "PuOr" = brewer_pal(palette = "PuOr")(8),
          "RdBu" = brewer_pal(palette = "RdBu")(8),
          "RdGy" = brewer_pal(palette = "RdGy")(8),
          "RdYlBu" = brewer_pal(palette = "RdYlBu")(8),
          "RdYlGn" = brewer_pal(palette = "RdYlGn")(8),
          "Spectral" = brewer_pal(palette = "Spectral")(8)
        ),
        plainColor = TRUE,
       textColor = "white"
      ),
      verbatimTextOutput("res3")
   )
 )
)
server <- function(input, output, session) {</pre>
 output$res1 <- renderPrint(input$pal1)</pre>
 output$res2 <- renderPrint(input$pal2)</pre>
 output$res3 <- renderPrint(input$pal3)</pre>
```

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```
output$res4 <- renderPrint(input$pal4)</pre>
 observeEvent(input$update, {
    if (input$update == "default") {
      updatePalettePicker(
        inputId = "pal4",
        choices = list(
          "Blues" = brewer_pal(palette = "Blues")(8),
          "Reds" = brewer_pal(palette = "Reds")(8)
   } else if (input$update == "viridis") {
      updatePalettePicker(
        inputId = "pal4",
        choices = list(
          "viridis" = viridis_pal(option = "viridis")(10),
          "magma" = viridis_pal(option = "magma")(10),
          "inferno" = viridis_pal(option = "inferno")(10),
          "plasma" = viridis_pal(option = "plasma")(10),
          "cividis" = viridis_pal(option = "cividis")(10)
       ),
        textColor = "#FFF"
      )
    } else if (input$update == "brewer") {
      updatePalettePicker(
        inputId = "pal4",
        choices = list(
          "Blues" = brewer_pal(palette = "Blues")(8),
          "Reds" = brewer_pal(palette = "Reds")(8),
          "Paired" = brewer_pal(palette = "Paired")(8),
          "Set1" = brewer_pal(palette = "Set1")(8)
     )
   }
 })
}
if (interactive()) {
 shinyApp(ui, server)
```

match_geom_args

Match list of arguments to arguments of geometry

Description

Match list of arguments to arguments of geometry

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Usage

```
match_geom_args(
  geom,
  args,
  add_aes = TRUE,
  mapping = list(),
  add_mapping = FALSE,
  exclude_args = NULL,
  envir = "ggplot2"
)
```

Arguments

geom	Character. name of the geometry.
args	Named list, parameters to be matched to the geometry arguments.
add_aes	Add aesthetics parameters (like size, fill,).
mapping	Mapping used in plot, to avoid setting fixed aesthetics parameters.
add_mapping	Add the mapping as an argument.
exclude_args	Character vector of arguments to exclude, default is to exclude aesthetics names.
envir	Package environment to search in.

Value

```
alist().
```

```
# List of parameters
params <- list(
    bins = 30,
    scale = "width",
    adjust = 2,
    position = "stack",
    size = 1.6,
    fill = "#112246"
)

# Search arguments according to geom
match_geom_args(geom = "histogram", args = params)
match_geom_args(geom = "violin", args = params)
match_geom_args(geom = "bar", args = params, add_aes = FALSE)
match_geom_args(geom = "point", args = params, add_aes = FALSE)
match_geom_args(geom = "point", args = params, add_aes = FALSE)</pre>
```

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safe_ggplot

Safely render a ggplot in Shiny application

Description

Safely render a ggplot in Shiny application

Usage

```
safe_ggplot(
  expr,
  data = NULL,
  show_notification = c("always", "once", "never"),
  session = shiny::getDefaultReactiveDomain()
)
```

Arguments

expr Code to produce a ggplot object.

data Argument passed to eval_tidy to evaluate expression.

show_notification

Strategy for notifications when a warning occurs:

- "always": default, show notifications for each warnings
- "once: show notification once per warning
- "never": do not display notifications.

session

Session object to send notification to.

Value

Output of ggplot_build.

```
if (interactive()) {
    library(shiny)
    library(ggplot2)

ui <- fluidPage(
    fluidRow(
        column(
        width = 3,
        selectInput(
            inputId = "var",
            label = "Var:",
            choices = c("Sepal.Width", "Do.Not.Exist")
        )
      ),</pre>
```

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```
column(
    width = 9,
    plotOutput(outputId = "plot")
)
)
server <- function(input, output, session) {
    output$plot <- renderPlot({
       p <- ggplot(iris) +
            geom_point(aes_string("Sepal.Length", input$var))
       safe_ggplot(p)
    })
}
shinyApp(ui, server)
}</pre>
```

save-ggplot-module

Save ggplot module

Description

Save a ggplot object in various format and resize it before saving.

Usage

```
save_ggplot_ui(
   id,
   output_format = c("png", "pdf", "svg", "jpeg", "bmp", "eps", "tiff")
)

save_ggplot_modal(
   id,
   title = NULL,
   output_format = c("png", "pdf", "svg", "jpeg", "bmp", "eps", "tiff")
)

save_ggplot_server(id, plot_rv)
```

Arguments

plot_rv A reactiveValues with a slot plot containing a ggplot object.

Value

No value. Use in UI & server in shiny application.

Examples

