Package 'bsplus'

November 16, 2022

```
Type Package
Title Adds Functionality to the R Markdown + Shiny Bootstrap Framework
Version 0.1.4
Description The Bootstrap framework lets you add some JavaScript functionality to your web site by
      adding attributes to your HTML tags - Bootstrap takes care of the JavaScript
      <https://getbootstrap.com/docs/3.3/</pre>
      javascript/>. If you are using R Markdown or Shiny, you can
      use these functions to create collapsible sections, accordion panels, modals, tooltips,
      popovers, and an accordion sidebar framework (not described at Bootstrap site).
      Please note this package was designed for Bootstrap 3.3.
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Author Ian Lyttle [aut, cre] (<a href="https://orcid.org/0000-0001-9962-4849">https://orcid.org/0000-0001-9962-4849</a>),
      Alex Shum [ctb],
      Emerson Berry [ctb]
Maintainer Ian Lyttle <ijlyttle@me.com>
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Accordion panel-group

Description

An accordion is a set of collapsible panels where, at most, one panel-body is visible.

Usage

```
bs_accordion(id)
## S3 method for class 'bsplus_accordion'
bs_append(tag, title, content, ...)
## S3 method for class 'bsplus_accordion'
bs_set_opts(tag, panel_type = "primary", use_heading_link = TRUE, ...)
```

Arguments

id	character, unique id for accordion <div></div> , also serves as root id for panels appended using bs_append()
tag	<pre>htmltools::[tag][htmltools::tag], accordion <div></div> to which to append a panel</pre>
title	$character(HTML)orhtmltools:: \verb [tagList] ftmltools:: tagList], titleforthepanelheading$
content	character (HTML) or htmltools::[tagList][htmltools::tagList], content for the panel body

bs_accordion_sidebar 3

logical, indicates whether to make the entire panel heading clickable.

Details

All of these functions return a bsplus_accordion object (which is also an htmltools::[tag][htmltools::tag], <div/>), so you can compose an accordion by piping. There are three parts to this system:

- 1. A constructor function for the accordion, bs_accordion()
- 2. A function to set options for subsequent panels, bs_set_opts()
- 3. A function to append a panel to the group, bs_append()

The verb *append* is used to signify that you can append an arbitrary number of panels to an accordion.

For the constructor, bs_accordion(), it is your responsibility to ensure that id is unique among HTML elements in your page. If you have non-unique id's, strange things may happen to your page.

Value

```
bsplus_accordion object (htmltools::[tag][htmltools::tag], <div/>)
```

See Also

https://getbootstrap.com/docs/3.3/javascript/#collapse-example-accordion

Examples

```
bs_accordion(id = "meet_the_beatles") %>%
bs_set_opts(panel_type = "success", use_heading_link = TRUE) %>%
bs_append(title = "John Lennon", content = "Rhythm guitar, vocals") %>%
bs_set_opts(panel_type = "info") %>%
bs_append(title = "Paul McCartney", content = "Bass guitar, vocals")
```

Description

Combines Bootstrap accordion with the functionality of shiny::[sidebarLayout][shiny::sidebarLayout], allowing you to add another dimension to your **shiny** apps.

Usage

```
bs_accordion_sidebar(
  id,
  spec_side = c(width = 4, offset = 0),
  spec_main = c(width = 8, offset = 0),
  position = c("left", "right")
)
use_bs_accordion_sidebar()
## S3 method for class 'bsplus_accordion_sidebar'
bs_append(tag, title_side, content_side, content_main, ...)
## S3 method for class 'bsplus_accordion_sidebar'
bs_set_opts(
  tag,
  panel_type_active = "success",
 panel_type_inactive = "primary",
  use_main_enclosure = TRUE,
)
```

Arguments

