

Package ‘amberr’

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Type Package

Title 'Amber' Electronic Data Capture Client

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Imports jsonlite, dplyr, tidyjson

Description 'Amber' is a server application for capturing electronic data records. Rich forms are used to collect data. This 'Amber' client allows to perform data extraction for reporting or data transfer at persistent location purposes.

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URL <https://github.com/obiba/amberr/>, <https://www.obiba.org/amberr/>,
<https://www.obiba.org/pages/products/amber/>

BugReports <https://github.com/obiba/amberr/issues/>

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amber.campaign	<i>Get a campaign</i>
----------------	-----------------------

Description

Get an interview design campaign by its name or identifier.

Usage

```
amber.campaign(amber, id, study = NULL, interviewDesign = NULL, query = list())
```

Arguments

amber	An Amber object
id	Interview design's name or identifier
study	Study identifier (name or id), optional.
interviewDesign	Interview design identifier (name or id), optional.
query	A search query

Value

A campaign object as a named list

See Also

Other studies functions: `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_d`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.campaign(a, id = "base", interviewDesign = "Adult trauma - baseline")
amber.logout(a)

## End(Not run)
```

`amber.campaigns`

Get the campaigns

Description

Get the interview design campaigns.

Usage

```
amber.campaigns(
  amber,
  study = NULL,
  interviewDesign = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

<code>amber</code>	An Amber object
<code>study</code>	Study identifier (name or id), optional.
<code>interviewDesign</code>	Interview design identifier (name or id), optional.
<code>query</code>	A search query

skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.campaigns(a)
amber.campaigns(a, study="Liftup", interviewDesign = "Treocapa")
amber.logout(a)

## End(Not run)
```

```
amber.case_reports      Get the case report records
```

Description

Get the case report records of one or several form(s).

Usage

```
amber.case_reports(
  amber,
  study = NULL,
  form = NULL,
  caseReportForm = NULL,
  from = NULL,
  to = NULL,
  pId = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
form	Form identifier (name or id), optional.
caseReportForm	Case report form identifier (name or id), optional.
from	From date (included), optional
to	To date (included), optional
pId	Patient/participant identifier
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find all case reports
amber.case_reports(a)

# Find all case reports in a range of time
amber.case_reports(a, from = "2022-01-12 00:00", to = "2022-02-13")

# Find all case reports for a specific participant/patient identifier
amber.case_reports(a, pId = "1231")

# Find all case reports having their identifier matching a regular expression
amber.case_reports(a, query = list(`data_id[$search]` = "^12"))

# Find all case reports which form data is equal to some value
# (will not work if the data are encrypted in the database)
amber.case_reports(a, query = list(data.PATIENT.ORIGIN_REGION = "xyz"))
```

```
# Export records collected with a study's form in a specific version
amber.case_reports(a,
  study = "Trauma Registry",
  form = "Adult trauma",
  query = list(revision = 6))

# Export records collected with a specific case report form
amber.case_reports(a, caseReportForm = "Adult trauma - test")

# Export records collected with a study's form in all versions used
amber.case_reports(a,
  study = "Trauma Registry",
  form = "Adult trauma")

amber.logout(a)

## End(Not run)
```

```
amber.case_report_export
```

Export the case report records

Description

Export the case report records of one or several form(s).

Usage

```
amber.case_report_export(
  amber,
  study = NULL,
  form = NULL,
  caseReportForm = NULL,
  from = NULL,
  to = NULL,
  pId = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
form	Form identifier (name or id), optional.
caseReportForm	Case report form identifier (name or id), optional.

from	From date (included), optional
to	To date (included), optional
pId	Patient/participant identifier
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A named list of data.frames, a data dictionary and a data data.frame per form revision (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find all case reports
amber.case_report_export(a)

# Find all case reports in a range of time
amber.case_report_export(a, from = "2022-01-12 00:00", to = "2022-02-13")

# Find all case reports for a specific participant/patient identifier
amber.case_report_export(a, pId = "1231")

# Find all case reports having their identifier matching a regular expression
amber.case_report_export(a, query = list(`data._id[$search]` = "^12"))

# Find all case reports which form data is equal to some value
# (will not work if the data are encrypted in the database)
amber.case_report_export(a, query = list(data.PATIENT.ORIGIN_REGION = "xyz"))