```
library(shiny)
library(ggplot2)
library(esquisse)
ui <- fluidPage(</pre>
  tags$h2("Save a ggplot"),
  selectInput("var", "Variable:", names(economics)[-1]),
plotOutput("plot", width = "600px"),
  actionButton("save", "Save this plot")
)
server <- function(input, output, session) {</pre>
  rv <- reactiveValues(plot = NULL)</pre>
  output$plot <- renderPlot({</pre>
    rv$plot <- ggplot(economics) +</pre>
      geom_line(aes(date, !!sym(input$var))) +
      theme_minimal()
    rv$plot
  })
  observeEvent(input$save, {
    save_ggplot_modal("ID", "Save plot")
  save_ggplot_server("ID", rv)
}
if (interactive())
  shinyApp(ui, server)
```

save-ggplot-multi-module

Save multiple ggplot module

Description

Save multiple ggplot objects in various format and retrieve code.

Usage

```
save_multi_ggplot_ui(
   id,
```

```
output_format = c("png", "pdf", "svg", "jpeg", "pptx")
)

save_multi_ggplot_server(
   id,
   plot_list_r = reactive(NULL),
   filename = "code-ggplot",
   placeholder = "No plots to display",
   code_pre = "library(ggplot2)"
)
```

Arguments

Module ID. id output_format Output formats offered to the user. A reactive function returning a list of plots and codes to export. Sub list items plot_list_r can have following names: • ggobj: the ggplot object producing the plot • code: code to produce the chart (optional) • label: a label to identify the plot filename Name for the file exported. placeholder A placeholder message to be displayed if plot_list_r return an empty list. code_pre Some code to put before plots code.

Value

No value. Use in UI & server in shiny application.

```
library(shiny)
library(ggplot2)
library(esquisse)
library(bslib)

ui <- page_fluid(
    theme = bs_theme_esquisse(),
    save_multi_ggplot_ui("mod")
)

server <- function(...) {

    p1 <- ggplot(mtcars) + geom_point(aes(mpg, disp))
    p2 <- ggplot(mtcars) + geom_boxplot(aes(gear, disp, group = gear))
    p3 <- ggplot(mtcars) + geom_smooth(aes(disp, qsec))
    p4 <- ggplot(mtcars) + geom_bar(aes(carb))
    p5 <- ggplot(presidential) +
        geom_segment(aes(y = name, x = start, xend = end)) +
        geom_point(aes(y = name, x = start)) +</pre>
```

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```
geom_point(aes(y = name, x = end))
 save_multi_ggplot_server(
   id = "mod",
   plot_list_r = reactive(list(
     list(
        ggobj = p1,
        code = "ggplot(mtcars) + geom_point(aes(mpg, disp))",
       label = "Plot 1"
     ),
     list(
        ggobj = p2,
        code = "ggplot(mtcars) + geom_boxplot(aes(gear, disp, group = gear))",
       label = "Plot 2"
     ),
     list(
       ggobj = p3,
       code = "ggplot(mtcars) + geom_smooth(aes(disp, qsec))",
       label = "Plot 3"
     ),
     list(
        ggobj = p4,
       code = "ggplot(mtcars) + geom_bar(aes(carb))",
       label = "Plot 4"
     ),
     list(
       ggobj = p5,
        code = "ggplot(presidential) +
 geom\_segment(aes(y = name, x = start, xend = end)) +
 geom\_point(aes(y = name, x = start)) +
 geom_point(aes(y = name, x = end))",
       label = "Plot 5"
   ))
 )
}
if (interactive())
 shinyApp(ui, server)
```

update Dragula Input

Update Dragula Input

Description

Update dragulaInput() widget server-side.

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Usage

```
updateDragulaInput(
    session,
    inputId,
    choices = NULL,
    choiceNames = NULL,
    choiceValues = NULL,
    selected = NULL,
    selectedNames = NULL,
    selectedValues = NULL,
    salectedValues = NULL,
    satus = "primary"
)
```

Arguments

session The session object passed to function given to shinyServer.

inputId The input slot that will be used to access the value.

choices List of values to select from (if elements of the list are named then that name

rather than the value is displayed to the user). If this argument is provided, then choiceNames and choiceValues must not be provided, and vice-versa. The values should be strings; other types (such as logicals and numbers) will be

coerced to strings.

choiceNames, choiceValues

List of names and values, respectively, that are displayed to the user in the app and correspond to the each choice (for this reason, choiceNames and choiceValues must have the same length). If either of these arguments is provided, then the other must be provided and choices must not be provided. The advantage of using both of these over a named list for choices is that choiceNames allows any type of UI object to be passed through (tag objects, icons, HTML code, ...), instead of just simple text.

selected Default selected values. Must be a list with targetsIds as names.

selectedNames, selectedValues

Update selected items with custom names and values.

badge Displays choices inside a Bootstrap badge. Use FALSE if you want to pass cus-

tom appearance with choiceNames.