```
character, unique id for accordion-sidebar <div/>, also serves as root id for
id
                 panels appended using bs_append()
spec_side
                  numeric, column specification for sidebar panels
spec_main
                  numeric, column specification for main panels
position
                 character, indicates where to put the sidebar panels with respect to the main
tag
                 htmltools::[tag][htmltools::tag], accordion-sidebar <div/> to which to
                 append a panel
                 character\,(HTML)\,or\,htmltools:: \texttt{[tagList][htmltools::tagList]}, title\,for
title_side
                 the sidebar panel
                 character (HTML) or htmltools::[tagList][htmltools::tagList], con-
content_side
                 tent for the sidebar panel
content_main
                 character (HTML) or htmltools::[tagList][htmltools::tagList], con-
                 tent for the main panel
                  other arguments (not used)
panel_type_active
                 character, indicated bootstrap type for active-panel header, one of c("default",
                  "primary", "success", "info", "warning", "danger")
panel_type_inactive
                  character, indicated bootstrap type for inactive-panel header, one of c ("default",
                  "primary", "success", "info", "warning", "danger")
use_main_enclosure
                 logical, indicates if main content is to be wrapped in a Bootstrap panel
```

Details

If you use a bs_accordion_sidebar(), you will have to call the function use_bs_accordion_sidebar() somewhere in your UI. This attaches some JavaScript needed for your accordion sidebar to work properly.

All of these functions return a bsplus_accsidebar object, (which is also an htmltools::[tag][htmltools::tag], <div/>), so you can compose an accordion sidebar by piping. There are three parts to this system:

- 1. A constructor function for the accordion-sidebar, bs_accordion_sidebar()
- 2. A function to set options for subsequent panels, bs_set_opts()
- 3. A function to append a panel-set to an accordion-sidebar, bs_append()

The verb *append* is used to signify that you can append an arbitrary number of panels-sets to an accordion-sidebar.

For the constructor, bs_accordion_sidebar(), it is your responsibility to ensure that id is unique among HTML elements in your page. If you have non-unique id's, strange things may happen to your page.

Value

```
bsplus_accsidebar object (htmltools::[tag][htmltools::tag], <div/>)
```

Examples

```
bs_accordion_sidebar(id = "meet_the_beatles") %>%
  bs_append(
    title_side = "John Lennon",
    content_side = "Rhythm guitar, vocals",
    content_main = "Dear Prudence"
) %>%
  bs_append(
    title_side = "Paul McCartney",
    content_side = "Bass guitar, vocals",
    content_main = "Blackbird"
)
## Not run:
use_bs_accordion_sidebar()
## End(Not run)
```

```
bs_append.bsplus_carousel
```

Carousel

Description

A carousel is used to enclose a set of (typically) images, providing controls to move slides backand-forth.

Usage

```
## S3 method for class 'bsplus_carousel'
bs_append(tag, content, caption = NULL, ...)
bs_carousel(id, use_indicators = FALSE, use_controls = TRUE)
```

Arguments

tag	htmltools::[tag][htmltools::tag], carousel <div></div> to which to append a panel
content	character (HTML) or $htmltools::[tagList][htmltools::tagList]$, content for the slide
caption	$character(HTML)orhtmltools:: \verb [tagList] [htmltools::tagList], caption for the slide$
	other args (not used)
id	character, unique id for accordion <div></div> , also serves as root id for slides appended using bs_append()
use_indicators	logical, denotes use of slide-position indicators (dots)
use_controls	logical, denotes use of controls (chevrons at sides)

Details

All of these functions return a bsplus_carousel object (which is also an htmltools::[tag][htmltools::tag], <div/>), so you can compose a carousel by piping. There are two parts to this system:

- 1. A constructor function for the carousel, bs_carousel()
- 2. A function to append a slide to the carousel, bs_append()

The verb *append* is used to signify that you can append an arbitrary number of slides to a carousel. For the constructor, bs_carousel(), it is your responsibility to ensure that id is unique among HTML elements in your page. If you have non-unique id's, strange things may happen to your page.

Value

```
bsplus_carousel object (htmltools::[tag][htmltools::tag], <div/>)
```

See Also

https://getbootstrap.com/docs/3.3/javascript/#carousel, bs_carousel_image(), bs_carousel_caption()

```
bs_carousel(id = "with_the_beatles") %>%
  bs_append(content = bs_carousel_image(src = "img/john.jpg")) %>%
  bs_append(content = bs_carousel_image(src = "img/paul.jpg")) %>%
  bs_append(content = bs_carousel_image(src = "img/george.jpg")) %>%
  bs_append(content = bs_carousel_image(src = "img/ringo.jpg"))
```

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bs_button Button

Description

This function makes it a little easier to make Bootstrap-friendly buttons; it wraps htmltools::tags for buttons.

Usage