# Export records collected with a study's form in a specific version
amber.case_report_export(a,
  study = "Trauma Registry",
  form = "Adult trauma",
  query = list(revision = 6))
```

```

# Export records collected with a specific case report form
tables <- amber.case_report_export(a, caseReportForm = "Adult trauma - test")

# Export records collected with a study's form in all versions used
tables <- amber.case_report_export(a,
  study = "Trauma Registry",
  form = "Adult trauma")

# Result contains both data and dictionary
tables

# Tables are named with the <case report form name>-<revision> pattern
names(tables)

# Merge datasets from different versions if relevant
dplyr::bind_rows(lapply(tables, function (t) {
  t$data
}))

amber.logout(a)

## End(Not run)

```

```
amber.case_report_form
```

Get a case report form

Description

Get a case report form by its name or identifier and its revision number (if any).

Usage

```

amber.case_report_form(
  amber,
  id,
  study = NULL,
  form = NULL,
  revision = NULL,
  query = list()
)

```

Arguments

amber	An Amber object
id	Case report form's name or identifier
study	Study identifier (name or id), optional.
form	Form's name or identifier

revision	Revision number, optional, default is NULL (means that the case report form uses the latest form revision).
query	The search query, to desambiguate form lookup by name

Value

A case report form object as a named list

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_d`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.case_report_form(a, id = "Adult trauma - baseline", form = "Adult trauma", revision = 10)
amber.case_report_form(a, id = "61e69a22fea2df2f3108b508")
amber.logout(a)

## End(Not run)
```

```
amber.case_report_forms
```

Get the case report forms

Description

Get the case reports of one or several form(s).

Usage

```
amber.case_report_forms(
  amber,
  study = NULL,
  form = NULL,
  revision = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
form	Form identifier (name or id), optional.
revision	Revision number, optional, default is NULL (means that the case report form uses the latest form revision).
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.case_report_forms(a, form="61e69a22fea2df2f3108b508", skip=0, limit=10)
amber.case_report_forms(a, form="Adult trauma")
amber.case_report_forms(a, study="Trauma Registry", query = list(revision = 1))
amber.case_report_forms(a, query = list(revision = 1))
amber.logout(a)

## End(Not run)
```

amber.form

Get a form

Description

Get a form by name or identifier.

Usage

```
amber.form(amber, id, study = NULL, query = list())
```

Arguments

amber	An Amber object
id	Form's name or identifier
study	Study name or identifier, optional
query	The search query, to desambiguate form lookup by name

Value

A form object as a named list

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_d`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.form(a, id = "Adult trauma")
amber.form(a, id = "61e69a22fea2df2f3108b508")
amber.logout(a)

## End(Not run)
```

```
amber.forms
```

```
Get the forms
```

Description

Get the forms

Usage

```
amber.forms(
  amber,
  study = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study name or identifier, optional
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.forms(a)
amber.forms(a, study="Trauma Registry", skip = 0, limit = 10)
amber.logout(a)

## End(Not run)
```

```
amber.form_revision    Get a form revision
```

Description

Get a form revision by its form name or identifier and its revision number.

Usage

```
amber.form_revision(amber, form, revision, study = NULL)
```

Arguments

amber	An Amber object
form	Form's name or identifier
revision	Revision number
study	Study identifier (name or id), optional.

Value

A form revision object as a named list

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_d`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.form_revision(a, form = "Adult trauma", revision = 10)
amber.form_revision(a, form = "61e69a22fea2df2f3108b508", revision = 10)
amber.logout(a)

## End(Not run)
```

`amber.form_revisions` *Get the form revisions*

Description

Get the revisions of one or several form(s).

