

Package ‘Rexperigen’

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Title R Interface to Experigen

Version 0.2.1

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Description Provides convenience functions to communicate with an Experigen server: Experigen (<<http://github.com/aquincum/experigen>>) is an online framework for creating linguistic experiments, and it stores the results on a dedicated server. This package can be used to retrieve the results from the server, and it is especially helpful with registered experiments, as authentication with the server has to happen.

Depends R (>= 3.2.3)

License GPL-3

URL <https://github.com/aquincum/Rexperigen>

LazyData true

Imports RCurl, digest, jsonlite

Suggests testthat

RoxygenNote 5.0.1

NeedsCompilation yes

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Contents

API.request	2
checkAuthentication	3
checkLogin	4
cleanURL	4
create.API.request.URL	5
createExperimenter	6
downloadExperiment	6

getDestinations	7
getRegisteredExperiments	8
getUsers	8
logoutExperigen	9
NO_SERVER_ERROR	9
prepare.server.URL	10
registerExperiment	10
removeRegistration	11
Rexperigen	12
server.version	12
setExperigenCredentials	13
setExperigenServer	14
versionMain	14
Index	15

API.request	<i>Run a request to the API</i>
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Description

Run a request to the API

Usage

```
API.request(server = getOption("Rexperigen.server"), request = "version",
  params = list(), auth = FALSE, method = "GET")
```

Arguments

server	The server name (no need to be clean)
request	The request verb to the server
params	A list of name=value pairs that will be passed to the server
auth	Do we send authentication? If this is FALSE, we don't.
method	The HTTP method to use (GET POST PUT DELETE).

See Also

Other development: [checkAuthentication](#), [create.API.request.URL](#), [prepare.server.URL](#), [server.version](#)

checkAuthentication	<i>Checks whether the authentication is supported by the server and handles the different POST request routes.</i>
---------------------	--

Description

Checks whether the authentication is supported by the server and handles the different POST request routes.

Usage

```
checkAuthentication(request, auth, version.needed = 1)
```

Arguments

request	The needed request to be made (without .cgi).
auth	Whether authentication is requested in R.
version.needed	The minimum version of the request. If it is 1, and the server is version 1, the function will append .cgi to the request.

Value

A list:

1. request: the request to send
2. auth: whether to still send an authenticated request.

See Also

Other development: [API.request](#), [create.API.request.URL](#), [prepare.server.URL](#), [server.version](#)

Examples

```
checkAuthentication("makecsv", TRUE)
checkAuthentication("registration", TRUE, 2)
```

checkLogin*Checks whether the user is logged in.*

Description

Checks whether the user is logged in. It also throws an exception if the server is of an old version and logging in is not supported.

Usage

```
checkLogin()
```

Value

The experimenter login user name

Examples

```
options(Rexperigen.server.version="2.0.0")
setExperigenCredentials("my", "credentials", check = FALSE)
checkLogin()
```

cleanURL*Returns the cleaned source URL.*

Description

Experigen has been using some URL cleaning since version 1. This function asks the server (if version ≥ 2) to return how it would clean the given URL. For older versions, you still have to replace /'s and stuff by .'s by yourself, sorry!

Usage

```
cleanURL(sourceURL)
```

Arguments

sourceURL The source URL to clean

Value

The cleaned URL

Examples

```
## Not run:  
cleanURL("https://s3.amazonaws.com/myexperiment/index.html")  
  
## End(Not run)
```

```
create.API.request.URL
```

Create an URL for a request to the Experigen API.

Description

Create an URL for a request to the Experigen API.

Usage

```
create.API.request.URL(server, request, params = list())
```

Arguments

<code>server</code>	The server name (no need to be clean)
<code>request</code>	The request verb to the server
<code>params</code>	A list of name=value pairs that will be passed to the server

Value

A URL that can be queried.

See Also

Other development: [API.request](#), [checkAuthentication](#), [prepare.server.URL](#), [server.version](#)

Examples

```
create.API.request.URL("db.phonologist.org", "users", list(sourceurl="x.y", experimentName="z"))
```

createExperimenter *Create a login for yourself using this function*

Description

Create a login for yourself using this function

Usage

```
createExperimenter(experimenter, password)
```

Arguments

experimenter	The username.
password	Your password.

