Package ‘connectwidgets’

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Title Organize and Curate Your Content Within ‘Posit Connect’

Version 0.2.1

Description A collection of helper functions and htmlwidgets to help publishers curate content collections on ‘Posit Connect’. The components, Card, Grid, Table, Search, and Filter can be used to produce a showcase page or gallery contained within a static or interactive R Markdown page.

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BugReports https://github.com/rstudio/connectwidgets/issues

NeedsCompilation no

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by_owners

Filter content by owner(s)

Description

Returns content items owned by the specified user(s) (by username)

Usage

by_owners(content, usernames)

by_owner(content, usernames)

Arguments

content Content data frame from content(...)

usernames The username of the owner, or a list of usernames if multiple
by_tags

**Value**

The filtered content data frame

---

**by_tags**  
*Filter content by tag(s)*

---

**Description**

Returns content items that have the specified tag(s) (by tag name)

**Usage**

```
by_tags(content, tagnames)
by_tag(content, tagnames)
```

**Arguments**

- `content`  
  Content data frame from `content(...)`

- `tagnames`  
  The name of the tag, or a list of names if multiple

**Value**

The filtered content data frame

---

**Client**  
*Class representing a Connect API client*

---

**Description**

Class representing a Connect API client

**Details**

This class allows a user to interact with a Connect server via the Connect API. Authentication is done by providing an API key.
Methods

Public methods:

- Client$new()
- Client$print()
- Client$GET()
- Client$content()
- Client$server_settings()
- Client$clone()

Method new():

Usage:
Client$new(server, api_key)

Method print():

Usage:
Client$print(...)  

Method GET():

Usage:
Client$GET(path, ..., writer = httr::write_memory(), parser = "text")

Method content():

Usage:
Client$content()

Method server_settings():

Usage:
Client$server_settings()

Method clone(): The objects of this class are cloneable with this method.

Usage:
Client$clone(deep = FALSE)

Arguments:

deep Whether to make a deep clone.
**connect**

*Create a connection to Posit Connect*

**Description**

Creates a connection to Posit Connect using the server URL and an api key.

**Usage**

```r
connect(
    server = Sys.getenv("CONNECT_SERVER", NA_character_),
    api_key = Sys.getenv("CONNECT_API_KEY", NA_character_)
)
```

**Arguments**

- **server** The server URL for accessing Posit Connect. Defaults to environment variable CONNECT_SERVER
- **api_key** The API key to authenticate with Posit Connect. Defaults to environment variable CONNECT_API_KEY

**Value**

An Client object

---

**connectwidgets**

*connectwidgets: Curate your content on Posit Connect*

**Description**

connectwidgets provides UI components to help publishers provide curated organization of content on Posit Connect.

**Connection**

Set CONNECT_SERVER and CONNECT_API_KEY environment variables and `connect()`. Fetch a tibble listing server content with `content()`. Use the `by_owner()` and `by_tags()` filter helpers to narrow your search.

**Components**

Present your content with different components:

- `rsc_card()` for highlighting individual content items
- `rsc_grid()` for groups of cards
- `rsc_table()` for a tabular view
- `rsc_search()` a text input for searching grids and tables
- `rsc_filter()` an input to filter grids or tables by owner, type, or tag
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See Also

Useful links:
• https://rstudio.github.io/connectwidgets/
• https://github.com/rstudio/connectwidgets
• Report bugs at https://github.com/rstudio/connectwidgets/issues

---

content  Get Content Items

Description

Returns content items as a data frame from the Connect server. It will only return content that is visible to the API key’s user account.

Usage

content(client, unpublished = FALSE)

Arguments

client          A Client object (see connect)
unpublished     A boolean value specifying whether to return content that has not successfully published

Value

A data frame (tibble) of content items

• id - Auto-incrementing identifier for each content item (legacy)
• guid - Unique identifier for each content item (preferred)
• app_mode - The type of the content item (examples: shiny, rmd-static, static, python-dash, etc.)
• content_category - For static app modes, the specific category of content (examples: site, plot, pin, etc.)

