Package ‘connectwidgets’

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Title Organize and Curate Your Content Within ‘Posit Connect’

Version 0.2.0

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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R topics documented:

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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

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

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://rstudio.github.io/connectwidgets/)  
- [https://github.com/rstudio/connectwidgets](https://github.com/rstudio/connectwidgets)
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

<table>
<thead>
<tr>
<th>Description</th>
<th>bg, fg, primary, secondary, success, info, warning, danger, base_font, code_font, heading_font, font_scale</th>
</tr>
</thead>
</table>

**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**

```r
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  
*Get docmeta theme name (output: html_document: theme)*

**Description**

Get docmeta theme name (output: html_document: theme)

**Usage**

```r
gen_bootswatch_theme_name()
```

get_current_bootswatch_theme  
*Get the current bootswatch theme if any*

**Description**

Get the current bootswatch theme if any

**Usage**

```r
gen_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
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
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
content 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.
**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**
- `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_card
- `env` 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.

---

**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
rsc_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-shiny**

Description

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

Usage

```
 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

```
 rscfilterOutput(outputId, width = "100\%", height = "400px")
 renderRscfilter(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_filter
- `env`: 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.
**rsc_grid**

**Grid view for content**

**Description**

Renders a grid view of the provided content items.

**Usage**

```r
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**

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

```r
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
- `env` 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.
rsc_search  
*Search widget*

**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**

```r
rsc_search(content)
```

**Arguments**

- `content`: A shared object from Connect’s content

---

rsc_search-shiny  
*Shiny bindings for rsc_search*

**Description**

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

**Usage**

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

```r
renderRscsearch(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_search
- `env`: 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.
rsc_table

Reactable table of the content

Description
Renders a reactable table of the provided content items

Usage
rsc_table(content)

Arguments
content The tibble of content provided by connectwidgets::content() Requires the columns "guid", "url", "title", "app_mode", "owner_username" and "updated_time".

rsc_table_sync_theme
Resolve reactable theme for rsc_table

Description
Resolve reactable theme for rsc_table

Usage
rsc_table_sync_theme()

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**

```r
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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