Value

A string that the server returns ("done" if success)

downloadExperiment *Makes a download request from the server.*

Description

This function downloads the results of an experiment.

Usage

```
downloadExperiment(sourceURL, experimentName, destination = "default.csv",
  auth = FALSE)
```

Arguments

sourceURL	The source URL for the experiment
experimentName	The experiment name as set in settings.js
destination	The file to download. By default, all uploaded results are saved in default.csv, which is the default file to download.
auth	Whether authentication is needed

Value

The downloaded data set as data frame

See Also

Other download: [getDestinations](#), [getUsers](#)

Examples

```
## Not run:  
downloadExperiment("https...s3.amazonaws.com.myexperiment.index.html", "testing1")  
downloadExperiment("https...s3.amazonaws.com.myexperiment.index.html", "running", auth = TRUE)  
  
## End(Not run)
```

<code>getDestinations</code>	<i>Returns the list of destination files for an experiment.</i>
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Description

Returns the list of destination files for an experiment.

Usage

```
getDestinations(sourceURL, experimentName, auth = FALSE)
```

Arguments

- `sourceURL` The source URL for the experiment
- `experimentName` The experiment name as set in `settings.js`
- `auth` Whether authentication is needed

Value

The list of destinations

See Also

Other download: [downloadExperiment](#), [getUsers](#)

Examples

```
## Not run:  
getDestinations("https...s3.amazonaws.com.myexperiment.index.html", "running", auth = TRUE)  
  
## End(Not run)
```

getRegisteredExperiments

Get a list of registered experiments.

Description

Returns a list of the registered experiments for the logged in experimenter.

Usage

```
getRegisteredExperiments()
```

Value

The parsed list of experiments

See Also

Other registration: [registerExperiment](#), [removeRegistration](#)

Examples

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

getUsers

Requests the table of users from the server.

Description

Requests the table of users from the server.

Usage

```
getUsers(sourceURL, experimentName, auth = FALSE)
```

Arguments

sourceURL	The source URL for the experiment
experimentName	The experiment name as set in settings.js
auth	Whether authentication is needed

Value

The table of users

See Also

Other download: [downloadExperiment](#), [getDestinations](#)

Examples

```
## Not run:  
getUsers("https...s3.amazonaws.com.myexperiment.index.html", "running", auth = TRUE)  
  
## End(Not run)
```

logoutExperigen	<i>Simply removes the stored credentials, so following requests will be unauthenticated.</i>
-----------------	--

Description

Simply removes the stored credentials, so following requests will be unauthenticated.

Usage

```
logoutExperigen()
```

NO_SERVER_ERROR	<i>Error string returned when no server is found</i>
-----------------	--

Description

Error string returned when no server is found

Usage

```
NO_SERVER_ERROR
```

Format

An object of class character of length 1.

prepare.server.URL *Server URL preparation.*

Description

Prepares the server URL by checking for the presence of a protocol prefix, and prefixing `http://` if there is none. Also, returns the URL with a trailing `/` if that was not present either.

Usage

```
prepare.server.URL(server)
```

Arguments

server A server name.

Value

A clean URL with protocol prefix and trailing slash.

See Also

Other development: [API.request](#), [checkAuthentication](#), [create.API.request.URL](#), [server.version](#)

Examples

```
prepare.server.URL("db.phonologist.org")
prepare.server.URL("https://myserver.com/")
```

registerExperiment *Registers an experiment to the experimenter.*

Description

Registers the given experiment to the experimenter. Returns the server's response. Do provide the credentials before calling this function

Usage

```
registerExperiment(sourceURL, experimentName)
```

Arguments

sourceURL The source URL for the experiment
experimentName The experiment name as set in `settings.js`

Value

The server response.

See Also

Other registration: [getRegisteredExperiments](#), [removeRegistration](#)

Examples

```
## Not run:  
registerExperiment("https...s3.amazonaws.com.myexperiment.index.html", "running")  
  
## End(Not run)
```

removeRegistration	<i>Removes the registration of the experiment</i>
--------------------	---

Description

Removes the registration of the experiment to the logged in experimenter. Does not remove any data though! All of the data will be available to anyone.

Usage

```
removeRegistration(sourceURL, experimentName)
```

Arguments

sourceURL The source URL for the experiment
experimentName The experiment name as set in settings.js

Value

The server response.