```
bs_button(
  label,
  button_type = c("default", "primary", "success", "info", "warning", "danger"),
  button_size = c("default", "large", "small", "extra-small"),
   ...
)
```

Arguments

```
label character (HTML), button label

button_type character, one of the standard Bootstrap types

button_size character, size of the button

attributes (named arguments) and children (unnamed arguments) of the button, passed to
```

Value

```
Object with S3 class, shiny.tag, <button/>.
```

See Also

```
https://getbootstrap.com/docs/3.3/css/#buttons
```

```
bs_button("Click me", button_type = "primary", button_size = "small")
```

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bs_carousel_caption Carousel caption

Description

Helper function to generate HTML for a carousel caption.

Usage

```
bs_carousel_caption(title = NULL, body = NULL)
```

Arguments

title character, caption title body character, caption body

Value

```
htmltools::[tag][htmltools::tag] <div/> for carousel caption
```

See Also

```
bs_carousel()
```

bs_carousel_image

Carousel image

Description

Helper function to generate HTML for a carousel image.

Usage

```
bs_carousel_image(...)
```

Arguments

... additional arguments passed to htmltools::[tag][htmltools::tag]\$img, typically includes src

Details

This function wraps htmltools::[tag][htmltools::tag]\$img, but adding a class to center the image in the carousel.

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Value

```
htmltools::[tag][htmltools::tag], </img>
```

See Also

```
bs_carousel()
```

bs_collapse

Collapsible element

Description

This is useful for content that you may wish to be hidden when the page is initialized, but that can be revealed (and subsequently hidden) by clicking a button or a link.

Usage

```
bs_collapse(id, content = NULL, show = FALSE)
bs_attach_collapse(tag, id_collapse)
```

Arguments

id character, unique id for the collapsible <div/>

 $content \qquad \qquad character \ (HTML) \ or \ htmltools:: [tagList][htmltools:: tagList], \ constant \ co$

tent for the collapsible <div/>

show logical, indicates if collapsible <div/> is shown when page is initialized

tag htmltools::[tag][htmltools::tag], button or link to which to attach a col-

lapsible <div/>

id_collapse character, id of the collapsible <div/> to attach

Details

There are two parts to this system:

- 1. A collapsible <div/>, created using bs_collapse()
- 2. At least one button (<button/>) or link (<a/>) to which the id of the collapsible <div/> is attached, using bs_attach_collapse()

The verb *attach* is used to signify that we are attaching the id of our collapsible <div/> to the tag in question (a button or a link). Note that you can attach the id of a collapsible <div/> to more than one button or link.

It is your responsibility to ensure that id is unique among HTML elements in your page. If you have non-unique id's, strange things may happen to your page.

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Value

```
bs_collapse() htmltools::[tag][htmltools::tag], <div/>
bs_attach_collapse() htmltools::[tag][htmltools::tag], modified copy of tag (button or link)
```

See Also

```
https://getbootstrap.com/docs/3.3/javascript/#collapse
```

Examples

```
library("htmltools")
bs_collapse(id = "id_yeah", "Yeah Yeah Yeah")
bs_button("She Loves You", button_type = "primary") %>%
bs_attach_collapse("id_yeah")
```

bs_embed_popover

Popover

Description

A popover can be a useful way to add a somewhat-verbose explanation to a tag.

Usage

```
bs_embed_popover(tag, title = NULL, content = NULL, placement = "top", ...)
use_bs_popover()
```

Arguments

tag	$\label{lem:htmltools::tag]} $$ $$ \operatorname{button} > \operatorname{or} < a > , into which to embed the popover $$$
title	character, title for the popover, generally text
content	character, content for the popover body, can be HTML
placement	character, placement of the popover with respect to tag
	other named arguments, passed to bs_set_data()

Details

To activate the use of popovers in your page, you will need to call the use_bs_popover() function somewhere.

The verb *embed* is used to signify that you are embedding information into a tag. This implies that you can embed, at most, one "thing" into a particular tag. You should not, for example, expect to embed both a tooltip and a popover into a tag.

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Value

```
htmltools::[tag][htmltools::tag], modified copy of tag
```

See Also

```
bs_embed_tooltip(), https://getbootstrap.com/docs/3.3/javascript/#popovers
```

Examples