Usage

```
amber.form_revisions(  
  amber,  
  study = NULL,  
  form = NULL,  
  query = list(),  
  skip = 0,  
  limit = 100,  
  df = TRUE  
)
```

Arguments

<code>amber</code>	An Amber object
<code>study</code>	Study identifier (name or id), optional.
<code>form</code>	Form identifier (name or id), optional.
<code>query</code>	The search query

skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_d`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.form_revisions(a, form="61e69a22fea2df2f3108b508", skip = 0, limit = 10)
amber.form_revisions(a, form="Adult trauma")
amber.form_revisions(a, study="Trauma Registry", query = list(revision = 1))
amber.form_revisions(a, query = list(revision = 1))
amber.logout(a)

## End(Not run)
```

amber.group

Get a group

Description

Get a user by name or identifier.

Usage

```
amber.group(amber, id)
```

Arguments

amber	An Amber object
id	Group's name or identifier

Value

A group object as a named list

See Also

Other users functions: [amber.groups\(\)](#), [amber.user\(\)](#), [amber.users\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.group(a, id = "obiba.org")
amber.group(a, id = "615abb061799dd6a2cdbbb10")
amber.logout(a)

## End(Not run)
```

amber.groups	<i>Get the groups</i>
--------------	-----------------------

Description

Get the groups

Usage

```
amber.groups(amber, query = list(), skip = 0, limit = 100, df = TRUE)
```

Arguments

amber	An Amber object
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other users functions: [amber.group\(\)](#), [amber.user\(\)](#), [amber.users\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.groups(a, skip = 0, limit = 10)
amber.logout(a)

## End(Not run)
```

amber.interviews *Get the interview records*

Description

Get the interviews of one or several interview design(s).

Usage

```
amber.interviews(
  amber,
  study = NULL,
  interviewDesign = NULL,
  campaign = NULL,
  from = NULL,
  to = NULL,
  code = NULL,
  identifier = NULL,
  state = NULL,
  participantValid = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  mergeUpdatedFillingDates = FALSE,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
interviewDesign	Interview design identifier (name or id), optional.
campaign	Campaign identifier (name or id), optional.
from	From date (included), optional
to	To date (included), optional
code	Participant interview code, optional
identifier	Participant identifier, optional
state	State of the interview: 'initiated', 'in_progress', 'completed'
participantValid	Participant is valid (logical): active and in the valid date range
query	A search query
skip	Number of items to skip
limit	Max number of items

`mergeUpdatedFillingDates` Set the last update date as being the filling date, if filling date is empty (default is FALSE).

`df` Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews_step_actions()`, `amber.interviews_step_data()`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find all interviews
amber.interviews(a)

# Find all interviews in a range of time
amber.interviews(a, from = "2022-01-12 00:00", to = "2022-02-13")

# Find all interviews for a specific participant/patient study identifier
amber.interviews(a, identifier = "1231")

# Find all interviews having their identifier matching a regular expression
amber.interviews(a, query = list(`data._id[$search]` = "^12"))

# Find all interviews which form data is equal to some value
# (will not work if the data are encrypted in the database)
amber.interviews(a, query = list(data.PATIENT.ORIGIN_REGION = "xyz"))

# Find interview records of a study
amber.interviews(a, study = "Trauma Registry")

amber.logout(a)

## End(Not run)
```

`amber.interviews_steps`*Get the steps of interview records*

Description

Get the steps of the provided interviews.

Usage

```
amber.interviews_steps(interviews)
```

Arguments

`interviews` The data frame of interviews

Value

A data.frame of steps

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_data\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find interview records of a study
itws <- amber.interviews(a, study = "Trauma Registry")

# Get steps
steps <- amber.interviews_steps(itws)

amber.logout(a)

## End(Not run)
```

```
amber.interviews_step_actions
```

Get the actions of some interviews step

Description

Get the actions of the steps with a specific name.

Usage

```
amber.interviews_step_actions(steps, step_name)
```

Arguments

steps	The data frame of interviews steps
step_name	The name of the step

Value

A data.frame of step data

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_data\(\)](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find interview records of a study
itws <- amber.interviews(a, study = "Trauma Registry")

# Get steps
steps <- amber.interviews_steps(itws)

# Get actions of the step with name QUESTIONNAIRE
actions <- amber.interviews_step_actions(steps, 'QUESTIONNAIRE')

# Count the number of completed QUESTIONNAIRE steps ('complete' action type)
# in completed interviews ('completed' state)
actions %>% filter(state == 'completed', type == 'complete') %>% count()

amber.logout(a)
```

```
## End(Not run)
```

```
amber.interviews_step_data
```

Get the data of some interviews step

Description

Get the data of the steps with a specific name.

Usage

```
amber.interviews_step_data(steps, step_name)
```

Arguments

steps	The data frame of interviews steps
step_name	The name of the step

Value

A data.frame of step data

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find interview records of a study
itws <- amber.interviews(a, study = "Trauma Registry")

# Get steps
steps <- amber.interviews_steps(itws)

# Get data of the step with name CONSENT
consent_data <- amber.interviews_step_data(steps, 'CONSENT')

# Count per agreement values (possible values are 0 or 1)
consent_data %>% count(AGREEMENT)
```

```
amber.logout(a)

## End(Not run)
```

```
amber.interview_design
      Get an interview design
```

Description

Get an interview design by its name or identifier.