• name - The name of the content item as set at initial publishing

• title - The user-provided title of the content item

• description - The user-provided description of the content item

• url - The URL to the content item

• owner_guid - Unique identifier of the owner of the content item

• owner_username - Username of the owner of the content item

• owner_first_name - First name of the owner of the content item

• owner_last_name - Last name of the owner of the content item

• tags - A data frame of the tags associated with the content item, with format: (id, name, parent_id, created_time, updated_time)

• created_time - The timestamp at which the content item was created

• updated_time - The timestamp at which the content item was last updated

default_theme

---

Principal (most used) theming variables

bg fg primary secondary success info warning danger base_font code_font heading_font font_scale

Description

bg fg primary secondary success info warning danger base_font code_font heading_font font_scale

Usage

default_theme()

Details

Visit https://rstudio.github.io/bslib/articles/bs4-variables.html to see the full list of theming variables available
evaluate_widget_input "Evaluates required columns for widget’s input"

Description
Evaluates required columns for widget’s input

Usage
evaluate_widget_input(widget, colnames, required)

Arguments
- widget: Widget’s name to identify errors thrown
- colnames: Column names provided from the widget content input
- required: List of required columns to look for in the widget’s input

gen_theme_dependency "Generate the theme’s bslib::bs_dependency to be used by a widget."

Description
Generate the theme’s bslib::bs_dependency to be used by a widget.

Usage
gen_theme_dependency(widget_name, theme, default_base = FALSE)

Arguments
- widget_name: The name of the widget (e.g: rsc_grid)
- theme: The bslib theme to generate the CSS dependency
- default_base: Using the default theme or not

get_bootswatch_theme_name

Description
Get docmeta theme name (output: html_document: theme)

Usage
get_bootswatch_theme_name()
**get_current_bootswatch_theme**

*Get the current bootswatch theme if any*

**Description**

Get the current bootswatch theme if any

**Usage**

```python
get_current_bootswatch_theme()
```

---

**get_user_provided_theme**

*Get the current user provided bslib theme if any*

**Description**

Get the current user provided bslib theme if any

**Usage**

```python
get_user_provided_theme()
```

---

**resolve_theme_dependency**

*Resolve and get theme to be used by a widget. It could be the default connectwidgets styling theme or one provided by the user.*

**Description**

Resolve and get theme to be used by a widget. It could be the default connectwidgets styling theme or one provided by the user.

**Usage**

```python
resolve_theme_dependency(widget_name)
```

**Arguments**

- `widget_name` The name of the widget (e.g: rsc_grid)
rsc_card  

*Card view for content*

**Description**

Renders a card view for the provided content

**Usage**

rsc_card(content)

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>A data frame from Connect’s content. Requires the following columns “guid,” “url,” “title”. And, although optional, expects an “owner_username”, “description” and “updated_time” columns.</td>
</tr>
</tbody>
</table>

rsc_card-shiny  

*Shiny bindings for rsc_card*

**Description**

Output and render functions for using rsc_card within Shiny applications and interactive Rmd documents.

**Usage**

rsccardOutput(outputId, width = "100\%", height = "400px")

renderRsccard(expr, env = parent.frame(), quoted = FALSE)

**Arguments**

<table>
<thead>
<tr>
<th>Argument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>outputId</td>
<td>output variable to read from</td>
</tr>
<tr>
<td>width, height</td>
<td>Must be a valid CSS unit (like '100%', '400px', 'auto') or a number, which will be coerced to a string and have 'px' appended.</td>
</tr>
<tr>
<td>expr</td>
<td>An expression that generates a rsc_card</td>
</tr>
<tr>
<td>env</td>
<td>The environment in which to evaluate expr.</td>
</tr>
<tr>
<td>quoted</td>
<td>Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable.</td>
</tr>
</tbody>
</table>
rsc_cols

Arrange HTML elements or widgets in Bootstrap columns

Description
This helper function makes it easy to put HTML elements side by side. It can be called directly from the console but is especially designed to work in an R Markdown document. Note that this is ripped directly from https://github.com/rstudio/crosstalk without the additional bootstrap dependency (since it is already expected in connectwidgets).

Usage
rsc_cols(..., widths = NA, device = c("xs", "sm", "md", "lg"))

Arguments
... htmltools tag objects, lists, text, HTML widgets, or NULL. These arguments should be unnamed.
widths The number of columns that should be assigned to each of the ... elements (the total number of columns available is always 12). The width vector will be recycled if there are more ... arguments. NA columns will evenly split the remaining columns that are left after the widths are recycled and non-NA values are subtracted.
device The class of device which is targeted by these widths; with smaller screen sizes the layout will collapse to a one-column, top-to-bottom display instead. xs: never collapse, sm: collapse below 768px, md: 992px, lg: 1200px.

Value
A browsable HTML element.

