

Package ‘JirAgileR’

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Title JIRA REST API Wrapper for R

Version 0.0.2.1

Description Allows to interact with the 'JIRA SERVER REST API' to analyze the retrieved data in R. For further information about the API visit <<https://docs.atlassian.com/software/jira/docs/api/REST/8.9.1/>>.

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URL <https://matbmeijer.github.io/JirAgileR/>,
<https://github.com/matbmeijer/JirAgileR>

BugReports <https://github.com/matbmeijer/JirAgileR/issues>

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adapt_list	<i>Adapt the path of class url</i>
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Description

Adapt the path of class url to consider the old path when modifying

Usage

```
adapt_list(old_path, path)
```

Arguments

old_path	Passed path in parameter domain
path	Path of API endpoint

Value

Returns a vector of the resulting path.

Warning

Internal function

basic_issues_info	<i>Extract the basic key information of the issues</i>
-------------------	--

Description

Internal function to extract the basic key information as a `data.frame`.

Usage

```
basic_issues_info(x)
```

Arguments

x JIRA issue list item.

Value

Returns `data.frame` with basic field information.

Warning

Internal function

basic_jql_fields	<i>Returns default JQL fields used</i>
------------------	--

Description

Internal function used to define the default JQL fields used for the `get_jira_issues()` function.

Usage

```
basic_jql_fields()
```

Value

Returns a character vector with the default JQL fields.

Warning

Internal function

`choose_field_function` *Function to choose for the right field parser function*

Description

Internal function to choose/switch to the correct function to parse each field for each issue

Usage

```
choose_field_function(x, type)
```

Arguments

<code>x</code>	The fields nested data to flatten.
<code>type</code>	The fields' name.

Value

Returns a parsed, cleaned data . frame with all the fields.

Warning

Internal function

Author(s)

Matthias Brenninkmeijer <https://github.com/matbmeijer>

`conc` *Concatenates multiple strings*

Description

Internal function with an opinionated default behavior to concatenate character values.

Usage

```
conc(x, y = ", ", decr = FALSE, unique = TRUE)
```

Arguments

<code>x</code>	A single character vector to concatenate together.
<code>y</code>	By default a , string used to define the character to collapse the x parameter.
<code>decr</code>	Optional logical parameter that defines the sorting order, by default set to FALSE, which results in an alphabetical order.
<code>unique</code>	Optional logical parameter to concatenate only unique values, by default set to TRUE

Value

Returns a single character string.

Warning

Internal function

get_jira_credentials *Retrieves the previously saved JIRA credentials*

Description

Retrieves a data.frame with the JIRA credentials previously saved into the environment under the JIRAGILER_PAT variable through the save_jira_credentials() function.

Usage

```
get_jira_credentials()
```

Value

Returns a data.frame with the saved JIRA credentials

Examples

```
## Not run:
save_jira_credentials(domain="https://bugreports.qt.io",
                      username='__INSERT_YOUR_USERNAME_HERE__',
                      password='__INSERT_YOUR_PASSWORD_HERE__')
get_jira_credentials()

## End(Not run)
```

get_jira_dashboards *Retrieves all dashboards a data.frame*

Description

Calls JIRA's latest REST API, optionally with basic authentication, to get all dashboards

Usage

```
get_jira_dashboards(
  domain = NULL,
  username = NULL,
  password = NULL,
  maxResults = 20L,
  verbose = FALSE
)
```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
maxResults	Max results authorized to obtain for each API call. By default JIRA sets this value to 20 issues.
verbose	Explicitly informs the user of the JIRA API request process.

Value

Returns a flattened, formatted `data.frame` with the dashboards in the domain.

See Also

For more information about Atlassians JIRA API visit the following link: [JIRA API Documentation](#).

Examples

```
get_jira_dashboards(domain = "https://bugreports.qt.io")
```

```
get_jira_groups          Get JIRA server groups data.frame
```

Description

Makes a request to JIRA's latest REST API to retrieve all the groups in JIRA.

Usage

```
get_jira_groups(
  domain = NULL,
  username = NULL,
  password = NULL,
  verbose = FALSE,
  maxResults = 1000
)
```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
verbose	Explicitly informs the user of the JIRA API request process.
maxResults	Number of maximum groups to return. Set by default to 1000.

Value

Returns a `data.frame` with all the JIRA groups

Warning

The function works with the latest JIRA REST API and to work you need to have a internet connection. Calling the function too many times might block your access, you will receive a 403 error code. To unblock your access you will have to access interactively through your browser, signing out and signing in again, and might even have to enter a CAPTCHA at <https://jira.yourdomain.com/secure/Dashboard.jspa>. This only happens if the API is called upon multiple times in a short period of time.

