

Package ‘rspacer’

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Type Package

Title 'RSpace' API Wrapper

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Description

Wrapper for the 'RSpace' Electronic Lab Notebook (<<https://www.researchspace.com/>>) API. This packages provides convenience functions to browse, search, create, and edit your 'RSpace' documents. In addition, it enables filling 'RSpace' templates from R Markdown/Quarto templates or tabular data (e.g., 'Excel' files). This R package is not developed or endorsed by 'Research Space'.

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api_status	<i>Function to check availability of the API service</i>
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Description

Function to check availability of the API service

Usage

```
api_status(api_key = get_api_key())
```

Arguments

api_key RSpace API key

Value

If the request succeeds, a list with the status message and the RSpace version of the API.

Examples

```
## Not run:
api_status()

## End(Not run)
```

`document_add_attachments`*Add attachments to existing document*

Description

Add attachments to existing document

Usage

```
document_add_attachments(doc_id, attachments, api_key = get_api_key())
```

Arguments

<code>doc_id</code>	Unique identifier of the document
<code>attachments</code>	attachments to attach to the fields in tibble/data.frame form (one attachment per row), e.g., <code>tibble(field = 7, path = "file.txt")</code>
<code>api_key</code>	RSpace API key

Value

A JSON object, invisibly. The function will raise an error if `doc_id` is not specified.

`document_append_from_html`*Add html content to an existing RSpace document*

Description

Append a html document (e.g., generated from quarto) to an RSpace structured document. This function retrieves the current document, and adds text to fields specified by h2 html headers.

Usage

```
document_append_from_html(  
  path,  
  existing_document_id,  
  tags = NULL,  
  attachments = NULL,  
  allow_missing_fields = FALSE,  
  api_key = get_api_key()  
)
```

Arguments

path	html document to upload
existing_document_id	document identifier of the current RSpace document.
tags	vector of tags to apply to the document (will include "rspacer" by default)
attachments	attachments to attach to the fields in tibble/data.frame form (one attachment per row), e.g., <code>tibble(field = 7, path = "file.txt")</code>
allow_missing_fields	Specify if a mismatch in fields is allowed. If this is FALSE, the html fields cannot be appended to the RSpace document when fields are missing. If it is TRUE, only fields with the same name as in the template will be appended.
api_key	RSpace API key

Value

Invisible JSON response from the API.

document_create_from_html

Upload a html document to RSpace

Description

This function can upload a html document (e.g., generated from quarto) to an RSpace Basic Document, or to a Structured Document if the template is also provided.

Usage

```
document_create_from_html(
  path,
  template_id = NULL,
  folder_id = NULL,
  tags = NULL,
  attachments = NULL,
  existing_document_id = NULL,
  api_key = get_api_key()
)
```

Arguments

path	html document to upload
template_id	document id of the RSpace template used. Will be overwritten by the template of existing_document_id if specified. A basic document is created if no template is specified.
folder_id	folder_id in which the document will be created (can be a notebook)

tags	vector of tags to apply to the document (will include "rspacer" by default)
attachments	attachments to attach to the fields in tibble/data.frame form (one attachment per row), e.g., <code>tibble(field = 7, path = "file.txt")</code>
existing_document_id	document id of a document to be replaced, if NULL (the default) a new document will be created.
api_key	RSpace API key

Value

Invisible JSON response from the API.

document_create_from_tabfile

Upload a tabular document to RSpace

Description

This function can upload tabular files to RSpace structured documents. The file needs to have exactly two columns, one with the RSpace structured document fields and one with the content.