status If choices are displayed into a Bootstrap label, you can use Bootstrap status to

color them, or NULL.

```
if (interactive()) {
library("shiny")
library("esquisse")
ui <- fluidPage(</pre>
```

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```
tags$h2("Update dragulaInput"),
 radioButtons(
   inputId = "update",
   label = "Dataset",
   choices = c("iris", "mtcars")
 ),
 tags$br(),
 dragulaInput(
    inputId = "myDad",
   sourceLabel = "Variables",
   targetsLabels = c("X", "Y", "fill", "color", "size"),
   choices = names(iris),
   replace = TRUE, width = "400px", status = "success"
 ),
 verbatimTextOutput(outputId = "result")
)
server <- function(input, output, session) {</pre>
 output$result <- renderPrint(str(input$myDad))</pre>
 observeEvent(input$update, {
    if (input$update == "iris") {
      updateDragulaInput(
       session = session,
        inputId = "myDad",
        choices = names(iris),
       status = "success"
    } else {
      updateDragulaInput(
        session = session,
        inputId = "myDad",
        choices = names(mtcars)
      )
   }
 }, ignoreInit = TRUE)
}
shinyApp(ui, server)
}
```

updateDropInput

Change the value of a drop input on the client

Description

Change the value of a drop input on the client

38 updateDropInput

Usage

```
updateDropInput(session, inputId, selected = NULL, disabled = NULL)
```

Arguments

session The session object passed to function given to shinyServer.

inputId The id of the input object.

selected The initially selected value.

disabled Choices (choicesValues) to disable.

See Also

dropInput

```
if (interactive()) {
  library(shiny)
  library(esquisse)
  myChoices <- tagList(</pre>
    list(icon("home"), style = "width: 100px;"),
    list(icon("flash"), style = "width: 100px;"),
    list(icon("cogs"), style = "width: 100px;"),
    list(icon("fire"), style = "width: 100px;"),
    list(icon("users"), style = "width: 100px;"),
    list(icon("info"), style = "width: 100px;")
  )
  ui <- fluidPage(</pre>
    tags$h2("Update Drop Input"),
    fluidRow(
      column(
        width = 6,
        dropInput(
           inputId = "mydrop",
           choicesNames = myChoices,
           choicesValues = c("home", "flash", "cogs", "fire", "users", "info"),
           dropWidth = "220px"
        ),
        verbatimTextOutput(outputId = "res")
      ),
      column(
        width = 6,
        actionButton("home", "Select home"),
        actionButton("flash", "Select flash"),
actionButton("cogs", "Select cogs"),
actionButton("fire", "Select fire"),
        actionButton("users", "Select users"),
```

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```
actionButton("info", "Select info"),
        checkboxGroupInput(
          inputId = "disabled",
          label = "Choices to disable",
          choices = c("home", "flash", "cogs", "fire", "users", "info")
        actionButton("disable", "Disable")
      )
   )
 )
 server <- function(input, output, session) {</pre>
   output$res <- renderPrint({</pre>
      input$mydrop
    })
    observeEvent(input$home, {
      updateDropInput(session, "mydrop", "home")
   })
   observeEvent(input$flash, {
      updateDropInput(session, "mydrop", "flash")
    })
   observeEvent(input$cogs, {
      updateDropInput(session, "mydrop", "cogs")
   observeEvent(input$fire, {
      updateDropInput(session, "mydrop", "fire")
    })
   observeEvent(input$users, {
      updateDropInput(session, "mydrop", "users")
    observeEvent(input$info, {
      updateDropInput(session, "mydrop", "info")
    })
   observeEvent(input$disable, {
      if (!is.null(input$disabled)) {
        updateDropInput(session, "mydrop", disabled = input$disabled)
      } else {
        updateDropInput(session, "mydrop", disabled = character(0))
      }
   })
 }
 shinyApp(ui, server)
}
```

40 which_pal_scale

Description

Automatically select appropriate color scale

Usage

```
which_pal_scale(
  mapping,
  palette = "ggplot2",
  data = NULL,
  fill_type = c("continuous", "discrete"),
  color_type = c("continuous", "discrete"),
  reverse = FALSE
)
```

Arguments

mapping Aesthetics used in ggplot.

palette Color palette.

data An optional data. frame to choose the right type for variables.

fill_type, color_type
Scale to use according to the variable used in fill/color aesthetic: "discrete" or "continuous". Ignored if data is provided: it will be guessed from data.

reverse Reverse colors order or not.

Value

alist

```
library(ggplot2)
# Automatic guess according to data
which_pal_scale(
  mapping = aes(fill = Sepal.Length),
  palette = "ggplot2",
  data = iris
)
which_pal_scale(
  mapping = aes(fill = Species),
  palette = "ggplot2",
  data = iris
)
# Explicitly specify type
which_pal_scale(
  mapping = aes(color = variable),
  palette = "Blues",
```

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```
color_type = "discrete"
)

# Both scales
which_pal_scale(
  mapping = aes(color = var1, fill = var2),
  palette = "Blues",
  color_type = "discrete",
  fill_type = "continuous"
)
```

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