Usage

```
amber.interview_design(amber, id, study = NULL, query = list())
```

Arguments

amber	An Amber object
id	Interview design's name or identifier
study	Study identifier (name or id), optional.
query	A search query

Value

An interview design object as a named list

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.interview_design(a, id = "Adult trauma - baseline")
amber.interview_design(a, id = "61e69a22fea2df2f3108b508")
amber.logout(a)

## End(Not run)
```

`amber.interview_designs`*Get the interview designs*

Description

Get the interview designs.

Usage

```
amber.interview_designs(  
    amber,  
    study = NULL,  
    query = list(),  
    skip = 0,  
    limit = 100,  
    df = TRUE  
)
```

Arguments

<code>amber</code>	An Amber object
<code>study</code>	Study identifier (name or id), optional.
<code>query</code>	A search query
<code>skip</code>	Number of items to skip
<code>limit</code>	Max number of items
<code>df</code>	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_d](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.interview_designs(a)
amber.interview_designs(a, study="Liftup")
amber.logout(a)

## End(Not run)
```

```
amber.interview_export
```

Export the interview records

Description

Export the interview records (data and dictionary) of interview step(s).

Usage

```
amber.interview_export(
  amber,
  study = NULL,
  interviewDesign = NULL,
  campaign = NULL,
  from = NULL,
  to = NULL,
  completed = NULL,
  code = NULL,
  identifier = NULL,
  state = NULL,
  participantValid = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
interviewDesign	Interview design identifier (name or id), optional.
campaign	Campaign identifier (name or id), optional.
from	From date (included), optional
to	To date (included), optional

<code>completed</code>	When TRUE export data from completed interviews only (default is NULL)
<code>code</code>	Participant interview code
<code>identifier</code>	Patient/participant study identifier
<code>state</code>	State of the interview: 'initiated', 'in_progress', 'completed'
<code>participantValid</code>	Participant is valid (logical): active and in the valid date range
<code>query</code>	The search query
<code>skip</code>	Number of items to skip
<code>limit</code>	Max number of items
<code>df</code>	Return a data.frame (default is TRUE)

Value

A named list of data.frames, a data dictionary and a data data.frame per form revision (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_actions_revisions\(\)](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Extract data from all interviews
amber.interview_export(a)

# Extract data from all completed interviews
amber.interview_export(a, completed = TRUE)

# Extract data from all interviews in a range of time
amber.interview_export(a, from = "2022-01-12 00:00", to = "2022-02-13")

# Extract data from all interviews for a specific participant/patient
# study identifier
amber.interview_export(a, identifier = "1231")

# Extract data from all interviews having their participant study
# identifier matching a regular expression
amber.interview_export(a, query = list(`identifier[$search]` = "^12"))

# Extract data from all interviews having their participant attributes
# matching a value
```



```
# (will not work if the data are encrypted in the database)
amber.interview_export(a, query = list(data.country = "fr"))

# Export records collected with a study's interview design
tables <- amber.interview_export(a,
  study = "liftup",
  interviewDesign = "treocapa_lt")

# Result contains both data and dictionary
tables

# Tables are named with the <interview design name>-<form name>-<revision> pattern
names(tables)

# Merge datasets from different versions if relevant
dplyr::bind_rows(lapply(tables, function (t) {
  t$data
}))

amber.logout(a)

## End(Not run)
```

amber.login

Open a connection with Amber

Description

Open a connection with Amber and returns an Amber object. When the two-factor authentication mechanism is enabled, the user will be prompted for one-time password input.

Usage

```
amber.login(
  username = getOption("amber.username", "anonymous"),
  password = getOption("amber.password", "password"),
  url = getOption("amber.url"),
  opts = getOption("amber.opts", list())
)
```

Arguments

username	User name in Amber. Can be provided by "amber.username" option.
password	User password in Amber. Can be provided by "amber.password" option.
url	Amber url. Can be provided by "amber.url" option. Secure http (https) connection is required.
opts	Curl options. Can be provided by "amber.opts" option.