Usage

```
document_create_from_tabfile(
  path,
  file_type = NULL,
  document_name = NULL,
  template_id = NULL,
  folder_id = NULL,
  tags = NULL,
  attachments = NULL,
  existing_document_id = NULL,
  api_key = get_api_key()
)
```

Arguments

path	tabular file to upload. Can be XLSX, CSV or TSV
file_type	an optional character string to specify the file type. Will be guessed from the file name if not specified.
document_name	specify the name of the RSpace entry. If not specified, it will be the value in Title, Name, title, or name if that is one of the fields in the Excel document. If that does not exist, it will be the file name.
template_id	document id of the RSpace template used. Will be overwritten by the template of existing_document_id if specified. A basic document is created if no template is specified.

folder_id	folder_id in which the document will be created (can be a notebook)
tags	vector of tags to apply to the document (will include "rspacer" by default)
attachments	attachments to attach to the fields in tibble/data.frame form (one attachment per row), e.g., <code>tibble(field = 7, path = "file.txt")</code>
existing_document_id	document id of a document to be replaced, if NULL (the default) a new document will be created.
api_key	RSpace API key

Value

Invisible JSON response from the API.

document_create_from_tabular
Upload tabular data to RSpace

Description

This function can upload tabular data (data.frame/tibble) to an RSpace structured document. The tabular needs to have exactly two columns, one with the RSpace structured document fields and one with the content.

Usage

```
document_create_from_tabular(
  df,
  document_name = NULL,
  template_id = NULL,
  folder_id = NULL,
  tags = NULL,
  attachments = NULL,
  existing_document_id = NULL,
  api_key = get_api_key()
)
```

Arguments

df	tabular data to upload.
document_name	specify the name of the RSpace entry. If not specified, it will be the value in Title, Name, title, or name if that is one of the fields in the Excel document. If that does not exist, it will be the file name.
template_id	document id of the RSpace template used. Will be overwritten by the template of existing_document_id if specified. A basic document is created if no template is specified.

folder_id	folder_id in which the document will be created (can be a notebook)
tags	vector of tags to apply to the document (will include "rspacer" by default)
attachments	attachments to attach to the fields in tibble/data.frame form (one attachment per row), e.g., <code>tibble(field = 7, path = "file.txt")</code>
existing_document_id	document id of a document to be replaced, if NULL (the default) a new document will be created.
api_key	RSpace API key

Value

Invisible JSON response from the API.

`document_get_fields` *Get the fields of a structured document as a tibble*

Description

This function retrieves the fields of a structured document and returns them as a tibble, one row per field. As fields can contain HTML, the tibble can be displayed prettier with, for example, the `gt` package (see the Examples).

Usage

```
document_get_fields(doc_id, api_key = get_api_key())
```

Arguments

<code>doc_id</code>	Unique identifier of the document
<code>api_key</code>	RSpace API key

Value

A tibble with the fields as rows.

Examples

```
## Not run:
library(gt)
document_get_fields("SD123456") |> gt() |> fmt_markdown(columns = c(content))

## End(Not run)
```

`document_list_attachments`*List attachments of a structured document*

Description

This function lists all attachments of a field in a structured document.

Usage

```
document_list_attachments(doc_id, api_key = get_api_key())
```

Arguments

<code>doc_id</code>	Unique identifier of the document
<code>api_key</code>	RSpace API key

Value

description A tibble with identifiers and information on attachments, one attachment per row. Returns an empty tibble if no files are attached to the field.

`document_retrieve`*Get document from RSpace based on document ID*

Description

Get document from RSpace based on document ID

Usage

```
document_retrieve(doc_id, api_key = get_api_key())
```

Arguments

<code>doc_id</code>	Unique identifier of the document
<code>api_key</code>	RSpace API key

Value

An RSpace document as parsed JSON.

document_search	<i>Global search for a term</i>
-----------------	---------------------------------

Description

Global search for a term, works identically to the simple "All" search in RSpace Workspace. Query term must be ≥ 3 characters long.

Usage

```
document_search(
  query,
  ...,
  max_results = 50,
  simplify = T,
  api_key = get_api_key()
)
```

Arguments

query	description
...	query parameters as documented in https://community.researchspace.com/public/apiDocs [GET /documents] Can be used to order/filter the results.
max_results	Maximum number of results to return.
simplify	Whether to simplify the returned tibble by converting/removing columns Use Inf to return all results (may take a while).
api_key	RSpace API key

Value

A tibble with search results, one result per row.

doc_to_form_id	<i>Get the form id used for a document</i>
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Description

