Package 'Rexperigen'

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Title R Interface to Experigen

Version 0.2.1

Maintainer Daniel Szeredi <daniel@szeredi.hu>

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

Author Daniel Szeredi [aut, cre]

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R topics documented:

API.request   *Run a request to the API*

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

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

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

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)
```

---

getDestinations   *Returns the list of destination files for an experiment.*

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

Description

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

Usage

```
logoutExperigen()
```

NO_SERVER_ERROR	*Error string returned when no server is found*

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   *Removes the registration of the experiment*

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	*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!*

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	*Returns the main version number of the server.*

Description

Returns the main version number of the server.

Usage

```
versionMain()
```

Value

The main version number as a numeric

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