Examples
library(htmltools)

# If width is unspecified, equal widths will be used
rsc_cols(
  div(style = css(width="100\%", height="400px", background_color="red")),
  div(style = css(width="100\%", height="400px", background_color="blue"))
)

# Use NA to absorb remaining width
rsc_cols(widths = c(2, NA, NA),
  div(style = css(width="100\%", height="400px", background_color="red")),
  div(style = css(width="100\%", height="400px", background_color="blue")),
  div(style = css(width="100\%", height="400px", background_color="green"))
)
# Recycling widths

```r
cols(widths = c(2, 4),
      div(style = css(width="100\%", height="400px", background_color="red")),
      div(style = css(width="100\%", height="400px", background_color="blue")),
      div(style = css(width="100\%", height="400px", background_color="red")),
      div(style = css(width="100\%", height="400px", background_color="blue")))
```

---

### rsc_filter

**Filter widget**

**Description**

Filter content rows with owner, content type and tags, expects the exact same frame passed to the view widget being filtered.

**Usage**

```r
rsc_filter(content)
```

**Arguments**

- `content` A data frame from Connect’s content. Although optional, expects an "owner_username", "app_mode" and "tags" columns.

---

### rsc_filter-shiny

**Shiny bindings for rsc_filter**

**Description**

Output and render functions for using rsc_filter within Shiny applications and interactive Rmd documents.

**Usage**

```r
rscfilterOutput(outputId, width = "100\%", height = "400px")
```

```r
renderRscfilter(expr, env = parent.frame(), quoted = FALSE)
```
**rsc_grid**

**Description**

Renders a grid view of the provided content items

**Usage**

```
rsc_grid(content)
```

**Arguments**

- **content**
  
  A data frame from Connect's content. Requires the following columns "guid", "url", "title", "app_mode", "owner_username". And, although optional, expects an "updated_time" column.

---

**rsc_grid-shiny**

**Shiny bindings for rsc_grid**

**Description**

Output and render functions for using rsc_grid within Shiny applications and interactive Rmd documents.

**Usage**

```
rscgridOutput(outputId, width = "100\%", height = "400px")
renderRscgrid(expr, env = parent.frame(), quoted = FALSE)
```
Arguments

outputId  output variable to read from
width, height  Must be a valid CSS unit (like '100%', '400px', 'auto') or a number, which will be coerced to a string and have 'px' appended.
expr  An expression that generates a rsc_grid
eenv  The environment in which to evaluate expr.
quoted  Is expr a quoted expression (with quote())? This is useful if you want to save an expression in a variable.

Description

Search for matching content name/title within the shared data object passed. Expects the exact same frame passed to the view widget being filtered.

Usage

rsc_search(content)

Arguments

content  A shared object from Connect’s content

Description

Output and render functions for using rsc_search within Shiny applications and interactive Rmd documents.

Usage

rscsearchOutput(outputId, width = "100\%", height = "400px")
renderRscsearch(expr, env = parent.frame(), quoted = FALSE)
\textbf{Arguments}

\begin{itemize}
\item \textbf{outputId} \hspace{1cm} output variable to read from
\item \textbf{width, height} \hspace{1cm} Must be a valid CSS unit (like \texttt{'100\%'}, \texttt{'400px'}, \texttt{'auto'}) or a number, which will be coerced to a string and have \texttt{'px'} appended.
\item \textbf{expr} \hspace{1cm} An expression that generates a rsc_search
\item \textbf{env} \hspace{1cm} The environment in which to evaluate \textit{expr}.
\item \textbf{quoted} \hspace{1cm} Is \textit{expr} a quoted expression (with \texttt{quote()})? This is useful if you want to save an expression in a variable.
\end{itemize}

\textbf{rsc_table} \hspace{1cm} \textit{Reactable table of the content}

\textbf{Description}

Renders a reactable table of the provided content items

\textbf{Usage}

\begin{verbatim}
rsc_table(content)
\end{verbatim}

\textbf{Arguments}

\begin{itemize}
\item \textbf{content} \hspace{1cm} The tibble of content provided by connectwidgets::content() Requires the columns \texttt{"guid"}, \texttt{"url"}, \texttt{"title"}, \texttt{"app_mode"}, \texttt{"owner_username"} and \texttt{"updated_time"}.
\end{itemize}

\textbf{rsc_table_sync_theme} \hspace{1cm} \textit{Resolve reactable theme for rsc_table}

\textbf{Description}

Resolve reactable theme for rsc_table

\textbf{Usage}

\begin{verbatim}
rsc_table_sync_theme()
\end{verbatim}
warning_large_content  Show warnings for large content

Description
Show warnings for large content

Usage
warning_large_content(content, max_rows = 500)

Arguments
- content: Content data frame or Crosstalk SharedData object
- max_rows: Maximum number of rows before warning (default 500)

warning_widget_input  Show warnings of expected columns for widget’s input

Description
Show warnings of expected columns for widget’s input

Usage
warning_widget_input(widget, colnames, expected)

Arguments
- widget: Widget’s name to identify warnings thrown
- colnames: Column names provided from the widget content input
- expected: List of expected columns to look for in the widget’s input
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