```
library("htmltools")
bs_button("A button") %>%
  bs_embed_popover(title = "I'm a popover", content = "Really!")
```

bs_embed_tooltip Tooltip

Description

A tooltip can be a useful way to add a few words of explanation to a tag.

Usage

```
bs_embed_tooltip(tag, title = "", placement = "top", ...)
use_bs_tooltip()
```

Arguments

Details

To activate the use of tooltips in your page, you will need to call the use_bs_tooltip() function somewhere.

The verb *embed* is used to signify that you are embedding information into a tag. This implies that you can embed, at most, one "thing" into a particular tag. You should not, for example, expect to embed both a tooltip and a popover into a tag.

Value

```
htmltools::[tag][htmltools::tag], modified copy of tag
```

bs_modal bs_modal

See Also

```
bs_embed_popover(), https://getbootstrap.com/docs/3.3/javascript/#tooltips
```

Examples

```
library("htmltools")
bs_button("I'm a button") %>%
  bs_embed_tooltip(title = "I'm a tooltip")
```

bs_modal

Modal window

Description

Modal windows are useful to make detailed explanations, and are typically attached to buttons or links. Thus, there are two parts to this system:

Usage

```
bs_modal(
  id,
  title,
  body,
  footer = bs_modal_closebutton(label = "Close"),
  size = c("medium", "large", "small")
)
bs_modal_closebutton(label = "Close", title)
bs_attach_modal(tag, id_modal)
```

Arguments

id	character, unique id for the modal window
title	character, title for the modal window (this argument is deprecated for $bs_modal_closebutton$, use label instead)
body	character (HTML) or htmltools::[tagList][htmltools::tagList], content for the body of the modal window
footer	character (HTML) or htmltools::[tagList][htmltools::tagList], content for the footer of the modal window
size	character, size of the modal window
label	character (HTML), label for the close-button
tag	htmltools::[tag][htmltools::tag], button or link to which to attach the modal window
id_modal	character, unique id of modal window to attach

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Details

- 1. A modal window, created using bs_modal()
- 2. At least one button or link to which the id of the modal window is attached, using bs_attach_modal()

The verb *attach* is used to signify that we are attaching the id of our modal window to the tag in question (generally a button or a link). This implies that you can attach the id of a modal window to more than one button or link.

It is your responsibility to ensure that id is unique among HTML elements in your page. If you have non-unique id's, strange things may happen to your page.

Your code may be cleaner if you can import the content for the modal body from an external source. Here, the function shiny::[includeMarkdown][shiny::includeMarkdown] be useful.

If you want to compose your own footer for the modal window, the function bs_modal_closebutton() can be useful.

Value

```
bs_modal() htmltools::[tag][htmltools::tag], <div/>
bs_attach_modal() htmltools::[tag][htmltools::tag], modified copy of tag
bs_modal_closebutton() htmltools::[tag][htmltools::tag], <button/>
```

See Also

```
shiny::[includeMarkdown][shiny::includeMarkdown]
```

```
library("htmltools") # also needs `markdown` package
library("shiny")

bs_modal(id = "modal", title = "I'm a modal", body = "Yes, I am.")
bs_button("Click for modal") %>%
    bs_attach_modal(id_modal = "modal")

bs_modal(
    id = "modal_large",
    title = "I'm a modal",
    size = "large",
    body = includeMarkdown(system.file("markdown", "modal.md", package = "bsplus"))
)
bs_button("Click for modal") %>%
    bs_attach_modal(id_modal = "modal_large")
```

bs_panel

bs_panel

Panel

Description

This function makes it a little easier to make Bootstrap-friendly panels; it wraps htmltools::tags for panels

Usage

```
bs_panel(
  id = NULL,
  panel_type = c("default", "primary", "success", "info", "warning", "danger"),
  heading = NULL,
  body = NULL,
  ...,
  footer = NULL
)
```

Arguments

```
id character, unique identifier
panel_type character, one of the standard Bootstrap types
heading character (HTML) or htmltools::tagList(), content for the heading
body character (HTML) or htmltools::tagList(), content for the body
... character (HTML) or htmltools::tagList(), other content
footer character (HTML) or htmltools::tagList(), content for the footer
```

Value