See Also

Other registration: [getRegisteredExperiments](#), [registerExperiment](#)

Examples

```
## Not run:  
removeRegistration("https...s3.amazonaws.com.myexperiment.index.html", "running")  
  
## End(Not run)
```

 Rexperigen

Rexperigen: an R interface to Experigen

Description

An R interface for downloading results from an Experigen server. Works with the "classic" server that is currently running on `db.experigen.org` as well, but its main advantage is that it helps a lot with the new functions of the newer version of the Experigen server. Most importantly, it helps with registration of experimenters, registration of experiments and accessing their data.

Setup functions

[setExperigenServer](#), [setExperigenCredentials](#)

Registration functions

[registerExperiment](#), [removeRegistration](#), [getRegisteredExperiments](#)

Download functions

The main function is [downloadExperiment](#). Further information about the experiment can be inquired with [getUsers](#) and [getDestinations](#)

 server.version

Returns the version of an Experigen server

Description

Returns the version of an Experigen server

Usage

```
server.version(server = getOption("Rexperigen.server"))
```

Arguments

server The server name

Value

A string with the Experigen server version

See Also

Other development: [API.request](#), [checkAuthentication](#), [create.API.request.URL](#), [prepare.server.URL](#)

Examples

```
server.version("db.phonologist.org")
```

```
setExperigenCredentials
```

Sets up the experimenter credentials for the further requests. It can also check whether the authentication is successful.

Description

Sets up the experimenter credentials for the further requests. It can also check whether the authentication is successful.

Usage

```
setExperigenCredentials(experimenter, password, check = TRUE, quiet = FALSE)
```

Arguments

experimenter	The experimenter username
password	The password for the experimenter
check	Whether to check if the experimenter is registered.
quiet	If TRUE, the function will not print out the result of the existence check

Value

Whether the existence check is successful. If check = FALSE, it will return TRUE by default

See Also

Other setup: [setExperigenServer](#)

Examples

```
## Not run:  
setExperigenCredentials("joesmith", "1234")  
  
## End(Not run)  
setExperigenCredentials("janemiller", "passdrow", check = FALSE)
```

setExperigenServer	<i>Sets the Experigen server address for further operations. By default, it checks the existence of the server and sets the Rexperigen.server.version option based on the response of the server. If check = FALSE, set the version by yourself!</i>
--------------------	--

Description

Sets the Experigen server address for further operations. By default, it checks the existence of the server and sets the Rexperigen.server.version option based on the response of the server. If check = FALSE, set the version by yourself!

Usage

```
setExperigenServer(server, check = TRUE)
```

Arguments

server	The server's URL
check	Whether to check the server's existence

See Also

Other setup: [setExperigenCredentials](#)

Examples

```
setExperigenServer("db.phonologist.org")
setExperigenServer("localhost:3000", FALSE)
```

versionMain	<i>Returns the main version number of the server.</i>
-------------	---

Description

Returns the main version number of the server.

Usage

```
versionMain()
```

Value

The main version number as a numeric

Index

* datasets

- NO_SERVER_ERROR, [9](#)
- API.request, [2](#), [3](#), [5](#), [10](#), [12](#)
- checkAuthentication, [2](#), [3](#), [5](#), [10](#), [12](#)
- checkLogin, [4](#)
- cleanURL, [4](#)
- create.API.request.URL, [2](#), [3](#), [5](#), [10](#), [12](#)
- createExperimenter, [6](#)
- downloadExperiment, [6](#), [7](#), [9](#), [12](#)
- getDestinations, [7](#), [7](#), [9](#), [12](#)
- getRegisteredExperiments, [8](#), [11](#), [12](#)
- getUsers, [7](#), [8](#), [12](#)
- logoutExperigen, [9](#)
- NO_SERVER_ERROR, [9](#)
- prepare.server.URL, [2](#), [3](#), [5](#), [10](#), [12](#)
- registerExperiment, [8](#), [10](#), [11](#), [12](#)
- removeRegistration, [8](#), [11](#), [11](#), [12](#)
- Rexperigen, [12](#)
- Rexperigen-package (Rexperigen), [12](#)
- server.version, [2](#), [3](#), [5](#), [10](#), [12](#)
- setExperigenCredentials, [12](#), [13](#), [14](#)
- setExperigenServer, [12](#), [13](#), [14](#)
- versionMain, [14](#)