Get the form id used for a document

Usage

```
doc_to_form_id(doc_id, verbose = TRUE, api_key = get_api_key())
```

Arguments

doc_id	Unique identifier of the document
verbose	whether to print the matching document/form
api_key	RSpace API key

Value

A form id.

fields_to_data_frame	<i>Convert fields list to a tibble</i>
----------------------	--

Description

Convert fields list to a tibble

Usage

```
fields_to_data_frame(fields, simplify = T)
```

Arguments

fields	fields list as retrieved from RSpace API
simplify	Whether to simplify the returned tibble by converting/removing columns

Value

A tibble with the fields as rows.

file_download	<i>Download a file from the gallery</i>
---------------	---

Description

Download a file from the gallery

Usage

```
file_download(file_id, path = ".", api_key = get_api_key())
```

Arguments

file_id	gallery file to be downloaded
path	download destination
api_key	RSpace API key

Value

The file path of the downloaded file. If the file already exists, the user is asked whether the function should overwrite the pre-existing file. If not, the download is canceled and FALSE is returned invisibly.

file_upload	<i>Upload a file to the gallery</i>
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Description

Upload a file to the gallery

Usage

```
file_upload(path, api_key = get_api_key())
```

Arguments

path	file to be uploaded
api_key	RSpace API key

Value

Parsed JSON response from the API.

folder_tree	<i>List contents of a folder, if no folder is specified the contents of the root folder will be listed.</i>
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Description

List contents of a folder, if no folder is specified the contents of the root folder will be listed.

Usage

```
folder_tree(  
  folder_id = NULL,  
  ...,  
  max_results = Inf,  
  simplify = T,  
  api_key = get_api_key()  
)
```

Arguments

folder_id	Unique identifier of the folder, if NULL will return contents of the Workspace Home folder
...	query parameters as documented in https://community.researchspace.com/public/apiDocs [GET /folders/tree]. Can be used to order/filter the results.
max_results	Maximum number of results to return.
simplify	Whether to simplify the returned tibble by converting/removing columns
api_key	RSpace API key

Value

A tibble with the folder content as rows.

get_api_key	<i>Get the RSpace API key</i>
-------------	-------------------------------

Description

Gets the RSpace API key from the RSPACE_API_KEY environment variable. See [set_api_key\(\)](#) on how to set it.

Usage

```
get_api_key()
```

Value

An API key

See Also

[set_api_key\(\)](#)

Examples

```
## Not run:
get_api_key()

## End(Not run)
```

get_api_url	<i>Get the RSpace API URL</i>
-------------	-------------------------------

Description

Gets the RSpace API URL from the RSPACE_API_URL environment variable. See [set_api_url\(\)](#) on how to set it.

Usage

```
get_api_url()
```

Value

A url.

See Also

[set_api_url\(\)](#)

Examples

```
## Not run:  
get_api_url()  
  
## End(Not run)
```

set_api_key	<i>Set the RSPACE_API_KEY environment variable</i>
-------------	--

Description

Sets the RSPACE_API_KEY environment variable to the provided RSpace API key. To create an API key go to 'Manage API Key' section of your profile page (MyRSpace -> Profile).

Usage

```
set_api_key(rspace_api_key)
```

Arguments

rspace_api_key Your RSpace API key

Details

This will only set the environment variable for the current session, to set it permanently, add RSPACE_API_KEY=<your_api_key_here> to your .Renviron file, for example, using [usethis::edit_r_environ\(\)](#).

Value

A logical indicating if setting the API key succeeded

set_api_url	<i>Set the RSPACE_API_URL environment variable</i>
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Description

Sets the RSPACE_API_URL environment variable to the provided RSpace API URL. The RSpace API URL is likely the URL of your RSpace instance followed by api/v1.

Usage

```
set_api_url(rspace_api_url)
```

Arguments

rspace_api_url The RSpace API URL

Details

This will only set the environment variable for the current session, to set it permanently, add RSPACE_API_URL=<your_api_url_here> to your .Renviron file, for example, using `usethis::edit_r_environ()`.

Value

A logical indicating if setting the API URL succeeded.

Examples

```
## Not run:  
set_api_url("https://leiden.researchspace.com/api/v1")  
  
## End(Not run)
```

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