Value

An Amber object

An amber connection object to be used in further function calls

Examples

```
## Not run:  
# login using credentials from amber.username and amber.password options  
a <- amber.login("https://amber-demo.obiba.org")  
# login by providing credentials  
a <- amber.login("administrator", "password", "https://amber-demo.obiba.org")  
  
## End(Not run)
```

amber.logout

Close connection with Amber

Description

Close connection and release resources of Amber.

Usage

```
amber.logout(amber)
```

Arguments

amber An Amber object

Value

No value

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.logout(a)  
  
## End(Not run)
```

amber.participant	<i>Get a participant</i>
-------------------	--------------------------

Description

Get an interview design campaign participant by its code or identifier.

Usage

```
amber.participant(  
    amber,  
    code,  
    study = NULL,  
    interviewDesign = NULL,  
    campaign = NULL,  
    query = list()  
)
```

Arguments

amber	An Amber object
code	Participant's code
study	Study identifier (name or id), optional.
interviewDesign	Interview design identifier (name or id), optional.
campaign	Campaign identifier (name or id), optional.
query	A search query

Value

A participant object as a named list

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_data\(\)](#), [amber.interviews_steps\(\)](#), [amber.participants\(\)](#), [amber.studies\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.campaign(a, id = "base", interviewDesign = "Adult trauma - baseline")
amber.logout(a)

## End(Not run)
```

```
amber.participants    Get the participants
```

Description

Get the participants of one or several interview design campaign(s).

Usage

```
amber.participants(
  amber,
  study = NULL,
  interviewDesign = NULL,
  campaign = NULL,
  code = NULL,
  identifier = NULL,
  valid = NULL,
  query = list(),
  skip = 0,
  limit = 100,
  df = TRUE
)
```

Arguments

amber	An Amber object
study	Study identifier (name or id), optional.
interviewDesign	Interview design identifier (name or id), optional.
campaign	Campaign identifier (name or id), optional.
code	Participant interview code, optional
identifier	Participant identifier, optional
valid	Participant is valid (logical): active and in the valid date range
query	A search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_data()`, `amber.interviews_steps()`, `amber.participant()`, `amber.studies()`, `amber.study()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")

# Find all participants
amber.participants(a)

# Find all participants for a specific participant/patient study identifier
amber.participants(a, identifier = "1231")

# Find all participants which data is equal to some value
# (will not work if the data are encrypted in the database)
amber.participants(a, query = list(data.country = "fr"))

# Find the participants of a study interview campaign
amber.participants(a, study = "Liftup", campaign = "base")

amber.logout(a)

## End(Not run)
```

amber.studies

Get the studies

Description

Get the studies

Usage

```
amber.studies(amber, query = list(), skip = 0, limit = 100, df = TRUE)
```

Arguments

amber	An Amber object
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other studies functions: [amber.campaign\(\)](#), [amber.campaigns\(\)](#), [amber.case_report_export\(\)](#), [amber.case_report_form\(\)](#), [amber.case_report_forms\(\)](#), [amber.case_reports\(\)](#), [amber.form\(\)](#), [amber.form_revision\(\)](#), [amber.form_revisions\(\)](#), [amber.forms\(\)](#), [amber.interview_design\(\)](#), [amber.interview_designs\(\)](#), [amber.interview_export\(\)](#), [amber.interviews\(\)](#), [amber.interviews_step_actions\(\)](#), [amber.interviews_step_data\(\)](#), [amber.interviews_steps\(\)](#), [amber.participant\(\)](#), [amber.participants\(\)](#), [amber.study\(\)](#)

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.studies(a, skip=0, limit=10)  
amber.logout(a)  
  
## End(Not run)
```

amber.study

Get a study

Description

Get a study by name or identifier.