```
Object with S3 class, shiny.tag, <div/>
```

See Also

```
https://getbootstrap.com/docs/3.3/css/#panels
```

```
library("htmltools")
bs_panel(
  panel_type = "primary",
  heading = tags$h3("title"),
  body = tags$p("Some very important content")
)
```

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bs_set_data

Sets Bootstrap data- and aria- attributes.

Description

Helper function to manage attributes for Bootstrap's JavaScript components.

Usage

```
bs_set_data(tag, ...)
bs_set_aria(tag, ...)
```

Arguments

```
tag htmltools::[tag][htmltools::tag]
... named arguments used to set the attributes of tag
```

Details

One of the mechanisms used by the API for Boostrap JavaScript-components is an html elements' attributes. These attribute names are prefixed with "data-" or "aria-", depending on the function.

When expressed in html, attributes themselves have the properties:

- Logical values are expressed as "true" or "false".
- Time durations are expressed as number of milliseconds.
- Vector (non scalar) values are expressed in a space-delimited list.

The purpose of this function is to let you express these values in ways familiar to you as an R user. For example:

- Logical values can be expressed as logicals: TRUE or FALSE.
- Time durations can be expressed using lubridate durations.
- Vector (non scalar) values can be expressed as vectors.

Note that this returns a modified copy of the tag sent to it, so it is pipeable.

Value

```
htmltools::[tag][htmltools::tag], modified copy of tag
```

See Also

Bootstrap JavaScript Components

Examples

```
library("htmltools")
library("lubridate")

tags$div() %>%
   bs_set_data(
    target = "#foobar",
    delay = dseconds(1),
    placement = c("right", "auto")
) %>%
   bs_set_aria(expanded = FALSE)
```

render_html_fragment Renders and returns an HTML fragment

Description

This is a wrapper around the rmarkdown::[render][rmarkdown::render] function. The principal difference is that the function is designed to return an HTML fragment (rather than writing to a file). This function is useful to populate the content of a modal window.

Usage

```
render_html_fragment(input, output_format = rmarkdown::html_fragment(), ...)
```

Arguments

```
input character, path to input file
output_format rmarkdown output format, provided so you can specify arguments
other arguments passed to rmarkdown::[render][rmarkdown::render]
```

Details

This function is being deprecated in favor of shiny::[includeMarkdown][shiny::includeMarkdown]

Value

```
htmltools::[tag][htmltools::tag]
```

```
## Not run:
my_file <- system.file("markdown", "modal.md", package = "bsplus")
render_html_fragment(my_file)
## End(Not run)</pre>
```

```
shinyInput_label_embed
```

Embed an element into the label of a Shiny-input tag

Description

The element embedded into the Shiny input will be pulled to the right edge of the label.

Usage

```
shinyInput_label_embed(tag, element)
```

Arguments

```
tag Shiny input, such as shiny::[numericInput][shiny::numericInput]
element htmltools::[tag][htmltools::tag] to be embedded into label of tag
```

Details

To promote consistency, the following convention is proposed:

```
For links (activated by clicking), embed a shiny::icon("info-circle"); this is the default for shiny_iconlink(). For elements activated by hovering, embed a shiny::icon("info").
```

Value

Shiny input, modified copy of tag

See Also

```
shiny_iconlink()
```

```
library("shiny")
numericInput(inputId = "foo", label = "Enter a number", value = 0) %>%
    shinyInput_label_embed(
    shiny_iconlink() %>%
    bs_embed_popover(title = "Number", content = "Not a complex number")
)
```

shiny_iconlink

shiny_iconlink

Create link containing Shiny icon

Description

You can use this helper function to wrap link element around a shiny::[icon][shiny::icon]. It may be useful to attach a modal window to (or embed a popover into) into such a link.

Usage

```
shiny_iconlink(name = "info-circle", id = NULL, ...)
```

Arguments

```
name character, name of the icon, passed to shiny::[icon][shiny::icon]
id character, option ID for the link
... other arguments passed to shiny::[icon][shiny::icon]
```

Value

```
htmltools::[tag][htmltools::tag], <a/>
```

See Also

```
shinyInput_label_embed(), shiny::[icon][shiny::icon], bs_attach_modal(), bs_embed_popover(),
bs_embed_tooltip()
```

```
shiny_iconlink()
shiny_iconlink() %>%
  bs_embed_popover(title = "Help!", content = "I need somebody")
```

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