See Also

For more information about Atlassians JIRA API go to [JIRA API Documentation](#)

Examples

```
## Not run:  
get_jira_groups("https://bugreports.qt.io")  
  
## End(Not run)
```

get_jira_issues	<i>Retrieves all issues of a JIRA query as a data.frame</i>
-----------------	---

Description

Calls JIRA's latest REST API, optionally with basic authentication, to get all issues of a JIRA query (JQL). Allows to specify which fields to obtain.

Usage

```

get_jira_issues(
  domain = NULL,
  username = NULL,
  password = NULL,
  jql_query,
  fields = basic_jql_fields(),
  maxResults = 50,
  verbose = FALSE,
  as.data.frame = TRUE
)

```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
jql_query	JIRA's decoded JQL query. By definition, it works with: <ul style="list-style-type: none"> • Fields • Operators • Keywords • Functions <p>To learn how to create a query visit this ATlassian site or the following cheat-sheet.</p>
fields	Optional argument to define the specific JIRA fields to obtain. If no value is entered, by default the following fields are passed: <ul style="list-style-type: none"> • status • priority • created • reporter • summary • description • assignee • updated • issuetype • fixVersions <p>To obtain a list of all supported fields use the following function: <code>supported_jql_fields()</code>.</p>

maxResults	Max results authorized to obtain for each API call. By default JIRA sets this value to 50 issues.
verbose	Explicitly informs the user of the JIRA API request process.
as.data.frame	Defines if the function returns a flattened data.frame or the raw JIRA response.

Value

Returns a flattened, formatted data.frame with the issues according to the JQL query.

Warning

If the comment field is used as a fields parameter input, each issue and its attributes are repeated the number of comments the issue has. The function works with the latest JIRA REST API and to work you need to have a internet connection. Calling the function too many times might block your access, you will receive a 403 error code. To unblock your access you will have to access interactively through your browser, signing out and signing in again, and might even have to enter a CAPTCHA at <https://jira.yourdomain.com/secure/Dashboard.jspa>. This only happens if the API is called upon multiple times in a short period of time.

See Also

For more information about Atlassians JIRA API visit the following link: [JIRA API Documentation](#).

Examples

```
get_jira_issues(domain = "https://bugreports.qt.io",
               jql_query = 'project="QTWB"')
```

```
get_jira_permissions
```

Get all the JIRA server permissions as a data.frame

Description

Makes a request to JIRA's latest REST API to retrieve the users' permissions.

Usage

```
get_jira_permissions(  
  domain = NULL,  
  username = NULL,  
  password = NULL,  
  verbose = FALSE  
)
```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can be accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can be accessed. Optional parameter.
verbose	Explicitly informs the user of the JIRA API request process.

Value

Returns a `data.frame` with all the JIRA user permissions.

Warning

The function works with the latest JIRA REST API and to work you need to have an internet connection. Calling the function too many times might block your access, you will receive a 403 error code. To unblock your access you will have to access interactively through your browser, signing out and signing in again, and might even have to enter a CAPTCHA at <https://jira.yourdomain.com/secure/Dashboard.jspa>. This only happens if the API is called upon multiple times in a short period of time.

See Also

For more information about Atlassian's JIRA API go to [JIRA API Documentation](#)

Examples

```
## Not run:
get_jira_permissions("https://bugreports.qt.io")

## End(Not run)
```

<code>get_jira_projects</code>	<i>Retrieves all projects as a data.frame</i>
--------------------------------	---

Description

Makes a request to JIRA's latest REST API to retrieve all projects and their basic project information (Name, Key, Id, Description, etc.).

Usage

```
get_jira_projects(  
    domain = NULL,  
    username = NULL,  
    password = NULL,  
    expand = NULL,  
    verbose = FALSE  
)
```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can be accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can be accessed. Optional parameter.
expand	Specific JIRA fields the user wants to obtain for a specific field. Optional parameter.
verbose	Explicitly informs the user of the JIRA API request process.

Value

Returns a data frame with a list of projects for which the user has the BROWSE, ADMINISTER or PROJECT_ADMIN project permission.

Warning

The function works with the latest JIRA REST API and to work you need to have an internet connection. Calling the function too many times might block your access, you will receive a 403 error code. To unblock your access you will have to access interactively through your browser, signing out and signing in again, and might even have to enter a CAPTCHA at <https://jira.yourdomain.com/secure/Dashboard.jspa>. This only happens if the API is called upon multiple times in a short period of time.