Usage

```
amber.study(amber, id)
```

Arguments

amber	An Amber object
id	Study's name or identifier

Value

A study object as a named list

See Also

Other studies functions: `amber.campaign()`, `amber.campaigns()`, `amber.case_report_export()`, `amber.case_report_form()`, `amber.case_report_forms()`, `amber.case_reports()`, `amber.form()`, `amber.form_revision()`, `amber.form_revisions()`, `amber.forms()`, `amber.interview_design()`, `amber.interview_designs()`, `amber.interview_export()`, `amber.interviews()`, `amber.interviews_step_actions()`, `amber.interviews_step_data()`, `amber.interviews_steps()`, `amber.participant()`, `amber.participants()`, `amber.studies()`

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.study(a, id = "Trauma Registry")
amber.study(a, id = "6151b5234268f582926d37f44")
amber.logout(a)

## End(Not run)
```

<code>amber.subjects</code>	<i>Get subjects</i>
-----------------------------	---------------------

Description

Get the users and groups as subjects: an identifier, a type and a name.

Usage

```
amber.subjects(amber, query = list(), df = TRUE)
```

Arguments

<code>amber</code>	An Amber object
<code>query</code>	The search query
<code>df</code>	Return a data.frame (default is TRUE)

Value

A data.frame (or a list of raw results when 'df' is FALSE)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.subjects(a)
amber.logout(a)

## End(Not run)
```

amber.task

Get a task

Description

Get a task by its identifier.

Usage

```
amber.task(amber, id)
```

Arguments

amber	An Amber object
id	Task's identifier

Value

An task object as a named list

See Also

Other tasks functions: [amber.task_logs\(\)](#), [amber.tasks\(\)](#), [amber.tasks_logs\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.task(a, id = "61e69a22fea2df2f3108b508")
amber.logout(a)

## End(Not run)
```

amber.tasks	<i>Get the tasks</i>
-------------	----------------------

Description

Get the tasks

Usage

```
amber.tasks(amber, query = list(), skip = 0, limit = 100, df = TRUE)
```

Arguments

amber	An Amber object
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other tasks functions: [amber.task\(\)](#), [amber.task_logs\(\)](#), [amber.tasks_logs\(\)](#)

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.tasks(a, skip = 0, limit = 10)  
amber.logout(a)  
  
## End(Not run)
```

amber.tasks_logs	<i>Get the tasks logs</i>
------------------	---------------------------

Description

Get the tasks logs

Usage

```
amber.tasks_logs(amber, query = list(), skip = 0, limit = 100, df = TRUE)
```

Arguments

amber	An Amber object
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other tasks functions: [amber.task\(\)](#), [amber.task_logs\(\)](#), [amber.tasks\(\)](#)

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.tasks_logs(a, skip = 0, limit = 10)  
amber.logout(a)  
  
## End(Not run)
```

amber.task_logs	<i>Get the logs of a task</i>
-----------------	-------------------------------

Description

Get the logs of a task by its identifier.

Usage

```
amber.task_logs(amber, id, df = TRUE)
```

Arguments

amber	An Amber object
id	Task's identifier
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other tasks functions: [amber.task\(\)](#), [amber.tasks\(\)](#), [amber.tasks_logs\(\)](#)

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.task(a, id = "61e69a22fea2df2f3108b508")  
amber.logout(a)  
  
## End(Not run)
```

amber.user	<i>Get a user</i>
------------	-------------------

Description

Get a user by email or identifier.

Usage

```
amber.user(amber, id)
```

Arguments

amber	An Amber object
id	User's email or identifier

Value

A user object as a named list

See Also

Other users functions: [amber.group\(\)](#), [amber.groups\(\)](#), [amber.users\(\)](#)

Examples

```
## Not run:
a <- amber.login("https://amber-demo.obiba.org")
amber.user(a, id = "jim@muse.com")
amber.user(a, id = "6151b512268f582926d37f90")
amber.logout(a)

## End(Not run)
```

```
amber.users
```

```
Get the users
```

Description

Get the users

Usage

```
amber.users(amber, query = list(), skip = 0, limit = 100, df = TRUE)
```

Arguments

amber	An Amber object
query	The search query
skip	Number of items to skip
limit	Max number of items
df	Return a data.frame (default is TRUE)

Value

A data.frame (or a named list of raw results when 'df' is FALSE)

See Also

Other users functions: [amber.group\(\)](#), [amber.groups\(\)](#), [amber.user\(\)](#)

Examples

```
## Not run:  
a <- amber.login("https://amber-demo.obiba.org")  
amber.users(a, skip = 0, limit = 10)  
amber.logout(a)  
  
## End(Not run)
```

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