See Also

For more information about Atlassian's JIRA API go to [JIRA API Documentation](#)

Examples

```
## Not run:  
get_jira_projects("https://bugreports.qt.io")  
  
## End(Not run)
```

get_jira_server_info *Get the JIRA server information as a data.frame*

Description

Makes a request to JIRA's latest REST API to retrieve all the necessary information regarding the JIRA server version.

Usage

```
get_jira_server_info(  
  domain = NULL,  
  username = NULL,  
  password = NULL,  
  verbose = FALSE  
)
```

Arguments

domain	Custom JIRA domain URL as for example https://bugreports.qt.io . Can be passed as a parameter or can be previously defined through the <code>save_jira_credentials()</code> function.
username	Username used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
password	Password used to authenticate the access to the JIRA domain. If both username and password are not passed no authentication is made and only public domains can bet accessed. Optional parameter.
verbose	Explicitly informs the user of the JIRA API request process.

Value

Returns a `data.frame` with all the JIRA server information

Warning

The function works with the latest JIRA REST API and to work you need to have a internet connection. Calling the function too many times might block your access, you will receive a 403 error code. To unblock your access you will have to access interactively through your browser, signing out and signing in again, and might even have to enter a CAPTCHA at <https://jira.yourdomain.com/secure/Dashboard.jspa>. This only happens if the API is called upon multiple times in a short period of time.

See Also

For more information about Atlassians JIRA API go to [JIRA API Documentation](#)

Examples

```
## Not run:
get_jira_server_info("https://bugreports.qt.io")

## End(Not run)
```

parse_issue	<i>Extract the extensive fields of a single issue</i>
-------------	---

Description

Internal function to transform the nested more extensive JIRA issue fields into a flattened data.frame

Usage

```
parse_issue(issue, JirAgileR_id)
```

Arguments

issue	A JIRA issue with all its extended fields
JirAgileR_id	JirAgileR ID to assign to

Value

Returns data.frame with all the extended field information.

Warning

Internal function

remove_jira_credentials	<i>Removes previously saved JIRA credentials</i>
-------------------------	--

Description

Removes the JIRA credentials, that have been previously saved into the environment under the JIRAGILER_PAT variable through the save_jira_credentials() function.

Usage

```
remove_jira_credentials(verbose = FALSE)
```

Arguments

verbose	Optional parameter to remove previously saved parameters
---------	--

Value

Returns a data.frame with the saved JIRA credentials

Examples

```
## Not run:
save_jira_credentials(domain="https://bugreports.qt.io")
remove_jira_credentials()

## End(Not run)
```

save_jira_credentials *Saves domain and the domain's credentials in the environment*

Description

Saves the domain and/or username and password in the users' environment. It has the advantage that it is not necessary to explicitly publish the credentials in the users code. Just do it one time and you are set. To update any of the parameters just save again and it will overwrite the older credential.

Usage

```
save_jira_credentials(
  domain = NULL,
  username = NULL,
  password = NULL,
  verbose = FALSE
)
```

Arguments

domain	The users' JIRA server domain to retrieve information from. An example would be https://bugreports.qt.io . It will be saved in the environment as JIRAGILER_DOMAIN.
username	The users' username to authenticate to the domain. It will be saved in the environment as JIRAGILER_USERNAME.
password	The users' password to authenticate to the domain. It will be saved in the environment as JIRAGILER_PASSWORD. If verbose is set to TRUE, it will message asterisks.
verbose	Optional parameter to inform the user when the users' credentials have been saved.

Value

Saves the credentials in the users environment - it does not return any object.

Examples

```
## Not run:
save_jira_credentials(domain="https://bugreports.qt.io",
                      username='__INSERT_YOUR_USERNAME_HERE__',
                      password='__INSERT_YOUR_PASSWORD_HERE__')

## End(Not run)
```

supported_jql_fields *Returns the supported JQL fields*

Description

Function shows all the supported JQL fields that are available to choose for the `get_jira_issues()` function.

Usage

```
supported_jql_fields()
```

Value

Returns a character vector of all the supported JQL fields.

to_date *Transforms JIRA date character to POSIXlt format*

Description

Internal function to parse the date from JIRA character vectors.

Usage

```
to_date(x)
```

Arguments

x Character vector to transform into a POSIXlt.

Value

Returns a POSIXlt object vector.

Warning

Internal function

unnest_df	<i>Unnest a nested data.frame</i>
-----------	-----------------------------------

Description

Unnests/flattens a nested data.frame

Usage

```
unnest_df(x)
```

Arguments

x A nested data.frame object

Value

Returns a flattened data.frame.

Warning

Internal function

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